

IN THE CIRCUIT COURT IN THE FOURTH
JUDICIAL CIRCUIT IN AND FOR DUVAL
COUNTY, FLORIDA

PATRICIA MINCEY, by and through KELLY SIMS,
her attorney-in-fact,

Plaintiff,

v.

CASE NO: 15CA000377 Div CV-E

AMERICAN HONDA MOTOR CO., INC., a foreign
corporation; HONDA OF AMERICA MFG., INC., a
foreign corporation; TAKATA CORPORATION, a
foreign corporation; TK HOLDINGS, INC., a foreign
corporation; and DUVAL MOTORS OF
JACKSONVILLE, LLC, f/k/a DUVAL HONDA, LLC,
a Florida limited liability company,

Defendants.

PLAINTIFF'S EXPERT DISCLOSURE

Plaintiff, by and through undersigned counsel, and pursuant to the Court's October 7,
2015, Trial Order, hereby files her Expert Disclosure, and states:

1. Chris Caruso
Automotive Safety Consulting
1536 Sagrada Court
Henderson, NV 89074

Mr. Caruso will testify as to the performance of a dual stage airbag system, performance of the seatbelt pretensioner, as well as trigger time and occupant protection. Mr. Caruso's opinions are based upon the inspection, review, study, and analysis of the case materials, including photographs, test data, documents and specifications, depositions, and deposition exhibits as well as his education, training and experience.

Mr. Caruso's curriculum vitae is attached.

Mr. Caruso is available for deposition on, March 7, 2016 and March 8, 2016 in Las Vegas, NV.

Cohen Milstein Sellers & Toll, PLLC
2925 PGA Boulevard, Suite 200, Palm Beach Gardens, FL 33410
Telephone: (561) 515-1400 Facsimile (561) 515-1401

2. Jeffrey A. Kidd
Collision Specialists, Inc.
625 Green Street NW
Gainesville, GA 30501

Mr. Kidd will testify as to accident reconstruction. Mr. Kidd's opinions are based upon his inspection of the subject vehicle, review, study and analysis of the case materials, including the police report, scene and vehicle photographs, test data, depositions, and deposition exhibits as well as his education, training, and experience.

Mr. Kidd's curriculum vitae is attached.

Mr. Kidd is available for deposition on February 29, 2016 in Gainesville, GA.

3. Gregory Knowlton
Pyrogetics LLC
4458 E. Juanite Avenue
Gilbert, AZ 85234

Dr. Knowlton will testify as to propellant and pyrotechnic chemistry, including but not limited to the 2004 Propellant and its design and development. Dr. Knowlton's opinions are based upon case materials, document production, depositions, testing and specifications, as well as his education, training and experience.

Dr. Knowlton's curriculum vitae is attached.

Dr. Knowlton is available for deposition on March 31, 2016 in Gilbert, AZ. We are attempting to get some earlier dates as well.

4. Sri Kumar, Ph.D.
Safety Research Institute
110 Industrial Blvd.
Hoschton, GA 30548

Dr. Kumar will testify regarding Mrs. Mincey's injuries and how those injuries occurred, in association with the air bag deployment, including occupant kinematics. Dr. Kumar's opinions are based upon his vehicle inspection, surrogate study, study and analysis of the case materials, including the police

report, photographs of the vehicles and scene, various test data, depositions, and deposition exhibits as well as his education, training, and experience.

Dr. Kumar's curriculum vitae is attached.

Dr. Kumar is available for deposition on March 2, 2016, March 3, 2016 and March 4, 2016 in Palm Beach Gardens, FL.

5. Ronald Snyder, MD
668 N Orlando Avenue
Suite 1005
Maitland, FL

Dr. Snyder will testify regarding Mrs. Mincey's injuries, care and treatment, medical needs, and life care plan. Dr. Snyder's opinions may be based upon his care and treatment of Plaintiff, examination of Mrs. Mincey, as well as his review of the discovery materials produced during the course of this case, including, but not limited to, depositions, medical records, medical reports, or other documents produced during the course of discovery, as well as his education, experience, and background. Dr. Snyder may also address any opinions raised by the Defendants' experts on the subject of life care planning.

Dr. Snyder's curriculum vitae is attached.

Dr. Snyder is available for deposition on February 9, 2016, February 15, 2016 and February 16, 2016 in the afternoon in Palm Beach Gardens, FL.

6. Nicholas D. Suite, MD
Embassy Health
2525 Embassy Drive
Suite 7
Cooper City, FL

Dr. Suite will testify as to Mrs. Mincey's injuries, injury causation and kinematics, care and treatment (past and future), as well as her life care plan. Dr. Suite's opinions are based upon his examination of Mrs. Mincey, review, study and analysis of the case materials, including medical records, photographs of the vehicles, test data, depositions, and deposition exhibits as well as his education, training, and experience.

Dr. Suite's curriculum vitae is attached.

Deposition dates for Dr. Suite are being obtained.

7. William A. Williams
Williams' Innovative Software and Training
219 Ridge Street
Georgetown, SC 29440

Mr. Williams will testify as to inspection, measurements, and testing conducted on PSDI, PSDI4, and PSDI4k inflators, including the subject PSDI-4K inflator.

Mr. Williams' curriculum vitae is attached.

Deposition dates for William Williams are February 29th in Charleston, S.C.
March dates are also being obtained.

8. Ted Zinke
Automotive Safety Research, Inc.
5350 Hollister Avenue
Suite D
Santa Barbara, CA 93111-2326

Mr. Zinke will testify as to an overview of the design and development of the subject airbag system; how the airbag system and the subject inflator performed, as well as the aggressive nature of the airbag deployment, and various testing. Mr. Zinke's opinions are based upon the inspection, review, study and analysis of the case materials and airbag inflator, including the police report, photographs of the vehicles, test data, depositions, and deposition exhibits, as well as his education, training, and experience.

Mr. Zinke's curriculum vitae is attached.

Deposition dates for Mr. Zinke are being obtained.

9. Rody J. Borg, Ph.D.
14286-19 Beach Boulevard
Suite 196
Jacksonville, FL 32250

Dr. Borg will testify as to the economic losses to Mrs. Mincey as a result of the subject accident. Dr. Borg's opinions are based upon his review of the case materials, governmental studies, as well as his education, experience and background.

Dr. Borg's curriculum vitae is attached.

Deposition dates for Dr. Borg are being obtained.

All of Plaintiff's treating physicians listed as witnesses will be testifying in their capacity as non-retained experts in their field and with respect to Plaintiff's medical condition. Each witness is not a retained expert, but rather a treating healthcare provider. Unless stated otherwise, neither the undersigned law firm, nor the Plaintiff, has paid his/her hourly fee for treatment. Neither have these witnesses been furnished the entire medical records of the Plaintiff for a review and opinion as is customarily done with a witness hired to conduct a compulsory medical examination. Each treating physician is presumed by the undersigned to be an expert in their stated field and will so testify at trial. As a result, these designated treating physicians will testify within their respective medical specialty as to Plaintiff's complaints, history of injury, and any responses to doctor's questioning. They will testify as to their opinions concerning the Plaintiff's prior treatment, health conditions, reasonableness of Plaintiff's healthcare needs, Plaintiff's work restrictions, the causation of Plaintiff's complaints and injuries, whether Plaintiff had a permanent impairment as a result of these injuries. These witnesses further have written progress notes as required by Florida law and are available to both parties through discovery procedures and HIPAA forms. As far as is known, these non-retained experts have been available for deposition by subpoena by either side to provide opinions which will be elicited at trial. Those opinions at trial will be preceded by the expert's testimony as to their credentials, relationship to the patient, treatment and care rendered, expense of said treatment and care, whether or not Plaintiff has suffered a permanent injury, loss of bodily function, and whether the expert relates his/her involvement and expense to the event sued upon. All expenses will be given in present day dollars. These non-retained expert opinions will not be solely limited to his/her records; therefore, it is recommended that defense counsel take the deposition of these physicians to fully illicit all opinions these experts may have at trial.

