THE SUPREME COURT OF THE STATE OF NEVADA

JAIME ROBERTO SALAIS, AND TOM MALLOY CORPORATION aka/dba TRENCH SHORING COMPANY,

Petitioners,

VS.

THE EIGHTH JUDICIAL DISTRICT COURT, COUNTY OF CLARK, STATE OF NEVADA, AND THE HONORABLE RONALD J. ISRAEL,

Respondents,

and

MAIKEL PEREZ-ACOSTA, AND ROLANDO BESSU HERRERA,

Real Parties in Interest.

Electronically Filed Jun 14 2021 02:00 p.m. Elizabeth A. Brown Clerk of Supreme Court

Case No	·			

<u>APPENDIX TO PETITION FOR WRIT OF MANDAMUS, OR IN THE</u> <u>ALTERNATIVE, PROHIBITION</u>

VOLUME 5

ROBERT L. EISENBERG (SBN 950)

rle@lge.net

SARAH M. MOLLECK (SBN 13830)

smm@lge.net

Lemons, Grundy & Eisenberg 6005 Plumas Street, Third Floor Reno, Nevada, 89519 (775) 786-6868 telephone

ATTORNEYS FOR PETITIONERS

CHRONOLOGICAL INDEX TO PETITIONER'S APPENDIX

<u>NO.</u>	DOCUMENT	DATE	VOL.	PAGE NO.
1.	Complaint	4/4/18	1	1-10
2.	Answer to Complaint	5/8/18	1	11-21
3.	Plaintiff's Initial Designation of Expert Witnesses	10/29/18	1	22-48
	Exhibit 1: Stuart Kaplan, M.D., FAANS' CV, Testimony List, Fee Schedule/Invoice, & Expert Report		1	49-89
	Exhibit 2: David J. Oliveri, M.D.'s CV, Fee Schedule, Testimony List & Expert Report		1	90-146
	Exhibit 3: Lora White, RN-BC, BS CCM, CNLCP, LNCP-C's CV, Fee Schedule, Testimony List & Expert Report	•	1	147-207
	Exhibit 4: Dr. Andrew J. Mitchell's CV & Deposition Fees	1	1	208-212
	Exhibit 5: Jorg Rosler, M.D. s CV & Fee Schedule		1	213-220
4.	Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answer	5/4/20	1	221-241
	Exhibit 1: Defendant Tom Molloy Corporation dba Trench Shoring Company's Responses Plaintiff Rolando Bessu Herrera's First Set of Requests for Production of Documents		2	242-266
	Exhibit 2: Defendants' Seventh Supplement to Initial NRCP 16.1 L of Witnesses and Documents	ist	2	267-284
	Exhibit 3: Defendants, Tom Malloy Corporation dba Trench Shoring C Company and Jaime Roberto Salais Eighth Supplemental Early Case Conference List of Witnesses and Production of Documents Pursuant to NRCP 16.1(a)(1)		2	285-306

<u>NO.</u>	DOCUMENT	DATE	VOL.	PAGE NO.
(Cont 4)	Exhibit 4: Deposition Transcript of Nancy Espinoza taken on April 22, 2020		2	307-324
	Exhibit 5: EDCR 2.34 Meeting Transcript on April 22, 2020		2	325-329
	Exhibit 6: Email authored by Nancy Espinoza dated April 28, 2019		2	330-333
	Exhibit 7: Plaintiff's Third Set of Requests for Production of Document to Defendant Tom Mallory Corporation dba Trench Shoring Company e-served on April 24, 2019	S	2	334-341
	Exhibit 8: Email exchange between Drummond Law Firm and Mokri Vanis & Jones regarding Nancy Espinoza email		2	342-351
	Exhibit 9: Article "Practicing in Nevada's State and Federal Civil Cour What are the Differences?"	rt:	2	352-355
5.	Defendants' Opposition to Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answer	5/18/20	2	356-371
	Exhibit A: Email exchange between Todd Jones, Esq. and Nancy Espinoza		2	372-397
	Exhibit B: Deposition Transcript of Nancy Espinoza taken on April 22, 20	20	2	398-464
	Exhibit C: Defendants, Tom Malloy Corporation dba Trench Shoring Company and Jaime Roberto Salais' Eighth Supplemental Early Case Conference List of Witnesses and Production of Documents Pursuant to NRCP 16.1(a)(1)		2	465-483

<u>NO.</u>	DOCUMENT	DATE	VOL.	PAGE NO.
(Cont 5)	Exhibit D: Defendants, Tom Malloy Corporation dba Trench Shoring Company and Jaime Roberto Salais' Ninth Supplemental Early Case Conference List of Witnesses and Production of Documents Pursuant to NRCP 16.1(a)(1)		3	484-502
6.	Plaintiff Rolando Bessue Herrera's Reply to Defendants' Opposition to Motion to Strike Defendants Answer	6/2/20	3	503-512
	Exhibit 10: Defendants, Tom Malloy Corporation dba Trench Shoring Company and Jaime Roberto Salais Ninth SupplementalEarly Case Conference List of Witnesses and Production of Documents Pursuant to NRCP 16.1(a)(1)		3	513-553
7.	Plaintiff Perez-Acosta's Joinder to Plaintiff Bessu Herrera's Motion to Strike Defendants' Answer	6/2/20	3	554-556
	Exhibit 1: Plaintiff Maikel Perez- Acosta's First Set of Requests for Production of Documents to Defendant Tom Malloy Corporation		3	557-567
8.	Plaintiff Rolando Bessu Herrera's Omnibus Motion in Limine	7/27/20	3	568-593
	Exhibit 1: Deposition Transcript of Jaime Roberto Salais taken on January 17, 2020		3	594-631
	Exhibit 2: Defendant Tom Malloy Corporation dba Trench Shoring Company's Responses Plaintiff Rolando Bessu Herrera's First Set of Requests for Production of Document	s	3	632-656
	Exhibit 3: Jason E. Garber, M.D. F.A.C.S.'s Report		3	657-675
	Exhibit 4: Deposition Transcript of Brian K. Jones, MSBE, PE, ACTAR, CXLT, taken on March 3, 2020		3	676-702

<u>NO.</u>	DOCUMENT	DATE	VOL.	PAGE NO.
9.	Defendants' Supplemental Opposition to Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answer	8/11/20	3	703-719
10.	Affidavit Pursuant to NRS 53.045 of Todd Alan Jones, Esq. in Support of Defendants' Supplemental Opposition To Plaintiff Rolando Bessue Herrera's Motion to Strike Answer	8/11/20	3	720-726
	Exhibit A: Email Correspondence from Nancy Espinoza dated April 28, 2019		3	727-730
	Exhibit B: Email Exchange betweem Nancy Espinoza and Todd Jones, Esq		4	731-760
11.	Response to Defendants' Spplemental Opposition to Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answer	9/1/20	4	761-768
12.	Plaintiff Perez-Acosta's Joinder to Plaintiff Bessu Herrera's Response to Defendant's Supplemental Opposition o Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answer	9/1/20	4	769-771
13.	Court Minutes – Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answer	10/1/20	4	772-773
14.	Order to Turn Over Communication and Records in Camera	10/16/20	4	774-777
15.	Court Minutes – Minute Order	10/23/20	4	778
16.	Motion for Reconsideration of Order for Production of Defense Correspondence and Billing Records on Order Shortening Time	10/23/20	4	779-792
	Exhibit A: Transcript of Proceedings on Plaintiff Herrera's Motion to Strik Defendants' Answer; Hearing Regarding Motion to Strike Answer/ Sanctions on October 15, 2020	e	4	793-824

<u>NO.</u>	DOCUMENT	DATE	VOL.	PAGE NO.
17.	Order on Motion for Reconsideration of Order for Production of Defense Correspondence and Billing Records on Order Shortening Time	10/26/20	4	825-872
18.	Response to Motion for Reconsideration of Order for Production of Defense Correspondence and Billing Records	11/4/20	4	873-880
19.	Reply in Support of Motion for Reconsideration of Order for Production of Defense Correspondence and Billing Records on Order Shortening Time	11/10/20	4	881-887
20.	Court Minutes – Defendants Motion for Reconsideration of Order for Production of Defense Correspondence and Billing Records on Order Shortening Time	11/17/20	4	888
21.	Court Minutes – Motion to Strike Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answers	11/19/20	4	889
22.	Defendants' Supplemental Opposition to Plaintiff Rolando Bessu Herrera's Motion to Strike Defendants' Answer Pursuant to Court's Order on November 17, 2020	12/1/20	4	890-897
	Exhibit A: Transcript of Proceedings on Defendants' Motion for Production of Defense Correspondence and Billing Records on Shortening Time on November 17, 2020		4	898-921
23.	Response to Defendants' Supplemental Opposition to Plaintiffs' Motion to Strike Defendants' Answer	12/30/20	4	922-931
24.	Court Minutes – Decision: Interim Decision Reconsideration of Defendants Production of Defense Correspondence and Billing Records	1/7/21	4	932

<u>NO.</u>	DOCUMENT	DATE	VOL.	PAGE NO.
25.	Decision and Order	2/10/21	4	933-943
26.	Notice of Entry of February 10, 2021 Decision and Order	2/19/21	4	944-956
27.	Plaintiff Roland Bessu Herrera's Supplemental Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order	2/24/21	4	957-962
	Exhibit 1: Hours for Supplemental Memorandum of Attorney's Fees and Costs		4	963-965
	Exhibit 2: Drummond Law Firm Cost Worksheet		4	966-969
	Exhibit 3: Discovery Commissioner's Report and Recommendations	\$	4	970-978
	Exhibit 4: Declaration of Joel D. Hernroid in Support of Plaintiff's Supplemental Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order		5	979-984
28.	Errata to Exhibit 4 of Plaintiff Rolando Bessu Herrera's Supplemental Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order	2/24/21	5	985-996
29.	Court Minutes – Status Check	2/25/21	5	997
30.	Plaintiff Maikel Perez-Acosta's Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order	3/4/21	5	998-1003
	Exhibit 1: Hours for Memorandum of Attorney's Fees and Costs		5	1004-1007
31.	Court Minute – Minute Order	3/9/21	5	1008

<u>NO.</u>	DOCUMENT	DATE	VOL.	PAGE NO.
32.	Defendants' Opposition to Plaintiffs, Rolando Bessue Herrera amd Maikel Perez-Acosta's Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order	3/10/21	5	1009-1023
	Exhibit A: Plaintiff Maikel Perez-Acosta's Sixteenth Supplement to the Early Case Conference Initial Disclosure of Documents and Witnesses Pursuant to NRCP 16.1		5	1024-1205
	Exhibit B: EDCR 2.34 Meeting Transcript on April 22, 2020		5	1206-1228
33.	Plaintiff Maikel Perez-Acosta's Reply to Defendants' Opposition to Plaintiff's Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order	3/17/21	6	1229-1231
34.	Plaintiff Rolando Bessu Herrera's Reply to Opposition Regarding Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order	3/17/21	6	1232-1236
35.	Order on Attorney's Fee and Costs	5/17/21	6	1237-1241
36.	Notice of Entry of Order on Attorney's Fees and Costs	5/17/21	6	1242-1248
37.	Defendants' Motion to Stay February 10, 2021 and May 17, 2021 Orders Pending Decision on Petition for Writ Relief to Supreme Court of Nevada on Order Shortening Time	5/28/21	6	1249-1266
	Exhibit A: Deposition Transcript of Rolando Bessu Herrera taken on October 21, 2019		6	1267-1378
	Exhibit B: Deposition Transcript of Jaime Robert Salais taken on January 17, 2020		7	1379-1542

<u>NO.</u>	DOCUMENT	DATE	<u>VOL.</u>	PAGE NO.
	TRANSCRIPTS			
38.	Transcript of Hearing Re: Plaintiff Rolando Bessue Herrera's Motion to Strike Defendants' Answer dated July 14, 2020	7/17/20	7	1543-1552
39.	Transcript of Proceedings Re: Plaintiff Herrera's Motion to Strike Defendants' Answer; Hearing Regarding Motion to Strike to Answer/ Sanctions dated October 1, 2020	10/15/20	7	1553-1583
40.	Transcript of Proceedings Re: Defendants' Motion for Reconsideration of Order for Production of Defense Correspondence and Billing Records on Order Shortening Time dated November 17, 2020	11/19/20 n	7	1584-1606

EXHIBIT 4

EXHIBIT 4

1	DECL	
2	JOEL D. HENRIOD (SBN 8492) LEWIS ROCA ROTHGERBER CHRISTIE LLP	
	3993 Howard Hughes Parkway, Suite 600	0
3	Las Vegas, Nevada 89169 (702) 949-8200	
4	JHenriod@LRRC.com	
5	Attorneys for Plaintiffs Maikel Perez-Acos and Rolando Bessu Herrera	eta
6	In association with:	
7	MICHAEL C. KANE (SBN 10,096)	
8	Bradley J. Myers (sbn 8857) Jason Barron (sbn 7270)	
9	THE702FIRM	
9	400 South 7 th Street, #400 Las Vegas, Nevada 89101	
0	(702) 776-3333	
1	Mike@The702Firm.com Brad@The702Firm.com	
2	Jason@The702Firm.com	
	Attorneys for Plaintiff Maikel Perez-Acost	a
13	and	
4		
5	CRAIG W. DRUMMOND (SBN 11,108) LIBERTY A. RINGOR (SBN 14,417)	
	DRUMMOND LAW FIRM, P.C.	\ <u>-</u>
16	810 S. Casino Center Boulevard, Suite 10 Las Vegas, Nevada 89101)1
17	$(702)\ 366-9966$	
8	<u>Craig@DrummondFirm.com</u> Liberty@DrummondFirm.com	
	Attorneys for Plaintiff Rolando Bessu Her	rrera
9	, ,	
20	DISTRICT	
21	CLARK COUN'	TY, NEVADA
	MAIKEL PEREZ-ACOSTA, an individual; ROLANDO BESSU HERRERA, an	Case No. A-18-772273-C
22	individual;	
23	PLAINTIFFS,	Dept. No. 28
24	vs.	_
25	JAIME ROBERTO SALAIS, an individual; TOM MALLOY CORPORATION aka/dba	
	TRENCH SHORING COMPANY, a foreign	
26	corporation; DOES 1-V; and ROE CORPORATIONS VI-X, inclusive,	
27	DEFENDANTS.	
$_{28} $	DEFENDANTS.	

Lewis Roca

DECLARATION OF JOEL D. HENRIOD IN SUPPORT OF PLAINTIFF'S SUPPLEMENTAL MEMORANDUM OF FEES AND COSTS PURSUANT TO FEBRUARY 10,2021 DECISION AND ORDER

JOEL D. HENRIOD, being duly sworn states as follows:

- 1. I am a partner with the law firm of Lewis Roca Rothgerber Christie LLP ("Lewis Roca" or "<u>LRRC</u>"), and counsel for both Plaintiffs Maikel Perez-Acosta and Rolando Bessu Herrera in the above-captioned case.
- 2. I have personal knowledge of the facts and circumstances set forth in this declaration and could and would competently testify thereto in a court of law.
- 3. Plaintiffs filed the above-captioned action seeking judgment against the defendants, Jamie Roberto Salais and Tom Malloy Corporation aka/dba Trench Shoring Company ("defendants") for injuries arising from an automobile collision.
- 4. In light of the amount in controversy, plaintiffs retained me to serve as a prospective appellate specialist in the case. In the interest of efficiency, both plaintiffs retained me jointly to assist their individual trial counsel.
- 5. Beyond that general function, I was asked to assume a primary role in drafting plaintiffs' filings and handling oral arguments related to the then-pending motion to strike defendants' answer, due to the gravity of the sanctionable conduct and the complexity of the law implicated where significant sanctions are warranted. I have done so since my retention.

Attorneys' Experience and Billing Rates

6. Lewis Roca's rates are reasonable and accurately reflect the prevailing market rates in Las Vegas for attorneys and paraprofessionals of similar skill, experience, and reputation. The rates Lewis Roca is charging plaintiffs are consistent with those they charge similarly situated clients in



8

13

14

15

19 20

18

21

22

23 24

25 26

27

28

cases involving an element of contingent risk related to payment. And Lewis Roca regularly collects those rates in such cases. Based on my experience in the legal industry and familiarity with other lawyers' billing rates, I am informed and believe that our rates charged in this case are comparable to rates charged by other attorneys of similar skill and experience in similar cases.

- 7. My hourly rate in this case is \$1,000. I am the managing partner of Lewis Roca's Las Vegas Office and a member of the firm's appellate practice group. I graduated in 2003 from Vanderbilt University Law School and am admitted to practice law in Nevada later that year. In my 17 years of practice—including years learning from Nevada's preeminent appellate attorneys Rex Jemison and Dan Polsenberg—I:
 - * Wrote or co-write briefs in more 200 appeals and argued frequently before the Nevada Supreme Court and the Ninth Circuit, resulting in over 30 published opinions;
 - * Received an "AV/Preeminent Attorney" rating through MARTINDALE-Hubbell;
 - * Have been named ten times in the MOUNTAIN STATES SUPER LAWYERS (comprised of Nevada, Utah, Wyoming, Montana, Idaho), including *five* times in the *Top 100* Lawyers in that region;
 - * Have been listed five times in The Best Lawyers in America for appellate practice:
 - * Have written chapters for Nevada and federal appellate practice manuals, and presented numerous CLE courses;
 - * Have served as the chair of the Appellate Litigation Section of the State Bar of Nevada and on the executive board of the Clark County Bar Association; and

ewis Roca

OTHGERBER CHRISTIE

* Was elected to the prestigious AMERICAN ACADEMY OF APPELLATE LAWYERS in his first year of eligibility.

- 8. I have significant experience litigating cases involving sanctions for alleged discovery abuses or purported attorney misconduct. See, e.g., Garcia v. Awerbach, 136 Nev. Adv. Op. 27, 463 P.3d 461 (2020); Quinn v. Eighth Jud. Dist. Ct., 134 Nev. 25, 410 P.3d 984 (2018); Rish v. Simao, 132 Nev. 189, 368 P.3d 1203 (2016); BMW v. Roth, 127 Nev. 122, 252 P.3d 649 (2011); Bahena v. Goodyear Tire & Rubber Co., 126 Nev. 606, 245 P.3d 1182 (2010); Foster v. Dingwall, 126 Nev. 56, 227 P.3d 1042 (2010); Michaels v. Pentair Water Pool & Spa, 131 Nev. 804, 357 P.3d 387 (Nev. App. 2015).
- 9. My fees related to work on the sanction issue total \$62,300, representing 62.30 hours of time in 2020 at a rate of \$1,000.
- 10. A total of \$605 is charged for the time of Jessica Helm, consisting of 2.2 hours at her regular rate of \$275. Ms. Helm is a Paralegal Litigation Support Project Manager at Lewis Roca who has worked in the legal services industry for over 10 years. She joined the firm in 2012 and has worked on an array of matters, including bad faith insurance defense cases, medical malpractice suits, and securities litigation. Ms. Helm routinely provides support on high-profile cases and matters with complex legal and discovery issues. She has specialized training and work experience in appeals and eDiscovery. Ms. Helm has a Bachelors of Science in Finance from the University of Nevada, Las Vegas and is pursuing a Masters of Legal Studies from the University of Illinois, Springfield.
- 11. I believe the total time expended, consisting of 64.50 hours, was reasonable and necessary to achieve a successful outcome of plaintiffs' motion for sanctions.

1 **Exhibits** 2 12. Attached as **Exhibit "A"** is a log of time expended and costs 3 incurred at Lewis Roca, through February 23, 2021, related to the request for 4 sanctions, totaling \$62,915.50. 5 13. Should the Court find it necessary, I will provide a copy of my firm's engagement letter with Plaintiffs Maikel Perez-Acosta and Rolando 6 7 Bessu Herrera for review in camera. 8 DATED this 24th day of February, 2021. 9 LEWIS ROCA ROTHGERBER CHRISTIE LLP 10 By: /s/ Joel D. Henriod 11 JOEL D. HENRIOD (SBN 8492) 3993 Howard Hughes Parkway, Suite 600 Las Vegas, Nevada 89169 12 (702) 949-8200 13 Attorneys for Plaintiffs Maikel Perez-Acosta 14 and Rolando Bessu Herrera 15 In association with: 16 MICHAEL C. KANE (SBN 10,096) CRAIG W. DRUMMOND (SBN 11,108) 17 Bradley J. Myers (SBN 8857) LIBERTY A. RINGOR (SBN 14,417) DRUMMOND LAW FIRM, P.C. JASON BARRON (SBN 7270) 18 THE702FIRM 810 S. Casino Center Boulevard, 400 South 7th Street, #400 Suite 101 19 Las Vegas, Nevada 89101 Las Vegas, Nevada 89101 (702) 776-3333 (702) 366-9966 20 Attorneys for Plaintiff Attorneys for Plaintiff 21 Rolando Bessu Herrera Maikel Perez-Acosta 22 23 24 25 26 27 28 -5-

Electronically Filed 2/24/2021 3:00 PM Steven D. Grierson CLERK OF THE COUR

ERR 1 DRUMMOND LAW FIRM, P.C. Craig W. Drummond, Esq. 2 Nevada Bar No. 11109 3 Liberty A. Ringor, Esq. Nevada Bar No. 14417 4 810 S. Casino Center Blvd., Suite 101 5 Las Vegas, Nevada 89101 T: (702) 366-9966 6 F: (702) 508-9440 Craig@DrummondFirm.com 7 Liberty@DrummondFirm.com 8 Attorneys for Plaintiff Bessu Herrera 9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

810 S. CASINO CENTER BLVD., SUITE 101

LAS VEGAS, NEVADA 89101 www.DrummondFirm.com

DRUMMOND LAW FIRM

DISTRICT COURT CLARK COUNTY, NEVADA

MAIKEL PEREZ-ACOSTA, an individual;

ROLANDO BESSU HERRERA, an individual;

Plaintiffs,

vs.

JAMIE ROBERTO SALAIS, an individual;

TOM MALLOY CORPORATION aka/dba

TRENCH SHORING COMPANY, a foreign
corporation; DOES I-V; and ROE

CORPORATIONS VI-X, inclusive,

Defendants.

ERRATA TO EXHIBIT 4 OF PLAINTIFF ROLANDO BESSU HERRERA'S SUPPLEMENTAL MEMORANDUM OF FEES AND COSTS PURSUANT TO FEBRUARY 10, 2021 DECISION AND ORDER

COMES NOW Plaintiff, ROLANDO BESSU HERRERA, by and through his attorneys, CRAIG W. DRUMMOND, ESQ., and LIBERTY A. RINGOR, ESQ., of DRUMMOND LAW FIRM, and hereby submits his Errata to Exhibit 4 of Plaintiff Rolando Bessu Herrera's Supplemental Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order. Exhibit 4 originally filed on February 24, 2021 at 2:28 p.m. did not include Mr. Joel D. Henriod's Billing Recap. Exhibit 4 should include the Declaration of Joel D. Henriod in Support of

Page 1

DRUMMOND LAW FIRM

Plaintiff's Supplemental Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order as well as Mr. Henriod's Billing Recap as hereto attached.

DATED this _____ day of February, 2021.

DRUMMOND LAW FIRM, P.C.

Зу: ___

Craig W. Drummond, Esq.

Nevada Bar No. 11 09 Liberty A. Ringer Esq. Nevada Bar No. 14417

810 S. Casino Center Blvd., Suite 101

Las Vegas, Nevada 89101

Attorneys for Plaintiff Bessu Herrera

DRUMMOND LAW FIRM 810 S. CASINO CENTER BLVD., SUITE 101 LAS VEGAS, NEVADA 89101 www.DRUMMONDFIRM.com

CERTIFICATE OF SERVICE

Michael C. Kane Esq.
Bradley J. Myers, Esq
The 702 Firm
400 South 7th Street/Floor 4
Las Vegas, Nevada 89101
Attorneys for Plaintiff Maikel Perez-Acosta

Todd A. Jones, Esq.
Mokri Vanis & Jones, LLP
8831 W. Sahara Avenue
Las Vegas, Nevada 89101
Attorneys for Defendants Tom Malloy Corp
d/b/a Trench Shoring Company and
Jaime Roberto Salais

Joel D. Odou, Esq.
Nicholas F. Adams, Esq.
Wood, Smith, Henning & Berman LLP
2881 Business Park Court, Suite 200
Las Vegas, Nevada 89128
Attorneys for Defendants Tom Malloy Corp
d/b/a Trench Shoring Company and
Jaime Roberto Salais

Limena Utnanding
An Employee of DRUMMOND LAX FIRM

EXHIBIT 4

EXHIBIT 4

1	DECL	
2	JOEL D. HENRIOD (SBN 8492) LEWIS ROCA ROTHGERBER CHRISTIE LLP	
3	3993 Howard Hughes Parkway, Suite 600 Las Vegas, Nevada 89169)
	(702) 949-8200	
4	<u>JHenriod@LRRC.com</u>	•
5	Attorneys for Plaintiffs Maikel Perez-Acos and Rolando Bessu Herrera	ta
6	In association with:	
7	MICHAEL C. KANE (SBN 10,096)	
8	Bradley J. Myers`(sbn 8857)´ Jason Barron (sbn 7270)	
9	THE702FIRM	
	400 South 7 th Street, #400 Las Vegas, Nevada 89101	
10	(702) 776-3333 <u>Mike@The702Firm.com</u>	
11	Brad@The702Firm.com	
12	Jason@The702Firm.com	
13	$\left egin{array}{l} Attorneys for Plaintiff Maikel Perez-Acost \end{array} ight $	a
	and	
14	CRAIG W. DRUMMOND (SBN 11,108)	
15	LIBERTY A. RINGOR (SBN 14,417) DRUMMOND LAW FIRM, P.C.	
16	810 S. Casino Center Boulevard, Suite 10	01
17	Las Vegas, Nevada 89101 (702) 366-9966	
	Craig@DrummondFirm.com	
18	Liberty@DrummondFirm.com	
19	Attorneys for Plaintiff Rolando Bessu Her	rera
20	DISTRICT	COURT
21	CLARK COUN	ΓY, NEVADA
	MAIKEL PEREZ-ACOSTA, an individual; ROLANDO BESSU HERRERA, an	Case No. A-18-772273-C
22	individual;	
23	Plaintiffs,	Dept. No. 28
24	vs.	-
25	JAIME ROBERTO SALAIS, an individual; TOM MALLOY CORPORATION aka/dba	
26	TRENCH SHORING COMPANY, a foreign	
	corporation; DOES 1-V; and ROE CORPORATIONS VI-X, inclusive,	
27	Defendants.	
28		

Lewis Roca

DECLARATION OF JOEL D. HENRIOD IN SUPPORT OF PLAINTIFF'S SUPPLEMENTAL MEMORANDUM OF FEES AND COSTS PURSUANT TO FEBRUARY 10,2021 DECISION AND ORDER

JOEL D. HENRIOD, being duly sworn states as follows:

- 1. I am a partner with the law firm of Lewis Roca Rothgerber Christie LLP ("Lewis Roca" or "<u>LRRC</u>"), and counsel for both Plaintiffs Maikel Perez-Acosta and Rolando Bessu Herrera in the above-captioned case.
- 2. I have personal knowledge of the facts and circumstances set forth in this declaration and could and would competently testify thereto in a court of law.
- 3. Plaintiffs filed the above-captioned action seeking judgment against the defendants, Jamie Roberto Salais and Tom Malloy Corporation aka/dba Trench Shoring Company ("defendants") for injuries arising from an automobile collision.
- 4. In light of the amount in controversy, plaintiffs retained me to serve as a prospective appellate specialist in the case. In the interest of efficiency, both plaintiffs retained me jointly to assist their individual trial counsel.
- 5. Beyond that general function, I was asked to assume a primary role in drafting plaintiffs' filings and handling oral arguments related to the then-pending motion to strike defendants' answer, due to the gravity of the sanctionable conduct and the complexity of the law implicated where significant sanctions are warranted. I have done so since my retention.

Attorneys' Experience and Billing Rates

6. Lewis Roca's rates are reasonable and accurately reflect the prevailing market rates in Las Vegas for attorneys and paraprofessionals of similar skill, experience, and reputation. The rates Lewis Roca is charging plaintiffs are consistent with those they charge similarly situated clients in



vis Roca cases involving an element of contingent risk related to payment. And Lewis Roca regularly collects those rates in such cases. Based on my experience in the legal industry and familiarity with other lawyers' billing rates, I am informed and believe that our rates charged in this case are comparable to rates charged by other attorneys of similar skill and experience in similar cases.

- 7. My hourly rate in this case is \$1,000. I am the managing partner of Lewis Roca's Las Vegas Office and a member of the firm's appellate practice group. I graduated in 2003 from Vanderbilt University Law School and am admitted to practice law in Nevada later that year. In my 17 years of practice—including years learning from Nevada's preeminent appellate attorneys Rex Jemison and Dan Polsenberg—I:
 - * Wrote or co-write briefs in more 200 appeals and argued frequently before the Nevada Supreme Court and the Ninth Circuit, resulting in over 30 published opinions;
 - * Received an "AV/Preeminent Attorney" rating through MARTINDALE-Hubbell;
 - * Have been named ten times in the MOUNTAIN STATES SUPER LAWYERS (comprised of Nevada, Utah, Wyoming, Montana, Idaho), including *five* times in the *Top 100* Lawyers in that region;
 - $\ ^{*}$ Have been listed five times in The Best Lawyers in America for appellate practice;
 - * Have written chapters for Nevada and federal appellate practice manuals, and presented numerous CLE courses;
 - * Have served as the chair of the Appellate Litigation Section of the State Bar of Nevada and on the executive board of the Clark County Bar Association; and

ewis Roca

OTHGERBER CHRISTIE

* Was elected to the prestigious AMERICAN ACADEMY OF APPELLATE LAWYERS in his first year of eligibility.

- 8. I have significant experience litigating cases involving sanctions for alleged discovery abuses or purported attorney misconduct. See, e.g., Garcia v. Awerbach, 136 Nev. Adv. Op. 27, 463 P.3d 461 (2020); Quinn v. Eighth Jud. Dist. Ct., 134 Nev. 25, 410 P.3d 984 (2018); Rish v. Simao, 132 Nev. 189, 368 P.3d 1203 (2016); BMW v. Roth, 127 Nev. 122, 252 P.3d 649 (2011); Bahena v. Goodyear Tire & Rubber Co., 126 Nev. 606, 245 P.3d 1182 (2010); Foster v. Dingwall, 126 Nev. 56, 227 P.3d 1042 (2010); Michaels v. Pentair Water Pool & Spa, 131 Nev. 804, 357 P.3d 387 (Nev. App. 2015).
- 9. My fees related to work on the sanction issue total \$62,300, representing 62.30 hours of time in 2020 at a rate of \$1,000.
- 10. A total of \$605 is charged for the time of Jessica Helm, consisting of 2.2 hours at her regular rate of \$275. Ms. Helm is a Paralegal Litigation Support Project Manager at Lewis Roca who has worked in the legal services industry for over 10 years. She joined the firm in 2012 and has worked on an array of matters, including bad faith insurance defense cases, medical malpractice suits, and securities litigation. Ms. Helm routinely provides support on high-profile cases and matters with complex legal and discovery issues. She has specialized training and work experience in appeals and eDiscovery. Ms. Helm has a Bachelors of Science in Finance from the University of Nevada, Las Vegas and is pursuing a Masters of Legal Studies from the University of Illinois, Springfield.
- 11. I believe the total time expended, consisting of 64.50 hours, was reasonable and necessary to achieve a successful outcome of plaintiffs' motion for sanctions.

1 **Exhibits** 2 12. Attached as **Exhibit "A"** is a log of time expended and costs 3 incurred at Lewis Roca, through February 23, 2021, related to the request for 4 sanctions, totaling \$62,915.50. 5 13. Should the Court find it necessary, I will provide a copy of my firm's engagement letter with Plaintiffs Maikel Perez-Acosta and Rolando 6 7 Bessu Herrera for review in camera. 8 DATED this 24th day of February, 2021. 9 LEWIS ROCA ROTHGERBER CHRISTIE LLP 10 By: /s/ Joel D. Henriod 11 JOEL D. HENRIOD (SBN 8492) 3993 Howard Hughes Parkway, Suite 600 Las Vegas, Nevada 89169 12 (702) 949-8200 13 Attorneys for Plaintiffs Maikel Perez-Acosta 14 and Rolando Bessu Herrera 15 In association with: 16 MICHAEL C. KANE (SBN 10,096) CRAIG W. DRUMMOND (SBN 11,108) 17 Bradley J. Myers (SBN 8857) LIBERTY A. RINGOR (SBN 14,417) DRUMMOND LAW FIRM, P.C. JASON BARRON (SBN 7270) 18 THE702FIRM 810 S. Casino Center Boulevard, 400 South 7th Street, #400 Suite 101 19 Las Vegas, Nevada 89101 Las Vegas, Nevada 89101 (702) 776-3333 (702) 366-9966 20 Attorneys for Plaintiff Attorneys for Plaintiff 21 Rolando Bessu Herrera Maikel Perez-Acosta 22 23 24 25 26 27 28 -5-



201 E. Washington St., Ste. 1200 | Phoenix, AZ 85004 602.239.7486 | www.lrrc.com | ar@lrrc.com Federal Tax ID: 86-0095078

Billing Attorney: J. Henriod

Maikel Perez-Acosta v. Jaime Salais, et al.

For Professional Services Rendered through February 23, 2021

Fees \$62,905.00

Disbursements \$10.50

Total Balance Due \$62,915.50



201 E. Washington St., Ste. 1200 | Phoenix, AZ 85004 602.239.7486 | www.lrrc.com | ar@lrrc.com Federal Tax ID: 86-0095078

Professional Services

Date	Timekeeper	Description	Hours	Amount
08/21/20	J. Henriod	Reviewing record pursuant to drafting response to supplemental opposition filed by defense counsel	3.20	3,200.00
08/24/20	J. Helm	Analyze party affiliations and draft notice of association	0.40	110.00
08/28/20	J. Henriod	Drafting response to supplemental opposition filed by defense counsel	5.20	5,200.00
08/28/20	J. Helm	Analyze district court record, particularly motions in limine, and trial schedule	0.50	137.50
08/31/20	J. Henriod	Drafting response to supplemental opposition filed by defense counsel	3.40	3,400.00
09/01/20	J. Henriod	Drafting response to defendant's supplemental brief regarding sanctions	1.30	1,300.00
09/30/20	J. Henriod	Preparing for hearing on sanctions	2.40	2,400.00
10/01/20	J. Henriod	Hearing on motion for sanctions, and meeting and strategy with co-counsel beforehand	3.00	3,000.00
10/26/20	J. Henriod	Review and analyze motion for reconsideration of order compelling production of correspondence	1.70	1,700.00
10/26/20	J. Henriod	Drafting outline for response	0.70	700.00
10/28/20	J. Henriod	Legal research and analysis to determine best response to defendants' motion to reconsider order compelling production of communications	3.10	3,100.00
11/02/20	J. Henriod	Legal research for opposition to motion for reconsideration of order compelling disclosure	3.90	3,900.00
11/03/20	J. Henriod	Drafting opposition to motion for reconsideration of order compelling disclosure	4.20	4,200.00
11/03/20	J. Henriod	Drafting opposition to motion for reconsideration of order compelling disclosure	6.60	6,600.00
11/04/20	J. Helm	Revise and finalize response to motion for reconsideration	1.30	357.50
11/17/20	J. Henriod	(1.3) Preparing hearing on defendant's motion to reconsider order compelling production; (.8) Hearing on defendant's motion to reconsider order compelling production	2.10	2,100.00
12/14/20	J. Henriod	Legal research for defendant's supplemental opposition to sanctions	3.40	3,400.00
12/15/20	J. Henriod	Drafting response to defendant's supplemental opposition to sanctions	6.50	6,500.00

Matter No. 307373-00001

Total Disbursements

Date	Timekeeper	Description	Hours	Amount
12/28/20	J. Henriod	(1.4) Reviewing record pursuant to drafting response to defendant's supplemental opposition to sanctions; (3.7) Drafting response to defendant's supplemental opposition to sanctions	5.10	5,100.00
12/29/20	J. Henriod	Drafting response to defendant's supplemental opposition to sanctions	6.50	6,500.00
Total Fee	s		64.50	\$62,905.00

	Timekeeper Summary			
Attorney	Title	Billed Hours	Billed Rate	Billed Amount
J. Henriod	Partner	62.30	1,000.00	62,300.00
J. Helm	Paralegal	2.20	275.00	605.00
Total Fees		64.50		\$62,905.00

Date	Description	Amount
08/25/20	Joel Henriod - Court / Filing Fees: Henriod: Filing fee for Notice of Appearance.:	3.50
11/04/20	Eighth Judicial District Court - Draw Down Account - Filing Fees	3.50
12/30/20	Eighth Judicial District Court - Draw Down Account - Filing Fees	3.50

Disbursements

Total Fees & Disbursements	\$62,915.50
----------------------------	-------------

\$10.50

A-18-772273-C

DISTRICT COURT CLARK COUNTY, NEVADA

Negligence - Auto COURT MINUTES February 25, 2021

A-18-772273-C

Maikel Perez-Acosta, Plaintiff(s)

٧S

Jaime Salais, Defendant(s)

February 25, 2021

03:00 AM

Status Check: Court's Order/Final Decision

HEARD BY:

Israel, Ronald J.

COURTROOM: RJC Courtroom 15C

COURT CLERK: Thomas, Kathy

RECORDER:

REPORTER:

PARTIES PRESENT:

JOURNAL ENTRIES

Court's Order submitted 2-10-2021, Matter Off Calendar. Trial Stands regarding damages.

Printed Date: 3/2/2021 Page 1 of 1 Minutes Date: February 25, 2021

Prepared by: Kathy Thomas

Electronically Filed 3/4/2021 3:06 PM Steven D. Grierson CLERK OF THE COURT

MEMO 1 MICHAEL C. KANE. ESQ. 2 Nevada Bar No. 10096 BRADLEY J. MYERS, ESQ. 3 Nevada Bar No. 8857 THE702FIRM 4 400 S. 7th Street, Suite 400 5 Las Vegas, Nevada 89101 (702) 776-3333 Telephone: 6 Facsimile: (702) 505-9787 Service: service@the702firm.com 7 and 8 9 ADAM S. KUTNER, ESQ. Nevada Bar No. 4310 10 ADAM S. KUTNER, P.C. 1137 South Rancho Drive, Suite 150-A 11 Las Vegas, Nevada 89102 Telephone: (702) 382-0000 12 Attorneys for Plaintiff PEREZ-ACOSTA 13 DISTRICT COURT 14 CLARK COUNTY, NEVADA 15 MAIKEL PEREZ-ACOSTA, an Individual, Case No.: A-18-772273-C ROLANDO BESSU HERRERA, Individually, Dept No.: 28 16 17 **Plaintiffs** PLAINTIFF MAIKEL PEREZ-VS. 18 ACOSTA'S MEMORANDUM OF FEES JAIME ROBERTO SALAIS, an Individual, AND COSTS PURSUANT TO 19 **FEBRUARY 10, 2021 DECISION AND** TOM MALLOY CORPORATION aka/dba TRENCH SHORING COMPANY, foreign ORDER 20 corporation, DOES I through V, inclusive; and 21 ROE CORPORATIONS I through V, inclusive, 22 Defendants. 23 24 COMES NOW, Plaintiff, MAIKEL PEREZ-ACOSTA, by and through his attorney of 25 record, MICHAEL C. KANE, ESQ., of THE 702FIRM, and hereby files Plaintiff Maikel Perez-26 Acosta's Memorandum of Fees and Costs Pursuant to this Honorable Court's February 10, 2021 27 28 Decision and Order.

THE702FIRM

ATTORNEYS AT LAW 400 S. Seventh Street, Suite 400 LAS VEGAS, NEVADA 89101 PHONE: (702) 776-3333

AFFIDAVIT OF MICHAEL C. KANE IN SUPPORT OF ATTORNEYS' FEES AND COSTS

COUNTY OF CLARK)
STATE OF NEVADA)

Affiant, MICHAEL C. KANE, being first duly sworn, deposes and states as follows:

- I am the founding partner at THE702FIRM and duly licensed to practice law in the State of Nevada.
- 2. I am lead attorney of record for Plaintiff MAIKEL PEREZ-ACOSTA. I have personal knowledge of the facts and am competent to testify to the matters stated herein.
- This affidavit is made in support of the court's award of attorney's fees pursuant to this Honorable Court's February 10, 2021 Decision and Order.
- I was admitted to practice in Nevada in 2006 and I am also admitted to practice in
 Federal District Court, Ninth Circuit Court of Appeal and the United States Supreme Court.
- 5. That I am currently in private practice and am a member in good standing with the Nevada State Bar; Clark County Court Appointed Attorney; Clark County Bar Association, Trial By Peers Committee; National Academy Of Personal Injury Attorneys; National Trial Lawyers Association; Nevada Justice Association; Nevada County Bar Association; Nevada Justice Association; National Trial Lawyers Association; James Arthur Albert Foundation; and the American Institute of Personal Injury Attorneys.
- 6. My entire practice is in personal injury, insurance law and insurance contracts for Plaintiffs. That I am experienced with litigating negligence cases and providing guidance on premises liability cases are ones that I litigated at the trial court, briefed, and argued before the Supreme Court of Nevada.
- That I have tried over 20 jury trials to verdict and have yet to receive a defense verdict.

ATTORNEYS AT LAW

00 S. Seventh Street, Suite 400

- Under the circumstances, I believe a reasonable hourly fee for my professional services is \$500.00 per hour.
- 9. That I spent 34.75 hours of attorney time related to the Motion to Strike Answer, and subsequent motions, hearings and correspondence related to the Motion to Strike Answer on this matter. A detailed breakdown of the time spent is listed in Exhibit 1. That my total attorney's fees are \$17,375.00.
- 10. That as this matter was highly contested and as the Defendants had retained two law firms to defend the matter, both myself and counsel for the Co-Plaintiff retained Mr. Joel D. Henriod, Esq. with Lewis Roca Rothberger Christie to assist in the case and understand that he already submitted a separate fees and costs request as work done by himself and his firm are in ADDITION to the fees and costs outlined herein.

I Pursuant to NRS 53.045, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

DATED this 4th day of March, 2021.

MICHAEL C. KANE, ESQ.

THE702FIRM ATTORNEYS AT LAW 400 S. Seventh Street, Suite 400 LAS VEGAS, NEVADA 89101 PHONE; (702) 776-3333

THE702FIRM
ATTORNEYS AT LAW
400 S. Seventh Street, Suite 400
LAS VEGAS, NEVADA 89101

PHONE: (702) 776-3333

I.

ARGUMENT

A. Pursuant to NRS 18.010(1), Attorney's Fees are Warranted.

Pursuant to NRS 18.0 10(1), "The compensation an attorney and counselor for his or her services is governed by agreement, express or implied, which is not restrained by law."

In this matter, Plaintiff Maikel Perez-Acosta was granted, "all costs and reasonable attorney's fees for the deposition of Ms. Espinoza and this motion [Plaintiffs motion to strike answer] as discovery sanctions." See February 10, 2021 Decision and Order, on file herein.

Plaintiff Maikel Perez-Acosta respectfully submits the following attorney's fees and costs based on this Honorable Court's ruling.

In regards to factor 1 – The qualities of the advocate, ability, training, education, experience, professional standing and skill, Plaintiff's counsel has over fifteen years of practice as a trial attorney in Federal Courts, as well as being licensed in Nevada. Further in addition to mainly litigating personal injury cases, Plaintiff's counsel also is knowledgeable in both trial and appellate work. Therefore, Plaintiff's counsel has met *Brunzell's* first factor.

As to factor 2 – The character of the work to be done: its difficulty, intricacy, importance, the time and skill required, the responsibility imposed and the prominence and character of the parties when they affect the importance of the litigation, Plaintiff's counsel required significant time in order to research, draft, and file the Motion to Strike Answer, Joinder, Reply to Opposition to Motion to Strike Answer, preparation for the Motion to Strike Answer on July 14, 2020, as well as participating in the supplemental hearings related to the Motion to Strike Answer after July 14, 2020, also detailed in Exhibit 1. As such, Plaintiff's counsel has met *Brunzell's* second factor.

Plaintiff's counsel outlines factor 3 – The work actually performed by the lawyer: the skill, time and attention given to the work. Plaintiff's counsel spent 34.75 hours researching, drafting, and filing the Motion to Strike Answer, Joinders, Reply to Opposition to Motion to Strike Answer, and preparation for the Motion to Strike Answer on July 14, 2020. Further, Plaintiff's counsel participated in the supplemental hearings related to the Motion to Strike Answer after July 14, 2020, which is detailed in Exhibit 1. As such, Plaintiff's counsel has met *Brunzell's* third factor.

In regards to Factor 4 – The result: whether the attorney was successful and what benefits were derived, it is clear that Plaintiffs were successful as this Honorable Court granted the Motion to Strike Answer, and allowed attorney's fees and costs related to the filing of said motion. Therefore, Plaintiff's counsel has met the fourth factor under *Brunzell*.

II. CONCLUSION

Based on the foregoing, Plaintiff MAIKEL PEREZ-ACOSTA requests attorney's fees and costs in the amount of \$17,375.00 for the time spent on attending the deposition of Nancy Espinoza, and researching, filing, and attending all hearings related to Plaintiff's Motion to Strike Answer.

DATED this 4th day of March, 2021.

THE702FIRM

/s/ Michael Kane

MICHAEL C. KANE, ESQ.
Nevada Bar No. 10096
BRADLEY J. MYERS, ESQ.
Nevada Bar No. 8857
400 S. 7th Street, Suite 400
Las Vegas, Nevada 89101
Attorneys for Plaintiff PEREZ-ACOSTA

1 **CERTIFICATE OF SERVICE** 2 **Document: PLAINTIFF MAIKEL PEREZ-ACOSTA'S MEMORANDUM OF FEES AND** COSTS PURSUANT TO FEBRUARY 10, 2021 DECISION AND ORDER 3 I hereby certify that I caused service of a true and correct copy of the above-referenced 4 document to be made by the Eighth Judicial District Court's Odyssey E-File and Serve program, 5 6 upon all parties registered to use this service, in accordance with the Clark County District Court's 7 Administrative Order No. 14-2, issued 5/9/14: 8 TODD A. JONES, ESQ. 9 MOKRI VANIS & JONES, LLP 2251 Fair Oaks Blvd., Suite 100 10 Sacramento, CA 95825 Co-counsel for Defendants SALIAS and TOM MALLOY CORPORATION 11 JOEL D. ODOU, ESQ. 12 WOOD, SMITH, HENNING & BERMAN LLP 13 2881 Business Park Court, #200 Las Vegas, NV 89128 14 Co-counsel for Defendants SALIAS and TOM MALLOY CORPORATION 15 CRAIG W. DRUMMOND, ESQ. LIBERTY A. RINGOR, ESQ. 16 DRUMMOND LAW FIRM, P.C. 17 810 S. Casino Center Blvd., Suite 101 Las Vegas, NV 89101 18 Attorneys for Plaintiff BESSU HERRERA 19 JOEL D. HENRIOD, ESQ. LEWIS ROCA ROTHGERBER CHRISTIE LLP 20 3993 Howard Hughes Parkway #600 21 Las Vegas, NV 89169 Attorneys for Plaintiffs 22 on this date: March 4, 2021. 23 /s/ Amber Casteel 24 An Employee of THE702FIRM 25 26 27 28

THE702FIRM
ATTORNEYS AT LAW
400 S. Seventh Street, Suite 400
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

EXHIBIT 1

Hours for Memorandum of Attorney's Fees and Costs

DATE	WORK PERFORMED	HOURS
4/22/20	Prepare for and attend deposition of Nancy Espinoza	2.50
	(Associate Baron attended)	0.25
4/22/20	Attend EDCR 2.34 after Deposition of Nancy Espinoza (Associate Baron attended)	0.25
4/22/20	Received/reviewed Bessu Herrera's 2 nd ECC Supplement	0.20
+/ 22/ 20	naming witnesses Nancy Espinoza and Todd Jones	0.20
4/23/20	Prepared/filed Acosta-Perez's 16th ECC Supplement	0.70
	naming witnesses Espinoza and Todd Jones	
4/23/20	Received/reviewed Defendants' 8th ECC Supplement	0.20
	naming witness Espinoza and producing correspondence	
4/24/20	TC w/Acosta-Perez re Nancy Espinoza	0.50
4/24/20	Emails to Court Reporter to expedite Depo Transcript of	0.40
	Nancy Espinoza and EDCR 2.34 Transcript	
4/27/20	Received/reviewed Depo Transcript of Nancy Espinoza	0.50
4/28/20	Received/reviewed Transcript of EDCR 2.34; Research	0.50
4/28/20	Received/reviewed Invoice for Depo Transcript of Nancy	
	Espinoza; submitted for payment	
4/30/20	Research regarding drafting Motion to Strike	3.50
5/04/20	Received/reviewed Bessu Herrera's Motion to Strike	1.0
	Defendant's Answer w/Exhibits	
5/04/20	Received/reviewed Clerk's Notice of Hearing for Motion	0.20
	to Strike Defendants' Answer set for 6-09-2020	
5/18/20	Received/reviewed Defendants' Opposition to Bessu	0.80
	Herera's Motion to Strike Defendant's Answer	
6/01/20	Researched/drafted Perez-Acosta's Joinder to Bessu	1.0
	Herrera's Motion to Strike Answer	
6/02/20	Finalized/filed Perez-Acosta's Joinder to Bessu Herrera's	0.50
11 SE DE GEORGE	Motion to Strike Defendants' Answer with Exhibit	
6/02/20	Received/reviewed Bessu Herrera's Reply to Opposition	0.70
	to Bessu Herrera's Motion to Strike Defendants' Answer	
	with Exhibits	1 100 2002
6/11/20	Received/reviewed Court Minute Order continuing	0.20
7/40/00	Motion to Strike Defendants' Answer to 7-14-2020	
7/13/20	Prepared for Hearing on Motion to Strike Defendants'	1.50
7/14/20	Answer	4.00
7/14/20	Attended Hearing/Oral Argument on Motion to Strike Defendants' Answer	1.00
7/14/20		
7/14/20	Received/reviewed Court Transcript from Hearing on	0.80
7/15-17/20	Motion to Strike Defendants' Answer	1.00
// 13-1//20	Email communications w/all counsel re SAO to Extend	1.00
	Briefing Schedule and Continue Hearing on Motion to Strike Defendants' Answer	
7/20/20	Received/reviewed SAO to Extend Briefing Schedule/	0.30
. , 20, 20	Continue Hearing on Motion to Strike Defendants'	0.30
	Answer	i

Hours for Memorandum of Attorney's Fees and Costs

7/22/20	Received/reviewed Notice of Entry SAO to Extend Briefing Schedule and Continue Hearing on Motion to	0.20
	Strike Defendants' Answer	0.00
8/11/20	Received/reviewed Defendants' Supplemental	0.80
	Opposition to Motion to Strike Defendants'	
	Answer/Jones Affidavit	
8/24/20	Received/reviewed Court Minute Order continuing	0.20
	Motion to Strike Defendants' Answer to 9-22-2020	
8/25/20	Email communications with counsel re Henriod	1.00
	associating as co-counsel; Conference call re: same	100
9/01/20	Received/reviewed Response to Defendants'	0.50
	Supplemental Opposition to Bessu Herera's Motion to	
mate 7	Strike Defendant's Answer	
9/02/20	Received/reviewed Court's Order rescheduling Motion	0.30
320	to Strike Defendants' Answer to 10-01-2020	<u> </u>
9/22/20	Received/reviewed Letter from Todd Jones to Judge	0.20
	Israel re Notice of Defense Counsel for Mokri, Vanis &	
	Jones will be David Lee	
9/30/20	Prepared for Hearing on Motion to Strike Defendants'	1.50
	Answer	
10/01/20	Attended Hearing/Oral Argument Motion to Strike	1.00
	Defendant's Answer/Sanctions	The second of National Andrews
10/16/20	Received/reviewed Court's Order to Turn Over	0.20
,,	Communications and Records In Camera by 11-02-2020	
10/23/20	Received/reviewed Court's Minute Order clarifying	0.20
,,	Order from 10-16-2020 is directed to Attorney Joel Odou	
10/23/20	Received/reviewed Defendants' Motion for	0.60
20/20/20	Reconsideration on OST	0.00
10/26/20 -	Email communications with Plaintiffs' counsel	1.30
11/04/20	Ethan communications with Flankins counsel	1.50
11/04/20	Received/reviewed Plaintiffs' Response to Defendants'	0.50
11/04/20	Motion for Reconsideration	0.50
11/10/20		0.50
11/10/20	Received/reviewed Defendants' Reply in Support of	0.50
11/17/20	Motion for Reconsideration	4.20
11/17/20	Prepared for/attended hearing/oral argument on	1.20
44 47 100	Defendants' Motion for Reconsideration	
11/17/20	Email communications with Plaintiffs' counsel	0.80
11/19/20	Received/reviewed Court Minute Order continuing	0.20
	Motion to Strike Defendant's Answer to 2-04-2021	1 00 a 1905/000
12/1/20	Reviewed Defendants' Supplemental Opposition to	0.50
40/44 /	Motion to Strike Answer	
12/14-28/20	Email communications with Plaintiffs' counsel	0.80
12/15-30/20	Email communications with counsel re extension to file	0.50
	response to Defendants' Supplemental Opposition	di .
12/30/20	Received/reviewed Plaintiffs' Response to Defendants	1.00
	Supplemental Opposition	k

Hours for Memorandum of Attorney's Fees and Costs

1/07/21	Received/reviewed Court's Minute Order re matter continued to 2-04-2021	0.20
2/08/21	Received/reviewed Court's Minute Order Decision and Order Status Check set for 2-25-2021	0.20
2/10/21	Received/reviewed Court's Decision and Order	0.40
2/10/21	Received/reviewed Notice of Entry of Court's Decision and Order	0.20
2/10/21	E-mail communications with Plaintiffs' counsel	0.60
2/17/21	Conference Call with Plaintiffs' counsel	0.50
2/24/21	Received/reviewed Bessu's Supplemental Memorandum of Fees and Costs Pursuant to 2-10-2021 Decision and Order	0.20
2/24/21	Received/reviewed Bessu Herrera's Errata to Exhibit 4 of Plaintiff's Supplemental Memorandum of Fees and Costs Pursuant to 2-10-2021 Decision and Order	0.20

DISTRICT COURT CLARK COUNTY, NEVADA

Negligence - Auto

COURT MINUTES

March 09, 2021

A-18-772273-C

Maikel Perez-Acosta, Plaintiff(s)
vs.
Jaime Salais, Defendant(s)

March 09, 2021 Chambers Minute Order Minute Order Re:

Meet and Confer

HEARD BY: Israel, Ronald J. COURTROOM: RJC Courtroom 15C

COURT CLERK: Kathy Thomas

PARTIES

PRESENT: None

JOURNAL ENTRIES

- In light of the Courts decision striking Defendants' Answer as to liability, the parties shall meet and confer to determine which Motions in Limine are now moot. The parties have 30 days to meet and to file a report with the Court outlining which Motions in Limine go to damages and still need to be decided. All Pending Motions In Limine set on 3/25/2021 are now VACATED. Counsel to send a status report to chambers and inform the Court which Motions to Reset. COURT ORDERED, Matter SET for a status check regarding the status report.

05/13/2021 (Chambers) STATUS CHECK: STATUS REPORT RE: STATUS OF CASE / RESETTING MIL'S

CLERK'S NOTE: A copy of this minute order was e-served to counsel. kt 3/09/2021.

PRINT DATE: 03/10/2021 Page 1 of 1 Minutes Date: March 09, 2021

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Jaime Roberto Salais

Electronically Filed 3/10/2021 4:52 PM Steven D. Grierson CLERK OF THE COUR

OPPS 1 Joel D. Odou Nevada Bar No. 7468 Nicholas F. Adams 3 Nevada Bar No. 14813 Wood, Smith, Henning & Berman LLP 2881 Business Park Court, Suite 200 Las Vegas, Nevada 89128-9020 Telephone: (702) 251-4100 Facsimile: (702) 251-5405 jodou@wshblaw.com nadams@wshblaw.com 7 Todd A. Jones, Esq. 8 Nevada Bar No. 12983 MOKRI VANIS & JONES, LLP 2251 Fair Oaks Blvd., Suite 100 Sacramento, California 95825 Tel.: (916) 306-0434 Fax: (949) 226-7150 11 tiones@mvillp.com 12 Attorneys for Defendants, Tom Malloy

DISTRICT COURT CLARK COUNTY, NEVADA

MAIKEL PEREZ-ACOSTA, individually, ROLANDO BESSU HERRERA, individually,

Corporation d/b/a Trench Shoring Company and

Plaintiffs,

v.

JAIME ROBERTO SALAIS, individually, TOM MALLOY CORPORATION, aka/dba TRENCH SHORING COMPANY, a foreign corporation, DOES I through V, inclusive, and ROE CORPORATIONS I through V, inclusive,

Defendants.

Case No. A-18-772273-C Dept. No.: 28

DEFENDANTS' OPPOSITION TO PLAINTIFFS, ROLANDO BESSU HERRERA AND MAIKEL PEREZ-ACOSTA'S MEMORANDUMS OF FEES AND COSTS PURSUANT TO FEBRUARY 10, 2021 DECISION AND ORDER

Defendants T

Defendants, Tom Malloy Corporation d/b/a Trench Shoring Company and Jaime Roberto

Salais (hereinafter "Defendants"), by and through its counsel, the law firm of Wood, Smith, Henning

20418184.1:10756-0005

& Berman, LLP, and hereby respectfully submits its Opposition to Plaintiffs, Rolando Bessu Herrera								errera			
and	Maikel	Perez-Acosta's	Memorandums	of Fees	and	Costs	Pursuant	to	February	10,	2021
Deci	ision and	d Order.									

This Opposition is based upon the pleadings and papers on file with the Court, the Memorandum of Points and Authorities attached hereto.

DATED this 10th day of March, 2021

WOOD, SMITH, HENNING & BERMAN LLP

By JOEL D. ODOU
Nevada Bar No. 7468
NICHOLAS F. ADAMS
Nevada Bar No. 14813
2881 Business Park Court, Suite 200
Las Vegas, Nevada 89128-9020
Tel. 702 251 4100

Attorneys for Defendants, Tom Malloy Corporation d/b/a Trench Shoring Company and Jaime Roberto Salais

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

DECLARATION OF JOEL D. ODOU IN SUPPORT OF DEFENDANTS' OPPOSITION MEMORANDUMS OF FEES AND COSTS PURSUANT TO FEBRUAR **DECISION AND ORDER**

I, Joel D. Odou make this Declaration pursuant to NRCP 56.

- 1. I am an attorney at law, duly admitted to practice before the Courts of the State of Nevada. I am an attorney with Wood, Smith, Henning & Berman, LLP, attorneys of record for the Defendants Jaime Roberto Salais and Tom Malloy Corporation.
- 2. I have been practicing law in Las Vegas, Nevada since 2001, and was admitted to practice in Nevada in 1999.
- 3. In my time in practice, I have engaged appellate firms on behalf of clients, and also referred clients for both Plaintiff and Defense firms for cases.
- 4. In my time in practice, and especially during the last two years, I have referred a number of cases to outside counsel for Defense, Plaintiff and Appellate work.
- 5. As an example, senior attorneys at Lemons, Grundy & Eisenberg change \$400.00 per hour for appellate work.
- 6. Further, while not Plaintiff work, certainly the work performed by former Judges and Justices of the Nevada Supreme Court that charge much less for mediating cases is instructive as to not only want are reasonable fees in the community, but fees that both Plaintiffs and Defendants typically pay. As examples, retired Clark County District Court Judge the Honorable Jackie Glass charges \$600 per hour for mediations. Retired Nevada Supreme Court Justice Saitta, also of ARM, bills her time at \$550.00 per hour.
- 7. While retired Judges and Justices do not work on a contingency basis, they bill their time hourly, as does apparently Mr. Henroid. As such, certainly he would concede that they have the same or more experience in appeals and litigation, and they have at least the same level of skill and reputation as he enjoys.
- 8. Based upon the same and other issues as set forth below, an hourly rate of \$1000.00 per hour for legal services is exceedingly high and is an unreasonable fee based on market rates in the Las Vegas community.

9 Further, an hourly rate of \$275.00 per hour for paralegal services is exceedingly high
and is an unreasonable fee based on market rates in the Las Vegas community. Typically, paralegal
rates in Las Vegas run approximately \$105.00 to \$125.00 per hour depending on their skill,
experience and area of practice. Here these factors were not provided.

- 10. It is a common practice in the Las Vegas community to have lower level associates perform preliminary task such as research and initial drafting of motions at a reduced rate so as to reduce charges to clients. It is also common practice to not duplicate work among attorneys and firms.
- A true and correct copy of Plaintiff Perez-Acosta's 16th Supplement is attached hereto as Exhibit "A."
- 12. A true and correct copy of Transcript of EDCR Meet and Confer, Dated April 22, 2020 is attached hereto as Exhibit "B.".

I declare under penalty of perjury under the law of the State of Nevada that the foregoing is true and correct.

Executed On:	March 10, 2021	/s/ Joel D. Odou	
_		Joel D. Odou, Esq.	

MEMORANDUM OF POINTS AND AUTHORITIES

I. INTRODUCTION

The Memorandums of Fees and Costs (including the late one filed by Plaintiff Perez-Acosta) are unreasonable, punitive in their amount, and should be reduced by this Court. Several factors lend support for reducing the fees requests by Plaintiffs. First, qualifications and in some cases time spent by lower level associates were not provided. Second, Mr. Henriod's fee is twice the amount of Mr. Drummond and Mr. Kane and beyond what is charged in the community. Third, most of the work performed could have been assigned to lower level associates such as the preliminary research and drafting of the Motion to Strike and other submissions. Fourth, the time spent by counsel was unreasonable. While fees have been awarded, the fees sought by Plaintiffs are unreasonable and the full amounts sought should not be awarded.

II. RELEVANT FACTUAL HISTORY

Following Ms. Nancy Espinoza's deposition, Plaintiff Bessu Herrera filed a Motion to Strike Defendants' Answer on May 4, 2020. On June 2, 2020, Maikel Perez-Acosta filed a Joinder to the Motion to Strike. After the Motion to Strike was briefed, this Court set a hearing for July 14, 2020, where it requested additional supplements to Defendants' Opposition to the Motion to Strike regarding its position that emails between counsel and Ms. Espinoza were privileged.

On August 11, 2020, Defendants filed a Supplemental Opposition to the Motion to Strike. After the Supplemental Opposition to the Motion to Strike was filed, Mr. Joel D. Henriod filed a Notice of Notice of Appearance indicating that he will be representing both Plaintiffs, Bessu Herrera and Maikel Perez-Acosta along with their current counsel. Shortly thereafter, Plaintiff Bessu Herrera filed a Response to Defendant's Supplemental Opposition on September 1, 2020.

After the Supplemental Opposition was briefed, this Court held another hearing on October 1, 2020 to address the issue of whether Ms. Espinoza's emails were protected under the work product doctrine. During this hearing, the Court requested communications and billing records from the between Defendants and their counsel be turned over for *in camera* review.

Based on the request for communications and billing records, Defendants filed a Motion for Reconsideration on October 26, 2020 regarding the requirement to turn over communications and

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

billing records. On November 17, 2020, this Court held a hearing on Defendants' Motion for Reconsideration and requested additional briefing on the issue of whether Defendants' counsel can have it both ways by asserting attorney client privilege and denying their clients had knowledge of Ms. Espinoza through affidavits.

On December 1, 2020, Defendants filed a Supplemental Opposition to Motion to Strike Pursuant to Court's Order on November 17, 2020. Plaintiffs filed a Response to the Supplemental Opposition to Motion to Strike Pursuant to Court's Order on November 17, 2020 on December 30, 2020.

This Court thereafter issued an Order on February 10, 2021 Ordered that Defendants' Answer and Affirmative Defenses on Lability be stricken and that jury trial on damages will proceed as scheduled. Further, this Court ordered that Plaintiff are awarded all costs and reasonable attorney's fees for the deposition of Ms. Espinoza and the Motions to Strike as discovery Sanctions. Plaintiff also had 14 days after the Entry of Order (February 10, 2021) to submit their bills along with a Brunzell affidavit and that Defendants had 14 days thereafter to submit an objection.

Counsel for both Plaintiffs, Mr. Joel D. Henriod submitted his memorandum of fees and costs on February 24, 2021 claiming his fees and costs total \$62,915.50. Plaintiff Bessu Herrera's counsel, Craig W. Drummond, submitted his memorandum of fees and costs on February 24, 2021 claiming his fees and costs total \$18,850.00.2 Over a week after the due date set by this Court, Plaintiff Maikel Perez-Acosta's counsel, Michael D. Kane, submitted his memorandum of fees and costs on March 4, 2021 claiming his fees and costs total \$17,375.00.³

///

///

22

23

24

25

26

27 28

¹ Errata to Exhibit 4 of Plaintiff Rolando Bessu Herrera's Supplemental Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order, on file ("Ex. 4, Plaintiff Herrera's Memorandum").

² Plaintiff Bessu Herrera's Supplemental Memorandum of Fees and Costs Pursuant to February 10, 2021

Decision and Order, on file ("Plaintiff Herrera's Memorandum").

³ Plaintiff Mikel Perez-Acosta's Memorandum of Fees and Costs Pursuant to February 10, 2021 Decision and Order, on file ("Plaintiff Perez-Acosta's Memorandum").

III. **ARGUMENT**

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

A court must consider the following factors in determining whether an attorneys' fees are reasonable:

- (1) the qualities of the advocate: his ability, his training, education, experience, professional standing and skill;
- (2) the character of the work to be done: its difficulty, its intricacy, its importance, time and skill required, the responsibility imposed and the prominence and character of the parties where they affect the importance of the litigation;
- (3) the work actually performed by the lawyer: the skill, time and attention given to the work;

(4) the result: whether the attorney was successful and what benefits were derived.⁴

In this case, Plaintiffs' counsel are collectively seeking a punitive amount, approximately \$99,140.50 for costs and fees associated for one deposition and one motion.⁵ Review of the fees and costs submitted by Plaintiffs' counsel with consideration of the Brunzell factors renders these fees unreasonable. Further, Plaintiff Maikel Perez-Acosta's counsel, Michael D. Kane, submitted his affidavit in support of his fees and costs on March 4, 2021 over a week after the due date set by this Court. As such, this Court not should award the amount of fees that Plaintiffs' counsel are seeking and/or reduce them as they are unreasonable.

A. The Qualities of the Advocate

Regarding the first factor, Defendants do not dispute that counsel are qualified. Each of them have received adequate education, and have practiced law for a decent amount of time, with each finding successes during their careers. However, Defendants do dispute Mr. Henriod's fee along with his Paralegal, Jessica Helm's fee and contend that counsel has not met the first Brunzell factor to the extent that no qualities for any associates that have or may have worked on the Motion to Strike or Ms. Espinoza's deposition have been provided.

⁴ Brunzell v. Golden Gate National Bank, 85 Nev. 345, 349, 455 P.2d 31, 33 (1969).

⁵ See Plaintiff Herrera's Memorandum; see also Plaintiff Perez-Acosta's Memorandum.

⁶ See Plaintiff Perez-Acosta's Memorandum.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

Regarding the fees submitted by Mr. Henriod. Mr. Henriod's declaration does not indicate any factors supporting why his fee is twice the amount of Mr. Drummond and Mr. Kane, who both charged \$500.00 per hour. While Mr. Henriod indicated that he regularly charges \$1,000.00 per hour to other plaintiffs similarly situated, yet there is no indication that \$1,000.00 per hour is a reasonable fee. 8 Instead, Mr. Henriod states that the rates he charged are "comparable" to other attorneys' charges. There is no indication that any trial court has upheld Mr. Henriod's fees or that a Court has found them to be reasonable. 10 Further, the \$275.00 per hour charged by Ms. Helm when compared to other paralegal rates in the Las Vegas community are unreasonable and over twice the amount of paralegal rates in the community. In addition, there is no indication that Ms. Helm's fee has been upheld by a trial court or that a court has found this hourly rate reasonable. 11 Accordingly, Mr. Henriod and Mr. Helm's fees should be reduced to a reasonable rate reflective of trial counsel in the Las Vegas community.

With regard to the associates who have worked on the Motion to Strike or Ms. Espinoza's deposition, counsel has not provided representations regarding their qualities including their experience or education.¹² To explain, Mr. Kane's memorandum of fees indicates that associate Jason Baron attended the deposition of Ms. Espinoza and the EDCR 2.34 meeting, however there is no indication of Mr. Baron's qualifications or his rate. 13 Further, Mr. Drummond did not indicate any time spent by his associate Liberty Ringer, who signed the Reply in Support of Motion to Strike. 14 Accordingly, any time spent by Mr. Baron or Ms. Ringer should not be considered by this Court since there is no indication of their qualities or their fees charged.

/// 21

22

23

24

25

26

27

28

⁷ Ex. 4, Plaintiff Herrera's Memorandum.

⁸ *Id*.

⁹ *Id.* at ¶ 6 of Declaration of Mr. Henriod.

¹⁰ See generally Id.

¹¹ *Id*.

¹² See Plaintiff Herrera's Memorandum; Plaintiff Perez-Acosta's Memorandum.

¹³ Plaintiff Perez-Acosta's Memorandum.

¹⁴ Plaintiff Herrera's Memorandum; Reply in Support of Motion to Strike.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

В. The Character of the Work to be Done

The work that this Court is considering for attorney's fees is a deposition of a witness, Ms. Espinoza, and a Motion to Strike. Many of the tasks associated with the Motion to Strike could have been performed by associates rather than partners. Such tasks include preliminary research and drafting, which is a common practice in the Las Vegas community so as to reduce fees to the client.

Further, it should be noted that after the initial Motion to Strike was submitted, the main issues that came before this Court was whether the emails between defense counsel and Ms. Espinoza constituted work-product privileged materials and whether defense counsel's communications to its clients and billing records needed to be turned over to this Court due to privilege. Such issues are not overly complicated and can easily be looked into by associates. Additionally, any responses to defense counsel's submissions could be preliminary drafted by a lower level associate at a reduced rate to save clients fees.

Accordingly, the work to be performed did not require task to be performed solely by managing partners.

C. The Work Actually Performed by the Lawyer

Plaintiffs' counsel are collectively seeking approximately \$99,140.50 for costs and fees associated for one deposition and one motion. 15 This is unreasonable and a review of the time spent on the Motion to Strike does not warrant the fees charged.

1. The Time Mr. Drummond Spent was Unreasonable.

Review of the affidavits and declarations on file, do not justify the time Mr. Drummond spent on the Motion to Strike. For example, Mr. Drummond's memorandum of fees indicates that he spent approximately 14 hours preparing the Motion to Strike along with research. ¹⁶ Mr. Drummond also spent approximately 5.5 hours researching and preparing a Reply in Support of the Motion to Strike. ¹⁷ As indicated above, the preliminary tasks for this Motion and Reply could have

¹⁵ Plaintiff Herrera's Memorandum; Plaintiff Perez-Acosta's Memorandum.

¹⁶ See Plaintiff Herrera's Memorandum, Ex. 1.

¹⁷ *Id*.

2

3

4

5

6

7

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

been performed by an associate, in this case Ms. Ringor, at a lower rate. Initial research and drafting do not require great skill or experience. Further, based on Mr. Drummond's experience, it is doubtful that this Motion to Strike an answer was his first Motion to Strike. As such, it is likely that Mr. Drummond had working drafts that he could have easily worked off of to reduce time spent drafting the Motion to Strike. Accordingly, the time spent drafting and researching is unreasonable and should have been reduced by sharing tasks with a lower level associate.