1. Andrew Kerwin, M.D.
UF Health Jacksonville
655 W. 8th Street
Jacksonville, FL 32209
2. Nathan Do, M.D.
3000 E. Fletcher Ave
Tamp, FL 33613
3. Matthew Hartlage, M.D.
38135 Market Square
Zephyrhills, FL 33542
4. Elvis Castillo, M.D.
38051 Market Square

Zephyrhills, FL 33542

5. David Skarupa, M.D.
UF Health TraumaOne Trauma Center
655 West 8th Street
Jacksonville, FL 32209
6. Alex Mathai, M.D.
UF Health Emergency Medicine
655 W. 8th Street
Jacksonville, FL 32209
7. Steve Hsu, M.D.
UF Health Emergency Medicine
655 W. 8th Street
Jacksonville, FL 32209
8. Kamela Scott, Ph.D.,
UF Health Jacksonville
655 W. 8th Street
Jacksonville, FL 32209
9. Anthony Harris
UF Health Jacksonville
655 W. 8th Street
Jacksonville, FL 32209
10. Kathryn Bentley
UF Health Jacksonville
655 W. 8th Street
Jacksonville, FL 32209
11. James Dennis, M.D.
UF Health Jacksonville
655 W. 8th Street
Jacksonville, FL 32209
12. Andrew Schmidt, D.O.
UF Health Jacksonville
655 W. 8th Street
Jacksonville, FL 32209
13. Carlos A. Arce, M.D.

580 W. 8th Street
Jacksonville, FL 32209

Respectfully submitted,

s/Theodore J. Leopold
THEODORE J. LEOPOLD, ESQ.
Florida Bar No.: 705608
tleopold@cohenmilstein.com
Cohen Milstein Sellers & Toll, PLLC
2925 PGA Boulevard, Suite 200
Palm Beach Gardens, FL 33410
(561) 515-1400

CERTIFICATE OF SERVICE

I hereby certify that on this 1st day of February 2015, I electronically filed a true and correct copy of the foregoing via the Florida Courts E-Filing Portal with the Clerk of the Court and served upon those listed below via the Florida Courts E-Filing Portal:

Joel H. Smith, Esq.
Joel.Smith@bowmanandbrooke.com
Bowman and Brooke, LLP
1441 Main Street
Suite 1200
Columbia, SC 29201
Phone: (803)-726-7420
Attorneys for American Honda Motor Co., Inc. & Honda of America Mfg

Paul G. Cereghini, Esq.
paul.cereghini@bowmanandbrooke.com
Bowman and Brooke, LLP
2901 N. Central Ave., Suite 1600
Phoenix, AZ 85012
Phone: (602)-643-2300
Attorneys for American Honda Motor Co., Inc. & Honda of America Mfg

Jonathan Z. DeSantis, Esq.
jdesantis@cfjblaw.com; bsickimich@cfjblaw.com; tpaecf@cfdom.net

*Cohen Milstein Sellers & Toll, PLLC
2925 PGA Boulevard, Suite 200, Palm Beach Gardens, FL 33410
Telephone: (561) 515-1400 Facsimile (561) 515-1401*

Jaret J. Fuente, Esq.
jfuente@cfjblaw.com; lgarrett@cfjblaw.com; tpaecf@cfdom.net
Carlton Fields Jordan Burt, P.A.
P.O. Box 3239
Tampa, FL 33601
Phone: (813)-229-4362
Fax: (813)-229-4133
Attorneys for Takata Corporation & TK Holdings

Peter D. Webster, Esq.
pwebster@carltonfields.com; scartwright@carltonfields.com; talecf@cfdom.net
Carlton Fields Jordan Burt, P.A.
215 S. Monroe Street
Tallahassee, FL 32301-1866
Phone: (850)-224-1585
Fax: (850)-222-0398
Attorneys for Takata Corporation & TK Holdings

Stephen J. Krigbaum, Esq.
skrigbaum@cfjblaw.com; sgarrick@cfjblaw.com; wpbecf@cfdom.net
Carlton Fields Jordan Burt, P.A.
525 Okeechobee Blvd, Suite 1200
West Palm Beach, FL 33401
Phone: (561)-659-7070
Fax: (561)-659-7368
Attorneys for Takata Corporation & TK Holdings

Daniel Kissane, Esq.
daniel.kissane@csklegal.com; Pauletta.Hembling@csklegal.com; theresa.tippins@csklegal.com;
rachel.chewning@csklegal.com
Cole, Scott & Kissane
4686 Sunbeam Road
Jacksonville, FL 32257
Phone: (904)-672-4000
Fax: (904)-672-4050
Attorneys for American Honda Motor Co., Inc. & Honda of America Mfg

Amy L. Rudd, Esq.
amy.rudd@dechert.com
Dechert LLP
300 W. 6th Street, Suite 2010

Austin, TX 78701
Phone: (512)-394-3000
Fax:
Attorneys for Takata Corporation & TK Holdings

Benjamin R. Barnett, Esq.
ben.barnett@dechert.com; lynn.mcaleer@dechert.com
Dechert LLP
Cira Centre
2929 Arch Street
Philadelphia, PA 19104-2808
Phone: (215)-994-4000
Attorneys for TK Holdings

David Bernick, Esq.
david.bernick@dechert.com
Hector Gonzalez, Esq.
hector.gonzalez@dechert.com
Jeffrey Brown, Esq.
jeffrey.brown@dechert.com
Mauricio A. Espana, Esq.
mauricio.espana@dechert.com
Michael J. Gilbert, Esq.
michael.gilbert@dechert.com
Dechert LLP
1095 Avenue of the Americas
New York, NY 10036
Phone: (212)-698-3500
Attorneys for Takata Corporation & TK Holdings

Nathan E. Hoffman, Esq.
nathan.hoffman@dechert.com
Dechert LLP
35 W. Wacker Dr., Suite 3400
Chicago, IL 60601
Phone: (312)-646-5800
Attorneys for Takata Corporation & TK Holdings

Steven G. Bradbury, Esq.
steven.bradbury@dechert.com

Dechert LLP
1900 K Street, NW
Washington, DC 20006
Phone: (202)-261-3300
Attorneys for Takata Corporation & TK Holdings

John M. Howell, Esq.
jhowell@fernandeztl.com; ccoffey@fernandeztl.com
Fernandez Trial Lawyers
8780-200 Perimeter Park Court
Jacksonville, FL 32216
Phone: (904)-398-8088
Fax: (904)-398-0332
Attorneys for Duval Motors

Eric S. Mattson, Esq.
emattson@sidley.com
Michael C. Andolina, Esq.
mandolina@sidley.com
Sidley Austin LLP
1 South Dearborn
Chicago, IL 60603
Phone: (312)-853-2228
Attorneys for American Honda Motor Co., Inc. & Honda of America Mfg

Michael L. Mallow, Esq.
mmallow@sidley.com
Sidley Austin LLP
555 W. Fifth Street
Los Angeles, CA 90013
Phone: (213)-896-6666
Attorneys for American Honda Motor Co., Inc. & Honda of America Mfg

Cohen Milstein Sellers & Toll, PLLC
2925 PGA Boulevard, Suite 200
Palm Beach Gardens, FL 33410
(561) 515-1400
(561) 515-1401 (facsimile)

By: s/Theodore J. Leopold
THEODORE J. LEOPOLD, ESQ.
Florida Bar No.: 705608
tleopold@cohenmilstein.com

*Cohen Milstein Sellers & Toll, PLLC
2925 PGA Boulevard, Suite 200, Palm Beach Gardens, FL 33410
Telephone: (561) 515-1400 Facsimile (561) 515-1401*

Curriculum Vitae

Chris Caruso

Automotive Safety Consulting, Inc.
1536 Sagrada Court
Henderson, NV 89074

Tel: 702-280-1069
Email: automotivesafety@gmail.com

EDUCATION

- Master Of Science Engineering – Arizona State University – 1986
 - Specialized in Solid State Electronics
 - Research Assistant
 - Master's Thesis on Sub-Picosecond Photoconductivity
- Bachelor of Science Electrical Engineering (BSEE) and Mechanical Engineering (BSME) – General Motors Institute – 1984
 - Dual degree program
 - President of Skydiving Club

TECHNICAL EXPERIENCE

- 2007-Present: Automotive Safety Consulting
 - Analyze passenger vehicle crashes and determine performance of applicable safety systems.
 - Identify defects or deficiencies in occupant protection systems, if applicable.
 - Research and analyze feasibility of safety system technologies for mitigating permanent or fatal injuries in a wide variety of field relevant crash conditions such as frontal impact, side impact, rollover, and rear impact collisions.
 - Provide download and interpretation support for Crash Data Recorders
- 2003-2006: Technical Manager – Automotive Safety Systems – Delphi Corporation – Mexico Technical Center – Juarez, MX
 - Expert Technical Lead of all engineering disciplines (Systems, Mechanical, Electrical, Software, Test) on the development and product engineering of the Passive Occupant Detection System (PODS-B) for advanced airbag systems.
 - Initiated Advanced Development Project for major revisions to existing PODS-B algorithm and electronic technology.
 - Regularly travelled to international locations to investigate and diagnose problems with PODS and SDM systems in customer vehicles in the field or during development testing.