Further, Mr. Drummond's memorandum indicates that he spend approximately 2.8 hours on email communications associated with the Motion to Strike. 18 On its face, this time appears unreasonable and these emails should be submitted for in camera review to evaluate their reasonableness. 19

Lastly, Mr. Drummond indicates that he spend .5 hours filing a Response to a Supplemental Opposition.²⁰ Filing submissions to the Court is typically a task that is performed by support staff or is not typically a task performed by an attorney. Further, the Certificate to the Response to a Supplemental Opposition indicates that a member of Mr. Drummond's support staff filed the Response, not Mr. Drummond.²¹

Thus, it is clear that the time Mr. Drummond spent on the Motion to Strike was unreasonable.

2. The Time Mr. Henriod Spent was Unreasonable.

Review of the briefing, and affidavits and declarations on file, do not justify the time Mr. Henriod spent on the Motion to Strike. To explain, Mr. Henriod began work on this case after the initial Motion to Strike was filed and briefed.²² As indicated above, the main issues before this Court after the Motion to Strike was briefed concerned issues of work-product and attorney-client

¹⁸ *Id*.

¹⁹ *Id*.

²⁰ Id.

²¹ Response to Supplemental Opposition to Motion to Strike, on file.

²² Ex. 4, Plaintiff Herrera's Memorandum.

2

3

4

5

6

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

privilege. Such issues do not require a managing partner to conduct all research and drafting associated therewith. These task could easily have been assigned to lower level associates to reduce fees to the client. Moreover, as set forth in the Declaration, Mr. Henriod was retained as a "prospective appellate specialist in the case." While he may have taken over "drafting plaintiffs' filings and handling oral arguments," the fact remains that this was not an appellate argument, and the issues were framed and the motion was drafted prior to his retention. As such, his appellate rate is inappropriate for this matter and his fee is not only duplicative of the work performed by Mr. Drummond and Mr. Kane (and their firms), but also was not necessary for this motion since this matter has been decided by this court and not an appellate court.

Further, when compared to Mr. Drummond's memorandum of fees, the time Mr. Henriod spent on this matter appears even more unreasonable. As indicated above, Mr. Drummond spent approximately 14 hours preparing the Motion to Strike along with research. The Motion to Strike was a 20 page Motion.²⁴ The Response to Supplemental Opposition, which was 8 pages, less than half the Motion to Strike, apparently took Mr. Henriod approximately 13.10 hours to draft.²⁵

Regarding the Response to Motion for Reconsideration, which was 7 pages, Mr. Henriod spent approximately 20.2 hours researching and drafting the Response. ²⁶ It should also be noted that Ms. Helm also spent 1.3 hours finalizing the Response to Motion for Reconsideration, which also appears unreasonable since no exhibits are attached to it.²⁷ Not only is this more time for a shorter Response, the Motion for Reconsideration concerned the sole issue of whether the communications between defense counsel and their clients and their billing records should be turned over to this

²³ *Id.* at Paragraph 4 of Mr. Henriod's Declaration.

²⁴ See Motion to Strike, on file.

²⁵ Response to Defendant's Supplemental Opposition; Ex. 4, Plaintiff Herrera's Memorandum.

²⁶ Plaintiff Herrera's Memorandum, Ex. 4; Response to Motion for Reconsideration, on file.

²⁷ Ex. 4, Plaintiff Herrera's Memorandum; Response to Motion for Reconsideration.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Court for *in camera* review and Plaintiff was not successful int his argument.²⁸

Lastly, Mr. Henriod spent approximately 21.5 hours researching and drafting the Response to the Supplemental Opposition to Motion to Strike Pursuant to Court's Order on November 17, 2020, which was only 9 pages.²⁹

In essence, it appears that Mr. Henriod and Ms. Helm's time spent was unreasonable and duplicative.

3. The Time Mr. Kane Spent was Unreasonable.

Review of the briefing, and affidavits and declarations on file, do not justify the time Mr. Kane spent on the Motion to Strike.

First, it should be noted Mr. Kane's affidavit and memorandum of fees calculates Mr. Baron's time at Mr. Kane's rate of \$500.00 per hour. 30 There are numerous charges that can be associated to Mr. Baron, such as Ms. Espinoza's deposition, the EDCR Meet and Confer, the Plaintiff Perez-Acosta's 16th Supplement (signed by Mr. Baron), and Plaintiff Perez-Acosta's Joinder to Motion to Strike (signed by Mr. Baron).³¹

Second, during the EDCR meet and confer, Mr. Drummond stated that he would be preparing a Motion to Strike.³² In response to Mr. Drummond's assertion that a Motion to Strike would be filed, Mr. Baron stated that he would "join" the Motion. 33 Yet, Mr. Kane indicates that he spent 3.5 hours researching in preparation for drafting a Motion to Strike.³⁴ Such time was wholly

²⁸ See Motion for Reconsideration, on file.

²⁹ Ex. 4., Plaintiff Herrera's Memorandum; Supplemental Opposition to Motion to Strike Pursuant to Court's Order on November 17, 2020.

³⁰ Plaintiff Perez-Acosta's Memorandum.

³¹ Id.; Plaintiff Perez-Acosta's 16th Supplement attached hereto as Exhibit "A"; Perez-Acosta's Joinder to Motion to Strike, on file.

³² Transcript of EDCR Meet and Confer, Dated April 22, 2020, pp. 10:22-11:7, attached hereto as Exhibit "B."

³³ *Id.* at p. 11:8-18.

³⁴ Plaintiff Perez-Acosta's Memorandum.

unnecessary.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Third, the time spent on certain tasks appear unreasonable on their face. For example, emails with the Court Reporter to expedite an EDCR meet and confer transcript was billed at .4.³⁵ Preparing a 2 page Joinder took 1.5 hours.³⁶ Reviewing a Notice of Hearing took .2.³⁷ Reviewing any Notice of Entry of Order took .2.38 Reviewing a Scheduling Order from the Court took .3.39 Reviewing a two paragraph letter took .2.⁴⁰ Reviewing each Minute Order took .2.⁴¹

Fourth, Mr. Kane's memorandum indicates that he spend approximately 5.2 hours on email communications associated with the Motion to Strike.⁴² On its face, this time appears unreasonable and these emails should be submitted for *in camera* review to evaluate their reasonableness.⁴³

Fifth, Mr. Kane's memorandum, includes several charges after this Court's Order on February 10, 2021, including charges for reviewing the other memorandums that were submitted.⁴⁴ Such charges should not be included especially in consideration of the fact that Mr. Kane submitted his memorandum late.

Lastly, when compared to Mr. Drummond, who arguably did most of the leg work by drafting the initial Motion to Strike and Reply in Support, only charged \$1,475.00 more than Mr. Kane.

18	
19	³⁵ Id.
20	³⁶ Id.
21	³⁷ Id.
22	³⁸ Id.
23	³⁹ Id.
24	⁴⁰ Id.
25	⁴¹ <i>Id</i> .
26	⁴² Id.
27	⁴³ Id.
28	⁴⁴ <i>Id</i> .

and

1

2

3

4

5

6

7

8

9

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Clearly, the time Mr. Kane spent on the Motion to Strike was unreasonable and does not take into account the time Mr. Baron spent, who likely charges at a lower rate than Mr. Kane.

D. The Result

Regarding the result of the Motion to Strike, this Court granted the Motion.

E. Mr. Kane's Memorandum was Untimely and Should not be Considered

Pursuant to this Court's Order on February 10, 2021, this Court Ordered that Plaintiffs had 14 days after the Entry of Order (February 10, 2021) to submit their bills along with a Brunzell affidavit and that Defendants had 14 days thereafter to submit an objection. Over a week after the due date set by this Court, Mr. Kane, submitted his memorandum of fees and costs on March 4, 2021. Since Mr. Kane's memorandum is late and in violation of this Court's Order, it should not be considered.

IV. **CONCLUSION**

Based on the foregoing, Defendants request that this Court reduce Plaintiffs' request for fees and costs.

DATED this 10th day of March, 2021

WOOD, SMITH, HENNING & BERMAN LLP

By	/s/ Nicholas F. Adams
	JOEL D. ODOU
	Nevada Bar No. 7468
	NICHOLAS F. ADAMS
	Nevada Bar No. 14813
	2881 Business Park Court, Suite 200
	Las Vegas, Nevada 89128-9020
	Tel. 702 251 4100
	Attorneys for Defendants, Tom Malloy
	Corporation d/b/a Trench Shoring Company
	Jaime Roberto Salais

WOOD, SMITH, HENNING & BERMAN LLP Attomeys at Law 2881 BUSINESS PARK COURT, SUITE 200 LAS VEGAS, NEVADA 89128-9020

CERTIFICATE OF SERVICE

I	hereby	certify	that	on	this	10 th	day	of	March,	2021,	a	true	and	correct	copy
of DEFE	ENDANT	rs' opp	POSI	ΓΙΟΙ	OT I	PLA	AINT	IFF	S, ROL	ANDO	BI	ESSU	HEI	RRERA	AND
MAIKE	L PERE	Z-ACO	STA'	S M	EMC)RA	NDU	MS	OF FEE	S AND	C	OST	S PU	RSUAN	т то
FEBRU	ARY 10	, 2021 I	DECI	SIO	N AN	ND O	RDE	R v	vas serve	ed by e	lect	tronic	ally 1	filing wi	th the
Clerk of	the Cour	t using t	the O	dysse	ey E-l	File &	& Ser	ve s	ystem an	d servi	ng	all pa	rties	with an	email-
address o	n record	, who ha	ave ag	reed	to re	ceive	eleci	tron	ic service	e in this	ac	tion.			

By /s/Michelle Ledesma

Michelle N. Ledesma, an Employee of WOOD, SMITH, HENNING & BERMAN LLP

EXHIBITA
LAMIDIIA

1	SUPP										
	MICHAEL C. KANE, ESQ. (NSB 10096)										
2	BRADLEY J. MYERS, ESQ. (NSB 8857)										
3	JASON C. BARRON, ESQ. (NSB 7270) THE702FIRM										
	400 South 7 th Street, #400										
4	Las Vegas, Nevada 89101										
5	Telephone: (702) 776-3333										
	Facsimile: (702) 505-9787										
6	E-Mail: mike@the702firm.com										
7	<u>brad@the702firm.com</u> jason@the702firm.com										
8	and										
0	ADAM S. KUTNER, ESQ. (NSB 4310)										
9	ADAM S. KUTNER, P.C.										
10	1137 South Rancho Drive, Suite 150-A										
	Las Vegas, Nevada 89102 Telephone: (702) 382-0000										
11	Attorneys for Plaintiff										
12	MAIKEL PEREZ-ACOSTA										
12	DISTRICT (DISTRICT COURT									
13	CLARK COUNT	V NEVADA									
14	CLARK COUNT	1, NEVADA									
15	11 ' ' 1	nse No.: A-18-772273-C									
	11	ept No.: 28									
16	Individual,	LAINTIFF MAIKEL PEREZ-ACOSTA'S									
17		XTEENTH SUPPLEMENT TO THE									
10		ARLY CASE CONFERENCE INITIAL									
18		SCLOSURE OF DOCUMENTS AND									
19	JAIME ROBERTO SALAIS, an Individual, W TOM MALLOY CORPORATION aka/dba	ITNESSES PURSUANT TO NRCP 16.1									
20	TRENCH SHORING COMPANY, foreign										
	corporation, DOES I through V, inclusive;										
21	and ROE CORPORATIONS I through V,										
22	inclusive,										
23	Defendants.										
24	TO: ALL PARTIES AND THEIR RESPECTIVE	E COUNSEL HEREIN:									
25	Plaintiff, MAIKEL PEREZ-ACOSTA, by an	d through their counsel of record MICHAEL									
26	C. KANE, ESQ., BRADLEY J. MYERS, ESC	Q., and JASON C. BARRON, ESQ., of									
27	THE702FIRM, hereby submits his <u>Sixteenth</u> Supp	lement to the Early Case Conference Initial									
28	Disclosure pursuant to NRCP 16.1 in bold as follows:										
	1										

THE 702 FIRM
ATTORNEYS AT LAW
400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

I. 1 2 **WITNESSES** 3 1. MAIKEL PEREZ-ACOSTA c/o THE702FIRM 4 400 South 7th Street, Suite 400 Las Vegas, NV 89101 5 (702) 776-3333 6 This Plaintiff is expected to testify regarding his knowledge of the facts and circumstances 7 surrounding the incident, which is the subject of this litigation as well as the damages, and injuries 8 he suffered. 9 2. ROLANDO BESSU HERRERA 10 c/o DRUMOND LAW FIRM 810 South Casino Center Blvd., Suite 101 11 Las Vegas, NV 89101 12 (702) 366-9966 13 This Plaintiff is expected to testify regarding his knowledge of the facts and circumstances 14 surrounding the incident, which is the subject of this litigation as well as the damages, and injuries 15 he suffered. 16 3. JAIME ROBERTO SALAIS c/o Todd A. Jones, Esq. 17 MOKRI VANIS & JONES, LLP. 18 8831 West Sahara Avenue Las Vegas, Nevada 89117 19 This Defendant is expected to testify regarding the facts and circumstances surrounding the 20 incident. 21 4. TOM MALLOY CORPORATION aka/dba TRENCH SHORING COMPANY 22 c/o Todd A. Jones, Esq. MOKRI VANIS & JONES, LLP. 23 8831 West Sahara Avenue Las Vegas, Nevada 89117 24 This Defendant is expected to testify regarding the facts and circumstances surrounding the 25 incident. 26 5. Yuniel Villegas-Gonzalez 27 3955 Swenson Street, Apartment 159 28 Las Vegas, Nevada 89119

THE 702 FIRM
ATTORNEYS AT LAW
400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

1 This Witness was an occupant of the vehicle in which Plaintiff was a passenger at the time 2 of the collision and is expected to testify regarding his/her knowledge of the facts and circumstances 3 surrounding the incident and as a before and after witness. 4 6. Jeovanny Ricardo Mondeja 2750 South Durango Drive, Apartment 1124 5 Las Vegas, Nevada 89117 6 This Witness was an occupant of the vehicle in which Plaintiff was a passenger at the time 7 of the collision and is expected to testify regarding his/her knowledge of the facts and circumstances 8 surrounding the incident and as a before and after witness. 9 WITNESSES 10 (Sixteenth Supplement) 11 7. Nancy Espinoza 2995 E. Sunset Road, Unit D117 12 Las Vegas, Nevada 89120 13 This Witness is expected to testify at trial in accordance with her deposition testimony. 14 Todd A. Jones, Esq. 8. 15 **MOKRI VANIS & JONES, LLP.** 2551 Fair Oaks Boulevard, Suite 100 16 Sacramento, California 95825 17 This Witness is expected to testify regarding the facts and circumstances surrounding 18 the incident which is the subject matter in the Complaint on file herein. Further, this witness 19 is expected to be called as an impeachment witness and rebuttal witness as it relates to his 20 correspondence and communication with potential witness Nancy Espinoza. 21 PLAINTIFF MAIKEL PEREZ-ACOSTA HEALTH CARE PROVIDERS: 22 23 1. Andrew Mitchell, D.C. and/or Jason Chong, D.C. and/or 24 Treating Physicians and/or Treating Nurses and/or 25 Person Most Knowledgeable and/or Custodian of Records 26 Meadows Chiropractic 3441 W. Sahara Ave., Ste. C-7 27 Las Vegas, NV 89102 28

THE 702 FIRM

ATTORNEYS AT LAW

400 S. 7th St., Suite 400.

LAS VEGAS, NEVADA 89101

PHONE: (702) 776-3333

Dr. Andrew Mitchell is a board-certified chiropractic physician who graduated from Life Chiropractic College West in 1996.

Dr. Jason Chong is a board-certified chiropractic physician who graduated from Cleveland Chiropractic College of Los Angeles in 1997.

Drs. Mitchell and Chong examined and evaluated Plaintiff on July 12, 2016, for complaints related to the incident that is the subject of this litigation. Plaintiff complained of back pain; right leg numbness, weakness, and pain; and reported loss of bladder control.

Drs. Mitchell and Chong will provide testimony as to their examination of Plaintiff, treatment of Plaintiff, opinions that Plaintiff's past medical care and/or treatment was reasonable and necessary and to offer expert testimony that the reasonable medical necessity of such treatment was caused by the incident(s) described in Plaintiff's Complaint; and to offer expert testimony that the costs for such past treatment rendered by this provider are reasonable and customary for the geographical area in which such treatment was rendered. In addition, Drs. Mitchell and Chong may testify in rebuttal to any defense medical experts.

The bases of their opinions include, but are not limited to, their education, training and experience, the nature of the trauma Plaintiff was subjected to because of Defendant's negligence, Plaintiff's history, Plaintiff's symptoms, the diagnostic tests performed, and their research regarding the usual, customary and reasonable charges for Plaintiff's past medical care, treatments, diagnostic tests, procedures, surgeries, medications and medical equipment.

Albert Capanna, M.D. and/or
 Treating Physicians and/or
 Treating Nurses and/or
 Person Most Knowledgeable and/or Custodian of Records
 Capanna International Neuroscience Consultants
 716 S. 6th Street
 Las Vegas, NV 89101

Albert Capanna, M.D is a board-certified Neurological Surgeon who graduated from medical school at Wayne State University School of Medicine in 1974, and his residency training at St. John Hospital and Medical Center, and Fellowship training at University of Zurich and University of Paris. Dr. Capanna was brought in for surgical consultation by the attending

physicians at University Medical Center to evaluate, diagnose and treated Plaintiff while at University Medical Center for the injuries he suffered as a result of the incident of July 12, 2016.

Dr. Capanna is expected to give expert opinions in accordance with NRCP 16.1 and NRS 50.275, 50.285, and 50.305, in relation to treating medical providers and regarding the nature of the injuries sustained by Plaintiff and the cause of his injuries, diagnoses as reflected in the medical records, chart, prognosis, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinions as to past and future restrictions of activities, including work activities, caused by the incident. He is further expected to testify as to Plaintiff's injuries, including but not limited to the back and lower extremity, specifically equina cauda syndrome. He will also discuss all opinions set forth in the medical records, charts, reports and depositions. His opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community for similar medical care and treatment. Their testimony may also include expert opinions as to whether Plaintiff has diminished work life expectancy, work capacity, and/or life expectancy as a result of the incident.

Treating Physicians and/or
 Treating Nurses and/or
 Person Most Knowledgeable and/or Custodian of Records
 Desert Radiologists
 P.O. Box 95291
 Saint Louis, MO 63195-2591

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished

work life expectancy, work capacity, and/or life expectancy as a result of the accident.

4. Kelly Morgan, M.D. and/or
Shamoona A. Ahmed, M.D. and/or
Julian Almeyda-Perez, M.D. and/or
Swati Wadhwani, M.D. and/or
Person Most Knowledgeable and/or Custodian of Records
UNIVERSITY MEDICAL CENTER
1800 West Charleston Boulevard
Las Vegas, NV 89102

Dr. Kelly Morgan is a board-certified Emergency Medicine physician who graduated from Medical School at Case Western Reserve University School of Medicine, and completed his/her Emergency Medicine residency training at University of Nevada Reno School of Medicine. Dr. Kelly treated Plaintiff at the emergency room of University Medical Center following the incident of July 12, 2016.

Dr. Shamoona Ahmed is an Internal Medicine physician who graduated from Baqai Medical and Dental College, and completed his/her residency training at University of Nevada Reno School of Medicine, and an Infectious Disease Fellowship at the University of Florida. Dr. Ahmed treated Plaintiff at University Medical Center for injuries resulting from the incident of July 12, 2016, including but not limited to Cauda Equina Syndrome.

Dr. Julian Almeyda-Perez is an Internal Medicine physician who graduated from Instituto Superior de Ciencias Medicas de la Habana, and completed his residency training at University of Nevada Reno School of Medicine. Dr. Almeyda-Perez treated Plaintiff at University Medical Center for injuries resulting from the incident of July 12, 2016, including but not limited to Cauda Equina Syndrome.

Dr. Swati Wadhwani is an Internal Medicine physician who graduated from Lady Hardinge Medical School, and completed her residency training at University Medical Center Southern Nevada. Dr. Wadhwani treated Plaintiff at University Medical Center for injuries resulting from the incident of July 12, 2016, including but not limited to Cauda Equina Syndrome.

These providers are expected to give expert opinions in accordance with NRCP 16.1 and NRS 50.275, 50.285, and 50.305, in relation to treating medical providers and regarding the nature of the injuries sustained by Plaintiff and the cause of his injuries, diagnoses as reflected in the

medical records, chart, prognosis, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinions as to past and future restrictions of activities, including work activities, caused by the incident. They are further expected to testify as to Plaintiff's injuries, including but not limited to the back and lower extremity. They will also discuss all opinions set forth in the medical records, charts, reports and depositions. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community for similar medical care and treatment. Their testimony may also include expert opinions as to whether Plaintiff has diminished work life expectancy, work capacity, and/or life expectancy as a result of the incident.

Treating Physicians and/or
 Treating Nurses and/or
 Person Most Knowledgeable and/or Custodian of Records
 EMP of Clark
 4535 Dressler Road NW
 Cincinnati, OH 45264

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

Treating Physicians and/or
 Treating Nurses and/or
 Person Most Knowledgeable and/or Custodian of Records
 Southwest Medical Pharmacy & Home Medical Equipment
 620 Placid Street
 Las Vegas, NV 89119

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

7. Treating Physicians and/or
Sep Bady, M.D. and/or
NRCP 30(b)(6) Corporate Representative and/or Custodian of Records
ADVANCED ORTHOPEDICS & SPORTS MEDICINE
8420 West Warm Springs Road, Suite 100
Las Vegas, NV 89113
Ph. (702) 740-5327

Sep Bady, M.D is a board-certified Orthopedic Surgeon who graduated from medical school at Tufts University School of Medicine, and completed his residency training at Loma Linda University Medical Center, and Spine Fellowship training at Spine Care Fellowship. Dr. Bady evaluated, diagnosed and treated Plaintiff for the injuries he suffered as a result of the incident of July 12, 2016.

Dr. Bady is expected to give expert opinions in accordance with NRCP 16.1 and NRS 50.275, 50.285, and 50.305, in relation to treating medical providers and regarding the nature of the injuries sustained by Plaintiff and the cause of his injuries, diagnoses as reflected in the medical records, chart, prognosis, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinions as to past and future restrictions of activities, including work activities, caused by the incident. He is further expected to testify as to Plaintiff's injuries, including but not limited to the back and right lower extremity. He will also discuss all opinions set forth in the medical records, charts, reports and depositions. His opinions shall include

the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community for similar medical care and treatment. Their testimony may also include expert opinions as to whether Plaintiff has diminished work life expectancy, work capacity, and/or life expectancy as a result of the incident.

8. Treating Physicians and/or
Treating Nurses and/or
Person Most Knowledgeable and/or Custodian of Records
UMC Quick Care
4233 N. Rancho Drive
Las Vegas, NV 89130

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

9. Steven A. Holper, M.D. and/or
Treating Physicians and/or
Treating Nurses and/or
Person Most Knowledgeable and/or Custodian of Records
3233 W. Charleston Blvd., Suite 202
Las Vegas, NV 89102

Dr. Steven Holper is a board-certified physiatrist who graduated from medical school at Universidad Autonoma de Guadalajara College of Medicine. He examined, evaluated, diagnosed, and treated Plaintiff for injuries related to the collision of July 12, 2016, including but not limited to back pain, right leg pain, difficulty sleeping, erectile dysfunction, and urinary incontinence.

Dr. Holper is expected to testify as to his review of Plaintiff's medical records, examination and treatment of Plaintiff, opinions that Plaintiff's past medical care and/or treatment was reasonable and necessary-- including treatments and care provided by other, non-reporting medical

3 4

5

11 12

13

10

1415

16

17 18

19

2021

2223

24

2526

27

28

experts who similarly treated for Plaintiff as a result of the incident of July 12, 2016.

Dr. Holper will also provide opinions that Plaintiff's need for medical care and treatment was caused by the incident of July 12, 2016, and likewise address any medical issues related to this topic. Dr. Holper will also testify that the costs of Plaintiff's past and future medical treatment are customary and reasonable for the local medical community.

The basis of Dr. Holper's opinions include, but are not limited to, his education, training and experience in medicine, the nature of the trauma Plaintiff was subjected to because of Defendant's negligence, Plaintiff's medical history, Plaintiff's symptoms, diagnostic testing, his examination(s) of Plaintiff and his review of Plaintiff's medical records, medical literature, and his research regarding the customary and reasonable charge for Plaintiff's medical care. Dr. Holper may also testify as a rebuttal medical expert. A copy of Plaintiff's records and billing were produced in Plaintiff's Initial Disclosure of Witnesses and Documents Pursuant to NRCP 16, and supplements thereafter.

10. Treating Physicians and/or Ho Nguyen, M.D. and/or Stephen Chen, M.D. and/or Person Most Knowledgeable and/or Custodian of Records STEINBERG DIAGNOSTIC MEDICAL IMAGING / RED ROCK DIAGNOSTICS, LLC P.O. Box 39600 Las Vegas, NV 89133

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

6 7 8

5

10 11

9

12 13

1415

16 17

19 20

18

21 22

2324

252627

28

11. Treating Physicians and/or Treating Nurses and/or Person Most Knowledgeable and/or Custodian of Records ASP Cares 501 S. Rancho Dr., Suite G46 Las Vegas, NV 89133

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

12. Gobinder S. Chopra M.D. and/or
Treating Physicians and/or
Treating Nurses and/or
Person Most Knowledgeable and/or Custodian of Records
6410 Medical Center St., Suite A-100
Las Vegas, NV 89148

Gobinder S. Chopra, M.D., is a board-certified neurologist who graduated from Dayanand Medical College, and completed his residency training at VA Greater Los Angeles Healthcare System, and a Clinical Neurophysiology Fellowship at Stanford University. He examined, evaluated and treated Plaintiff for injuries resulting from the incident of July 12, 2016. It is anticipated that his testimony in this matter will be based upon his training, education and experience as radiologist in the Las Vegas, NV community and his familiarity with community standards of reasonable billing for like or similar services rendered.

Dr. Chopra, for purposes of this litigation, is hereby disclosed as a non-retained expert treating physicians in the field of neurology. His anticipated testimony in the capacity of expert treating physicians will be comprised of those opinions formed and developed during the course of his treatment of Plaintiff MAIKEL PEREZ ACOSTA, including any and all sources of information

THE 702 FIRM THE 702 FIRM THE 702 FIRM THE 702 FIRM 400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101

PHONE: (702) 776-3333

or records which may have influenced his treatment and opinions during the period of his treatment of said Plaintiff.

It is anticipated that Dr. Chopra will testify regarding the nature and extent of Plaintiff MAIKEL PEREZ ACOSTA'S injuries (whether they be new injuries or exacerbations of pre-existing conditions), any preexisting history of like or similar pain complaints, the likelihood that the injuries or exacerbations of prior injuries were caused by the subject incident as alleged by said Plaintiff, the reasonableness and necessity of treatment provided, the reasonableness of medical billing charges within the local community, their treatment plan, considerations for future treatment requirements as well as its associated costs, and any other considerations which influenced his opinions. Dr. Chopra may further opine regarding his observations of the patient's pain, suffering, and disability. Dr. Chopra reserves the right to provide rebuttal testimony should any aspect of their treatment of said Plaintiff be criticized by any outside retained expert otherwise unfamiliar with the Plaintiff's condition at the time treatment was rendered. Each of his opinions as described above is expected to be provided to a reasonable degree of medical certainty.

The NRCP 30(b)(6) Corporate Representative of Gobinder S. Chopra, M.D. is anticipated to testify regarding the full institutional knowledge of Gobinder S. Chopra, M.D. as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Gobinder S. Chopra, M.D. is anticipated to testify regarding the authenticity of those records produced by Gobinder S. Chopra, M.D. at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

13. Stuart S. Kaplan, M.D.
LVNI CENTER FOR SPINE AND BRAIN SURGERY /
WESTERN REGIONAL CENTER FOR BRAIN & SPINE SURGERY

2

3

4

5

6 7

9

10

11

8

12 13

14

15 16

17 18

19

20

21 22 23

24 25

26 27

28

3012 South Durango Drive Las Vegas, NV 89117 Ph. (702) 825-0088

Dr. Stuart Kaplan is a retained treating physician. He is Board Certified in Neurological Surgery. After graduating from medical school at Harvard Medical School in 1994, Dr. Kaplan completed his surgical internship and neurosurgical residency training at Washington University Medical Center. Dr. Kaplan is expected to testify consistent with his report and his medical chart, including records contained therein prepared by other healthcare providers. He has also reviewed documents outside of his medical chart for the purpose of providing treatment, defending that treatment, preparing his expert report and rebutting defendant's expert report.

He is expected to give expert opinions regarding the treatment of Plaintiff, the necessity of treatment rendered, the necessity of future treatment to be rendered, the causation of the necessity for past and future medical treatment, his expert opinion as to past and future restrictions of activities, including work activities, caused by the accident and prognosis for recovery/future treatment. His opinions shall include pain and suffering of the Plaintiff; the cost of past medical care, diagnostic testing, treatment and medication for both his care and the care within his chart prepared by other healthcare providers; the cost of future medical care, diagnostic testing, surgery, and medication for both his care and the care within his chart prepared by other healthcare providers; and whether those past and future medical costs fall within the ordinary and customary charges in the community for similar medical care and treatment for both his care and the care within his chart prepared by other healthcare providers.

Dr. Kaplan is Plaintiff's treating physician and is also designated as a retained expert/rebuttal witness who may be used at trial to present evidence requiring testimony under NRS 50.275, 50.285, and 50.305. Dr. Kaplan has reviewed Plaintiff's medical records which have been previously disclosed regarding his injuries and subsequent treatment and/or issued expert opinions regarding causation, treatment and/or prognosis.

The exhibits to be used as a summary of support for Dr. Kaplan's opinions are Plaintiff's medical records, billing and any other documents which are stated in, or attached to, Dr. Kaplan's report, all expert reports, as well as the report attached hereto.

The basis of Dr. Kaplan's opinions include, but are not limited to, his education, training and experience in medicine, the nature of the trauma Plaintiffs were subjected to because of Defendant's negligence, Plaintiff's medical history, symptoms, diagnostic testing, his examination(s) of Plaintiff and his review of Plaintiff's medical records, medical literature, and his research regarding the customary and reasonable charge for Plaintiff's medical care. Dr. Kaplan may also testify as a rebuttal medical expert. Dr. Kaplan's report, curriculum vitae, including a list of publications, fee schedule and prior testimony list is attached hereto.

14. Jorg Rosler, M.D. and/or Andrew Hall, M.D. and/or Treating Physicians and/or Treating Nurses and/or Person Most Knowledgeable and/or Custodian of Records Interventional Pain & Spine Institute 851 S. Rampart Blvd., Ste.100 Las Vegas, NV 89145

Dr. Jorg Rosler is Board Certified in Anesthesiology by the American Board of Anesthesiology. After graduating from medical school at University of Gottingen Faculty of Medicine, Dr. Rosler completed his residency training at Indiana University School of Medicine. Dr. Rosler evaluated, diagnosed and treated Plaintiff for the injuries he suffered as a result of the incident which occurred on July 12, 2016. Dr. Rosler's curriculum vitae and fee schedule are attached hereto.

Dr. Andrew Hall is Board Certified in Anesthesiology, with a Subspecialty Certification in Pain Medicine, by the American Board of Anesthesiology. After graduating from medical school at University of Illinois College of Medicine, Dr. Hall completed his residency training at University of Chicago, and his Fellowship in Pain Medicine at UCSF. Dr. Hall evaluated, diagnosed and treated Plaintiff for the injuries he suffered as a result of the incident which occurred on July 12, 2016. Dr. Hall's curriculum vitae and fee schedule are attached hereto.

These providers are expected to give expert opinions in accordance with NRCP 16.1 and NRS 50.275, 50.285, and 50.305, in relation to treating medical providers and regarding the nature of the injuries sustained by Plaintiff and the cause of his injuries, diagnoses as reflected in the medical records, chart, prognosis, the necessity and reasonableness of the treatment rendered, the

necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinions as to past and future restrictions of activities, including work activities, caused by the incident. They are further expected to testify as to Plaintiff's injuries, including but not limited to the low back and right leg injured in the incident as set forth in the Complaint. They may also discuss all opinions set forth in the medical records, reports and depositions. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community for similar medical care and treatment. Testimony may also include expert opinions as to whether Plaintiff has diminished work life expectancy, work capacity, and/or life expectancy as a result of the incident.

15. Treating Physicians and/or
Treating Nurses and/or
Person Most Knowledgeable and/or
Custodian of Records
Pueblo Medical Imaging
100 N. Green Valley Pkwy., Suite 130
Henderson, NV 89074

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

16. Treating Physicians and/or Treating Nurses and/or Person Most Knowledgeable and/or Custodian of Records Surgical Arts Center P.O. Box 97719 Las Vegas, NV 89193-7719

Surgical Arts Center is the surgical facility in which Dr. Rosler performed selective nerve

root blocks and discography on Plaintiff's low back. The Person Most Knowledgeable and/or Custodian of Records are expected to give expert opinions in accordance with NRCP 16.1 and NRS 50.275, 50.285, and 50.305, in relation to cost of treatment provided to Plaintiff at this facility. Their opinions shall include the cost of past medical care and whether those medical costs fall within the usual and customary charges in the community for similar medical care and treatment.

These witnesses are expected to give expert opinions regarding the treatment of Plaintiff, the necessity of the treatment rendered, the necessity of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within ordinary and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Plaintiff has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

PLAINTIFF MAIKEL PEREZ ACOSTA HEALTH CARE PROVIDERS: (FIFTH SUPPLEMENT)

Treating Physicians and/or
 Treating Nurses and/or
 Person Most Knowledgeable and/or Custodian of Records
 Machuca Family Medicine
 1501 S. Eastern Avenue
 Las Vegas, NV 89104

Rogelio Machuca, M.D. who is board-certified in Family Medicine graduated from medical school at University of Nebraska and his completed his residency training in Family Medicine at the University of Nevada. He is expected to provide expert testimony relating to his review of Plaintiff MAIKEL PEREZ ACOSTA'S medical records, opinions regarding past medical care and/or treatment, and opinions regarding Plaintiff's potential need for future care and/or treatment, including the treatment and medical reasonableness of other medical providers. He will also provide opinions regarding the causation of Plaintiff's injuries and the necessity and reasonableness of Plaintiff's past and future medical expenses.

Dr. Machuca provided care and treatment to Plaintiff MAIKEL PEREZ ACOSTA for injuries sustained in the subject incident (please refer to the documentation previously produced). It is anticipated that his testimony in this matter will be based upon his training, education and experience as chiropractor in the Las Vegas, NV community and his familiarity with community standards of reasonable billing for like or similar services rendered.

Dr. Machuca, for purposes of this litigation, is hereby disclosed as a non-retained expert treating physicians in the field of family medicine. His anticipated testimony in the capacity of expert treating physicians will be comprised of those opinions formed and developed during the course of his treatment of Plaintiff MAIKEL PEREZ ACOSTA, including any and all sources of information or records which may have influenced his judgment and opinions during the period of his treatment of said Plaintiff.

It is anticipated that Dr. Machuca will testify regarding the nature and extent of Plaintiff MAIKEL PEREZ ACOSTA'S injuries (whether they be new injuries or exacerbations of pre-existing conditions), any preexisting history of like or similar pain complaints, the likelihood that the injuries or exacerbations of prior injuries were caused by the subject incident as alleged by said Plaintiff, the reasonableness and necessity of treatment provided, the reasonableness of medical billing charges within the local community, their treatment plan, considerations for future treatment requirements as well as its associated costs, and any other considerations which influenced their opinions. Dr. Machuca may further opine regarding his observations of the patient's pain, suffering, and disability. Dr. Machuca reserves the right to provide rebuttal testimony should any aspect of their treatment of said Plaintiff be criticized by any outside retained expert otherwise unfamiliar with the Plaintiff's condition at the time treatment was rendered. Each of his opinions as described above is expected to be provided to a reasonable degree of medical certainty.

The NRCP 30(b)(6) Corporate Representative of Machuca Family Medicine is anticipated to testify regarding the full institutional knowledge of Machuca Family Medicine as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of

discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Machuca Family Medicine is anticipated to testify regarding the authenticity of those records produced by Machuca Family Medicine at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

18. Treating Physicians and/or Treating Nurses and/or Person Most Knowledgeable and/or Custodian of Records Walgreens Pharmacy 1701 N. Green Valley Pkwy Henderson, NV 89074

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

PLAINTIFF MAIKEL PEREZ_ACOSTA HEALTH CARE PROVIDERS: (SIXTH SUPPLEMENT)

19. Willis Y. Wu, M.D., and/or Michael J. Eastman, PA-C, and/or Treating Physicians and/or Treating Nurses and/or Person Most Knowledgeable and/or Custodian of Records Innovative Pain Care Center 9920 W. Cheyenne Ave, Suite 110 Las Vegas, NV 89129

Willis Y. Wu, M.D. is board certified in Anesthesiology and Pain Medicine. Dr. Wu graduated from medical school at Drexel University College of Medicine and completed his residency training

26

27

at Einstein College of Medicine/Einstein Hospital Medical Center, and Fellowship training at University of Iowa Hospital and Clinics. He is expected to provide expert testimony relating to their review of Plaintiff MAIKEL PEREZ ACOSTA'S medical records, opinions regarding past medical care and/or treatment, and opinions regarding Plaintiff's potential need for future care and/or treatment, including the treatment and medical reasonableness of other medical providers. He will also provide opinions regarding the causation of Plaintiff's injuries and the necessity and reasonableness of Plaintiff's past and future medical expenses.

Dr. Wu provided care and treatment to Plaintiff MAIKEL PEREZ ACOSTA for injuries sustained in the subject incident (please refer to the documentation previously produced). It is anticipated that his testimony in this matter will be based upon his training, education and experience as an anesthesiologist and pain management specialists in the Las Vegas, NV community and his familiarity with community standards of reasonable billing for like or similar services rendered.

Dr. Wu, for purposes of this litigation, is hereby disclosed as a non-retained expert treating physician in the field of anesthesiology and pain management. His anticipated testimony in the capacity of expert treating physicians will be comprised of those opinions formed and developed during the course of his treatment of Plaintiff MAIKEL PEREZ ACOSTA, including any and all sources of information or records which may have influenced his judgment and opinions during the period of his treatment of said Plaintiff.

It is anticipated that Dr. Wu will testify regarding the nature and extent of Plaintiff MAIKEL PEREZ ACOSTA'S injuries (whether they be new injuries or exacerbations of pre-existing conditions), any preexisting history of like or similar pain complaints, the likelihood that the injuries or exacerbations of prior injuries were caused by the subject incident as alleged by said Plaintiff, the reasonableness and necessity of treatment provided, the reasonableness of medical billing charges within the local community, their treatment plan, considerations for future treatment requirements as well as its associated costs, and any other considerations which influenced their opinions. They may further opine regarding their observations of the patient's pain, suffering, and disability. They reserve the right to provide rebuttal testimony should any aspect of their treatment

of said Plaintiff be criticized by any outside retained expert otherwise unfamiliar with the Plaintiff's condition at the time treatment was rendered. Each of their opinions as described above is expected to be provided to a reasonable degree of medical certainty.

The NRCP 30(b)(6) Corporate Representative of Innovative Pain Care Center are anticipated to testify regarding the full institutional knowledge of Innovative Pain Care Center as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Innovative Pain Care Center is anticipated to testify regarding the authenticity of those records produced by Innovative Pain Care Center at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

PLAINTIFF MAIKEL PEREZ ACOSTA HEALTH CARE PROVIDERS: (ELEVENTH SUPPLEMENT)

 Stuart S. Kaplan, M.D. and/or NRCP 30(b)(6) Corporate Representative and/or Custodian of Records VALLEY HOSPITAL MEDICAL CENTER 620 Shadow Lane Las Vegas, NV 89106

Valley Hospital Medical Center is the surgical facility in which Dr. Kaplan performed Anterior Lumbar Interbody Fusion L5-S1 with Anterior Plate. The Person Most Knowledgeable and/or Custodian of Records are expected to give expert opinions in accordance with NRCP 16.1 and NRS 50.275, 50.285, and 50.305, in relation to cost of treatment provided to Plaintiff at this facility. Their opinions shall include the cost of past medical care and whether those medical costs fall within the usual and customary charges in the community for similar medical care and treatment.

The NRCP 30(b)(6) Corporate Representative of Valley Hospital Medical Center is anticipated to testify regarding the full institutional knowledge of Valley Hospital Medical Center

as it pertains to the treatment provided to Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Valley Hospital Medical Center is anticipated to testify regarding the authenticity of those records produced by Valley Hospital Medical Center at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

NRCP 30(b)(6) Corporate Representative and/or Custodian of Records PARTELL PHARMACY
 2560 E. Sunset Road, Suite 120
 Las Vegas, NV 89120

The NRCP 30(b)(6) Corporate Representative of Partell Pharmacy is anticipated to testify regarding the full institutional knowledge of Partell Pharmacy as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Partell Pharmacy is anticipated to testify regarding the authenticity of those records produced by Partell Pharmacy at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

NRCP 30(b)(6) Corporate Representative and/or Custodian of Records VEGAS MEDICAL CENTER
 1701 West Charleston Boulevard, Suite 600
 Las Vegas, NV 89102

The NRCP 30(b)(6) Corporate Representative of Vegas Medical Center is anticipated to testify regarding the full institutional knowledge of Vegas Medical Center as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Vegas Medical Center is anticipated to testify regarding the authenticity of those records produced by Vegas Medical Center at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

NRCP 30(b)(6) Corporate Representative and/or Custodian of Records GENERAL VASCULAR SPECIALISTS
 BRUCE J. HIRSCHFELD, M.D.
 7200 Cathedral Rock Drive, Suite 130
 Las Vegas, NV 89128

The NRCP 30(b)(6) Corporate Representative of Bruce J. Hirschfeld, M.D. is anticipated to testify regarding the full institutional knowledge of Bruce J. Hirschfeld, M.D as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Bruce J. Hirschfeld, M.D is anticipated to testify regarding the authenticity of those records produced by Bruce J. Hirschfeld, M.D at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

24. NRCP 30(b)(6) Corporate Representative and/or Custodian of Records SURGICAL ANESTHESIA SERVICES

3

5

4

6 7 8

9 10

11

12 13

14

15 16

17

18

19 20

21

2223

24

2526

27

28

P. O. Box 35891 Las Vegas, NV 89133

The NRCP 30(b)(6) Corporate Representative of Surgical Anesthesia Services is anticipated to testify regarding the full institutional knowledge of Surgical Anesthesia Services as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Surgical Anesthesia Services is anticipated to testify regarding the authenticity of those records produced by Surgical Anesthesia Services at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

PLAINTIFF MAIKEL PEREZ ACOSTA HEALTH CARE PROVIDERS: (TWELFTH SUPPLEMENT)

25. Treating Physicians and/or Treating Nurses and/or Person Most Knowledgeable and/or Custodian of Records WEST VALLEY IMAGING 2611 West Horizon Ridge Parkway Henderson, NV 89052

These witnesses are expected to give expert opinions regarding the nature of the injuries sustained by Mr. Perez-Acosta, the cause of his injuries, the necessity and reasonableness of the treatment rendered, the necessity and reasonableness of future treatment to be rendered, the causation of the necessity for past and future medical treatment, expert opinion as to past and future restrictions of activities, including work activities, caused by the incident. Their opinions shall include the cost of past medical care, future medical care, and whether those medical costs fall within the usual and customary charges in the community, for similar medical care and treatment. Their testimony may also include expert opinions as to whether Mr. Perez-Acosta has diminished work life expectancy, work capacity, and/or life expectancy as a result of the accident.

Plaintiff anticipates that he may require testimony from any and all custodians of records, which are necessary to authenticate documents, which cannot be stipulated to regarding admissibility by the parties herein.

Plaintiff reserves the right to call any and all expert witnesses which Plaintiff may hereafter select as the need arises during the course of this litigation; and, Plaintiff further reserves the right to supplement this witness list if any other witnesses become known to Plaintiff as this litigation progresses and as other witnesses are discovered or located.

Plaintiff also reserves the right to call any and all of the Defendant's proposed witnesses, or any other witnesses of same who become known to the Plaintiff and/or Defendant as this litigation progresses and as other witnesses are discovered or located.

Plaintiff reserves the right to call rebuttal and/or impeachment witnesses; to call the records custodian for any person(s) or institution(s) to which there is an objection concerning authenticity; and to call any and all witnesses of any other party in this matter.

PLAINTIFF MAIKEL PEREZ-ACOSTA HEALTH CARE PROVIDERS: (SIXTEENTH SUPPLEMENT)

26. Mark J. Cirella, M.D., and/or
Treating Physicians and/or
Treating Nurses and/or
Person Most Knowledgeable and/or Custodian of Records
Centennial Medical Group
2110 E. Flamingo Road, Suite 330
Las Vegas, NV 89119

Mark J. Cirella, M.D. is board certified in Anesthesiology and Pain Medicine. Dr. Cirella graduated from medical school at American University of the Caribbean Saint Maarten and completed his residency and Pain Management Fellowship at St. Luke's Hospital. He is expected to provide expert testimony relating to his evaluation, treatment, and review of Plaintiff MAIKEL PEREZ ACOSTA'S medical records, opinions regarding past medical care and/or treatment, and opinions regarding Plaintiff's potential need for future care and/or treatment, including the treatment and medical reasonableness of other medical providers. He will also provide opinions regarding the causation of Plaintiff's injuries and the

necessity and reasonableness of Plaintiff's past and future medical expenses. Dr. Cirella's Curriculum Vitae, Testimony List, and Fee Scheduled are enclosed herein.

Dr. Cirella provided care and treatment to Plaintiff MAIKEL PEREZ ACOSTA for injuries sustained in the subject incident. It is anticipated that his testimony in this matter will be based upon his training, education and experience as an anesthesiologist and pain management specialists in the Las Vegas, NV community and his familiarity with community standards of reasonable billing for like or similar services rendered.

Dr. Cirella, for purposes of this litigation, is hereby disclosed as a non-retained expert treating physician in the field of anesthesiology and pain management. His anticipated testimony in the capacity of expert treating physicians will be comprised of those opinions formed and developed during the course of his treatment of Plaintiff MAIKEL PEREZ ACOSTA, including any and all sources of information or records which may have influenced his judgment and opinions during the period of his treatment of said Plaintiff.

It is anticipated that Dr. Cirella will testify regarding the nature and extent of Plaintiff MAIKEL PEREZ ACOSTA'S injuries (whether they be new injuries or exacerbations of pre-existing conditions), any preexisting history of like or similar pain complaints, the likelihood that the injuries or exacerbations of prior injuries were caused by the subject incident as alleged by said Plaintiff, the reasonableness and necessity of treatment provided, the reasonableness of medical billing charges within the local community, his treatment plan, considerations for future treatment requirements as well as its associated costs, and any other considerations which influenced their opinions. He may further opine regarding their observations of the patient's pain, suffering, and disability. He reserves the right to provide rebuttal testimony should any aspect of their treatment of said Plaintiff be criticized by any outside retained expert otherwise unfamiliar with the Plaintiff's condition at the time treatment was rendered. Each of their opinions as described above is expected to be provided to a reasonable degree of medical certainty.

The NRCP 30(b)(6) Corporate Representative of Centennial Medical Group is anticipated to testify regarding the full institutional knowledge of Centennial Medical Group

as it pertains to the treatment provided Plaintiff MAIKEL PEREZ ACOSTA, as referenced herein, and the associated billing charges. It is anticipated this witness may testify to the topics of inquiry enumerated within any NRCP 30(b)(6) deposition notice of this entity served during the course of discovery. This witness may testify to the institution's customary practices, procedures, policies as it pertains to the course of Plaintiff's treatment and billing charges secondary thereto.

The Custodian of Records for Centennial Medical Group is anticipated to testify regarding the authenticity of those records produced by Centennial Medical Group at the request of either Plaintiff or Defendant during the course of discovery. This witness may further testify regarding the entity's policies and procedures for document creation, retention, and preservation.

II.

MAIKEL PEREZ-ACOSTA'S MEDICAL RECORDS AND BILLING DOCUMENTS: (ELEVENTH SUPPLEMENT)

- 01. Medical records and billing statements from Meadows Chiropractic, Curriculum Vitae and Fee Schedules of Drs. Mitchell and Chong, Bates Number PLT000001 PLT000025;
- 02. Medical records and billing statements from UMC Hospital, for dates of service 07/13/16-07/16/16, Bates Number PLT000026-PLT000400;
- 03. Billing statement from EMP of Clark UMC, for date of service 07/13/2016, Bates Number PLT000401-PLT000402;
- 04. Medical records and billing statements from Capanna International Neuroscience, for dates of service 07/13/16-07/15/16, Bates Number PLT000403-PLT000416;
- 05. Billing statement for Southwest Medical HME, for date of service 07/16/2016, Bates Number PLT000417;
- 06. Medical records and billing statement for Advanced Orthopedics and Sports Medicine, for dates of service 08/01/2016-09/02/2016, Bates Number PLT000418 PLT000427;
- 07. Medical records and billing statement from Steven A. Holper, M.D., for dates of service 08/22/2016-09/27/2016, Bates Number PLT000428-PLT000438;

1	l .	ı
1 2	08.	Medical records and billing statement from Steinberg Diagnostic, for date of service 08/30/2016, Bates Number PLT000439-PLT000442;
3	09.	Billing statement from ASP Cares, for date of service 09/07/2016, Bates Number PLT000443;
4	10.	Medical records and billing statement from Gobinder S. Chopra, M.D., for dates
5 6	11.	of service 10/27/2016-12/21/2016, Bates Number PLT000444 – PLT000489; Medical records and billing statements from Western Regional Center for Brain
7		and Spine Surgery for dates of service 01/18/2017-02/28/2018, Bates Number PLT000490 – PLT000532;
8 9	12.	Medical records, billing statements, and Custodian of Records affidavit, from Interventional Pain & Spine Institute, for dates of service 01/25/2017-09/25/2018,
10		Bates Number PLT000533 – PLT000602;
11	13.	Medical records and billing statement with COR Affidavit from Pueblo Medical Imaging, for date of service 02/24/2017, Bates Number PLT000603-PLT000621;
12 13	14.	Medical records and billing statement from Surgical Arts Center, for dates of service 04/03/2017-07/17/2017, Bates Number PLT000622 – PLT000669;
14 15	15.	Medical records and billing statement from Steinberg Diagnostic, for date of service 07/17/2017, Bates Number PLT000670-PLT000672;
16	16.	Medical records and billing statement from Valley Hospital Medical Center, for dates of service 10/17/2017-10/18/2017, Bates Number PLT000673 – PLT000967;
17 18	17.	Medical records from Desert Radiologist, for date of service 10/13/2017-10/17/2017, Bates Number PLT000968-PLT000970;
19 20	18.	Medical records and billing statement from Machuca Family Medicine, for dates of service 10/29/2018-12/11/2018, Bates Number PLT000971-PLT000974;
21 22	19.	Medical records and billing statement from Innovative Pain Care Center, for dates of service 11/05/2018-08/05/2019, Bates Number PLT000975 – PLT001014;
23	20.	Prescription records from Walgreens Company, for dates of service 06/07/2017-01/08/2019, Bates Number PLT001015 – PLT001058;
2425	21.	Prescription records from Partell Pharmacy, for date of service 09/19/2019, Bates Number PLT001059 – PLT001063;
26 27	22.	Future Cost Letter from Interventional Pain and Spine Institute dated May 31, 2018, Bates Number PLT001064;
28	MAIKEL	PEREZ-ACOSTA'S MEDICAL RECORDS AND BILLING DOCUMENTS:
2FIRM	IVII KIIKIZII	(TWELFTH SUPPLEMENT)
ZFIKIVI S AT LAW		27

THE 702 FIRM ATTORNEYS AT LAW 400 S. 7th St., Suite 400. LAS VEGAS, NEVADA 89101 PHONE: (702) 776-3333

1 2 3	23.	Medical records, billing statement, and Certificate of Custodian of Records from Gobinder S. Chopra, M.D., for dates of service 10/27/2016-12/21/2016, Bates Number PLT001077 – PLT001132;
4 5 6	24.	Medical records, billing statement, and Certificate of Custodian of Records from Las Vegas Neurosurgery Institute /Western Regional Center for Brain and Spine Surgery for dates of service 01/18/2017-02/28/2018, Bates Number PLT001133 – PLT001167;
7 8	25.	Prescription records with Affidavit of Custodian of Records from Walgreen Company, for dates of service 07/17/2017-09/11/2019, Bates Number PLT001168 – PLT001191;
9 10	26.	Medical Records, billing statement, and Affidavit of Custodian of Records from General Vascular Specialists, for date of service 10/17/2017, Bates Number PLT001192 - PLT001199;
11 12	27.	Medical Records, billing statement, and Certificate of Custodian of Records from West Valley Orthopedics/West Valley Imaging, for dates of service 11/20/2017-02/27/2018, Bates Number PLT1200 – PLT001204;
13 14 15	28.	Medical records, billing statement, and Certificate of Custodian of Records from Innovative Pain Care Center, for dates of service 11/05/2018-08/05/2019, Bates Number PLT001205 – PLT001260;
16 17	29.	Medical billing statement from Partell Pharmacy, for dates of service 12/03/2019-01/02/2020, Bates Number PLT001261 – PLT001264.
18	MAIKEL 1	PEREZ-ACOSTA'S MEDICAL RECORDS AND BILLING DOCUMENTS: (THIRTEENTH SUPPLEMENT)
19 20	30.	Affidavit of Custodian of Records and/or Billing from Meadows Chiropractic, Bates Number PLT002866;
21 22	31.	Medical records, billing statement, and Affidavit of Custodian of Records and/or Billing for Southwest Medical HME, for date of service 07/16/2016, Bates Number PLT002867-PLT002870;
23 24	32.	Affidavit of Custodian of Records and/or Billing for Sep Bady, M.D. /Advanced Orthopedics & Sports Medicine, Bates Number PLT002871;
25 26	33.	Sep Bady, M.D. Curriculum Vitae, Fee Schedule, and Testimony List, Bates Number PLT002872 – PLT002881;
27 28	34.	Billing statement from ASP Cares with Affidavit of Custodian of Records and/or Billing, for date of service 09/07/2016, Bates Number PLT002882 – PLT002883;

THE 702 FIRM ATTORNEYS AT LAW 400 S. 7th St., Suite 400. LAS VEGAS, NEVADA 89101 PHONE: (702) 776-3333

1		
1	35.	Billing statement from Surgical Anesthesia Services, LLP with Affidavit of Custodian of Records and/or Billing, for date of service 10/17/2017, Bates
2		Number PLT002884 – PLT002886;
3 4	36.	Medical records and billing statement from Machuca Family Medicine, for dates of service 10/29/2018-09/05/2019, Bates Number PLT002887 - PLT002898; and
5	37.	Medical billing statement from Partell Pharmacy with Affidavit of Custodian of Records and/or Billing, for dates of service 12/03/2019-02/01/2020, Bates Number
6		PLT002899 – PLT002905.
7	MAIKEL	PEREZ-ACOSTA'S MEDICAL RECORDS AND BILLING DOCUMENTS:
8		(FOURTEENTH SUPPLEMENT)
9 10	38.	Las Vegas Neurosurgical Institute, Stuart S. Kaplan, M.D., report dated December 16, 2019, Bates Number PLT002906 – PLT002908.
	MAIKEI DI	EREZ-ACOSTA'S MEDICAL RECORDS AND BILLING DOCUMENTS:
11	MAIKELII	(FIFTEENTH SUPPLEMENT)
12		
13	54.	Arthur C. Croft, PhD, First Supplemental Report, dated March 12, 2020, Bates Number PLT002866 – PLT002867.
14	MAIKEL PI	EREZ-ACOSTA'S MEDICAL RECORDS AND BILLING DOCUMENTS:
15		(SIXTEENTH SUPPLEMENT)
16	55.	(SIXTEENTH SUPPLEMENT) Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868;
16 17 18 19	55. 56.	Medical billing Statement from Desert Radiologist, for date of service
16 17 18		Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D., Bates Number PLT002995 – PLT002998.
16 17 18 19		Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D.,
16 17 18 19 20 21		Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D., Bates Number PLT002995 – PLT002998.
16 17 18 19 20 21	56. 23.	Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D., Bates Number PLT002995 – PLT002998. PLAINTIFF'S ADDITIONAL DOCUMENTS: Eight (8) color photographs of both vehicles taken at the scene of the incident, Bates Number PLT001065 – PLT001072;
16 17 18 19 20 21	56.	Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D., Bates Number PLT002995 – PLT002998. PLAINTIFF'S ADDITIONAL DOCUMENTS: Eight (8) color photographs of both vehicles taken at the scene of the incident,
16 17 18 19 20 21 22 23 24 25	56. 23.	Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D., Bates Number PLT002995 – PLT002998. PLAINTIFF'S ADDITIONAL DOCUMENTS: Eight (8) color photographs of both vehicles taken at the scene of the incident, Bates Number PLT001065 – PLT001072; Two (2) color photographs of Plaintiff's vehicle, Bates Number PLT001073 –
16 17 18 19 20 21 22 23 24	56. 23. 24.	Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D., Bates Number PLT002995 – PLT002998. PLAINTIFF'S ADDITIONAL DOCUMENTS: Eight (8) color photographs of both vehicles taken at the scene of the incident, Bates Number PLT001065 – PLT001072; Two (2) color photographs of Plaintiff's vehicle, Bates Number PLT001073 – PLT001074; One (1) color photograph of Defendant's vehicle, Bates Number PLT001075; Letter from Social Security Administration dated March 5, 2018 finding Maikel
16 17 18 19 20 21 22 23 24 25	56.23.24.25.	Medical billing Statement from Desert Radiologist, for date of service 07/13/2016, Bates Number PLT002868; Medical records and billing statement from Centennial Medical Group, for date of service 03/27/2020, Bates Number PLT002869 – PLT002875; Curriculum Vitae, Fee Schedule and Testimony List of Mark J. Cirella, M.D., Bates Number PLT002995 – PLT002998. PLAINTIFF'S ADDITIONAL DOCUMENTS: Eight (8) color photographs of both vehicles taken at the scene of the incident, Bates Number PLT001065 – PLT001072; Two (2) color photographs of Plaintiff's vehicle, Bates Number PLT001073 – PLT001074; One (1) color photograph of Defendant's vehicle, Bates Number PLT001075;

THE 702 FIRM
ATTORNEYS AT LAW
400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

1		PLAINTIFF'S ADDITIONAL DOCUMENTS: [TENTH SUPPLEMENT]
2		
3	27.	Copies of Jaime Roberto Salais employee and training documents, (Previously Disclosed by Defendant);
4 5	28.	Copies of the insurance claims files in connection with the July 12, 2016 motor vehicle collision, (Previously Disclosed by Defendant);
6	29.	Copies of all documents pertaining to the vehicle involved in the subject accident, (Previously Disclosed by Defendant);
7		PLAINTIFF'S ADDITIONAL DOCUMENTS:
8		[TWELFTH SUPPLEMENT]
9		
10	30.	Trial Testimony of Reynold L. Rimoldi, M.D. in Macias v. King Ranch Market, Case No. A422167, 04/26/2005, Bates Number, PLT001265 - PLT001439;
11	2.1	
12	31.	Trial Testimony of Reynold L. Rimoldi, M.D. in Faubion v. Arata, Case No. A427617, 08/06/2005, Bates Number PLT001440 – PLT001514;
13	32.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Rentas v. Ermer, Case No.
14	32.	A476635, 10/12/2005, Bates Number PLT001515 – PLT001548;
15	33.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Peltier v. Wright, Case No. A454883, 06/12/2006, Bates Number PLT001549 – PLT001569;
16		
17	34.	Trial Testimony of Reynold L. Rimoldi, M.D. in Marku v. Linens N Things, Inc., Case No. A482218, 08/15/2006, Bates Number PLT001570 – PLT001634;
18		
19	35.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Garcia v. Underbrink, Case No. A514661, 04/25/2007, Bates Number PLT001635 – PLT001659;
20	26	Trial Tastimanus of Darmald I. Directlii M.D. in Calicas Dalaha Caracas Commun.
21	36.	Trial Testimony of Reynold L. Rimoldi, M.D. in Celis v. Ralphs Grocery Company, Case No. A500395, 09/06/2007, Bates Number PLT001660 – PLT001845;
22	37.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Arenas de Castillo v. Nunez-
23	37.	Moreno, Case No. A515482, 01/07/2008, Bates Number PLT001846 – PLT001894;
24	38.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Hill v. Guyer, Case No.
25		A498980, 03/05/2008, Bates Number PLT001895 – PLT001910;
26	39.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Zapata Hinostroza v. Circus Circus Casinos, Case No. A521054, 03/26/2008, Bates Number PLT001911 –
27		PLT001929;
28		

THE 702 FIRM
ATTORNEYS AT LAW
400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

1 2	40.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Szabo v. The Mirage Casino-Hotel, Case No. A509990, 05/12/2008, Bates Number PLT001930 - PLT001962;
3	41.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Johnson v. Lucky Cab Co., Case No. A534111, 01/28/2009, Bates Number PLT001963 – PLT001989;
4 5 6	42.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Turnbull v. Burke, Case No. 2:09-CV-0004-PMP-RJJ, 01/25/2010, Volume I, Bates Number PLT001990 – PLT002007;
7 8	43.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Turnbull v. Burke, Case No. 2:09-CV-0004-PMP-RJJ, 01/26/2010, Volume II, Bates Number PLT002008 – PLT002045;
9 10	44.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Luker v. Gillett Construction, LLC., Case No. A535794, 04/21/2010, Bates Number PLT002046 – PLT002060;
11 12	45.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Golanics v. Sotelo, Case No. A585136, 06/18/2010, Bates Number PLT002061 – PLT002149;
13 14	46.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Morford v. Wal-Mart Stores, Inc., Case No. 2:09-CV-02251-RLE-PAL, 09/20/2010, Bates Number PLT002150 – PLT002167;
15 16	47.	Trial Testimony of Reynold L. Rimoldi, M.D. in Ortiz v. Hall, Case No. A565285, 10/14/2010, Volume I, Bates Number PLT002168 – PLT002326;
17 18	48.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Potts v. The Venetian Casino Resort, LLC, Case No. A568029, 01/31/2011, Bates Number PLT002327 – PLT002381;
19 20	49.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Baird v. First Transit, Inc., Case No. A-09-602308-C, 05/17/2011, Bates Number PLT002382 – PLT002449;
21 22	50.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Ron v. Harrah's Las Vegas Propco, LLC., Case No. A-13-679512-C, 04/22/2015, Bates Number PLT002450 – PLT002520;
23 24	51.	Trial Testimony of Reynold L. Rimoldi, M.D. in Reimann v. Firefly Partners, LLC, Case No. A-13-677133-C, 06/23/2015, Bates Number PLT002521 – PLT002591;
25 26	52.	Trial Testimony of Reynold L. Rimoldi, M.D. in Volungis v. Abdulla, Case No. A-14-702810-C, 05/05/2016, Volume I, Bates Number PLT002592 – PLT002834; and
27 28	53.	Deposition Transcript of Reynold L. Rimoldi, M.D. in Luu v. Rittoff, Case No. A-17-762299-C, 05/06/2019, Bates Number PLT002835 – PLT002865.
	1	

I	I		
1		PLAINTIFF'S ADDITIONAL DOCUMENTS:	
2		[SIXTEENTH SUPPLEMENT]	
3	57.	Arthur C. Croft, PhD, Documents Produced Pursua Curriculum Vitae and Testifying History, (previously disclo	
4		PLT002876 – PLT002909;	
5 6		Arthur C. Croft, PhD, Documents Produced Pursuant to Supplemental Report, dated March 12, 2020 (previously Number PLT002910 – PLT002911;	
7		Number 1 L 1 002510 – 1 L 1 002511,	
8		Arthur C. Croft, PhD, Documents Produced Pursuant to De Report, dated November 24, 2019 (previously disclosed	-
9		PLT002912 – PLT002972;	
10		Arthur C. Croft, PhD, Documents Produced Pursuant to Isuzu Motors, LTD, Expert VIN Decoder, Bates Number Pl	• '
11	61.	Arthur C. Croft, PhD, Documents Produced Pursuant to	Deposition: "The
12		RID2 biofidelic rear impact dummy: a validation study usi in low speed rear impact full scale crash tests. Neck injury	<u> </u>
13		Bates Number PLT002974 – PLT002980;	Criterion (NIC),
14 15		Arthur C. Croft, PhD, Documents Produced Pursuant to Del Focus 4 Door Sedan Expert AutoStats®, Bates Numl PLT002983;	
16 17	63.	Arthur C. Croft, PhD, Documents Produced Pursuant to De Vehicle History Report, 2014 Isuzu NPR-HD, VIN JALE Bates Number PLT002984 – PLT002988;	
18	64.	Arthur C. Croft, PhD, Documents Produced Pursuant to D	Penasitian Cany of
19 20		Check Number 0137571510, Dated 07Jun17, from Gallagh Inc., payable to Jeovanny Ricardo-Mondeja, Bates Number	er Bassett Services
21	65.	Arthur C. Croft, PhD, Documents Produced Pursuant to	Deposition, Letter
22		from The702Firm, dated November 5, 2019, Bates Num PLT002991; and	
23	66.	Arthur C. Croft, PhD, Second Supplemental Report, dat	ed Anril 16, 2020.
24		Bates Number PLT002992 – PLT002994.	1-p 10, 2020,
25	<u> </u>	MAIKEL PEREZ-ACOSTA'S COMPUTATION OF DAMA	AGES
26	Medi	cal Provider	Charges
27		lows Chiropractic	\$360.00
28	<u> </u>		

THE 702 FIRM
ATTORNEYS AT LAW
400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

2.	UMC Hospital	\$32,188.59
3.	EMP of Clark UMC DOS: 07/13/2016	\$1,703.70
	[Requested - Updated Records to be supplemented]	
4.	EMP of Clark UMC DOS: 07/15/2016 –	\$3,026.70
	[Requested - Updated Records to be supplemented]	
5.	Desert Radiologists –	\$798.00
	[Requested - Updated Records and Billing to be supplemented]	
6.	Capanna International Neuroscience	\$3,135.00
7.	Southwest Medical Pharmacy & Home Medical Equipment	\$119.39
8.	Steven A. Holper, M.D.	\$750.00
9.	Gobinder S. Chopra, M.D.	\$4,050.00
10.	ASP Cares	\$249.00
11.	Advanced Orthopedic and Sports Medicine	\$1,230.00
12	Stainhana Diamastia Madical Imagina	\$1,050,00
12.	Steinberg Diagnostic Medical Imaging	\$1,050.00
13.	Western Regional Center for Brain and Spine Surgery	\$38,470.00
14.	Interventional Pain and Spine Institute	\$16,780.00
	[Last date of treatment – September 25, 2018]	* 1-00-6
15.	Surgical Arts Center [Sierra Med Services holds billing]	\$15,087.64
16.	Pueblo Medical Imaging	\$3,300.00
10.	[Sierra Med Services holds billing]	ψ3,500.00
17.	Valley Hospital Medical Center	\$186,100.02
18.	Bruce J. Hirschfeld, M.D. / General Vascular Specialists	\$8,771.00
19.	Surgical Anesthesia Services	\$7,500.00
20.	Machuca Family Medicine	\$600.00
21.	Innovative Pain Care Center	\$4,141.41
22.	Walgreens Pharmacy	\$5,020.59
23.	Vegas Medical Center – Actively Treating	TBP
	[Requested - Updated Records and Billing to be supplemented]	
24.	Partell Pharmacy	\$5,428.77
25.	West Valley Imaging	\$240.00

THE 702 FIRM ATTORNEYS AT LAW 400 S. 7th St., Suite 400. LAS VEGAS, NEVADA 89101 PHONE: (702) 776-3333

27.	Intom	ventional Pain and Spine Institute			See Below
27.		URE MEDICAL RECOMMENDATION	I TREA	TMENTI	See Below
		ONE MEDICIE RECOMMENDATION	· IICE/I	TOTAL	\$340,409.81
				22.40.400.0	
ŀ	Past Me	dical and Related Expenses		\$340,409.8	31
		Medical and Related Expenses Listed belo			
		Cord Stimulator Trial recommended by Dr	r. Roslei		
ŀ	Estimate	ed Surgery Center Fee for procedure		\$20,000.00	- \$22,000.00
7	Wage L	oss		NONE	
Ι	Loss of	Household Services		TBD	
<u> </u>	ΓΟΤΑL	SPECIAL DAMAGES:		\$372,099.8	31 - \$374,099.8
ri mi ir		AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA			
t U I U i	KE DAI	MAGES PER PLAINTIFF'S EXPERTS:			
F	Present	Day Value of Future Medical Care:	\$39	3,758.00	
•	1000110	Duy varie of factor interior cure.	ΨΟ	3,720.00	
I	Lost Ea	rnings/Lost Earning Capacity	\$37	1,772.00	
I	Lost Ho	usehold Services	\$ 3	0,129.00	
		Total:	\$79	5,660.00	
		MAIKEL PEREZ-ACOSTA'S	LIST O	F FILM[S]	
Date:		Provider:		Film[s]:	
Bute.		Tiovider.		1 1111[5].	
02/24	/2017	Pueblo Medical Imaging		MRI L-Spine	w/o Contrast
		[Available for copying at parties' expens	se];	MRI T-Spine	
10/13	/2017	Valley Hospital Medical Center		X-Ray Chest	2 views
	/a.a.c.=	[Available for copying at parties' expens	se];		
10/17	/2017	Valley Hospital Medical Center	-		Lumbosacral 2
0/20/2	1016	[Available for copying at parties' expens	se];	3 views	<u> </u>
8/30/2	2016	Steinberg Diagnostics	ادر	MRI Lumbar	Spine w/o
05/15	/2017	[Available for copying at parties' expense Steinberg Diagnostic Medical Imaging Control of the C		Contrast CT Lumbar w	y/o Contract
(1///1//	/201/	[Available for copying at parties' expens		CI Luiilbai W	vio Commast
07/17		Trivaliance on conving at Dallics, CXDCHS	15 / 1		

THE 702 FIRM ATTORNEYS AT LAW 400 S. 7th St., Suite 400. LAS VEGAS, NEVADA 89101 PHONE: (702) 776-3333

- 1. The reasonable medical expenses Plaintiffs have necessarily incurred as a result of the accident/incident and the medical expenses which the Jury believes the Plaintiffs are reasonably certain to incur in the future as a result of the accident/incident, discounted to present value.
- 2. Plaintiff's loss of earnings or earning capacity from the date of the accident/incident to the present.
- 3. Plaintiff's loss of earnings or earning capacity which the Jury believes the Plaintiffs are reasonably certain to experience in the future as a result of the accident/incident, discounted to present value. Also, the Jury will include the reasonable value of services performed by another in doing things for the Plaintiff, which, except for the injuries, Plaintiffs would ordinarily have performed.
- 4. The physical and mental pain, suffering, anguish, and disability endured by the Plaintiff from the date of the accident/incident to the present; and
- 5. The physical and mental pain, suffering, anguish, and disability which you believe the Plaintiffs are reasonably certain to experience in the future as a result of the accident/incident, discounted to present value.