- Provided regular training classes in Airbags (SIR) and PODS systems to existing and new engineers on the Delphi and customer teams.
- Ran technical design reviews for PODS ECU at each development and production release.
- Directed and supported continuing development of SDM, EFS, SIS and other airbag related technologies.
- 2002-2003: Engineering Group Manager – Delphi Delco Electronics – Mexico Technical Center – Juarez, Mexico
 - Managed engineering teams developing Software, Systems, and Test engineering aspects of PODS-B and SDM projects.
 - Developed processes and procedures for effective development and execution of engineering tasks.
 - Provided customer training on product and technology
 - Regularly travelled to customer designated locations to evaluate product performance anomalies and issues.
 - Received regular feedback from customers regarding excellence of work performance and dedication to the product and customer teams.
- 1999-2002: Advanced Product Development Engineer – Delphi Delco Electronics Systems – Kokomo, IN
 - Developed next generation frontal and side airbag sensing systems.
 - Reviewed and evaluated the methods, procedures and processes for the development of the next generation airbag sensing systems
 - Worked directly with customers on implementation, testing and validation of dual stage airbags, seat belt pretensioner systems, rear impact, side impact and dual threshold systems.
 - Provided technical support to the Rollover system development team regarding algorithm design, sensor technologies and application of signal processing techniques.
 - Attended monthly meetings with the airbag technology team in Vandalia, Ohio developing multi-stage, variable level and dual stage airbag technologies.
 - Patented 6 major crash sensing algorithm techniques used for frontal impact and side impact airbag systems.
 - Supported all customer field investigations related to problems observed in system performance.
 - Evaluated potential airbag system defects during vehicle development and during accident investigations, and then subsequently developed corrective actions and solutions to remedy any defects found.
- 1999: Senior Development Engineer Automotive Safety Systems – Delphi Delco Electronics Systems – Wuppertal Technical Center – Wuppertal, Germany
 - Created an Automotive Safety System development group in the Wuppertal Technical Center supporting 8 local German engineers.
- 1995-1999: Advanced Algorithm Development Automotive Safety Systems – Delco Electronics – Kokomo, IN
 - Developed algorithm design and techniques for the new Electronic Frontal Sensor (EFS) for frontal crash detection.

- Directly supported the development of the Side Impact Sensor (SIS) algorithm and signal processing.
- Reviewed and evaluated the methods, procedures and processes for the development of the airbag sensing systems
- Designed Single Point Sensing and Diagnostic Module (SDM) algorithm.
- Developed theory and application for signal processing of input acceleration data for the next generation SDM sensor design.
- Designed the application algorithm for the dual axis (90 degree and 45 degree) accelerometer technology.
- Engineered the Safing techniques for Frontal and Side Impact airbag systems using the SDM accelerometer data.
- Designed the low cost Crash Data Recorder (CDR) for application on field vehicle regardless of the use of an SDM.
- Advocate of multipoint crash sensing systems upon the advent of the dual threshold and dual stage technology. Most other suppliers would initially claim single point was still feasible, but would eventually switch to an EFS based system.
- Detailed Analysis of crash test data to determine sensing system design and performance.
- Troubleshooter for sensor issues in crash tests and field performance.
- Developed sensor specifications for crashworthiness.
- Analyzed vehicle structures to determine optimum sensor technology and placement for meeting crashworthiness targets.
- Provided technical support to the Rollover system development team for rollover sensor and low G accelerometer technology selection and implementation.
- Developed next generation airbag sensing systems with major OEM's worldwide.
- 1989-1995: Lead Systems Engineer Automotive Safety Systems – Delco Electronics Corporation – Kokomo, IN
 - Generated techniques and concepts for the first generation SDM system.
 - Lead Calibration engineer for electro-mechanical and electronic crash sensing systems
 - Developed theory and supported technology investigations for mechanical dual pole arming sensor design
 - Assisted Breed Automotive in the development of a new ball/tube sensor design for frame rail applications.
 - Developed the “Sensor Mounting Guidelines Document” for establishing customer requirements for the location and structural design for optimized crash sensor applications. Continually updated this document to reflect the continually changing technologies.
 - Presented a paper at SAE in 1991 entitled: “Experimental Technique for Measuring Cross-Axis Sensitivity of Automotive Crash Sensors”
 - Resolved major customer development issue regarding the performance of single point sensors on their vehicle application.
 - Frequently led customer meetings worldwide supporting the development, application and improvement techniques for airbag system implementation.
 - At the forefront of the technologies and application of sophisticated sensing systems on cars, trucks, SUVs and heavy duty vehicles.

- Regularly invited to customer locations to present and train their teams in the technologies and applications of mechanical, electronic and combined crash sensor designs.
- Detailed Analysis of crash test data to determine sensing system design and performance.
- Troubleshooter for sensor issues in crash tests and field performance.
- Developed sensor specifications for crashworthiness.
- Analyzed vehicle structures to determine optimum sensor technology and placement for meeting crashworthiness targets.
- Developed airbag sensing systems with major OEM's worldwide.
- 1987-1989: Delco Electronics Resident Engineer at Breed Automotive Corporation – Boonton, NJ
 - Worked with calibration leader to develop and implement calibrations for airbag systems on all GM vehicles circa 1988.
 - Successfully rolled out completed ball/tube sensing systems for several GM vehicles by 1990 MY.
 - Supported the development of the processes and testing to insure reliable performance of the first generation ball/tube sensors.
 - Participated in the development and verification of the 3D ball/tube sensor model for optimized simulation capability.
 - Developed a cross-axis test fixture to evaluate the sensitivity of the ball/tube sensor to off axis vibrations.
 - Directly interfaced with GM customer teams providing calibrations, development sensors and test support during the key development of the sensing system.
- 1986-1987: Systems Engineer – Advanced Vehicle Systems – Delco Systems Operations – Santa Barbara, CA
 - Developed the Near Obstacle Detection System as part of advanced engineering team.
 - Selected the technology which eventually became the FOREWARN system.
 - Developed range and target acquisition data for the development of the NODS system.
 - Field tested 3 different competing object detection systems on a Chevrolet Lumina vehicle throughout Southern California.
 - Brought Mechanical engineering expertise to an engineering team which was deep skilled in Electronics.
 - Mechanical expertise was selected to support a resident engineering assignment at Breed Automotive Corporation developing Electro-Mechanical crash sensors.
- 1979-1986: Engineer in Training – Process Engineering – Fisher Body Division – GM Trenton, NJ
 - Various engineering and management work assignments during 5 Year GMI Cooperative education program.
 - First GMI Graduate at FB – Trenton to graduate directly to engineering, all prior graduates first went into Production Line Supervision.
 - Production and Process engineer in Injection Molding and Extrusion of plastics for automotive hardware.
 - Reported directly to 1st Shift Chief Engineer while being solely responsible for all manufacturing processes during 2nd and 3rd shift operations.

OTHER SKILLS

- 6 Patents in Automotive Safety Technologies
- 2 SAE International Congress Publications and presentations for Automotive Safety Systems
- Delco Electronics Boss Kettering Award for Engineering Excellence
- GM Presidents Council Honors Award for Engineering Excellence
- Delphi Lead Award for Advanced Engineering
- GM People Make Quality Happen Award for Design Engineering Excellence
- Delphi Corporation Boron Recovery Award for Problem Solving
- Numerous other Awards and recognitions from GM, Delphi and other OEM customers.

LANGUAGE SKILLS

- Spanish

Curriculum Vitae

Jeffrey Alan Kidd

Collision Specialists, Inc.

625 Green Street NW

Gainesville, Georgia 30501

770.287.8734

www.collisionspecialistsinc.com

Personal

Jeffrey was born and raised in Hinesville, Georgia. He is married to Jodie Kidd and they have four children.

Education

- Brunswick College 1991-1992
- Middle Georgia College 1989
- Georgia Southern College 1987-1988
- Bradwell Institute High School 1987

Professional Affiliations

- Society of Automotive Engineers (*SAE*)
- Accreditation Commission for Traffic Accident Reconstruction (*ACTAR*)
- Professional Society of Forensic Mapping, (*PSFM*)
- South Carolina Association of Reconstruction Society, (*SCARS*)
- National Association of Professional Accident Reconstruction Specialists (*NAPARS*)
- North American Transportation Management Institute (*NATMI*)
- Georgia Motor Trucking Association (*GMTA*)
- Peace Officers Association of Georgia, (*POAG*)

Personal Affiliations

- Member of Mt. Vernon Baptist Church, Gainesville, Georgia
- Douglas Lodge #386, F & AM

Certifications

- FMCSA Certification (Level I, II, & III)
- A.C.T.A.R. #1734
- Identification Technician, # PS10050028S
- Bosch CDR Technician Certification
- Instructor (Georgia & Florida)
- Forensic Mapping Specialist
- Radar/Laser Speed Device

Employment History

- Employed by Flowery Branch Police Department 09/09
- Assigned to S.C.R.T. 2 (Gainesville) as Team Leader 07/08
- Promoted to the rank of Sergeant (Team Leader)-S.C.R.T. 5 04/07
- Opened Collision Specialists, Inc., Valdosta, Georgia 03/05
- Employed Adjunct Instructor, I.P.T.M. (Jacksonville, Florida) 02/03
- Promoted to the rank of Corporal-S.C.R.T. 5 08/99
- Assigned to the Specialized Collision Reconstruction Team 03/98
- Detached to S.C.R.T.-Training, GPSTC (*Charter Member*) 06/97
- Assigned to Post #36, Douglas 02/94
- Promoted to the rank of Trooper First Class, (TFC) 11/93
- Assigned to Post #22, Waycross 11/92
- Promoted to the rank of Trooper, (TPR) 11/92
- Assigned to the 66th Trooper School 05/92
- Promoted to the rank of Trooper Cadet 05/92
- Assigned to Post #35, Jekyll Island, Radio Operator 07/89
- Assigned to Post #16, Helena, Radio Operator 06/88
- Employed by the Department of Public Safety 06/88

Training History

2015

➤ CDR User Summit (Houston, Texas) 01/15 18

2014

➤ Special Problems in Traffic Crash Reconstruction (St. Petersburg, Florida) 04/14 30

2013

➤ FARO Focus 3-D 12/13 8

➤ SAE-Applying Automotive EDR Data to Traffic Crash Reconstruction (Norwalk, Ca) 12/13 20

2012

➤ Event Data Recorders in Traffic Crash Reconstruction, IPTM 08/12 40

➤ GMTA Annual Conference (Amelia Island, FL) 06/12

2011

➤ SAE-Accessing and Interpreting HVEDR's (Charlotte, NC) 05/11 32

2010

➤ How To Interpret Heavy Duty EDRs (Tulsa, OK) 02/10 40

2009

➤ LIDAR 03/09 8

➤ General Haz-Mat, GPSTC 01/09 40

2008

➤ Firearms Training, GPSTC 09/08 6

➤ Advanced Commercial Motor Vehicle Crash Investigation, IPTM 06/08 40

➤ North American Standard Field Inspection Program 05/08-10/08 400

➤ Firearms Training, GPSTC 05/08 8

➤ FMCSA (Level I, II, III Certification) 05/08 120

➤ Crash Data Retrieval Technician, BOSCH 02/08 8

2007

➤ Annual In-Service Training, GPSTC 12/07 16

➤ Firearms Training, GPSTC 12/07 6

➤ Security & Integrity of Criminal Justice Information, GCIC 08/07 4

➤ Poser (3D Animation) 05/07 12

➤ Adobe Photosbop (3D Animation) 04/07 12

➤ Investigative Shortcomings 03/07 4

➤ Energy Methods & Damage, IPTM 02/07 40

➤ 3D-S Max Level II, GPSTC 01/07 18

➤ 3D-S Max, GPSTC 01/07 18

➤ Auto-Cad, GPSTC 01/07 18

2006

➤ Ethics Training, GPSTC 12/06 4

➤ Commercial Motor Vehicle Alliance Symposium, Indianapolis, Indiana 12/06 24

➤ Firearms Training, GPSTC 05/05 6

➤ Applied Physics, IPTM 10/06 40

➤ ALS Training, GPSTC 09/06 2

➤ Radar Recertification, GPSTC 09/06 4

➤ F3 T2 Crash Conference, Houston, Texas 09/06 28

➤ Annual In-Service Training, GPSTC 04/06 16

➤ Methodology and Techniques of Crash Data Retrieval, IPTM 02/06 36

2005

➤ Inspection/Investigation of Commercial Motor Vehicle Crashes, IPTM 10/05 40

➤ ALS Training, GPSTC 09/05 2

➤ Advanced Crash Zone, IPTM 08/05 40

➤ Pursuit Driver Training, GPSTC 05/05 16

➤	Firearms Training, GPSTC	05/05	6
➤	23 rd Annual Special Problems in Traffic Crash Reconstruction, IPTM	04/05	24
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<u>2004</u>			
➤	Security & Integrity of Criminal Justice Information, GCIC	12/04	4
➤	Annual Firearms Qualification, GPSTC	11/04	4
➤	Bendix Air Brake School	11/04	24
➤	CDR Tool User	10/04	24
➤	Firearms Training (Simulator), GPSTC	09/04	1
➤	G-8 Legal Training	05/04	8
➤	Chemical Agent Exposure GPSTC	04/04	3
➤	Mobile Field Force GPSTC	04/04	33
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<u>2003</u>			
➤	Fingerprint Classification, GPSTC	09/03	40
➤	Crash Zone-CAD Program, GPSTC	07/03	25
➤	Latent Print Identification, GPSTC	06/03	24
➤	Latent Print Development, GPSTC	05/03	24
➤	Annual In-Service Training, GPSTC	04/03	20
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<u>2002</u>			
➤	Evidence Presentation, GPSTC	11/02	16
➤	Blood Pattern Analysis, GPSTC	10/02	40
➤	G.S.P. Mobile Driving Simulator	10/02	2
➤	S.E.A.R.S. 2 nd Annual Conference	08/02	24
➤	Georgia Performance Management Process	06/02	6
➤	Tire Damage Seminar, GPSTC	06/02	6
➤	Firearms Training (Simulator), GPSTC	05/02	1
➤	Special Problems in Accident Reconstruction, IPTM	04/02	32
➤	Advanced Interviews & Interrogations, IPTM	03/02	40
➤	DPS 523 Instructor Training, GPSTC	02/02	8
➤	Annual In-Service Training, GPSTC	02/02	20
➤	DPS 523 Instructor Training, GPSTC	01/02	16
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<u>2001</u>			
➤	Annual Firearms Qualification, GPSTC	11/01	8
➤	Intoximeter 5000 Refresher Course, GPSTC	10/01	4
➤	CAD Program, "MAP Scenes", GPSTC	06/01	24
➤	Annual In-Service Training, GPSTC	05/01	16
➤	Operation Lifesaver	05/01	2
➤	Digital Photography, GPSTC	04/01	2
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<u>2000</u>			
➤	Annual In-Service Training, GPSTC	11/00	4
➤	Wrex 2000 Conference, Texas A & M	09/00	36
➤	Radar Recertification, GPSTC	08/00	4
➤	Crime Scene Technician, GPSTC	03/00	40
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<u>1999</u>			
➤	Annual In-Service Training, GPSTC	12/99	8
➤	Pursuit Intervention, Boxing In & High Speed Tech., GPSTC	09/99	24
➤	Commercial Vehicle Inspection & Collision Investigation, GPSTC	06/99	40
➤	Annual In-Service Training, GPSTC	04/99	16
➤	Security & Integrity of Criminal Justice Information, GCIC	04/99	4
➤	Vehicle Damage & Energy, Texas A & M	04/99	40
➤	Vericom 2000 Training	03/99	8
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<u>1998</u>			
➤	Southeastern Collision Reconstruction Conference, S.C.	11/98	24
➤	Annual In-Service Training, GPSTC	10/98	8
➤	Hazardous Material Awareness Level	10/98	8