Plaintiff's may call the Custodian of Records of all treating physicians to testify as to the completeness and accuracy of records, medical records and bills generated in the normal course of business.

Plaintiff's reserve the right to call any witness named by Defendant. Plaintiff reserve the right to call any witness as may be necessary for the purpose of impeachment. Plaintiff may call any and all witnesses called in rebuttal to testimony given by Defendant's witnesses. Plaintiff reserve the right to object to any of Defendant's witnesses at the time of trial.

Plaintiff's reserve all rights to seek other damages including, but not limited to, general and exemplary damages, in an amount to be proven at trial.

Plaintiff's reserve the right to supplement this Calculation of Damages with any and all other relevant documents and records, which come into their possession during discovery.

1 Plaintiff's reserve the right to supplement this exhibit list with any and all other relevant 2 documents and records, which come into their possession during discovery. 3 Plaintiff's reserve the right to have a medical expert review the medical records and provide 4 an opinion to counsel, but not testify at the time of trial and/or arbitration. 5 Plaintiff's further reserve the right to use any and all of any other parties' exhibits at the 6 time of trial of this matter. III. 7 8 **DEMONSTRATIVE EXHIBITS** 9 Plaintiff's may offer at trial certain Exhibits for demonstrative purposes including, but not 10 limited to, the following: 11 a. Actual surgical hardware, plates, screws, surgical tools, and surgical 12 equipment as used in Plaintiff's medical treatment and anticipated to be 13 used in future treatment; 14 b. Demonstrative and actual photographs and videos of surgical procedures 15 and other diagnostic tests Plaintiff has undergone and will undergo in the 16 future; 17 Actual diagnostic studies and computer digitized diagnostic studies; c. 18 d. Samples of tools used in surgical procedures; 19 Diagrams, drawings, pictures, photos, film, video, DVD and CD ROM of e. 20 various parts of the human body, diagnostic tests and surgical procedures; 21 f. Computer simulation, finite element analysis, mabymo and similar forms 22 of computer visualization; 23 Power point images/drawings/diagrams/animations/story boards, the g. 24 parties involved, the location of the incident and what occurred in the 25 motor vehicle accident. 26 h. Pictures of Plaintiff Prior and Subsequent to the Subject accident; 27 i. Surgical Timeline; 28 Medical treatment timeline; j.

THE 702 FIRM
ATTORNEYS AT LAW
400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

1		
1	k.	Future Medical Timeline;
2	1.	Charts depicting Plaintiff's Life Care Plans;
3	m.	Charts depicting Plaintiff's Loss of Hedonic Damages;
4	n.	Charts depicting Plaintiff's Loss of Household Services;
5	0.	Photographs of Plaintiff's Witnesses;
6	p.	Charts depicting Plaintiff's Life Expectancy;
7	q.	Story boards and computer digitized power point images;
8	r.	Blow-ups/transparencies/digitized images of medical records, medical
9		bills, photographs and other exhibits;
10	s.	Diagrams/story boards/computer re-enactment of motor vehicle accident;
11	t.	Diagrams of various parts of the human body related to Plaintiff's injuries;
12	u.	Photographs of various parts of the human body related to Plaintiff's
13		injuries;
14	V.	Models of the human body related to Plaintiff's injuries;
15	w.	Samples of the needles and surgical tools used in Plaintiff's various
16	diagn	ostic and therapeutic pain management procedures;
17	Plaintiff's fu	rther reserve the right to use any and all of any other parties' exhibits at the
18	time of trial of this n	natter.
19	DATED on t	his 23 rd day of April, 2020.
20		THE702FIRM
21		
22		/s/ Jason C. Barron
23		MICHAEL C. KANE, ESQ. Nevada Bar No. 10096
24		BRADLEY J. MYERS, ESQ. Nevada Bar No. 8857
25		JASON C. BARRON, ESQ.
26		Nevada Bar No. 7270 400 S. 7 th Street, Suite 400, Box 10
27		Las Vegas, Nevada 89101 Telephone: (702) 776-3333
28		Attorneys for Plaintiff MIKAEL PEREZ-ACOSTA
2FIRM	Į.	MIKAEL PEREZ-ACOSTA

THE 702 FIRM ATTORNEYS AT LAW 400 S. 7th St., Suite 400. LAS VEGAS, NEVADA 89101 PHONE: (702) 776-3333

1	CERTIFICATE OF SERVICE
2	I hereby certify that on the 23 rd day of April, 2020, I caused service of a true and correct
3	
4	copy of the foregoing PLAINTIFF'S SIXTEENTH SUPPLEMENT TO THE EARLY CASE
5	CONFERENCE INITIAL DISCLOSURE OF DOCUMENTS AND WITNESSES
6	<u>PURSUANT TO NRCP 16.1</u> to be made by the Eighth Judicial District Court's Wiznet eservice
7	program (without exhibits), upon all parties registered to use this service, in accordance with the
8	Clark County District Court's Administrative Order No. 14-2, issued 5/9/14 and also via US Mail
9	(with exhibits) to the addresses below::
10	Todd A. Jones, Esq.
11	MOKRI VANIS & JONES, LLP. 8831 West Sahara Avenue
12	Las Vegas, Nevada 89117
13	and
14	Joel D. Odou, Esq.
15	Nicholas F. Adams, Esq. WOOD, SMITH, HENNING & BERMAN, LLP
16	2881 Business Park Court, Suite 200 Las Vegas, NV 89128-9020
17	Attorneys for Defendants TOM MALLOY CORPARATION dba TRENCH SHORING COMPANY and JAMES ROBERT SALAIS
18	
19	Craig W. Drummond, Esq.
20	DRUMOND LAW FIRM 810 South Casino Center Blvd., Suite 101
21	Las Vegas, NV 89101 (702) 366-9966
22	Attorneys for Plaintiff ROLANDO BESSU HERRERA
23	ROLANDO BESSO HERRERA
24	/s/ Emma Powell
25	An employee of THE702FIRM
26 27	
28	
40	

THE 702 FIRM
ATTORNEYS AT LAW
400 S. 7th St., Suite 400.
LAS VEGAS, NEVADA 89101
PHONE: (702) 776-3333

EXHIBIT 55

Patient History Report

Client: DESERT RADIOLOGY Run date: 04-01-2020 04:34:11 PM

Guarantor Information

PEREZACOSTA, MAIKEL

Home Phone: (786) 552-2772

Guarantor ID: 2020539-DSRT

Work Phone:

3955 SWENSON ST APT 159 Worl LAS VEGAS, NV 89119 Fax:

Address Ind: Unknown

Patient: PEREZACOSTA, MAIKEL Patient ID: 2020539 DOB: 5/12/1982 Sex: M

Primary: HE050 - MEDICAID HPN CON

Provider	DOS	Creation Date	Primary Date Filed	Service	Amount	Balance
CHIN, HUBERT . (222)	07/13/16	09/08/16	09/08/16	72128 - CT CHEST SPINE W/O DYE	217.00	0.00
				10/07/16 - Medicaid Payment (MDP)	51.82	
				Insurance Payment SubTotal:	51.82	
				10/07/16 - Medicaid Non Allowed	165.18	
				Insurance Write-Off SubTotal:	165.18	
CHIN, HUBERT . (222)	07/13/16	09/09/16	09/09/16	72131 - CT LUMBAR SPINE W/O DYE	217.00	0.00
				05/16/17 - Medicaid Non Allowed	217.00	
				Insurance Write-Off SubTotal:	217.00	
POOPAT, CHAD . (71)	07/13/16	07/22/16	07/22/16	72146 - MRI CHEST SPINE W/O DYE	364.00	0.00
				08/16/16 - Medicaid Payment (MDP)	77.42	
				Insurance Payment SubTotal:	77.42	
				08/16/16 - Medicaid Non Allowed	286.58	
				Insurance Write-Off SubTotal:	286.58	

Total Chgs: \$798.00 **Total Pmts:** \$129.24 **Total WOs:** \$668.76 **Total Adjs:** \$0.00 **Total Bal:** \$0.00

EXHIBIT 56

Patient History - Detail

CENTENNIAL MEDICAL GROUP

Show last billed date By Date of Service All Date ranges All Providers Open Items Only

										()
Chart #:	30204				Home Phone:	ne:				
Patient Name:	PEREZ	PEREZ-ACOSTA,MAIKEL			Office Phone:	ne:				
Address:	1827	1827 POETIC VALLEY CIR	~		Resp. Party:	. ,	PEF	PEREZ-ACOSTA, MAIKEL	MAIKEL	
City, State, Zip:	HEND	HENDERSON, NV 89012			Resp. Acct#	#	289	2066289		
U Code Source	e I B	Source I B Service Date Prov	Prov	Visit#/	Charge Paid/ Applied		Patient	Insurance	Insurance Total Balance Last Billed Resp Party This	Resp Party This
				Check#	Amount	-	Balance	Balance	Carrier	Charge
99213	λ λ	Y Y 3/27/2020 182	182	8683579	\$310.00	\$0.00	\$0.00	\$310.00	\$310.00 MCD02	2066289
Grand Total:					\$310.00	\$0.00	\$0.00	\$310.00	\$310.00	

Generated 4/6/2020 06:09:37 PM * B = Insurance Billed

Last Name:

5P.App.1067

Date of Service: March 27, 2020 Patient: Maikel Perez-acosta Page: 1

Centennial Medical Group

4454 N. Decatur Blvd, Las Vegas NV 89130 2110 E. Flamingo Rd #330, Las Vegas NV 89119 Phone: 702-839-1203 Fax: 702-839-1301

First Name: Maikel

Perez-acosta Date of Birth: 12/5/1982 MR#: 30204

EXAM DATE: 3/27/2020

Referred By: Patient Self Referred

DOI: 07/12/2016 Initial Pain Assessment

Chief Complaint: Low back pain, right leg pain

When and how did your pain start?

The patient is a 37-year-old male who reports a previous injury of surgery to his lower back in Arizona. Once he had recovered from surgery, he states he was pain-free with pain rated 0/10 in the low back and leg.

Age: 37 year(s)

On 07/12/16, he was the restrained front seat passenger of a 2011 Ford Focus. They were traveling on Lamb and had just crossed Carey, when traffic in front of them came to a standstill. The patient's vehicle came to a complete stop, but was then rear-ended by an 18 wheeler traveling approximately 45 miles per hour. The patient did not anticipate or brace for the impact. Airbags did not deploy. He denies striking his head or losing consciousness. He was able to exit the vehicle without assistance.

The patient's vehicle was not towed, but has since been declared a complete loss. Neither police nor ambulance arrived at the scene, although the police were called.

When the patient woke up the following morning, he had intense back pain. He presented to UMC Hospital for evaluation and was kept for the next 3 days. It was discovered that he had an L1 compression fracture with approximately 50% loss of vertebral body height. Per the patient, a neurosurgeon consultation was ordered, but he was never seen. He was discharged after 3 days. He was referred to Dr. Kaplan.

In August 2016, he underwent an MRI of the lumbar spine that showed a 4-5 mm anterolisthesis of T12 on L1 posteriorly. At L1-2 subluxation at the facet joints. Eccentric anterior positioning of the conus and cauda equina nerve roots at this level. Posterior intradural cystic structure causing thin anterior displacement of the nerve roots. This cystic structure measures 2 cm x 0.9 cm x 6 centimeters. L4-5 showed mild facet disease. L5-S1 showed mild symmetric disc bulge. Mild to moderate facet disease. Mild bilateral neural foraminal narrowing.

An EMG/NCV of the lower extremities was done in December 2016 which showed evidence of active denervation changes seen in the distal bilateral lower extremity muscles on EMG examination of bilateral lower extremities.

In April 2017, a bilateral L5 SNRB provided complete, but short-term relief.

In July 2017 he underwent a CT discogram that showed Dallas Grade 3 tears at L4-5 and L5-S1, with concordant pain at L5-S1.

Date of Service: March 27, 2020 Patient: Maikel Perez-acosta Page: 2

This led to L5-S1 fusion by Dr. Kaplan in October 2017. The patient states that this stabilized his spine, but did not help the pain.

He was referred to the Interventional Pain and Spine Institute in November 2017. He underwent medication management. A spinal cord stimulator trial was suggested. The patient states that one of his friends had one placed, and his pain was worse afterward. This scared him from proceeding. He has been on medication management since that time. His most recent pain physician apparently is no longer available and the patient was then referred to us.

The patient describes his pain as being in the lower back with radiation into the right lower extremity all the way to the foot. He cannot describe any particular dermatomal distribution. The pain is also more intense at the right hip, right knee and right ankle. He describes numbness and tingling in the right lower extremity, particularly around the ankle. He states that the pain tends to be worse in the morning. His pain tends to be improved with the medication. He denies any new bowel or bladder dysfunction. He denies any new saddle anesthesia.

What do you think is the cause of your pain?

MVA 07/12/16

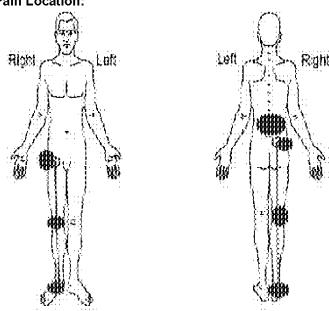
What test/studies have been done? (Ex: MRI, X-Ray, CT Scan)

Radiology History: 2016 0830 MRI Lumbar spine wo SDMI 2017 0717 CT Lumbar spine SDMI 2017 1013 XRAY Chest -- Desert Rad

2017 1013 XXAT Gliest -- Desett Nau 2017 1017 XRAY Lumbar spine -- Valley Hospital

2017 1120 XRAY Lumbar spine -- West Valley Imaging 2018 0227 XRAY Lumbar spine -- West Valley Imaging

Pain Location:



The patient describes the pain at its worst during the past month as 10/10. The patient describes the pain at its best during the last month as 8/10. Currently the patient describes the pain as 10/10.

PLT002871

03/31/2020 15:41 (FAX) P_004/007 5P.App.1069

Date of Service: March 27, 2020 Patient: Maikel Perez-acosta Page: 3

What kinds of things make your pain worse?

Pain is worse in the morning

How long can you?

Sit? 25 Minutes Stand? 25 Minutes Ride in a car? 25 Minutes How far can you walk? 500 feet

List any activities you feel you can no longer accomplish due to your pain:

Physical activities

Activities of Daily Living

Pain Rating.

Please circle the number below to indicate how your pain has interfered with your normal activities.

0= Does not interfere

10=Completely interferes

	0					7	0	•	40
	()	()				()			10 (X)
()	()	()				()	()	()	(7.9
4	2	2			bility	7	0	0	10
	()								(X)
()	()	()				()	()	()	()
1	2	3				7	8	a	10
	()					()			()
.,	,	.,					.,	.,	.,
1	2	3	Relatio			7	8	a	10
	()								()
.,	,	.,	, ,			.,	, ,	.,	.,
1	2	3	4	Sleep 5	6	7	8	q	10
	()					(X)			()
				Annatit					
1	2	3	4	Appeni 5	. e 6	7	8	9	10
()	()	()	()	()	()	()	()	()	()
				Mood					
1	2	3	4	5	6	7	8	9	10
()	()	()	()	()	()	()	()	()	(X)
			Ahi	lity to cond	centrate				
1	2	3	4	5	6	7	8	9	10
()	()	()	()	()	()	()	()	()	(X)
			Е	njoyment o	of Life				
1	2	3	1	5	6	7	8	a	10
1	2	5	7	0	0	,	U		002872
									5P Apr
	1	() () 1 2 () () 1 2 () () 1 2 () () 1 2 () () 1 2 () () 1 2 () () 1 2 () ()	() () () 1 2 3 () () 1 2 3 () () 1 2 3 () () 1 2 3 () () 1 2 3 () () 1 2 3 () () 1 2 3 () () 1 2 3 () ()	1 2 3 4 () () () () () 1 2 3 4 () () () () 1 2 3 4 () () () () 1 2 3 4 () () () () 1 2 3 4 () () () () 1 2 3 4 () () () () 1 2 3 4 () () () () 1 2 3 4 () () () () 1 2 3 4 () () () () () 1 2 3 4 () () () () () 1 5 3 4 () () () () () 1 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	1 2 3 4 5 () () () () () () Walking A 1 2 3 4 5 () () () () () () () () () () () () ()	() () () () () () () Walking Ability 1 2 3 4 5 6 () () () () () () () Normal Work Routine 1 2 3 4 5 6 () () () () () () () Relations with other people 1 2 3 4 5 6 () () () () () () () Sleep 1 2 3 4 5 6 () () () () () () () Appetite 1 2 3 4 5 6 () () () () () () () Appetite 1 2 3 4 5 6 () () () () () () () Appetite 1 2 3 4 5 6 () () () () () () () Ability to concentrate 1 2 3 4 5 6 () () () () () () Enjoyment of Life	1 2 3 4 5 6 7 () () () () () () () Walking Ability 1 2 3 4 5 6 7 () () () () () () Normal Work Routine 1 2 3 4 5 6 7 () () () () () () Relations with other people 1 2 3 4 5 6 7 () () () () () () () Sleep 1 2 3 4 5 6 7 () () () () () () () Appetite 1 2 3 4 5 6 7 () () () () () () () Appetite 1 2 3 4 5 6 7 () () () () () () () Ability to concentrate 1 2 3 4 5 6 7 () () () () () () () Ability to concentrate 1 2 3 4 5 6 7 () () () () () () ()	1 2 3 4 5 6 7 8 () () () () () () () () () Walking Ability 1 2 3 4 5 6 7 8 () () () () () () () () () Normal Work Routine 1 2 3 4 5 6 7 8 () () () () () () () () () Relations with other people 1 2 3 4 5 6 7 8 () () () () () () () () () (X) Sleep 1 2 3 4 5 6 7 8 () () () () () () () () (X) () Appetite 1 2 3 4 5 6 7 8 () () () () () () () () () Appetite 1 2 3 4 5 6 7 8 () () () () () () () () () Ability to concentrate 1 2 3 4 5 6 7 8 () () () () () () () () ()	1 2 3 4 5 6 7 8 9 () () () () () () () () () () Walking Ability 1 2 3 4 5 6 7 8 9 () () () () () () () () () () Normal Work Routine 1 2 3 4 5 6 7 8 9 () () () () () () () () () () Relations with other people 1 2 3 4 5 6 7 8 9 () () () () () () () () () () () Sleep 1 2 3 4 5 6 7 8 9 () () () () () () () () () () () Appetite 1 2 3 4 5 6 7 8 9 () () () () () () () () () () () Appetite 1 2 3 4 5 6 7 8 9 () () () () () () () () () () () Ability to concentrate 1 2 3 4 5 6 7 8 9 () () () () () () () () () () () Enjoyment of Life

Date of Service: March 27, 2020 Patient: Maikel Perez-acosta Page: 4 () () () () () () () () () () (X)What level of pain do you think you could function with on a daily basis? 0 1 5 9 10 2 3 4 6 7 (X)() () () () () () () () () ()

General Health Review

Medical History: None

Family History: .Family History Reviewed

Parents: Father-Living Parents: Mother-Living

Social History: Alcohol - Occasionally

Children - 2

Employment: Disabled Marital Status: Married Tobacco: Cigarettes 1 PPD

Surgical History: Lumbar spine

Review of Systems:

(x)=Positive Head and Neck () Headaches, () visual change, difficulty with() taste, () smell, or () swallowing. () Chest pain, () palpitation, () orthopnea, () edema, or () syncope. Heart () SOB, () cough, () sputum production, () wheezes, or () hemoptysis. Lungs GΙ () Abdominal pain, () dyspepsia, () change in bowel habit, () blood in stool. GU () Dysuria, () hematuria, () frequency, () urgency, or () discharge. Endocrine () Diabetes, () thyroid or () parathyroid disorders, () renal dysfunction. () Weakness, () burning, () paresthesiae or () incoordination. Neuro Musculoskeletal See current patient assessment. () Depression or () anxiety, () recent stressors, or () change in lifestyle. Psychological () Bleeding problems, or () swollen glands. Heme/Lymph Skin/Integument () Lesions, () mole changes, denies any hair or nail bed changes. Other

Allergies: NKDA

Intolerances: No intolerance

Current Patient has no Current Medications.

Medications:

Radiology 2016 0830 MRI Lumbar spine wo SDMI **History**: 2017 0717 CT Lumbar spine SDMI

2017 1013 XRAY Chest -- Desert Rad

2017 1017 XRAY Lumbar spine -- Valley Hospital 2017 1120 XRAY Lumbar spine -- West Valley Imaging 2018 0227 XRAY Lumbar spine -- West Valley Imaging

Physical Examination:

Vital Signs: No data for Vitals

CONSTITUTIONAL: alert, moderate distress, stressed affect, cooperative. SKIN: skin color, texture, turgor normal. No rashes or lesions.

Date of Service: March 27, 2020 Patient: Maikel Perez-acosta Page: 5

HEENT: eyes: conjunctiva and corneas clear. Extraocular movements intact. Sclerae normal.

NEUROMUSCULAR:

Telemedicine due to Corona virus pandemic.

PSYCH: appearance/cooperation: oriented times three. Attitude: pleasant. Suicidal ideation -- no.

Assessment: M54.5-Low back pain

M54.17-Radiculopathy, lumbosacral region

M96.1-Postlaminectomy syndrome, not elsewhere classified

Prognosis: Guarded Causation: MVA 07/12/16

I relied on the records provided to base my medical opinion.

Plan:

Medication: The patient may benefit from medication management.

Procedures: None at this time. I agree with his previous pain physician that a spinal cord stimulator trial

would be in his best interest as opposed to continually increasing his opiates as has been done

over the past year.

The risks, benefits, and alternative treatments have been explained to the patient.

Therapy: None.

Referrals: None.

Diag. Testing: None.

Additional None.

Recommendations:

Prescriptions: oxycodone(Dosage: 30 mg|tablet SIG: Take 1 tablet by mouth three times a day as needed for

pain 30 Dispense: 90 Refills: 0)

Education: The risks of opioid medications were explained to the patient.

Patient understands and agrees to use these medications only as prescribed.

Patient agrees to obtain pain medications from this practice only.

We have fully discussed the potential side effects of the medication with the patient, which include but are not limited to constipation, drowsiness, addiction, impaired judgment, and risk

of fatal overdose if not taken as prescribed.

We have warned the patient that sharing or selling their medications is a criminal act.

Warned against driving while taking sedating medications. Discussed risks/complications of disease/condition.

The need to keep regular appointments with a primary care doctor was discussed. It was explained that all preventative and diagnostic recommendations of the primary care doctor

need to be followed.

At this point in time, the patient is showing no signs of addiction, abuse, diversion, or suicidal

ideation

Follow-up: Patient is instructed to follow-up in 4 weeks for reevaluation or sooner as needed.

DEA pharmacy report printed and reviewed (X)

Patient Service

Representative:

Date of Service: March 27, 2020 Patient: Maikel Perez-acosta Page: 6

Wendy Magana, CMA I'm scribing for the below named physician.

Physician's Signature:

Mark J Cirella, M.D.

Dictated unedited using voice recognition software.

Mark J. Cirella, M.D.

Email:mcirella@cprnlv.com

Centennial Medical Group

Office Phone: (702) 839-1203

Personal Data

Birth Date: April 24, 1964

Citizenship: United States of America

Licenses/Certifications

• Medical License, State of Nevada – Active

- American Board of Anesthesiology in Anesthesiology, October 2009
- American Board for Anesthesiology in Pain Medicine, September 2013

Practice History

Centennial Medical Group, LLP 4454 N. Decatur Blvd., Las Vegas, Nevada 89130 Rockford Anesthesiologists Associated, LLC

October, 2004 – June 2013

June, 2013 - Present

Rockford, Illinois

Academic Qualifications

California State University, Bakersfield, California

Bachelors of Science

American University of the Caribbean, School of Medicine Saint Maarten

Medical School

Rush-Presbyterian – St. Luke's Medical Center, Chicago, Illinois

Anesthesiology Residency

Rush-Presbyterian – St. Luke's Medical Center, Chicago, Illinois

Pain Management Fellowship

Continuing Education

University of Wisconsin-Madison, 11 th Annual Comprehensive Pain Board	August, 2013
Review Symposium	
The American Board of Anesthesiology (Subspecialty Certification of Pain	September, 2013
Medicine)	
American Society of Anesthesiologists, Anesthesiology CME	May, 2015
NetCE, Opioid Use Disorder	May, 2015
NetCE, Medical Ethics for Physicians	May, 2015
NetCE, Diagnosing and Managing Headaches	May, 2015
NetCE, Prescription Opioids: Risk Management and Strategies for Safe Use	June, 2015
University of Nevada School of Medicine – OSHA for Healthcare	May, 2016
University of Nevada School of Medicine – Infection Control for Healthcare	May, 2016
Institute for Medical and Nursing Education – Anesthesia Updates for 2017	February, 2017
NetCE, Medical Ethics for Physicians	March, 2017
University of Nevada, Infection Control for Healthcare	December, 2018
University of Nevada, OPSHA for Heathcare	December, 2018
University of Nebraska, Pain Management	December, 2018
University of Nebraska, Pain Medicine	December, 2018

4454 N Decatur Blvd. Las Vegas, Nevada 89130 2110 E. Flamingo Road #330 Las Vegas, Nevada 89119

www.CPRNLV.com

PL T002005

University of Nebraska, Pain Medicine	January, 2019
University of Nebraska, Pain Medicine	June, 2019
NetCE, Medical Ethics for Physicians	June, 2019
American Society of Anesthesiology, Anesthesia SimSTAT-Appendectomy	September, 2019

Professional Affiliations

- American Medical Association (AMA)
- American Society of Anesthesiologists (ASA)
- Illinois Society of Anesthesiologists (ISA)
- Illinois State Medical Society (ISMS)
- Winnebago County Medical Society (WCMS)
- The American Board of Anesthesiology (ABA)

DI 1003008

Centennial Medical Group

David R. Lanzkowsky, M.D. Mark J. Cirella, M.D.

Nianjun Tang, M.D., M.S. Jaemi V. Keith, M.D.

2020 FEE SCHEDULE

Initial file review: A complete set of medical records *must* be submitted before a case can be evaluated and/or a report can be drafted. The initial report will be delivered by the respective due date. An invoice will be attached to the report. Each additional supplemental report will be billed as a separate invoice. Ancillary Services provided by administrative staff will be billed at a rate of \$75.00 per hour, including but not limited to, work such as medical records organization and report assistance.

Calendar Events: To be placed on calendar for any meeting, phone conference, deposition, or testimony requests, the hiring attorney must communicate directly with Megan (makins@cprnlv.com) to determine availability and to schedule their time slot. Depositions and testimony appearances WILL NOT be calendared until deposits are received.

Pre-Trial Meeting/Trial Testimony:

Pre-Trial Meeting \$500.00 per 30 minutes

Trial Testimony \$5,500.00 per half day and \$11,000.00 per full day

In-Office Depositions/In-Office Videotaped or Live Video Depositions:

Pre-Deposition Meeting \$500.00 per 30 minutes
Deposition Testimony \$1,375.00 per hour
Videotaped/Live Video Deposition Testimony: \$1,500.00 per hour

All trial appearances and depositions must be scheduled directly through Megan. In all cases, all fees must be paid at minimum two (2) weeks prior to the scheduled deposition. There will be NO refund if cancelled one (1) week or less of the scheduled event. There will be a 50% refund if cancelled 8-13 days before the scheduled event. There will be a FULL refund if cancelled two (2) weeks before the scheduled event.

Additional Services:

Expert Testimony Opinions \$600.00 per hour
Detailed Review of Medical Records \$600.00 per hour
Medical Records Review \$600.00 per hour
Independent Medical Examination (IME) \$1,000.00

Future Treatment Letter \$1,000.00 (starts at)
Medical Records Organization/Summary Draft \$75.00 per hour

If the undersigned fails to pay the full amount of the charges within thirty (30) days of any invoice received, the unpaid amounts of such invoices shall accrue interest at a rate of 1.5% per month. My signature is an acknowledgement that I have read the above fee schedule and agree to abide by the same. I understand that work does not commence until the signed agreement is returned to Dr. Lanzkowsky.

Signed this day of	, 2020.
	Signature
	Printed Name of Hiring Attorney
	Case Name

4454 N Decatur Blvd. Las Vegas, Nevada 89130 2110 E. Flamingo Road #330 Las Vegas, Nevada 89119

www.CPRNLV.com

PL T002007

Mark J. Cirella, M.D. Email:mcirella@cprnlv.com

Centennial Medical Group Office Phone: (702) 839-1203

LIST OF DEPOSITIONS 2014 – PRESENT

Date of Deposition	Patient's Name	Attorney for Noticing Party	Opposing Attorney
December 8, 2014	Triana, Eddy	Hall Jaffe, Clayton (Defense)	The Cottle Firm (Plaintiff)
April 12, 2016	Whiters, Zuri	Dennett Winspear (Defense)	Simon Law (Plaintiff)
April 21, 2016	Garcia-Vasquez, Joaquin	Dennett Winspear (Defense)	The Cottle Firm (Plaintiff)
May 11, 2016	Luce, Robert	Dennett Winspear (Defense)	Ladah Law (Plaintiff)
February 7, 2017	Paul, Steven	Rogers, Mastrangelo, Carvalho & Mitchell (Defense)	Paternoster Law Group (Plaintiff)
March 7, 2017	Orr, Thomas	Ranalli Zaniel Fowler & Moran, LLC	Law Office of Jason Cook (Plaintiff)
		(Defense)	
June 13, 2017	Saucedo, Jaime	Michael Shannon (Defense)	Ladah Law (Plaintiff)
October 16, 2017	Nguyen, Tien	Atkin, Winner & Sherrod (Defense)	Joseph Gutierrez (Plaintiff)
January 30, 2018	Holzman, Ronald	Lauria, Tokunaga, Gates & Linn LLP	Terry Law Group (Plaintiff)
		(Defense)	
March 13, 2018	Martha-Lopez, Juan	Alverson Taylor (Defense)	The Cottle Firm (Plaintiff)
March 27, 2018	Vaquez-Perez, Felicitas	Bremer Whyte (Defense)	Southwest Legal Group (Plaintiff)
November 14, 2018	Saavedra, Daniel	Ranalli Zaniel Fowler & Moran (Defense)	702 Firm (Plaintiff)
November 14, 2018	Guerra O'Farrill, Antonio	Ranalli Zaniel Fowler & Moran	702 Firm (Plaintiff)
		(Defense)	
April 24, 2019	Ruiz, Hector	Bremmer Whyte (Defense)	Christiansen Law Offices (Plaintiff)
July 17, 2019	Cervantes-Landa, Agustina	Blake Doer, Esq. (Defense)	Injury Lawyers Nevada (Plaintiff)
August 14, 2019	Hernandez-Mendez, Alexis	Skne Wilcox (Defense)	Stucki Law (Plaintiff)
October 9, 2019	Sanchez, Elmia	Messner Reeves (Defense)	Brock Ohlson, Esq. (Plaintiff)
October 16, 2019	Wright, Robin	Messner Reeves (Defense)	NV Injury Lawyers (Plaintiff)
February 26, 2020	Mallory, Louis	Brown Greene, Trial Lawyers (Defense)	Kang & Associates, PLLC (Plaintiff)
)

4454 N Decatur Blvd. Las Vegas, Nevada 89130

2110 E. Flamingo Road #330 Las Vegas, Nevada 89109

www.CPRNLV.com

EXHIBIT 57

ARTHUR C. CROFT, PH.D. D.C., M.Sc., M.P.H., F.A.C.O.

CURRICULUM VITAE

National Provider #: 1568631612 California State License #: 14579

PROFESSIONAL EDUCATION

Southern California University of Health Sciences

Doctorate of Chiropractic degree, 1982. Bachelor of Science degree, Human Biology, 1982. Magna Cum Laude graduate. Delta Sigma Honor Society. Delta Tau Alpha Honorary Fraternity.

CRADUATE EDUCATION

University of Bridgeport, Master of Science degree in biology, 1983. Loma Linda University, School of Public Health, Master in Public Health, 2001. Walden University, School of Health & Human Services, Ph.D. in epidemiology, 2014.

POSTGRADUATE TRAINING/CERTIFICATION

Medical

- 1. Certified Disability Evaluator (CCF), 1984.
- 2. Independent Medical Examiner/Industrial Disability Examiner (CCF), 1985.
- 3. Board Certified in Orthopaedics, American Board of Chiropractic Orthopaedists, 1986.
- 4. Fellow, Academy of Chiropractic Orthopaedists, 1987.
- 5. Evoked Response Testing, Harvard Medical School, 1994.
- 6. Human Subjects Institutional Review Board (IRB) Certification, University of California, Irvine, 2004.

Law Enforcement

- 7. Drowning Homicide Investigator, LifeGuard Systems, 1998.
- 8. Underwater Criminal Investigator, PDIC (1998).
- 9. Hyperbaric Medicine, Hyperbarics International, 1998.
- 10. Diving Medical Officer (DMO), International Board of Undersea Medicine, 1999.
- 11. Medicolegal Death Investigator, St. Louis University, School of Medicine, April, 2010.

Accident Reconstruction

Curriculum Vitae, Dr. A.C. Croft Page 2 of 21

- 12. Traffic Accident Reconstruction I, Northwestern University, Center for Public Safety, 1994.
- 13. Traffic Accident Reconstruction II, Northwestern University, Center for Public Safety, 1995.
- 14. Biomechanics of Impact Trauma, Association for the Advancement of Automotive Medicine, 1995.
- 15. High Speed Rear Impact Collisions Workshop, SAE TOPTEC, 1997.
- 16. Analysis of Low Speed Collisions, Texas Engineering Extension Service, Texas A&M, 1998.
- 17. Current Issues in Using Crash Injury Data (FARS, NASS/CDS), SAE, 2006.
- 18. PC-CRASH Essentials Workshop, Vancouver, B.C., Canada, August, 2009.
- 19. PC-CRASH Expert Skills Workshop, Vancouver, B.C., Canada, August, 2009.
- 20. Advanced Accident Reconstruction Utilizing Human Factors Research, March, 2011, Northwestern University, Center for Public Safety.
- 21. CDR Technician, April, 2017, Northwestern University, Center for Public Safety.
- 22. CDR Analyst, April, 2017, Northwestern University, Center for Public Safety.
- 23. PC-CRASH Expert Skills Workshop, Orlando, FL, January, 2019.

MILITARY SERVICE

U.S. Navy, 4 years.

FORMER TEACHING APPOINTMENTS

- Educational Staff: University of California at San Diego, Department of Physical Education, Sports Medicine (1985).
- Chiropractic Rehabilitation Association (1988-1990).
- 3. American College of Orthopedic Medicine (1988-1990).

APPOINTMENTS

- 1. Independent Medical Examiner (State of California, Division of Industrial Accidents, appointed two-year terms: 1990, 1992, and 1994).
- 2. Qualified Medical Examiner (QME) (State of California, 1994, 1995-current).
- 3. Adjunct Assistant Professor, Department of Diagnosis, Southern California University of Health Sciences.
- 4. Former faculty: Department of Postgraduate Orthopaedics, Southern California University of Health Sciences.
- 5. Faculty: Department of Postgraduate Orthopaedics, New York Chiropractic College.
- 6. Faculty: Department of Postgraduate Orthopaedics, Western States Chiropractic College.
- 7. Former Examination Commissioner for the California State Board of Chiropractic Examiners.
- 8. Personal Injury Committee, California Chiropractic Association (current).

POSITIONS (PAST AND PRESENT)

- 1. California Board of Chiropractic Examiners, Examination Commissioner, 1992-1998.
- 2. Associate Editor and Expert Analyst, DC *Tracts*, Data Trace Chiropractic Publishers, Inc., in cooperation with the American Chiropractic Association.
- 3. Past Director, San Diego Chiropractic Society.
- 4. Director, Spine Research Institute of San Diego (1986-present).
- 5. Associate Editor, Journal of Neuromusculoskeletal System.
- Editorial Board:
 - a. Topics in Diagnostic Radiology and Advanced Imaging.

Curriculum Vitae, Dr. A.C. Croft Page 3 of 21

- b. Palmer Journal of Research.
- c. SEAL Team Association Newsletter.
- 7. Editor, International Scholarly Research Network *Pain*.
- 8. Manuscript Reviewer:
 - a. Journal of Manipulative and Physiological Therapeutics.
 - b. Journal of Musculoskeletal Pain.
 - c. Society of Automotive Engineers (SAE).
 - d. Accident Analysis & Prevention.
 - e. Archives of Physical Medicine & Rehabilitation.
 - f. Journal of Forensic and Legal Medicine.
 - g. Clinical Neurology and Neurosurgery.
 - h. Journal of Chiropractic Medicine.
 - i. Spine (Official journal of the Cervical Spine Research Society, International Society for the Study of Lumbar Spine, Scoliosis Research Society, Spine Society of Europe, Spine Society of Australia, Asia Pacific Orthopaedic Association, Japanese Society for Spine Surgery and Related Research, and the Korean Society of Spine Surgery).
 - j. Injury (Official Journal of the British Trauma Society, the Australasian Trauma Society and the Saudi Orthopaedic Association in Trauma, and the Italian Society of Orthopaedics and Traumatology).
 - k. Journal of the American Chiropractic Association.
 - 1. Journal of Spine.
 - m. Orthopedic & Muscular System: Current Research.
 - n. Journal of Back and Musculoskeletal Rehabilitation.
 - o. Journal of Neurological Disorders.
 - p. International Scholarly Research Network—Pain.
 - q. SciTechnol. Journal of Spine and Neurosurgery.
- 9. San Diego Sheriff's Office, Special Enforcement Division (SWAT), Underwater Search & Recovery Team.
- 10. Consultant to the Personal Injury Committee of the California Chiropractic Association.
- 11. Grant Reviewer
 - a. Foundation for Chiropractic Education and Research (FCER).
 - b. National Institutes of Health (NIH).
- 12. Team Physician--Amateur Sports Development USA 1987 Men's Basketball tour to Denmark and Sweden.
- 13. Team Physician--University of California San Diego, Men's Basketball, Australia and New Zealand tour, 1990.

CURRENT RESEARCH PROJECTS

The RAND Corporation. *The Appropriateness of Spinal Manipulation/Mobilization for Chronic Neck Pain Patients*. National Center for Complementary and Integrative Health (previously named the National Center for Complementary and Alternative Medicine) at the National Institutes of Health.

AFFILIATIONS/MEMBERSHIPS

- 1. American College of Chiropractic Orthopaedists.
- 2. American Chiropractic Association.
- 3. California Chiropractic Association.
- 4. Academy of Chiropractic Orthopaedists.
- 5. Society of Automotive Engineers.

Curriculum Vitae, Dr. A.C. Croft Page 4 of 21

DWARDS

- 1. Awarded First Place: Scientific Papers Award of 1984 by the American Chiropractic Association.
- 2. Awarded Third Place: Scientific Papers Award of 1987 by the American Chiropractic Association.
- 3. *Emmy Nomination*, 1991. National Academy of Television Arts and Sciences. *WHIPLASH*, Best Performer Category. Executive producer, script and screenplay: A.C. Croft.
- 4. Awarded the Distinguished Service Award, 1992, by the Pennsylvania Chiropractic Society.
- 5. Awarded the Educational Excellence Award, 1992, by the Florida Chiropractic Association.
- 6. Awarded the *Chiropractor of the Century Award*--1895-1995, by the San Diego Society of the California Chiropractic Association.
- 7. Commendation for outstanding service, San Diego County Sheriff, May, 1999.
- 8. Distinguished Service Award, Southern University of Health Sciences Alumni Association, March, 2003.

PATENTS

1. Self actuated cervical traction device. U.S. Patent 7,033,333 B1, April 25, 2006; 7 claims.

EDUCATIONAL VIDEOTAPES/DVDs

- 1. Croft AC, Foreman SM: *Personal Injury Assessment: Physical Examination*. Baltimore, Williams & Wilkins Co., 1988. [VHS.]
- 2. Croft AC, Foreman SM: *Personal Injury Assessment: Advanced Imaging Techniques*. Baltimore, Williams & Wilkins Co., 1988. [VHS.]
- 3. Croft AC, Foreman SM: Personal Injury Assessment: Electrodiagnostic Testing. Baltimore, Williams & Wilkins Co., 1988. [Tapes 1-3 have been translated into Japanese and Italian.] [VHS.]
- 4. Croft AC: Assessment of the patient presenting with radiculopathy. DC Tracts, Baltimore, Data Trace Chiropractic Publishers, Inc., 1989. [VHS.]
- 5. Croft AC: Whiplash. San Diego, Spine Research Institute of San Diego, 1990. [VHS and DVD.]
- 6. Swenson RS, Terrett AGJ, Croft AC: *Spotlight on Cerebrovascular Accident*. Foundation for Chiropractic Education and Research, 1995. [VHS.]
- 7. Croft AC: Machine vs. Man 1. San Diego, Spine Research Institute of San Diego, 2001. [VHS and DVD.]
- 8. Croft AC: Machine vs. Man 2. San Diego, Spine Research Institute of San Diego, 2004. [DVD.]
- 9. Croft AC: Machine vs. Man 3. San Diego, Spine Research Institute of San Diego, 2018. [DVD.]
- 10. Croft AC: Machine vs. Man 4. San Diego, Spine Research Institute of San Diego, 2018. [DVD.]

WEBSITE TRAINING

Developed a training module for mandatory medical accredited training program for direct and indirect medical experts in the United Kingdom: medco.opil.bondsolon.com.

PRESENTATIONS

- 1. "Whiplash trauma." San Diego Chiropractic Society, San Diego, CA, May, 1987.
- 2. "Biomechanics of the cervical spine." San Diego Chiropractic Society, February, 1988.
- 3. "Biomechanics of Whiplash." "Whiplash Premier Multidisciplinary Symposium." University of British Columbia, Vancouver, BC, Canada, November 26-27, 1988.
- 4. "The cervical acceleration/deceleration syndrome." Oregon Chiropractic Physicians Association, Medford, OR, March, 1988.

Curriculum Vitae, Dr. A.C. Croft Page 5 of 21

- 5. "Cervical spine: strain, sprain and secondary affections." Annual meeting of the American College of Chiropractic Orthopaedists, Palm Springs, CA, April, 1988.
- "Cervical spine: trauma and treatment." Annual meeting of the Oregon Chiropractic Physicians Association, Medford, OR, August, 1988.
- 7. "Electrodiagnostic procedures in clinical practice." Visiting Scholars Program, Los Angeles College of Chiropractic, Los Angeles, CA, November, 1988.
- "Laboratory assessment of neurological function following cervical spine trauma." Visiting Scholars Program, New York Chiropractic College, Long Island, NY, January, 1989.
- 9. "Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome." Indiana State Chiropractic Convention, Indianapolis, IN, March 4-5, 1989.
- 10. "Neurology of Soft Tissue Trauma." Georgia Chiropractic Association Convention, Jekyll Island, GA, April 28-30, 1989.
- 11. "Tracking the Signs of Injury." 1st Annual Meeting of the American College of Orthopedic Medicine, Fort Worth, TX, June 7-11, 1989.
- 12. "Neurology of Soft Tissue Trauma." New York Chiropractic College, CME, Long Island, NY, July, 1989.
- 13. "Whiplash Trauma." Tidewater Chiropractic Society Convention, Williamsburg, VA, October 21-22, 1989.
- 14. "Taking the Pain Out of Whiplash Injuries." Hawaii State Chiropractic Association, Maui, HI, October 26-29,
- 15. "Rehabilitation of Cervical Spine Trauma." Chiropractic Rehabilitation Association, CME, Harrisburg, PA, November, 1989.
- 16. Postgraduate relicensing seminars (CME) for LACC--1987, 1988.
- 17. "Whiplash Injuries." Chiropractic Society of Oregon, Portland, OR, January, 1990.
- 18. "Soft Tissue Injuries: Neurology." Washington State Chiropractic Association, Seattle, WA, January, 1990.
 19. "Neurology of Soft Tissue Trauma." Washington Chiropractic Association, Tukwila, WA, February 9-11, 1990.
- 20. "The Neurology of Soft Tissue Injuries to the Neck." Indiana State Chiropractic Association, Indianapolis, IN, February 24-25, 1990.
- 21. "Whiplash Injuries." Pennsylvania State Chiropractic Association, Valley Forge, PA, March, 1990.
- 22. "Evaluation of Whiplash Injuries"; Advances in Chiropractic Manipulation"; "Chiropractic Treatment of Chronic Soft Tissue Pain." San Francisco Spine Institute, San Francisco, CA April 1-3, 1990.
- 23. "Taking the Pain Out of Whiplash Injuries." Vermont Chiropractic Association, Manchester, VT, April 28-29,
- 24. "Acceleration Injuries of the Cervical Spine: Diagnosis and Treatment." Canadian Memorial Chiropractic College, Toronto, Canada, May, 1990.
- 25. "Whiplash Injuries: The Acceleration/Deceleration Syndrome." South Carolina Chiropractic Association, Myrtle Beach, SC, June, 1990.
- 26. "The Cervical Spine in Trauma." Arizona State Chiropractic Association, Tucson, AZ, July, 1990.
- 27. "Evaluation And Treatment of Motor Vehicle Trauma: The Cervical Spine." Texas Chiropractic College, Homecoming, 1990, Houston, TX, August, 1990.
- 28. "Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome." Montana Chiropractic Physiology Council, Helena, MT, September 15-16, 1990.
- 29. "Whiplash Injuries." Wisconsin Chiropractic Association 1990 Fall Convention, Stevens Point, WI, October 4-7, 1990.
- 30. "Whiplash Injuries: The Acceleration/Deceleration Syndrome." Leden Nederlandse Chiropractoren Associatie, Amsterdam, The Netherlands, October, 1990.
- 31. "MRI of the Spine: a Chiropractic Perspective." San Francisco Magnetic Resonance Center, University of California, San Francisco, CA, November, 1990.
- 32. "Clinical Advances in Spinal Therapy and Patient Management." Third Annual International Multi-Disciplinary Symposium, Health Challenges Today, Inc., Vancouver, BC, Canada, November 16-18, 1990.
- 33. "Whiplash." Ohio State Chiropractic Association/North Central Academy of Chiropractic, Canton, OH, December 8-9, 1990.
- 34. "Acceleration/Deceleration Injuries From Road Traffic Accidents." Manitoba Chiropractic Association, Manitoba, Canada, April, 1991.
- 35. "Whiplash Update: 1991." West Virginia Chiropractic Association, Morgantown, WV, June 13-16, 1991.
- 36. "Inter-rater Reliability Study of Videofluoroscopy Interpretations." 1991 Joint Motion Society Videofluoroscopy Conference, Atlanta, GA, August 10, 1991.

Curriculum Vitae, Dr. A.C. Croft Page 6 of 21

- 37. "Medicolegal Considerations in Cervical Spine Trauma." Pennsylvania Chiropractic Society, Philadelphia, PA, October, 1991.
- 38. "Whiplash Update." Mississippi Chiropractic Association, Jackson, MS, November, 1991.
- 39. "Fibromyalgia Update." Hawaii State Chiropractic Association, Kauai, HI, December, 1991.
- 40. "Whiplash: the Masters' Program", 60 hour relicensing program; San Francisco, CA, Houston, TX, Philadelphia, PA, Orlando, FL, 1992.
- 41. "Pain syndromes; Fibromyalgia Update." Motion Palpation Conference, Kauai, HI, March 1-7, 1992.
- 42. "New Concepts in CADS." Florida Chiropractic Association, Winter Convention, Miami, FL, 1992.
- 43. "Diagnostics, treatment and case management." Norwegian Chiropractic Association, Winter Meeting, Oslo, Norway, January, 1993.
- 44. "The First True Renaissance." San Diego Chiropractic Society, San Diego, CA, March, 1993.
- 45. "Whiplash." Colorado State Chiropractic Association, Colorado Springs, CO, September, 1993.
- 46. "Special Concepts of the Whiplash Phenomenon." New Hampshire Chiropractic Association, Concord, NH, November, 1993.
- 47. "Low Impact Collision Research--an Update." Jewish Hospital, Cincinnati, OH, April, 1994.
- 48. "CAD Injuries." Western States Chiropractic College Homecoming, Portland, OR, June, 1994.
- 49. Whiplash Lectures. Iowa Chiropractic Society, Des Moines, IA, April, 1995.
- 50. Whiplash Lectures. Ohio State Chiropractic Association, April, 1994.
- 51. Whiplash CCA/CCF Conference, Palm Springs, CA, June 1994.
- 52. *Whiplash Lectures*. Danish Chiropractic Association and Insurance Commission, Copenhagen, September, 1994.
- 53. Whiplash Lectures. Indiana Chiropractic Association, Indianapolis, IA, September, 1994.
- 54. Whiplash Lectures. Virginia Chiropractic Association, Virginia Beach, VA, September, 1994.
- 55. Whiplash Lectures. Maine Chiropractic Association, Portsmouth, ME, October, 1994.
- 56. Whiplash Lectures. Alabama Chiropractic Association, Mobile, AL, October, 1994.
- 57. Whiplash Lectures. Idaho Chiropractic Association, Boise, ID, May, 1995.
- 58. "Whiplash: Principles and Introduction to Management." Chiropractic Grand Centennial Celebration, Washington D.C., July, 1995.
- 59. "Mock Trial." Chiropractic Grand Centennial Celebration, Davenport, IA, September 16, 1995.
- 60. "Epidemiology of Whiplash in the USA." Also, Consensus Panel on Whiplash Management. Physical Medicine Research Foundation, 8th International Symposium, Banff, Canada, October 13-15, 1995.
- 61. International Symposium: "Whiplash '96, Current Concepts in the Prevention, Diagnosis, and Treatment of the Cervical Whiplash Syndrome," Brussels, Belgium, November 15-16, 1996.
- 62. "Cervical Acceleration/Deceleration Trauma." '96 American College of Chiropractic Orthopaedists Convention, Scottsdale, AZ, May 23-26, 1996.
- 63. "Whiplash to the Cervical Spine." Texas Chiropractic Association, Lubbock, TX, March 14-16, 1997.
- 64. Whiplash Lectures. South Dakota Chiropractors Association, Rapid City, SD, April 17-18, 1997.
- 65. "The Whiplash: What Happens to the Neck and Back?" International Whiplash Conference, Bristol, England, September 2-4, 1997.
- 66. "HWS-Distorsion (Schleudertrauma) & Leichte Traumatische Hirnverletzung. Whiplash Injury-Pathophysiology; Low Velocity Impact," Basel, Switzerland, June 24-26, 1998.
- 67. "Outcome Measures in Whiplash Injuries; Legal Issues in Personal Injury." Carle Foundation Hospital, Urbana, IL, September 10, 1998.
- 68. "Cervical Trauma and the MVC: an Update." Alaska Chiropractic Association Convention, Anchorage, AK, September 26, 1998.
- 69. "Forces on the Brain." Road Accidents and the Mind Conference: an in-depth study of psychological symptoms after road accidents, Bristol, England, Sep 1-3, 1998.
- 70. "Low Speed Crashes and the Cervical Spine." Buffalo MRI, Buffalo, NY, April 17-18, 1999.
- 71. "HWS-Distorsion (Schleudertrauma) & Leichte Traumatische Hirnverletzung. Behandlungskonzepte. *Overview of the chiropractic clinical approach to cervical acceleration/deceleration injuries*," Basel, Switzerland, June 24-26, 1999.
- 72. "Whiplash Mechanics." Oklahoma State Chiropractic Association Convention, Tulsa, OK, October 16-17, 1999.
- 73. "Whiplash: Advanced Topics." Northeast Ohio Academy of Chiropractic, Cleveland, OH, November 6-7, 1999.
- 74. "Crash Testing at Low Speed, Low Impact, with Human Volunteers (General Session)"; "Accident Reconstruction—Biomechanics of Low Speed Motor Vehicle Collisions (workshop with Michael D. Freeman),"

Curriculum Vitae, Dr. A.C. Croft Page 7 of 21

- American Back Society/Saint Mary's Regional Medical Center, Advances in Spinal Diagnosis and Treatment for the 21st Century, Las Vegas, NV, December 8-11, 1999.
- 75. "What we know from volunteer tests," and "What evidence supports a link between whiplash and fibromyalgia, chronic pain, and multiple sclerosis." The Whiplash 2000 Conference, Bath, U.K., May 16-18, 2000.
- 76. "Treating Whiplash Injuries." California Chiropractic Association Summer Convention, San Diego, CA, June 23-25, 2000.
- 77. "Advances in Low Speed Impacts and Injury Mechanisms." Chiropractic Biophysics 2000 Annual Convention, New Orleans, LA, September 22-24, 2000.
- 78. The Neck Injury Criterion (NIC): Future Considerations (poster), Association for the Advancement of Automotive Medicine, Chicago, IL, October 1-4, 2000.
- 79. "Defining Whiplash," Oklahoma Chiropractic Association, Tulsa, OH, October 21-22, 2000.
- 80. (General session) "Low-speed crash testing—what have we learned about whiplash?" and "Accident reconstruction—biomechanics of vehicular injuries" (breakout session). American Back Society/Saint Mary's Regional Medical Center, Vancouver, BC, Canada, December 6-10, 2000.
- 81. Freeman MD, Centeno C, Croft AC (presentation by Croft): "Significant spinal injury resulting from low-level accelerations: a comparison with whiplash," International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 82. Croft AC, Freeman MD (presentation by Croft): "Differential occupant kinematics and head linear acceleration between frontal and rear automobile impacts at low speed: evidence for a differential injury risk," International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 83. Centeno C, Freeman MD, Croft AC (presentation by Centeno): "A comparison of the functional profile of an international cohort of whiplash-injured patients and non-patients: an internet study." International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 84. Palmer Institute, Palmer College of Chiropractic, Davenport, IA, April 21-22, 2001.
- 85. "Automobile crash reconstruction in low speed rear impact crashes utilizing a momentum, energy, and restitution (MER) method" (poster). International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 86. (General session) "Chronic post whiplash pain: organic vs. psychosocial models—an international collaborative clinical review," and "Accident reconstruction—biomechanics of low impact vehicular injuries" (breakout sessions). American Back Society/Saint Mary's Regional Medical Center, Orlando, FL, December 6-9, 2001.
- 87. "Whiplash Injury: Mechanisms of Injury, Pathophysiology, and Treatment," Croft AC, Lord S, and Freeman MD, 10th World Congress on Pain, International Association for the Study of Pain, San Diego, August 17-22, 2002.
- 88. "Whiplash: Advanced Topics," Chiroform, Copenhagen, Denmark, September 7-8, 2002.
- 89. "How to Minimize Whiplash Pain," Keynote speaker, North Carolina Chiropractic Association, Raleigh North Carolina, September 13-15, 2002.
- 90. "Differential Occupant Kinematics and Forces Between Frontal and Rear Automobile Impacts at Low Speed: Evidence for a Differential Injury Risk," International Research Council on the Biomechanics of Impact (IRCOBI), International Conference, 2002, September 18-20, Munich, Germany.
- 91. "Low Speed Frontal Crashes And Low Speed Rear Crashes: Is There A Differential Risk For Injury?" (Presented by Dr. Michael Haneline), 46th Association for the Advancement of Automotive Medicine (AAAM) Annual Scientific Conference, Tempe, Arizona, September 29-October 2, 2002.
- 92. Keynote Speaker, Nebraska Chiropractic Physician's Association Annual Convention, Lincoln, Nebraska, March 22-23, 2003.
- 93. Commencement Address, Southern California University of Health Sciences, Graduating Class of Spring, 2003, La Mirada, CA, April 18, 2003.
- 94. "State of the Art Chiropractic Management of Acute Spine Injuries" (Plenary Session Address) and "The Biomechanics of Whiplash Injuries" (Workshop Session), World Federation of Chiropractic's 7th Biennial Congress, Orlando, Florida, May 1-3, 2003.
- 95. "Whiplash Biomechanics: What We Know as of Summer 2003," and "The Pathophysiology of Whiplash Injuries and their Diagnostic Counterparts: is it Muscle or Spine?" International Spinal Trauma Conference, Chicago, IL, June 20-22, 2003.
- 96. The Role of Scientific Research and its Impact on Chiropractic." Parker Seminars, Anaheim, CA, June 12-15, 2003.

Curriculum Vitae, Dr. A.C. Croft Page 8 of 21

- 97. "Fatal Head Injury Cases in a Rural Oregon County," Freeman MD, Croft AC, Centeno C, 19th World Congress of the International Traffic Medicine Association, Budapest, Hungary, September 14-17, 2003.
- 98. "What have we learned from human subject low speed crash testing?" 2003 International Whiplash Trauma Congress, Denver, CO, October 9-10, 2003.
- 99. "Science, Research and Literature: Their Impact on the Modern Clinical Practice." California Chiropractic Association Summer Convention, San Diego, California, June 19, 2004.
- 100. "Risk assessment: biomechanics of low-velocity vehicular injuries," at Advanced Diagnosis & Treatment for Neck & Back Pain. University of Pittsburg School of Medicine Center for Continuing Education in the Health Sciences and the American Back Society, Las Vegas, NV, December 8-11, 2004.
- 101. "Prevalence of Herniated Intervertebral Discs of the Cervical Spine in Asymptomatic Subjects Using MRI Scans: A Qualitative Systematic Review." [Presented by Anthony D'Antoni.] 2005 International Whiplash Trauma Congress, February 25-25, 2005, Breckenridge, CO.
- 102. "Prognosis and Chiropractic Management of Whiplash Injuries" (Plenary Session Address) and "The Biomechanics of Whiplash Injuries" (Workshop Session), World Federation of Chiropractic's 8th Biennial Congress, Sydney, Australia, June 16-18, 2005.
- 103. "Prevalence of Herniated Intervertebral Discs of the Cervical Spine in Asymptomatic Subjects Using MRI Scans: A Qualitative Systematic Review." [Presented by Anthony D'Antoni.] Sixteenth Annual Research Colloquium, Seton Hall University, South Orange, New Jersey, May 13, 2005.
- 104. "How does injury occur: the biomechanical aspect." Also "Biomechanics," "Accident Reconstruction: how useful is it?" "What car would you drive?" "What, if anything, can be measured?" and participated in mock trial. Injury in Low Velocity Collisions Conference 2005. Lyons Davidson. Bristol, England, October 11-12, 2005.
- 105. "The RID2 biofidelic rear impact dummy: a validation study using human subject in low speed rear impact full scale crash tests. Neck injury criteria (NIC)." 2006 SAE World Congress, Technical Paper Series 2006-01-0067, April 3-6, Detroit, MI, 2006.
- 106. "Human subjects exposed to very low velocity frontal collisions." 5th World Congress of Biomechanics (incorporating the 15th European Society of Biomechanics, the 31st Congress of the Societé de Bioméchanique, and the ESEM 4th International Symposium on Microdamage), Munich, Germany, July 29th to August 4th, 2006.
- 107. "Biomechanical and kinematic differences between rear impact and frontal impact automobile crashes at low velocities." 5th World Congress of Biomechanics (incorporating the 15th European Society of Biomechanics, the 31st Congress of the Societé de Bioméchanique, and the ESEM 4th International Symposium on Microdamage), Munich, Germany, July 29th to August 4th, 2006.
- 108. "Auto crash reconstruction. Advanced diagnostics and treatment." Minnesota Chiropractic Association Fall Convention, Bloomington, MN, October 10-11, 2008.
- 109. "Auto crash reconstruction. Advanced diagnostics and treatment." Nevada Chiropractic Association Fall Convention, Las Vegas, NV, October 25-26, 2008.
- 110. "Whiplash and Brain Injury Traumatology." 14th Annual Black Hills Chiropractic Society, Rapid City, SD, October 2-4. 2009.
- 111. "Whither the Controversy," and "The 'average person': allowing for occupant characteristics and injury vulnerability." International Whiplash Conference 2012. April 24-26, Bristol, United Kingdom.
- 112. "The Silent Epidemic" [Keynote address]. Also; "Injury mechanisms: what we have learned from human subject crash testing and forensic investigation." 16th Annual Neuroscience of Brain Injury Conference, Brain Injury Association of California, Santa Rosa, CA, November 6-7, 2015.
- 113. "Whiplash-induced traumatic brain injury." 19th Annual Neuroscience of Brain Injury Conference, Brain Injury Association of California, San Diego, CA, February 23, 2018.
- 114. "Upper cervical biomechanical vulnerability." ICA Council on Upper Cervical Care: Advances in Spinal Care, Coronado, CA, June 21-23, 2018.
- 115. "The relationship between mTBI and WAD." TBI Med Legal; Brain Injury Association of California, San Diego, CA, April 5-6, 2019.

TEXTBOOKS AND OTHER BOOKS

Curriculum Vitae, Dr. A.C. Croft Page 9 of 21

- 1. Croft AC: Atherosclerosis: It's progression and regression. University of Bridgeport (CT), *Masters Thesis*, 1982
- 2. Foreman SM, Croft AC: *Whiplash Injuries. The Cervical Acceleration/Deceleration Syndrome*. Baltimore, Williams & Wilkins Co., 1988. (Japanese version by Enterprise Publishing Co., Tokyo, 1988).
- 3. Croft AC: Whiplash: The Patient's Guide to Recovery . Arthur C. Croft, 1995.
- 4. Steigerwald DP, Croft AC: Whiplash & TMJ Dysfunction: An Algorithmic Approach to Case Management. Encinitas, Kaiser Publishing Co., 1993.
- 5. Croft AC: Advances in the clinical understanding of acceleration/deceleration injuries to the cervical spine. In Lawrence D, Cassidy JD, McGregor M, Meeker WC, Vernon HT (eds): *Advancements in Chiropractic*, vol 2, Chicago, Mosby Year Book, Inc., 1995.
- 6. Foreman SM, Croft AC: Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome (ed 2). Baltimore, Williams & Wilkins Co., 1995.
- 7. Croft AC: Low speed rear impact collisions: In search of an injury threshold. In Allen M (ed): *Musculoskeletal Pain Emanating from the Head and Neck. Current Concepts in Diagnosis, Management, and Cost Containment*. New York, Haworth Medical Press, 1996.
- 8. Freeman MD, Croft AC: The controversy over late whiplash: Are chronic symptoms following whiplash real? In Szpalski M, Gunzburg (eds): *Whiplash Injuries*. New York, Lippincott-Raven, 1997.
- 9. Croft AC: Mechanisms of cervical acceleration/deceleration (whiplash) injury and the basis for chronic pain. In Siegfried J, Grehl O, Hosali IP (eds), *Psychosomatic Illness— An International Review of Disorders and the Empirical Evidence*. In press, Toronto, Hogrefe Publishers. [Note: title may change to *Psychosomatic Illness: An In-depth Approach To Treatment*.]
- 10. Croft AC: Delay in onset of symptoms; standardized WAD grading systems. *A Practitioner's Guide to Understanding Whiplash Associated Disorders*. Toronto, Canadian Chiropractic Association), 2000.
- 11. Foreman SM, Croft AC: Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome (ed 3). Baltimore, Lippincott Williams & Wilkins Co., 2002.
- 12. Croft AC: *Proceedings of the Annual SRISD Scientific Conference*, San Diego, Spine Research Institute of San Diego. [These have been published annually: 1998-2018.]
- 13. Croft AC: *Whiplash: Advanced Topics*. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 14. Croft AC: Advanced Diagnostics and Treatment and Auto Crash Reconstruction. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 15. Croft AC: *Narrative Report Writing and Practice Development*. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 16. Croft AC: *Medlegal Issues*. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 17. Croft AC: Whiplash and Mild Traumatic Brain Injuries: A Guide for Patients and Practitioners. SRISD Press, Coronado, 2009.
- 18. Croft AC. How my work applies to MIST (and other) cases. A chapter in: Ball D, Keenan D, eds. *Reptile in the Mist (And Beyond)*. New York: Balloon Press; 2013.
- 19. Croft AC: Economy of writing: how to write technical content. Chapter 54 in Shoja MM, Tubbs RS, D'Antoni AV, Loukas M, eds. *A Guide to the Scientific Career: Communication, Virtues, Communication, Research, and Academic Writing*, John Wiley & Sons, Hoboken, 2019.
- 20. Croft AC: Property damage vs. injury risk in low velocity collisions; and Biomechanical features of low velocity collisions. Chapters in DeShaw A, ed. Crash: *Handling and Trying Minor Impact Cases*. Portland, Trial Guides. In production.
- 21. Croft AC: Medical testing. A chapter in Romano G, ed. *Anatomy of a Personal Injury Lawsuit* (4th edition). American Association of Justice (AAJ) Press, 2015.

JOURNAL PUBLICATIONS

Peer-Reviewed, Indexed Journals (indices include MEDLINE, CINAHL, MANTIS, Index to Chiropractic Literature, WebDex, and Health Index)

- 1. Croft AC: Alcoholic polyneuropathy: new concepts for an old problem. *J American Chiropractic Assoc*, 17(5):45-56, May, 1983.
- 2. Croft AC: Atherosclerosis: It's progression and regression--a review of the literature. *J American Chiropractic Assoc*, 18(8):51-66, August, 1984.
- 3. Croft AC: Not professional? J American Chiropractic Assoc, 21(3):8, March, 1984. Letter.
- 4. Croft AC: Anabolic steroids: the controversy continues. *J American Chiropractic Assoc*, 18(10):59-69, October, 1984.
- 5. Croft AC: Nutritional aspects of the diabetic pregnancy. *J American Chiropractic Assoc*, 23(2):35-52, February, 1986.
- 6. Croft AC, Foreman SM: Unilateral pseudonotch of the atlas vertebra simulating fracture. *J American Chiropractic Assoc*, 20(12):44-50, December, 1986.
- 7. Foreman SM, Croft AC: MR and CT imaging of the cervical spine after trauma: an algorithm. *J American Chiropractic Assoc*, 24(11): 65-68, November, 1987.
- 8. Croft AC: Foreman SM: The anterior subluxation: its significance in cervical spine trauma. *The American Chiropractor*, October, 1987, 10-14.
- 9. Croft AC: Foreman SM: An Interview. *The American Chiropractor*, 6, November 1987.
- 10. Croft AC: Causalgia. American Journal of Orthopaedic Medicine, 1(3): 5-7, March, 1989.
- 11. Croft AC: Fluoroscopy is often overused. (Letter to Editor). *J American Chiropractic Assoc*, 26(11): 14-69, November, 1989.
- 12. Croft AC, Foreman SM: The cervical acceleration/deceleration syndrome: a proposal for management algorithms. *ACA Journal of Chiropractic*, 26(6): 59-72, June, 1989.
- 13. Croft AC: Treatment paradigm for cervical acceleration/deceleration injuries (whiplash). *J American Chiropractic Association*, 30(1): 41-45, 1993.
- 14. Croft AC, Cromwell LD, Holmes B, Kaplan MS, Meeker W, Milus T, Vernon H: Persistent back pain following a work-related injury. Grand rounds. *J Neuromusculoskeletal System*. 1(1):30-44, 1993.
- 15. Croft AC: Cervical acceleration/deceleration trauma: critical re-appraisal of physical and biomechanical events. *J Neuromusculoskeletal System* 1(2): 45-41, 1993.
- 16. Croft AC: Treatment paradigm for cervical acceleration/deceleration injuries (whiplash). *J American Chiropractic Assoc*, 30(1): 41-45, 1993.
- 17. Croft AC, Cromwell L, Erhard RE, Hyde TE, Kaplan MS, Light D, Matuskey J, Morrison B, Swenson R: Injuries in rear-end automobile accident: grand rounds. *J Neuromusculoskeletal System* 1(3):135-148, 1993.
- 18. Croft AC: The case against "litigation neurosis" in mild head injuries and cervical acceleration/deceleration trauma. *J Neuromusculoskeletal System*, 1(4): 149-155, 1993.
- 19. Croft AC: Letter to Editor regarding thermography. J Chiropractic Res Clin Invest, 8(4): 65-66, 1993.
- 20. Croft AC, Krage JS, Pate D, Young DN: Videofluoroscopy of cervical spine trauma—an interinterpreter reliability study. *J Manip Physio Ther*, 17(1): 20-24, 1994.
- 21. Conley RN, Croft AC, Erhard RE, Sandefur R, Timko MG, Vernon H: Grand rounds: neck and shoulder pain following a cervical disc injury. *J Neuromusculoskeletal System* 2(4):212-218, 1994.
- 22. Croft AC, Young DN: Videofluoroscopy: a sampling of chiropractic radiologist's opinions. *Topics in Diagnostic Radiology and Advanced Imaging*, 2(1): 4-10, 1994.
- 23. Croft AC: Whiplash: contemporary considerations in assessment, management, treatment, and prognosis [1(4):156-166, 1993]. Letter to the editor. *J Neuromusculoskeletal System* 2(2):97-98, 1994.
- 24. Croft AC: Proposed classification of cervical acceleration/deceleration (CAD) injuries with a review of prognostic research. *Palmer Journal of Research*, 1(1): 10-21, 1994.
- 25. Croft AC, Swenson RS, Tarola GA, Vernon H: Grand rounds: Symptoms following a motor vehicle accident. *J Neuromusculoskeletal System* 3(4):203-210, 1995.
- 26. Croft AC: Letter to the editor regarding Bovim article Neck Pain in the General Population. *Spine* 20(5):627-628, 1995.
- 27. Croft AC: Appropriateness of cervical spine manipulation: a survey of practitioners. *Chiropractic Technique* 8(4):178-181, 1996.
- 28. Conley RN, Croft AC, Delitto A, Erhard RE, Mior SA, Tarola GA, Thomas GP, Welch WC: Grand rounds: Cervical pain and dizziness in a patient with a hypermobile cervical motion segment. *J Neuromusculoskeletal System* 4(1):30-39, 1996.
- 29. Croft AC: Low speed impact collisions: in search of an injury threshold. *J Musculoskeletal Pain* 4(4):39-46, 1996.