➤	<i>Winning the D.U.I. Crash Case</i>	05/98	8
➤	<i>Sokkia C/P/X Seminar, GPSTC</i>	02/98	24
➤	<i>Tire Damage Analysis, GPSTC</i>	02/98	8
➤	<i>Annual In-Service Training, GPSTC</i>	02/98	8
➤	<i>Annual In-Service Training, GPSTC</i>	01/98	24
➤	<i>Traffic Accident Reconstruction Level III, GPSTC</i>	01/98	40
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<u>1997</u>			
➤	<i>Stress Management, GPSTC</i>	12/97	20
➤	<i>D.O.T. Rules & Regulations</i>	12/97	8
➤	<i>Vehicle Homicide Prosecution, GPSTC</i>	12/97	40
➤	<i>Radar Recertification, GPSTC</i>	12/97	4
➤	<i>Crime Scene Evidence & Preservation, GPSTC</i>	11/97	40
➤	<i>Interviews & Interrogations, GPSTC</i>	11/97	40
➤	<i>Physics Applied to Accident Reconstruction, Texas A & M</i>	11/97	40
➤	<i>P.O.S.T. Instructor, GPSTC</i>	10/97	80
➤	<i>Photography, GPSTC</i>	10/97	40
➤	<i>Pedestrian/Bicycle Reconstruction, Texas A & M</i>	10/97	40
➤	<i>Forensic Mapping/Total Station, MJC Associates</i>	09/97 & 12/97	120
➤	<i>Commercial Vehicle Reconstruction, Level II</i>	09/97	40
➤	<i>Commercial Vehicle Reconstruction, Level I</i>	09/97	40
➤	<i>Annual In-Service Training, GPSTC</i>	09/97	20
➤	<i>Windows 95, GPSTC</i>	08/97	40
➤	<i>Motorcycle Accident Reconstruction, Texas A & M</i>	08/97	40
➤	<i>Computerized Collision Diagramming-Auto Sketch, GPSTC</i>	08/97	40
➤	<i>Midland-Grau Air Brake School</i>	07/97	8
➤	<i>Air Brakes, GPSTC</i>	07/97	24
➤	<i>Traffic Accident Reconstruction-Level V (Energy), GPSTC</i>	07/97	40
➤	<i>Traffic Accident Reconstruction-Level IV (Time & Distance), GPSTC</i>	07/97	40
➤	<i>Traffic Accident Reconstruction-Level III (Momentum), GPSTC</i>	06/97	40
➤	<i>Traffic Accident Reconstruction-Level II (Falls, Flips & Vaults), GPSTC</i>	06/97	40
➤	<i>Traffic Accident Reconstruction-Level I (Minimum Speed), GPSTC</i>	06/97	40
➤	<i>On-Scene Level II, GPSTC</i>	06/97	40
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<u>1996</u>			
➤	<i>Drug Interdiction, GPSTC</i>	12/96	8
➤	<i>Annual In-Service Training, GPSTC</i>	12/96	8
➤	<i>Radar Recertification, GPSTC</i>	10/96	4
➤	<i>Olympic Security Training, GPSTC</i>	06/96	20
➤	<i>Intoximeter Refresher Course, GPSTC</i>	05/96	4
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<u>1995</u>			
➤	<i>Annual In-Service Training, GPSTC</i>	10/95	4
➤	<i>Fraudulent Investigations</i>	08/95	1
➤	<i>Annual In-Service Training, GPSTC</i>	03/95	20
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<u>1994</u>			
➤	<i>Radar Recertification, GPSTC</i>	12/94	4
➤	<i>Intoximeter Refresher Course, GPSTC</i>	10/94	4
➤	<i>Annual In-Service Training, GPSTC</i>	08/94	24
➤	<i>Drug Enforcement Administration Highway Interdiction, DEA</i>	01/94	24
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<u>1993</u>			
➤	<i>Annual In-Service Training, GPSTC</i>	08/93	24
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<u>1992</u>			
➤	<i>66th Basic Trooper School, GPSTC</i>	05/92-11/92	1242

Work/Field Experience

Work experience to include the investigation and/or reconstruction of nearly four thousand vehicle collisions. As a charter member of the Georgia State Patrol's Specialized Collision Reconstruction Team, Mr. Kidd aided in the reconstruction of over fifteen hundred fatal collisions. In April of 2007, Mr. Kidd was promoted to Sergeant and team leader of the Valdosta S.C.R.T. In July of 2008, Mr. Kidd was assigned as team leader of the Gainesville S.C.R.T. Mr. Kidd's 20+ years experience covers a wide spectrum of collisions to include commercial motor vehicles, passenger vehicles, rail, motorcycles, all-terrain vehicles, pedestrians, bicycles and conspicuity. Expertise has also been gained with regards to vehicle mechanical failures, such as tire deficiencies, lamp on/off determinations as well as compliance regarding the Federal Motor Carrier Safety Regulations (49 CFR). Mr. Kidd is knowledgeable of the standards required in the Manual on Uniformed Traffic Control Devices (MUTCD) as well as roadway design, as described in American Association of State Highway and Transportation Officials (AASHTO).

Court Room Experience

Jeffrey A. Kidd has provided courtroom testimony for the last twenty three years. Mr. Kidd has been recognized as an Expert in the field of Accident Reconstruction in State, Superior, and Federal Courts of Georgia and State Court of South Carolina.

Instructing/Teaching

Mr. Kidd has instructed courses of study involving accident investigation and reconstruction for the last fifteen years. He was instrumental in the design of the curriculums related to accident investigation and accident reconstruction taught to Georgia State Patrol. Mr. Kidd's vast experience in the field of accident investigation lends real life situations to the student for better comprehension of the material.

- *Taught a one-hour block of instruction entitled "What's in the Black Box-Downloading HVEDR's" to the Attorney Information Exchange Group in San Diego, CA on April 7th, 2015.*
- *Taught a one-hour block of instruction entitled "Where the Rubber Meets the Road" to the Southern Trial Lawyers Association in Asheville, NC on September 26th, 2014.*
- *Taught a one-hour block of instruction entitled "Depositions of an Accident Reconstructionist" to the GTLA at the State Bar of Georgia on September 24th, 2014.*
- *Taught a one-hour block of instruction entitled "Crash Reconstruction Update" for GDLA at Ellis Hotel in Buckhead on June 26th, 2014.*
- *Taught a one-hour block of instruction entitled "Mock Trial" to the South Carolina Association of Justice in Atlanta, GA on December 6th, 2013.*
- *Taught a block of instruction entitled "Demonstrative Evidence" for South Carolina Defense Trial Attorneys Association in Columbia, SC on April 17th, 2013.*
- *Taught a block of instruction entitled "Accident Reconstruction of CMV crashes" to the Motor Carrier Safety Advisory Committee in Washington, DC on February 5th, 2013.*
- *Taught a one-hour block of instruction entitled "Where the Rubber Meets the Road" for GDLA at Maggiano's in Buckhead on March 14th, 2012.*
- *Taught a one-hour block of instruction entitled "Accident Reconstruction" for ICLE at the GPTV, December 15th, 2011.*
- *Taught a one-hour block of instruction entitled "Commercial Motor Vehicle Reconstruction" for ICLE at the Georgia Bar, October 19th, 2011.*
- *Taught a one-hour block of instruction entitled "Interpreting Crash Evidence" for Impaired Driving Specialists at Chateau Élan, August 4th, 2011.*
- *Taught a one-hour block of instruction entitled "Where the Rubber Meets the Road" at the Georgia Trial Lawyers Association Auto Torts, July 27th-31st, 2011.*

- Taught a one-hour block of instruction entitled "Where the Rubber Meets the Road" for ICLE in Amelia Island, Georgia, June 9th, 2011.
- Taught a one-hour block of instruction entitled "Where the Rubber Meets the Road" at the Augusta Trial Lawyers Association in Augusta, Georgia, March 15th, 2011
- Taught a one-hour block of instruction entitled "Where the Rubber Meets the Road" at the Gwinnett Trial Lawyers Association in Norcross, Georgia, March 3rd, 2011.
- Taught an eight-hour block of instruction entitled "Practical Accident Reconstruction Skills" at the Doraville Police Department in Doraville, Georgia, October 13, 2010.
- Taught a block of instruction entitled "Accident Reconstruction" to the Georgia Association of Solicitor's Conference in Savannah, May 14, 2010.
- Taught a block of instruction entitled "Telematics" to the Georgia Trial Lawyers Association in Atlanta, April 23, 2010.
- Taught a forty-hour block on instruction entitled Accident Reconstruction Level III- "Momentum" for Troop B (GSP), April 20th – 26th, 2009.
- Taught a forty-hour block on instruction entitled Accident Reconstruction Level III- "Momentum" for Troop E (GSP), April 2nd – 6th, 2009.
- Taught a forty-hour block on instruction entitled Accident Reconstruction Level III- "Momentum" for Troop B (GSP), February 2nd – 6th, 2009.
- Taught a forty-hour block on instruction entitled Accident Reconstruction Level II- "Falls, Flips & Vaults" for Troop B (GSP), November 3rd – 7th, 2008.
- Taught a sixty-hour block on instruction entitled On-Scene Accident Investigation Levels I & II to the 86th Trooper School at GPSTC, August 18th-28th, 2008.
- Taught 2 four-hour blocks of instruction entitled Basic Accident Investigation for the Flowery Branch Police Department, August 20th & 27th, 2008.
- Taught a one-hour block of instruction entitled "The mystery of the black box-Event Data Recorders" to the Prosecuting Attorney's Council Conference, July 28th, 2008-Jekyll Island.
- Taught a forty-hour block of instruction entitled Accident Reconstruction Level I – "Critical Speed" for Troop H (GSP) June 9th-13th, 2008.
- Taught a forty-hour block of instruction entitled Accident Reconstruction Level I – "Critical Speed" for Troop F (GSP), April 7th- 11th, 2008.
- Taught a one hundred twenty-hour block of instruction entitled On-Scene Accident Investigation Levels I & II to the 85th Trooper School at GPSTC, March 3rd – 21st, 2008.
- Taught a forty-hour block on instruction entitled Accident Reconstruction Level I - "Critical Speed" for Troop H (GSP), February 11th- 15th, 2008.
- Taught a one hundred twenty-hour block of instruction entitled On-Scene Accident Investigation Levels I & II to the 84th Trooper School at GPSTC. March 12th - 30th, 2007.
- Taught a forty-hour block of instruction entitled Accident Reconstruction Level IV- "Time & Distance" at GPSTC. January 22nd- 26th, 2007.
- Taught a forty-hour block of instruction entitled Accident Reconstruction Level III-"Momentum" at GPSTC. November 13th - 17th, 2006.

- Taught a twenty-four hour block of instruction entitled *Accident Reconstruction Level II-“Falls, Flips & Vaults”* at GPSTC September 11th - 13th, 2006.
- Taught a forty-hour block of instruction entitled *Accident Reconstruction Level I-“Critical Speed”* at GPSTC. July 17th – 21st, 2006.
- Taught a one hundred twenty-hour block of instruction entitled *On-Scene Accident Investigation Levels I & II* to the 83rd Trooper School at GPSTC. March 6th – 24th, 2006.
- Taught a forty-hour block of instruction entitled *Accident Reconstruction Level IV-“Time & Distance”* at GPSTC. January 23rd – 27th, 2006.
- Taught a forty-hour block of instruction entitled *“On-Scene Accident Investigation Level II-Practical Exercises”* to the 82nd Trooper School at GPSTC. December 5th– 9th, 2005.
- Taught a forty-hour block of instruction entitled *“On-Scene Accident Investigation Level II”* to the 82nd Trooper School at GPSTC. November 28th– 2nd, 2005.
- Taught a forty-hour block of instruction entitled *“On-Scene Accident Investigation Level I”* to the 82nd Trooper School at GPSTC. November 14th– 18th, 2005.
- Taught a twenty-four hour block of instruction entitled *Accident Reconstruction Level II-“Falls, Flips & Vaults”* at SCRT5 October 31st – 2nd, 2005.
- Taught a twenty-four hour block of instruction entitled *Accident Reconstruction Level II-“Falls, Flips & Vaults”* at GPSTC September 12th – 14th, 2005.
- Taught a thirty-six hour block of instruction entitled *Accident Reconstruction Level I-“Critical Speed”* at GPSTC. July 18th- 20th, 2005.
- Taught a thirty-six hour block of instruction entitled *“On-Scene- Level II-Practical Exercises* to the 81st Trooper School at GPSTC. February 1st-4th, 2005.
- Taught a three-hour block of instruction entitled *“Human Element”* to the 81st Trooper School at GPSTC. January 19, 2005.
- Taught a six-hour block of instruction entitled *“Roadway Element”* to the 81st Trooper School at GPSTC. January 19 - 20, 2005.
- Taught a four-hour block of instruction entitled *“Vehicle Element”* to the 81st Trooper School at GPSTC. January 20, 2005.
- Taught a four-hour block of instruction entitled *“Basic Crash Investigation”* for Albany State University Public Safety. June 25, 2003.
- Taught an eighty-hour course entitled *At-Scene Traffic Crash/Traffic Homicide Investigation* for I.P.T.M. at Connecticut Police Academy in Meriden, Connecticut. March 31-April 11, 2003.
- Taught a four-hour block of instruction entitled *“Roadway Evidence”* to the *At-Scene Traffic Crash/Traffic Homicide Investigation* course at I.P.T.M. in Jacksonville, Florida. February 2003.
- Taught a forty-hour block of instruction entitled *“On-Scene Level II-Practical Exercises”* to the 80th Trooper School. September 2002.
- Taught a four-hour block of instruction entitled *“Roadway Evidence”* to the 80th Trooper School at GPSTC. August 2002.
- Taught a forty-hour block of instruction entitled *“On-Scene Level II-Practical Exercises”* to the 79th Trooper School at GPSTC. May 2002.
- Taught a four-hour block of instruction entitled *“Vehicle Evidence”* to the 79th Trooper School at GPSTC. May 2002.

- Taught a four-hour block of instruction entitled "Roadway Evidence" to the 79th Trooper School at GPSTC. May 2002.
- Taught an eight-hour block of instruction entitled "Crash Report Training" to the G.S.P. field operations. April 2002.
- Aided in the production of a national training video entitled "In the Line of Duty" explaining roadway evidence and the proper techniques in marking such evidence. June 2001. (Copy available upon request)
- Taught an eight-hour block of instruction entitled "Minimum Speed, Coefficients of Friction & Drag Factor" to the 77th Trooper School at GPSTC. April 2001.
- Taught an eight-hour block of instruction entitled "Basic Accident Investigation" at the Lakeland Police Department attended by numerous local agencies. July 1999.