Curriculum Vitae, Dr. A.C. Croft Page 11 of 21

- 30. Sehnert K, Croft AC: Basal metabolic temperature vs. laboratory assessment in posttraumatic hypothyroidism. *J Manip Physio Ther* 19(1):6-12, 1996.
- 31. Bergmann TF, Cassidy JD, Croft AC, Rich JA, Swenson RS: Grand rounds: Continued neck pain following motor vehicle accident. *J Neuromusculoskeletal System* 5(3):117-128, 1996.
- 32. Freeman MD, Croft AC: Late whiplash syndrome. Lancet 348(9020):125, 1996.
- 33. Croft AC: Refuting "no crash, no cash (letter to editor) *J American Chiropractic Association* 33(6):10-58, 1996.
- 34. Croft AC, Freeman MD: 'Railway spine' to 'late whiplash.' Cases of wrongful controversy? *Topics in Clinical Chiropractic*, 5(3):54-61, 1998.
- 35. Croft AC: Reply in 'Letters on grand rounds' (Continued neck pain following motor vehicle accident. *J Neuromusculoskeletal System* 5(3):117-128, 1997). *J Neuromusculoskeletal System* 6(1):45-47, 1998.
- 36. Freeman MD, Croft AC, Rossignol AM: "Whiplash-Associated Disorders (WAD)—Redefining Whiplash and its management" by the Quebec Task Force: A critical evaluation. *Spine* 23(9):1043-1049, 1998.
- 37. Freeman MD, Croft AC, Rossignol AM, Weaver DS, Reiser M: A review and methodological critique of the literature refuting whiplash syndrome. *Spine* 24(1):86-96, 1999.
- 38. Harrison DD, Harrison SO, Croft AC, Harrison DE, Troyanovich SJ: Sitting biomechanics, part I: review of the literature. *J Manip Physio Ther* 22(9):594-609, 1999.
- 39. Harrison DD, Harrison SO, Croft AC, Harrison DE, Troyanovich SJ: Sitting biomechanics, part II: optimal car driver's seat and optimal driver's spinal model. *J Manip Physio Ther* 23(1):37-47, 2000.
- 40. Croft AC: Whiplash injury: the current model. J American Chiropractic Association 37(7):32-42, 2000.
- 41. Freeman MD, Croft AC, Rossignol AM. A critical evaluation of the methodology of a low back pain clinical trial. *J Manip Physio Ther* 23(5):363-4, 2000.
- 42. Croft AC: Whiplash. J American Chiropractic Association 38(9):28-32, 2001.
- 43. Croft AC, Herring P, Freeman MD, Haneline MT: The neck injury criterion (NIC): future considerations. *Accid Anal Prev* 34(2)247-255, 2002. [Abstract available at CSA Aerospace & High Technology Database.]
- 44. Haneline MT, Croft AC: Chiropractic manipulation of the neck with Horner's syndrome and internal carotid artery dissection. *J American Chiropractic Assoc* 39(4):18-20, 2002.
- 45. Croft AC et al. (interview): More than a pain in the neck: whiplash. Immovable object, unstoppable force. *J American Chiropractic Assoc*, 39(4):13-15, 2002.
- 46. Haneline MT, Croft AC, Frishberg BM: The association of internal carotid artery dissection and chiropractic manipulation. *Neurologist* 9(1):35-44, 2003.
- 47. Croft AC, Herring P, Freeman MD, Centeno C, Haneline MT, Baric JJ: Late (chronic) whiplash injury. Public health perspectives amidst a controversial literature. *J American Chiropractic Association* 40(8):26-32, 2003.
- 48. Haneline MT, Croft AC: Internal carotid artery dissection following chiropractic manipulation: clinical features and mechanisms of injury. *J American Chiropractic Association* 40(5):20-24, 2003.
- 49. Croft AC: "Manipulopathy": the risk of cervical arterial dissection, cerebrovascular accident, and chiropractic manipulative therapy. *J American Chiropractic Association* 40(7):22-25, 2003.
- 50. Croft AC, Freeman MD: Correlating crash severity with injury risk, injury severity, and long-term symptoms in low velocity motor vehicle collisions. *Med Sci Monit* 2005 11(10):RA316-321.
- 51. Freeman MD, Croft AC, Nicodemus CN, Centeno CJ, Elkins WL: Significant spinal injury resulting from low-level accelerations: a case series of roller coaster injuries. *Arch Phys Med Rehabil* 2005 Nov;86(11):2126-30.
- 52. D'Antoni A, Croft AC. Prevalence of herniated intervertebral discs of the cervical spine in asymptomatic subjects using MRI scans: a qualitative systematic review. *Journal of Whiplash and Related Disorders* 5(1):5-13, 2005.
- 53. Croft AC, Philippens, MMGM: The RID2 biofidelic rear impact dummy: a validation study using human subject in low speed rear impact full scale crash tests. Neck injury criteria (NIC). 2006 SAE World Congress, Technical Paper Series 2006-01-0067, April 3-6, Detroit, MI, 2006.
- 54. Croft AC: Is high-utilization chiropractic treatment efficacious in whiplash? *Arch Intern Med* 166:1237-1238, 2006.
- 55. Freeman MD, Croft AC, Rossignol AM, Centeno CJ, Elkins WL: Chronic neck pain and whiplash: A case-control study of the relationship between acute whiplash injuries and chronic neck pain *Pain Res Manag* 2006 11(2):79-83.

Curriculum Vitae, Dr. A.C. Croft Page 12 of 21

- 56. Croft AC: Human subjects exposed to very low velocity frontal collisions. *Journal of Biomechanics* 39 (Supplement 1) S146, 2006.
- 57. Croft AC: Biomechanical and kinematic differences between rear impact and frontal impact automobile crashes at low velocities. *Journal of Biomechanics* 39 (Supplement 1) S145, 2006.
- 58. Croft AC, Philippens MMGM: The RID2 biofidelic rear impact dummy: A pilot study using human subjects in low speed rear impact full scale crash tests. *Accid Anal Prev* 39:340-346, 2007.
- 59. Croft AC, D'Antoni AV, Terzulli SL: Update on the antibacterial resistance crisis. *Med Sci Monit*, 2007 13(6): RA103-118.
- 60. Croft AC, D'Antoni AV: Chiropractic manipulation: Reasons for concern? *Clin Neurol Neurosurg*. 110(4):422-3, 2008.
- 61. Croft AC: Early aggressive care and symptomatic recovery from whiplash: Comment on the article by Côté et al. *Arthritis Rheum* 2008 Apr 15;59(4):599-600, 2008.
- 62. Croft AC, Eldridge TR: Human subject rear seat passenger symptoms response to frontal car-to-car low-speed crash tests. *J Chiropractic Medicine* (1):141-146, 2011.
- 63. Croft AC, Workman JA, Szatalowicz MP, Roberts PE, Suiter LR: Classifying whiplash recovery status using the neck disability index: optimized cutoff points derived from receiver operating characteristic. *J Chiropractic Medicine* 15(2):95-101, 2016.
- 64. Croft AC, Milam B, Meylor J, Manning R: Confirmatory factor analysis and multiple linear regression of the neck disability index: assessment if subscales are equally relevant in whiplash and nonspecific neck pain. *J Chiropractic Medicine* 15(2):87–94, 2016.
- 65. Croft AC, Bagherian A, Mickelsen PK, Wagner S: Comparing 2 whiplash grading systems to predict clinical outcomes. *J Chiropractic Medicine* 15(2):81–86, 2016.

Peer-Reviewed, Non-Indexed Journals

- 66. Croft AC: Chiropractors who expand the scope of their practice. *Medical Economics*, 23, December 10, 1984. Letter.
- 67. Foreman SM, Croft AC: Diagnosis of whiplash injuries. *California Chiropractic Association Journal*, 11(4):26-27, April, 1986.
- 68. Foreman SM, Croft AC: Diagnosis of whiplash injuries. *Florida Chiropractic Association Journal*, 30-31, July/August, 1986.
- 69. Croft AC: Letter to Editor regarding malpractice. California Chiropractic Journal, 13(4): 6, April, 1988.
- 70. Croft AC: Radiculopathy: objectivity through electrodiagnostic testing. *DC Tracts*, 1(4): 187-198, August, 1989.
- 71. Croft AC: Neurogenic, vertebrogenic and referred spinal pain: diagnostic dilemma. *Journal of the Pennsylvania Chiropractic Society*, 7(4): 20-21, October/November/December, 1989.
- 72. Croft AC: Muscle contraction headache. *Journal of the Chiropractic Association of Arizona*, 17-18, March/April, 1990.
- 73. Croft AC: Mechanisms of spinal pain. Journal of the South Carolina Chiropractic Society, 4:10-13, 1991.
- 74. Croft AC: The dead whiplash scrolls. Florida Chiropractic Association Journal, 19-20, March/April, 1992
- 75. Croft AC: Research findings in videofluoroscopy. *Florida Chiropractic Association Journal*, 25-26, May-June, 1992.
- 76. Croft AC: The dead whiplash scrolls. *Oklahoma Chiropractic Journal*, 3(2): 8, 1992 (reprinted with permission).
- 77. Croft AC: Diagnosis: primary fibromyalgia syndrome. *Iowa Chiropractic Society Journal*, 14, April, 1992.
- 78. Croft AC, Steigerwald DP: Whiplash can cause TMJ dysfunction. *Iowa Chiropractic Society Journal*, 14-15, June, 1992.
- 79. Croft AC: Primary fibromyalgia syndrome. Texas Journal of Chiropractic, 16-17, January, 1992.
- 80. Croft AC: Proposed classification of cervical acceleration/deceleration injuries. *New Hampshire Chiropractic Association Journal*, Winter, 1992, (reprinted with permission).
- 81. Croft AC, Steigerwald DP: Whiplash and TMJ dysfunction. *Spinal Press* (Hawaii State Chiropractic Association Journal), 3(4): 13-15, 1992.
- 82. Croft AC: Chiropractic manipulative therapy (CMT) in cervical acceleration/deceleration (CAD) trauma. *Townsend Letter for Doctors*, 113: 1134, 1992.

Curriculum Vitae, Dr. A.C. Croft Page 13 of 21

- 83. Croft AC: "Whiplash": An extension injury? *Florida Chiropractic Journal*, November/December, 32-33, 1992.
- 84. Croft AC: Research findings in videofluoroscopy (VF). Townsend Letter for Doctors, 112: 930, 1992.
- 85. Croft AC: The post-concussion syndrome (PCS): what's new? Part I. *Texas Chiropractic Journal*, 10(7): 29-31, 1993.
- 86. Croft AC: The post-concussion syndrome (PCS): what's new? Part II. *Texas Chiropractic Journal*, 10(8):27-29, 1993.
- 87. Croft AC: Efficacy of chiropractic treatment and issues of "scientific validity" in chiropractic and medicine. Part I. *Texas Journal of Chiropractic*, 10(12): 23-26, 1993.
- 88. Croft AC: Efficacy of chiropractic treatment and issues of "scientific validity" in chiropractic and medicine. Part II. *Journal of the South Carolina Chiropractic Association*, 3(3): 21, 1993.
- 89. Croft AC: Efficacy of chiropractic treatment and issues of "scientific validity" in chiropractic and medicine. Part III. *Journal of the South Carolina Chiropractic Association*, 3(5): 21, 1993.
- 90. Croft AC: After trial by science, who'll be on top? *California Chiropractic Association Journal*, 18(7):33-37, 1993.
- 91. Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part I: peripheral pathogenesis. *Florida Chiropractic Association Journal*, 47-49, May/June 1993.
- 92. Croft AC: Proposed classification of cervical acceleration/deceleration (CAD) injuries. *The Voice* (Kentucky Chiropractic Association), 8(2): 7-8, 1993.
- 93. Trends in personal injury: tempest in a teakettle? *Connecticut Yankee—Connecticut Chiropractic Assoc* 25-26, Fourth Quarter, 1993.
- 94. Croft AC: Post concussion syndrome(PCS): what's new? Part II. The Voice, 8(4): 6-15, 1993.
- 95. Croft AC: Lightning, sharks and quick movements of the neck. Keystone J Chiropractic 1(1):15, 1994.
- 96. Croft AC: Getting around to RAND. Alabama State Chiropractic Association J Summer, 1994.
- 97. Croft AC: Carpal tunnel syndrome (CTS) following motor vehicle trauma. *The Alternative—Maine Chiropractic Assoc* 9-13, Summer 1994.
- 98. Croft AC: Advanced diagnostic imaging in cervical spine and neck injuries. D.C. Tracts 6(1):5-8, 1994.
- 99. Croft AC: Impingement syndrome and four frozen shoulder reports. *Florida Chiropractic Assoc* J 58-59, Winter 1994.
- 100. Croft AC: Advanced diagnostic imaging in cervical spine and neck injuries. DC Tracts, 6(1):5-8, 1994.
- 101.Croft AC: Angiography and color coded duplex sonography: applications in the secondary care setting. *Texas J Chiropractic* 12(4):31, 1994.
- 102. Croft AC: Cognitive deficits following cervical spine trauma. Texas J Chiropractic 12(8):31, 1995.
- 103. Croft AC: New insights into the mechanism of acceleration-induced brain injuries. *Chiropractic J North Carolina* 78(2):20-21, 1995.
- 104.Croft AC: Postconcussion syndrome following motor vehicle trauma: new literature. *Florida Chiropractic Association J* 43-45, March-April, 1995.
- 105.Croft AC: Letter. Accid Reconstr J 8(1):21,64, 1996.
- 106.Croft AC: Letter. Forensic Examiner 5(5,6):9-10, 1996.
- 107. Croft AC: Informed consent. Ortho-Briefs 17(2):7, 1996.
- 108.Croft AC: Proposed classification of cervical acceleration/deceleration (CAD) injuries. *Texas J Chiropractic* 14(2):22-23, 1996.
- 109.Croft AC: Standards of care in cervical disk herniation: Results of a nationwide survey. *Texas J Chiropractic* 13(11):24, 1996.
- 110.Croft AC: Lithuanian study: Letter to the editor. *Inroads* 4(1):6, 1997.
- 111.Croft AC, Freeman MD: Invited commentary on Obelieniene D, Schrader H, Bovim G, Misevinciene I, Sand T: Pain after whiplash: a prospective controlled inception cohort study. *J Neurol Neurosurg Psychiatry* 66:279-283, 1999. *The Back Letter*. 14(4):43-45.
- 112. Croft AC: Hyperextension: a factor in whiplash yet again. American J Clinical Chiropractic 9(1):16, 1999.
- 113. Haneline MT, Croft AC: Whiplash in foreign lands: more 'new clothes' for the emperor? *California Chiropractic Association Journal* Apr, 26-27, 2001.
- 114. Croft AC, Haneline MT: Children and whiplash injuries. Florida Chiropractic Association J Jul/Aug, 56-57, 2001.
- 115. Haneline M, Croft A: Lower Back Pain Associated With CAD Injury: Does it Add Up? *Illinois Chiropractic Society News*, June, 4-13, 2001.

Curriculum Vitae, Dr. A.C. Croft Page 14 of 21

- 116. Haneline M: Croft A: NEJM paper reporting stroke risk as one in 20,000 spinal manipulations. *Florida Chiropractic Association Journal* March-April, 18-19, 2002.
- 117. Lewkovich GN: To the point: questions and answers regarding the Croft whiplash treatment guidelines with Arthur C. Croft, DC, MS, DABCO. *California Chiropractic Association Journal* 28(3):222-25, 2003.
- 118. Haneline MT, Croft AC: The relationship of chiropractic neck manipulation to internal carotid artery dissection. *The Forensic Examiner* 12(9,10):38-41, 2003.
- 119. Croft AC: Clinical forensic applications of medical photography. *Florida Chiropractic Association Journal* Nov/Dec, 23-25, 2006.
- 120.Croft AC: Boosting auto safety, starting with kids. *Florida Chiropractic Association Journal* Jan/Feb/Mar, 21-24, 2007.
- 121.Croft AC: All car seats are not created equal: why your choice of booster seats could be putting your child at risk. *To Your Health* April, 15-17, 2007.
- 122. Croft AC: Pain, impairment, whiplash, and the new AMA Guides: what clinicians need to know. *Practical Pain Management*, January/February, 26-33, 2014.

Peer-Reviewed Conference Proceedings

- 123. Freeman MD, Croft AC, Reiser M. Die epidemiologie des Schleudertraumas wo liegt die Schelle Zur Verletzung? (The epidemiology of whiplash—is there a reliable threshold for whiplash injury?) *HWS-Distortion (Schleudetrauma) & Leichte Traumatische, Hirnverletzung*. Edited by Ettlin TM and Mürner J, Berne, Switzerland, June 25-6, 99-118, 1998.
- 124. Freeman MD, Croft AC, Rossignol AM. The prevalence of whiplash-associated chronic cervical pain among a random sample of patients with chronic spine pain. Abstract from proceedings of Cervical Spine Research Society Annual Meeting. Seattle, WA December 13-15, 1999.
- 125. Freeman MD, Croft AC, Rossignol AM. Late whiplash risk factor analysis of a random sample of patients with chronic spine pain. World Whiplash Associated Disorders Congress, Vancouver, British Columbia, February 8-10, 1999
- 126.Croft AC, The Neck Injury Criterion (NIC): Future Considerations. 44th Annual Proceedings of the Association for the Advancement of Automotive Medicine, Chicago, IL, October 1-4, 2000, 519-521.
- 127. Freeman MD, Centeno C, Croft AC, Nicodemus CN: Significant spinal injury resulting from low-level accelerations: a comparison with whiplash. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 1, 2001.
- 128. Croft AC, Haneline MT, Freeman MD: Differential occupant kinematics and head linear acceleration between frontal and rear automobile impacts at low speed: evidence for a differential injury risk. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 28, 2001.
- 129. Croft AC, Haneline MT, Freeman MD: Automobile crash reconstruction in low speed rear impact crashes utilizing a momentum, energy, and restitution (MER) method. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 20, 2001.
- 130. Centeno C, Freeman MD, Croft AC: A comparison of the functional profile of an international cohort of whiplash injured patients and non-patients: an internet study. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2, 2001.
- 131.Freeman MD, Nicodemus CN, Croft AC, Centeno C: Significant spinal injury resulting from low-level accelerations: a case series of roller coaster injuries. Cervical Spine Research Society 29th Annual Meeting, Monterey, CA, Nov 29-Dec 1, 2001.
- 132. Freeman MD, Sapir D, Boutselis A, Gorup J, Tuckman G, Croft AC, Centeno C, Phillips A: Whiplash injury and occult vertebral fracture: a case series of bone SPECT imaging of patients with persisting spine pain following a motor vehicle crash. Cervical Spine Research Society 29th Annual Meeting, Monterey, CA, Nov 29-Dec 1, 2001.
- 133.Croft AC, Haneline MT, Freeman MD: Differential Occupant Kinematics and Forces Between Frontal and Rear Automobile Impacts at Low Speed: Evidence for a Differential Injury Risk, International Research Council on the Biomechanics of Impact (IRCOBI), International Conference, Munich, Germany, September 18-20, 2002, 365-366.
- 134.Croft AC, Haneline MT, Freeman MD: Low speed frontal crashes and low speed rear crashes: is there a differential risk for injury? Proceedings of the 46th Association for the Advancement of Automotive Medicine (AAAM) Annual Scientific Conference, Tempe, Arizona, September 29-October 2, 79-91, 2002.

Curriculum Vitae, Dr. A.C. Croft Page 15 of 21

- 135.Croft AC, Lord S, and Freeman MD: Whiplash Injury: Mechanisms of Injury, Pathophysiology, and Treatment, 10th World Congress on Pain, International Association for the Study of Pain, San Diego, August 17-22, 2002, p482.
- 136.Croft AC: State-of-the-art chiropractic management of acute pain from cervical spine soft-tissue injuries. Conference Proceedings, World Federation of Chiropractic's 7th Biennial Congress, Orlando, Florida, May 1-3, 2003, 49-52.
- 137. Freeman MD, Croft AC, Centeno C: Fatal head injury cases in a rural Oregon county. Proceedings of the 19th World Congress of the International Traffic Medicine Association, Budapest, Hungary, September 14-17, 2003.
- 138.Croft AC: Prognosis and chiropractic management of whiplash injuries. World Federation of Chiropractic's 8th Biennial Congress, Sydney, Australia, June 16-18, 2005.
- 139. D'Antoni A, Croft AC: Prevalence of Herniated Intervertebral Discs of the Cervical Spine in Asymptomatic Subjects Using MRI Scans: A Qualitative Systematic Review. Sixteenth Annual Research Colloquium, Seton Hall University, South Orange, New Jersey, May 13, 2005, CI-7.

Non-Peer-Reviewed, Indexed Journals (indices include MEDLINE, CINAHL, MANTIS, WebDex, Index to Chiropractic Literature, Health Index, and Westlaw)

- 140. Croft AC: Whiplash and brain injuries: cognitive defect or fertile imagination? *Dynamic Chiropractic*, 10(7): 10-35, 1992.
- 141. Croft AC: Activities of daily living (ADL) considerations in cervical acceleration/deceleration (CAD) trauma. *Dynamic Chiropractic*, 10(14): 11-26, 1992.
- 142. Croft AC: The automobile shoulder harness: magic bullet or ricochet? *Dynamic Chiropractic*, 10(5): 23-37, 1992.
- 143. Croft AC: TMJ and whiplash: of forces and farces. Dynamic Chiropractic, 10(9): 15, 1992.
- 144. Croft AC: MVA and MMI: how much is enough? Dynamic Chiropractic, 10(16): 30-31, 1992.
- 145. Croft AC: The biggest research project yet. *Dynamic Chiropractic*, 10(18): 23, 1992.
- 146. Croft AC: What causes those symptoms doctor? Dynamic Chiropractic, 10(22): 24-30, 1992.
- 147. Croft AC: Brain mapping revisited. Dynamic Chiropractic, 10(26): 10-41, 1992.
- 148. Croft AC: Point--counterpoint. Dynamic Chiropractic, 11(6): 26-27, 1993.
- 149.Croft AC: Smoking gun or smoke and mirrors: science vs. nonscience. *Dynamic Chiropractic*, 11(8): 16-17, 1993.
- 150.Croft AC: Thermography in soft tissue trauma: does it have a place? *Dynamic Chiropractic*, 11(10): 22-31, 1993.
- 151. Croft AC: Where is the wisdom lost? Dynamic Chiropractic, 11(14): 13-14, 1993.
- 152. Croft AC: [Letter to Editor] Dr. Croft's response on thermography. Dynamic Chiropractic, 11(16):26, 1993.
- 153. Croft AC: Rebuttal on thermography. Dynamic Chiropractic, 11(18): 14-21, 1993.
- 154. Croft AC: Scientific Writing: discriminating good from bad. Part I: general considerations., *Dynamic Chiropractic*, 11(20): 25-26, 1993.
- 155.Croft AC: Scientific Writing: discriminating good from bad. Part II: surveys. *Dynamic Chiropractic*, 11(22): 16, 1993.
- 156.Croft AC: Scientific Writing: discriminating good from bad. Part III: assignment, assessment, and analysis in experimental studies. *Dynamic Chiropractic*, 11(24):13-34, 1993.
- 157. Croft AC: Scientific Writing: discriminating good from bad. Part IV: interpretation and extrapolation of experimental studies. *Dynamic Chiropractic*, 11(26): 14, 1993.
- 158.Croft AC: Scientific Writing: discriminating good from bad. Part V: sensitivity and predictive value. *Dynamic Chiropractic*, 12(2): 12-43, 1994.
- 159.Croft AC: Mild traumatic brain injuries after motor vehicle accidents. *Dynamic Chiropractic* 12(6):9-35, 1994.
- 160. Croft AC: MRI with contrast. What's new? Dynamic Chiropractic, 12(12): 8-25, 1994.
- 161. Croft AC: Misconceptions indeed! Dynamic Chiropractic 12(18):22-23, 1994.
- 162.Croft AC: Cervical myelopathy: is surgery (always, usually, never) the best choice? *Dynamic Chiropractic* 12(22):32-43, 1994
- 163.Croft AC: Pseudoscience in the courtroom: blight at the end of the tunnel? *Dynamic Chiropractic* 12(24):18-19, 1994.

Curriculum Vitae, Dr. A.C. Croft Page 16 of 21

- 164. Croft AC: LIMP: a battle lost as war rages on? Dynamic Chiropractic. 12(26):28-32, 1994.
- 165. Croft AC: Fibromyalgia syndrome arising de novo from trauma. Dynamic Chiropractic. 13(5):32-33, 1995.
- 166.Croft AC: Health care policy: what is the role of the field practitioner? *Dynamic Chiropractic*. 13(7):19-29, 1995.
- 167.Croft AC: Narrative reports in personal injury: two common errors. *Dynamic Chiropractic* 13(11):19, 1995.
- 168. Croft AC: Excessive medical claims for automobile personal injuries: the RAND report. *Dynamic Chiropractic* 13(13):27, 1995.
- 169. Croft AC: Quebec Task Force on Whiplash-Associated Disorders. What does it mean for practitioners? *Dynamic Chiropractic* 13(15):34-49, 1995.
- 170. Croft AC: Problems with apportionment? Use your calculator. *Dynamic Chiropractic* 13(17):16, 1995.
- 171. Croft AC: Diagnostic ultrasound: too good to be true? Dynamic Chiropractic 13(19):15-21, 1995.
- 172. Croft AC: LOSRICs: epidemiological analysis. Dynamic Chiropractic 13(23):16-18, 1995.
- 173. Croft AC: The curriculum vitae. Dynamic Chiropractic 13(21):14, 1995.
- 174.Croft AC: Physical Medicine Research Foundation holds 8th Int'l symposium. *Dynamic Chiropractic* 13(25):23-27, 1995.
- 175. Croft AC: Thoracic outlet syndrome: Current literature. Dynamic Chiropractic 14(1):21-25, 1996.
- 176. Croft AC: How does your head restraint measure up?. Dynamic Chiropractic 14(3):29, 1996.
- 177. Croft AC: Quebec task force: The intrigue continues. Dynamic Chiropractic 14(7):20-29, 1996.
- 178.Croft AC: Whiplash outcome: Do most patients recover in 6-12 weeks. *Dynamic Chiropractic* 14(9):14-43, 1996.
- 179. Croft AC: Radionuclide bone scan: How useful in cervical spine trauma? *Dynamic Chiropractic* 14(11):24-25, 1996.
- 180.Croft AC: It's not just what you say--narrative reports are costing you your business. *Dynamic Chiropractic* 14(13):16-28, 1996.
- 181. Croft AC: Recent whiplash literature abstracts. Dynamic Chiropractic 14(17):29-31, 1996.
- 182. Croft AC: Medicolegal questions and answers. Dynamic Chiropractic 14(19):14-25, 1996.
- 183.Croft AC: Disabled DC sues disability insurance carrier and wins. *Dynamic Chiropractic* 14(21):16-29, 1996.
- 184. Croft AC: A nurse in expert's clothing. Dynamic Chiropractic 14(23):14-33, 1996.
- 185. Croft AC: Running amok. Dynamic Chiropractic 14(25):25-33, 1996.
- 186. Croft AC: The trouble with air bags. Dynamic Chiropractic 15(1):23, 1997.
- 187. Croft AC: Is there an engineer in the house? or, the sound of the one eye winking. *Dynamic Chiropractic* 15(3):26-43, 1997.
- 188.Croft AC: Whiplash injuries and low speed collisions: Confessions of an accident reconstructionist. *Forum* 27(6):10-15, 1997.
- 189. Croft AC: Whiplash: Whither the future? Dynamic Chiropractic 15(5):6-29, 1997.
- 190.Croft AC: Air bags: Saving lives at any cost? A public health perspective. *Dynamic Chiropractic* 15(7):16-33, 1997.
- 191. Croft AC: Automobile injuries: Who pays? *Dynamic Chiropractic* 15(9):18-33, 1997.
- 192. Croft AC: The ugly stepchild of personal injury. Dynamic Chiropractic 15(13):18-21, 1997.
- 193. Croft AC: Accident reconstruction: A view from the barricades. Dynamic Chiropractic 15(11):13-43, 1997.
- 194.Croft AC: Crash test researcher barred from testifying in auto accident. *Dynamic Chiropractic* 15(15):7-22, 1997.
- 195. Croft AC: Whiplash quiz: Test your knowledge. Dynamic Chiropractic 15(17):24-27, 1997.
- 196. Croft AC: Luxury and safety: can you have both? Dynamic Chiropractic 15(8):20, 1997.
- 197. Croft AC: Report from the International Whiplash Conference in Bristol. *Dynamic Chiropractic* 15(23):15-32, 1997.
- 198.Croft AC: The potential role of antioxidant-based therapeutic intervention in the management of traumatic brain injury. *Dynamic Chiropractic* 15(25):4-42, 1997.
- 199.Croft AC: Late whiplash syndrome: a disease of the psyche? Dynamic Chiropractic 16(1):18-30, 1998.
- 200. Croft AC: Cervical acceleration/deceleration injuries: a pop quiz. Dynamic Chiropractic 16(3):18-34, 1998.
- 201. Croft AC: Reasonable bioengineering certainty? A case report. Dynamic Chiropractor 16(5):22-34, 1998.
- 202. Croft AC: Whiplash injury threshold: new lower speed defined. Dynamic Chiropractic 16(7):35-38, 1998.
- 203. Croft AC: On guidelines and gridlines. Dynamic Chiropractor 16(9):13-25, 1998.
- 204. Croft AC: How does your 4-passenger car stack (crack) up?. Dynamic Chiropractor 16(11):27-31, 1998.

Curriculum Vitae, Dr. A.C. Croft Page 17 of 21

- 205. Croft AC: Watchdogs watching. Dynamic Chiropractor 16(15):23-35, 1998.
- 206. Croft AC: Automotive safety news. Dynamic Chiropractor 16(23):26-38, 1998.
- 207. Croft AC: The current roles of SPECT and PET in the diagnosis of brain injury. *Dynamic Chiropractic* 16(25):34-43, 1998.
- 208. Croft AC: The new model of whiplash: Part I. Dynamic Chiropractic 17(2):26-48, 1999.
- 209. Croft AC: The new model of whiplash: Part II. Dynamic Chiropractic 17(3):20-33, 1999.
- 210. Croft AC: Problems in auto crash reconstruction. Dynamic Chiropractic 17(4):35-42, 1999.
- 211.Freeman MD, Croft AC, Reiser M: Discrediting defense experts in whiplash cases. *Trial* 62-67, March, 1999
- 212. Croft AC: Narrowing the gender gap in whiplash. Dynamic Chiropractic 17(6):24-36, 1999.
- 213. Croft AC: The SCL-90R in clinical application. Dynamic Chiropractic 17(10):12-25, 1999.
- 214. Croft AC: Practical auto crash reconstruction in LOSRIC, part 1. *Dynamic Chiropractic* 17(12):12-25, 1999.
- 215.Croft AC: Practical auto crash reconstruction in LOSRIC, part 2. *Dynamic Chiropractic* 17(14):26-29, 1999.
- 216.Croft AC: Practical auto crash reconstruction in LOSRIC, part 3. *Dynamic Chiropractic* 17(16):38-42, 1999.
- 217. Croft AC: Practical auto crash reconstruction in LOSRIC, part 4. *Dynamic Chiropractic* 17(18):29-37, 1999.
- 218.Croft AC: Practical auto crash reconstruction in LOSRIC, part 5. *Dynamic Chiropractic* 17(20):28-49, 1999.
- 219. Croft AC: CRASH 99: the first full-scale human volunteer crash tests for chiropractic. *Dynamic Chiropractic* 17(22):40-41, 1999.
- 220. Croft AC: Effectiveness of chiropractic management in chronic CAD cases. *Dynamic Chiropractic* 17(26):14-15, 1999.
- 221. Croft AC: Chiropractic's place on the food chain. Dynamic Chiropractic 18(2):22-24, 2000.
- 222. Croft AC: Making the case against late whiplash. Dynamic Chiropractic 18(6):18-21, 2000.
- 223. Croft AC: What evidence supports a link between trauma, fibromyalgia syndrome, and multiple sclerosis? *Dynamic Chiropractic* 18(14):28-34, 2000.
- 224. Croft AC, Freeman MD: Of foxes and hen houses. Dynamic Chiropractic 18(16):28-29, 2000.
- 225. Croft AC: Crash 2000: human volunteer low speed and moderate speed crash testing. *Dynamic Chiropractic* 18(20):36-37, 2000.
- 226. Croft AC: Long-term consequences of whiplash: allergy, breathing, digestive, cardiovascular disorders, hypertension, and low back pain. *Dynamic Chiropractic* 18(22):30-44, 2000.
- 227. Croft AC: Guidelines for the management of CAD trauma—use them. *Dynamic Chiropractic* 18(24):20-23, 2000.
- 228. Croft AC: The risk of injury for children exposed to whiplash. Dynamic Chiropractic 18(26):14-46, 2000.
- 229. Croft AC: Crash partners: death risk based on relative vehicle masses, sizes, and types. *Dynamic Chiropractic* 19(6):20-24, 2001.
- 230. Croft AC: Time: critical factors in injury risk, part I. Dynamic Chiropractic 19(8):28-29, 2001.
- 231. Croft AC: Medical conditions and relative driving safety: a recent report. *Dynamic Chiropractic* 19(10): 44, 2001.
- 232. Croft AC: The one strategy for preserving the landscape. Dynamic Chiropractic 20(6):16-22, 2002.
- 233. Croft AC: Is the lumbar spine vulnerable in low speed rear impact crashes? *Dynamic Chiropractic* 19(14):18-20, 2001.
- 234. Croft AC: Relative risks in children and small females in trauma: what have we learned? *Dynamic Chiropractic* 19(16):29-32, 2001.
- 235. Croft AC: Sensing diagnostic module (SDM): the modern motor vehicle's "black box." *Dynamic Chiropractic* 19(22):6-8, 2001.
- 236. Croft AC, Haneline MT: CAD guidelines: we have them, let's use them. Results of a preliminary practice survey. *Dynamic Chiropractic* 19(24):30-33, 2001.
- 237. Croft AC: Chiropractic care for acute whiplash patients. We must take up the challenge of research. *Dynamic Chiropractic* 20(1):1-32, 2002.
- 238. Croft AC: Can you gauge injury risk or severity from the amount of vehicular property damage in motor vehicle crashes? *Dynamic Chiropractic* 20(26):26-29, 2002.

Curriculum Vitae, Dr. A.C. Croft Page 18 of 21

- 239. Croft AC: Late whiplash: the controversy of organic vs. biopsychosocial models. *Dynamic Chiropractic* 20(2):40-44, 2002.
- 240. Croft AC: CAD: common questions and answers. Dynamic Chiropractic 21(2):26-28, 2003.
- 241. Croft AC: Guidelines and gridlines revisited. *Dynamic Chiropractic* 21(9):14-20, 2003.
- 242. Croft AC: Intervertebral discs as a source of pain: is our current model valid?. *Dynamic Chiropractic* 21(11):28-56, 2003.
- 243. Croft AC, Tripp RB: Spinal manipulation: important new data on risks. *Dynamic Chiropractic* 21(14):18-20, 2003.
- 244. Croft AC: The "Colossus" claims program, and how it affects you and your patients. *Dynamic Chiropractic* 21(17):34-39, 2003.
- 245. Croft AC: Testifying on the subject of permanent injury from MVC: whose domain? *Dynamic Chiropractic* 21(23) 2003.
- 246. Croft AC: Newest trends in the medlegal world: a survival guide. Dynamic Chiropractic 22(4) 2004.
- 247. Croft AC: The evolution of medical decision-making: a case study in emergency-room cervical radiology. *Dynamic Chiropractic* 22(10):24-29, 2004.
- 248. Croft AC: Developing models and changing paradigms in CAD trauma. *Dynamic Chiropractic* 22(16) 2004.
- 249. Croft AC: Intervertebral disc pathology: its relevance in forensic medicine. *Dynamic Chiropractic* 22(19): 41-45, 2004.
- 250. Croft AC: "No crash—no cash": another decade of duplicity? Dynamic Chiropractic 22(22):14-23, 2004.
- 251. Croft AC: How do you rate as a forensic expert? Dynamic Chiropractic 22(25): 2004.
- 252.Croft AC: Crash protection in rear impacts: the new dynamic tests using the Hyper-G sled and BioRID dummy. *Dynamic Chiropractic* 23(3): 2005.
- 253. Croft AC: Pituitary dysfunction after traumatic brain injury (TBI). Dynamic Chiropractic 23(7): 2005.
- 254.Croft AC, Freeman MD: Auto insurers and their new role in whiplash prevention—new rules, new risks, new tests. *Forum* 35(3):9-13, 2005.
- 255.Croft AC: Writing rebuttal to the reports of auto crash reconstructionists and biomechanical engineers. *Dynamic Chiropractic* 23(11):24-33 2005.
- 256. Croft AC: Frontal Crash Tests at Low Velocities: Can Injuries to Volunteers Result? *Dynamic Chiropractic* 23(15):38-40, 2005.
- 257. Croft AC: The expert witness and the *Daubert* challenge. *Dynamic Chiropractic* 23(19):33-36, 2005.
- 258. Croft AC: Finding golden needles lost in the biomedical literature haystack. *Dynamic Chiropractic* 23(xx):x, 2005.
- 259. Croft AC: The new nomenclature of the spine. Dynamic Chiropractic 24(4):38-42, 2006.
- 260. Croft AC: Crash Severity and Injury Risk. A New Study Provides the Definitive Answer. *Dynamic Chiropractic* 24(7): 2006.
- 261. Croft AC: Uncertainty Analysis in a Forensic Practice, Part One. *Dynamic Chiropractic* 24(16): 30-39, 2006.
- 262. Croft AC: Uncertainty Analysis in a Forensic Practice, Part Two. *Dynamic Chiropractic* 24(19): 66-71, 2006.
- 263. Croft AC: Trends in personal injury: whither the future? Dynamic Chiropractic 24(23): 22-65, 2006.
- 264. Croft AC: Booster seats: why go on killing our children? 25(5), 2007.
- 265. Croft AC: Utilization review strategies: is the current system fair to all? Dynamic Chiropractic 25(9), 2007.
- 266. Croft AC: Risk analysis: the skill set that sets you apart. Dynamic Chiropractic 25(13):12-40, 2007.
- 267. Croft AC: American families, auto safety and the role of the health care practitioner. *Dynamic Chiropractic* 25(21):18-40, 2007.
- 268. Croft AC: New research, the AMA Guides, the cervical spine DRE-IV, and ligamentous subfailure: disentangling some serious misconceptions. *Dynamic Chiropractic* 25(25):18-41, 2007.
- 269. Croft AC: New developments in the safety and efficacy of chiropractic treatment, part 1. *Dynamic Chiropractic* 26(1):14-33, 2008.
- 270. Croft AC: New developments in the safety and efficacy of chiropractic treatment, part 2. *Dynamic Chiropractic* 26(5):10-12, 2008.
- 271.Croft AC: The AMA's Guides to the Evaluation of Permanent Impairment, 6th Edition. Dynamic Chiropractic 26(9):26-28, 2008.
- 272. Croft AC: Modic changes on MRI studies. Dynamic Chiropractic 26(13):30-31, 2008.

Curriculum Vitae, Dr. A.C. Croft Page 19 of 21

- 273. Croft AC: Matters of the human intervertebral disc and spinal column in the forensic context. *Dynamic Chiropractic* 26(17):34-48, 2008.
- 274. Croft AC: Non-dermatomal findings, differential straight-leg raising tests, and other Waddell signs. *Dynamic Chiropractic* 26(21):30, 2008.
- 275. Croft AC: Thinking beyond the chiropractic table. Dynamic Chiropractic 27(5):22, 2009.
- 276. Croft AC: Applications of biomechanics in the forensic assessment of injury. *Dynamic Chiropractic* 27(9):12-37, 2009.
- 277. Croft AC: Bringing down barriers to care and ensuring access to injured patients. *Dynamic Chiropractic* 27(13):22-35, 2009.
- 278. Croft AC: Low back injuries in low velocity rear impact collisions. Forum 39(4):33-37, 2009.
- 279. Croft AC: The Biomechanics of Spondylolysis, Part 1: Is It Ever an Acute Traumatic Event? *Dynamic Chiropractic* 27(20):8-24, 2009.
- 280. Croft AC: The Biomechanics of Spondylolysis, Part 2 *Dynamic Chiropractic* 27(24):14-24, 2009.
- 281. Croft AC: Study confirms flaws in standard defense strategy for MVC injury. *Dynamic Chiropractic* 28(2):18-33, 2010.
- 282. Croft AC: Is advice alone adequate for the management of neck pain? *Dynamic Chiropractic* 28(18):20-37, 2010.
- 283. Croft AC: Key software for medicolegal (and practice) settings. *Dynamic Chiropractic* 28(23):40-41, 2010.
- 284. Croft AC: Managing motor vehicle trauma: a 2011 Status Report, Part 1. *Dynamic Chiropractic* 29(3):40-41, 2011.
- 285. Croft AC: Managing motor vehicle trauma: a 2011 Status Report, Part 2. *Dynamic Chiropractic* 29(4):16-37, 2011.
- 286. Croft AC: Follow-up in study design: how much is enough?. Dynamic Chiropractic 29(10):19-21, 2011.
- 287. Croft AC: Conservative vs. surgical care of lumbar spinal stenosis. *Dynamic Chiropractic* 30(5):29-37, 2012.
- 288. Croft AC: Reimbursement for treating crash victims: deconstructing the objections. *Dynamic Chiropractic* (31)9:6-30, 2013.
- 289. Croft AC: Revisiting the neurological exam. Dynamic Chiropractic 32(9):16-22, 2014.

Non-Peer-Reviewed, Non-Indexed Journals

- 290. Croft AC: The chiropractic emergency: can we respond? *The Digest of Chiropractic Economics*, 14-17, January/February, 1986.
- 291. Croft AC: Migraine headaches and serotonin: a review of recent literature. *Digest of Chiropractic Economics*, 29(1): 10-120, August 1, 1986.
- 292. Croft AC: The soft tissue dilemma. San Diego County Chiropractic Society Bulletin, 9(1): 9-14, January, 1987.
- 293. Croft AC: Electromyography and nerve conduction velocity studies in cervical spine disorders. *San Diego County Chiropractic Society Bulletin*, 9(2):5-6, February, 1987.
- 294. Croft AC: Nerve root disorders and the neurovascular compression syndrome: a differential diagnosis. *San Diego County Chiropractic Society Bulletin*, 9(3):6-7, March, 1987.
- 295. Croft AC: Whiplash test. San Diego County Chiropractic Society Bullletin, 9(4):6, April, 1987.
- 296.Croft AC, Krage JS, Remsen WH: The postconcussion syndrome. *Trial Bar News (SDTLA)*, 9(4):26, April 1987.
- 297. Croft AC: The anterior subluxation. San Diego County Chiropractic Society Bulletin, 9(6): 5, June, 1987.
- 298. Foreman SM, Croft AC: Are they hurt or not? New developments in the prognosis of the cervical spine injury. *California Trial Lawyers Association Forum*, Vol XVII, (5), 171, June, 1987.
- 299. Croft AC: Properties of the intervertebral disc. San Diego County Chiropractic Society Bulletin, 9(7): 6-7, July, 1987.
- 300. Croft AC: Who are the real experts? San Diego County Chiropractic Society Bulletin, 9(9): 13-14, September, 1987.
- 301.Croft AC: Calculating G forces in rear-end motor vehicle accidents. *Trial Bar News (SDTLA)*, 9(7), 12-13, August/September, 1987.

Curriculum Vitae, Dr. A.C. Croft Page 20 of 21

- 302. Croft AC: Foreman SM: Treatment of the cervical acceleration/deceleration syndrome injury. *Digest of Chiropractic Economics*, 30(3): 34-37, November/December, 1987.
- 303. Croft AC: Biomechanics of spinal ligaments. San Diego County Chiropractic Society Bulletin, 9(10): 7-16, October, 1987.
- 304. Croft AC: Forces generated in rear-end motor vehicle accidents. San Diego County Chiropractic Society Bulletin, 9(11): 13, November, 1987.
- 305. Croft AC: Experimental studies in acceleration/deceleration trauma. San Diego County Chiropractic Society Bulletin, 9(12): 5-7, December, 1987.
- 306. Croft AC: Minor head injuries and the post concussion syndrome. San Diego County Chiropractic Society Bulletin, 10(1): 5-15, January, 1988.
- 307.Croft AC: Carpal tunnel syndrome. San Diego County Chiropractic Society Bulletin, 10(2): 5-11, February, 1988
- 308. Croft AC: Physics in biomechanics. San Diego County Chiropractic Society Bulletin, 11(2): 5-13, February, 1988.
- 309. Croft AC: Orthopaedics Quiz #2. San Diego County Chiropractic Society Bulletin, 10(3): 5, March, 1988.
- 310.Croft AC: PI turmoil: Doctors sued by insurance company? San Diego County Chiropractic Society Bulletin, 10(4): 5-16, April, 1988.
- 311. Croft AC: The cervicocranial syndrome and the cervicobrachial syndrome: diagnosis by the numbers? San Diego County Chiropractic Society Bulletin, 10(5): 5-8, May, 1988.
- 312. Croft AC: Osteoarthritis and pain. San Diego County Chiropractic Society Bulletin, 10(7): 5-13, July, 1988.
- 313. Croft AC: Referred pain. San Diego County Chiropractic Society Bulletin, 10(8):5-14, August, 1988.
- 314. Croft AC: Trauma and pain. San Diego County Chiropractic Society Bulletin, 10(9): 5, September, 1988.
- 315. Croft AC: Exercise metabolism. San Diego County Chiropractic Society Bulletin, 10(10): 5-16, October, 1988.
- 316. Croft AC: Jumper's knee. San Diego County Chiropractic Society Bulletin, 10(11): 5-17, November, 1988.
- 317. Croft AC: Orthoses for the thoracic and lumbar spine. San Diego County Chiropractic Society Bulletin, 10(12): 5-18, December, 1988.
- 318. Croft AC: Causalgia. San Diego County Chiropractic Society Bulletin, 11(1): 5-18, January, 1989.
- 319. Croft AC: Orthopaedics Quiz #3. San Diego County Chiropractic Society Bulletin, 11(3): 5-14, March, 1989.
- 320. Croft AC: Aspirin and other nonsteroidal anti-inflammatory drugs (NSAIDs). San Diego County Chiropractic Society Bulletin, 11(4): 5-15, April, 1989.
- 321. Croft AC: Diagnosis revisited. San Diego County Chiropractic Society Bulletin, 11(5): 5-14, May, 1989.
- 322. Croft AC: Diagnostic frequency in chiropractic medicine. San Diego County Chiropractic Society Bulletin, 11(6): 5-12, June, 1989.
- 323. Croft AC: Orthopaedic Quiz #4. San Diego County Chiropractic Society Bulletin, 11(7): 5-14, July, 1989.
- 324. Croft AC: Surface electrode EMG (SEMG): clinical applications. San Diego County Chiropractic Society Bulletin, 11(8): 5-8, August, 1989.
- 325. Croft AC: Traffic accident statistics: an update. San Diego County Chiropractic Society Bulletin, 11(10): 5, October, 1989.
- 326. Croft AC: Myofascial Pain Syndromes. San Diego County Chiropractic Society Bulletin, 11(11): 5-14, November, 1989.
- 327. Croft AC: Headache and the cervical spine. San Diego County Chiropractic Society Bulletin, 11(12): 5-10, December, 1989.
- 328. Croft AC: A question of authority (editorial). San Diego County Chiropractic Society Bulletin, 4(1): 5-19, January, 1990.
- 329. Croft AC: Carpal tunnel syndrome and the double crush phenomenon. San Diego County Chiropractic Society Bulletin, 4(3): 5-11, March, 1990.
- 330.Croft AC: Human considerations in the biomechanics of cervical acceleration/deceleration injuries. *San Diego County Chiropractic Society Bulletin*, 4(4): 5-11, April, 1990.
- 331.Croft AC: Chiropractic manipulation: Magic bullet or ricochet? San Diego County Chiropractic Society Bulletin, 4(6): 5-8, June, 1990.
- 332. Croft AC: No retakes on these tests: an editorial. *San Diego County Chiropractic Society Bulletin*, 4(8): 5-8, August, 1990.
- 333.Croft, AC: Carpal tunnel syndrome and the double crush phenomenon. *Chiro Currents*, (reprinted with permission), Marin County Chiropractic Society Newsletter, May, 1991.

Curriculum Vitae, Dr. A.C. Croft Page 21 of 21

- 334.Croft AC: CAD and ADL: inseparable acronyms. *California Chiropractic Association* (Citrus Society), 6, July, 1992.
- 335.Croft AC: Mechanisms of spinal pain. *Digest of Chiropractic Economics*, 35(2): 18-21, 1992, (reprinted with permission).
- 336.Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part II: electromyography (EMG). *Santa Barbara Chiropractic Society Bulletin*, 6(6): 2-3, 1993.
- 337. Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part III: surface electromyography (SEMG). *Santa Barbara Chiropractic Society Bulletin*, 6(7):3, 1993.
- 338.Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part IV: nerve conduction velocity (NCV). San Diego Chiropractor, September, 1993.
- 339. Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part V: somatosensory evoked potentials (SEP). San Diego County Chiropractic Society, 6(8): 2, October, 1993.
- 340. Croft AC: CAD injuries: new studies, same results. Santa Barbara Chiropractic Society Bulletin 6(11):2, 1993.
- 341. Haneline MT, Croft AC: New data on whiplash associated disorders in children. *Trial Talk* 50(4):18-20, 2001.
- 342. Croft AC: (Editorial), in Ask the Doctor, Chiropractic Wellness & Fitness Magazine 3(6):4, 2003.
- 343. Croft AC: In personal injury, the stakes are high. The Specialist 51-53, November, 2006.
- 344.Croft AC: Child seats—booster seats. New Jersey Chiropractor 4(2):22, 2008.
- 345. Croft AC: Brand yourself as a car-injury expert. Chiropractic Economics 54(10):49-51, 2008.
- 346.Croft AC: Stroke Risk from CMT? is the Pressure Finally Off? *California Chiropractic Association Journal* 33(4): 10-11, 2008.
- 347. Croft AC: Thinking outside the chiropractic table. *Oregon Chiropractic Association Journal*, Spring, 16-17, 2009.

Updated December 1, 2019

TESTIFYING MISTORY | Arthur C. Croft, Ph.D., D.C., M.Sc., M.P.H., F.A.C.O.

Names	Date	Туре	Venue	Туре
Plaintiff: Kathleen K. Leonard, MD Attorney: Katie Rogers	3-29-2006	D	Tucson, Arizona	Personal injury
Plaintiff: Michel Stekol Attorney: Alex Gelman	4-20-2006	D	Carlsbad, CA	Personal injury
Plaintiff: Kenneth Beaver Attorney: Alex Gelman	7-21-2006	D	San Diego, CA	Personal injury
Plaintiff: Kenneth Beaver Attorney: Alex Gelman	8-8-2006	BA	Santa Ana, CA	Personal injury
Plaintiff: Elton Lowry Attorney: Steinberg	9-29-2006	D	San Diego, CA (Texas case)	Personal injury
Plaintiff: Karen Cruz-Dirkson Attorney: Steven Zwick	12-11-2007	D	San Diego, CA	Personal Injury
Plaintiff: Hornsby, Scott and Tammy Attorney: Timothy Price	3-13-2008	D	San Diego, CA (Texas case)	Personal Injury
Plaintiff: Robert Bowers Attorney: Mariano Moralez	3-20-2008	Т	Yakima, Washington	Personal injury
Plaintiff: Karen Cruz-Dirkson Attorney: Steven Zwick	7-21-2008	A	Santa Ana, CA	Personal injury
Plaintiff: Juan Morales Attorney: John Velasquez	8-12-2008	Т	San Diego, CA	Personal Injury
Plaintiff: Andrea Kessler Attorney: Robert Gerard; James Parziale	9-24-2008	D	San Diego, CA	Personal injury
Plaintiff: Andrea Kessler Attorney: Robert Gerard; James Parziale	10-12-2008	BA	San Diego, CA	Personal injury
Plaintiff: Linda Lassiter Attorney: Donald Bayles	1-7-2009	A	Flagstaff, AZ	Personal Injury
Plaintiff: Jorge Gomez-Muniz Attorney: John Velasquez	2-6-2009	D	San Diego, CA	Personal Injury
Plaintiff: Robertson vs. Thomas Attorney: Greg Gibson	3-18-09	D	San Diego, CA (Ohio case)	Medical malpractice
Plaintiff: Carole Murphy Attorney: Brandon Casey	6-3-2009	Т	Spokane, Washington	Personal Injury
Plaintiff: Robert Hayner Attorney: Kenneth Ruttenberg	9-18-2009	D	Santa Ana, CA	Personal Injury
Plaintiff: Carlos Solis Attorney: Edward Babbitt	9-29-2009	D	San Diego, CA	Personal Injury

$2 \mid \text{Testifying History}$

D1 1 100 D 1 1 1		<u> </u>		
Plaintiff: Robert Hayner Attorney: Kenneth Ruttenberg	10-1-2009	T	Santa Ana, CA	Personal Injury
Plaintiff: Keith Gallaugher Attorney: Randy Taradash	10-13-2009	D	San Diego, CA	Personal injury
Plaintiff: Rene Karnes Attorney: Richard Salvatore	10-29-2009	D	San Diego, CA	Personal injury
Plaintiff: Filomena White Attorney: Russell Kohn	11-2-2009	D	San Diego, CA	Personal injury
Plaintiff: Carlos Solis Attorney: Edward Babbitt	1-11-2009	Т	Vista, CA	Personal Injury
Plaintiff: Randall Green Attorney: Robert Schroth, Jr.	1-26-2010	D	San Diego, CA	Personal Injury
Plaintiff: Jose Ayala Attorney: Lawrence Einhorn	8-3-2010	D (part 1)	Oakland, CA	Personal Injury
Plaintiff: Jose Ayala Attorney: Lawrence Einhorn	8-12-2010	D (part 2)	Oakland, CA	Personal Injury
Plaintiff: Emanuel Rodriguez Attorney: Wes Seegmiller	10-7-2010	D	San Diego, CA	Personal Injury
Plaintiffs: Michael Summers & Ector Sepulveda Attorney: George de la Flor	12-1-2010	Т	Santa Ana, CA	Personal Injury
Plaintiff: Stafford Griffin, Jr. Attorney: R. Deryl Edwards, Jr.	1-11-2011	Т	Carthage, MO	Personal Injury
Plaintiff: Maria Paculan Attorney: William Seegmiller	2-7-2011	D	San Diego, CA	Personal Injury
Plaintiff: Raymond Jenson Attorneys: Alex Scheingross and James Brown	2-22-2011	Т	San Diego, CA	Personal Injury
Plaintiff: Allstate Ins. Co. Attorney: Kenneth Stein	2-25-2011	D	San Diego, CA	Complex
Plaintiff: Stephen Wilson Attorney: Stephen Eisenberg	3-13-2011	D	San Diego, CA	Personal Injury
Plaintiff: Paul Iverson Attorney: Brian Riley	4-15-2011	D	Rancho Bernardo, CA	Personal Injury
Plaintiff: Kellie Thompson Attorney: April Blackman	5-9-2011	D	San Diego, CA	Personal Injury
Plaintiff: Fleck Attorney: Nolan	7-5-2011	D	San Diego, CA	Personal Injury
Plaintiff: Donna Reichart Attorney: Alex Scheingross	7-6-2011	D	San Diego, CA	Personal Injury
Plaintiff: Roger Britt Attorney: Jason Peck	7-7-2011	D	San Diego, CA	Personal Injury
Plaintiff: Sang Slayton Attorney: Douglas Dykes	7-21-2011	D	San Diego, CA	Personal Injury
		_		

$3\mid$ Testifying History

Plaintiff: Charles, Sr., and Emily Brzezinski Attorney: Rocky Copely	8-23-2011	Т	San Diego, CA	Personal Injury
Plaintiff: Heekyung Victoria Cox Attorney: Benjamin Cloward	9-28-2011	D	San Diego, CA	Personal Injury
Plaintiff: Alan Bell Attorney: Scott Lazar	10-4-2011	D	San Diego, CA	Personal Injury
Plaintiff: Sergio Cejudo Attorney: Russell Kohn	10-5-2011	A	San Diego, CA	Personal Injury
Plaintiff: Philip Roberts Attorney: Don Chaney	11-7-2011	D	San Diego, CA	Personal Injury
Plaintiff: Charles Brzezinski Attorney: Rockey Copeley	11-30-2011	Т	San Diego, CA	Personal Injury
Plaintiff: Donna Reichart Attorney: James Brown	12-14-2011	D	San Diego, CA	Personal Injury
Plaintiff: Harding Estate Attorney: Doc Blanchard	12-28-2011	D	San Diego, CA	Personal Injury
Plaintiff: Christopher Tran Attorney: Jeff Lauridsen	1-4-2012	D	San Diego, CA	Personal Injury
Plaintiff: Emanuel Rodriguez Attorney: Wes Seegmiller	1-19-2012	Т	Bakersfield, CA	Personal Injury
Plaintiff: Arthur Jacobsen Attorney: Jonathan Hicks	2-9-2012	D	San Diego, CA	Personal Injury
Plaintiff: Irene Nybert Attorney: Peter Anderson	3-23-2012	T	Fort Collins, CO	Personal Injury
Plaintiff: Christopher Tran Attorney: Tuan Ho	4-19-2012	Т	Santa Ana, CA	Personal Injury
Plaintiff: Widow, James Harding Attorney: Dock Blanchard	5-15-2012	D	San Diego, CA	Fatal MVC
Plaintiff: Melissa Ramirez Attorney: William Seegmiller	5-16-2012	D	San Diego, CA	Personal injury
Plaintiff: Schneider, Janet Attorney: Brandon Casey	6-22-2012	T	Spokane, WA	Personal Injury
Plaintiff: Semel, David Attorney: Benjamin Cloward	6-19-2012	D	San Diego, CA	Personal Injury
Plaintiff: Allstate Insurance Defendants: Plambeck et al. Attorney: Ken Stein	7-19-2012	D	San Diego, CA	Complex
Plaintiff: Paula Barry Attorney: Alison Brazier	7-20-2012	D	San Diego, CA	Personal injury
Plaintiff: Laura Carrillo Attorney: Michael Sayre	8-2-2012	D	San Diego, CA	Personal injury

4 | Testifying History

Plaintiff: Peter Burke Attorney: Casey Kaufman	8-8-2012	D	San Francisco, CA	Personal injury
Plaintiff: Rebecca Magruder Attorney: Alison Brasier	8-21-2012	D	San Diego, CA	Personal Injury
Plaintiff: Farhad Arjang Attorney: King Aminpour	11-1-2012	D	San Diego, CA	Personal Injury
Plaintiff: Margaret Seastrand Attorney: Alison Brasier	11-28-2012	D	San Diego, CA	Personal injury
Plaintiff: [Family of] Marlene Resendiz- Cuevas Attorney: James Mitchell	1-16-2013	D	Encinitas, CA	Ped vs. car fatality
Plaintiff: Barbra Buggy Attorney: Patrick Hosey	2-20-2013	D	San Diego, CA	Personal injury
Plaintiff: Barbra Buggy Attorney: Patrick Hosey	2-28-2013	Т	San Diego, CA	Personal injury
Plaintiff: Diana Sheridan Attorney: Kristian Soholm	3-1-2013	D	San Diego, CA	Personal injury
Plaintiff: Deanna Franco Attorney: David Wall	3-5-2013	D	San Diego, CA	Personal injury
Plaintiff: Allstate Insurance Defendants: Plambeck et al. Attorney: Ken Stein; Mark Werbner	3-25-2013	Т	Dallas, TX	Federal Court
Plaintiff: Chris Munier Attorney: Ed Meara	4-17-2013	D	San Diego, CA	Personal injury
Plaintiff: Shawna Blazok Attorney: Juan Ordaz	4-30-2013	D	San Diego, CA	Personal injury
Plaintiff: Valerie Grishy Attorney: Donna Eyman	5-14-2013	D	San Diego, CA	Personal injury
Plaintiff: Margaret Seastrand Attorney: Alison Brazier	5-22-2013	D	San Diego, CA	Personal injury
Plaintiff: Frank Pabst Attorney: Ed Meara	6-14-2013	D	San Diego, CA	Personal injury
Plaintiff: Margaret Seastrand Attorney: Benjamin Cloward	7-16-2013	Т	Las Vegas, NV	Personal injury
Plaintiff: Scala Family Attorney: Timothy Stearns	8-6-2013	D	San Diego, CA	Personal injury
Plaintiff: Norma Litke Attorney: Brad Myers	8-21-2013	D	San Diego, CA	Personal injury
Plaintiff: Norma Litke Attorney: Brad Myers	8-21-2013	D	San Diego, CA [Las Vegas, NV]	Personal injury
Plaintiff: Valerie Grishy Attorney: Donna Eyman	1-28-2014	Т	San Diego, CA	Personal Injury
Plaintiff: Nathaniel Nieto Attorney: Ed Meara	2-20-2014	D	San Diego, CA	Personal Injury

$5 \mid$ Testifying History

Plaintiff: Kenneth Wilson Attorney: J.M. Vallee	3-17-2014	D	San Diego, CA	Personal Injury
Plaintiff: Maria Rodriguez Attorney: Alison Brazier	5-13-2014	D	San Diego, CA [Las Vegas, NV]	Personal Injury
Plaintiff: Clemencia Robles Attorney: Eugene Bruno	6-3-2014	Т	San Diego, CA	Personal Injury
Plaintiff: Kelly Madge Attorney: Thomas Woelfel	6-4-2014	D	Walnut Creek, CA	Personal Injury
Plaintiff: Maria Edwards Attorney: R. Bruce Arnold	7-3-2014	D	San Diego, CA	Personal Injury
Plaintiff: Silvia Ruelas Attorney: Lawrence Ruiz	7-22-2014	D	San Diego, CA [Las Vegas, NV]	Personal Injury
Plaintiff: Maria Edwards Attorney: R. Bruce Arnold	7-30-2014	Т	San Diego, CA	Personal Injury
Plaintiff: Joseph Lettrick Attorney: Ned Stratton	8-1-2014	D	San Diego, CA [Kennewick, WA]	Personal Injury
Plaintiff: Angel Rosa Attorney: Hyram Montera	8-4-2014	D	San Diego, CA [Ft. Lauderdale, FL]	Personal Injury
Plaintiff: Laton Jackson Attorney: Sheldon Rosenfield	9-9-2014	D	San Diego, CA [Los Angeles, CA]	Personal Injury
Plaintiff: Philip Roberts Attorney: Taylor Chaney	9-30-2014	D	San Diego, CA [Little Rock, AK]	Personal Injury
Plaintiff: Joseph Lettrick Attorney: Ned Stratton	10-7-2014	Т	Kennewick, WA	Personal Injury
Plaintiff: Peter Schatzberg Attorney: Andrew Baratta	12-2-2014	D	Philadelphia, PA	Personal Injury
Plaintiff: Lee Matson Attorney: Jared Anderson	1-8-2015	D	San Diego, CA [Los Vegas, NV]	Personal Injury
Plaintiff: Carol Henson Attorney: Michael K. Bush	3-31-2015	Т	Davenport, IA	Personal Injury
Plaintiff: Rojas family Attorney: Brett A. Carter	6-2-2015	D	San Diego, CA [Las Vegas, NV]	Personal Injury
Plaintiff: Todd Barborek Attorney: Timothy J. Casey	6-10-2015	Т	Phoenix, AZ	Personal Injury
Plaintiff: Shalene Anderson Attorney: Tab Artis	7-8-2015	Т	Los Angeles, CA	Personal Injury
Plaintiff: David Smith Attorney: Timothy Stearns	8-18-2015	Т	Yreka, CA	Personal Injury
Plaintiff: Kendra Leisey Attorney: Christian M. Morris	8-24-2015	D	San Diego, CA [Henderson, NV]	Personal Injury
Plaintiff: DeJeane Henderson Attorney: Andrew Wright	9-10-2015	D	Irvine, CA	Personal Injury

$6 \mid \textit{Testifying flistory}$

Plaintiff: Kathy Shiets Attorney: Florence Murray	9-16-2015	Т	Sandusky, OH	Personal Injury
Plaintiff: Carmellos Williams Attorney: Bryan Boyack	11-5-2015	D	San Diego, CA	Personal Injury
Plaintiff: Mery Cohen Attorney: Ramon Rubio	1-15-2016	D	San Diego, CA	Personal Injury
Plaintiff: Susana Villigran Attorney: Thomas Feher	1-29-2016	D	San Diego, CA	Personal Injury
Plaintiff: David Andrien Attorney: Andrew Wright	2-1-2016	D	Orange County, CA	Personal Injury
Plaintiff: Susana Villigran Attorney: Thomas Feher	3-3-2016	Т	Los Angeles, CA	Personal Injury
Plaintiff: Paul Woodrome Attorney: Todd Slaughter	3-17-2016	D	Redding, CA	Personal Injury
Plaintiff: Greg Hansen Attorney: Frank Lozoya	3-31-2016	D	Encino, CA	Personal Injury
Plaintiff: Maurice Schnitzer Attorney: Dana Oswalt	4-13-2016	D	San Diego, CA	Personal Injury
Plaintiff: Andrea Cascio Attorney: Dan Delesandro	4-14-2016	D	San Diego, CA	Personal Injury
Plaintiff: Paul Woodrome Attorney: Todd Slaughter	4-19-2016	Т	Redding, CA	Personal Injury
Plaintiff: Adrienne Johnson-Taylor Attorney: Adrianos Faccetti	4-22-2016	D	San Diego, CA	Personal Injury
Plaintiff: Ronnie Bonaparte Attorney: Brandon Simon	4-28-2016	D	San Diego, CA	Personal Injury
Plaintiff: Denise Barnes Attorney: Adam Ganz	4-29-2016	D	San Diego, CA	Personal Injury
Plaintiff: Marieanne Marcos Attorney: Thomas Feher	5-10-2016	D	Seal Beach, CA	Personal Injury
Plaintiff: Michael Shine Attorney: John Shannon	5-16-2016	D	San Diego, CA	Personal Injury
Plaintiff: Joseph Simmons Attorney: Ramon Rubio	6-8-2016	D	San Diego, CA	Personal Injury
Plaintiff: Chelsea Sena Attorney: Thomas Feher	6-16-2016	D	Santa Ana, CA	Personal Injury
Plaintiff: Francisco Rodriguez-Alvarez Attorney: Kimberly Valentin	6-20-2016	D	San Diego, CA	Personal Injury
Plaintiff: Maria Brown Attorney: Andrew Wright	7-1-2016	D	San Juan Capistrano, CA	Personal Injury
Plaintiff: Joseph Bubonic Attorney: Thomas Feher	7-28-2016	D	Hermosa Beach, CA	Personal Injury
Plaintiff: Chelsea Sena Attorney: Thomas Feher	8-11-2016	Т	Los Angeles, CA	Personal Injury

$7\mid_{\text{Testifying History}}$

Plaintiff: Meghan Werner Attorney: Florence Murray	8-17-2016	Т	Sandusky, OH	Personal Injury
Plaintiff: Lori Triplett Attorney: Daniel Kramer	8-19-2016	D	San Diego, CA	Personal Injury
Plaintiff: Syieda Rasheed Attorney: Steven Mazza	8-29-2016	D	Carlsbad, CA	Personal Injury
Plaintiff: Kaitlyn Helmers Attorney: Conrad Meis	8-30-2016	D	San Diego, CA	Personal Injury
Plaintiff: Joseph Bubonic Attorney: Thomas Feher	9-15-2016	Т	Santa Ana, CA	Personal Injury
Plaintiff: Maria Diaz Attorney: Mauro Fiore, Jr.	10-10-2016	D	San Diego, CA	Personal Injury
Plaintiff: Carmen Jimenez Attorney: Greyson Goody	10-13-2016	D	Irvine, CA	Personal Injury
Plaintiff: Lori Triplett Attorney: Daniel Kramer	10-17-2016	Т	Santa Monica, CA	Personal Injury
Plaintiff: Howard Crum Attorney: R. Michael Shickish	10-18-2016	D	San Diego, CA	Personal Injury
Plaintiff: Carmen Jimenez Attorney: Greyson Goody	10-24-2016	Т	Los Angeles, CA	Personal Injury
Plaintiff: Hilda Fiore Attorney: Mauro Fiore, Jr.	10-28-2016	D	Monrovia, CA	Personal Injury
Plaintiff: Jocelyn Cascioli Attorney: Martin Kanarek	11-16-2016	D	San Diego, CA	Personal Injury
Plaintiff: Jocelyn Cascioli Attorney: Martin Kanarek	12-5-2016	Т	Santa Ana, CA	Personal Injury
Plaintiff: Maria Brown Attorney: Andrew Wright	12-9-2016	Т	Chatsworth, CA	Personal Injury
Plaintiff: Sonia Nelson Attorney: Araksya Boyadzhyan	1-3-2017	D	Costa Mesa, CA	Personal Injury
Plaintiff: Shelly Fin Attorney: Deon Goldschmidt	1-18-2017	D	San Diego, CA	Personal Injury
Plaintiff: Sonia Nelson Attorney: Araksya Boyadzhyan	1-26-2017	Т	San Bernardino, CA	Personal Injury
Plaintiff: Lisa Faulkner Attorney: Brad Lakin	2-7-2017	D	San Diego, CA	Personal Injury
Plaintiff: Jose Melendez Attorney: Andrew Wright	2-17-2017	D	Seal Beach, CA	Personal Injury
Plaintiff: Shelly Fin Attorney: Deon Goldschmidt	2-21-2017	Т	San Diego, CA	Personal Injury
Plaintiff: James Tighe Attorney: Joseph Low, III	3-6-2017	D	Carlsbad, CA	Personal Injury
Plaintiff: Richard Tormos Attorney: Christian Morris	3-9-2017	D	San Diego, CA	Personal Injury

Plaintiff: Antonia Amezcua				Personal
Attorney: Brandon Simon	3-20-2017	D	San Diego, CA	Injury
Plaintiff: Ganiyu Anyanyemi Attorney: Mauro Fiore, Jr.	3-10-2017	D	San Diego, CA	Personal Injury
Plaintiff: Lisa Faulkner Attorney: Brad Lakin	3-11-2017	Т	Phoenix, AZ	Personal Injury
Plaintiff: Brian Gray Attorney: Kurt Anderson	3-13-2017	D	San Diego, CA	Personal Injury
Plaintiff: Vincente Chavez-Castillo Attorney: Daniel Ryan	3-27-2017	D	San Diego, CA	Personal Injury
Plaintiff: Ana Talisay Attorney: Brent Caldwell	5-8-2017	D	Huntington Beach, CA	Personal Injury
Plaintiff: Charles Prater Attorney: Anthony Ashby	5-11-2017	D	San Diego, CA	Personal Injury
Plaintiff: Jorge Perez Attorney: Daniel Benji	5-22-2017	D	Irvine, CA	Personal Injury
Plaintiff: Shakira Booth Attorney: Kevin Retoriano	6-8-2017	D	San Diego, CA	Personal Injury
Plaintiff: Carmen Jimenez Attorney: Greyson Goody	7-11-2017	A	Los Angeles, CA	Personal Injury
Plaintiff: Christopher Calvi Attorney: Barry Sherman	7-20-2017	D	Costa Mesa, CA	Personal Injury
Plaintiff: Jamie Funn Attorney: Aaron Steigler	8-7-2017	D	San Diego, CA	Personal Injury
Plaintiff: Magdi Youssef Attorney: Joseph Chu	8-16-2017	D	Costa Mesa, CA	Personal Injury
Plaintiff: Hilda Flores Attorney: Matthew Joy	8-17-2017	D	Costa Mesa	Personal Injury
Plaintiff: Tania Fraser Attorney: Alison Brasier	8-23-2017	D	San Diego, CA	Personal Injury
Plaintiff: Kaitlin Cullum Attorney: Steven Lipscomb	9-6-2017	D	San Diego	Personal Injury
Plaintiff: Robin Smithey Attorney: Steve Shewry	9-20-2017	D	San Diego, CA	Personal Injury
Plaintiff: Denice McDaniel Attorney: David Gluth	10-10-2017	D	San Diego, CA	Personal Injury
Plaintiff: Kizzie Stampley Attorney: Jeff Watson	10-26-2017	D	San Diego, CA	Personal Injury
Plaintiff: Gina Bass Attorney: Jayme Simpson	12-20-2017	D	San Diego, CA	Personal Injury
Plaintiff: Maria Contreras Attorney: Paul Traina	1-5-2018	D	Irvine, CA	Personal Injury
Plaintiff: Kenya Zimmerman Attorney: Daniel Ryan	1-9-2018	D	San Diego, CA	Personal Injury
	•			