Commendations

- | | |
|---|-------|
| ➤ Proficiency Award-Commissioner-Georgia State Patrol | 07/09 |
| ➤ Letter of Commendation-Georgia State Patrol Command Staff | 11/06 |
| ➤ Letter of Commendation-Decatur Count District Attorney | 09/06 |
| ➤ Letter of Commendation-State Court Judge; Lowndes County | 06/06 |
| ➤ Letter of Commendation-SCRT Training Commander | 05/06 |
| ➤ Letter of Commendation-G.S.P. Training Division | 12/05 |
| ➤ Letter of Commendation-G.S.P. Training Division | 02/05 |
| ➤ Letter of Commendation-G.S.P. Command Staff | 02/05 |
| ➤ Letter of Commendation-Crisp County District Attorney | 09/04 |
| ➤ Letter of Commendation-Department of the Air Force | 06/03 |
| ➤ Letter of Commendation-Dougherty County Police Department | 06/03 |
| ➤ Commissioner's Commendation (Col. George Ellis) | 05/03 |
| ➤ Officer of the Year 2003-Brooks County | 04/03 |
| ➤ Letter of Commendation-Tift County Solicitor's Office | 09/02 |
| ➤ Governor's Award of Excellence Team Award, S.C.R.T. 5 | 05/02 |
| ➤ Letter of Commendation-Department of the Treasury | 05/02 |
| ➤ Letter of Commendation-Tift County Solicitor's Office | 03/02 |
| ➤ Letter of Commendation-Southern Region Traffic Enforcement Net. | 02/02 |
| ➤ Letter of Commendation-Lanier County District Attorney's Office | 12/01 |
| ➤ Letter of Commendation-Sumter County District Attorney's Office | 09/01 |
| ➤ Letter of Commendation-Teamsters, Local Union #728 | 10/00 |
| ➤ Letter of Commendation-Department of Human Resources | 09/98 |
| ➤ Letter of Commendation-Pennsylvania State Police | 12/97 |
| ➤ Letter of Commendation-G.S.P. Command Staff | 01/95 |
| ➤ Letter of Commendation-Coffee Regional Medical Center | 09/94 |
| ➤ Letter of Commendation-Governor's Staff (Gov. Zell Miller) | 01/91 |

GREGORY D. KNOWLTON, Ph.D.

4458 E. Juanita Avenue

Gilbert, AZ 85234

Bus: 480-324-1775

Fax: 480-324-1776

Cell: 480-206-1277

Email: gd.knowlton@gmail.com

OBJECTIVE

Technical management, consulting or advisory position involving the research, development, processing, safety, analysis and testing of energetic materials, devices and systems.

PROFESSIONAL PROFILE

- Versatile Ph.D. level Scientist/Manager with over 32 years experience in the development, characterization, testing, and diagnostics of energetic materials, devices and systems.
- Demonstrated success as Principal Investigator in the development of:
 - Gas generants and low temperature autoignition materials (AIMs) for automotive and military applications
 - Multicolor infrared countermeasure flares
 - Pyrotechnic delay compositions
 - Thermobaric (TBX)/ Enhanced Blast (EBX) compositions and devices
- Ability to fully understand and contribute to the integration of energetic materials into prototype devices and system level products.
- Demonstrated technical leadership in management positions of increasing responsibility from Manager of Pyrotechnics and Explosives to Director of Research and Test.
- Instrumental in the career development of numerous chemists, engineers and technicians.
- Demonstrated technical marketing and business development skills in promoting Company capabilities to develop and test new materials and products, as well as product improvements.

AREAS OF EXPERTISE AND STRENGTHS

- | | |
|--|---|
| <ul style="list-style-type: none">• Energetic Materials<ul style="list-style-type: none">○ Hazards/Safety○ Characterization○ Analysis/Testing○ Processing• Pyrotechnics<ul style="list-style-type: none">○ Igniters, AIMs, Delays○ Thermites, Intermetallics; Flares, Smokes• Explosives<ul style="list-style-type: none">○ HE, TBX/EBX, CEX• Gas Generants, Gas Analysis | <ul style="list-style-type: none">• Organized/Systematic• Leadership• Management• Communication• Team Player/Builder• Mentor/Coach• Innovative• Analytical/Diagnostician• Versatile• Dependable• Sense of Humor |
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PROFESSIONAL EXPERIENCE AND ACCOMPLISHMENTS

PYROGETICS, LLC

May 2011 to Present

President and Owner of this energetic materials (pyrotechnics, explosives, gas generants, propellants) consulting business.

MACH I/REACTIVE METALS INTERNATIONAL, INC.

August 2011 to present

Principal Research Investigator and Consultant

Accomplishments:

- As Principal Investigator, successfully completed Army Phase I SBIR “Designer Composite Reactive Materials”, Contract No. W15QKN-12-C-0026 (2012).
- As Principal Investigator, successfully completed Air Force Phase I SBIR “Reactive Case Materials for Enhanced Blast”, Contract No. FA8651-12-M-0062 (2012).

NAMMO TALLEY, INC. (formerly Talley Defense Systems)

June 1980 through March 2011 (retired)

Chief Scientist (October 2010 through March 2011)

- Reported to Vice President of Engineering and Research.
- Provided top level expertise/advice to upper Management regarding technical directions and priorities.
- Provided technical insight and leadership to professional colleagues and Program Management.
- Supported Advanced Technology Groups in identifying and capturing new research, development, and business opportunities.
- Responsible for conceiving, planning and implementing selected R&D activities.
- Provided assistance in resolving difficult development, design, performance and processing problems by participating in various failure investigations.

Accomplishments:

- Participated in search, interview and down selection process to find highly qualified and capable candidates for the Director of Research and Test Manager positions.
- Organized and led Fragment Mitigation Team in identifying improved and cost efficient means of eliminating any possibility of fragments leaving the testing area.
- Coordinated all Nammo Talley internal and external patent activities, including disclosures, initial filings, office actions, and maintenance fees with patent attorneys.

Director of Research and Test (October 2004 through October 2010)

- Reported to Vice President of Engineering and Research
- Managed/directed activities of all Research and Test personnel through Manager/Supervisor staff.
- Provided Research Department and Laboratory services (energetic materials development, testing, analysis and diagnostics), as well as Process Engineering support for the entire Talley organization.
- Provided Test Department support for the entire Talley organization, with emphasis on testing of rocket motors, gas generators and shoulder-fired weapons.

Accomplishments:

- Initiated the acquisition of a 5-liter Detonation Calorimeter to study and screen conventional and thermobaric explosives. This equipment has been successfully utilized in numerous research programs involving thermobaric, conventional and combined-effects explosive (CEX) compositions.
- Made significant contributions in supporting TBX development programs for Raytheon and Mach I.
- Facilitated upgrading customer test viewing area in Test Department.
- Directed and facilitated the layout, set-up and equipping of Talley's Desert Training Range for shoulder-launched weapons training.
- Coordinated the upgrade of all Lab View data acquisition systems in the Test Department.
- Initiated the acquisition of high speed video and data acquisition systems to support advanced shoulder-launched weapons development and testing.
- Led initial fragment mitigation activities in test areas.

Director of Research (November 1999 through October 2004)

- Reported to Vice President of Engineering and Research
- Managed/directed all Research Department and Research Laboratory activities.
- Provided support to the entire Talley organization relative to energetic materials development, analysis, testing, processing and diagnostics.
- Managed Process Engineering function for the Company.
- Research lead for developing new business to augment IR&D efforts and expenditures.
- Supported Marketing and Program Management activities in pursuit of new business.

Accomplishments:

- Improved overall capability of Research Department by hiring and training highly capable and motivated people, and by upgrading testing/analysis equipment.
- Developed, tested and patented heat transfer initiator system.
- Developed, characterized and patented low solids, low flame temperature (with coolants) gas generant formulations.
- Awarded three low temperature autoignition material patents.
- Took the lead in developing TBX technology at Talley. Served as Principal Investigator for all internal and external Thermobaric/Enhanced Blast Explosives development programs.
- Principal Investigator for successful High Heat Thermobaric Formulation development program with Edgewood Arsenal.