$9 \mid \text{Testifying flistory}$

Plaintiff: Pruneda-Alvarez Hernandez Attorney: Adam Williams	1-22-2018	D	Via telephone	Personal Injury
Plaintiff: Peter Hansen Attorney: Tamara Nelson, Peter Steilberg	2-1-2018	D	Seattle, WA	Civil litigation
Plaintiff: William Simao Attorney: Robert Adams	2-6-2018	D	San Diego, CA	Personal Injury
Plaintiff: Jared Gagnon-Palick Attorney: Jesse Blocher	2-15-2018	D	San Diego, CA	Personal Injury
Plaintiff: Lydia Farris Attorney: Sean Claggett, William Sykes	2-16-2018	D	San Diego, CA	Personal Injury
Plaintiff: Kenya Zimmerman Attorney: Daniel Ryan	2-21-2018	D	San Diego, CA	Personal Injury
Plaintiff: Leonard Stavroposkiy et al. Attorney: Andrew Baratta	2-27-2018	D	Philadelphia, PA	Civil litigation
Plaintiff: William Simao Attorney: Robert Adams	3-6-2018	D	San Diego, CA	Personal Injury
Plaintiff: Sandra Gomez Attorney: Jamie Cogburn, Erik Fox	3-8-2018	D	San Diego, CA	Personal Injury
Plaintiff: Debra Siegfried Attorney: Joseph Troiano	3-12-2018	D	San Diego, CA	Personal Injury
Plaintiff: Enrique Garcia-Lopez Attorney: Ramzy Ladah	3-15-2018	D	San Diego, CA	Personal Injury
Plaintiff: Patricia Denman Attorney: Jesse Blocher	4-17-2018	D	San Diego, CA	Personal Injury
Plaintiff: Bo McCarthy Attorney: Sassan Mackay	4-30-2018	Т	Chatsworth, CA	Personal Injury
Plaintiff: Raquel Chavez Attorney: Stacey Cutting	5-10-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Portillo Attorney: Gilbert Perez III	5-16-2018	D	Irvine, CA	Personal Injury
Plaintiff: Ashley Chelonis Attorney: Harry Nalbandyan	5-17-2018	D	San Diego, CA	Personal Injury
Plaintiff: Belizia Ranieri Attorney: Christie Palcisko	5-25-2018	D	San Diego, CA	Personal Injury
Plaintiff: Christopher Calvi Attorney: Barry Sherman	6-7-2018	Т	Bakersfield, CA	Personal Injury
Plaintiff: Kenneth Wheaton Attorney: William Sykes	6-15-2018	D	San Diego, CA	Personal Injury
Plaintiff: Danielle Zhang Attorney: Alex Scheingross	6-20-2018	D	San Diego, CA	Personal Injury
Plaintiff: Cheryl Woodard Attorney: Robert Wallenstein	6-25-2018	D	San Diego, CA	Personal Injury
Plaintiff: Eduardo and Martha Uvence Attorney: Adam Ganz	7-20-2018	D	San Diego, CA	Personal Injury

Plaintiff: Theresa Calianno				Personal
Attorney: Tracy Eglet	8-1-2018	D	San Diego, CA	Injury
Plaintiff: Ashley Chelonis Attorney: Harry Nalbandyan	8-6-2018	T	Los Angeles, CA	Personal Injury
Plaintiff: Jacqueline Garcia Attorney: Paul Powell	8-8-2018	D	San Diego, CA	Personal Injury
Plaintiff: John Forsman, Jr. Attorney: William Sykes	8-17-2018	D	San Diego, CA	Personal Injury
Plaintiff: Gabriela Pompa-Elias Attorney: Paul Powell	8-29-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Cohn Attorney: Michael Grieco	9-5-2018	D	San Diego, CA	Personal Injury
Plaintiff: Ariceli Ramirez-Brassetti and Orlando Acostia-Ruiz Attorney: Tracy Eglet	9-24-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nora Uribe Attorney: Paul Traina	9-26-2018	D	San Diego, CA	Personal Injury
Plaintiff: Lea Porter Attorney: Eric Bell	10-15-2018	D	Irvine, CA	Personal Injury
Plaintiff: Raquel Chavez Attorney: Stacey Cutting	10-17-2018	T	Ventura, CA	Personal Injury
Plaintiff: Daniel Yanes, Yaima Remirez- Alburquerque, Yoan Ofarrill Attorney: Bradley Myers	10-22-2018	D	San Diego, CA	Personal Injury
Plaintiff: Tricia Denman Attorney: Jesse Blocher	10-23-2018	D	San Diego, CA	Personal Injury
Plaintiff: Barbara and Michael Buckner Attorney: Elizabeth Do	10-25-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Fallon Attorney: L. DiPaul Marrer	11-30-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Cohn Attorney: Michael Grieco	12-7-2018	T	Chicago, IL	Personal Injury
Plaintiff: David and Denise Lee Attorney: Todd Slaughter	1-3-2019	D	Redding, CA	Personal Injury
Plaintiff: Jack Orman Attorney: Babak Kheiri	1-10-2019	D	San Diego, CA	Personal Injury
Plaintiff: Lesly Joseph Attorney: Aaron Stiegler	1-17-2019	D	San Diego, CA	Personal Injury
Plaintiff: Amy Dowell Attorney: Babak Kheiri	1-22-2019	D	San Diego, CA	Personal Injury
Plaintiff: Gina Bass Attorney: Jayme Simpson	1-22-2019	D	San Diego, CA	Personal Injury
Plaintiff: David and Denise Lee Attorney: Todd Slaughter	1-24-2019	Т	Redding, CA	Personal Injury

11 TESTIFYING HISTORY

Plaintiff: Ranzan Madaev and Maria Madaeva Attorney: Kevin Conlogue	1-25-2019	D	San Diego, CA	Personal Injury
Plaintiff: Rogelio Regalado and Moraima Balderrama Attorney: Michael Kane	2-5-2019	D	San Diego, CA	Personal Injury
Plaintiff: Monik Ortega Attorney: Thomas Adams	2-6-2019	D	San Diego, CA	Personal Injury
Plaintiff: Teresa Barragan Attorney: Brandon Simon	2-8-2019	D	San Diego, CA	Personal Injury
Plaintiff: Mario Iglesias and Sandra Tolesano Attorney: Ramzy Ladah	2-19-2019	D	San Diego, CA	Personal Injury
Plaintiff: Grigor Iskanian Attorney: Jack Bazerkanian	2-25-2019	D	Irvine, CA	Personal Injury
Plaintiff: Carla and Derek Hultenius Attorney: Matthew Clendenin	3-4-2019	D	San Diego, CA	Personal Injury
Plaintiff: Case Walters Attorney: Michael Geoola	3-6-2019	D	San Diego, CA	Personal Injury
Plaintiff: Paige Baker Attorney: Aaron Brown	3-7-2019	D	San Diego, CA	Personal Injury
Plaintiff: Monick Ortega Attorney: Thomas Adams	3-18-2019	Т	San Bernardino, CA	Personal Injury
Plaintiff: Zarela Frias Attorney: Joseph Hough	3-19-2019	D	Irvine, CA	Personal Injury
Plaintiff: Courtney Griffith Attorney: Keith Galliher, Jr.	3-21-2019	D	San Diego, CA	Personal Injury
Plaintiff: Phillip Poli Attorney: Richard Englemann	3-25-2019	D	San Diego, CA	Personal Injury
Plaintiff: Shaun Phillips Attorney: Tracy Eglet	3-29-2019	D	San Diego, CA	Personal Injury
Plaintiff: Anne Nesman Attorney: Phillip Cooke	4-1-2019	D	San Diego, CA	Personal Injury
Plaintiff: Paige Baker Attorney: Aaron Brown	4-8-2019	Т	Van Nuys, CA	Personal Injury
Plaintiff: Donna Zimmerman Attorney: Todd Slaughter	4-10-2019	D(1)	Sacramento, CA	Personal Injury
Plaintiff: Anne Nesman Attorney: Phillip Cooke	4-16-2019	Т	Yuba City, CA	Personal Injury
Plaintiff: Joshua Humphrey Attorney: Erik Fox	4-19-2019	D	San Diego, CA	Personal Injury
Plaintiff: Donna Zimmerman Attorney: Todd Slaughter	5-7-2019	D (2)	San Diego, CA	Personal Injury

Plaintiff: Nida Magsood				Personal
Attorney: Thomas Willford	5-31-2019	D	San Diego, CA	Injury
Plaintiff: Alejandro Lopez-Aguilar Attorney: Jamie Cogburn	6-3-2019	D	San Diego, CA	Personal Injury
Plaintiff: Minh Luu Attorney: Lawrence Hill	6-20-2019	D	San Diego, CA	Personal Injury
Plaintiff: Jennifer Livesay Attorney: Ramsey Ladah	7-17-2019	D	San Diego, CA	Personal Injury
Plaintiff: Josephine Cimino Attorney: Bradley Meyers	7-19-2019	D	San Diego, CA	Personal Injury
Plaintiff: Jacqueline Alfaro Attorney: Ian Samson	7-24-2019	D	San Diego, CA	Personal Injury
Plaintiff: Stephany Dingman Attorney: Jared Anderson	7-26-2019	D	San Diego, CA	Personal Injury
Plaintiff: Carlos Fernandez Perez Attorney: Allen Haroutounian	8-19-2019	D	San Diego, CA	Personal Injury
Plaintiff: Brandi Brown Attorney: Christian Smith	8-22-2019	D	San Diego, CA	Personal Injury
Plaintiff: Jacqueline Alfaro Attorney: Ian Samson	8-27-2019	Т	Santa Ana, CA	Personal Injury
Plaintiff: Mary Lou Gonzales Attorney: Dustin Birch	9-23-2019	D	Orange County, CA	Personal Injury
Plaintiff: Ricardo Guardado Attorney: Mauro Fiori, Jr.	9-24-2019	D	Orange County, CA	Personal Injury
Plaintiff: Rufino Norato Attorney: Christopher Barnes	9-26-2019	D	San Diego, CA	Personal Injury
Plaintiff: Kelsie Frazier Attorney: Megan Lazar	9-27-2019	D	San Diego, CA	Personal Injury
Plaintiff: Maria Godina Attorney: James Brown	10-1-2019	Т	Los Angeles, CA	Personal Injury
Plaintiff: Miles Rolon Attorney: Andrew Sitzer	10-2-2019	D	Santa Ana, CA	Personal Injury
Plaintiff: Lora Blakely Attorney: James Dunn	10-7-2019	D	San Diego, CA	Personal Injury
Plaintiff: Christina Fernandez Attorney: Aaron Brown	10-9-2019	D	San Diego, CA	Personal Injury
Plaintiff: Amanda Hicks Attorney: Robert Simon	10-10-2019	D	San Diego, CA	Personal Injury
Plaintiff: Alla Naumova Attorney: Harry Nalbandyan	10-10-2019	D	San Clemente, CA	Personal Injury
Plaintiff: Reyna Pastrana Attorney: Michael Kane	10-14-2019	D	San Diego, CA	Personal Injury
Plaintiff: Robin Hummel Attorney: Steven Klearman	10-15-2019	D	San Diego, CA	Personal Injury

13 | Testifying History

Plaintiff: Carlos Fernandez Perez Attorney: Allen Haroutounian	10-18-2019	Т	Long Beach, CA	Personal Injury
Plaintiff: Grigo Izkanian Attorney: Jack Bazerkanian	10-22-2019	Т	Pomona, CA	Personal Injury
Plaintiff: Amanda Hicks Attorney: Robert Simon	10-24-2019	Т	Riverside, CA	Personal Injury
Plaintiff: Alla Naumova Attorney: Harry Nalbandyan	10-28-2019	Т	Los Angeles, CA	Personal Injury
Plaintiff: Betty Duenas Attorney: Daniel Benji	11-4-2019	D	San Diego, CA	Personal Injury
Plaintiff: Susan Pierce-Nunnick Attorney: Matt Price	11-5-2019	D	San Diego, CA	Personal Injury
Plaintiff: John Speer Attorney: Tracey Eglet	11-8-2019	D	San Diego, CA	Personal Injury
Plaintiff: Betty Duenas Attorney: Daniel Benji	11-12-209	Т	Fullerton, CA	Personal Injury
Plaintiff: Anthony Davis Attorney: Christopher Kanne	11-19-2019	D	Irvine, CA	Personal Injury
Plaintiff: Ramon Rodriguez Attorney: Christopher Burk	11-21-2019	D	San Diego, CA	Personal Injury
Plaintiff: Anna Kozlovsky Attorney: Mark Rubashkin	11-22-2019	D	San Diego, CA	Personal Injury
Plaintiff: Miles Rolon Attorney: Andrew Sitzer	12-2-2019	Т	Los Angeles, CA	Personal Injury
Plaintiff: Brenda Watson Attorney: Arash Nematollahi	12-13-2019	D	San Diego, CA	Personal Injury
Plaintiff: Haeng Sook Reed Attorney: Joel Hengstler	12-17-2019	D	San Diego, CA	Personal Injury
Plaintiff: Joseph Matthews Attorney: Michael Haight	12-19-2019	D	San Diego, CA	Personal Injury
Plaintiff: Travis Thompson Attorney: Eustace de Saint Phalle	12-30-2019	D	San Diego, CA	Personal Injury

 $D\!\!=\!\!deposition$

T=trial

A=arbitration

BA=binding arbitration

*T=video deposition in lieu of live trial testimony

Last updated on 1-1-2020

EXHIBIT 58

ARTHUR C. CROFT, PH.D., D.C., M.Sc., M.P.H., F.A.C.O.

Forensic Epidemiology, Orthopaedics, Biomechanics, Accident Reconstruction

March 12, 2020

Jason C. Barron, Esq. The702Firm 400 South 7th St, #400 Las Vegas, NV 89101

RE: PEREZ-ACOSTA, Maikel; BESSU-HERRERA, Rolando

DOI: 7-12-2016

DOB: 12-5-1982; 7-5-1983

FIRST SUPPLEMENTAL REPORT

Dear Barron:

I have reviewed the additional records you provided concerning the motor vehicle collision (MVC) of Mr. Perez-Acosta and Mr. Bessu-Herrera. This report summarizes my opinions and conclusions based on my review of these new documents.

REVIEW OF RECORDS

1-17-2020

Deposition of Jaime Roberto Salais [by Mr. Barron]. He was the driver of the Isuzu truck. He told the story of the collision. In essence, there was another vehicle identified as "the gold car" which was driving somewhat erratically, "throwing fingers," and talking to himself. It passed him, got in front of him, slowed down and then speeded up about 4 times, causing Mr. Salais to slow down each time, then it moved over and sped up and finally got in front of the plaintiff's vehicle and slowed again, forcing them to stop. That's when the Isuzu ran into the rear of the Ford Focus. He did not attempt to swerve. At one point he indicated that they were still moving when the collision occurred, but then he clarified that they had been stopped. He estimated his travel speed at about 40-45 mph prior to the collision and prior to braking. He estimated his closing velocity to have been about 25 mph. He did not know the weight of the truck. It was unloaded when the collision occurred. He did not fault the driver of the Ford Focus, but did not take responsibility for the collision, blaming the driver of the gold car. He does not recall answering interrogatories. The conflict between his statements/reports was discussed. In one, he indicated—as he did in this deposition—that the occupants of the Ford Focus indicated to him in Spanish, when he understands, that they were not injured. In another report he indicated that they had suffered whiplash

PEREZ-ACOSTA, Maikel; BESSU-HERRERA, Rolando

First Supplemental Report Page 2 of 2

injuries. After much questioning, he indicated that that was just an assumption he made based on the nature of the collision. He estimated the distance between his truck and the Ford Focus to have been 2-3 car lengths just prior to the MVC. Later in the deposition, he said for a 40 mph speed you should have 4 car lengths between vehicles. [More for a large truck.] He also indicated that he was attempting to change lanes but couldn't due to traffic and that he'd been looking in his right side-mirror just before the collision. He said he'd had another MVC the week prior to the subject collision. He said the truck did have a GPS system, but it was broken at the time. He was terminated at Trench Shoring in 2018, he said, because he did not get along with the new manager. He does not have a CDL.

DISCUSSION

Having reviewed the document above, none of the opinions expressed in my November 24, 2019 report have changed in any significant way.

All of the opinions expressed in this report can be taken to be made with a reasonable degree of collision reconstruction, biomechanical, and medical/epidemiological certainty unless otherwise qualified.

Thank you for allowing me to participate in this interesting case. If any of the foregoing is unclear or if I have failed to address any particular question or issue please do not hesitate to bring that to my attention. If new information becomes available, I am happy to review it and send along any necessary supplemental report.

Sincerely,

Arthur C. Croft, Ph.D., D.C., M.Sc., M.P.H., F.A.C.O.

Director, Spine Research Institute of San Diego

EXHIBIT 59

ARTHUR C. CROFT, PH.D., D.C., M.Sc., M.P.H., F.A.C.O.

Forensic Epidemiology, Orthopaedics, Biomechanics, Accident Reconstruction

November 24, 2019

Jason C. Barron, Esq. The702Firm 400 South 7th St, #400 Las Vegas, NV 89101

RE: **PEREZ-ACOSTA**, Maikel; **BESSU-HERRERA**, Rolando

DOI: 7-12-2016

DOB: 12-5-1982; 7-5-1983

RECONSTRUCTION, BIOMECHANICAL, & EPIDEMIOLOGICAL RISK ANALYSIS

Dear Mr. Barron:

I have reviewed the records you provided concerning the motor vehicle collision (MVC) of Mr. Perez-Acosta and Mr. Bessu-Herrera. For the purposes of disclosure, my qualifications are provided in **Appendix A**. This report summarizes my opinions and conclusions based on my review of documents, reconstruction of the collision, my biomechanical analysis, and my epidemiological analysis.

REVIEW OF RECORDS

Undated

Photographs of a gray 2011 Ford Focus (no license plate) taken at the crash scene. Occupants are seen in the rear seat. The rear window is broken and there is damage to the rear body panel, rear bumper, trunk lid, and right quarter panel (left not visible). There are photographs of a white 2014 Isuzu NPR-HD stake bed truck (NV lic. 58262 A) "Trench Shoring Co." painted on the front. There is damage to its front bumper and body panel. These were also taken at the scene.

7-12-2016

Hand written/completed Accident Report from Trench Shoring Company. The driver was Jaime Salais. It occurred on Lamb Blvd. between Stone River Ave. [sic] How: Other car cutting in front. 4 people in Ford Focus "whiplash."

Handwritten note [verbatim]:

I was coming N. on Lamb Blvd. their was a gold color car cutting in front of me then I tried changing lanes after the light on Lamb an Carey. This other car I turn my turn signal to merge to the right lane the guy in the gold car speed up next to me so I stayed on the same lane then I looked to my right view mirror to merge to the right everybody was still moving fine then another car

	was getting to close I didn't merge then the guy in the gold car cut the other cars on the left cut them off at that poin I glance at my right mirror the guy hit his brakes in front of other cars the guy in front hit his brakes I was not able to stop. The guy that I hit moved his car like forty yards from where I impact his car. I call 311. I ask them if the needed ambulance. All 4 of them said no (311 operator) ask me if any body hurt. They say no we exchange information on insurance.	
6-7-2017	Photocopy of a check in the amount of \$4525.00 to Jeovanny Ricardo- Mondeja for the total loss of a vehicle.	
3-8-2018	Records from Gallagher Bassett Services, Inc. There is a note that ht Isuzu flatbed truck sustained minor front end damage. There is a note that the truck driver claimed that the car cut him off and then slammed on the brakes. This document is partially redacted. Truck was a 2014 Isuzu.	
7-22-2019	Deposition of Kengo Takahashi [by Mr. Barron]. He is the PMK for the Trench Shoring Co. He is the driver recruitment and training manager. The Isuzu truck does not require a CDL to operate and Mr. Salais does not have one. Of the 4 occupants of the Ford Focus, two have settled their claims. He has no information to suggest that either Mr. Perez-Acosta or Mr. Bessu-Hererra were at fault in this event. Mr. Salais passed his drug and alcohol test as far as Mr. Takahashi was aware (same day). The Isuzu truck is an NPR with a 15,000 lb GVWR. It had minor damage to its front bumper and a dent in the driver's side front fascia panel. He doesn't know whether it was ever inspected. His knowledge of the collision was based on the written statement of Mr. Salais.	
10-9-2019	Defense Medical Examination and report from Reynold Rimoldi, MD concerning Mr. Perez-Acosta. His chief complaint was back pain and pain, numbness, and weakness in the right lower extremity. Mr. Perez-Acosta was the front seat passenger in a 2011 Ford Focus that was rear-ended by a commercial truck. He sustained a back and right lower extremity condition. He'd had a prior surgery at the T12 level while living in Cuba about 19 years earlier after a load of sand fell on him. Rods were placed and, sometime later, removed. However, he claimed to have been asymptomatic prior to the subject crash of 7-12-2016. He had 2 treatments by a chiropractor. He was seen early on at the University Medical Center and diagnosed with an acute cauda equina syndrome. He had also been diagnosed in the records as suffering from postlaminectomy syndrome. Dr. Rimoldi reviewed the medical record. There were a number of imaging	
	studies. They showed retrolisthesis of L2 on L3 [also described elsewhere as anterolisthesis], a prior laminectomy at T12-L1, a 50% L1 compression fracture, a 5 mm offset [NOS] at T12-L1, a post-traumatic arachnoid cyst, a posttraumatic syrinx at T12 vs. myelomalacia, subluxation of the T12-L1	

facets, kyphosis at that same level, annular fissures were noted at L4-5 and L5-S1, and a discogram was pain-concordant at the lower level.

Throughout the record, he complained of urinary incontinence, although it is unclear whether he followed up with a urologist for this. Somatosensory evoked responses were prolonged on the right side and EMG findings were abnormal in the lower extremities [NOS].

A spinal cord stimulator trial was recommended, but not undertaken. Dr. Kaplan performed an ALIF procedure at L5-S1 on 8-18-2017 which ultimately provided little or no benefit.

Dr. Rimoldi's examination revealed a loss of lumbar range of motion of 20%, bilateral weakness and atrophy of the lower extremities, particularly the right side. There was a right side steppage gait and Mr. Perez-Acosta used a cane, but was not wearing a brace.

Dr. Rimoldi looked at some of the imaging studies and found no acute changes. He felt that the only treatment that was appropriate or necessitated by the subject collision was the initial work-up and diagnostics at UMC. His opinion was based on his assumption that his leg atrophy and urinary complaints were long-standing and not the result of the 2016 MVC. He was of the opinion that it was "simply not possible," but did not provide any explanation as to why. Thus, he rejected the assurances given by Mr. Perez-Acosta that he had been asymptomatic prior to the MVC. He felt he was showing signs of secondary gain, but again, did not provide any specific examples.

Comment: It is entirely possible to develop a foot drop and lower extremity atrophy within the 3 years plus time frame from the MVC to the examination of Dr. Rimoldi.

10-16-2019

Defense Medical Examination and report from Reynold Rimoldi, MD concerning Mr. Rolando Bessu-Herrera. His chief complaints were neck, midback, and lower back pain. He had been the rear seat passenger side occupant in the 2011 Ford Focus that was rear-ended by a commercial truck. He eventually was given a permanent spinal cord stimulator which provided some relief. His medical history was unremarkable. Images reviewed by Dr. Rimoldi revealed a normal cervical and lumbar x-ray series, a left wrist series that was normal, and MRI scan of the lumbar spine showing degenerative changes at the L4-5 level, a normal cervical spine MRI scan., and a normal 2-level CT discogram.

Dr. Rimoldi diagnosed "spinal sprain/strains," and allowed for 6-12 weeks of conservative treatment only, and cervical and lumbar MRIs as reasonable.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 4 of 25

Comment: There is no evidence-based literature supporting the expectation that most or all such injuries resolve within 6-12 weeks. The medical literature shows instead that 50% of these injuries never fully resolve¹⁻³⁴ and 10-12% of victims become disabled.^{2,4,8,9,16,19,21,31,35-45}

10-29-2019

Report from Brian Jones, MSBE of American Bio Engineers. Mr. Jones estimated the closing velocity of the collision to have been 12.8 to 13.6 mph and the resulting delta V of the Ford Fusion to have been 11.1 to 12.3 mph. He estimated the duration of the crash to have been 100 to 150 msec. He estimated the occupants' peak head acceleration to have been 13.5 to 24.7 g and their lumbar peak acceleration to have been 8.9 to 14.8 g.

He cautioned that these values would not be comparable to sustained accelerations experienced by fighter jet pilots.

Comment: It should be noted, however, that military pilots have been known to sustain neck sprain in unexpected accelerations of 2-5 g.⁴⁶

Ironically, Mr. Jones then proceeded to cite a number of papers reporting acceleration levels recorded during benign activities of daily living (ADL) such as plopping into a chair or other activities that would not be expected to cause a neck or back injury. 47,48

Comment: These activities are in no rational way comparable to a 11.1 to 12.3 mph delta V collision in which the occupants will experience very significant change of position of several feet with the span of a fraction of a second and very aggressive kinematic reaction and dynamic interaction with their seat, head restraint, and restraint webbing. Moreover, the magnitude of these ADL accelerations, as Mr. Jones noted, are well below what he predicted for the Ford Focus occupants, making the comparison irrelevant.

Mr. Jones assured the reader that the lumbar spine is fully supported by the seat back.

Comment: This is hardly the case and is not supported by any peer-reviewed scientific literature. To the contrary, lumbar spine injuries are only second to cervical spine injuries in frequency in this kind of collision.^{3,5,11,14,16,19-21,24,26,30,32,36,43,49-71}

He added, "Additionally, testing of functional spinal units have shown that axial compressive forces alone cannot cause disc prolapses prior to disc endplate fracturing."

Comment: Adams and Hutton⁷² experimented with compression and hyperflexion of healthy cadaver specimens and demonstrated that disc

herniations did occur in the absence of endplate fracturing. Clinically, of course, we see vastly more herniations without endplate fracturing.

Mr. Jones then cited two papers to bolster his opinions: one by Gates et al.⁷³ and another by Yang et al.⁷⁴

Comment: Both are published in engineering literature with no biomedical peer review process which allows the authors to provide biomedical opinions without providing supporting literature. For example, Gates et al. reported that, "... on the rare occasion in which low back pain associated with an intervertebral disc herniation was reported," and "... it is practically impossible to tear the annulus of a healthy disc all the way through during a single traumatic loading event." No support for these net theories was offered.

The Yang et al. paper was problematic largely because the authors used NASS data which, although valuable, is nevertheless biased in a number of ways. For one, these must be police-reported collisions, and there must be at least one vehicle that requires towing. Since more than half of all whiplash injuries are associated with non-tow-away collision severities and are frequently not associated with police reports, a substantial bias is present in the database concerning this type of collision. This is especially true since it has been demonstrated in previous studies that the risk curve dips down at about the speeds associated with more substantial crush damage, and these would coincide with tow-away crashes.

The NASS database is also relatively porous with regard to the robustness of injury reporting, particularly since these injuries are often delayed in their onset and police reports are known to lack reliability and accuracy concerning injuries. Investigators are not always able to obtain an accurate injury history. When they reported that, out of 7500 rear-ended crash victims, only 0.2% (15) had lumbar disc herniations, and only 8% complained of any low back injury, anyone familiar with the very substantial clinical literature cited above would quickly recognize a glaring problem. Most authors of clinical studies of motor vehicle crashes of this kind have reported lumbar injuries ranging from 25% to 45% or more.

Mr. Jones then cited Vijayakumar et al, 75 Heller et al., 76 and Allen et al. 77

Comment: These activities are again not comparable to real-world rear impact MVC exposure and any comparison is disingenuous and misleading. We discussed the Allen at al. paper and this genre of work earlier.⁷⁸

Finally, Mr. Jones cited a number of human subject crash test studies which he claimed supported his opinions.

Comment: Human subject crash testing has, to my knowledge, never been conducted in such a way as to result in structural damage to the rear of the vehicle the volunteers were positioned in comparable to what we see in the subject collision. Nor has there ever been a reported rear impact crash test of 10 mph or higher. ^{42,79-119} Thus, assuming Mr. Jones is correct in his assessment of delta V in this subject collision, no published study to date has been conducted that subjected volunteers to the magnitude of energy or force as occurred in the subject collision. Additionally, volunteers are carefully screened and are always aware of the pending collision, and tests are conducted under optimized conditions to minimize risk to volunteers. In our tests, however, we have produced injuries in a number of volunteers at speeds well below 10 mph, so this type of research is not entirely benign and cannot be used as an index or threshold of safety.

AUTOMOBILE (RASH RECONSTRUCTION (ACR)

I used a standard database (*XPRT AutoStats*TM 5.7.1 (4N6XPRT Systems, La Mesa, CA), to obtain details concerning mass, center of gravity, bumper ratings, etc. I also utilized a physics-based software reconstruction program called *PC-Crash*TM 11.1 (Dr. Steffan Datentechnik, Linz, Austria) to reconstruct the crash. It also has a vehicle specifications database, and this was cross-referenced with that of the *XPRT AutoStats*TM.

The equations for balance of linear and angular momentum were solved using computer simulation software specifically designed, tested, and validated for this type of analysis (PC-Crash accident simulation software, MEA Forensic, Richmond, BC, Canada). This software relies on vehicle information provided by the Specs database. PC-Crash is a collision and trajectory simulation tool that has been used and validated to model a wide variety of vehicle collisions. This software is accepted widely in the scientific community and its internal methods for solving the balance of linear and angular momentum have been validated by comparing the results of staged collisions with the results of the computer model; PC-Crash has been used to model collinear frontal, rear, and lateral impacts, rollover accidents, and vehicle versus pedestrian accidents. The validation studies have been presented and published in peer-reviewed, scientific journals and technical briefs from the Society of Automotive Engineers (SAE). Vehicle specific parameters, such as geometry and suspension properties, are used in the PC-Crash simulation.

Based on my experience in accident reconstruction and full scale crash testing, the closing velocity, the delta Vs reported by Mr. Jones appeared reasonable so I used these as a starting point for my analysis. His closing velocity figures were 12.8 and 13.6 mph and mine were 12.8 and 14.2 mph, a variance of no consequence because the primary outcome goal is delta V and I arrived at the same numbers there as Mr. Jones. The results are shown in a table below.

For this analysis, the following information was used.

General Assumptions (Except as Otherwise Noted) Crash Scene Conditions				
	Road Grade	Flat		
	Lighting Conditions	Daylight		
	Road Coefficient of Friction	0.80		
Vehicle Parameter	s			
2014 Isuzu NPR-HD (V1)			
	Curb Weight	8175 lb		
	Freight/Baggage/Load	Included		
	Weight Distribution % F/R	67/33		
	Height of Top of Front Bumper	28 in (est.)		
	Height of Top of Rear Bumper	NA		
	Bumper Rating	Not rated		
	Center of Gravity (CG) Height	36.40 in		
	Distance of CG to Front Axle	58.08 in		
	Head Restraint/Seat Rating*	NA		
	Airbag Deployment	No		
2011 Ford Focus (V2)				
	Curb Weight	3279 lb		
	Freight/Baggage/Load	Included		
	Weight Distribution % F/R	59/41		
	Height of Top of Front Bumper	NA		
	Height of Top of Rear Bumper	29 in		
	Bumper Rating	2.5 mph		
	Center of Gravity (CG) Height	23.61 in		
	Distance of CG to Front Axle	42.23 in		
	Head Restraint/Seat Rating*	Good		
	Airbag Deployment	No		

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 8 of 25

Results					
Closing Velocity	Isuzu Delta V	Volkswagen Delta V			
12.8 mph	-4.5 mph	11.1 mph			
14.2 mph	-5.0 mph	12.3 mph			

BIOMECHANICAL ASSESSMENT

The crash pulse obtained from the collision sequence from *PC Crash 11.1* was then input directly into *MADYMO*, a highly sophisticated mathematical dynamic model that simulates the human body using numerical methods and predicts how it will respond to specific collisions. This highly developed and widely validated multibody model is used extensively in the automotive industry and in research (see **Appendix B**).

Based on the simulation, the MADYMO acceleration data, which is based on a 50th percentile Hybrid III dummy model—the anthropometric test device (ATD) that is specified in U.S. Federal Motor Vehicle Safety Standards—were as follows:

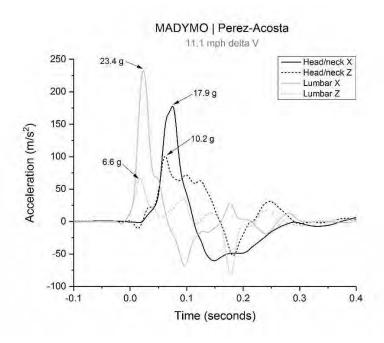


Figure 1. MADYMO acceleration time history of an occupants of the 2011 Ford Focus in the 11.1 mph delta V scenario. This represents the head/neck and lumbar accelerations. The X vector is the 12 o'clock direction relative to the front of the vehicle. The Z vector is the vertical one which results in compression of the spine. Metric units have been converted to more familiar gravitational (g) units.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 9 of 25

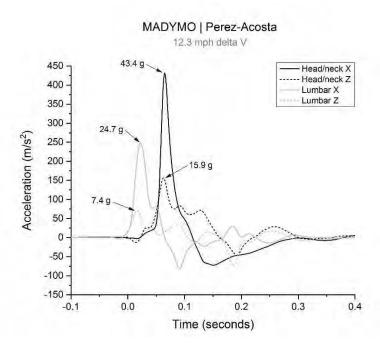


Figure 2. MADYMO acceleration time history of an occupants of the 2011 Ford Focus in the 12.3 mph delta V scenario. This represents the head/neck and lumbar accelerations. The X vector is the 12 o'clock direction relative to the front of the vehicle. The Z vector is the vertical one which results in compression of the spine. Metric units have been converted to more familiar gravitational (g) units.

It is noteworthy that because of its very stiff cervical spine, the Hybrid III dummy generally underestimates the head/neck acceleration and, in human subject crash tests, we and others have demonstrated the head/neck acceleration is actually greater than lumbar spine acceleration, making **Figure 1** a conservative estimation of inertial loads.^{42,79-83,85-90,92-118}

Further to this point, in a recent study by Cormier et al.¹²⁰ the authors reviewed most of the published human subject instrumented crash testing data and developed a regression equation that relates the struck vehicle's measured delta V to the measured occupant's head peak linear acceleration. That equation is:

$$y = 0.093x^2 + 0.3011x$$

where y is the unknown value of acceleration and x is the delta V expressed in km/h.

Using this equation for the 11.1 mph and 12.3 mph delta V, we get 35.1 g and 42.4 g respectively.

This was a very dynamic collision in which the neck and back injury risk would have been high for all occupants. Note that the mean delta V in which injuries are reported in rear impact collisions has been reported to be 4 mph, ¹²¹ and whiplash experiments

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 10 of 25

conducted at Yale have demonstrated cervical disc disruptions in cadaver specimens in accelerations of as little as 3.5 to 5 g. Both metrics (delta V and acceleration) were substantially exceeded in the subject collision.

EPIDEMIOLOGICAL RISK ASSESSMENT

Real-world crash data with clinical follow-up has demonstrated that the mean collision delta V for injuries in rear impact collisions is 4 mph. 122

There are a number of human risk factors associated with higher risk for injury and poor outcome. Human risk factors have been demonstrated to be more deterministic than crash factors. ¹²³ The following are relevant risk factors in this case:

Risk Factors:

- 1. Rear impact collision vector. ^{2,37,124-134}
- 2. Non-awareness of impending impact. ^{29,135}
- 3. Immediate onset of symptoms. ^{25,57,136-142}
- 4. Pre-existing degenerative changes noted. ^{25,34,50,51}
- 5. Impact by vehicle of greater mass. 130,143-145

Discussion

This was a relatively severe rear end collision in which a commercial stake bed 2014 Isuzu NPR-HD truck struck the rear of a 2011 Ford Focus, resulting in significant damage to the passenger car, and injuring Mr. Perez-Acosta and Mr. Bessu-Herrera. The Isuzu was not only a more massive vehicle, but is built on a rigid frame rail chassis and has no energy absorber in its front bumper. There were two other occupants who were also apparently injured. Injury risk would be very high in this collision with injuries including neck and lower back injury consisting of intervertebral disc and facet joint capsule injuries. Mr. Perez-Acosta would also be more vulnerable to injury as a result of his earlier laminectomy at the T12 level and it is likely that this motor unit was reinjured in the subject crash.

I made several comments concerning the report of Mr. Brian Jones which can be found starting on page 4 above. In summary, while I consider Mr. Jones' determination of delta V to be reasonable, I disagree with his estimation of occupant acceleration, which he underestimated in my opinion. I also disagree with his portrayal of occupant forces and loads which he compared to ADLs such as jumping rope or riding in bumper cars. These comparisons are grossly unscientific and highly misleading. The Insurance Institute for Highway Safety (IIHS) and its sister groups around the world who are members of the International Insurance Whiplash Protection Group (IIWPG) all test seat/head restraints in sled tests using biofidelic rear impact crash test dummies. These are conducted with nominal 10 mph delta Vs precisely because it is assumed that a substantial proportion of

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 11 of 25

the motoring public would be injured in such a collision. The U.S. government uses the same test speed in their seat tests.

I also made comments regarding Dr. Rimoldi's reports on pages 3 and 4 above. Dr. Rimoldi was of the opinion that Mr. Perez-Acosta was suffering from long-standing neurological problems (e.g., steppage gait and atrophy of his lower extremities and that it was impossible that these were the result of the 7-12-2016 MVC. He did not provide any concrete rationale for this assumption which clearly contradicts Mr. Perez-Acosta's assurances that he was asymptomatic prior to the MVC. It is certainly possible for atrophy and other findings and complaints to have developed between the time of the MVC and the time Dr. Rimoldi conducted his examination.

These and all other opinions expressed in this report can be taken to be made with a reasonable degree of collision reconstruction, biomechanical, and medical/epidemiological certainty unless otherwise qualified.

Thank you for allowing me to participate in this interesting case. If any of the foregoing is unclear or if I have failed to address any particular question or issue, please do not hesitate to bring that to my attention. If new information becomes available, I am happy to review it and send along any necessary supplemental report.

Sincerely,

Arthur C. Croft, Ph.D., D.C., M.Sc., M.P.H., F.A.C.O.

Director, Spine Research Institute of San Diego

atin a dy

APPENDIX A

QUALIFICATIONS

I am a licensed chiropractor in the state of California and have specialized in the area of whiplash trauma for the past 28 years. I am also a board certified chiropractic orthopaedist, a trauma epidemiologist and biomechanist, and an automobile crash reconstructionist. In addition to my doctorate in chiropractic and undergraduate degrees in chemistry and biology, I have master's degrees in biology and in public health and a Ph.D. in epidemiology. I am a graduate of Northwestern University's Traffic Institute *Traffic Accident Reconstruction* Program, as well as their *Advanced Accident*

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 12 of 25

Reconstruction and Human Factors Research program, and have studied in numerous other programs including Texas A&M University's Analysis of Low Speed Collisions, the Association for the Advancement of Automotive Medicine's Biomechanics of Trauma program, and various SAE courses. I have co-authored three textbooks on the subject of whiplash and traumatic brain injury, several textbook chapters, and over 340 professional papers on the clinical, epidemiological, and biomechanical aspects of motor vehicle collision trauma. I have lectured extensively in the U.S. and abroad on these topics at venues such as the 10th World Congress of Pain, the 2006 SAE World Congress, 19th World Congress of the International Traffic Medicine Association, the 5th World Congress of Biomechanics, and the 2002 International Research Council on the Biomechanics of Impact International Congress. I am a panel member of the International Whiplash Task Force, and have participated in dozens of research projects over the years, including two at the RAND corporation and several at my own institution, the Spine Research Institute of San Diego. I have served on the faculty of the University of California San Diego, Southern California University of Health Sciences, and as postgraduate faculty of three chiropractic colleges. I served as an examination commissioner for the State Board of Chiropractic Examiners for several years and served four consecutive two-year terms as a state-appointed Independent Medical Examiner (Division of Industrial Injuries, California). I was the original developer of the whiplash grading system which is now the international standard. I was actively engaged in full scale human subject crash testing for nearly a decade, having conducted more than 80 full scale crash tests over that period, most of which have involved human subject volunteers, most of them rear impact crashes at lower velocities, and several of which were used to validate the new biofidelic rear impact anthropometric test dummies (RID2 and BioRID IIe).

APPENDIX B

PC Crash is a physics-based software program developed for the purpose of reconstructing collisions between motor vehicles, stationary objects, motorcycles, bicycles, and pedestrians (Dr. Steffan Datentechnik, Linz, Austria). Nearly any type of vehicle or roadway condition and any crash scenario, regardless of its complexity, can be effectively simulated. This allows the scientist or forensic expert to begin with all available evidence and the most likely starting conditions (or boundary conditions) and, using a variety of intensely computational algorithms, to arrive at the best possible solution based on real-world laws of physics. *PC Crash* has been widely validated against crash tests of various types with the results published in peer-reviewed scientific and engineering journals ¹⁻¹³.

COLLISION ANALYSIS

Model components include the trajectory model, trailer model, impulse-restitution model with full and sliding impacts, multibody model for pedestrians, bicycle and motorcycle riders, and vehicle passengers, and two forced-based impact models. The effects of tire and braking forces, antilock brakes, electronic stability control systems, suspension

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 13 of 25

travel, spring suspension and damping forces, air resistance, gravity, trailer hitch forces and moments, and multibody contact forces can be modeled.

Differential equations of motion are integrated using the Euler method, with time steps typically set at 5 msec, meaning that all of the physical parameters which are constantly changing are accounted for through massive mathematical computation of this broad range of differential equations at a rate of 200 times per second.

The default impact model in *PC Crash* is a momentum-based 2- or 3-dimensional model that relies on restitution rather than vehicle crush or stiffness coefficients. However, a fully integrated CRASH algorithm is a component of the program and can be used to cross-check the results obtained from the impulse-restitution impact model.

A collision *optimization* algorithm considers a number of pre-impact parameters (closing velocity, POI, contact plane angle, pre-impact directions, vehicle positions, restitution, or contact plane friction) to minimize the weighted total error based on the least squares statistical method. This optimization can be run using a linear method, a genetic method, or the Monte Carlo method.

MULTIBODY SIMULATION

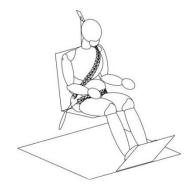
While vehicles can effectively be modeled as classical Newtonian rigid bodies, human bodies are soft, flexible, and articulated. The multibody model component of *PC Crash* comprises a model of the human body based on 20 ellipsoid bodies connected by 19 joints. All major human parts except individual toes and fingers are included and each part can be adjusted for geometry, mass and moments of inertia, contact stiffness, and coefficients of friction. Joint location, friction, stiffness—including translational stiffness—damping, and tensile force can be individually adjusted for all elements allowing replication of virtually any human condition. As in the case of the rigid body vehicle, the external forces (e.g., gravity, contact forces, frictional forces, and joint forces) are calculated at each Step width.

After these external forces are calculated, the movement of each of the 20 body parts is calculated independently by solving the equations of motion numerically using the Euler method. Motion, therefore, becomes a product of the balance of external forces and moments and the law of conservation of momentum.

For each time step (i.e., 200 times per second with the time step set to 5 msec) the joint equations for the entire multibody must be solved explicitly. The methodology of the multibody analysis corresponds to the classical approach of LaGrange multipliers, familiar to multibody dynamics.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 14 of 25

MADYMO (MATHEMATICAL DYNAMIC MODEL)



MADYMO (TNO, The Netherlands) was developed to simulate human occupants exposed to traumatic conditions such as motor vehicle collisions with a high degree of accuracy. Like *PC Crash*, it has been subjected to numerous validation studies ¹³⁻²⁴ and has been widely used in research, automotive safety engineering, and forensic settings ^{15,25-37}.

The model is similar to the *PC Crash* multibody model, but includes elements of even more advanced precision, including finite element restraint systems, pretensioners, and airbags; seats and head restraints which can be adjusted geometrically as well as in terms of stiffness; and control of airbag ignition time. Equations of motion are solved numerically with each time step using the Runge-Kutta method.

The principle and effective stresses and strains of human tissues are simulated with a basic elastic material mechanical behavior. The general constitutive equation for linearly elastic materials (e.g., Young's modulus, shear modulus, and Poisson's ratio) is based on Hook's law. Damping can be modeled with a viscoelastic material model.

While there are several MADYMO models in use today, the model used in this analysis simulates a 50th percentile male Hybrid III anthropometric test device (ATD), which is the test dummy specified in the majority of the U.S. federal crash test regulations (i.e., Federal Motor Vehicle Safety Standards). It continues to be the most robust and reliable for most real-world motor vehicle collision analyses. Known differential kinematic and inertial responses between males and females can be factored into MADYMO's output.

References

- 1. Bailey MN, Lawrence JM, Fowler SJ, Williamson PB, Cliff WE, Nickel JS. Data from five staged car-to-car collisions and comparison with simulations. SAE 2000 World Congress. Detroit, MI, 2000.
- 2. Cliff WE, Bowler JJ. The measured rolling resistance of vehicles for accident reconstruction. SAE International Congress and Exposition. Detroit, MI, 1998.
- 3. Cliff WE, Lawrence JM, Heinrichs BE, Fricker TR. Yaw testing of an instrumented vehicle with and without braking. SAE 2004 World Congress and Exhibition. Detroit, MI, 2004.
- 4. Cliff WE, Montgomery DT. Validation of PC-Crash: a momentum-based accident reconstruction program. SAE International Congress and Exhibition. Detroit, MI, 1996.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 15 of 25

- 5. Cliff WE, Moser A. Reconstruction of twenty staged collisions with PC-Crash's optimizer. SAE 2001 World Congress. Detroit, MI, 2001.
- 6. Moser A, Hoschopf H, Steffan H, Kasanicky G. Validation of the PC-Crash pedestrian model. SAE 2000 World Congress. Detroit, MI, 2000.
- 7. Moser A, Steffan H. Automatic optimization of pre-impact parameters using post-impact trajectories and rest positions. SAE International Congress and Exposition. Detroit, MI, 1998.
- 8. Moser A, Steffan H, A. S, Makkinga W. Application of the Monte Carlo methods for stability analysis within the accident reconstruction software PC-CRASH. SAE Paper 2003-01-0488. 2003.
- Moser A, Steffan H, Kasanicky G. The pedestrian model in PC-Crash: The introduction of a multibody system and its validation. SAE International Congress and Exposition. Detroit, MI, 1999.
- 10. Steffan H, Moser A. The collision and trajectory models of PC-Crash SAE International Congress and Exposition. Detroit, MI, 1996.
- 11. Steffan H, Moser A. The trailer simulation model of PC-CRASH. SAE International Congress and Exposition. Detroit, MI, 1998.
- 12. Steffan H, Moser A. How to use PC-CRASH to simulate rollover crashes. SAE 2004 World Congress and Exhibition. Detroit, MI, 2004.
- 13. Steffan H, Moser A, Geigl BC, Motomiya Y. Validation of the coupled PC-CRASH-MADYMO occupant simulation model. SAE 2000 World Congress. Detroit, MI, 2000.
- 14. Alonso B, Digges K, Morgan R. Far-side impact vehicle simulations with MADYMO. SAE 2007 World Congress. Detroit, Michigan, 2007.
- 15. Amenson TT, Begeman PC, Melvin JW, Grimm MJ. Development of the MADYMO race car driver model for frontal impact simulation and thoracolumbar spine injury prediction in Indianapolis-type racing car drivers. SAE Motorsports Engineering Conference. Concord, North Carolina, 2008.
- 16. Eriksson L, Boström O. Assessing the influence of crash pulse, seat force characteristics, and head restraint position in NICmax in rear-end crashes using a mathematical BioRID dummy. International IRCOBI Conference on the Biomechanics of Impact. Barcelona, Spain, 1999.
- Hoffmann R, Ulrich D, Protard J-B, Wester H, Jaehn N, Scharnhorst T. Finite element analysis of occupant restraint system interaction with PAM-CRASH. 4th Stapp Car Crash Conference. Orlando, FL, 1990.
- Hovenga PE, Spit HH, Uijldert M, Dalenoort AM. Improved prediction of Hybrid-III injury values using advanced multibody techniques and objective rating. SAE 2005 World Congress. Detroit, Michigan, 2005.
- 19. Lee W. A CAE methodology to simulate testing a rearward-facing infant seat during FMVSS 208 low risk deployment. SAE 2007 World Congress. Detroit, Michigan, 2007.
- 20. Lupker HA, A. de Coo PJA, Nieboer JJ, Wismans J. Advances in the MADYMO crash simulations. SAE International Congress and Exposition. Detroit, MI, 1991.
- 21. Maletz M, Steffan H, Lankarani HM. A potential new approach for the evaluation of occupant response in frontal impact scenarios. SAE 2006 World Congress. Detroit, MI, 2006.
- 22. Praxl N, Schönplfug M, Adamec J. Application of human models in vehicle rollover. Digital Human Modelling for Design and Engineering Conference and Exposition. Monteal, Canada, 2003.
- 23. Trammell TR, Zhang H, Ma D, Donegan M, Park S. Evaluation of the MADYMO full FE human model in a rear impact simulation of an IndyCar. Motorsports Engineering Conference and Exhibition. Dearborn, Michigan, 2006.
- 24. Twisk D, Spit HH, Beebe M, Depinet P. Effect of dummy repeatability on numerical model accuracy. SAE 2007 World Congress. Detroit, Michigan, 2007.
- 25. Bartsch AJ, Gilbertson LG, Prakash V, Wiechel JF, Morr DR, Shkoukani M. SP-2270 Rear Impact Side Impact, and Rollover, 2010. Warrendale: SAE International.
- 26. Croft AC, Herring P, Freeman MD, Haneline MT. The neck injury criterion: future considerations. Accid Anal Prev. 2002 Mar;34(2):247-55.
- Cuadrado J, Smyth B, Smith J. SP-2270 Rear Impact Side Impact, and Rollover, 2010.
 Warrendale: SAE International; 2010.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 16 of 25

- 28. Dix J, Sagawa K, Sahare L, Hammoud S, Fulk D, Cardinali A, Mitchell A. SP-2270 Rear Impact Side Impact, and Rollover, 2010. Warrendale: SAE International; 2010.
- 29. Frimberger M, Wolf F, Scholpp G, Schmidt J. Influences of parameters at vehicle rollover. International Body Engineering Conference and Exhibition. Detroit, Michigan, 2000.
- 30. Hasija V, Takhouts EG, Ridella SA. Computerized crash reconstruction of real-world crashes using optimization methodology. 21st International Technical Conference on the Enhanced Safety of Vehicles. Stuttgart, Germany, 2009.
- 31. Kim S, Hong S, Lee J. A study of driver airbag shape design with process integration. SAE 2005 World Congress. Detroit, Michigan, 2005.
- 32. McCoy RW, Chou CC, van de Velde R, Twisk D, van Schie C. Vehicle rollover sensor test modeling. SAE 2007 World Congress. Detroit, Michigan, 2007.
- 33. Nemirovsky N, Rooij L. A new methodology for biofidelic head-neck postural control. Proceedings of the International Research Council on the Biomechanics of Impact (IRCOBI). Hanover, Germany, 2010:71-84.
- 34. Newberry W, Carhart M, Lai W, Corrigan CF, Croteau J, Cooper E. A computational analysis of the airborne phase of vehicle rollover: occupant head excursion and head-neck posture. SAE 2005 World Congress. Detroit, Michigan, 2005.
- 35. Saunders J, Smith DL, Barsan A. Restraint robustness in frontal crashes. SAE 2007 World Congress. Detroit, Michigan, 2007.
- 36. Serber H. Test results on the counter balanced motion (CBM) seat crashworthiness. SAE 2003 World Congress. Detroit, Michigan, 2003.
- 37. Sochor MR, Faust DP, Garton H, Wang SC, Ridella SA, Barnes S, Fischer K. Simulation of occipitoatlantoaxial injury utilizing a MADYMO model. SAE 2004 World Congress. Detroit, Michigan, 2004.

REFERENCES

- 1. Borchgrevink GE, Kaasa A, McDonagh D, Stiles TC, Haraldseth O, Lereim I. Acute treatment of whiplash neck sprain injuries. A randomized trial of treatment during the first 14 days after a car accident. Spine. 1998;23(1):25-31.
- 2. Borchgrevink GE, Lereim I, Royneland L, Bjorndal A, Haraldseth O. National health insurance consumption and chronic symptoms following mild neck sprain injuries in car collisions. Scand J Soc Med. 1996;24(4):264-271.
- 3. Buitenhuis J, Spanjer J, Fidler V. Recovery from acute whiplash: the role of coping styles. Spine. 2003;28(9):896-901.
- **4.** Bunketorp L, Nordholm L, Carlsson J. A descriptive analysis of disorders in patients 17 years following motor vehicle accidents. Eur Spine J. 2002;11(3):227-234.
- 5. Carroll LJ, Liu Y, Holm LW, Cassidy JD, Cote P. Pain-related emotions in early stages of recovery in whiplash-associated disorders: their presence, intensity, and association with pain recovery. Psychosom Med. 2011;73(8):708-715.
- 6. Casey PP, Feyer AM, Cameron ID. Identifying predictors of early non-recovery in a compensation setting: The Whiplash Outcome Study. Injury. 2010.
- 7. Galasko CSB, Murray PA, Pitcher M. Prevalence and long-term disability following whiplash-associated disorder. Journal of Musculoskeletal Pain. 2000;8:15-27.
- 8. Gargan M, Bannister G, Main C, Hollis S. The behavioural response to whiplash injury. J Bone Joint Surg. 1997;79B(4):523-526.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 17 of 25

- 9. Gargan MF, Bannister GC. Long-term prognosis of soft-tissue injuries of the neck. J Bone Joint Surg. 1990;72B(5):901-903.
- **10.** Gargan MF, Bannister GC. The rate of recovery following whiplash injury. Eur Spine J. 1994;3(3):162-164.
- 11. Gun RT, Osti OL, O'Riordan A, Mpelasoka F, Eckerwall CG, Smyth JF. Risk factors for prolonged disability after whiplash injury: a prospective study. Spine. 2005;30(4):386-391.
- **12.** Hildingsson C, Toolanen G. Outcome after soft-tissue injury of the cervical spine. Acta Orthop Scand Audiol. 1990;61(4):357-359.
- 13. Karlsborg M, Smed A, Jespersen H, et al. A prospective study of 39 patients with whiplash injury. Acta Neurol Scand. 1997;95(2):65-72.
- 14. Karnezis IA, Drosos GI, Kazakos KI. Factors affecting the timing of recovery from whiplash neck injuries: study of a cohort of 134 patients pursuing litigation. Arch Orthop Trauma Surg. 2007;127:633-636.
- 15. Kasch H, Bach FW, Jensen TS. Handicap after acute whiplash injury: a 1-year prospective study of risk factors. Neurology. 2001;56(12):1637-1643.
- 16. Kasch H, Bach FW, Stengaard-Pedersen K, Jensen TS. Development in pain and neurologic complaints after whiplash: a 1-year prospective study. Neurology. 2003;60(5):743-749.
- 17. Kasch H, Stengaard-Pedersen K, Arendt-Nielsen L, Staehelin Jensen T. Pain thresholds and tenderness in neck and head following acute whiplash injury: a prospective study. Cephalalgia. 2001;21(3):189-197.
- **18.** Kischka U, Ettlin T, Heim S, Schmid G. Cerebral symptoms following whiplash injury. Eur Neurol. 1991;31(3):136-140.
- 19. Merrick D, Stalnacke BM. Five years post whiplash injury: Symptoms and psychological factors in recovered versus non-recovered. BMC Res Notes. 2010;3:190.
- 20. Miettinen T, Airaksinen O, Lindgren KA, Leino E. Whiplash injuries in Finland-the possibility of some sociodemographic and psychosocial factors to predict the outcome after one year. Disabil Rehabil. 2004;26(23):1367-1372.
- 21. Nederhand MJ, Hermens HJ, MJ IJ, Turk DC, Zilvold G. Chronic neck pain disability due to an acute whiplash injury. Pain. 2003;102(1-2):63-71.
- 22. Olivegren H, Jerkvall N, Hagstrom Y, Carlsson J. The long-term prognosis of whiplash-associated disorders (WAD). Eur Spine J. 1999;8(5):366-370.
- 23. Olsson I, Bunketorp O, Carlsson SG, Styf J. Prediction of outcome in whiplash-associated disorders using West Haven-Yale Multidimensional Pain Inventory. Clin J Pain. 2002;18(4):238-244.
- **24.** Ovadia D, Steinberg EL, Nissan MN, Dekel S. Whiplash injury--a retrospective study on patients seeking compensation. Injury. 2002;33(7):569-573.
- **25.** Parmar HV, Raymakers R. Neck injuries from rear impact road traffic accidents: prognosis in persons seeking compensation. Injury. 1993;24(2):75-78.
- **26.** Pobereskin LH. Whiplash following rear end collisions: a prospective cohort study. J Neurol Neurosurg Psychiatry. 2005;76(8):1146-1151.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 18 of 25

- 27. Richter M, Otte D, Blauth M. Acceleration related injury of the cervical spine in restrained car drivers. Investigations on the trauma mechanism and severity of injury. Orthopade. 1999;28:414-423.
- **28.** Robinson DD, Cassar-Pullicino VN. Acute neck sprain after road traffic accident: a long-term clinical and radiological review. Injury. 1993;24(2):79-82.
- **29.** Ryan GA, Taylor GW, Moore VM, Dolinis J. Neck strain in car occupants: injury status after 6 months and crash-related factors. Injury. 1994;25(8):533-537.
- **30.** Solarino B, Coppola F, Di Vella G, Corsalini M, Quaranta N. Vestibular evoked myogenic potentials (VEMPs) in whiplash injury: a prospective study. Acta Otolaryngol. 2009;129(9):976-981.
- 31. Squires B, Gargan MF, Bannister GC. Soft-tissue injuries of the cervical spine. 15-year follow-up. J Bone Joint Surg. 1996;78B(6):955-957.
- **32.** Tomlinson PJ, Gargan MF, Bannister GC. The fluctuation in recovery following whiplash injury 7.5-year prospective review. Injury. 2005;36(6):758-761.
- **33.** Voyvodic F, Dolinis J, Moore VM, et al. MRI of car occupants with whiplash injury. Neuroradiology. 1997;39(1):35-40.
- **34.** Watkinson A, Gargan MF, Bannister GC. Prognostic factors in soft tissue injuries of the cervical spine. Injury. 1991;22(4):307-309.
- 35. Bonk AD, Ferrari R, Giebel GD, Edelmann M, Huser R. Prospective, randomized, controlled study of activity versus collar, and the natural history for whiplash injury, in Germany. Journal of Musculoskeletal Pain. 2000;8:123-132.
- **36.** Buitenhuis J, de Jong PJ, Jaspers JP, Groothoff JW. Work disability after whiplash: a prospective cohort study. Spine (Phila Pa 1976). 2009;34(3):262-267.
- 37. Bylund PO, Bjornstig U. Sick leave and disability pension among passenger car occupants injured in urban traffic. Spine. 1998;23(9):1023-1028.
- **38.** Ettlin TM, Kischka U, Reichmann S, et al. Cerebral symptoms after whiplash injury of the neck: a prospective clinical and neuropsychological study of whiplash injury. J Neurol Neurosurg Psychiatry. 1992;55(10):943-948.
- **39.** Khan S, Cook J, Gargan M, Bannister G. A symptomatic classification of whiplash injury and the implications for treatment. Journal of Orthopaedic Medicine. 1999;21(1).
- **40.** Krafft M, Kullgren A, Lie A, Tingvall C. The risk of whiplash injury in the rear seat compared to the front seat in rear impacts. Traffic Injury Prev. 2003;4:136-140.
- 41. Nygren A. Injuries to car occupants--some aspects of the interior safety of cars. A study of a five-year material from an insurance company. Acta Otolaryngol Suppl 395. 1984:1-164.
- 42. Ono K, Inami S, Kaneoka K, Golan T. Relationship between localized spine deformation and cervical vertebral motions for low speed rear impacts using human volunteers. presented at: Proceedings of the International IRCOBI Conference on Biomechanics of Impacts; September, 1999; Sitges, Spain.
- **43.** Pettersson K, Brandstrom S, Toolanen G, Hildingsson C, Nylander PO. Temperament and character: prognostic factors in whiplash patients? Eur Spine J. 2004;13(5):408-414.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 19 of 25

- **44.** Pettersson K, Hildingsson C, Toolanen G, Fagerlund M, Bjornebrink J. Disc pathology after whiplash injury. A prospective magnetic resonance imaging and clinical investigation. Spine. 1997;22(3):283-287; discussion 288.
- **45.** Sterner Y, Toolanen G, Gerdle B, Hildingsson C. The incidence of whiplash trauma and the effects of different factors on recovery. J Spinal Disord Tech. 2003;16(2):195-199.
- **46.** Green ND. Acute soft tissue neck injury from unexpected acceleration. Aviat Space Environ Med. 2003;74(10):1085-1090.
- 47. Ng TP, Bussone WR, Duma SM. Thoracic and lumbar spine accelerations in everyday activities. Biomedical Sciences Instrumentation. 2006;42:410-415.
- **48.** Manoogian SJ, Funk JR, Cormier JM, Bain CE, Guzman H, Bonugli E. Evaluation of thoracic and lumbar accelerations of volunteers in vertical and horizontal loading scenarios. SAE International Congress. 2010; 2010-01-0146, Biomechanics SP-2268:137-153.
- **49.** Bohman T, Cote P, Boyle E, Cassidy JD, Carroll LJ, Skillgate E. Prognosis of patients with whiplash-associated disorders consulting physiotherapy: development of a predictive model for recovery. BMC Musculoskelet Disord. 2012;13:264.
- **50.** Bunketorp O, Jakobsson L, Norin H. Comparison of frontal and rear-end impacts for car occupants with whiplash-associated disorders: symptoms and clinical findings. presented at: Proceedings of the International IRCOBI Conference; September 22-24, 2004; Graz, Austria.
- 51. Carlsson G, Bunketorp O, Jakobsson L, Norin H. Medical and car impact-related risk factors for the prognosis of WAD presented at: 47th Annual Proceedings, Association for the Advancement of Automotive Medicine; September 22-24, 2003.
- **52.** Croft A, C. Low back injuries in low velocity rear impact collisions. Forum. 2009;39(4):33-37.
- **53.** Croft AC. Whiplash and Mild Traumatic Brain Injuries. San Diego: SRISD Press; 2009.
- **54.** Crutebo S, Nilsson C, Skillgate E, Holm LW. The course of symptoms for whiplash-associated disorders in Sweden: 6-month followup study. J Rheumatol. 2010;37(7):1527-1533.
- 55. Gabel CP, Burkett B, Neller A, Yelland M. Can long-term impairment in general practitioner whiplash patients be predicted using screening and patient-reported outcomes? International J Rehabilitative Research. 2008;31(1):79-80.
- **56.** Geldman M, Moore A, Cheek L. The effect of pre-injury physical fitness on the initial severity and recovery from whiplash injury at six-month follow-up. Clinical Rehabilitation. 2008;22:364-376.
- 57. Hendriks EJ, Scholten-Peeters GG, van der Windt DA, Neeleman-van der Steen CW, Oostendorp RA, Verhagen AP. Prognostic factors for poor recovery in acute whiplash patients. Pain. 2005;114(3):408-416.
- 58. Hours M, Khati I, Charnay P, et al. One year after mild injury: comparison of health status and quality of life between patients with whiplash versus other injuries. J Rheumatol. 2014;41(3):528-538.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 20 of 25

- **59.** Kongsted A, Jorgensen LV, Leboeuf-Yde C, Qerama E, Korsholm L, Bendix T. Are altered smooth pursuit eye movements related to chronic pain and disability following whiplash injuries? A prospective trial with one-year follow-up. Clin Rehabil. 2008;22(5):469-479.
- **60.** Kongsted A, Qerama E, Kasch H, et al. Neck collar, "act-as-usual" or active mobilization for whiplash injury? A randomized parallel-group trial. Spine 2007;32(6):618-626.
- 61. Kongsted A, Sorensen JS, Andersen H, Keseler B, Jensen TS, Bendix T. Are early MRI findings correlated with long-lasting symptoms following whiplash injury? A prospective trial with 1-year follow-up. Eur Spine J. 2008;17:996-1005.
- **62.** Krafft M, Kullgren A, Malm S, Ydenius A. Influence of crash severity on various whiplash injury symptoms: a study based on real-life rear-end crashes with recorded crash pulses. presented at: 19th International Technical Conference on the Enhanced Safety of Vehicles (ESV); June 6-9, 2005; Washington, D.C.
- 63. Myrtveit SM, Skogen JC, Petrie KJ, Wilhelmsen I, Wenzel HG, Sivertsen B. Factors related to non-recovery from whiplash. The Nord-Trondelag Health Study (HUNT). International journal of behavioral medicine. 2014;21(3):430-438.
- 64. Obermann M, Nebel K, Riegel A, et al. Incidence and predictors of chronic headache attributed to whiplash injury. Cephalalgia. 2010;30(5):528-534.
- 65. Ottosson C, Nyren O, Johansson SE, Ponzer S. Outcome after minor traffic accidents: a follow-up study of orthopedic patients in an inner-city area emergency room. J Trauma. 2005;58(3):553-560.
- 66. Pape E, Brox JI, Hagen KB, Natvig B, Schirmer H. Prognostic factors for chronic neck pain in persons with minor or moderate injuries in traffic accidents. Accid Anal Prev. 2007;39(1):135-146.
- 67. Platts-Mills TF, Flannigan SA, Bortsov AV, et al. Persistent pain among older adults discharged home from the emergency department after motor vehicle crash: a prospective cohort study. Ann Emerg Med. 2015;67(2):166-176.
- **68.** Richter M, Ferrari R, Otte D, Kuensebeck HW, Blauth M, Krettek C. Correlation of clinical findings, collision parameters, and psychological factors in the outcome of whiplash associated disorders. J Neurol Neurosurg Psychiatry. 2004;75(5):758-764.
- 69. Stalnacke BM. Relationship between symptoms and psychological factors five years after whiplash injury. J Rehabil Med. 2009;41(5):353-359.
- **70.** Sterling M, Jull G, Vicenzino B, Kenardy J. Sensory hypersensitivity occurs soon after whiplash injury ands is associated with poor memory. Pain. 2003;104:509-517.
- 71. Sterner Y, Branholm I-B, Nyberg V, Elert J, Gertle B. Aspects of impairments, disabilities and life satisfaction in patients with chronic whiplash associated disorders. J Whiplash Rel Disorders. 2002;1(2):39-61.
- **72.** Adams MA, Hutton WC. Prolapsed intervertebral disc. A hyperflexion injury. Spine 1982;7(3):184-191.
- **73.** Gates D, Bridges A, Welch TDJ, Lam T, Scher I, Yamaguchi G. Lumbar loads in moderate speed rear impacts. SP-2268 Biomechanics. 2010;SAE International 2010-01-0141:89-104.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 21 of 25

- 74. Yang N, Lam T, Dainty D, Lau E. Lumbar spine injuries in rear impacts of different severities. SAE. 2013;2013-01-0221.
- 75. Vijayakumar V, Scher I, Gloeckner DC, et al. Head kinematics and upper neck loading during simulated low-speed rear-end collisions: a comparison with vigorous activities of daily living. SAE Technical Paper Series 2006-01-0247. 2006.
- 76. Heller MF, Mikandawire C, Cargill RS. Head motion in the coronal plane during low-speed lateral impact collisions. J Biomech. 2007;40(S2):S90.
- 77. Allen ME, Weir-Jones I, Motiuk DR, et al. Acceleration perturbations of daily living. A comparison to 'whiplash'. Spine. 1994;19(11):1285-1290.
- 78. Freeman MD, Croft AC, Rossignol AM, Weaver DS, Reiser M. A review and methodologic critique of the literature refuting whiplash syndrome. Spine. 1999;24(1):86-96.
- **79.** Anderson R, Welcher J, Szabo T, JJ. E, Haight W. Effect of braking on human occupant and vehicle kinematics in low speed rear end collisions. SAE Tech Paper Series. 1998;SAE 980298:1-13.
- 80. Bailey M, Wong B, Lawrence J. Data and methods for estimating the severity of minor impacts. SAE Tech Paper Series. 1995;950352:1339-1374.
- 81. Brault JR, Siegmund GP, Wheeler JB. Cervical muscle response during whiplash: evidence of a lengthening muscle contraction. Clin Biomech (Bristol, Avon). 2000;15(6):426-435.
- 82. Brault JR, Wheeler JB, Siegmund GP, Brault EJ. Clinical response of human subjects to rear-end automobile collisions. Arch Phys Med Rehabil. 1998;79(1):72-80.
- 83. Braun TA, Jhoun JH, Braun MJ, et al. Rear-end impact testing with human test subjects. SAE Technical Paper Series. 2001(2001-01-0168).
- **84.** Castro WH, Schilgen M, Meyer S, Weber M, Peuker C, Wortler K. Do "whiplash injuries" occur in low-speed rear impacts? Eur Spine J. 1997;6(6):366-375.
- 85. Croft A, Haneline M, Freeman M. Differential occupant kinematics and forces between frontal and rear automobile impacts at low speed: evidence for a differential injury risk. presented at: International IRCOBI Conference on the Biomechanics of Impact; September 18-20, 2002; Munich, Germany.
- **86.** Croft AC, Haneline MT, Freeman MD. Low speed frontal crashes and low speed rear crashes: is there a differential risk for injury? Annu Proc Assoc Adv Automot Med. 2002;46:79-91.
- **87.** Croft AC, Herring P, Freeman MD, Haneline MT. The neck injury criterion: future considerations. Accid Anal Prev. 2002;34(2):247-255.
- **88.** Davidsson J, Deutscher C, Hell W, Linder A, Lovsund P, Svensson M. Human volunteer kinematic in rear end sled collisions. presented at: Proceedings of the International IRCOBI/AAAM Conference on the Biomechanics of Impacts 1998; Goteborg, Sweden.
- **89.** Davidsson J, Lovsund P, Ono K, Svensson M, Inami S. A comparison of volunteere, BioRID P3, and Hybrid III performance in rear impacts. J Crash Prev Inj Control. 2001;2(3):203-220.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 22 of 25

- 90. Eichberger A, Steffan H, Geigl B, et al. Evaluation of the applicability of the neck injury criterion (NIC) in rear end impacts on the basis of human subject tests. presented at: International IRCOBI Conference on the Biomechanics of Impact; September 16-18, 1998; Goteberg, Sweden.
- 91. Fugger TF, Randles BC, Wobrock JL, Welchelr JB, Voss DP, Eubanks JJ. Human Occupant Kinematics in Low Speed Side Impacts. SAE Technical Paper Series. 2002;2002-01-0020.
- 92. Geigl B. The motion of the head and cervical spine during rear-end impact. presented at: 1994 International Conference on the International Conference on the Biomechanics of Impact1994; Lyon, France.
- 93. Hernandez IA, Fyfe KR, Heo G, Major PW. Kinematics of head movement in simulated low velocity rear-end impacts. Clin Biomech (Bristol, Avon). 2005;20(10):1011-1018.
- 94. Howard RP, Benedict JV, Raddin JH, Jr., Smith HL. Assessing neck extension-flexion as a basis for temporomandibular joint dysfunction. J Oral Maxillofac Surg. 1991;49(11):1210-1213.
- 95. Howard RP, Bowles AP, Guzman HM, Krenrich SW. Head, neck, and mandible dynamics generated by 'whiplash'. Accid Anal Prev. 1998;30(4):525-534.
- **96.** Howard RP, Harding RM, Kenrich SW. "The Biomechanics of "Whiplash" in Low Velocity Collisions. SAE. 1999;1999-01-3235.
- 97. Howard RP, Hatsell CP, Guzman HM. Temporomandibular joint injury potential imposed by the low-velocity extension-flexion maneuver. J Oral Maxillofac Surg. 1995;53(3):256-262; discussion 263.
- **98.** Lawrence JM, Siegmund GP. Seat back and head restraint response during low-speed rear-end automobile collisions. Accid Anal Prev. 2000;32(2):219-232.
- 99. McConnell W, Guzman H, Krenrich S, Bomar JJ, Funk J, Smith D. Human kinematics during non-collinear low velocity rear end collisions. presented at: 47th Annual Proceedings, Association for the Advancement of Automotive Medicine; September 22-24, 2003.
- 100. McConnell W, Howard R, Poppel J. Human head and neck kinematic after low velocity rear-end impacts: understanding "whiplash." 952724. presented at: Proceedings of the 39th Stapp Car Crash Conference Proceedings1995.
- **101.** McConnell WE, Howard RP, Guzman HM. Analysis of human test subject kinematic responses to low velocity rear end impacts. SAE Tech Paper Series. 1993;930889:21-30.
- 102. Nielsen GP, Gough JP, Little DM, West DH, Baker VT. Human subject responses to repeated low-speed impacts using utility vehicles. presented at: SAE International Congress and Exposition; Feb 24-27, 1997; Detroit, MI.
- 103. Ono K, Ejima S, Kaneoka K, Fukushima M, Yamada S, Ujihashi S. Biomechanical response of head/ neck/ torso and cervical vertebral motion to lateral impact loading on the shoulders of volunteers. presented at: 20th International Conference of the Enhanced Safety of Vehicles (ESV); June 18-21, 2007; Lyon, France.
- 104. Ono K, Ejima S, Yamazaki K, et al. Evaluation criteria for the reduction of minor neck injuries during rear-end impacts based on human volunteer experiments and

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 23 of 25

- accident reconstruction using human FE model simulations. presented at: International IRCOBI Conference; September 9-11, 2009; York, UK.
- 105. Ono K, Kaneoka K, Fukushima M, Uwai H, Ujihashi S. Biomechanical response of the head, neck and torso to direct impact on the back of male and female volunteers. presented at: International IRCOBI Conference on the Biomechanics of Impact; September 24-26, 2003; Lisbon, Portugal.
- 106. Ono K, Kaneoka K, Hattori S, et al. Cervical vertebral motions and biomechanics responses to direct loading of human head. Traffic Injury Prev. 2003;4(141-152).
- 107. Ono K, Kaneoka K, Inami S. Influence of seat properties on human cervical vertebral motion and head/neck/torso kinematics during rear-end impacts. presented at: International IRCOBI Conference on the Biomechanics of Impact.; September 16-18, 1998; Goteberg, Sweden.
- 108. Ono K, Kaneoka K, Sun E, Takhounts E, Eppinger R. Biomechanical response of human cervical spine to direct loading of the head. presented at: 2001 International IRCOBI Conference on the Biomechanics of Impact Proceedings; October 10-12, 2001; Isle of Man, UK.
- **109.** Ono K, Kaneoka K, Wittek A, Kajzer J. Cervical injury mechanism based on the analysis of human cervical vertebral motion and head-neck-torso kinematics during low speed rear impacts. presented at: 41st Stapp Car Crash Conference Proceedings. SAE paper 9733401997.
- 110. Ono K, Kanno M. Influences of the physical parameters on the risk to neck injuries in low impact speed rear-end collisions. presented at: International IRCOBI Conference on the Biomechanics of Impacts1993; Eindhoven, Netherlands.
- 111. Ono K, Uwai H, Kaneoka K, Fukushima M, Ujihashi S. Influences of neck muscle tension on cervical vertebral motions during direct loading on human head. presented at: Proceedings of the International IRCOBI Conference; September 22-24, 2004; Graz, Austria.
- 112. Severy D, Matthewson J. Automobile barrier and rear-end collision performance. presented at: Society of Automotive Engineers summer meeting; June 8-13, 1958; Atlantic City, NJ.
- 113. Severy D, Matthewson J, Bechtol C. Controlled automobile rear-end collisions -- an investigation of related engineering and medical phenomena. presented at: In Medical Aspects of Traffic Accidents, Proceedings of the Montreal Conference 1955.
- 114. Siegmund G, King D, Lawrence J, Wheeler J, Brault J, Smith T. Head/neck kinematic responses of human subjects in low-speed rear-end collisions. SAE Technical Paper 973341. 1997:357-385.
- 115. Szabo T, JB. W, Anderson R. Human occupant kinematic response to low speed rear-end impacts. SAE Tech Paper Series. 1994;940532:23-35.
- 116. Szabo T, Welcher J. Human subject kinematics and electromyographic activity during low speed rear impacts. 1996;SAE paper 962432:295-315.
- 117. Welcher JB, Szabo TJ. Relationships between seat properties and human subject kinematics in rear impact tests. Accid Anal Prev. 2001;33(3):289-304.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 24 of 25

- 118. Welcher JB, Szabo TJ, Voss DP. Human occupant motion in rear-end impacts: effects of incremental increases in velocity change. SAE Technical Paper Series. 2001;2001-01-0899.
- 119. West D, Gough J, Harper T. Low speed collision testing using human subjects. Accid Reconstruct J. 1993;5(3):22-26.
- **120.** Cormier J, Gwin L, Reinhart L, Wood R, Bain C. A comprehensive review of low-speed rear impact volunteer studies and a comparison to real-world outcomes. Spine 2018;43(18):1250-1258.
- **121.** Bartsch AJ, Gilbertson LG, Prakash V, Morr DR, Wiechel JF. Minor crashes and 'whiplash' in the United States. presented at: 52nd AAAM Annual Conference Annals of Advances in Automotive Medicine 2008; San Diego, California.
- 122. Bartsch A, Gilbertson L, Prakash V, Morr D, Weichel J. Minor rear aligned crashes in the United States: a pilot study of 98 crashes. presented at: International IRCOBI Conference on the Biomechanics of Impact; September 17-19, 2008; Berne, Switzerland.
- 123. Jakobsson L, Norin H, Bunketorp O. In-depth study of whiplash associated disorders in frontal Impacts: influencing factors and consequences. presented at: International IRCOBI Conference on the Biomechanics of Impact; September 18-20, 2002; Munich, Germany.
- **124.** Foret-Bruno J, Dauvilliers F, Tarriere C. Influence of the seat and head rest stiffness on the risk of cervical injuries. presented at: 13th International Technical Conference on Experimental Safety Vehicles, S-8-W-191991.
- **125.** Bourbeau R, Desjardins D, Maag U, Laberge-Nadeau C. Neck injuries among belted and unbelted occupants of the front seat of cars. J Trauma. 1993;35(5):794-799.
- **126.** Magnusson T. Extracervical symptoms after whiplash trauma. Cephalalgia. 1994;14(3):223-227; discussion 181-222.
- **127.** Serra LL, Gallicchio B, Serra FP, Grillo G, Ferrari M. BAEP and E.M.G. changes from whiplash injuries. Acta Neurol (Napoli). 1994;16(5-6):262-270.
- **128.** Morris A, Thomas P. Neck injuries in the UK co-operative crash study. 1996;SAE 962433:317-329.
- **129.** Borchgrevink GE, Stiles TC, Borchgrevink PC, Lereim I. Personality profile among symptomatic and recovered patients with neck sprain injury, measured by MCMI-I acutely and 6 months after car accidents. J Psychosom Res. 1997;42(4):357-367.
- 130. Krafft M. A comparison of short- and long-term consequences of AIS 1 neck injuries, in rear impacts. presented at: International IRCOBI Conference on the Biomechanics of Impact; September 16-18, 1998; Goteborg, Sweden.
- 131. Temming J, Zobel R. Frequency and risk of cervical spine distortion injuries in passenger car accidents: significance of human factors data. presented at: International IRCOBI Conference on the Biomechanics of Impact; September 16-18, 1998; Göteborg, Sweden.
- 132. Richter M, Otte D, Pohlemann T, Krettek C, Blauth M. Whiplash-type neck distortion in restrained car drivers: frequency, causes and long-term results. Eur Spine J. 2000;9(2):109-117.

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Page 25 of 25

- **133.** Berglund A, Alfredsson L, Jensen I, Bodin L, Nygren A. Occupant- and crash-related factors associated with the risk of whiplash injury. Ann Epidemiol. 2003;13(1):66-72.
- 134. Wiles NJ, Jones GT, Silman AJ, Macfarlane GJ. Onset of neck pain after a motor vehicle accident: a case-control study. J Rheumatol. 2005;32(8):1576-1583.
- 135. Sturzenegger M, DiStefano G, Radanov BP, Schnidrig A. Presenting symptoms and signs after whiplash injury: the influence of accident mechanisms. Neurology. 1994;44(4):688-693.
- **136.** Radanov BP, di Stefano G, Schnidrig A, Ballinari P. Role of psychosocial stress in recovery from common whiplash [see comment]. Lancet. 1991;338(8769):712-715.
- 137. Radanov BP, Di Stefano G, Schnidrig A, Sturzenegger M, Augustiny KF. Cognitive functioning after common whiplash. A controlled follow-up study. Arch Neurol. 1993;50(1):87-91.
- 138. Radanov BP, Sturzenegger M, De Stefano G, Schnidrig A. Relationship between early somatic, radiological, cognitive and psychosocial findings and outcome during a one-year follow-up in 117 patients suffering from common whiplash. Br J Rheumatol. 1994;33(5):442-448.
- **139.** Radanov BP, Di Stefano G, Schnidrig A, Sturzenegger M. Psychosocial stress, cognitive performance and disability after common whiplash. J Psychosom Res. 1993;37(1):1-10.
- **140.** Satoh S, Naito S, Konishi T, et al. An examination of reasons for prolonged treatment in Japanese patients with whiplash injuries. J Musculoskel Pain. 1997;5(2):71-84.
- **141.** Jakobsson L, Norin H, Bunketorp O. Whiplash-associated disorders in frontal impacts: influencing factors and consequences. Traffic Injury Prev. 2003;4:153-161.
- **142.** Kamper SJ, Rebbeck TJ, Maher CG, McAuley JH, Sterling M. Course and prognostic factors of whiplash: a systematic review and meta-analysis. Pain 2008;138:617-629.
- **143.** Kornhauser M. Delta-v thresholds for cervical spine injury. 1996;SAE Technical Paper Series 960093:1-13.
- **144.** Wood DP. Safety and the car size effect: a fundamental explanation. Accid Anal and Prev. 1997;29(2):139-151.
- 145. Chapline JF, Ferguson SA, Lillis RP, Lund AK, Williams AF. Neck pain and head restraint position relative to the driver's head in rear-end collisions. Accid Anal Prev. 2000;32(2):287-297.

ARTHUR C. CROFT, PH.D. D.C., M.Sc., M.P.H., F.A.C.O.

CURRICULUM VITAE

National Provider #: 1568631612 California State License #: 14579

PROFESSIONAL EDUCATION

Southern California University of Health Sciences

Doctorate of Chiropractic degree, 1982. Bachelor of Science degree, Human Biology, 1982. Magna Cum Laude graduate. Delta Sigma Honor Society. Delta Tau Alpha Honorary Fraternity.

GRADUATE EDUCATION

University of Bridgeport, Master of Science degree in biology, 1983. Loma Linda University, School of Public Health, Master in Public Health, 2001. Walden University, School of Health & Human Services, Ph.D. in epidemiology, 2014.

POSTGRADUATE TRAINING/CERTIFICATION

Medical

- 1. Certified Disability Evaluator (CCF), 1984.
- 2. Independent Medical Examiner/Industrial Disability Examiner (CCF), 1985.
- 3. Board Certified in Orthopaedics, American Board of Chiropractic Orthopaedists, 1986.
- 4. Fellow, Academy of Chiropractic Orthopaedists, 1987.
- 5. Evoked Response Testing, Harvard Medical School, 1994.
- 6. Human Subjects Institutional Review Board (IRB) Certification, University of California, Irvine, 2004.

Law Enforcement

- 7. Drowning Homicide Investigator, LifeGuard Systems, 1998.
- 8. Underwater Criminal Investigator, PDIC (1998).
- 9. Hyperbaric Medicine, Hyperbarics International, 1998.
- 10. Diving Medical Officer (DMO), International Board of Undersea Medicine, 1999.
- 11. Medicolegal Death Investigator, St. Louis University, School of Medicine, April, 2010.

Curriculum Vitae, Dr. A.C. Croft Page 2 of 22

Accident Reconstruction

- 12. Traffic Accident Reconstruction I, Northwestern University, Center for Public Safety, 1994.
- 13. Traffic Accident Reconstruction II, Northwestern University, Center for Public Safety, 1995.
- 14. Biomechanics of Impact Trauma, Association for the Advancement of Automotive Medicine, 1995.
- 15. High Speed Rear Impact Collisions Workshop, SAE TOPTEC, 1997.
- Analysis of Low Speed Collisions, Texas Engineering Extension Service, Texas A&M, 1998.
- 17. Current Issues in Using Crash Injury Data (FARS, NASS/CDS), SAE, 2006.
- 18. PC-CRASH Essentials Workshop, Vancouver, B.C., Canada, August, 2009.
- 19. PC-CRASH Expert Skills Workshop, Vancouver, B.C., Canada, August, 2009.
- 20. Advanced Accident Reconstruction Utilizing Human Factors Research, March, 2011, Northwestern University, Center for Public Safety.
- 21. CDR Technician, April, 2017, Northwestern University, Center for Public Safety.
- 22. CDR Analyst, April, 2017, Northwestern University, Center for Public Safety.
- 23. PC-CRASH Expert Skills Workshop, Orlando, FL, January, 2019.

MILITARY SERVICE

U.S. Navy, 4 years.

FORMER TEACHING APPOINTMENTS

- 1. Educational Staff: University of California at San Diego, Department of Physical Education, Sports Medicine (1985).
- 2. Chiropractic Rehabilitation Association (1988-1990).
- 3. American College of Orthopedic Medicine (1988-1990).

APPOINTMENTS

- Independent Medical Examiner (State of California, Division of Industrial Accidents, appointed two-year terms: 1990, 1992, and 1994).
- 2. Qualified Medical Examiner (QME) (State of California, 1994, 1995-current).
- 3. Adjunct Assistant Professor, Department of Diagnosis, Southern California University of Health Sciences.
- 4. Former faculty: Department of Postgraduate Orthopaedics, Southern California University of Health Sciences.
- 5. Faculty: Department of Postgraduate Orthopaedics, New York Chiropractic College.
- 6. Faculty: Department of Postgraduate Orthopaedics, Western States Chiropractic College.
- 7. Former Examination Commissioner for the California State Board of Chiropractic Examiners.
- 8. Personal Injury Committee, California Chiropractic Association (current).

POSITIONS (PAST AND PRESENT)

- California Board of Chiropractic Examiners, Examination Commissioner, 1992-1998.
- 2. Associate Editor and Expert Analyst, DC *Tracts*, Data Trace Chiropractic Publishers, Inc., in cooperation with the American Chiropractic Association.
- 3. Past Director, San Diego Chiropractic Society.
- 4. Director, Spine Research Institute of San Diego (1986-present).
- 5. Associate Editor, Journal of Neuromusculoskeletal System.

Curriculum Vitae, Dr. A.C. Croft Page 3 of 22

- 6. Editorial Board:
 - a. Topics in Diagnostic Radiology and Advanced Imaging.
 - b. Palmer Journal of Research.
 - c. SEAL Team Association Newsletter.
- 7. Editor, International Scholarly Research Network *Pain*.
- 8. Manuscript Reviewer:
 - a. Journal of Manipulative and Physiological Therapeutics.
 - b. Journal of Musculoskeletal Pain.
 - c. Society of Automotive Engineers (SAE).
 - d. Accident Analysis & Prevention.
 - e. Archives of Physical Medicine & Rehabilitation.
 - f. Journal of Forensic and Legal Medicine.
 - g. Clinical Neurology and Neurosurgery.
 - h. Journal of Chiropractic Medicine.
 - i. Spine (Official journal of the Cervical Spine Research Society, International Society for the Study of Lumbar Spine, Scoliosis Research Society, Spine Society of Europe, Spine Society of Australia, Asia Pacific Orthopaedic Association, Japanese Society for Spine Surgery and Related Research, and the Korean Society of Spine Surgery).
 - j. Injury (Official Journal of the British Trauma Society, the Australasian Trauma Society and the Saudi Orthopaedic Association in Trauma, and the Italian Society of Orthopaedics and Traumatology).
 - k. Journal of the American Chiropractic Association.
 - 1. Journal of Spine.
 - m. Orthopedic & Muscular System: Current Research.
 - n. Journal of Back and Musculoskeletal Rehabilitation.
 - o. Journal of Neurological Disorders.
 - p. International Scholarly Research Network—Pain.
 - q. SciTechnol. Journal of Spine and Neurosurgery.
- 9. San Diego Sheriff's Office, Special Enforcement Division (SWAT), Underwater Search & Recovery Team.
- 10. Consultant to the Personal Injury Committee of the California Chiropractic Association.
- 11. Grant Reviewer
 - a. Foundation for Chiropractic Education and Research (FCER).
 - b. National Institutes of Health (NIH).
- 12. Team Physician--Amateur Sports Development USA 1987 Men's Basketball tour to Denmark and Sweden.
- 13. Team Physician--University of California San Diego, Men's Basketball, Australia and New Zealand tour, 1990.

CURRENT RESEARCH PROJECTS

The RAND Corporation. *The Appropriateness of Spinal Manipulation/Mobilization for Chronic Neck Pain Patients*. National Center for Complementary and Integrative Health (previously named the National Center for Complementary and Alternative Medicine) at the National Institutes of Health.

AFFILIATIONS/MEMBERSHIPS

- 1. Association for the Advancement of Automotive Medicine.
- 2. International Traffic Medicine Association.
- 3. American College of Chiropractic Orthopaedists.
- 4. American Chiropractic Association.
- 5. American Chiropractic Association Council on Orthopaedics.
- 6. California Chiropractic Association.
- 7. Academy of Chiropractic Orthopaedists.
- 8. Society of Automotive Engineers.

Curriculum Vitae, Dr. A.C. Croft Page 4 of 22

9. American Public Health Association.

AWARDS

- 1. Awarded First Place: Scientific Papers Award of 1984 by the American Chiropractic Association.
- 2. Awarded Third Place: Scientific Papers Award of 1987 by the American Chiropractic Association.
- 3. *Emmy Nomination*, 1991. National Academy of Television Arts and Sciences. *WHIPLASH*, Best Performer Category. Executive producer, script and screenplay: A.C. Croft.
- 4. Awarded the Distinguished Service Award, 1992, by the Pennsylvania Chiropractic Society.
- 5. Awarded the Educational Excellence Award, 1992, by the Florida Chiropractic Association.
- 6. Awarded the *Chiropractor of the Century Award*--1895-1995, by the San Diego Society of the California Chiropractic Association.
- 7. Commendation for outstanding service, San Diego County Sheriff, May, 1999.
- 8. Distinguished Service Award, Southern University of Health Sciences Alumni Association, March, 2003.

PATENTS

1. Self actuated cervical traction device. U.S. Patent 7,033,333 B1, April 25, 2006; 7 claims.

EDUCATIONAL VIDEOTAPES/DVDs

- 1. Croft AC, Foreman SM: *Personal Injury Assessment: Physical Examination*. Baltimore, Williams & Wilkins Co., 1988. [VHS.]
- 2. Croft AC, Foreman SM: *Personal Injury Assessment: Advanced Imaging Techniques*. Baltimore, Williams & Wilkins Co., 1988. [VHS.]
- 3. Croft AC, Foreman SM: Personal Injury Assessment: Electrodiagnostic Testing. Baltimore, Williams & Wilkins Co., 1988. [Tapes 1-3 have been translated into Japanese and Italian.] [VHS.]
- 4. Croft AC: Assessment of the patient presenting with radiculopathy. DC Tracts, Baltimore, Data Trace Chiropractic Publishers, Inc., 1989. [VHS.]
- 5. Croft AC: Whiplash. San Diego, Spine Research Institute of San Diego, 1990. [VHS and DVD.]
- 6. Swenson RS, Terrett AGJ, Croft AC: *Spotlight on Cerebrovascular Accident*. Foundation for Chiropractic Education and Research, 1995. [VHS.]
- 7. Croft AC: Machine vs. Man 1. San Diego, Spine Research Institute of San Diego, 2001. [VHS and DVD.]
- 8. Croft AC: Machine vs. Man 2. San Diego, Spine Research Institute of San Diego, 2004. [DVD.]
- 9. Croft AC: Machine vs. Man 3. San Diego, Spine Research Institute of San Diego, 2018. [DVD.]
- 10. Croft AC: Machine vs. Man 4. San Diego, Spine Research Institute of San Diego, 2018. [DVD.]

WEBSITE TRAINING

Developed a training module for mandatory medical accredited training program for direct and indirect medical experts in the United Kingdom: medco.opil.bondsolon.com.

PRESENTATIONS

- 1. "Whiplash trauma." San Diego Chiropractic Society, San Diego, CA, May, 1987.
- 2. "Biomechanics of the cervical spine." San Diego Chiropractic Society, February, 1988.

Curriculum Vitae, Dr. A.C. Croft Page 5 of 22

- 3. "Biomechanics of Whiplash." "Whiplash Premier Multidisciplinary Symposium." University of British Columbia, Vancouver, BC, Canada, November 26-27, 1988.
- 4. "The cervical acceleration/deceleration syndrome." Oregon Chiropractic Physicians Association, Medford, OR, March, 1988.
- 5. "Cervical spine: strain, sprain and secondary affections." Annual meeting of the American College of Chiropractic Orthopaedists, Palm Springs, CA, April, 1988.
- 6. "Cervical spine: trauma and treatment." Annual meeting of the Oregon Chiropractic Physicians Association, Medford, OR, August, 1988.
- 7. "Electrodiagnostic procedures in clinical practice." Visiting Scholars Program, Los Angeles College of Chiropractic, Los Angeles, CA, November, 1988.
- 8. "Laboratory assessment of neurological function following cervical spine trauma." Visiting Scholars Program, New York Chiropractic College, Long Island, NY, January, 1989.
- 9. "Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome." Indiana State Chiropractic Convention, Indianapolis, IN, March 4-5, 1989.
- "Neurology of Soft Tissue Trauma." Georgia Chiropractic Association Convention, Jekyll Island, GA, April 28-30, 1989.
- 11. "Tracking the Signs of Injury." 1st Annual Meeting of the American College of Orthopedic Medicine, Fort Worth, TX, June 7-11, 1989.
- 12. "Neurology of Soft Tissue Trauma." New York Chiropractic College, CME, Long Island, NY, July, 1989.
- 13. "Whiplash Trauma." Tidewater Chiropractic Society Convention, Williamsburg, VA, October 21-22, 1989.
- 14. "Taking the Pain Out of Whiplash Injuries." Hawaii State Chiropractic Association, Maui, HI, October 26-29, 1989.
- 15. "Rehabilitation of Cervical Spine Trauma." Chiropractic Rehabilitation Association, CME, Harrisburg, PA, November, 1989.
- 16. Postgraduate relicensing seminars (CME) for LACC--1987, 1988.
- 17. "Whiplash Injuries." Chiropractic Society of Oregon, Portland, OR, January, 1990.
- 18. "Soft Tissue Injuries: Neurology." Washington State Chiropractic Association, Seattle, WA, January, 1990.
- 19. "Neurology of Soft Tissue Trauma." Washington Chiropractic Association, Tukwila, WA, February 9-11, 1990.
- 20. "The Neurology of Soft Tissue Injuries to the Neck." Indiana State Chiropractic Association, Indianapolis, IN, February 24-25, 1990.
- 21. "Whiplash Injuries." Pennsylvania State Chiropractic Association, Valley Forge, PA, March, 1990.
- 22. "Evaluation of Whiplash Injuries"; Advances in Chiropractic Manipulation"; "Chiropractic Treatment of Chronic Soft Tissue Pain." San Francisco Spine Institute, San Francisco, CA April 1-3, 1990.
- 23. "Taking the Pain Out of Whiplash Injuries." Vermont Chiropractic Association, Manchester, VT, April 28-29, 1990.
- 24. "Acceleration Injuries of the Cervical Spine: Diagnosis and Treatment." Canadian Memorial Chiropractic College, Toronto, Canada, May, 1990.
- 25. "Whiplash Injuries: The Acceleration/Deceleration Syndrome." South Carolina Chiropractic Association, Myrtle Beach, SC, June, 1990.
- 26. "The Cervical Spine in Trauma." Arizona State Chiropractic Association, Tucson, AZ, July, 1990.
- 27. "Evaluation And Treatment of Motor Vehicle Trauma: The Cervical Spine." Texas Chiropractic College, Homecoming, 1990, Houston, TX, August, 1990.
- 28. "Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome." Montana Chiropractic Physiology Council, Helena, MT, September 15-16, 1990.
- 29. "Whiplash Injuries." Wisconsin Chiropractic Association 1990 Fall Convention, Stevens Point, WI, October 4-7, 1990.
- 30. "Whiplash Injuries: The Acceleration/Deceleration Syndrome." Leden Nederlandse Chiropractoren Associatie, Amsterdam, The Netherlands, October, 1990.
- 31. "MRI of the Spine: a Chiropractic Perspective." San Francisco Magnetic Resonance Center, University of California, San Francisco, CA, November, 1990.
- 32. "Clinical Advances in Spinal Therapy and Patient Management." Third Annual International Multi-Disciplinary Symposium, Health Challenges Today, Inc., Vancouver, BC, Canada, November 16-18, 1990.
- 33. "Whiplash." Ohio State Chiropractic Association/North Central Academy of Chiropractic, Canton, OH, December 8-9, 1990.

Curriculum Vitae, Dr. A.C. Croft Page 6 of 22

- 34. "Acceleration/Deceleration Injuries From Road Traffic Accidents." Manitoba Chiropractic Association, Manitoba, Canada, April, 1991.
- 35. "Whiplash Update: 1991." West Virginia Chiropractic Association, Morgantown, WV, June 13-16, 1991.
- 36. "Inter-rater Reliability Study of Videofluoroscopy Interpretations." 1991 Joint Motion Society Videofluoroscopy Conference, Atlanta, GA, August 10, 1991.
- 37. "Medicolegal Considerations in Cervical Spine Trauma." Pennsylvania Chiropractic Society, Philadelphia, PA, October, 1991.
- 38. "Whiplash Update." Mississippi Chiropractic Association, Jackson, MS, November, 1991.
- 39. "Fibromyalgia Update." Hawaii State Chiropractic Association, Kauai, HI, December, 1991.
- 40. "Whiplash: the Masters' Program", 60 hour relicensing program; San Francisco, CA, Houston, TX, Philadelphia, PA, Orlando, FL, 1992.
- 41. "Pain syndromes; Fibromyalgia Update." Motion Palpation Conference, Kauai, HI, March 1-7, 1992.
- 42. "New Concepts in CADS." Florida Chiropractic Association, Winter Convention, Miami, FL, 1992.
- 43. "Diagnostics, treatment and case management." Norwegian Chiropractic Association, Winter Meeting, Oslo, Norway, January, 1993.
- 44. "The First True Renaissance." San Diego Chiropractic Society, San Diego, CA, March, 1993.
- 45. "Whiplash." Colorado State Chiropractic Association, Colorado Springs, CO, September, 1993.
- 46. "Special Concepts of the Whiplash Phenomenon." New Hampshire Chiropractic Association, Concord, NH, November, 1993.
- 47. "Low Impact Collision Research--an Update." Jewish Hospital, Cincinnati, OH, April, 1994.
- 48. "CAD Injuries." Western States Chiropractic College Homecoming, Portland, OR, June, 1994.
- 49. Whiplash Lectures. Iowa Chiropractic Society, Des Moines, IA, April, 1995.
- 50. Whiplash Lectures. Ohio State Chiropractic Association, April, 1994.
- 51. Whiplash CCA/CCF Conference, Palm Springs, CA, June 1994.
- 52. Whiplash Lectures. Danish Chiropractic Association and Insurance Commission, Copenhagen, September, 1994.
- 53. Whiplash Lectures. Indiana Chiropractic Association, Indianapolis, IA, September, 1994.
- 54. Whiplash Lectures. Virginia Chiropractic Association, Virginia Beach, VA, September, 1994.
- 55. Whiplash Lectures. Maine Chiropractic Association, Portsmouth, ME, October, 1994.
- 56. Whiplash Lectures. Alabama Chiropractic Association, Mobile, AL, October, 1994.
- 57. Whiplash Lectures. Idaho Chiropractic Association, Boise, ID, May, 1995.
- 58. "Whiplash: Principles and Introduction to Management." Chiropractic Grand Centennial Celebration, Washington D.C., July, 1995.
- 59. "Mock Trial." Chiropractic Grand Centennial Celebration, Davenport, IA, September 16, 1995.
- 60. "Epidemiology of Whiplash in the USA." Also, Consensus Panel on Whiplash Management. Physical Medicine Research Foundation, 8th International Symposium, Banff, Canada, October 13-15, 1995.
- 61. International Symposium: "Whiplash '96, Current Concepts in the Prevention, Diagnosis, and Treatment of the Cervical Whiplash Syndrome," Brussels, Belgium, November 15-16, 1996.
- 62. "Cervical Acceleration/Deceleration Trauma." '96 American College of Chiropractic Orthopaedists Convention, Scottsdale, AZ, May 23-26, 1996.
- 63. "Whiplash to the Cervical Spine." Texas Chiropractic Association, Lubbock, TX, March 14-16, 1997.
- 64. Whiplash Lectures. South Dakota Chiropractors Association, Rapid City, SD, April 17-18, 1997.
- 65. "The Whiplash: What Happens to the Neck and Back?" International Whiplash Conference, Bristol, England, September 2-4, 1997.
- 66. "HWS-Distorsion (Schleudertrauma) & Leichte Traumatische Hirnverletzung. Whiplash Injury-Pathophysiology; Low Velocity Impact," Basel, Switzerland, June 24-26, 1998.
- 67. "Outcome Measures in Whiplash Injuries; Legal Issues in Personal Injury." Carle Foundation Hospital, Urbana, IL, September 10, 1998.
- 68. "Cervical Trauma and the MVC: an Update." Alaska Chiropractic Association Convention, Anchorage, AK, September 26, 1998.
- 69. "Forces on the Brain." Road Accidents and the Mind Conference: an in-depth study of psychological symptoms after road accidents, Bristol, England, Sep 1-3, 1998.
- 70. "Low Speed Crashes and the Cervical Spine." Buffalo MRI, Buffalo, NY, April 17-18, 1999.

Curriculum Vitae, Dr. A.C. Croft Page 7 of 22

- 71. "HWS-Distorsion (Schleudertrauma) & Leichte Traumatische Hirnverletzung. Behandlungskonzepte. *Overview of the chiropractic clinical approach to cervical acceleration/deceleration injuries*," Basel, Switzerland, June 24-26, 1999.
- 72. "Whiplash Mechanics." Oklahoma State Chiropractic Association Convention, Tulsa, OK, October 16-17, 1999.
- 73. "Whiplash: Advanced Topics." Northeast Ohio Academy of Chiropractic, Cleveland, OH, November 6-7, 1999
- 74. "Crash Testing at Low Speed, Low Impact, with Human Volunteers (General Session)"; "Accident Reconstruction—Biomechanics of Low Speed Motor Vehicle Collisions (workshop with Michael D. Freeman)," American Back Society/Saint Mary's Regional Medical Center, Advances in Spinal Diagnosis and Treatment for the 21st Century, Las Vegas, NV, December 8-11, 1999.
- 75. "What we know from volunteer tests," and "What evidence supports a link between whiplash and fibromyalgia, chronic pain, and multiple sclerosis." The Whiplash 2000 Conference, Bath, U.K., May 16-18, 2000.
- 76. "Treating Whiplash Injuries." California Chiropractic Association Summer Convention, San Diego, CA, June 23-25, 2000.
- 77. "Advances in Low Speed Impacts and Injury Mechanisms." Chiropractic Biophysics 2000 Annual Convention, New Orleans, LA, September 22-24, 2000.
- 78. The Neck Injury Criterion (NIC): Future Considerations (poster), Association for the Advancement of Automotive Medicine, Chicago, IL, October 1-4, 2000.
- 79. "Defining Whiplash," Oklahoma Chiropractic Association, Tulsa, OH, October 21-22, 2000.
- 80. (General session) "Low-speed crash testing—what have we learned about whiplash?" and "Accident reconstruction—biomechanics of vehicular injuries" (breakout session). American Back Society/Saint Mary's Regional Medical Center, Vancouver, BC, Canada, December 6-10, 2000.
- 81. Freeman MD, Centeno C, Croft AC (presentation by Croft): "Significant spinal injury resulting from low-level accelerations: a comparison with whiplash," International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 82. Croft AC, Freeman MD (presentation by Croft): "Differential occupant kinematics and head linear acceleration between frontal and rear automobile impacts at low speed: evidence for a differential injury risk," International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 83. Centeno C, Freeman MD, Croft AC (presentation by Centeno): "A comparison of the functional profile of an international cohort of whiplash-injured patients and non-patients: an internet study." International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 84. Palmer Institute, Palmer College of Chiropractic, Davenport, IA, April 21-22, 2001.
- 85. "Automobile crash reconstruction in low speed rear impact crashes utilizing a momentum, energy, and restitution (MER) method" (poster). International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2001.
- 86. (General session) "Chronic post whiplash pain: organic vs. psychosocial models—an international collaborative clinical review," and "Accident reconstruction—biomechanics of low impact vehicular injuries" (breakout sessions). American Back Society/Saint Mary's Regional Medical Center, Orlando, FL, December 6-9, 2001.
- 87. "Whiplash Injury: Mechanisms of Injury, Pathophysiology, and Treatment," Croft AC, Lord S, and Freeman MD, 10th World Congress on Pain, International Association for the Study of Pain, San Diego, August 17-22, 2002.
- 88. "Whiplash: Advanced Topics," Chiroform, Copenhagen, Denmark, September 7-8, 2002.
- 89. "How to Minimize Whiplash Pain," Keynote speaker, North Carolina Chiropractic Association, Raleigh North Carolina,. September 13-15, 2002.
- 90. "Differential Occupant Kinematics and Forces Between Frontal and Rear Automobile Impacts at Low Speed: Evidence for a Differential Injury Risk," International Research Council on the Biomechanics of Impact (IRCOBI), International Conference, 2002, September 18-20, Munich, Germany.
- 91. "Low Speed Frontal Crashes And Low Speed Rear Crashes: Is There A Differential Risk For Injury?" (Presented by Dr. Michael Haneline), 46th Association for the Advancement of Automotive Medicine (AAAM) Annual Scientific Conference, Tempe, Arizona, September 29-October 2, 2002.
- 92. Keynote Speaker, Nebraska Chiropractic Physician's Association Annual Convention, Lincoln, Nebraska, March 22-23, 2003.

Curriculum Vitae, Dr. A.C. Croft Page 8 of 22

- 93. Commencement Address, Southern California University of Health Sciences, Graduating Class of Spring, 2003, La Mirada, CA, April 18, 2003.
- 94. "State of the Art Chiropractic Management of Acute Spine Injuries" (Plenary Session Address) and "The Biomechanics of Whiplash Injuries" (Workshop Session), World Federation of Chiropractic's 7th Biennial Congress, Orlando, Florida, May 1-3, 2003.
- 95. "Whiplash Biomechanics: What We Know as of Summer 2003," and "The Pathophysiology of Whiplash Injuries and their Diagnostic Counterparts: is it Muscle or Spine?" International Spinal Trauma Conference, Chicago, IL, June 20-22, 2003.
- 96. The Role of Scientific Research and its Impact on Chiropractic." Parker Seminars, Anaheim, CA, June 12-15, 2003.
- 97. "Fatal Head Injury Cases in a Rural Oregon County," Freeman MD, Croft AC, Centeno C, 19th World Congress of the International Traffic Medicine Association, Budapest, Hungary, September 14-17, 2003.
- 98. "What have we learned from human subject low speed crash testing?" 2003 International Whiplash Trauma Congress, Denver, CO, October 9-10, 2003.
- 99. "Science, Research and Literature: Their Impact on the Modern Clinical Practice." California Chiropractic Association Summer Convention, San Diego, California, June 19, 2004.
- 100. "Risk assessment: biomechanics of low-velocity vehicular injuries," at Advanced Diagnosis & Treatment for Neck & Back Pain. University of Pittsburg School of Medicine Center for Continuing Education in the Health Sciences and the American Back Society, Las Vegas, NV, December 8-11, 2004.
- 101. "Prevalence of Herniated Intervertebral Discs of the Cervical Spine in Asymptomatic Subjects Using MRI Scans: A Qualitative Systematic Review." [Presented by Anthony D'Antoni.] 2005 International Whiplash Trauma Congress, February 25-25, 2005, Breckenridge, CO.
- 102. "Prognosis and Chiropractic Management of Whiplash Injuries" (Plenary Session Address) and "The Biomechanics of Whiplash Injuries" (Workshop Session), World Federation of Chiropractic's 8th Biennial Congress, Sydney, Australia, June 16-18, 2005.
- 103. "Prevalence of Herniated Intervertebral Discs of the Cervical Spine in Asymptomatic Subjects Using MRI Scans: A Qualitative Systematic Review." [Presented by Anthony D'Antoni.] Sixteenth Annual Research Colloquium, Seton Hall University, South Orange, New Jersey, May 13, 2005.
- 104. "How does injury occur: the biomechanical aspect." Also "Biomechanics," "Accident Reconstruction: how useful is it?" "What car would you drive?" "What, if anything, can be measured?" and participated in mock trial. Injury in Low Velocity Collisions Conference 2005. Lyons Davidson. Bristol, England, October 11-12, 2005.
- 105. "The RID2 biofidelic rear impact dummy: a validation study using human subject in low speed rear impact full scale crash tests. Neck injury criteria (NIC)." 2006 SAE World Congress, Technical Paper Series 2006-01-0067, April 3-6, Detroit, MI, 2006.
- 106. "Human subjects exposed to very low velocity frontal collisions." 5th World Congress of Biomechanics (incorporating the 15th European Society of Biomechanics, the 31st Congress of the Societé de Bioméchanique, and the ESEM 4th International Symposium on Microdamage), Munich, Germany, July 29th to August 4th, 2006.
- 107. "Biomechanical and kinematic differences between rear impact and frontal impact automobile crashes at low velocities." 5th World Congress of Biomechanics (incorporating the 15th European Society of Biomechanics, the 31st Congress of the Societé de Bioméchanique, and the ESEM 4th International Symposium on Microdamage), Munich, Germany, July 29th to August 4th, 2006.
- 108. "Auto crash reconstruction. Advanced diagnostics and treatment." Minnesota Chiropractic Association Fall Convention, Bloomington, MN, October 10-11, 2008.
- 109. "Auto crash reconstruction. Advanced diagnostics and treatment." Nevada Chiropractic Association Fall Convention, Las Vegas, NV, October 25-26, 2008.
- 110. "Whiplash and Brain Injury Traumatology." 14th Annual Black Hills Chiropractic Society, Rapid City, SD, October 2-4. 2009.
- 111. "Whither the Controversy," and "The 'average person': allowing for occupant characteristics and injury vulnerability." International Whiplash Conference 2012. April 24-26, Bristol, United Kingdom.
- 112. "The Silent Epidemic" [Keynote address]. Also; "Injury mechanisms: what we have learned from human subject crash testing and forensic investigation." 16th Annual Neuroscience of Brain Injury Conference, Brain Injury Association of California, Santa Rosa, CA, November 6-7, 2015.

Curriculum Vitae, Dr. A.C. Croft Page 9 of 22

- 113. "Whiplash-induced traumatic brain injury." 19th Annual Neuroscience of Brain Injury Conference, Brain Injury Association of California, San Diego, CA, February 23, 2018.
- 114. "Upper cervical biomechanical vulnerability." ICA Council on Upper Cervical Care: Advances in Spinal Care, Coronado, CA, June 21-23, 2018.
- 115. "The relationship between mTBI and WAD." TBI Med Legal; Brain Injury Association of California, San Diego, CA, April 5-6, 2019.

TEXTBOOKS AND OTHER BOOKS

- 1. Croft AC: Atherosclerosis: It's progression and regression. University of Bridgeport (CT), *Masters Thesis*, 1982.
- 2. Foreman SM, Croft AC: *Whiplash Injuries. The Cervical Acceleration/Deceleration Syndrome*. Baltimore, Williams & Wilkins Co., 1988. (Japanese version by Enterprise Publishing Co., Tokyo, 1988).
- 3. Croft AC: Whiplash: The Patient's Guide to Recovery . Arthur C. Croft, 1995.
- 4. Steigerwald DP, Croft AC: Whiplash & TMJ Dysfunction: An Algorithmic Approach to Case Management. Encinitas, Kaiser Publishing Co., 1993.
- 5. Croft AC: Advances in the clinical understanding of acceleration/deceleration injuries to the cervical spine. In Lawrence D, Cassidy JD, McGregor M, Meeker WC, Vernon HT (eds): *Advancements in Chiropractic*, vol 2, Chicago, Mosby Year Book, Inc., 1995.
- 6. Foreman SM, Croft AC: Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome (ed 2). Baltimore, Williams & Wilkins Co., 1995.
- 7. Croft AC: Low speed rear impact collisions: In search of an injury threshold. In Allen M (ed): *Musculoskeletal Pain Emanating from the Head and Neck. Current Concepts in Diagnosis, Management, and Cost Containment.* New York, Haworth Medical Press, 1996.
- 8. Freeman MD, Croft AC: The controversy over late whiplash: Are chronic symptoms following whiplash real? In Szpalski M, Gunzburg (eds): *Whiplash Injuries*. New York, Lippincott-Raven, 1997.
- 9. Croft AC: Mechanisms of cervical acceleration/deceleration (whiplash) injury and the basis for chronic pain. In Siegfried J, Grehl O, Hosali IP (eds), *Psychosomatic Illness— An International Review of Disorders and the Empirical Evidence*. In press, Toronto, Hogrefe Publishers. [Note: title may change to *Psychosomatic Illness: An In-depth Approach To Treatment*.]
- 10. Croft AC: Delay in onset of symptoms; standardized WAD grading systems. *A Practitioner's Guide to Understanding Whiplash Associated Disorders*. Toronto, Canadian Chiropractic Association), 2000.
- 11. Foreman SM, Croft AC: Whiplash Injuries: The Cervical Acceleration/Deceleration Syndrome (ed 3). Baltimore, Lippincott Williams & Wilkins Co., 2002.
- 12. Croft AC: *Proceedings of the Annual SRISD Scientific Conference*, San Diego, Spine Research Institute of San Diego. [These have been published annually: 1998-2018.]
- 13. Croft AC: *Whiplash: Advanced Topics*. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 14. Croft AC: Advanced Diagnostics and Treatment and Auto Crash Reconstruction. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 15. Croft AC: Narrative Report Writing and Practice Development. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 16. Croft AC: *Medlegal Issues*. From the Whiplash and Brain Injury Traumatology Program, San Diego, Spine Research Institute of San Diego. [This book has been published annually: 1992-2018.]
- 17. Croft AC: Whiplash and Mild Traumatic Brain Injuries: A Guide for Patients and Practitioners. SRISD Press, Coronado, 2009.
- 18. Croft AC. How my work applies to MIST (and other) cases. A chapter in: Ball D, Keenan D, eds. *Reptile in the Mist (And Beyond)*. New York: Balloon Press; 2013.
- 19. Croft AC: Economy of writing: how to write technical content. Chapter 54 in Shoja MM, Tubbs RS, D'Antoni AV, Loukas M, eds. *A Guide to the Scientific Career: Communication, Virtues, Communication, Research, and Academic Writing*, John Wiley & Sons, Hoboken, 2019.

Curriculum Vitae, Dr. A.C. Croft Page 10 of 22

- 20. Croft AC: Property damage vs. injury risk in low velocity collisions; and Biomechanical features of low velocity collisions. Chapters in DeShaw A, ed. Crash: *Handling and Trying Minor Impact Cases*. Portland, Trial Guides. In production.
- 21. Croft AC: Medical testing. A chapter in Romano G, ed. *Anatomy of a Personal Injury Lawsuit* (4th edition). American Association of Justice (AAJ) Press, 2015.

JOURNAL PUBLICATIONS

Peer-Reviewed, Indexed Journals (indices include MEDLINE, CINAHL, MANTIS, Index to Chiropractic Literature, WebDex, and Health Index)

- 1. Croft AC: Alcoholic polyneuropathy: new concepts for an old problem. *J American Chiropractic Assoc*, 17(5):45-56, May, 1983.
- 2. Croft AC: Atherosclerosis: It's progression and regression--a review of the literature. *J American Chiropractic Assoc*, 18(8):51-66, August, 1984.
- 3. Croft AC: Not professional? J American Chiropractic Assoc, 21(3):8, March, 1984. Letter.
- 4. Croft AC: Anabolic steroids: the controversy continues. *J American Chiropractic Assoc*, 18(10):59-69, October, 1984.
- 5. Croft AC: Nutritional aspects of the diabetic pregnancy. *J American Chiropractic Assoc*, 23(2):35-52, February, 1986.
- 6. Croft AC, Foreman SM: Unilateral pseudonotch of the atlas vertebra simulating fracture. *J American Chiropractic Assoc*, 20(12):44-50, December, 1986.
- 7. Foreman SM, Croft AC: MR and CT imaging of the cervical spine after trauma: an algorithm. *J American Chiropractic Assoc*, 24(11): 65-68, November, 1987.
- 8. Croft AC: Foreman SM: The anterior subluxation: its significance in cervical spine trauma. *The American Chiropractor*, October, 1987, 10-14.
- 9. Croft AC: Foreman SM: An Interview. *The American Chiropractor*, 6, November 1987.
- 10. Croft AC: Causalgia. American Journal of Orthopaedic Medicine, 1(3): 5-7, March, 1989.
- 11. Croft AC: Fluoroscopy is often overused. (Letter to Editor). *J American Chiropractic Assoc*, 26(11): 14-69, November, 1989.
- 12. Croft AC, Foreman SM: The cervical acceleration/deceleration syndrome: a proposal for management algorithms. *ACA Journal of Chiropractic*, 26(6): 59-72, June, 1989.
- 13. Croft AC: Treatment paradigm for cervical acceleration/deceleration injuries (whiplash). *J American Chiropractic Association*, 30(1): 41-45, 1993.
- 14. Croft AC, Cromwell LD, Holmes B, Kaplan MS, Meeker W, Milus T, Vernon H: Persistent back pain following a work-related injury. Grand rounds. *J Neuromusculoskeletal System*. 1(1):30-44, 1993.
- 15. Croft AC: Cervical acceleration/deceleration trauma: critical re-appraisal of physical and biomechanical events. *J Neuromusculoskeletal System* 1(2): 45-41, 1993.
- 16. Croft AC: Treatment paradigm for cervical acceleration/deceleration injuries (whiplash). *J American Chiropractic Assoc*, 30(1): 41-45, 1993.
- Croft AC, Cromwell L, Erhard RE, Hyde TE, Kaplan MS, Light D, Matuskey J, Morrison B, Swenson R: Injuries in rear-end automobile accident: grand rounds. *J Neuromusculoskeletal System* 1(3):135-148, 1993.
- 18. Croft AC: The case against "litigation neurosis" in mild head injuries and cervical acceleration/deceleration trauma. *J Neuromusculoskeletal System*, 1(4): 149-155, 1993.
- 19. Croft AC: Letter to Editor regarding thermography. J Chiropractic Res Clin Invest, 8(4): 65-66, 1993.
- 20. Croft AC, Krage JS, Pate D, Young DN: Videofluoroscopy of cervical spine trauma—an interinterpreter reliability study. *J Manip Physio Ther*, 17(1): 20-24, 1994.
- 21. Conley RN, Croft AC, Erhard RE, Sandefur R, Timko MG, Vernon H: Grand rounds: neck and shoulder pain following a cervical disc injury. *J Neuromusculoskeletal System* 2(4):212-218, 1994.
- 22. Croft AC, Young DN: Videofluoroscopy: a sampling of chiropractic radiologist's opinions. *Topics in Diagnostic Radiology and Advanced Imaging*, 2(1): 4-10, 1994.

Curriculum Vitae, Dr. A.C. Croft Page 11 of 22

- 23. Croft AC: Whiplash: contemporary considerations in assessment, management, treatment, and prognosis [1(4):156-166, 1993]. Letter to the editor. *J Neuromusculoskeletal System* 2(2):97-98, 1994.
- 24. Croft AC: Proposed classification of cervical acceleration/deceleration (CAD) injuries with a review of prognostic research. *Palmer Journal of Research*, 1(1): 10-21, 1994.
- 25. Croft AC, Swenson RS, Tarola GA, Vernon H: Grand rounds: Symptoms following a motor vehicle accident. *J Neuromusculoskeletal System* 3(4):203-210, 1995.
- 26. Croft AC: Letter to the editor regarding Bovim article Neck Pain in the General Population. *Spine* 20(5):627-628, 1995.
- 27. Croft AC: Appropriateness of cervical spine manipulation: a survey of practitioners. *Chiropractic Technique* 8(4):178-181, 1996.
- 28. Conley RN, Croft AC, Delitto A, Erhard RE, Mior SA, Tarola GA, Thomas GP, Welch WC: Grand rounds: Cervical pain and dizziness in a patient with a hypermobile cervical motion segment. *J Neuromusculoskeletal System* 4(1):30-39, 1996.
- 29. Croft AC: Low speed impact collisions: in search of an injury threshold. *J Musculoskeletal Pain* 4(4):39-46, 1996.
- 30. Sehnert K, Croft AC: Basal metabolic temperature vs. laboratory assessment in posttraumatic hypothyroidism. *J Manip Physio Ther* 19(1):6-12, 1996.
- 31. Bergmann TF, Cassidy JD, Croft AC, Rich JA, Swenson RS: Grand rounds: Continued neck pain following motor vehicle accident. *J Neuromusculoskeletal System* 5(3):117-128, 1996.
- 32. Freeman MD, Croft AC: Late whiplash syndrome. Lancet 348(9020):125, 1996.
- 33. Croft AC: Refuting "no crash, no cash (letter to editor) *J American Chiropractic Association* 33(6):10-58, 1996.
- 34. Croft AC, Freeman MD: 'Railway spine' to 'late whiplash.' Cases of wrongful controversy? *Topics in Clinical Chiropractic*, 5(3):54-61, 1998.
- 35. Croft AC: Reply in 'Letters on grand rounds' (Continued neck pain following motor vehicle accident. *J Neuromusculoskeletal System* 5(3):117-128, 1997). *J Neuromusculoskeletal System* 6(1):45-47, 1998.
- 36. Freeman MD, Croft AC, Rossignol AM: "Whiplash-Associated Disorders (WAD)—Redefining Whiplash and its management" by the Quebec Task Force: A critical evaluation. *Spine* 23(9):1043-1049, 1998.
- 37. Freeman MD, Croft AC, Rossignol AM, Weaver DS, Reiser M: A review and methodological critique of the literature refuting whiplash syndrome. *Spine* 24(1):86-96, 1999.
- 38. Harrison DD, Harrison SO, Croft AC, Harrison DE, Troyanovich SJ: Sitting biomechanics, part I: review of the literature. *J Manip Physio Ther* 22(9):594-609, 1999.
- 39. Harrison DD, Harrison SO, Croft AC, Harrison DE, Troyanovich SJ: Sitting biomechanics, part II: optimal car driver's seat and optimal driver's spinal model. *J Manip Physio Ther* 23(1):37-47, 2000.
- 40. Croft AC: Whiplash injury: the current model. J American Chiropractic Association 37(7):32-42, 2000.
- 41. Freeman MD, Croft AC, Rossignol AM. A critical evaluation of the methodology of a low back pain clinical trial. *J Manip Physio Ther* 23(5):363-4, 2000.
- 42. Croft AC: Whiplash. J American Chiropractic Association 38(9):28-32, 2001.
- 43. Croft AC, Herring P, Freeman MD, Haneline MT: The neck injury criterion (NIC): future considerations. *Accid Anal Prev* 34(2)247-255, 2002. [Abstract available at CSA Aerospace & High Technology Database.]
- 44. Haneline MT, Croft AC: Chiropractic manipulation of the neck with Horner's syndrome and internal carotid artery dissection. *J American Chiropractic Assoc* 39(4):18-20, 2002.
- 45. Croft AC et al. (interview): More than a pain in the neck: whiplash. Immovable object, unstoppable force. *J American Chiropractic Assoc*, 39(4):13-15, 2002.
- 46. Haneline MT, Croft AC, Frishberg BM: The association of internal carotid artery dissection and chiropractic manipulation. *Neurologist* 9(1):35-44, 2003.
- 47. Croft AC, Herring P, Freeman MD, Centeno C, Haneline MT, Baric JJ: Late (chronic) whiplash injury. Public health perspectives amidst a controversial literature. *J American Chiropractic Association* 40(8):26-32, 2003.
- 48. Haneline MT, Croft AC: Internal carotid artery dissection following chiropractic manipulation: clinical features and mechanisms of injury. *J American Chiropractic Association* 40(5):20-24, 2003.
- 49. Croft AC: "Manipulopathy": the risk of cervical arterial dissection, cerebrovascular accident, and chiropractic manipulative therapy. *J American Chiropractic Association* 40(7):22-25, 2003.

Curriculum Vitae, Dr. A.C. Croft Page 12 of 22

- 50. Croft AC, Freeman MD: Correlating crash severity with injury risk, injury severity, and long-term symptoms in low velocity motor vehicle collisions. *Med Sci Monit* 2005 11(10):RA316-321.
- 51. Freeman MD, Croft AC, Nicodemus CN, Centeno CJ, Elkins WL: Significant spinal injury resulting from low-level accelerations: a case series of roller coaster injuries. *Arch Phys Med Rehabil* 2005 Nov;86(11):2126-30.
- 52. D'Antoni A, Croft AC. Prevalence of herniated intervertebral discs of the cervical spine in asymptomatic subjects using MRI scans: a qualitative systematic review. *Journal of Whiplash and Related Disorders* 5(1):5-13, 2005.
- 53. Croft AC, Philippens, MMGM: The RID2 biofidelic rear impact dummy: a validation study using human subject in low speed rear impact full scale crash tests. Neck injury criteria (NIC). 2006 SAE World Congress, Technical Paper Series 2006-01-0067, April 3-6, Detroit, MI, 2006.
- 54. Croft AC: Is high-utilization chiropractic treatment efficacious in whiplash? *Arch Intern Med* 166:1237-1238, 2006.
- 55. Freeman MD, Croft AC, Rossignol AM, Centeno CJ, Elkins WL: Chronic neck pain and whiplash: A case-control study of the relationship between acute whiplash injuries and chronic neck pain *Pain Res Manag* 2006 11(2):79-83.
- 56. Croft AC: Human subjects exposed to very low velocity frontal collisions. *Journal of Biomechanics* 39 (Supplement 1) S146, 2006.
- 57. Croft AC: Biomechanical and kinematic differences between rear impact and frontal impact automobile crashes at low velocities. *Journal of Biomechanics* 39 (Supplement 1) S145, 2006.
- 58. Croft AC, Philippens MMGM: The RID2 biofidelic rear impact dummy: A pilot study using human subjects in low speed rear impact full scale crash tests. *Accid Anal Prev* 39:340-346, 2007.
- 59. Croft AC, D'Antoni AV, Terzulli SL: Update on the antibacterial resistance crisis. *Med Sci Monit*, 2007 13(6): RA103-118.
- 60. Croft AC, D'Antoni AV: Chiropractic manipulation: Reasons for concern? *Clin Neurol Neurosurg*. 110(4):422-3, 2008.
- 61. Croft AC: Early aggressive care and symptomatic recovery from whiplash: Comment on the article by Côté et al. *Arthritis Rheum* 2008 Apr 15;59(4):599-600, 2008.
- 62. Croft AC, Eldridge TR: Human subject rear seat passenger symptoms response to frontal car-to-car low-speed crash tests. *J Chiropractic Medicine* (1):141-146, 2011.
- 63. Croft AC, Workman JA, Szatalowicz MP, Roberts PE, Suiter LR: Classifying whiplash recovery status using the neck disability index: optimized cutoff points derived from receiver operating characteristic. *J Chiropractic Medicine* 15(2):95-101, 2016.
- 64. Croft AC, Milam B, Meylor J, Manning R: Confirmatory factor analysis and multiple linear regression of the neck disability index: assessment if subscales are equally relevant in whiplash and nonspecific neck pain. *J Chiropractic Medicine* 15(2):87–94, 2016.
- 65. Croft AC, Bagherian A, Mickelsen PK, Wagner S: Comparing 2 whiplash grading systems to predict clinical outcomes. *J Chiropractic Medicine* 15(2):81–86, 2016.

Peer-Reviewed, Non-Indexed Journals

- 66. Croft AC: Chiropractors who expand the scope of their practice. *Medical Economics*, 23, December 10, 1984. Letter.
- 67. Foreman SM, Croft AC: Diagnosis of whiplash injuries. *California Chiropractic Association Journal*, 11(4):26-27, April, 1986.
- 68. Foreman SM, Croft AC: Diagnosis of whiplash injuries. *Florida Chiropractic Association Journal*, 30-31, July/August, 1986.
- 69. Croft AC: Letter to Editor regarding malpractice. California Chiropractic Journal, 13(4): 6, April, 1988.
- 70. Croft AC: Radiculopathy: objectivity through electrodiagnostic testing. *DC Tracts*, 1(4): 187-198, August, 1989.
- 71. Croft AC: Neurogenic, vertebrogenic and referred spinal pain: diagnostic dilemma. *Journal of the Pennsylvania Chiropractic Society*, 7(4): 20-21, October/November/December, 1989.
- 72. Croft AC: Muscle contraction headache. *Journal of the Chiropractic Association of Arizona*, 17-18, March/April, 1990.

Curriculum Vitae, Dr. A.C. Croft Page 13 of 22

- 73. Croft AC: Mechanisms of spinal pain. Journal of the South Carolina Chiropractic Society, 4:10-13, 1991.
- 74. Croft AC: The dead whiplash scrolls. *Florida Chiropractic Association Journal*, 19-20, March/April, 1992.
- 75. Croft AC: Research findings in videofluoroscopy. *Florida Chiropractic Association Journal*, 25-26, May-June, 1992.
- 76. Croft AC: The dead whiplash scrolls. *Oklahoma Chiropractic Journal*, 3(2): 8, 1992 (reprinted with permission).
- 77. Croft AC: Diagnosis: primary fibromyalgia syndrome. Iowa Chiropractic Society Journal, 14, April, 1992.
- 78. Croft AC, Steigerwald DP: Whiplash can cause TMJ dysfunction. *Iowa Chiropractic Society Journal*, 14-15, June, 1992.
- 79. Croft AC: Primary fibromyalgia syndrome. Texas Journal of Chiropractic, 16-17, January, 1992.
- 80. Croft AC: Proposed classification of cervical acceleration/deceleration injuries. *New Hampshire Chiropractic Association Journal*, Winter, 1992, (reprinted with permission).
- 81. Croft AC, Steigerwald DP: Whiplash and TMJ dysfunction. *Spinal Press* (Hawaii State Chiropractic Association Journal), 3(4): 13-15, 1992.
- 82. Croft AC: Chiropractic manipulative therapy (CMT) in cervical acceleration/deceleration (CAD) trauma. *Townsend Letter for Doctors*, 113: 1134, 1992.
- 83. Croft AC: "Whiplash": An extension injury? *Florida Chiropractic Journal*, November/December, 32-33, 1992.
- 84. Croft AC: Research findings in videofluoroscopy (VF). Townsend Letter for Doctors, 112: 930, 1992.
- 85. Croft AC: The post-concussion syndrome (PCS): what's new? Part I. *Texas Chiropractic Journal*, 10(7): 29-31, 1993.
- 86. Croft AC: The post-concussion syndrome (PCS): what's new? Part II. *Texas Chiropractic Journal*, 10(8):27-29, 1993.
- 87. Croft AC: Efficacy of chiropractic treatment and issues of "scientific validity" in chiropractic and medicine. Part I. *Texas Journal of Chiropractic*, 10(12): 23-26, 1993.
- 88. Croft AC: Efficacy of chiropractic treatment and issues of "scientific validity" in chiropractic and medicine. Part II. *Journal of the South Carolina Chiropractic Association*, 3(3): 21, 1993.
- 89. Croft AC: Efficacy of chiropractic treatment and issues of "scientific validity" in chiropractic and medicine. Part III. *Journal of the South Carolina Chiropractic Association*, 3(5): 21, 1993.
- 90. Croft AC: After trial by science, who'll be on top? California Chiropractic Association Journal, 18(7):33-37, 1993
- 91. Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part I: peripheral pathogenesis. *Florida Chiropractic Association Journal*, 47-49, May/June 1993.
- 92. Croft AC: Proposed classification of cervical acceleration/deceleration (CAD) injuries. *The Voice* (Kentucky Chiropractic Association), 8(2): 7-8, 1993.
- 93. Trends in personal injury: tempest in a teakettle? *Connecticut Yankee—Connecticut Chiropractic Assoc* 25-26, Fourth Quarter, 1993.
- 94. Croft AC: Post concussion syndrome(PCS): what's new? Part II. The Voice, 8(4): 6-15, 1993.
- 95. Croft AC: Lightning, sharks and quick movements of the neck. Keystone J Chiropractic 1(1):15, 1994.
- 96. Croft AC: Getting around to RAND. Alabama State Chiropractic Association J Summer, 1994.
- 97. Croft AC: Carpal tunnel syndrome (CTS) following motor vehicle trauma. *The Alternative—Maine Chiropractic Assoc* 9-13, Summer 1994.
- 98. Croft AC: Advanced diagnostic imaging in cervical spine and neck injuries. D.C. Tracts 6(1):5-8, 1994.
- 99. Croft AC: Impingement syndrome and four frozen shoulder reports. *Florida Chiropractic Assoc* J 58-59, Winter 1994.
- 100. Croft AC: Advanced diagnostic imaging in cervical spine and neck injuries. DC Tracts, 6(1):5-8, 1994.
- 101.Croft AC: Angiography and color coded duplex sonography: applications in the secondary care setting. *Texas J Chiropractic*12(4):31, 1994.
- 102. Croft AC: Cognitive deficits following cervical spine trauma. Texas J Chiropractic 12(8):31, 1995.
- 103. Croft AC: New insights into the mechanism of acceleration-induced brain injuries. *Chiropractic J North Carolina* 78(2):20-21, 1995.
- 104.Croft AC: Postconcussion syndrome following motor vehicle trauma: new literature. *Florida Chiropractic Association J* 43-45, March-April, 1995.
- 105.Croft AC: Letter. Accid Reconstr J 8(1):21,64, 1996.

Curriculum Vitae, Dr. A.C. Croft Page 14 of 22

- 106. Croft AC: Letter. Forensic Examiner 5(5,6):9-10, 1996.
- 107. Croft AC: Informed consent. Ortho-Briefs 17(2):7, 1996.
- 108.Croft AC: Proposed classification of cervical acceleration/deceleration (CAD) injuries. *Texas J Chiropractic* 14(2):22-23, 1996.
- 109. Croft AC: Standards of care in cervical disk herniation: Results of a nationwide survey. *Texas J Chiropractic* 13(11):24, 1996.
- 110.Croft AC: Lithuanian study: Letter to the editor. *Inroads* 4(1):6, 1997.
- 111.Croft AC, Freeman MD: Invited commentary on Obelieniene D, Schrader H, Bovim G, Misevinciene I, Sand T: Pain after whiplash: a prospective controlled inception cohort study. *J Neurol Neurosurg Psychiatry* 66:279-283, 1999. *The Back Letter*. 14(4):43-45.
- 112. Croft AC: Hyperextension: a factor in whiplash yet again. American J Clinical Chiropractic 9(1):16, 1999.
- 113. Haneline MT, Croft AC: Whiplash in foreign lands: more 'new clothes' for the emperor? *California Chiropractic Association Journal* Apr, 26-27, 2001.
- 114.Croft AC, Haneline MT: Children and whiplash injuries. *Florida Chiropractic Association J* Jul/Aug, 56-57, 2001.
- 115. Haneline M, Croft A: Lower Back Pain Associated With CAD Injury: Does it Add Up? *Illinois Chiropractic Society News*, June, 4-13, 2001.
- 116. Haneline M: Croft A: NEJM paper reporting stroke risk as one in 20,000 spinal manipulations. *Florida Chiropractic Association Journal* March-April, 18-19, 2002.
- 117. Lewkovich GN: To the point: questions and answers regarding the Croft whiplash treatment guidelines with Arthur C. Croft, DC, MS, DABCO. *California Chiropractic Association Journal* 28(3):222-25, 2003.
- 118. Haneline MT, Croft AC: The relationship of chiropractic neck manipulation to internal carotid artery dissection. *The Forensic Examiner* 12(9,10):38-41, 2003.
- 119.Croft AC: Clinical forensic applications of medical photography. *Florida Chiropractic Association Journal* Nov/Dec, 23-25, 2006.
- 120.Croft AC: Boosting auto safety, starting with kids. *Florida Chiropractic Association Journal* Jan/Feb/Mar, 21-24, 2007.
- 121.Croft AC: All car seats are not created equal: why your choice of booster seats could be putting your child at risk. *To Your Health* April, 15-17, 2007.
- 122.Croft AC: Pain, impairment, whiplash, and the new AMA Guides: what clinicians need to know. *Practical Pain Management*, January/February, 26-33, 2014.

Peer-Reviewed Conference Proceedings

- 123.Freeman MD, Croft AC, Reiser M. Die epidemiologie des Schleudertraumas wo liegt die Schelle Zur Verletzung? (The epidemiology of whiplash—is there a reliable threshold for whiplash injury?) *HWS-Distortion (Schleudetrauma) & Leichte Traumatische, Hirnverletzung*. Edited by Ettlin TM and Mürner J, Berne, Switzerland, June 25-6, 99-118, 1998.
- 124. Freeman MD, Croft AC, Rossignol AM. The prevalence of whiplash-associated chronic cervical pain among a random sample of patients with chronic spine pain. Abstract from proceedings of Cervical Spine Research Society Annual Meeting. Seattle, WA December 13-15, 1999.
- 125.Freeman MD, Croft AC, Rossignol AM. Late whiplash risk factor analysis of a random sample of patients with chronic spine pain. World Whiplash Associated Disorders Congress, Vancouver, British Columbia, February 8-10, 1999
- 126.Croft AC, The Neck Injury Criterion (NIC): Future Considerations. 44th Annual Proceedings of the Association for the Advancement of Automotive Medicine, Chicago, IL, October 1-4, 2000, 519-521.
- 127. Freeman MD, Centeno C, Croft AC, Nicodemus CN: Significant spinal injury resulting from low-level accelerations: a comparison with whiplash. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 1, 2001.
- 128. Croft AC, Haneline MT, Freeman MD: Differential occupant kinematics and head linear acceleration between frontal and rear automobile impacts at low speed: evidence for a differential injury risk. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 28, 2001.

Curriculum Vitae, Dr. A.C. Croft Page 15 of 22

- 129. Croft AC, Haneline MT, Freeman MD: Automobile crash reconstruction in low speed rear impact crashes utilizing a momentum, energy, and restitution (MER) method. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 20, 2001.
- 130. Centeno C, Freeman MD, Croft AC: A comparison of the functional profile of an international cohort of whiplash injured patients and non-patients: an internet study. International Congress on Whiplash-Associated Disorders, Berne, Switzerland, March 9-10, 2, 2001.
- 131.Freeman MD, Nicodemus CN, Croft AC, Centeno C: Significant spinal injury resulting from low-level accelerations: a case series of roller coaster injuries. Cervical Spine Research Society 29th Annual Meeting, Monterey, CA, Nov 29-Dec 1, 2001.
- 132.Freeman MD, Sapir D, Boutselis A, Gorup J, Tuckman G, Croft AC, Centeno C, Phillips A: Whiplash injury and occult vertebral fracture: a case series of bone SPECT imaging of patients with persisting spine pain following a motor vehicle crash. Cervical Spine Research Society 29th Annual Meeting, Monterey, CA, Nov 29-Dec 1, 2001.
- 133.Croft AC, Haneline MT, Freeman MD: Differential Occupant Kinematics and Forces Between Frontal and Rear Automobile Impacts at Low Speed: Evidence for a Differential Injury Risk, International Research Council on the Biomechanics of Impact (IRCOBI), International Conference, Munich, Germany, September 18-20, 2002, 365-366.
- 134.Croft AC, Haneline MT, Freeman MD: Low speed frontal crashes and low speed rear crashes: is there a differential risk for injury? Proceedings of the 46th Association for the Advancement of Automotive Medicine (AAAM) Annual Scientific Conference, Tempe, Arizona, September 29-October 2, 79-91, 2002.
- 135.Croft AC, Lord S, and Freeman MD: Whiplash Injury: Mechanisms of Injury, Pathophysiology, and Treatment, 10th World Congress on Pain, International Association for the Study of Pain, San Diego, August 17-22, 2002, p482.
- 136.Croft AC: State-of-the-art chiropractic management of acute pain from cervical spine soft-tissue injuries. Conference Proceedings, World Federation of Chiropractic's 7th Biennial Congress, Orlando, Florida, May 1-3, 2003, 49-52.
- 137. Freeman MD, Croft AC, Centeno C: Fatal head injury cases in a rural Oregon county. Proceedings of the 19th World Congress of the International Traffic Medicine Association, Budapest, Hungary, September 14-17, 2003.
- 138.Croft AC: Prognosis and chiropractic management of whiplash injuries. World Federation of Chiropractic's 8th Biennial Congress, Sydney, Australia, June 16-18, 2005.
- 139. D'Antoni A, Croft AC: Prevalence of Herniated Intervertebral Discs of the Cervical Spine in Asymptomatic Subjects Using MRI Scans: A Qualitative Systematic Review. Sixteenth Annual Research Colloquium, Seton Hall University, South Orange, New Jersey, May 13, 2005, CI-7.

Non-Peer-Reviewed, Indexed Journals (indices include MEDLINE, CINAHL, MANTIS, WebDex, Index to Chiropractic Literature, Health Index, and Westlaw)

- 140.Croft AC: Whiplash and brain injuries: cognitive defect or fertile imagination? *Dynamic Chiropractic*, 10(7): 10-35, 1992.
- 141. Croft AC: Activities of daily living (ADL) considerations in cervical acceleration/deceleration (CAD) trauma. *Dynamic Chiropractic*, 10(14): 11-26, 1992.
- 142.Croft AC: The automobile shoulder harness: magic bullet or ricochet? *Dynamic Chiropractic*, 10(5): 23-37, 1992.
- 143. Croft AC: TMJ and whiplash: of forces and farces. Dynamic Chiropractic, 10(9): 15, 1992.
- 144. Croft AC: MVA and MMI: how much is enough? Dynamic Chiropractic, 10(16): 30-31, 1992.
- 145. Croft AC: The biggest research project yet. Dynamic Chiropractic, 10(18): 23, 1992.
- 146. Croft AC: What causes those symptoms doctor? Dynamic Chiropractic, 10(22): 24-30, 1992.
- 147. Croft AC: Brain mapping revisited. Dynamic Chiropractic, 10(26): 10-41, 1992.
- 148. Croft AC: Point--counterpoint. Dynamic Chiropractic, 11(6): 26-27, 1993.
- 149. Croft AC: Smoking gun or smoke and mirrors: science vs. nonscience. *Dynamic Chiropractic*, 11(8): 16-17, 1993.
- 150.Croft AC: Thermography in soft tissue trauma: does it have a place? *Dynamic Chiropractic*, 11(10): 22-31, 1993.