Manager of Research (November 1997 through November 1999)

- Reported to Vice President of Research.
- Managed/directed activities of all Research Department and Laboratory activities.
- Managed technical activities of Pyrotechnics and Explosives Group.
- Chief Chemist and Principal Investigator for Airbag Inflator Programs.

Accomplishments:

- Successful in implementing practices in Research Department to improve image, morale, and production level.
- Research Laboratory achieved A2LA accreditation.
- Developed, tested and patented heat transfer delay systems for munitions destruct applications.
- Awarded three AIM patents and one gas generants patent.
- Represented Talley at GM Interiors Test Center for several weeks of testing human response to new non-azide airbag systems.
- Became one of five Emergency Coordinators for Talley (1998-2011), requiring 40 hours of HazWOper training and annual 8-hour review course.

Manager, Pyrotechnics and Explosives (February 1994 through November 1997)

- Reported to Director of Research.
- Managed technical activities of Pyrotechnics and Explosives Group in the Research Department.
- Principal Investigator for Flame and Incendiary Technology area.
- Chief Chemist and Principal Investigator for all auto airbag programs energetic materials development. Responsible for characterization, testing, process hazards analysis, DOT authorization and margins testing for all airbag gas generants, ignition enhancers, and autoignition materials.

Accomplishments:

- Developed, characterized, and patented several families of non-azide gas generating and ignition enhancer compositions in support of Talley's re-entry into the auto airbag inflator business with Delphi Automotive.
- Developed, characterized, and patented a series of low temperature (120-220° C) autoignition materials for non-azide airbag applications.
- Led Research Laboratory effort in support of successful D60 inflator Design Validation Program.

Principal Investigator (February 1982 through February 1994)

- Reported to Advanced Projects Manager and/or Director of Research.
- Responsible for the development, characterization and testing of new and improved propellant, pyrotechnic and explosive compositions.
- Led or supported diagnostics studies and failure analyses for energetic materials and products at Talley.
- Supported technical marketing presentations and activities.
- Represented Talley at technical reviews, meetings, symposiums, workshops, etc.
- Responsible for oversight, training and technical development of Technicians and junior level Chemists.

Accomplishments:

- Principal Chemist for all Talley auto airbag programs (1982 - 1985).
- Developed and patented family of high-burning rate azide gas generants for small car airbag applications and munitions dispersion.
- Talley representative to SAE Inflatable Restraints Committee, and Chairman for SAE Subcommittee on auto airbag identification, disposal, and recycling practices.
- Principal Investigator for 4 successful anti-ship missile infrared decoy flare development programs for U.S. Naval Research Lab (1984-1992). Developed and tested numerous multicolor flare compositions, and prototype devices.
- Reformulated tungsten-based M913 pyro delay, and revised manufacturing process. This helped M912 Extended Range Munition pass flight testing, and allowed Talley to complete a \$10M contract. In addition, Talley was awarded \$3.5M to produce M913 delays using new formulation and processing methods.
- Principal Investigator for successful SEFT (Self-Encapsulated Flame Thrower) Program with CRDEC Edgewood Arsenal. The gelled flame/incendiary compositions developed in this program were precursors to future TBX work, and supported a parallel Shaped-Charge Follow Through (SCFT) effort.
- Supported MICOM Warhead Program as Principal Investigator for selection and testing of warhead fill compositions in prototype unitary and tandem SCFT systems.

Senior Chemist (June 1980 through February 1982)

- Reported to Manager of Analytical Chemistry Group.
- Performed analytical methods development and diagnostic studies for propellants and pyrotechnics.
- Responsible for development, characterization, analysis and testing of auto airbag gas generants.

Accomplishments:

- Developed improved gas chromatography methods for airbag effluent gas analysis.
- Led effort to evaluate aging effects and stabilizer depletion in new, high energy rocket propellants.

EDUCATION

Ph.D. Inorganic/Analytical Chemistry, Arizona State University, 1982
M.S. Inorganic Chemistry, San Jose State University, 1976
B.S. Chemistry, minor in Physics, San Jose State University, 1974
A.A. Science/Engineering, Cabot College, 1971

PUBLICATIONS AND PATENTS

- 30+ Talley Internal Technical Reports
- 30+ Publications and Presented Papers
- 17 Patents: 14 U.S. and 3 Foreign
- Lists of Published/Presented Papers and Patents upon request.

ORGANIZATION MEMBERSHIPS AND ACTIVITIES

- American Chemical Society
- American Institute of Chemists, Fellow
- Sigma Xi Research Honor Society
- International Society of Explosive Engineers
- International Pyrotechnics Society, Treasurer since July 2004
- IPSUSA Seminars, Inc., President since August 2012; Vice President, June 2010 – July 2012
- National Defense Industrial Association, formerly American Defense Preparedness Association (1983-2012)
- JANNAF Propellant and Explosives Development/Characterization, Propulsion, and Combustion Subcommittees (1983-2012)
- WETC/DOTC/DOLC Co-Chairman for Pyrotechnics Section (2000-2007)
- SAE – Chairman, “Inflatable Restraints Standards Committee” (1999-2001)

SECURITY CLEARANCES

- Q-Clearance, LLNL (1975 – 1976)
- Secret Clearance, Talley Defense Systems; Nammo Talley (active 1983 – 2011)

MILITARY SERVICE

U.S. Naval Air Reserve (6 years), Service No. B889210
Aircraft Electrician and Instrument Mechanic
Aircrew on S2D antisubmarine-aircraft (4 years), required Military Secret Clearance
Honorable Discharge at rank of AE2 (E-5)

SRI KUMAR, Ph.D.**(Srirangam Kumaresan)**

Tel: 706 - 654 - 4830

RESEARCH EXPERTISE

- Biomechanics of human injury.
- Biomedical/Biomechanical engineering.
- Injury analysis of protective mechanical systems in crashes.

QUALIFICATIONS AND EXPERIENCE

Dr. Kumar's expertise in the field of biomechanics is based on his education, training, knowledge and about 20 years of experience. Dr. Kumar received a Ph.D. in Biomedical Engineering from Marquette University, Milwaukee, WI. Dr. Kumar served as a faculty member at the Department of Neurosurgery, Medical College of Wisconsin, Milwaukee, WI, which is a leading research center in the biomechanical analysis of human injuries funded by federal government agencies. While at the Medical College of Wisconsin, he worked with the National Highway Traffic Safety Administration (NHTSA) to develop injury criteria for adult and child dummies. Dr. Kumar's research work includes biomechanical analysis of the head-neck system, thoracic-abdominal complex and extremities. His area of expertise also encompasses the biomechanical evaluation of vehicle restraint systems to assess injuries to the pediatric and adult population during frontal, rear, roll-over, under-ride and side impact crashes.

Dr. Kumar has published over 220 research articles and holds three US patents in the area of Biomedical/Biomechanical Engineering. Dr. Kumar is associated with many nationally recognized societies and experts in the field of biomechanics, occupant kinematics, accident reconstruction and other automotive disciplines. He taught a course on injury biomechanics at the University of California, Santa Barbara, CA. Dr. Kumar has been elected a Fellow of the American Institute of Medical and Biological Engineering (AIMBE).

Dr. Kumar is a Principal of Safety Research Institute located near Atlanta, GA. He has consulted on more than 800 real world accidents involving injuries to determine the mechanism of injury to the human body.

PROFESSIONAL EXPERIENCE

2007 -	Principal	Safety Research Institute Hoschton (Atlanta), GA
2005 - 2007	Vice President	Biomechanics Institute Santa Barbara, CA
2000 - 2005	Research Scientist/Director	Biomechanics Institute Santa Barbara/Milwaukee
2003 - 2007	Visiting/Teaching Faculty	Department of Mechanical Engineering University of California, Santa Barbara
2000 - 2003	Adjunct Professor	Department of Computer Science University of California, Santa Barbara
1999 - 2000	Adjunct Professor	Department of Biomedical Engineering Marquette University, Milwaukee
1998 - 2000	Assistant Professor	Department of Neurosurgery, Medical College of Wisconsin VA Medical Center