Curriculum Vitae, Dr. A.C. Croft Page 16 of 22

- 151. Croft AC: Where is the wisdom lost? Dynamic Chiropractic, 11(14): 13-14, 1993.
- 152. Croft AC: [Letter to Editor] Dr. Croft's response on thermography. *Dynamic Chiropractic*, 11(16):26, 1993.
- 153. Croft AC: Rebuttal on thermography. Dynamic Chiropractic, 11(18): 14-21, 1993.
- 154.Croft AC: Scientific Writing: discriminating good from bad. Part I: general considerations., *Dynamic Chiropractic*, 11(20): 25-26, 1993.
- 155.Croft AC: Scientific Writing: discriminating good from bad. Part II: surveys. *Dynamic Chiropractic*, 11(22): 16, 1993.
- 156.Croft AC: Scientific Writing: discriminating good from bad. Part III: assignment, assessment, and analysis in experimental studies. *Dynamic Chiropractic*, 11(24):13-34, 1993.
- 157. Croft AC: Scientific Writing: discriminating good from bad. Part IV: interpretation and extrapolation of experimental studies. *Dynamic Chiropractic*, 11(26): 14, 1993.
- 158.Croft AC: Scientific Writing: discriminating good from bad. Part V: sensitivity and predictive value. *Dynamic Chiropractic*, 12(2): 12-43, 1994.
- 159.Croft AC: Mild traumatic brain injuries after motor vehicle accidents. *Dynamic Chiropractic* 12(6):9-35, 1994.
- 160. Croft AC: MRI with contrast. What's new? Dynamic Chiropractic, 12(12): 8-25, 1994.
- 161. Croft AC: Misconceptions indeed! Dynamic Chiropractic 12(18):22-23, 1994.
- 162.Croft AC: Cervical myelopathy: is surgery (always, usually, never) the best choice? *Dynamic Chiropractic* 12(22):32-43, 1994
- 163. Croft AC: Pseudoscience in the courtroom: blight at the end of the tunnel? *Dynamic Chiropractic* 12(24):18-19, 1994.
- 164. Croft AC: LIMP: a battle lost as war rages on? Dynamic Chiropractic. 12(26):28-32, 1994.
- 165. Croft AC: Fibromyalgia syndrome arising de novo from trauma. Dynamic Chiropractic. 13(5):32-33, 1995.
- 166.Croft AC: Health care policy: what is the role of the field practitioner? *Dynamic Chiropractic*. 13(7):19-29, 1995.
- 167.Croft AC: Narrative reports in personal injury: two common errors. *Dynamic Chiropractic* 13(11):19, 1995.
- 168.Croft AC: Excessive medical claims for automobile personal injuries: the RAND report. *Dynamic Chiropractic* 13(13):27, 1995.
- 169. Croft AC: Quebec Task Force on Whiplash-Associated Disorders. What does it mean for practitioners? *Dynamic Chiropractic* 13(15):34-49, 1995.
- 170. Croft AC: Problems with apportionment? Use your calculator. Dynamic Chiropractic 13(17):16, 1995.
- 171. Croft AC: Diagnostic ultrasound: too good to be true? Dynamic Chiropractic 13(19):15-21, 1995.
- 172. Croft AC: LOSRICs: epidemiological analysis. Dynamic Chiropractic 13(23):16-18, 1995.
- 173. Croft AC: The curriculum vitae. *Dynamic Chiropractic* 13(21):14, 1995.
- 174. Croft AC: Physical Medicine Research Foundation holds 8th Int'l symposium. *Dynamic Chiropractic* 13(25):23-27, 1995.
- 175. Croft AC: Thoracic outlet syndrome: Current literature. Dynamic Chiropractic 14(1):21-25, 1996.
- 176.Croft AC: How does your head restraint measure up?. Dynamic Chiropractic 14(3):29, 1996.
- 177. Croft AC: Quebec task force: The intrigue continues. Dynamic Chiropractic 14(7):20-29, 1996.
- 178.Croft AC: Whiplash outcome: Do most patients recover in 6-12 weeks. *Dynamic Chiropractic* 14(9):14-43, 1996.
- 179. Croft AC: Radionuclide bone scan: How useful in cervical spine trauma? *Dynamic Chiropractic* 14(11):24-25, 1996.
- 180. Croft AC: It's not just what you say--narrative reports are costing you your business. *Dynamic Chiropractic* 14(13):16-28, 1996.
- 181. Croft AC: Recent whiplash literature abstracts. Dynamic Chiropractic 14(17):29-31, 1996.
- 182. Croft AC: Medicolegal questions and answers. Dynamic Chiropractic 14(19):14-25, 1996.
- 183.Croft AC: Disabled DC sues disability insurance carrier and wins. *Dynamic Chiropractic* 14(21):16-29, 1996.
- 184. Croft AC: A nurse in expert's clothing. Dynamic Chiropractic 14(23):14-33, 1996.
- 185.Croft AC: Running amok. Dynamic Chiropractic 14(25):25-33, 1996.
- 186. Croft AC: The trouble with air bags. Dynamic Chiropractic 15(1):23, 1997.

Curriculum Vitae, Dr. A.C. Croft Page 17 of 22

- 187.Croft AC: Is there an engineer in the house? or, the sound of the one eye winking. *Dynamic Chiropractic* 15(3):26-43, 1997.
- 188.Croft AC: Whiplash injuries and low speed collisions: Confessions of an accident reconstructionist. *Forum* 27(6):10-15, 1997.
- 189. Croft AC: Whiplash: Whither the future? Dynamic Chiropractic 15(5):6-29, 1997.
- 190.Croft AC: Air bags: Saving lives at any cost? A public health perspective. *Dynamic Chiropractic* 15(7):16-33, 1997.
- 191. Croft AC: Automobile injuries: Who pays? Dynamic Chiropractic 15(9):18-33, 1997.
- 192. Croft AC: The ugly stepchild of personal injury. Dynamic Chiropractic 15(13):18-21, 1997.
- 193. Croft AC: Accident reconstruction: A view from the barricades. *Dynamic Chiropractic* 15(11):13-43, 1997.
- 194. Croft AC: Crash test researcher barred from testifying in auto accident. *Dynamic Chiropractic* 15(15):7-22, 1997.
- 195. Croft AC: Whiplash quiz: Test your knowledge. Dynamic Chiropractic 15(17):24-27, 1997.
- 196. Croft AC: Luxury and safety: can you have both? Dynamic Chiropractic 15(8):20, 1997.
- 197. Croft AC: Report from the International Whiplash Conference in Bristol. *Dynamic Chiropractic* 15(23):15-32, 1997.
- 198.Croft AC: The potential role of antioxidant-based therapeutic intervention in the management of traumatic brain injury. *Dynamic Chiropractic* 15(25):4-42, 1997.
- 199. Croft AC: Late whiplash syndrome: a disease of the psyche? Dynamic Chiropractic 16(1):18-30, 1998.
- 200. Croft AC: Cervical acceleration/deceleration injuries: a pop quiz. *Dynamic Chiropractic* 16(3):18-34, 1998.
- 201. Croft AC: Reasonable bioengineering certainty? A case report. Dynamic Chiropractor 16(5):22-34, 1998.
- 202. Croft AC: Whiplash injury threshold: new lower speed defined. Dynamic Chiropractic 16(7):35-38, 1998.
- 203. Croft AC: On guidelines and gridlines. Dynamic Chiropractor 16(9):13-25, 1998.
- 204. Croft AC: How does your 4-passenger car stack (crack) up?. Dynamic Chiropractor 16(11):27-31, 1998.
- 205. Croft AC: Watchdogs watching. Dynamic Chiropractor 16(15):23-35, 1998.
- 206. Croft AC: Automotive safety news. Dynamic Chiropractor 16(23):26-38, 1998.
- 207. Croft AC: The current roles of SPECT and PET in the diagnosis of brain injury. *Dynamic Chiropractic* 16(25):34-43, 1998.
- 208. Croft AC: The new model of whiplash: Part I. Dynamic Chiropractic 17(2):26-48, 1999.
- 209. Croft AC: The new model of whiplash: Part II. Dynamic Chiropractic 17(3):20-33, 1999.
- 210. Croft AC: Problems in auto crash reconstruction. Dynamic Chiropractic 17(4):35-42, 1999.
- 211.Freeman MD, Croft AC, Reiser M: Discrediting defense experts in whiplash cases. *Trial* 62-67, March, 1999
- 212. Croft AC: Narrowing the gender gap in whiplash. Dynamic Chiropractic 17(6):24-36, 1999.
- 213. Croft AC: The SCL-90R in clinical application. Dynamic Chiropractic 17(10):12-25, 1999.
- 214. Croft AC: Practical auto crash reconstruction in LOSRIC, part 1. *Dynamic Chiropractic* 17(12):12-25, 1999.
- 215.Croft AC: Practical auto crash reconstruction in LOSRIC, part 2. *Dynamic Chiropractic* 17(14):26-29, 1999.
- 216.Croft AC: Practical auto crash reconstruction in LOSRIC, part 3. *Dynamic Chiropractic* 17(16):38-42, 1999.
- 217. Croft AC: Practical auto crash reconstruction in LOSRIC, part 4. *Dynamic Chiropractic* 17(18):29-37, 1999.
- 218. Croft AC: Practical auto crash reconstruction in LOSRIC, part 5. *Dynamic Chiropractic* 17(20):28-49, 1999.
- 219. Croft AC: CRASH 99: the first full-scale human volunteer crash tests for chiropractic. *Dynamic Chiropractic* 17(22):40-41, 1999.
- 220. Croft AC: Effectiveness of chiropractic management in chronic CAD cases. *Dynamic Chiropractic* 17(26):14-15, 1999.
- 221. Croft AC: Chiropractic's place on the food chain. Dynamic Chiropractic 18(2):22-24, 2000.
- 222. Croft AC: Making the case against late whiplash. Dynamic Chiropractic 18(6):18-21, 2000.
- 223. Croft AC: What evidence supports a link between trauma, fibromyalgia syndrome, and multiple sclerosis? *Dynamic Chiropractic* 18(14):28-34, 2000.

Curriculum Vitae, Dr. A.C. Croft Page 18 of 22

- 224. Croft AC, Freeman MD: Of foxes and hen houses. Dynamic Chiropractic 18(16):28-29, 2000.
- 225. Croft AC: Crash 2000: human volunteer low speed and moderate speed crash testing. *Dynamic Chiropractic* 18(20):36-37, 2000.
- 226. Croft AC: Long-term consequences of whiplash: allergy, breathing, digestive, cardiovascular disorders, hypertension, and low back pain. *Dynamic Chiropractic* 18(22):30-44, 2000.
- 227. Croft AC: Guidelines for the management of CAD trauma—use them. *Dynamic Chiropractic* 18(24):20-23, 2000.
- 228. Croft AC: The risk of injury for children exposed to whiplash. Dynamic Chiropractic 18(26):14-46, 2000.
- 229. Croft AC: Crash partners: death risk based on relative vehicle masses, sizes, and types. *Dynamic Chiropractic* 19(6):20-24, 2001.
- 230. Croft AC: Time: critical factors in injury risk, part I. Dynamic Chiropractic 19(8):28-29, 2001.
- 231. Croft AC: Medical conditions and relative driving safety: a recent report. *Dynamic Chiropractic* 19(10): 44, 2001.
- 232. Croft AC: The one strategy for preserving the landscape. Dynamic Chiropractic 20(6):16-22, 2002.
- 233. Croft AC: Is the lumbar spine vulnerable in low speed rear impact crashes? *Dynamic Chiropractic* 19(14):18-20, 2001.
- 234.Croft AC: Relative risks in children and small females in trauma: what have we learned? *Dynamic Chiropractic* 19(16):29-32, 2001.
- 235. Croft AC: Sensing diagnostic module (SDM): the modern motor vehicle's "black box." *Dynamic Chiropractic* 19(22):6-8, 2001.
- 236.Croft AC, Haneline MT: CAD guidelines: we have them, let's use them. Results of a preliminary practice survey. *Dynamic Chiropractic* 19(24):30-33, 2001.
- 237. Croft AC: Chiropractic care for acute whiplash patients. We must take up the challenge of research. *Dynamic Chiropractic* 20(1):1-32, 2002.
- 238.Croft AC: Can you gauge injury risk or severity from the amount of vehicular property damage in motor vehicle crashes? *Dynamic Chiropractic* 20(26):26-29, 2002.
- 239. Croft AC: Late whiplash: the controversy of organic vs. biopsychosocial models. *Dynamic Chiropractic* 20(2):40-44, 2002.
- 240. Croft AC: CAD: common questions and answers. Dynamic Chiropractic 21(2):26-28, 2003.
- 241. Croft AC: Guidelines and gridlines revisited. Dynamic Chiropractic 21(9):14-20, 2003.
- 242. Croft AC: Intervertebral discs as a source of pain: is our current model valid?. *Dynamic Chiropractic* 21(11):28-56, 2003.
- 243. Croft AC, Tripp RB: Spinal manipulation: important new data on risks. *Dynamic Chiropractic* 21(14):18-20, 2003.
- 244. Croft AC: The "Colossus" claims program, and how it affects you and your patients. *Dynamic Chiropractic* 21(17):34-39, 2003.
- 245.Croft AC: Testifying on the subject of permanent injury from MVC: whose domain? *Dynamic Chiropractic* 21(23) 2003.
- 246. Croft AC: Newest trends in the medlegal world: a survival guide. Dynamic Chiropractic 22(4) 2004.
- 247. Croft AC: The evolution of medical decision-making: a case study in emergency-room cervical radiology. *Dynamic Chiropractic* 22(10):24-29, 2004.
- 248. Croft AC: Developing models and changing paradigms in CAD trauma. *Dynamic Chiropractic* 22(16) 2004.
- 249. Croft AC: Intervertebral disc pathology: its relevance in forensic medicine. *Dynamic Chiropractic* 22(19): 41-45, 2004.
- 250. Croft AC: "No crash—no cash": another decade of duplicity? Dynamic Chiropractic 22(22):14-23, 2004.
- 251. Croft AC: How do you rate as a forensic expert? Dynamic Chiropractic 22(25): 2004.
- 252. Croft AC: Crash protection in rear impacts: the new dynamic tests using the Hyper-G sled and BioRID dummy. *Dynamic Chiropractic* 23(3): 2005.
- 253. Croft AC: Pituitary dysfunction after traumatic brain injury (TBI). Dynamic Chiropractic 23(7): 2005.
- 254.Croft AC, Freeman MD: Auto insurers and their new role in whiplash prevention—new rules, new risks, new tests. *Forum* 35(3):9-13, 2005.
- 255.Croft AC: Writing rebuttal to the reports of auto crash reconstructionists and biomechanical engineers. *Dynamic Chiropractic* 23(11):24-33 2005.

Curriculum Vitae, Dr. A.C. Croft Page 19 of 22

- 256.Croft AC: Frontal Crash Tests at Low Velocities: Can Injuries to Volunteers Result? *Dynamic Chiropractic* 23(15):38-40, 2005.
- 257. Croft AC: The expert witness and the *Daubert* challenge. *Dynamic Chiropractic* 23(19):33-36, 2005.
- 258.Croft AC: Finding golden needles lost in the biomedical literature haystack. *Dynamic Chiropractic* 23(xx):x, 2005.
- 259. Croft AC: The new nomenclature of the spine. Dynamic Chiropractic 24(4):38-42, 2006.
- 260.Croft AC: Crash Severity and Injury Risk. A New Study Provides the Definitive Answer. *Dynamic Chiropractic* 24(7): 2006.
- 261. Croft AC: Uncertainty Analysis in a Forensic Practice, Part One. *Dynamic Chiropractic* 24(16): 30-39, 2006.
- 262. Croft AC: Uncertainty Analysis in a Forensic Practice, Part Two. *Dynamic Chiropractic* 24(19): 66-71, 2006.
- 263. Croft AC: Trends in personal injury: whither the future? Dynamic Chiropractic 24(23): 22-65, 2006.
- 264. Croft AC: Booster seats: why go on killing our children? 25(5), 2007.
- 265. Croft AC: Utilization review strategies: is the current system fair to all? *Dynamic Chiropractic* 25(9), 2007.
- 266. Croft AC: Risk analysis: the skill set that sets you apart. Dynamic Chiropractic 25(13):12-40, 2007.
- 267. Croft AC: American families, auto safety and the role of the health care practitioner. *Dynamic Chiropractic* 25(21):18-40, 2007.
- 268. Croft AC: New research, the AMA Guides, the cervical spine DRE-IV, and ligamentous subfailure: disentangling some serious misconceptions. *Dynamic Chiropractic* 25(25):18-41, 2007.
- 269. Croft AC: New developments in the safety and efficacy of chiropractic treatment, part 1. *Dynamic Chiropractic* 26(1):14-33, 2008.
- 270. Croft AC: New developments in the safety and efficacy of chiropractic treatment, part 2. *Dynamic Chiropractic* 26(5):10-12, 2008.
- 271. Croft AC: The AMA's *Guides to the Evaluation of Permanent Impairment*, 6th Edition. *Dynamic Chiropractic* 26(9):26-28, 2008.
- 272. Croft AC: Modic changes on MRI studies. Dynamic Chiropractic 26(13):30-31, 2008.
- 273. Croft AC: Matters of the human intervertebral disc and spinal column in the forensic context. *Dynamic Chiropractic* 26(17):34-48, 2008.
- 274. Croft AC: Non-dermatomal findings, differential straight-leg raising tests, and other Waddell signs. *Dynamic Chiropractic* 26(21):30, 2008.
- 275. Croft AC: Thinking beyond the chiropractic table. Dynamic Chiropractic 27(5):22, 2009.
- 276. Croft AC: Applications of biomechanics in the forensic assessment of injury. *Dynamic Chiropractic* 27(9):12-37, 2009.
- 277. Croft AC: Bringing down barriers to care and ensuring access to injured patients. *Dynamic Chiropractic* 27(13):22-35, 2009.
- 278. Croft AC: Low back injuries in low velocity rear impact collisions. Forum 39(4):33-37, 2009.
- 279. Croft AC: The Biomechanics of Spondylolysis, Part 1: Is It Ever an Acute Traumatic Event? *Dynamic Chiropractic* 27(20):8-24, 2009.
- 280. Croft AC: The Biomechanics of Spondylolysis, Part 2 *Dynamic Chiropractic* 27(24):14-24, 2009.
- 281. Croft AC: Study confirms flaws in standard defense strategy for MVC injury. *Dynamic Chiropractic* 28(2):18-33, 2010.
- 282. Croft AC: Is advice alone adequate for the management of neck pain? *Dynamic Chiropractic* 28(18):20-37, 2010.
- 283. Croft AC: Key software for medicolegal (and practice) settings. *Dynamic Chiropractic* 28(23):40-41, 2010.
- 284. Croft AC: Managing motor vehicle trauma: a 2011 Status Report, Part 1. *Dynamic Chiropractic* 29(3):40-41, 2011.
- 285. Croft AC: Managing motor vehicle trauma: a 2011 Status Report, Part 2. *Dynamic Chiropractic* 29(4):16-37, 2011.
- 286. Croft AC: Follow-up in study design: how much is enough?. Dynamic Chiropractic 29(10):19-21, 2011.
- 287. Croft AC: Conservative vs. surgical care of lumbar spinal stenosis. *Dynamic Chiropractic* 30(5):29-37, 2012.

Curriculum Vitae, Dr. A.C. Croft Page 20 of 22

- 288. Croft AC: Reimbursement for treating crash victims: deconstructing the objections. *Dynamic Chiropractic* (31)9:6-30, 2013.
- 289. Croft AC: Revisiting the neurological exam. Dynamic Chiropractic 32(9):16-22, 2014.

Non-Peer-Reviewed, Non-Indexed Journals

- 290. Croft AC: The chiropractic emergency: can we respond? *The Digest of Chiropractic Economics*, 14-17, January/February, 1986.
- 291. Croft AC: Migraine headaches and serotonin: a review of recent literature. Digest of Chiropractic Economics, 29(1): 10-120, August 1, 1986.
- 292. Croft AC: The soft tissue dilemma. San Diego County Chiropractic Society Bulletin, 9(1): 9-14, January, 1987.
- 293. Croft AC: Electromyography and nerve conduction velocity studies in cervical spine disorders. *San Diego County Chiropractic Society Bulletin*, 9(2):5-6, February, 1987.
- 294. Croft AC: Nerve root disorders and the neurovascular compression syndrome: a differential diagnosis. *San Diego County Chiropractic Society Bulletin*, 9(3):6-7, March, 1987.
- 295. Croft AC: Whiplash test. San Diego County Chiropractic Society Bullletin, 9(4):6, April, 1987.
- 296.Croft AC, Krage JS, Remsen WH: The postconcussion syndrome. *Trial Bar News (SDTLA)*, 9(4):26, April 1987.
- 297. Croft AC: The anterior subluxation. San Diego County Chiropractic Society Bulletin, 9(6): 5, June, 1987.
- 298. Foreman SM, Croft AC: Are they hurt or not? New developments in the prognosis of the cervical spine injury. *California Trial Lawyers Association Forum*, Vol XVII, (5), 171, June, 1987.
- 299. Croft AC: Properties of the intervertebral disc. San Diego County Chiropractic Society Bulletin, 9(7): 6-7, July, 1987.
- 300.Croft AC: Who are the real experts? San Diego County Chiropractic Society Bulletin, 9(9): 13-14, September, 1987.
- 301.Croft AC: Calculating G forces in rear-end motor vehicle accidents. *Trial Bar News (SDTLA)*, 9(7), 12-13, August/September, 1987.
- 302.Croft AC: Foreman SM: Treatment of the cervical acceleration/deceleration syndrome injury. *Digest of Chiropractic Economics*, 30(3): 34-37, November/December, 1987.
- 303.Croft AC: Biomechanics of spinal ligaments. *San Diego County Chiropractic Society Bulletin*, 9(10): 7-16, October, 1987.
- 304. Croft AC: Forces generated in rear-end motor vehicle accidents. San Diego County Chiropractic Society Bulletin, 9(11): 13, November, 1987.
- 305.Croft AC: Experimental studies in acceleration/deceleration trauma. San Diego County Chiropractic Society Bulletin, 9(12): 5-7, December, 1987.
- 306. Croft AC: Minor head injuries and the post concussion syndrome. San Diego County Chiropractic Society Bulletin, 10(1): 5-15, January, 1988.
- 307. Croft AC: Carpal tunnel syndrome. San Diego County Chiropractic Society Bulletin, 10(2): 5-11, February, 1988.
- 308. Croft AC: Physics in biomechanics. San Diego County Chiropractic Society Bulletin, 11(2): 5-13, February, 1988.
- 309. Croft AC: Orthopaedics Quiz #2. San Diego County Chiropractic Society Bulletin, 10(3): 5, March, 1988.
- 310. Croft AC: PI turmoil: Doctors sued by insurance company? San Diego County Chiropractic Society Bulletin, 10(4): 5-16, April, 1988.
- 311. Croft AC: The cervicocranial syndrome and the cervicobrachial syndrome: diagnosis by the numbers? San Diego County Chiropractic Society Bulletin, 10(5): 5-8, May, 1988.
- 312. Croft AC: Osteoarthritis and pain. San Diego County Chiropractic Society Bulletin, 10(7): 5-13, July, 1988.
- 313. Croft AC: Referred pain. San Diego County Chiropractic Society Bulletin, 10(8):5-14, August, 1988.
- 314. Croft AC: Trauma and pain. San Diego County Chiropractic Society Bulletin, 10(9): 5, September, 1988.
- 315.Croft AC: Exercise metabolism. San Diego County Chiropractic Society Bulletin, 10(10): 5-16, October, 1988
- 316.Croft AC: Jumper's knee. San Diego County Chiropractic Society Bulletin, 10(11): 5-17, November, 1988.

Curriculum Vitae, Dr. A.C. Croft Page 21 of 22

- 317. Croft AC: Orthoses for the thoracic and lumbar spine. San Diego County Chiropractic Society Bulletin, 10(12): 5-18, December, 1988.
- 318. Croft AC: Causalgia. San Diego County Chiropractic Society Bulletin, 11(1): 5-18, January, 1989.
- 319. Croft AC: Orthopaedics Quiz #3. San Diego County Chiropractic Society Bulletin, 11(3): 5-14, March, 1989.
- 320. Croft AC: Aspirin and other nonsteroidal anti-inflammatory drugs (NSAIDs). San Diego County Chiropractic Society Bulletin, 11(4): 5-15, April, 1989.
- 321. Croft AC: Diagnosis revisited. San Diego County Chiropractic Society Bulletin, 11(5): 5-14, May, 1989.
- 322. Croft AC: Diagnostic frequency in chiropractic medicine. San Diego County Chiropractic Society Bulletin, 11(6): 5-12, June, 1989.
- 323. Croft AC: Orthopaedic Quiz #4. San Diego County Chiropractic Society Bulletin, 11(7): 5-14, July, 1989.
- 324. Croft AC: Surface electrode EMG (SEMG): clinical applications. San Diego County Chiropractic Society Bulletin, 11(8): 5-8, August, 1989.
- 325.Croft AC: Traffic accident statistics: an update. San Diego County Chiropractic Society Bulletin, 11(10): 5, October, 1989.
- 326.Croft AC: Myofascial Pain Syndromes. San Diego County Chiropractic Society Bulletin, 11(11): 5-14, November, 1989.
- 327. Croft AC: Headache and the cervical spine. San Diego County Chiropractic Society Bulletin, 11(12): 5-10, December, 1989.
- 328.Croft AC: A question of authority (editorial). San Diego County Chiropractic Society Bulletin, 4(1): 5-19, January, 1990.
- 329. Croft AC: Carpal tunnel syndrome and the double crush phenomenon. San Diego County Chiropractic Society Bulletin, 4(3): 5-11, March, 1990.
- 330.Croft AC: Human considerations in the biomechanics of cervical acceleration/deceleration injuries. *San Diego County Chiropractic Society Bulletin*, 4(4): 5-11, April, 1990.
- 331.Croft AC: Chiropractic manipulation: Magic bullet or ricochet? San Diego County Chiropractic Society Bulletin, 4(6): 5-8, June, 1990.
- 332.Croft AC: No retakes on these tests: an editorial. *San Diego County Chiropractic Society Bulletin*, 4(8): 5-8, August, 1990.
- 333.Croft, AC: Carpal tunnel syndrome and the double crush phenomenon. *Chiro Currents*, (reprinted with permission), Marin County Chiropractic Society Newsletter, May, 1991.
- 334.Croft AC: CAD and ADL: inseparable acronyms. *California Chiropractic Association* (Citrus Society), 6, July, 1992.
- 335.Croft AC: Mechanisms of spinal pain. *Digest of Chiropractic Economics*, 35(2): 18-21, 1992, (reprinted with permission).
- 336.Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part II: electromyography (EMG). *Santa Barbara Chiropractic Society Bulletin*, 6(6): 2-3, 1993.
- 337. Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part III: surface electromyography (SEMG). *Santa Barbara Chiropractic Society Bulletin*, 6(7):3, 1993.
- 338.Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part IV: nerve conduction velocity (NCV). San Diego Chiropractor, September, 1993.
- 339. Croft AC: Electrodiagnostic aids in peripheral neuropathy. Part V: somatosensory evoked potentials (SEP). San Diego County Chiropractic Society, 6(8): 2, October, 1993.
- 340.Croft AC: CAD injuries: new studies, same results. Santa Barbara Chiropractic Society Bulletin 6(11):2, 1993.
- 341. Haneline MT, Croft AC: New data on whiplash associated disorders in children. *Trial Talk* 50(4):18-20, 2001.
- 342. Croft AC: (Editorial), in Ask the Doctor, Chiropractic Wellness & Fitness Magazine 3(6):4, 2003.
- 343. Croft AC: In personal injury, the stakes are high. *The Specialist* 51-53, November, 2006.
- 344. Croft AC: Child seats—booster seats. New Jersey Chiropractor 4(2):22, 2008.
- 345. Croft AC: Brand yourself as a car-injury expert. Chiropractic Economics 54(10):49-51, 2008.
- 346.Croft AC: Stroke Risk from CMT? is the Pressure Finally Off? *California Chiropractic Association Journal* 33(4): 10-11, 2008.
- 347.Croft AC: Thinking outside the chiropractic table. *Oregon Chiropractic Association Journal*, Spring, 16-17, 2009.

Curriculum Vitae, Dr. A.C. Croft Page 22 of 22

Updated April 9, 2019

FEE SCHEDULE AND RETAINER AGREEMENT (Effective March 2017)

Arthur C. Croft, Ph.D., D.C., M.Sc., M.P.H. arthur.croft59@gmail.com

826 Orange Avenue, # 633 Coronado, CA 92118 Phone: (619) 423-9867 Fax: (619) 423-3084 Cell: (619) 410-1385

TAX ID: 61-1508014

Fees are payable on a 30 day net basis. Liens are not accepted.

Hourly Rate	\$ 400.00/hour
Biomechanical Analysis	
May include MADYMO or other computer simulation when applicable.	\$400.00/hr
Accident Reconstruction	
Reconstructions usually include 3D reconstructions using <i>PC Crash</i> .	\$400.00/hr
Animations and Exhibit Production	
By arrangement.	\$400.00/hr
Retainer	
Retainer is non-refundable and is to be replenishable.	\$5000.00
Deposition	
Deposition	\$ 1000.00/hour
Travel time	\$400.00/hour
Unpaid portions of depositions shall be the responsibility of the party initially hiring Dr. Croft.	
Arbitration/Court/Video testimony	
Arbitration/court/video testimony in the city of San Diego.	\$ 1000.00/hour
Out of State Venues	
Full day charge will be fixed regardless of activity. This would include a full travel day with overnight hotel stay.	\$7000/day
Pretrial Preparation	
Includes literature searches, preparation of exhibits, models, or diagrams, telephone conversations with other physicians, attorneys, or the patient.	\$ 400.00/hour
Weekends or Holidays	
For emergency work, weekends, or holidays, all fees will be charged at 150% or as otherwise arranged.	
Travel	

We will arrange coach air travel to be reimbursed on a 30-day net basis or as otherwise arranged. Reasonable ground transportation and miscellaneous expenses submitted with receipts (bus, taxi, shuttle, parking, meals, phone, faxes, etc.) to be billed on a 30-day net.	
Interest	
On unpaid balance after expiration of 30-day net after billing date.	2% per month will accrue.
Designation	
 Dr. Croft is qualified to testify in the following capacities: Chiropractic Orthopaedist Trauma Epidemiologist Biomechanist Accident Reconstructionist Motor Vehicle Crash Test Researcher 	

Attorney acknowledges and agrees to retain Dr. Arthur C. Croft on the terms set forth above. By executing below, Attorney retains Dr. Arthur C. Croft. Dr. Croft makes no representations or guarantees as to the outcome of any matter on which he is retained. The fees shall ultimately be the responsibility of the attorney signing below. In the event of a suit to enforce the terms of this agreement the prevailing party shall be entitled to all reasonable attorney fees and costs. Please sign below and return a signed copy to the office of Dr. Arthur Croft.

Datad: Attamay Signatura:	Client Name	Attorney Name	
Dated. Auomey Signature.	Dated:	Attorney Signature:	

TESTIFYING MISTORY | Arthur C. Croft, Ph.D., D.C., M.Sc., M.P.H., F.A.C.O.

Names	Date	Туре	Venue	Туре
Plaintiff: Kathleen K. Leonard, MD Attorney: Katie Rogers	3-29-2006	D	Tucson, Arizona	Personal injury
Plaintiff: Michel Stekol Attorney: Alex Gelman	4-20-2006	D	Carlsbad, CA	Personal injury
Plaintiff: Kenneth Beaver Attorney: Alex Gelman	7-21-2006	D	San Diego, CA	Personal injury
Plaintiff: Kenneth Beaver Attorney: Alex Gelman	8-8-2006	BA	Santa Ana, CA	Personal injury
Plaintiff: Elton Lowry Attorney: Steinberg	9-29-2006	D	San Diego, CA (Texas case)	Personal injury
Plaintiff: Karen Cruz-Dirkson Attorney: Steven Zwick	12-11-2007	D	San Diego, CA	Personal Injury
Plaintiff: Hornsby, Scott and Tammy Attorney: Timothy Price	3-13-2008	D	San Diego, CA (Texas case)	Personal Injury
Plaintiff: Robert Bowers Attorney: Mariano Moralez	3-20-2008	Т	Yakima, Washington	Personal injury
Plaintiff: Karen Cruz-Dirkson Attorney: Steven Zwick	7-21-2008	A	Santa Ana, CA	Personal injury
Plaintiff: Juan Morales Attorney: John Velasquez	8-12-2008	Т	San Diego, CA	Personal Injury
Plaintiff: Andrea Kessler Attorney: Robert Gerard; James Parziale	9-24-2008	D	San Diego, CA	Personal injury
Plaintiff: Andrea Kessler Attorney: Robert Gerard; James Parziale	10-12-2008	BA	San Diego, CA	Personal injury
Plaintiff: Linda Lassiter Attorney: Donald Bayles	1-7-2009	A	Flagstaff, AZ	Personal Injury
Plaintiff: Jorge Gomez-Muniz Attorney: John Velasquez	2-6-2009	D	San Diego, CA	Personal Injury
Plaintiff: Robertson vs. Thomas Attorney: Greg Gibson	3-18-09	D	San Diego, CA (Ohio case)	Medical malpractice
Plaintiff: Carole Murphy Attorney: Brandon Casey	6-3-2009	Т	Spokane, Washington	Personal Injury
Plaintiff: Robert Hayner Attorney: Kenneth Ruttenberg	9-18-2009	D	Santa Ana, CA	Personal Injury
Plaintiff: Carlos Solis Attorney: Edward Babbitt	9-29-2009	D	San Diego, CA	Personal Injury

$2\mid_{\text{Testifying flistory}}$

Plaintiff: Robert Hayner Attorney: Kenneth Ruttenberg	10-1-2009	Т	Santa Ana, CA	Personal Injury
Plaintiff: Keith Gallaugher Attorney: Randy Taradash	10-13-2009	D	San Diego, CA	Personal injury
Plaintiff: Rene Karnes Attorney: Richard Salvatore	10-29-2009	D	San Diego, CA	Personal injury
Plaintiff: Filomena White Attorney: Russell Kohn	11-2-2009	D	San Diego, CA	Personal injury
Plaintiff: Carlos Solis Attorney: Edward Babbitt	1-11-2009	Т	Vista, CA	Personal Injury
Plaintiff: Randall Green Attorney: Robert Schroth, Jr.	1-26-2010	D	San Diego, CA	Personal Injury
Plaintiff: Jose Ayala Attorney: Lawrence Einhorn	8-3-2010	D (part 1)	Oakland, CA	Personal Injury
Plaintiff: Jose Ayala Attorney: Lawrence Einhorn	8-12-2010	D (part 2)	Oakland, CA	Personal Injury
Plaintiff: Emanuel Rodriguez Attorney: Wes Seegmiller	10-7-2010	D	San Diego, CA	Personal Injury
Plaintiffs: Michael Summers & Ector Sepulveda Attorney: George de la Flor	12-1-2010	Т	Santa Ana, CA	Personal Injury
Plaintiff: Stafford Griffin, Jr. Attorney: R. Deryl Edwards, Jr.	1-11-2011	Т	Carthage, MO	Personal Injury
Plaintiff: Maria Paculan Attorney: William Seegmiller	2-7-2011	D	San Diego, CA	Personal Injury
Plaintiff: Raymond Jenson Attorneys: Alex Scheingross and James Brown	2-22-2011	T	San Diego, CA	Personal Injury
Plaintiff: Allstate Ins. Co. Attorney: Kenneth Stein	2-25-2011	D	San Diego, CA	Complex
Plaintiff: Stephen Wilson Attorney: Stephen Eisenberg	3-13-2011	D	San Diego, CA	Personal Injury
Plaintiff: Paul Iverson Attorney: Brian Riley	4-15-2011	D	Rancho Bernardo, CA	Personal Injury
Plaintiff: Kellie Thompson Attorney: April Blackman	5-9-2011	D	San Diego, CA	Personal Injury
Plaintiff: Fleck Attorney: Nolan	7-5-2011	D	San Diego, CA	Personal Injury
Plaintiff: Donna Reichart Attorney: Alex Scheingross	7-6-2011	D	San Diego, CA	Personal Injury
Plaintiff: Roger Britt Attorney: Jason Peck	7-7-2011	D	San Diego, CA	Personal Injury
Plaintiff: Sang Slayton Attorney: Douglas Dykes	7-21-2011	D	San Diego, CA	Personal Injury

$3\mid$ Testifying History

Plaintiff: Charles, Sr., and Emily Brzezinski Attorney: Rocky Copely	8-23-2011	Т	San Diego, CA	Personal Injury
Plaintiff: Heekyung Victoria Cox Attorney: Benjamin Cloward	9-28-2011	D	San Diego, CA	Personal Injury
Plaintiff: Alan Bell Attorney: Scott Lazar	10-4-2011	D	San Diego, CA	Personal Injury
Plaintiff: Sergio Cejudo Attorney: Russell Kohn	10-5-2011	A	San Diego, CA	Personal Injury
Plaintiff: Philip Roberts Attorney: Don Chaney	11-7-2011	D	San Diego, CA	Personal Injury
Plaintiff: Charles Brzezinski Attorney: Rockey Copeley	11-30-2011	Т	San Diego, CA	Personal Injury
Plaintiff: Donna Reichart Attorney: James Brown	12-14-2011	D	San Diego, CA	Personal Injury
Plaintiff: Harding Estate Attorney: Doc Blanchard	12-28-2011	D	San Diego, CA	Personal Injury
Plaintiff: Christopher Tran Attorney: Jeff Lauridsen	1-4-2012	D	San Diego, CA	Personal Injury
Plaintiff: Emanuel Rodriguez Attorney: Wes Seegmiller	1-19-2012	Т	Bakersfield, CA	Personal Injury
Plaintiff: Arthur Jacobsen Attorney: Jonathan Hicks	2-9-2012	D	San Diego, CA	Personal Injury
Plaintiff: Irene Nybert Attorney: Peter Anderson	3-23-2012	Т	Fort Collins, CO	Personal Injury
Plaintiff: Christopher Tran Attorney: Tuan Ho	4-19-2012	Т	Santa Ana, CA	Personal Injury
Plaintiff: Widow, James Harding Attorney: Dock Blanchard	5-15-2012	D	San Diego, CA	Fatal MVC
Plaintiff: Melissa Ramirez Attorney: William Seegmiller	5-16-2012	D	San Diego, CA	Personal injury
Plaintiff: Schneider, Janet Attorney: Brandon Casey	6-22-2012	T	Spokane, WA	Personal Injury
Plaintiff: Semel, David Attorney: Benjamin Cloward	6-19-2012	D	San Diego, CA	Personal Injury
Plaintiff: Allstate Insurance Defendants: Plambeck et al. Attorney: Ken Stein	7-19-2012	D	San Diego, CA	Complex
Plaintiff: Paula Barry Attorney: Alison Brazier	7-20-2012	D	San Diego, CA	Personal injury
Plaintiff: Laura Carrillo Attorney: Michael Sayre	8-2-2012	D	San Diego, CA	Personal injury

4 | TESTIFYING HISTORY

Plaintiff: Peter Burke Attorney: Casey Kaufman	8-8-2012	D	San Francisco, CA	Personal injury
Plaintiff: Rebecca Magruder Attorney: Alison Brasier	8-21-2012	D	San Diego, CA	Personal Injury
Plaintiff: Farhad Arjang Attorney: King Aminpour	11-1-2012	D	San Diego, CA	Personal Injury
Plaintiff: Margaret Seastrand Attorney: Alison Brasier	11-28-2012	D	San Diego, CA	Personal injury
Plaintiff: [Family of] Marlene Resendiz- Cuevas Attorney: James Mitchell	1-16-2013	D	Encinitas, CA	Ped vs. car fatality
Plaintiff: Barbra Buggy Attorney: Patrick Hosey	2-20-2013	D	San Diego, CA	Personal injury
Plaintiff: Barbra Buggy Attorney: Patrick Hosey	2-28-2013	Т	San Diego, CA	Personal injury
Plaintiff: Diana Sheridan Attorney: Kristian Soholm	3-1-2013	D	San Diego, CA	Personal injury
Plaintiff: Deanna Franco Attorney: David Wall	3-5-2013	D	San Diego, CA	Personal injury
Plaintiff: Allstate Insurance Defendants: Plambeck et al. Attorney: Ken Stein; Mark Werbner	3-25-2013	Т	Dallas, TX	Federal Court
Plaintiff: Chris Munier Attorney: Ed Meara	4-17-2013	D	San Diego, CA	Personal injury
Plaintiff: Shawna Blazok Attorney: Juan Ordaz	4-30-2013	D	San Diego, CA	Personal injury
Plaintiff: Valerie Grishy Attorney: Donna Eyman	5-14-2013	D	San Diego, CA	Personal injury
Plaintiff: Margaret Seastrand Attorney: Alison Brazier	5-22-2013	D	San Diego, CA	Personal injury
Plaintiff: Frank Pabst Attorney: Ed Meara	6-14-2013	D	San Diego, CA	Personal injury
Plaintiff: Margaret Seastrand Attorney: Benjamin Cloward	7-16-2013	Т	Las Vegas, NV	Personal injury
Plaintiff: Scala Family Attorney: Timothy Stearns	8-6-2013	D	San Diego, CA	Personal injury
Plaintiff: Norma Litke Attorney: Brad Myers	8-21-2013	D	San Diego, CA	Personal injury
Plaintiff: Norma Litke Attorney: Brad Myers	8-21-2013	D	San Diego, CA [Las Vegas, NV]	Personal injury
Plaintiff: Valerie Grishy Attorney: Donna Eyman	1-28-2014	Т	San Diego, CA	Personal Injury
Plaintiff: Nathaniel Nieto Attorney: Ed Meara	2-20-2014	D	San Diego, CA	Personal Injury

$5 \mid$ Testifying History

Plaintiff: Kenneth Wilson Attorney: J.M. Vallee	3-17-2014	D	San Diego, CA	Personal Injury
Plaintiff: Maria Rodriguez Attorney: Alison Brazier	5-13-2014	D	San Diego, CA [Las Vegas, NV]	Personal Injury
Plaintiff: Clemencia Robles Attorney: Eugene Bruno	6-3-2014	Т	San Diego, CA	Personal Injury
Plaintiff: Kelly Madge Attorney: Thomas Woelfel	6-4-2014	D	Walnut Creek, CA	Personal Injury
Plaintiff: Maria Edwards Attorney: R. Bruce Arnold	7-3-2014	D	San Diego, CA	Personal Injury
Plaintiff: Silvia Ruelas Attorney: Lawrence Ruiz	7-22-2014	D	San Diego, CA [Las Vegas, NV]	Personal Injury
Plaintiff: Maria Edwards Attorney: R. Bruce Arnold	7-30-2014	Т	San Diego, CA	Personal Injury
Plaintiff: Joseph Lettrick Attorney: Ned Stratton	8-1-2014	D	San Diego, CA [Kennewick, WA]	Personal Injury
Plaintiff: Angel Rosa Attorney: Hyram Montera	8-4-2014	D	San Diego, CA [Ft. Lauderdale, FL]	Personal Injury
Plaintiff: Laton Jackson Attorney: Sheldon Rosenfield	9-9-2014	D	San Diego, CA [Los Angeles, CA]	Personal Injury
Plaintiff: Philip Roberts Attorney: Taylor Chaney	9-30-2014	D	San Diego, CA [Little Rock, AK]	Personal Injury
Plaintiff: Joseph Lettrick Attorney: Ned Stratton	10-7-2014	Т	Kennewick, WA	Personal Injury
Plaintiff: Peter Schatzberg Attorney: Andrew Baratta	12-2-2014	D	Philadelphia, PA	Personal Injury
Plaintiff: Lee Matson Attorney: Jared Anderson	1-8-2015	D	San Diego, CA [Los Vegas, NV]	Personal Injury
Plaintiff: Carol Henson Attorney: Michael K. Bush	3-31-2015	Т	Davenport, IA	Personal Injury
Plaintiff: Rojas family Attorney: Brett A. Carter	6-2-2015	D	San Diego, CA [Las Vegas, NV]	Personal Injury
Plaintiff: Todd Barborek Attorney: Timothy J. Casey	6-10-2015	Т	Phoenix, AZ	Personal Injury
Plaintiff: Shalene Anderson Attorney: Tab Artis	7-8-2015	Т	Los Angeles, CA	Personal Injury
Plaintiff: David Smith Attorney: Timothy Stearns	8-18-2015	Т	Yreka, CA	Personal Injury
Plaintiff: Kendra Leisey Attorney: Christian M. Morris	8-24-2015	D	San Diego, CA [Henderson, NV]	Personal Injury
Plaintiff: DeJeane Henderson Attorney: Andrew Wright	9-10-2015	D	Irvine, CA	Personal Injury

$6 \mid \textit{Testifying flistory}$

Plaintiff: Kathy Shiets Attorney: Florence Murray	9-16-2015	Т	Sandusky, OH	Personal Injury
Plaintiff: Carmellos Williams Attorney: Bryan Boyack	11-5-2015	D	San Diego, CA	Personal Injury
Plaintiff: Mery Cohen Attorney: Ramon Rubio	1-15-2016	D	San Diego, CA	Personal Injury
Plaintiff: Susana Villigran Attorney: Thomas Feher	1-29-2016	D	San Diego, CA	Personal Injury
Plaintiff: David Andrien Attorney: Andrew Wright	2-1-2016	D	Orange County, CA	Personal Injury
Plaintiff: Susana Villigran Attorney: Thomas Feher	3-3-2016	Т	Los Angeles, CA	Personal Injury
Plaintiff: Paul Woodrome Attorney: Todd Slaughter	3-17-2016	D	Redding, CA	Personal Injury
Plaintiff: Greg Hansen Attorney: Frank Lozoya	3-31-2016	D	Encino, CA	Personal Injury
Plaintiff: Maurice Schnitzer Attorney: Dana Oswalt	4-13-2016	D	San Diego, CA	Personal Injury
Plaintiff: Andrea Cascio Attorney: Dan Delesandro	4-14-2016	D	San Diego, CA	Personal Injury
Plaintiff: Paul Woodrome Attorney: Todd Slaughter	4-19-2016	Т	Redding, CA	Personal Injury
Plaintiff: Adrienne Johnson-Taylor Attorney: Adrianos Faccetti	4-22-2016	D	San Diego, CA	Personal Injury
Plaintiff: Ronnie Bonaparte Attorney: Brandon Simon	4-28-2016	D	San Diego, CA	Personal Injury
Plaintiff: Denise Barnes Attorney: Adam Ganz	4-29-2016	D	San Diego, CA	Personal Injury
Plaintiff: Marieanne Marcos Attorney: Thomas Feher	5-10-2016	D	Seal Beach, CA	Personal Injury
Plaintiff: Michael Shine Attorney: John Shannon	5-16-2016	D	San Diego, CA	Personal Injury
Plaintiff: Joseph Simmons Attorney: Ramon Rubio	6-8-2016	D	San Diego, CA	Personal Injury
Plaintiff: Chelsea Sena Attorney: Thomas Feher	6-16-2016	D	Santa Ana, CA	Personal Injury
Plaintiff: Francisco Rodriguez-Alvarez Attorney: Kimberly Valentin	6-20-2016	D	San Diego, CA	Personal Injury
Plaintiff: Maria Brown Attorney: Andrew Wright	7-1-2016	D	San Juan Capistrano, CA	Personal Injury
Plaintiff: Joseph Bubonic Attorney: Thomas Feher	7-28-2016	D	Hermosa Beach, CA	Personal Injury
Plaintiff: Chelsea Sena Attorney: Thomas Feher	8-11-2016	Т	Los Angeles, CA	Personal Injury

$7\mid_{\text{Testifying History}}$

Plaintiff: Meghan Werner Attorney: Florence Murray	8-17-2016	T	Sandusky, OH	Personal Injury
Plaintiff: Lori Triplett Attorney: Daniel Kramer	8-19-2016	D	San Diego, CA	Personal Injury
Plaintiff: Syieda Rasheed Attorney: Steven Mazza	8-29-2016	D	Carlsbad, CA	Personal Injury
Plaintiff: Kaitlyn Helmers Attorney: Conrad Meis	8-30-2016	D	San Diego, CA	Personal Injury
Plaintiff: Joseph Bubonic Attorney: Thomas Feher	9-15-2016	Т	Santa Ana, CA	Personal Injury
Plaintiff: Maria Diaz Attorney: Mauro Fiore, Jr.	10-10-2016	D	San Diego, CA	Personal Injury
Plaintiff: Carmen Jimenez Attorney: Greyson Goody	10-13-2016	D	Irvine, CA	Personal Injury
Plaintiff: Lori Triplett Attorney: Daniel Kramer	10-17-2016	Т	Santa Monica, CA	Personal Injury
Plaintiff: Howard Crum Attorney: R. Michael Shickish	10-18-2016	D	San Diego, CA	Personal Injury
Plaintiff: Carmen Jimenez Attorney: Greyson Goody	10-24-2016	Т	Los Angeles, CA	Personal Injury
Plaintiff: Hilda Fiore Attorney: Mauro Fiore, Jr.	10-28-2016	D	Monrovia, CA	Personal Injury
Plaintiff: Jocelyn Cascioli Attorney: Martin Kanarek	11-16-2016	D	San Diego, CA	Personal Injury
Plaintiff: Jocelyn Cascioli Attorney: Martin Kanarek	12-5-2016	Т	Santa Ana, CA	Personal Injury
Plaintiff: Maria Brown Attorney: Andrew Wright	12-9-2016	Т	Chatsworth, CA	Personal Injury
Plaintiff: Sonia Nelson Attorney: Araksya Boyadzhyan	1-3-2017	D	Costa Mesa, CA	Personal Injury
Plaintiff: Shelly Fin Attorney: Deon Goldschmidt	1-18-2017	D	San Diego, CA	Personal Injury
Plaintiff: Sonia Nelson Attorney: Araksya Boyadzhyan	1-26-2017	Т	San Bernardino, CA	Personal Injury
Plaintiff: Lisa Faulkner Attorney: Brad Lakin	2-7-2017	D	San Diego, CA	Personal Injury
Plaintiff: Jose Melendez Attorney: Andrew Wright	2-17-2017	D	Seal Beach, CA	Personal Injury
Plaintiff: Shelly Fin Attorney: Deon Goldschmidt	2-21-2017	Т	San Diego, CA	Personal Injury
Plaintiff: James Tighe Attorney: Joseph Low, III	3-6-2017	D	Carlsbad, CA	Personal Injury
Plaintiff: Richard Tormos Attorney: Christian Morris	3-9-2017	D	San Diego, CA	Personal Injury

Plaintiff: Antonia Amezcua				Personal
Attorney: Brandon Simon	3-20-2017	D	San Diego, CA	Injury
Plaintiff: Ganiyu Anyanyemi Attorney: Mauro Fiore, Jr.	3-10-2017	D	San Diego, CA	Personal Injury
Plaintiff: Lisa Faulkner Attorney: Brad Lakin	3-11-2017	Т	Phoenix, AZ	Personal Injury
Plaintiff: Brian Gray Attorney: Kurt Anderson	3-13-2017	D	San Diego, CA	Personal Injury
Plaintiff: Vincente Chavez-Castillo Attorney: Daniel Ryan	3-27-2017	D	San Diego, CA	Personal Injury
Plaintiff: Ana Talisay Attorney: Brent Caldwell	5-8-2017	D	Huntington Beach, CA	Personal Injury
Plaintiff: Charles Prater Attorney: Anthony Ashby	5-11-2017	D	San Diego, CA	Personal Injury
Plaintiff: Jorge Perez Attorney: Daniel Benji	5-22-2017	D	Irvine, CA	Personal Injury
Plaintiff: Shakira Booth Attorney: Kevin Retoriano	6-8-2017	D	San Diego, CA	Personal Injury
Plaintiff: Carmen Jimenez Attorney: Greyson Goody	7-11-2017	A	Los Angeles, CA	Personal Injury
Plaintiff: Christopher Calvi Attorney: Barry Sherman	7-20-2017	D	Costa Mesa, CA	Personal Injury
Plaintiff: Jamie Funn Attorney: Aaron Steigler	8-7-2017	D	San Diego, CA	Personal Injury
Plaintiff: Magdi Youssef Attorney: Joseph Chu	8-16-2017	D	Costa Mesa, CA	Personal Injury
Plaintiff: Hilda Flores Attorney: Matthew Joy	8-17-2017	D	Costa Mesa	Personal Injury
Plaintiff: Tania Fraser Attorney: Alison Brasier	8-23-2017	D	San Diego, CA	Personal Injury
Plaintiff: Kaitlin Cullum Attorney: Steven Lipscomb	9-6-2017	D	San Diego	Personal Injury
Plaintiff: Robin Smithey Attorney: Steve Shewry	9-20-2017	D	San Diego, CA	Personal Injury
Plaintiff: Denice McDaniel Attorney: David Gluth	10-10-2017	D	San Diego, CA	Personal Injury
Plaintiff: Kizzie Stampley Attorney: Jeff Watson	10-26-2017	D	San Diego, CA	Personal Injury
Plaintiff: Gina Bass Attorney: Jayme Simpson	12-20-2017	D	San Diego, CA	Personal Injury
Plaintiff: Maria Contreras Attorney: Paul Traina	1-5-2018	D	Irvine, CA	Personal Injury
Plaintiff: Kenya Zimmerman Attorney: Daniel Ryan	1-9-2018	D	San Diego, CA	Personal Injury
	•			

$9\mid_{\text{Testifying History}}$

Plaintiff: Pruneda-Alvarez Hernandez Attorney: Adam Williams	1-22-2018	D	Via telephone	Personal Injury
Plaintiff: Peter Hansen Attorney: Tamara Nelson, Peter Steilberg	2-1-2018	D	Seattle, WA	Civil litigation
Plaintiff: William Simao Attorney: Robert Adams	2-6-2018	D	San Diego, CA	Personal Injury
Plaintiff: Jared Gagnon-Palick Attorney: Jesse Blocher	2-15-2018	D	San Diego, CA	Personal Injury
Plaintiff: Lydia Farris Attorney: Sean Claggett, William Sykes	2-16-2018	D	San Diego, CA	Personal Injury
Plaintiff: Kenya Zimmerman Attorney: Daniel Ryan	2-21-2018	D	San Diego, CA	Personal Injury
Plaintiff: Leonard Stavroposkiy et al. Attorney: Andrew Baratta	2-27-2018	D	Philadelphia, PA	Civil litigation
Plaintiff: William Simao Attorney: Robert Adams	3-6-2018	D	San Diego, CA	Personal Injury
Plaintiff: Sandra Gomez Attorney: Jamie Cogburn, Erik Fox	3-8-2018	D	San Diego, CA	Personal Injury
Plaintiff: Debra Siegfried Attorney: Joseph Troiano	3-12-2018	D	San Diego, CA	Personal Injury
Plaintiff: Enrique Garcia-Lopez Attorney: Ramzy Ladah	3-15-2018	D	San Diego, CA	Personal Injury
Plaintiff: Patricia Denman Attorney: Jesse Blocher	4-17-2018	D	San Diego, CA	Personal Injury
Plaintiff: Bo McCarthy Attorney: Sassan Mackay	4-30-2018	Т	Chatsworth, CA	Personal Injury
Plaintiff: Raquel Chavez Attorney: Stacey Cutting	5-10-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Portillo Attorney: Gilbert Perez III	5-16-2018	D	Irvine, CA	Personal Injury
Plaintiff: Ashley Chelonis Attorney: Harry Nalbandyan	5-17-2018	D	San Diego, CA	Personal Injury
Plaintiff: Belizia Ranieri Attorney: Christie Palcisko	5-25-2018	D	San Diego, CA	Personal Injury
Plaintiff: Christopher Calvi Attorney: Barry Sherman	6-7-2018	Т	Bakersfield, CA	Personal Injury
Plaintiff: Kenneth Wheaton Attorney: William Sykes	6-15-2018	D	San Diego, CA	Personal Injury
Plaintiff: Danielle Zhang Attorney: Alex Scheingross	6-20-2018	D	San Diego, CA	Personal Injury
Plaintiff: Cheryl Woodard Attorney: Robert Wallenstein	6-25-2018	D	San Diego, CA	Personal Injury
Plaintiff: Eduardo and Martha Uvence Attorney: Adam Ganz	7-20-2018	D	San Diego, CA	Personal Injury

Plaintiff: Theresa Calianno				Personal
Attorney: Tracy Eglet	8-1-2018	D	San Diego, CA	Injury
Plaintiff: Ashley Chelonis Attorney: Harry Nalbandyan	8-6-2018	T	Los Angeles, CA	Personal Injury
Plaintiff: Jacqueline Garcia Attorney: Paul Powell	8-8-2018	D	San Diego, CA	Personal Injury
Plaintiff: John Forsman, Jr. Attorney: William Sykes	8-17-2018	D	San Diego, CA	Personal Injury
Plaintiff: Gabriela Pompa-Elias Attorney: Paul Powell	8-29-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Cohn Attorney: Michael Grieco	9-5-2018	D	San Diego, CA	Personal Injury
Plaintiff: Ariceli Ramirez-Brassetti and Orlando Acostia-Ruiz Attorney: Tracy Eglet	9-24-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nora Uribe Attorney: Paul Traina	9-26-2018	D	San Diego, CA	Personal Injury
Plaintiff: Lea Porter Attorney: Eric Bell	10-15-2018	D	Irvine, CA	Personal Injury
Plaintiff: Raquel Chavez Attorney: Stacey Cutting	10-17-2018	T	Ventura, CA	Personal Injury
Plaintiff: Daniel Yanes, Yaima Remirez- Alburquerque, Yoan Ofarrill Attorney: Bradley Myers	10-22-2018	D	San Diego, CA	Personal Injury
Plaintiff: Tricia Denman Attorney: Jesse Blocher	10-23-2018	D	San Diego, CA	Personal Injury
Plaintiff: Barbara and Michael Buckner Attorney: Elizabeth Do	10-25-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Fallon Attorney: L. DiPaul Marrer	11-30-2018	D	San Diego, CA	Personal Injury
Plaintiff: Nancy Cohn Attorney: Michael Grieco	12-7-2018	Т	Chicago, IL	Personal Injury
Plaintiff: David and Denise Lee Attorney: Todd Slaughter	1-3-2019	D	Redding, CA	Personal Injury
Plaintiff: Jack Orman Attorney: Babak Kheiri	1-10-2019	D	San Diego, CA	Personal Injury
Plaintiff: Lesly Joseph Attorney: Aaron Stiegler	1-17-2019	D	San Diego, CA	Personal Injury
Plaintiff: Amy Dowell Attorney: Babak Kheiri	1-22-2019	D	San Diego, CA	Personal Injury
Plaintiff: Gina Bass Attorney: Jayme Simpson	1-22-2019	D	San Diego, CA	Personal Injury
Plaintiff: David and Denise Lee Attorney: Todd Slaughter	1-24-2019	Т	Redding, CA	Personal Injury

11 | Testifying History

Plaintiff: Ranzan Madaev and Maria Madaeva Attorney: Kevin Conlogue	1-25-2019	D	San Diego, CA	Personal Injury
Plaintiff: Rogelio Regalado and Moraima Balderrama Attorney: Michael Kane	2-5-2019	D	San Diego, CA	Personal Injury
Plaintiff: Monik Ortega Attorney: Thomas Adams	2-6-2019	D	San Diego, CA	Personal Injury
Plaintiff: Teresa Barragan Attorney: Brandon Simon	2-8-2019	D	San Diego, CA	Personal Injury
Plaintiff: Mario Iglesias and Sandra Tolesano Attorney: Ramzy Ladah	2-19-2019	D	San Diego, CA	Personal Injury
Plaintiff: Grigor Iskanian Attorney: Jack Bazerkanian	2-25-2019	D	Irvine, CA	Personal Injury
Plaintiff: Carla and Derek Hultenius Attorney: Matthew Clendenin	3-4-2019	D	San Diego, CA	Personal Injury
Plaintiff: Case Walters Attorney: Michael Geoola	3-6-2019	D	San Diego, CA	Personal Injury
Plaintiff: Paige Baker Attorney: Aaron Brown	3-7-2019	D	San Diego, CA	Personal Injury
Plaintiff: Monick Ortega Attorney: Thomas Adams	3-18-2019	Т	San Bernardino, CA	Personal Injury
Plaintiff: Zarela Frias Attorney: Joseph Hough	3-19-2019	D	Irvine, CA	Personal Injury
Plaintiff: Courtney Griffith Attorney: Keith Galliher, Jr.	3-21-2019	D	San Diego, CA	Personal Injury
Plaintiff: Phillip Poli Attorney: Richard Englemann	3-25-2019	D	San Diego, CA	Personal Injury
Plaintiff: Shaun Phillips Attorney: Tracy Eglet	3-29-2019	D	San Diego, CA	Personal Injury
Plaintiff: Anne Nesman Attorney: Phillip Cooke	4-1-2019	D	San Diego, CA	Personal Injury
Plaintiff: Paige Baker Attorney: Aaron Brown	4-8-2019	Т	Van Nuys, CA	Personal Injury
Plaintiff: Donna Zimmerman Attorney: Todd Slaughter	4-10-2019	D(1)	Sacramento, CA	Personal Injury
Plaintiff: Anne Nesman Attorney: Phillip Cooke	4-16-2019	Т	Yuba City, CA	Personal Injury
Plaintiff: Joshua Humphrey Attorney: Erik Fox	4-19-2019	D	San Diego, CA	Personal Injury
Plaintiff: Donna Zimmerman Attorney: Todd Slaughter	5-7-2019	D (2)	San Diego, CA	Personal Injury

D=deposition
T=trial
A=arbitration
BA=binding arbitration
*T=video deposition in lieu of live trial testimony

Last updated on 5-25-2019

EXHIBIT 60

Expert VIN DeCoder®

Copyright© 1991-2010 Expert Witness Services, Inc. All Rights Reserved

Version Number 3.0.1

DeCoded VIN: JALC4w163E7002653

1984 Isuzu Motors LTD. Model Not Identified 1.6 L/100 cu.in. Engine Size: In-Line 4 cylinder with Overhead Cam Engine Description: 96 @ 5800 rpm Horse Power: 97 1b-ft at 3400 rpm Torque: Electronic Fuel Injection (EFI) Injection System: Ignition: electronic 35-42 psi PSI: Isuzu Manufacturer: <u>Fujisawa, Japan</u> Assembly Plant: This is a Rear Wheel Drive vehicle Drive Wheels:

The First through Third characters (JAL) indicate a Isuzu Motors LTD. Incomplete Vehicle - Medium Duty made in Japan

The Fourth character (C) indicates a GVWR of 4001-5000 lbs.

The Fifth and Sixth characters (4W) indicate a Model Not Identified

The Seventh character (1) indicates

The Eighth character (6) indicates the OEM engine: 1.6 L/100 cu.in., L4, OHC

The Ninth character (the check digit) is entered as 3.

The VIN appears Valid, the calculated value is 3.

The Tenth character (E) indicates the model year 1984

The Eleventh character (7) indicates the vehicle was made in the assembly plant in Fujisawa, Japan

The Twelfth through Seventeenth characters (002653) indicate the Serial Number and are unique to this vehicle.

EXHIBIT 61

2006-01-0067

The RID2 biofidelic rear impact dummy: a validation study using human subjects in low speed rear impact full scale crash tests. Neck injury criterion (NIC).

Arthur C. Croft

Spine Research Institute of San Diego; Southern California University of Health Sciences

Mathieu M.G.M. Philippens

TNO Science and Industry, Safety, Netherlands

Copyright © 2005 SAE International

ABSTRACT

Human subjects and the recently developed RID2 rear impact crash test dummy were exposed to a series of full scale, vehicle-to-vehicle crash tests to evaluate the biofidelity of the RID2 anthropometric test dummy on the basis of calculated neck injury criterion (NIC) values. Volunteer subjects, including a 50th percentile male, a 95th percentile male, and a 50th percentile female, were placed in the driver's seat of a vehicle and subjected to a series of three low speed rear impact crashes each. Both subjects and dummy were fully instrumented and acceleration-time histories were recorded. From this data, velocities of the heads and torsos were integrated and used to calculate the NIC values for both crash test subjects and the RID2. The RID2 dummy is designed to represent a 50th male. The overall performance and biofidelity of the RID2 compared most favorably to the human subject who was, himself, a 50th percentile male. Although the number of tests was small, the biofidelity of the RID2, in the context of the smaller female and larger male, was limited. The overall performance and biofidelity of the RID2 was reasonable when compared to the 50th percentile male volunteer. It is possible that under real world crash conditions, in which the occupant of the target vehicle is exposed to an unexpected impact, that their NIC values might be more comparable to those of the RID2, suggesting that its biofidelity could have been underestimated as a result of the alerted status of the crash test volunteers.

INTRODUCTION

Whiplash injury has become recognized as a significant public health problem in recent years (Spitzer et al., 1995). Some authors describe the minor neck or cervical spine injury resulting from any motor vehicle crash as whiplash. However, the risk for injury from the rear

impact vector crash has been widely reported as being higher than for other vector crashes (Bylund and Bjornstig, 1998, Borchgrevink et al., 1996, Borchgrevink et al., 1997, Krafft, 1998, Richter et al., 2000). The outcomes in rear impact crashes at low speeds have also been reported to be less favorable than those of frontal or other crash vectors (Krafft, 1998), and longterm disability, a term which has not been operationally defined in most studies, has been variously reported to be 2% (Gargan et al., 1997), 5% (Borchgrevink et al., 1996), 7% (Radanov et al., 1993, Gozzard et al., 2001), 8% (Pettersson et al., 1997), 10% (Nygren, 1984), 12% (Gargan and Bannister, 1990, Kasch et al., 2001a, Kasch et al., 2001b), 16% (Bylund and Bjornstig, 1998), and 24% (Ettlin et al., 1992). The incidence of whiplash injury and disability have been increasing in recent years (Richter et al., 2000, Holm et al., 1999, Richter et al., 1999, Galasko et al., 2000).

Although rear impact crashes represent a minority of crash types, accounting for only about 25% of all crashes, they represent a disproportionate risk for injury (Holm et al., 1999). This differential risk may be explained through human subject crash testing. In one study, the subjects' head linear accelerations were found to be markedly higher in rear impacts vs. frontal impact crashes with crash speeds and other variables held constant, and subjects rated these crashes markedly less tolerable than frontal crashes (Croft et al., 2002a). The fact that the largest group exposed to this form of trauma are persons between the ages of 20-40 years of age and disability in this group results in a high loss of productive years of life, and the fact that this is potentially a preventable injury (or at least one in which the risk can be greatly reduced) make research in this area a high public health priority.

In order to better understand the forces imposed during low speed rear impact crashes (LOSRIC), human subjects have been placed in vehicles under full scale crash conditions (Croft et al., 2002a, Severy et al., 1955,

PLT002974

West et al., 1993, Szabo et al., 1994, McConnell et al., 1993b, McConnell et al., 1995b, Szabo and Welcher, 1996, Siegmund et al., 1997, Brault et al., 1998, Croft et al., 2002b, Croft et al., 2002c). As in the case of higher speed crash tests, crash test dummies would be the preferable test subjects in low speed crashes. Unfortunately, the modern Hybrid III anthropometric test device (ATD) lacks adequate biofidelity to serve as a valid proxy for human subjects in the special application of LOSRIC and this has lead to the development of a series of specialized rear impact dummies (RID) (Svensson et al., 1993, Davidsson et al., 2001, Philippens et al., 2002, Cappon et al., 2000). Early attempts were simply to modify existing Hybrid III dummies by substituting a more supple neck, but the rigid thoracic spine rendered such Hybrid III's configurations impractical. It is clear from observation of human subject crash testing that, under direct loading from the seat back, the thoracic curve, which is normally kyphotic in humans, will be flattened. This was first observed by McConnell et al., 1993a, McConnell et al., 1995a) who reported the resulting vertical motion of the head (which is partially contributed to by a ramping up the seat back) to be as much as 3.5 inches. This flattening of the thoracic spine and vertical rise of the head is also associated with compression of the spine (Bertholon et al., 2000). It has been postulated that this type of loading can fracture cervical vertebral end plates and may be factor in some cases of chronic pain (Freeman et al., 2001). Vertical motion of the head will also alter the relative head restraint geometry by increasing the topset, Figure 1. Thus, a flexible thoracic spine is necessary in the rear impact dummy in order to improve its biofidelity by allowing some degree of torso flattening.

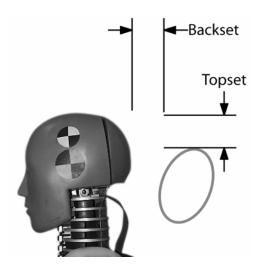


Figure 1. Critical head restraint geometry are described in terms of the horizontal distance between the head and restraint, *backset*, and the vertical distance from the top of the head to the top of the restraint, *topset*.

Svensson and Lövsund (Svensson and Lovsund, 1992) developed a new neck for use with the Hybrid III dummy—the RID neck—and validated it with previous human studies and impact testing. They tested three different neck stiffnesses and compared these to tests with the original Hybrid III neck, which was markedly more stiff. The purpose of this work by TNO (TNO Crash-Safety Research Centre, The Netherlands) was to develop a neck for the 50th percentile Hybrid III dummy to be used in rear impact simulations of up to 25.8 km/h. The TNO Rear Impact Dummy (TRID) Neck was an improvement, but still lacked a flexible thoracic spine, as the TRID neck was a replacement for the Hybrid III neck only.

The RID2 (First Technology Safety Systems, Plymouth, Michigan) has a fully mobile neck in all ranges, and a flexible thoracic spine with motion possible at one joint. Tests comparing the Hybrid III, BioRID, and RID2 have been conducted (Philippens et al., 2002, Zellmer et al., 2002, Cappon et al., 2000) and have generally found the BioRID and RID2 dummies to be comparable to each other and significantly more biofidelic than the Hybrid III for testing under LOSRIC conditions. However, these studies have not been conducted under real world boundary conditions (i.e., full scale low velocity vehicle-to-vehicle crash tests) with living human subjects and RID2 side-by-side.

A potential limitation to some of the validation studies that have been completed to date is that, in many case, seats and seat backs are sometimes purpose-built for the tests and might not be representative of real production car seats in terms of seat back stiffness, compliance, and overall restitutional behavior. One of the ultimate goals in crash testing is to develop a surrogate or proxy for human subjects which will allow testing under conditions which are not suitable for human subject testing (e.g., a high frequency of tests and/or high acceleration pulses) because of the health risks imposed. In order to develop such a device, it is necessary to validate the ATD against living human subjects within the boundary conditions for which the ATD is intended, and that was the goal of this study. Main Section

MATERIALS AND METHODS

All human subjects and the RID2 were instrumented for every test. Crash test vehicles were also instrumented. The subject's headgear array consisted of three triaxial blocks of IC Sensors 3031-050 (50 g) accelerometers tightly affixed to the head via a lightweight headband. Peripheral head acceleration measurements were resolved to the approximate head static center of gravity via an algorithm which utilized the locations of each triaxial block relative to known anatomical landmarks. A low profile triaxial block of thoracic accelerometers was constructed using two Entran EGAXT-50 (50 g) accelerometers and one IC Sensors 3031-050 (50 g) accelerometer. The accelerometers were affixed to the subjects with medical adhesive and tightly fitted straps at

the approximate level of C7-T1 on the anterior torso. For the lumbar measurements, a lightweight uniaxial IC Sensors 3031-050 (50 g) accelerometer was affixed with medical adhesive to the base of the subjects' lumbar spines at approximately the level of L5-S1. Target and bullet vehicle accelerometers consisted of a triaxial block of 3031-050 (gain adjusted to \pm 15 g full scale) accelerometers affixed with sheet metal screws to each vehicle's chassis at the approximate static center of gravity. Analog to digital conversion was performed by a 12-bit A/D converter operating with a maximum conversion rate of 330,000 samples per second. All data were collected following the general theory of Society of Automotive Engineers (SAE) Recommended Practice: Instrumentation for Impact Test—Part 1—Electronic Instrumentation—J211/1 Mar95. (SAE, 1996). All accelerometer data was collected at 1000 Hz. Vehicle accelerations were filtered using an SAE Class 60 filter. Vehicle changes in velocity were calculated from vehicle acceleration data filtered with an SAE Class 180 filter. Occupant accelerometer data was filtered with and SAE Class 60 filter. Vehicle speeds were also measured using an MEA 5th wheel (MacInnis Engineering Associates, Richmond, BC Canada) attached to each vehicle. Data were acquired at 128 Hz simultaneously for both vehicles for the period 1 sec before to 4 sec after impacts. Time traps for recording vehicle impact speed consisted of custom built Timer Interval Meter with internal clock calibrated to an NIST traceable source. The pressure sensitive tape switches were Tape Switch Corporation Type 102A, requiring 40 ounce pressure for activation. RID2 instrumentation consisted of triaxial head cg linear accelerometers, skull cap force transducer, a 6 component upper neck load cell, a 6 component lower neck load cell, T1-level triaxial linear accelerometers, T12-level triaxial accelerometers, triaxial pelvis linear accelerometers, and 6 inclinometers used for static positioning.

A total of 9 tests, consisting of three tests each with the RID2 as front seat passenger and a human volunteer as driver, were performed, Table 1. In each of the three tests series, accurate rear impact test speeds were facilitated using a trunk lid-mounted speedometer on the bullet vehicle which was fed by an MEA 5th wheel. The bullet vehicle was pushed by a practiced push team capable of speeds in excess of 16.2 km/h with reproducibility of +/- 0.3 km/h. In all 9 crash tests the bullet vehicle was a 1994 Ford Crown Victoria (1727 kg) and the target vehicle was a 1989 Chrysler Le Baron (1290 kg). Both vehicles were inspected for damage prior to and after each test. Neither vehicle sustained any significant residual structural damage in these 9 tests and no repairs were necessary to guarantee repeatability or reproducibility of crash conditions. In all tests, the human subject was instructed to place his/her foot on the brake using the same force as he/she would normally use in traffic, and were all allowed to assume their relaxed, normal seating posture. They were also instructed to keep their eyes open and to place their hands lightly on the steering wheel and not to grip it.

Summary of crashes				
Crash	Subj-	V _c (km/h)	delta V	
#	ects *		(km/h)	
1	DV	8.4	6.0	
2	DV	12.4	8.7	
3	DV	16.3	11.0	
4	AF	9.0	6.6	
5	AF	11.9	8.4	
6	AF	15.0	10.3	
7	RC	8.7	5.5	
8	RC	11.1	7.9	
9	RC	15.3	9.0	

* Human subjects were seated in driver's seat. RID2 ATD was in passenger seat in all tests.

Subject DV: 27-year-old male, 1.8 m in height, 81 kg (50th percentile male) Subject AF: 24-year-old female, 1.6 m in height, 56 kg (50th percentile female) Subject RC: 19-year-old male, 1.9 m in height, 109 kg (95th percentile male) In all cases the bullet vehicle was a 1994 Ford Crown Victoria and the target vehicle was a 1989 Chrysler Le Baron.

V_c: closing velocity delta V: change in velocity

Table 1.

The stationary target vehicle was placed in neutral with the motor turned off.

Selection/exclusion criteria for human subjects included a willingness to participate in low speed crash tests, no history of significant spinal pain or headaches, and no prior significant injuries to the spine. Each volunteer also was examined by a licensed physician to ensure their fitness for participation, and cervical spine range of motion was measured using a CROM device and recorded before and after the tests were completed. Radiographic studies were undertaken before and after all crash tests to insure volunteer safety.

Institutional review board approval was obtained. In all cases, participants were fully informed of the potential risks of crash testing, and consent for participation was obtained in full accordance with the Office for Protection from Research Risks (OPRR) of the Department of Health and Human Services, and the recommended Belmont Report. Subjects were interviewed after each test and were given the opportunity to terminate their participation at any time without penalty. The RID2 ATD was calibrated and repositioned prior to each test in accordance with the manufacturer's recommendations. In this paper, the SAE right hand coordinate system is used to represent vectors and motion paths. The proposed neck injury criterion considers the relative acceleration and velocity between the top and bottom of the spine and is given as (Croft et al., 2002c):

$$NIC = a_{rel} x 0.2 + v_{rel}^2$$
 Eq. (1)

where a_{rel} and v_{rel} are the relative horizontal acceleration and velocity between the bottom (T1) and top (C1) of the cervical spine. The constant, 0.2, represents the approximate length of the neck in meters. This equation accounts for what is now widely held to be one of the most important risk factors in LOSRIC injury—the retraction of the head (head lag) during the first 100 or so milliseconds of the crash sequence (Siegmund et al., 1997, Brault et al., 1998). The equation for NIC is calculated as follows:

NIC(t) =
$$a_{rel}(t)x0.2 + \left[V_{rel}(t)\right]^2$$

where $a_{rel}(t) = a_x^{T1}(t) - a_x^{Head}(t)$, Eq. (2-3)
and $V_{rel}(t) = \int a_x^{T1}(t)dt - \int a_x^{Head}(t)dt$

where a_x^{T1} = the acceleration-time history measured in the antero-posterior (x) direction at the level of the first thoracic vertebra in units of g. Likewise, a_x^{Head} = the acceleration-time history measured in the antero-posterior (x) direction at the location of the center of gravity of the head in units of g.

The integration of the acceleration (converted to m/s²) at the level of head center of gravity in the time domain, giving the velocity in the x-direction (resulting in units of m/s), is expressed by:

$$\int a_x^{Head}(t)dt$$
 Eq. (4)

The integration of the acceleration (converted to m/s²) of the first thoracic vertebra in the time domain, giving the velocity in the x-direction (resulting in units of m/s), is expressed by:

$$\int a_x^{T1}(t)dt$$
 Eq. (5)

RESULTS

No serious injuries were reported by the subjects and all subjects completed all three of their crash tests and all post-crash examinations. One female subject, however, did report mild neck discomfort and headache following the third test.

Overall, the comparison of the RID2 and 50th percentile human subjects' head linear (x) acceleration-time histories are quite good, **Figure 2**. In all cases, the RID2's acceleration was somewhat greater in both phases, but the morphology of the acceleration pulses was found to be generally good in this study. The NIC values of the RID2 and human subjects of the current study are provided in **Table 2**. These values are also plotted in **Figure 3**.

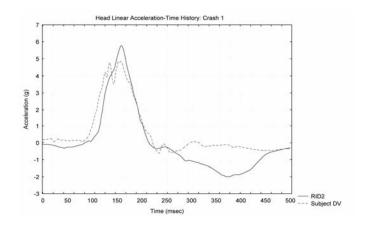


Figure 2. Exemplar acceleration time history comparison between RID2 and human subject. Both are 50th percentile males. The multiple peaks seen in the curve of the human subject are likely minor artifacts induced during the time of head contact with the head restraint resulting from relative motion between head and headgear. The lower negative acceleration of the human subject during the period between 250 and 450 msec is the result of muscle activation.

Neck Injury Criterion (NIC) (m ² /s ²)			
Crash	RID2	Human	Variation (%)
#		subject	
1	5.6	6.6	17.9
2	6.8	10.3	51.5
3	8.0	8.2	2.5
4	5.4	0.8	-85.2
5	9.1	3.2	-64.8
6	7.6	1.6	-79.0
7	5.2	3.0	-42.3
8	6.3	3.6	-42.9
9	8.1	4.7	-42.0

Table 2.

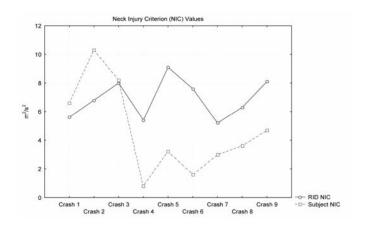


Figure 3. Plot of NIC values for RID2 and human subjects for all crash tests.

DISCUSION

The higher NIC values seen in subject DV in crashes 1-3, which averaged 24% higher than those of the RID2, may reflect the difference in compliance between the human and RID2 cervical spines. In crashes 4-6, subject AF had markedly lower NIC values than the RID2 (averaging 76.3% lower), probably as a function of her initially very low backset, which reduced the differential motion between the torso and head and which demonstrates how optimal head restraint geometry is a critical factor in reducing NIC values. In crashes 7-9, the 95th percentile male subject's (RC) NIC values parallel those of the RID2 but averaged 42.4 % lower, probably as a result of his larger mass. Generally, higher RID2 NIC values coincided with higher speed changes, with one exception. This is likely the result of subtle positioning variation of the RID2 between tests.

Overall, the RID2 performed adequately under crash conditions that are representative of real world crashes at low speeds. Peak linear x acceleration of the RID2 head was always higher than that of the human subjects, averaging 51% higher. The average RID2 head linear x acceleration was 31% higher than those of the 50th percentile male and female subjects. There are potential limitations with this kind of crash testing in terms of its external validity. Recent research has demonstrated that subject awareness alters the responses to staged crashes significantly, with later muscular activation recorded in both surprised male and female subject groups, higher amplitude muscular contraction in the male surprised group, and greater head retraction ranges in the female group compared to groups who were alerted to the impending event (Siegmund et al., 2003).

Thus, aware subjects of crash tests cannot be considered fully representative of the subgroup of real world crash victims who are unaware of the impending rear impact crash. Siegmund et al. (Siegmund et al., 2003) speculated that previous reports of clinical symptoms generated in crash test experiments may underestimate the risk of whiplash in real crashes. The scientific limitations of extrapolating risk estimates from these studies has been reported previously (Freeman et al., 1999). Taking these facts into consideration, the biofidelity overall might have underestimated by the current study. It is noteworthy that persons who report having been caught unaware of the impending rear impact crash are at greater risk of injury (Dolinis, 1997, Sturzenegger et al., 1994) and have been reported to have a significantly worse prognosis (Ryan et al., 1994).

As a result of the small number of tests that volunteers can be exposed to for safety reasons, and as a result of the practical limitation on the total number of tests that can be run and the small number of volunteers used, it is not possible to apply meaningful statistical analysis to this set of data. Other factors also limit the external validity of these tests. Many of the variables present in

real world crashes, such as offset crash conditions, bumper over- or under-ride, variations between relative masses of crashing vehicles, and the wide variety of seat back and head restraint designs and stiffnesses cannot be accounted for in small-scale crash test studies of this kind. Moreover, subjects were placed into ideal positions, with head restraints adjusted in their upright position, and all were healthy subjects who were both medically screened for known risk factors and were aware of the impending crash. Extrapolations regarding the risk for injury from this study to real world crashes cannot be made with any degree of reliability and should be discouraged..

CONCLUSION

The RID2 dummy is designed to represent a 50th male. The overall performance and biofidelity of the RID2 compared most favorably to the human subject who was, himself, a 50th percentile male. Its overall higher ranges of head acceleration and calculated NIC values compared to the human subjects were generally consistent and potentially explainable on the basis of pre-crash head restraint geometry and differences in body size between the RID2 and the three volunteers. It is possible that under real world crash conditions, in which the occupant of the target vehicle is exposed to an unexpected impact, their excursions and accelerations might be more comparable to those of the RID2. suggesting that its biofidelity could have been underestimated as a result of the alerted status of the crash test volunteers. This is a variable we cannot easily evaluate for practical and ethical reasons. Although the number of tests was small, the biofidelity of the RID2, in the context of the 50th percentile female and 95th percentile male, was limited.

ACKNOWLEDGMENTS

This research was made possible, in part, by a contribution from the Center for Research into Automotive Safety and Health (CRASH). We would like to thank First Technology Safety Systems, Plymouth, Michigan, for the use of the RID2 dummy.

REFERENCES

Bertholon, N., Robin, S., Le-Coz, J.-Y., Potier, P., Lassaue, J.-P., & Skalli, W. (2000, September 20-22). Human head and cervical spine behaviour during low-speed rear end impacts: PMHS sled tests with a rigid seat. Paper presented at the Proceedings of the International IRCOBI Conference on Biomechanics of Impacts, Montpelier France.

Borchgrevink, G. E., Lereim, I., Royneland, L., Bjorndal, A., & Haraldseth, O. (1996). National health insurance consumption and chronic symptoms following mild neck sprain injuries in car collisions. *Scand J Soc Med*, *24*(4), 264-271.

- Borchgrevink, G. E., Stiles, T. C., Borchgrevink, P. C., & Lereim, I. (1997). Personality profile among symptomatic and recovered patients with neck sprain injury, measured by MCMI-I acutely and 6 months after car accidents. *J Psychosom Res*, 42(4), 357-367.
- Brault, J. R., Wheeler, J. B., Siegmund, G. P., & Brault, E. J. (1998). Clinical response of human subjects to rear-end automobile collisions. *Arch Phys Med Rehabil*, 79(1), 72-80.
- Bylund, P. O., & Bjornstig, U. (1998). Sick leave and disability pension among passenger car occupants injured in urban traffic. *Spine*, 23(9), 1023-1028.
- Cappon, H. J., Philippens, M. M. G. M., van Ratingen, M. R., & Wismans, J. S. H. M. (2000, Sept 20-22). *Evaluation of dummy behaviour during low severity rear impact.* Paper presented at the International Research Council on the Biomechanics of Impact (IRCOBI) Conference, Montpellier, France.
- Croft, A., Haneline, M., & Freeman, M. (2002a). Differential Occupant Kinematics and Forces Between Frontal and Rear Automobile Impacts at Low Speed: Evidence for a Differential Injury Risk. International Research Council on the Biomechanics of Impact (IRCOBI), International Conference, Munich, German, September 18-20, 365-366.
- Croft, A., Haneline, M., & Freeman, M. (2002b, September 18-20). Differential occupant kinematics and forces between frontal And rear automobile impacts at low speed: evidence for a differential injury risk. Paper presented at the International IRCOBI Conference on the Biomechanics of Impact, Munich, Germany.
- Croft, A. C., Herring, P., Freeman, M. D., & Haneline, M. T. (2002). The neck injury criterion: future considerations. *Accid Anal Prev, 34*(2), 247-255.
- Davidsson, J., Lovsund, P., Ono, K., Svensson, M., & Inami, S. (2001). A comparison of volunteere, BioRID P3, and Hybrid III performance in rear impacts. *J Crash Prev Inj Control*, *2*(3), 203-220.
- Dolinis. (1997). Risk factors for 'whiplash' in drivers: a cohort study of rear-end traffic crashes. *Injury*, 28(3), 173-179.
- Ettlin, T. M., Kischka, U., Reichmann, S., Radii, E. W., Heim, S., Wengen, D., et al. (1992). Cerebral symptoms after whiplash injury of the neck: a prospective clinical and neuropsychological study of whiplash injury. *J Neurol Neurosurg Psychiatry*, *55*(10), 943-948.
- Freeman, M. D., Croft, A. C., Rossignol, A. M., Weaver, D. S., & Reiser, M. (1999). A review and methodologic critique of the literature refuting whiplash syndrome. *Spine*, *24*(1), 86-96.

- Freeman, M. D., Sapir, D., Boutselis, A., Gorup, J., Tuckman, G., Croft, A. C., et al. (2001, Nov 29-Dec 1). Whiplash injury and occult vertebral fracture: a case series of bone SPECT imaging of patients with persisting spine pain following a motor vehicle crash. Paper presented at the Cervical Spine Research Society 29th Annual Meeting, Monterey, California.
- Galasko, C. S. B., Murray, P. A., & Pitcher, M. (2000). Prevalence and long-term disability following whiplash-associated disorder. *Journal of Musculoskeletal Pain*, *8*, 15-27.
- Gargan, M., Bannister, G., Main, C., & Hollis, S. (1997). The behavioural response to whiplash injury. *J Bone Joint Surg Br*, 79(4), 523-526.
- Gargan, M. F., & Bannister, G. C. (1990). Long-term prognosis of soft-tissue injuries of the neck. *J Bone Joint Surg Br*, 72(5), 901-903.
- Gozzard, C., Bannister, G., Langkamer, G., Khan, S., Gargan, M., & Foy, C. (2001). Factors affecting employment after whiplash injury. *J Bone Joint Surg Br*, 83(4), 506-509.
- Holm, L., Cassidy, J. D., Sjogren, Y., & Nygren, A. (1999). Impairment and work disability due to whiplash injury following traffic collisions. An analysis of insurance material from the Swedish Road Traffic Injury Commission. *Scand J Public Health*, *27*(2), 116-123.
- Kasch, H., Bach, F. W., & Jensen, T. S. (2001). Handicap after acute whiplash injury: a 1-year prospective study of risk factors. *Neurology*, *56*(12), 1637-1643.
- Kasch, H., Stengaard-Pedersen, K., Arendt-Nielsen, L., & Staehelin Jensen, T. (2001). Pain thresholds and tenderness in neck and head following acute whiplash injury: a prospective study. *Cephalalgia*, *21*(3), 189-197.
- Krafft, M. (1998, September 16-18). A comparison of short- and long-term consequences of AIS 1 neck injuries, in rear impacts. Paper presented at the International IRCOBI Conference on the Biomechanics of Impact, Goteborg, Sweden.
- McConnell, W., Howard, R., & Guzman, H. (1993). Analysis of human test subject kinematic responses to low velocity rear end impacts. *SAE Tech Paper Series*, 930889, 21-30.
- McConnell, W., Howard, R., & Poppel, J. (1995). *Human head and neck kinematic after low velocity rear-end impacts: understanding "whiplash."* 952724. Paper presented at the Proceedings of the 39th Stapp Car Crash Conference Proceedings.
- McConnell, W. E., Howard, R. P., & Guzman, H. M. (1993). Analysis of human test subject kinematic responses to low velocity

- rear end impacts. SAE Tech Paper Series, 930889, 21-30
- McConnell, W. E., Howard, R. P., Poppel, J. V., & al., e. (1995). Human head and neck kinematic after low velocity rear-end impacts: understanding "whiplash." Paper presented at the 39th Stapp Car Crash Conference Proceedings.
- Nygren, A. (1984). Injuries to car occupants--some aspects of the interior safety of cars. A study of a five-year material from an insurance company. *Acta Otolaryngol Suppl* 395, 1-164.
- Pettersson, K., Hildingsson, C., Toolanen, G., Fagerlund, M., & Bjornebrink, J. (1997). Disc pathology after whiplash injury. A prospective magnetic resonance imaging and clinical investigation. *Spine*, *22*(3), 283-287; discussion 288.
- Philippens, M., Cappon, H., van Ratingen, M., Wismans, J., Svensson, M., & Sirey, F. (2002). Comparison of the Rear Impact Biofidelity of BioRID II and RID 2. *Stapp Car Crash Journal*, *46*, 461-476.
- Radanov, B. P., Di Stefano, G., Schnidrig, A., & Sturzenegger, M. (1993). Psychosocial stress, cognitive performance and disability after common whiplash. *J Psychosom Res*, *37*(1), 1-10.
- Richter, M., Otte, D., & Blauth, M. (1999). Acceleration injuries of the cervical spine in seat-belted automobile drivers. Determination of the trauma mechanism and severity of injury. *Orthopade*, *28*(5), 414-423.
- Richter, M., Otte, D., Pohlemann, T., Krettek, C., & Blauth, M. (2000). Whiplash-type neck distortion in restrained car drivers: frequency, causes and long-term results. *Eur Spine J*, 9(2), 109-117.
- Ryan, G. A., Taylor, G. W., Moore, V. M., & Dolinis, J. (1994). Neck strain in car occupants: injury status after 6 months and crash-related factors. *Injury*, *25*(8), 533-537.
- Severy, D., Matthewson, J., & Bechtol, C. (1955). Controlled automobile rear-end collisions -- an investigation of related engineering and medical phenomena. Paper presented at the In Medical Aspects of Traffic Accidents, Proceedings of the Montreal Conference.
- Siegmund, G., King, D., Lawrence, J., Wheeler, J., Brault, J., & Smith, T. (1997). Head/neck kinematic responses of human subjects in low-speed rear-end collisions. *SAE Technical Paper 973341*, 357-385.

- Siegmund, G. P., Sanderson, D. J., Myers, B. S., & Inglis, J. T. (2003). Awareness affects the response of human subjects exposed to a single whiplash-like perturbation. *Spine*, *28*(7), 671-679.
- Spitzer, W. O., Skovron, M. L., Salmi, L. R., Cassidy, J. D., Duranceau, J., Suissa, S., et al. (1995). Scientific monograph of the Quebec Task Force on Whiplash-Associated Disorders: redefining "whiplash" and its management. *Spine*, *20*(8 Suppl), 1S-73S.
- Sturzenegger, M., DiStefano, G., Radanov, B. P., & Schnidrig, A. (1994). Presenting symptoms and signs after whiplash injury: the influence of accident mechanisms. *Neurology*, *44*(4), 688-693.
- Svensson, M., & Lovsund, P. (1992, September 9-11). A dummy for rear end collisions: development and validation of a new dummy neck. Paper presented at the International IRCOBI Conference on the Biomechanics of Impacts, Verona, Italy.
- Svensson, M., Lovsund, P., Haland, Y., & Larsson, S. (1993). Rear-end collisions: a study of the influence of backrest properties on head-neck motion using a new dummy. *SAE Tech Paper Series*, *930343*, 129-142.
- Szabo, T., JB., W., & Anderson, R. (1994). Human occupant kinematic response to low speed rear-end impacts. *SAE Tech Paper Series*, *940532*, 23-35.
- Szabo, T., & Welcher, J. (1996). Human subject kinematics and electromyographic activity during low speed rear impacts. *SAE paper 962432*, 295-315.
- West, D., Gough, J., & Harper, T. (1993). Low speed collision testing using human subjects. *Accid Reconstruct J*, *5*(3), 22-26.
- Zellmer, H., Muser, M., Stamm, M., Walz, F., Hell, W., Langweider, K., et al. (2002). *Performance comparison of rear impact dummies: Hybrid III (TRID), BioRID and RID 2.* Paper presented at the International IRCOBI Conference on the Biomechanics of Impact, Munich, Germany.

CONTACT

Dr. Arthur C. Croft the Spine Research Institute of San Diego. 2371 Via Orange Way, Suite 105, Spring Valley, California, 91978, USA. E-mail: drcroft@srisd.com.

EXHIBIT 62

Expert AutoStats®

Version 5.9.1 Copyright 2019 - All Rights Reserved

ARTHUR C. CROFT
CROFT FORENSIC SERVICES
826 ORANGE AVENUE # 633
CORONADO CA 92118

11/24/2019

2011 FORD FOCUS 4 DOOR SEDAN			
Curb Weight:	2664 1bs.	120	08 kg.
Curb Weight Distribution - Front:	59 %	Rear: 41	
Gross Vehicle Weight Rating:	3715 lbs.	168	85 kg.
Number of Tires on Vehicle:	4		
Drive Wheels:	FRONT		
Horizontal Dimensions	Inches	Feet	Meters
Total Length	175	14.58	4.44
<pre>wheelbase:</pre>	103	8.58	2.62
Front Bumper to Front Axle:	34	2.83	0.86
Front Bumper to Front of Front Well:	20	1.67	0.51
Front Bumper to Front of Hood:	8	0.67	0.20
Front Bumper to Base of Windshield:	42	3.50	1.07
Front Bumper to Top of Windshield:	74	6.17	1.88
Rear Bumper to Rear Axle:	38	3.17	0.97
Rear Bumper to Rear of Rear Well:	23	1.92	0.58
Rear Bumper to Rear of Trunk:	6	0.50	0.15
Rear Bumper to Base of Rear Window:	19	1.58	0.48
Width Dimensions			
Maximum Width:	68	5.67	1.73
Front Track:	59	4.92	1.50
Rear Track:	58	4.83	1.47
Vertical Dimensions			
Height:	59	4.92	1.50
Ground to -			
Front Bumper (Top)	23	1.92	0.58
Headlight - center	28	2.33	0.71
Hood - top front:	30	2.50	0.76
Base of Windshield	39	3.25	0.99
Rear Bumper - top:	29	2.42	0.74
Trunk - top rear:	45	3.75	1.14
			_

45

Base of Rear Window:

Expert AutoStats®

2011 FORD FOCUS 4 DOOR SEDAN

Interior Dimensions	Inches	Feet	Meters
Front Seat Shoulder Width	53	4.42	1.35
Front Seat to Headliner	39	3.25	0.99
Front Leg Room - seatback to floor (max)	42	3.50	1.07
Rear Seat Shoulder Width	54	4.50	1.37
Rear Seat to Headliner	38	3.17	0.97
Front Leg Room - seatback to floor (min)	36	3.00	0.91

Seatbelts: 3pt - front and rear
Airbags: FRONT SEAT AIRBAGS + SIDE AIRBAGS

Steering Data

Turning Circle (Di	ameter)	408	34	10.36
Steering Ratio:	:1	·		
Wheel Radius:				
Tire Size (OFM):	P195/60R15	<u></u>		

Acceleration & Braking Information

Brake Type:	FRONT DISC - REAR DRUM
ABS System:	ABS UNKNOWN

Braking, 60 mph to 0 (Hard pedal, no skid, dry pavement):

d =	136.0 ft	t =	3.1 sec	$a = \boxed{-28.4} \text{ ft/sec}^2$	G-force =	-0.88
-----	-----------------	-----	----------------	--------------------------------------	-----------	-------

Acceleration:

O to 30mph	t = 2.5 sec	a = 17.6 ft/sec²	G-force =	0.55
0 to 60mph	t = 8.0 sec	$a = \boxed{11.0} ft/sec^2$	G-force =	0.34
45 to 65mph	t = 4.7 sec	a = 6.2 ft/sec ²	G-force =	0.20

Transmission Type: 5spd MANUAL

Notes:

Federal Bumper Standard Requirements:	2.5	mph
This vehicles Rated Bumper Strength:	2.5	mph

N.S.D.C = 2008 - 2011

2.51

8.23

98.77

2011 FORD FOCUS 4 DOOR SEDAN

Other Information

Tip-Over Stability Ratio =	1.27	Stable
NHTSA Star Rating (calculated)		****

Center of Gravity (No Load):		Inches	Feet	Meters
behind front axle	=	42.23	3.52	1.07
in front of rear axle	=	60.77	5.06	1.54
from side of vehicle	=	34.00	2.83	0.86
from ground	=	23.16	1.93	0.59
from front corner	=	83.47	6.96	2.12
from rear corner	=	104.46	8.70	2.65
from front bumper	=	76.23	6.35	1.94

Moments of Inertia Approximations (No Load):

Yaw Moment of Inertia	=	1537.92 lb*ft*sec²
Pitch Moment of Inertia	=	1488.36 lb*ft*sec²
Roll Moment of Inertia	=	329.52 lb*ft*sec²
ront Brofile Information		

Front Profile Information

from rear bumper

Angle Front Bumper to Hood Front	=	41.2 deg
Angle Front of Hood to Windshield Base	=	14.8 deg
Angle Front of Hood to Windshield Top	=	22.2 deg
Angle of Windshield	=	29.4 deg
Angle of Steering Tires at Max Turn	=	28.9 deg

First Approximation Crush Factors:

Speed Equivalent (mph) of Kinetic Energy (KE) used in causing crush of indentation may be evaluated using the following formula, the appropriated Crush Factor (CF), and Maximum Indentation Depth (MID), in feet:

These CF values are based upon analysis of NHTSA Barrier Crash data, and from over 1000 vehicle accidents where independent evaluation of speed was possible. (These are NOT 'A', 'B', 'C', or 'G' values)

The rear Impact data with more then 2-3 inches of crush damage should be looked at carefully, since some vehicles have very weak trunk & fender strength. Therefore, on some cars, especially GM, you estimate from the rear crush data may be high by as much as 4-5 mph (on a crush of 18 inches).

EXHIBIT 63





Your AutoCheck Vehicle History Report

Report run: 11/24/2019 14:04:02 EST



2014 Isuzu NPR-HD

Tiltmaster Truck Delivery (5.2L L4 Diesel)

VIN: JALC4W163E7002653
Class: Medium/Heavy Truck

Country of Assembly: Japan

This vehicle is not eligible for Buyback Protection



Due to the vehicle's history showing major state title brand(s) and/or not meeting other Buyback Protection terms and conditions.

YOUR VEHICLE AT A GLANCE



The AutoCheck Score is based on a vehicle's history such as vehicle class and age, number of owners, accident and damage history, title brands, odometer readings etc. This score is used to compare vehicle's favorability against the entire market of vehicles with the same scoring system.

- No State Title Brand Reported
- No Accident Reported

 No Air Bag Deployed
- No Other Damage Reported
- No Specific Event Reported
- No Odometer Problem(s) Reported

 Last Odometer Reading:24,557
- No Open Recall(s) Reported



Owner History



-

Last Owner

Purchased: 2015 Where: NV

Owned from: 01/16/2015 - 01/11/2016

11 month(s)

Current Owner

Purchased: 2016 Where: CA

Owned from: 01/11/2016 - Present

3 year(s) 10 month(s)

Vehicle Usage



Vehicle Use: There is indication of the below usage(s) for this vehicle

Personal | Fleet | Rental | Lease | Taxi | Livery | Police | Government | Drivers Ed | Commercial



Major State Title Brand Check



Your Vehicle Checks Out: No major state title brand has been reported by the state Division of Motor Vehicles (DMV).



0 Problem(s) Reported	Major State Title Areas Checked
Ø	No fire brand
	No hail brand
	No flood brand
Ø	No junk or scrapped brand
Ø	No manufacturer buyback
	No lemon brand
	No salvage brand
Ø	No rebuilt or rebuildable brand
	No odometer brand (EML or NAM)



Accident Check



Your Vehicle Checks Out: AutoCheck has not received any accident records from government sources and independent agencies on this vehicle. Not all accidents are reported to AutoCheck.





Damage Check



Your Vehicle Checks Out: AutoCheck has not received a damage-related event from an auction or an independent source. Not all damage events are reported to AutoCheck. It is recommended to have pre-owned vehicles inspected by a third party prior to purchase.



0 Problem(s) Reported	Other Problem Areas Checked
0	No non-title fire damaged record
0	No non-title hail damaged record
0	No non-title flood damaged record
0	No auction junk or scrapped record
Ø	No auction rebuilt or rebuildable record
Ø	No salvage auction record
Ø	No damaged or major damage incident record
0	No structural damage or structural alteration record
0	No recycling facility record
0	No crash test record



Other Title Brand And Specific Event Check



Your Vehicle Checks Out: No Non-major state title brand(s) and/or additional significant event(s) has been reported to AutoCheck.

0 Event(s) Reported	Vehicle Events Checked	
Ø	No Insurance Loss record	
		PLT002986
		ED 4 440

0 Event(s) Reported	Vehicle Events Checked
Ø	No Titled to an insurance company record
	No Auction Lemon/Manufacturer Buyback record
Ø	No abandoned title record
Ø	No grey market title record
Ø	No loan/lien record(s)
Ø	No repossessed record
0	No corrected title record
Ø	No duplicate title record
Ø	No theft record(s)



Odometer Check



Your Vehicle Checks Out: No odometer brands, rollbacks, rollover or tampering has been reported to AutoCheck from state Division of Motor Vehicles (DMV) or auction sources. AutoCheck also examined the sequence of reported odometer readings to determine if there are any potential discrepancies.

0

State title odometer check

Ø

Auction odometer check

Ø

Odometer calculation check

0 Problem(s) Reported	Mileage	Date Reported
O	45	01/16/2015
	24,557	01/08/2016



Open Recall Check



Your Vehicle Checks Out: AutoCheck found no open recalls reported by the vehicle manufacturer. Not all open recalls are reported to AutoCheck.

Detailed Vehicle History

Below are the historical events for this vehicle listed in chronological order. Any discrepancies will be in bold text.

Report Run Date: 11/24/2019 14:04:02 EST

Vehicle: 2014 Isuzu NPR-HD (JALC4W163E7002653)

PLT002987

Event Date	Location	Odometer Reading	Data Source	Details
01/16/2015	LAS VEGAS, NV	45	Motor Vehicle Dept.	TITLE(Title #:NV007491443-7)
01/16/2015	LAS VEGAS, NV		Motor Vehicle Dept.	REGISTRATION EVENT/RENEWAL
01/08/2016	NV	24,557	Motor Vehicle Dept.	TITLE(Title #:NV008323469-7)
01/11/2016	NV		Motor Vehicle Dept.	REGISTRATION EVENT/RENEWAL
01/01/2017	NV		Motor Vehicle Dept.	REGISTRATION EVENT/RENEWAL
01/01/2018	NV		Motor Vehicle Dept.	REGISTRATION EVENT/RENEWAL
01/01/2019	NV		Motor Vehicle Dept.	REGISTRATION EVENT/RENEWAL

This Vehicle's Glossary

Below are the specific definitions for events that appear in this vehicle's report. More information is available in the full AutoCheck glossary.

Term	Section Location	Definition
Personal Use	Vehicle Use	This vehicle was driven for personal use.

AutoCheck Terms and Conditions

This report, and any reliance upon it, is subject to AutoCheck Terms and Conditions. If you obtained the report from a dealer, the dealer has been provided with these Terms and Conditions and can share them with you. These AutoCheck Terms and Conditions are also available at any time at www.autocheck.com/terms or by writing to Experian: Experian Automotive C/O AutoCheck Customer Service 955 American Lane Schaumburg, IL 60173.

Buyback Protection Terms and Conditions

This vehicle (JALC4W163E7002653) does not qualify for AutoCheck Buyback Protection.

About AutoCheck

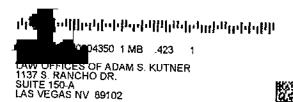
AutoCheck vehicle history reports by Experian Automotive is the leading vehicle history reporting service. With expert data handling, the Experian Automotive database houses over 4 billion records on a half a billion vehicles. Every AutoCheck vehicle history report will give you confidence when buying or selling your next used vehicle, with superior customer service every step of the way.

Patent Notice

Certain aspects of this vehicle history report may be covered by U.S. Patent 8,005,759.

EXHIBIT 64





257315 SPAI

GALLAGHER BASSETT SERVICES INC FOR OLD REPUBLIC INSURANCE CO

DIRECT CHECK INQUIRIES TO: PHONE: 800-437-1266 GB - CAPTIVE LIABILITY PO BOX 2934 CLINTON IA 52733-2934

CLAIM NO.; 011503 026460 AD 01 (29000-08)

BRANCH NO.: 216

1

NO.: 0137571510

CLAIMANT:

JEOVANNY RICARDO-MONDEJA

ACC DATE: 12Jul16 VN: 0000542994

DESCRIPTION: PAYMENT- TOTAL LOSS OF VEHICLE - JEOVANNY RICARDO-MONDEJA

DATE: 07Jan17

DATES OF SERVICE:

THRU

AMOUNT: 4525,00

BENEFIT PERIOD:

THRU

DETACH AND RETAIN THIS STUB FOR YOUR REFERENCE

C 0004350 004950 001 001

THE FACE OF THIS DOCUMENT HAS A BLUE BACKGROUND - THE BACK HAS AN ARTIFICIAL WATERMARK

GALLAGHER BASSETT SERVICES INC. FOR OLD REPUBLIC INSURANCE CO

CHECK NO. 0137571510

0000642994

07Jun17

VN.

CLAIM NO.: 011503 026460 AD 01 (29000-08)

BRANCH NO.: 216

JEOVANNY RICARDO-MONDEJA 4801 SAGUARO WAY LAS VEGAS NV 89121-2929

CITIBANK N.A. NEW CASTLE, DE: 19720 AUTHORIZED SIGNATURE



TO THE ORDER OF

EXHIBIT 65

THE702FIRM AND COMPANIES AFORAM

400 S. Seventh Street, Suite 400 Las Vegas, NV 89101 Telephone (702) 776-3333 Facsimile (702) 505-9787 www.the702firm.com

Michael C. Kane, Esq. Admitted in Nevada Jefferson C. Temple, Esq. Admitted in Nevada Bradley J. Myers, Esq.

Admitted in Nevada and Arizona

Joel S. Hengstler, Esq. Admitted in Nevada Richard A. Englemann, Esq. Admitted in Nevada Mark Rouse, Esq.

Admitted in Nevada, California and Kentucky Jason Barron, Esq. Admitted in Nevada

> David M. Moore, Esq. Admitted in Nevada

Brandon Born, Esq.

Admitted in Nevada and California

November 5, 2019

Arthur Croft, Ph.D. 826 Orange Ave. Coronado, CA 92118

VIA DROPBOX: Arthur.croft59@gmail.com

Maikel Perez-Acosta v. Jaime R. Salais, et., al.

District Court Case No.: A-18-772273-C/Dept. 28

REPORT DUE: NOVEMBER 25, 2019

Dear Dr. Croft;

Please allow this to confirm that my office is retaining you as a rebuttal expert witness in connection with the above captioned case.

We are providing the following material for your review:

- 1. Defendants' Initial Expert Disclosure; we specifically reference Exhibit E - Report from American Bio Engineers, dated October 29, 2019
- 2. Eight (8) color photographs of both vehicles taken at the scene of the incident;
- 3. Two (2) color photographs of Plaintiff's vehicle;
- One (1) color photograph of Defendant's vehicle; 4.
- 5. Letter from Social Security Administration dated March 5, 2018 finding Maikel Perez Acosta Medically disabled;
- Maikel Perez Answers to Interrogatories; 6.
- 7. Maikel Perez Answers to Request for Admissions;
- Deposition of Transcript of Kengo Takahashi 8.

Letter to Dr. Croft

Re: Maikel Perez-Acosta

Page 2

Please review the enclosed material, and provide us with your expert opinion as to causation and rebuttal to Defendant's Experts' conclusions.

Please provide your written expert report to our office on or before November 25, 2019. Enclosed please find check #22990, in the amount of \$5,000.00, for your retainer.

Please let us know if you need any additional information.

Sincerely,

THE702PIRM

Jason C/Barron, Esq.

JCB/ep

EXHIBIT 66

ARTHUR C. CROFT, PH.D., D.C., M.Sc., M.P.H., F.A.C.O.

Forensic Epidemiology, Orthopaedics, Biomechanics, Accident Reconstruction

April 16, 2020

Jason C. Barron, Esq. The702Firm 400 South 7th St, #400 Las Vegas, NV 89101

RE: PEREZ-ACOSTA, Maikel; BESSU-HERRERA, Rolando

DOI: 7-12-2016

DOB: 12-5-1982; 7-5-1983

SECOND SUPPLEMENTAL REPORT

Dear Mr. Barron:

I have reviewed the additional record you provided concerning the motor vehicle collision (MVC) of Mr. Perez-Acosta and Mr. Bessu-Herrera. This report summarizes my opinions and conclusions based on my review of this new document.

REVIEW OF RECORDS

10-18-2019

Deposition of Maikel Perez-Acosta [by Ms. Panford]. [The Spanish to English translator was Anita D'Angelo] He was currently taking 30 mg of Oxycodone bid. He is married and has 2 children. They live with his mother-in-law. He and Rolando Bessu came from Cuba together. Mr. Perez-Acosta was a fisherman in Cuba and that is how he injured his back. Surgery was performed within 12 hours. This was in Cuba, and his torso was casted for a while. He was able eventually to return to working as a fisherman. He claimed to have no ongoing chronic pain or disability from that event, and needed no additional PT or medical treatment. He is now a US resident, has Medicaid and is disabled through the Social Security Administration. He's had surgery from Dr. Kaplan since the 7-12-2026 MVC with screws and "a plastic vertebra." He's had no other MVCs. He described the events leading up to the collision and the collision itself. They were on [North] Lamb at the intersection with [East] Carey. He was the front seat passenger. Seated behind him was his friend Rolando. Behind the driver was his friend Yuniel. The driver's name was Yovani. He indicated that the truck had

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Second Supplemental Report Page 2 of 3

stopped behind them at the traffic light [at E. Carey]. When the light turned green, they proceeded for 50 to 60 to 100 meters and then traffic stopped again. They also stopped. At that point they had passed the light. There were 7 or 8 cars ahead of them. They were in the #1 lane. There was also traffic in the #2 lane. He said he heard the truck honk just prior to impact. He said that the rear end of the car was shunted slightly to the left just touching or a little over the [broken] vellow line. They later moved into the center [2-way left turn] lane to get out of traffic. He described the impact as hard, with him being pushed back and then thrown into his restraints. He did not contact the dashboard. He said it broke the "windshield" [rear window] and Rolando broke his glasses on the front seat. Mr. Perez-Acosta did not have any bruising. He felt pain in his tailbone region by the time he got home. He said that he later went to sleep and woke up and had some bladder incontinence. He told the chiropractor about this and the chiropractor sent him to UMC. Apparently, he never actually had any chiropractic treatment. Apparently, all four of the car's occupants visited with a lawyer soon after the collision—possibly the same day. And they were all seen by the same chiropractor—again, possibly the same day. He indicated that he thought the chiropractic appointment had been made by the driver and the driver took all of them there the first time. He was not clear on the relative chronology for the visits with the lawyer and chiropractor (1st day vs. 2nd day) or the relative order of the appointments (lawyer vs. chiropractor). He seemed to think that the driver was the one who had to file a lawsuit. He said that in his initial visit to UMC they kept him for 3 days, telling him he was going to have an operation by a Dr. Campana. But he never saw the doctor and eventually signed out AMA. He got bills from the hospital totaling \$55,000, but claimed that all he had gotten were imaging studies. He returned to UMC a couple of days later due to back pain. This may have been included in the \$55,000 bill. He's never been diagnosed with chronic back pain. Eventually Dr. Kaplan performed the surgery and told him that his condition was permanent and, as a result, he did not need to get PT or chiropractic treatment. He indicated that Dr. Kaplan had told him that, without the surgery, he might have become paralyzed. He has been told, however, that he might benefit from a spinal cord stimulator (SCS). He said he would be agreeable to this, but a trial has not so far been scheduled. He indicated that Rolando had been given a SCS and had a problem with a broken battery. His neck symptoms cleared up, but he continues to have back pain, bladder incontinence, impotence, and what he describes as a

PEREZ-ACOSTA, Maikel; **BESSU-HERRERA**, Rolando Second Supplemental Report Page 3 of 3

withering of his right foot. He was apparently using a cane at the deposition. He worries that he will lose the foot, although no one has told him that. He saw a Dr. Holper who was a pain specialist. The doctor told him that he was "not going to function [sexually] as a man." He also saw a Dr. Chopra who may have been a surgeon. He told him that he would get only about 30% improvement with surgery. As for the bladder incontinence, the only solutions offered was to wear Pampers or to use a catheter, which he is not keen to do. He was asked whether he ever saw another car pass from the right lane to the left. No. He also saw a Dr. Machuca who prescribed Viagra.

DISCUSSION

Having reviewed the document above, none of the opinions expressed in my November 24, 2019 report have changed in any significant way.

Based on this testimony of Mr. Perez-Acosta indicating that they had moved up to 100 meters beyond the traffic signal at E. Carey, I reexamined the photographs taken at the scene and noticed that in one photograph of the truck as it was parked in the 2-way left turn lane of northbound N. Lamb, one can see a large palm tree in the immediate background. There is also a large palm tree further north on N. Lamb near the intersection of Riverstone Ave. [Note that, in his accident report of 7-12-2016, Mr. Salais mentioned a "Stone River Ave."] The first palm tree is 530 ft north of the north curb line (NCL) of E. Carey. The second palm tree is 648 ft north of the NCL of E. Carey. In either case, the distance was more than sufficient for the truck to have attained normal traffic speed and this would, therefore, not be classified as a *false start* collision.

All of the opinions expressed in this report can be taken to be made with a reasonable degree of collision reconstruction, biomechanical, and medical/epidemiological certainty unless otherwise qualified.

Thank you for allowing me to participate in this interesting case. If any of the foregoing is unclear or if I have failed to address any particular question or issue, please do not hesitate to bring that to my attention. If new information becomes available, I am happy to review it and send along any necessary supplemental report.

Sincerely,

Arthur C. Croft, Ph.D., D.C., M.Sc., M.P.H., F.A.C.O.

Director, Spine Research Institute of San Diego

	5P.App.1206
EXHIBIT B	

In the Matter Of: PEREZ-ACOSTA vs SALAIS

A-18-772273-C

EDCR 2.34 MEETING April 22, 2020



1	DISTRICT COURT
2	CLARK COUNTY, NEVADA
3	
ir	MAIKEL PEREZ-ACOSTA, idividually, ROLANDO BESSU HERRERA, individually,
6	Plaintiffs, CASE NO. A-18-772273-C
ir 9 (S 10 ir 11	DEPT. NO. XXVIII JAIME ROBERTO SALAIS, Idividually, TOM MALLOY CORPORATION, aka/dba TRENCH HORING COMPANY, a foreign corporation, DOES I through V, Iclusive, and ROE CORPORATIONS I through V, Iclusive, Defendants.
14 15	
16	TRANSCRIPT OF EDCR 2.34 MEETING
17	VIA VIDEOCONFERENCE
18	Taken on Wednesday, April 22, 2020
19	At 11:19 a.m.
20	At 810 South Casino Center Boulevard
21	Suite 101 Las Vegas, Nevada
22	
23	
24	
25	Reported by: John L. Nagle, CCR 211



1 A	PPEARANCES:
	or Plaintiff, Maikel Perez-Acosta (via videoconference):
4	THE702FIRM 400 South Seventh Street
5 6	Suite 400 Las Vegas, Nevada 89101 BY: JASON BARRON, ESQ.
7	Ph. (702)776-3333; Fax (702)505-9787 jason@the702firm.com
	or Plaintiff, Rolando Bessu Herrera (via videoconference):
10	DRUMMOND LAW FIRM 810 South Casino Center Boulevard Suite 101
11 12	Las Vegas, Nevada 89101 BY: CRAIG W. DRUMMOND, ESQ.
13	Ph. (702)366-9966; Fax (702)508-9440 craig@drummondfirm.com
	or Defendants (via videoconference):
15 16	WOOD SMITH HENNING & BERMAN LLP 2881 Business Park Court
17	Suite 200 Las Vegas, Nevada 89128 BY: JOEL D. ODOU, ESQ.
18	NICK ADAMS, ESQ. Ph. (702)251-4100; Fax (702)251-5405
19	jodou@wshblaw.com nadams@wshblaw.com
20 21	and
22	MOKRI VANIS & JONES, LLP 2251 Fair Oaks Boulevard
23	Suite 100 Sacramento, California 95825 BY: TODD A. JONES, ESQ.
24	Ph. (916)306-0434; Fax (916)307-6353 tjones@mvjllp.com
25	



1	MR. DRUMMOND: This is Craig Drummond.
2	I believe all the parties are still
3	present, who were present at the deposition that just
4	ended of Ms. Espinoza.
5	During that deposition, we learned that,
6	in fact, there had been an exchange with this witness
7	back in April of 2019, apparently, with defense
8	counsel. These documents were never produced. They've
9	never been produced.
10	Clearly, they would have been responsive
11	to requests for production from my client, Mr. Bessu
12	Herrera. In fact, I'm looking at them, and not only is
13	it a 16.1 required disclosure, Request for Production
14	No. 2, regarding any statements from anybody related to
15	this, would have been needed to be produced.
16	And it appears that these were actually
17	intentionally held back for production, used during the
18	deposition for which we have no copy of, a deposition
19	that occurred via Zoom, so we can't even see what we're
20	talking about.
21	I believe it's wholly improper. I believe
22	if it's, in fact, determined that these were
23	intentional, that this is sanctionable, potentially
24	terminable sanctions. And I don't know the
25	explanation, but, perhaps, there is one, but my



1	meet-and-confer is we believe we have a clear discovery
2	violation unless somebody can tell me why there wasn't
3	one. That's my position. And it involves the
4	communication between defense counsel and this
5	deponent, Ms. Espinoza.
6	Thank you.
7	MR. BARRON: I would just add that I would
8	concur with that, at least in the state of Nevada. I
9	don't know if the rules are different in California.
10	n the state of Nevada, all impeachment needs to be
11	disclosed immediately, and, of course, with 26(e),
12	seasonably.
13	This is back in Craig, you said April
14	of 2019?
15	MR. DRUMMOND: That's what she said.
16	MR. BARRON: So, I mean, that's shocking
17	that we didn't get a copy of this. This is not a sub
18	rosa or something of that nature. "We need to hold it
19	back until we see what they say," and then you produce
20	it.
21	I understand the distinction with that,
22	but this is statements made by witnesses in this case
23	that are reasonably calculated to lead to the discovery
24	of admissible evidence. Under 26(e), they need to be
25	produced seasonably. They're part of 16.1 and directly



1	relevant to a request for production from my office.
2	I don't have it in front of me, but
3	counsel from Bessu just read that, so pursuant to 2.34,
4	we would like an explanation briefly. I got to go to a
5	court call, and then we're going to proceed with motion
6	bias.
7	MR. ODOU: This is Joel Odou for the
8	defendants.
9	I would offer a couple of observations.
10	Obviously, this is not our full response, but as an
11	initial matter, this witness was a third-party witness
12	who resides off and on with Mr. Herrera.
13	Mr. Herrera has a pending violation or
14	a pending excuse me, a pending probation for
15	domestic violence. We were concerned for the at
16	least, I was concerned. I don't want to speak out of
17	school. I was concerned for the safety of this witness
18	and whether she would appear today and whether she
19	would testify truthfully.
20	Moreover, I was concerned that she would
21	be hesitant to acknowledge the truth without being
22	confronted with it, and we wanted to respect her
23	privacy and respect her safety at the same time. The
24	questions that we asked were not eliciting the
25	information that she had and so to refresh her



1	recollection, we reminded her of this e-mail, which is
2	impeachment, and that e-mail chain will be produced.
3	At no time was the witness offered money
4	for her testimony. In fact, the very first or the
5	second e-mail responding to her, prior to my firm's
6	involvement, noted that she could not be paid for her
7	testimony.
8	Moreover, the witness had voluntarily
9	reached out to the Department of Insurance to make a
10	complaint, which was not prompted by any defense
11	counsel activity.
12	As I alluded to on the at the
13	deposition transcript and on the video, these materials
14	were produced as impeachment, and certainly, the court
15	can review them.
16	MR. BARRON: Craig, are you there?
17	MR. DRUMMOND: Yeah.
18	MR. BARRON: Let me just comment real
19	quick, Craig.
20	If that's the case, when you first started
21	the depo first of all, I want to hear from Todd
22	Jones, because with all due respect to you, Mr. Odou,
23	you just got involved in the case. We're talking about
24	when this was first produced back in April 2019.
25	If that's the case, the proper thing to do



1	would be to seek a protective order for a court in
2	terms of mode and order of how this deposition will
3	proceed.
4	Because when we started, you asked if they
5	live together, and when this began and what's been
6	testified to in trial, it was my understanding that
7	they were either married or close, common law, whatever
8	Mr. Bessu Herrera's understanding is. This man could
9	have very well been in the same room with her. So if
10	that's genuine, everything you're saying, it would not
11	have transcribed that way.
12	If you move for a protective order as to
13	mode and order and what needs to be done, these
14	statements would still need to be produced. They're
15	not impeachments unless and until you gain from her
16	something inconsistent from that, which essentially you
17	didn't do today. She doesn't have knowledge, and she
18	already talked about another motive as to that, so
19	that's not responsive to the basic discovery
20	requirement in Nevada.
21	I don't know about California, but in
22	Nevada, for that to be disclosed when it without an
23	individual NRCP 34 request for production, sua sponte,
24	it needs to be produced, period. If it's not, as per



25 the court's history, it's not coming in. Dollars to

1	doughnuts in this case, it's not coming in. It could
2	have if it was properly produced.
3	You don't shield it and spring it on
4	somebody in the state of Nevada. California, New York,
5	those may be different. I know Todd Jones is from
6	California. In Nevada I've been in front of the
7	discovery commissioner in front of this those are
8	sanctionable, possibly case-ending sanctions in a case,
9	and you open yourself up for that.
10	And I want to talk to Todd about that,
11	because, Mr. Odou, you don't have personal knowledge.
12	You weren't on board here as cocounsel back in April of
13	2019. This should have been produced what? a
14	year ago, roughly, give or take, so that's not an
15	excuse at all. That's a bunch of garbage.
16	MR. DRUMMOND: Go ahead, Todd.
17	MR. JONES: I concur with what Joel said,
18	but I also add that this was viewed as work product,
19	trying to get information from by the attorney by an
20	investigation by me. I got reached out, unsolicited.
21	And it never even confirmed it was not even ever
22	confirmed, the identity of the witness. Never met her,
23	was very unclear who she was or where she was heading
24	from.

MR. BARRON: Work product under Hickman v.



25

1	aylor and mental impressions of an attorney has
2	othing to do with purported statements of a party that
3	ou guys are eliciting as facts, which obviously
4 1	they're not, because she doesn't know what she's
5 1	alking about.
6	She's not on the other end of the phone to
7	even hear what's being said about facts that had
8	othing to do with the accident at issue in 2016 in
9 1	this case. I know nothing about a gold car, anything
10	to do with this case.
11	So one half of it is hearsay, and all of
12	it is speculation. None of it is work product, and it
13	certainly doesn't become work product Todd, you know
14	respect you, but it doesn't become work product when
15	you reach out personally and you're talking with her.
16	mean, I think under 16.1, I'm going to recommend we
17	list you as a witness in this case, period.
18	MR. DRUMMOND: Can I just confirm one
19	thing?
20	And I don't want to get in an argument on
21	this one, because to me, it's not really conducive to
22	anything, or productive.
23	Let me just ask this: This was an
24	intentional withholding by defense; is that correct,
25	defense?



1	MR. JONES: Not intentional holding. I
2	didn't think this was something that would be produced
3	normally, because it wasn't done with an investigator.
4	It wasn't done outside the normal realms of discovery.
5	MR. DRUMMOND: And are these documents
6	listed in a privilege log?
7	MR. JONES: I don't know. I'd have to go
8	back and check.
9	MR. DRUMMOND: Okay. And there is no
10	protective order ex parte motion for protective
11	order.
12	Was one ever applied for?
13	MR. JONES: Not that I'm aware of.
14	MR. DRUMMOND: Okay. And you agree that
15	this was an exchange back and forth with a witness,
16	right? It was a written exchange via e-mail, correct?
17	MR. JONES: An e-mail, yes.
18	MR. DRUMMOND: Okay.
19	MR. JONES: Well, a potential. Again,
20	like I said before, I could never identify, confirm her
21	identity.
22	MR. DRUMMOND: I didn't understand what
23	that means, but nonetheless, just so it's clear, I
24	mean, I don't really know any resolution we can have
25	other than to bring the matter before my position is



1	this was an intentional withholding in violation of the
2	rules for which there are relief. None was requested.
3	It's completely improper, and we're going
4	to ask to strike the answer related to my client. This
5	was a surprise. This was trial by ambush on this
6	deposition, and it's just not proper, and honestly, I'm
7	very disappointed that this happened today.
8	MR. BARRON: I will join as well because
9	my client was also in the car. I mean, I think all of
10	it is ridiculous. Frankly, they're both passengers.
11	There's no evidence as to any other.
12	But to the extent it's going to come into
13	trial for obvious reasons, to impugn or to poison a
14	jury, the only thing proper is either I don't think
15	case-ending, necessarily. This may go in front of
16	Judge Israel, possibly case-ending, but if not,
17	certainly, it's going to be that deposition will be
18	tossed.
19	MR. DRUMMOND: My other question is going
20	to be case-ending, but I have nothing further.
21	MR. ODOU: Just to add, obviously this
22	is Joel Odou I'm the new person on this case, but
23	there are a number of defense requests for identifying
24	witnesses, and we had asked for Mr. Barron to identify
25	witnesses, including the person who apparently goes by



1	the name "The Mexican." And I think that, you know,
2	there may be some countermotions involved here, too,
3	because clearly, there's been a withholding of relevant
4	information by the plaintiff.
5	You know, I understand that you're going
6	to dispute the accuracy of Ms. Espinoza's statements,
7	and that's fine. And, again, I'm not trying to get
8	into it here. I'm just pointing that out. We can
9	certainly take those issues up.
10	MR. DRUMMOND: And this is Craig Drummond.
11	I'll let the record speak for itself on
12	her actual answers on that.
13	MR. BARRON: The problem with this is
14	there's no evidence for, quote, The Mexican. She just
15	said that he was talking out of her ear.
16	Okay?
17	There's no evidence for The Mexican.
18	Mr. Salais had his deposition taken, who was the one
19	that drove into our clients at an approaching speed
20	minimum of 20 approaching a speed of 30, 35 miles an
21	hour, clearly said it was his fault and had no evidence
22	about a gold car.
23	So that's not really the purpose of today.
24	Those are motions in limine. You get to put on your
25	affirmative defenses. I did defense work for a long



1	time myself. What you don't get to do is come up with						
2	things that are just pie-in-the-sky nonsense that lack						
3	foundation or lack an evidentiary basis.						
4	Okay?						
5	The percipient witness in this case, the						
6	river Salais, has no clue about anyone except he drove						
7	n our clients' car.						
8	Ms. Espinoza heard one-half of a						
9	conversation, as she said today, she knows nothing						
10	about. It's pure speculation. She said that under						
11	oath, so at the best, we have cross statements under						
12	oath as to her. If the issue does get in at trial, it						
13	will be tossed.						
14	MR. JONES: Jason, I think you misspoke.						
15	There is evidence of a gold car, if you look at the						
16	incident report on the day of the accident and the						
17	deposition testimony.						
18	MR. BARRON: There's evidence of a gold						
19	car. There's also evidence of other cars on the road						
20	and cars with tires and a blue sign and everything						
21	else. What I'm talking about is concerted action.						
22	There's absolutely no evidence as to that.						
23	MR. DRUMMOND: Let's all debate that a						
24	different day. I just want to make sure that it's						



25 clear on this e-mail so that I can file my motion.

1	Since it's case-ending, it will go in front of
2	Judge Israel; at least, mine. Maybe 702FIRM has a
3	different one.
4	I don't have anything further, if anybody
5	else doesn't.
6	MR. BARRON: I'll join those.
7	MR. DRUMMOND: Does anybody have any other
8	record they would like to make related to this 2.34?
9	This is Craig Drummond.
10	All right. Hearing none, everybody,
11	please stay safe during this time.
12	And, Court Reporter, please, again, for
13	transcript, at least on the plaintiffs' side, I'll be
14	responsible for a copy of the transcript and pay the
15	fees accordingly. Thank you very much.
16	
17	(Whereupon the proceedings
18	were concluded at 11:31 a.m.)
19	
20	
21	
22	
23	
24	
25	



1	REPORTER'S CERTIFICATE
2 5	TATE OF NEVADA)
3 ()ss. OUNTY OF CLARK)
4	
5 li	I, John L. Nagle, a Certified Court Reporter censed by the State of Nevada, do hereby certify:
7 t a 8 ι	That the foregoing proceedings were taken efore me at the time and place herein set forth; that he proceedings were reported stenographically by me nd later transcribed by computer-aided transcription under my direction; that the foregoing is a true record f the proceedings taken at that time. I further certify that I am not a relative,
ir 11 :	employee or independent contractor of counsel involved said action; nor a person financially interested in said action; nor do I have any other relationship that ay reasonably cause my impartiality to be questioned.
	IN WITNESS WHEREOF, I have subscribed my name this 27th day of April, 2020.
14	I That
15	
16	John L. Nagle, CCR 211
17	
18	
19	
20	
21	
22	
23	
24	
25	



April 22, 2020 Index: 16.1..confirm

	- 13:22	April	briefly	client
1	accident	3:7 4:13	5:4	3:11
	9:8 13:16	6:24 8:12	bring	11:4,9
16.1		argument	10:25	clients
3:13 4:25	accuracy 12:6	9:20	bunch	12:19
9:16		attorney	8:15	clients'
	acknowledge	8:19 9:1	0.10	13:7
2	5:21			_
	- action	aware 10:13	C	close - 7:7
2	13:21	10.13		
3:14	activity		 calculated 	clue
	6:11	В	4:23	13:6
2.34	actual		California	cocounsel
5:3 14:8	12:12	back	4:9 7:21	8:12
20		3:7,17	8:4,6	comment
12:20	add	4:13,19	call	6:18
2016	4:7 8:18 11:21	6:24 8:12	5:5	commissione
9:8		10:8,15	car	r
2019	admissible	Barron	9:9 11:9	8:7
3:7 4:14	4:24	4:7,16	12:22	
6:24 8:13	affirmative	6:16,18	13:7,15,	common
	12:25	8:25	19	7:7
26(e) 4:11,24	agree	11:8,24	cars	communicati
4.11,24	10:14	12:13 13:18	13:19,20	on
	_	14:6	•	4:4
3	ahead - 8:16		case	complaint
		basic	4:22	6:10
30	alluded	7:19	6:20,23, 25 8:1,8	completely
12:20	6:12	basis	9:9,10,17	11:3
34	ambush	13:3	11:22	concerned
7:23	11:5	began	13:5	5:15,16,
35	answers	7:5	case-ending	17,20
12:20	12:12	Bessu	8:8	•
	apparently	3:11 5:3	11:15,16,	concerted
	3:7 11:25	7:8	20 14:1	13:21
7	_	bias	chain	concur
	appears	5:6	6:2	4:8 8:17
702FIRM	3:16			conducive
14:2	applied	blue	check	9:21
	_ 10:12	13:20	10:8	confirm
Α	approaching	board	clear	9:18
	12:19,20	8:12	4:1 10:23	10:20
			13:25	-



April 22, 2020 Index: confirmed..heading

confirmed	defendants	4:21	3:4	fine
8:21,22	5:8	documents	Espinoza	12:7
confronted	defense	3:8 10:5	3:4 4:5	firm's
5:22	3:7 4:4	Dollars	13:8	6:5
conversatio	6:10	7:25	Espinoza's	foundation
n	9:24,25		12:6	13:3
13:9	11:23	domestic		
	12:25	5:15	essentially	Frankly
copy	defenses	doughnuts	7:16	11:10
3:18 4:17	12:25	8:1	evidence	front
14:14		driver	4:24	5:2 8:6,7
correct	Department	13:6	11:11	11:15
9:24	6:9		12:14,17,	14:1
10:16	depo	drove	21 13:15,	full
counsel	6:21	12:19	18,19,22	5:10
3:8 4:4	deponent	13:6	evidentiary	0.10
5:3 6:11	4:5	Drummond	13:3	
		3:1 4:15		G
countermoti	deposition	6:17 8:16	exchange	
ons	3:3,5,18	9:18	3:6	gain
12:2	6:13 7:2	10:5,9,	10:15,16	7:15
couple	11:6,17 12:18	14,18,22	excuse	garbage
5:9	13:17	11:19	5:14 8:15	8:15
court		12:10	explanation	
5:5 6:14	determined	13:23	3:25 5:4	genuine
7:1 14:12	3:22	14:7,9		7:10
	directly	due	extent	give
court's	4:25	6:22	11:12	8:14
7:25	dicannainta			_ gold
Craig	disappointe d		- F	9:9 12:22
3:1 4:13	u 11:7	E	- <u></u>	13:15,18
6:16,19			fact	
12:10	disclosed	e-mail	3:6,12,22	guys
14:9	4:11 7:22	6:1,2,5	6:4	9:3
cross	disclosure	10:16,17		
13:11	3:13	13:25	facts	Н
		ear	9:3,7	
	discovery 4:1,23	12:15	fault	half
D	4:1,23 - 7:19 8:7	olicitina	12:21	9:11
	7.19 6.7 10:4	eliciting 5:24 9:3	fees	
day			14:15	happened
13:16,24	dispute	end		11:7
debate	12:6	9:6	file	heading
13:23	distinction	ended	13:25	8:23



April 22, 2020 Index: hear..nature

	A VS SALAIS			index: nearnature
hear 6:21 9:7	10:21	investigato	7:17 8:11	matter 5:11
6:21 9:7 heard	immediately 4:11	r 10:3	L	
13:8	impeachment	involved		- means
Hearing	4:10 6:2,	6:23 12:2	lack	10:23
14:10	14	involvement 6:6	13:2,3	meet-and- confer
hearsay 9:11	impeachment	involves	law 7:7	4:1
	s 7:15	4:3		mental
held 3:17	impressions	Israel	lead 4:23	9:1
Herrera	9:1	11:16	learned	met
3:12	improper	14:2	3:5	8:22
5:12,13	3:21 11:3	issue	limine	Mexican
Herrera's	impugn	9:8 13:12	12:24	12:1,14, 17
7:8	11:13	issues 12:9	list	miles
hesitant 5:21	incident 13:16		9:17	12:20
Hickman	including	J	listed 10:6	mine
8:25	11:25		live	14:2
history	inconsisten	Jason	7:5	minimum
7:25	t	13:14	log	12:20
hold	7:16	Joel 5:7 8:17	10:6	misspoke 13:14
4:18	individual 7:23	11:22	long	mode
holding	information	join	12:25	7:2,13
10:1	5:25 8:19	11:8 14:6		money
honestly 11:6	12:4	Jones	M	_ 6:3
hour	initial	6:22 8:5, 17 10:1,	made	motion
12:21	5:11	7,13,17,	4:22	5:5 10:10 13:25
	Insurance	19 13:14	make	
1	6:9	Judge	6:9 13:24	motions 12:24
	intentional 3:23 9:24	11:16 14:2	14:8	motive
identify 10:20	10:1 11:1		man 7:8	7:18
11:24	intentional	jury 11:14	n.o married	move
identifying	ly		married _ 7:7	7:12
11:23	3:17	K	materials	
identity	investigati on		6:13	N
8:22	8:20	knowledge		nature
				Hature



EDCR 2.34 ME PEREZ-ACOS			Inde	April 22, 2020 x: necessarilyrelief
4:18	offered	personally	produced	11:19
necessarily	6:3	9:15	3:8,9,15	questions
11:15	office	phone	4:25 6:2,	5:24
	5:1	9:6	14,24	
needed			7:14,24	quick
3:15	one-half	pie-in-the-	8:2,13	6:19
Nevada	13:8	sky	10:2	quote
4:8,10	open	13:2	product	12:14
7:20,22	8:9	plaintiff	8:18,25	
8:4,6	order	12:4	9:12,13,	
nonetheless	7:1,2,12,	plaintiffs'	14	R
10:23	13 10:10,	14:13	nuadi iatian	
10.23	13 10.10,		production	reach
nonsense	11	pointing	3:11,13,	9:15
13:2		_ 12:8	17 5:1 7:23	reached
normal	Р	poison	1.23	6:9 8:20
10:4		11:13	productive	
	paid		9:22	read
noted	6:6	position	prompted	5:3
6:6		4:3 10:25	6:10	real
NRCP	part	possibly		6:18
7:23	4:25	8:8 11:16	proper	realms
number	parte	potential	6:25	10:4
11:23	10:10	10:19	11:6,14	10.4
11.20	parties		properly	reasons
	3:2	potentially	8:2	11:13
Ο		3:23	protective	recollectio
	– party	present	7:1,12	n
oath	9:2	3:3	10:10	6:1
13:11,12	passengers	prior		recommend
observation	11:10	6:5	pure	9:16
S	pay		13:10	
5:9	14:14	privacy	purported	record
		5:23	9:2	12:11
obvious	pending	privilege	purpose	14:8
11:13	5:13,14	10:6	12:23	refresh
occurred	percipient	n robotion		5:25
3:19	13:5	probation 5:14	pursuant	
	poriod	5.14	5:3	related 3:14 11:4
Odou 5:7 6:22	period 7:24 9:17	problem	put	3:14 11:4 14:8
8:11	1.24 9.11	12:13	12:24	
11:21,22	person	proceed		relevant
	11:22,25	5:5 7:3		5:1 12:3
offer	personal		Q	_ relief
5:9	8:11	produce		11:2
		4:19	question	· ·· <u>-</u>



April 22, 2020 Index: reminded..voluntarily

7:9 rosa	speculation	9:1	6:13
rosa	9:12	4	14:13,14
4:18	9:12 13:10	terminable 3:24	
4.18	13:10	3.24	trial
roughly	speed	terms	7:6 11:5,
8:14	12:19,20	7:2	13 13:12
rules	sponte	testified	truth
	-		5:21
7.0 11.2			truthfully
	•	-	5:19
S	8:3	5:19	0.10
	_ started	testimony	
safe			U
			unclear
•	· · · · · · · · · · · · · · · · · · ·		8:23
5:17,23	8:4		
Salais	statements	11:14	understand
		things	4:21
			10:22
			12:5
sanctionabl			understandi
е		5:11	ng
3:23 8:8		time	7:6,8
sanctions	14:11		
	strike		unsolicited
			8:20
5:17			V
seasonably	7:23	13:20	V
•	surprise	todav	
			video
			6:13
/:1		_	viewed
shield	Т		8:18
8:3		_	
	talk		violation
•		,	4:2 5:13
4:16		-	11:1
side		9:13	violence
14:13	7:18	tossed	5:15
	talking		
•	•		voluntarily
13:20			6:8
speak			
['] 5:16		7:11	
	8:14 rules 4:9 11:2 S safe 14:11 safety 5:17,23 Salais 12:18 13:6 sanctionable 3:23 8:8 sanctions 3:24 8:8 school 5:17 seasonably 4:12,25 seek 7:1 shield 8:3 shocking 4:16 side 14:13 sign 13:20 speak	8:14 12:19,20 rules sponte 4:9 11:2 7:23 spring 8:3 started 6:20 7:4 14:11 state safety 4:8,10 5:17,23 8:4 Salais statements 12:18 3:14 4:22 13:6 7:14 9:2 sanctionable 12:6 13:11 3:23 8:8 stay sanctions 14:11 3:24 8:8 strike school 11:4 5:17 sua r:23 surprise seek 11:5 7:1 T shield T 8:3 talk 8:10 talked 7:18 talking 3:20 6:23 9:5,15 speak 12:15	8:14 12:19,20 7:2 rules sponte testified 4:9 11:2 7:23 7:6 spring testify s 8:3 5:19 started testimony safe 6:20 7:4 6:4,7 14:11 state 13:17 safety 4:8,10 thing 5:17,23 8:4 6:25 9:19 Salais statements 11:14 12:18 3:14 4:22 things 13:6 7:14 9:2 13:2 sanctionabl 12:6 third-party e 5:11 time 3:23 8:8 stay time sanctionabl 14:11 time sanctions 14:11 time 3:24 8:8 strike 13:1 school 11:4 14:11 5:17 sua tires seasonably 7:23 13:20 4:12,25 surprise today seek 11:5 5:18 7:17 7:1 12:23



April 22, 2020

EDCR 2.34 MEETING PEREZ-ACOSTA vs SALAIS

Index: wanted..Zoom W wanted 5:22 wholly 3:21 withholding 9:24 11:1 12:3 witnesses 4:22 11:24,25 work 8:18,25 9:12,13, 14 12:25 written 10:16 Υ year 8:14 York 8:4 Ζ Zoom 3:19

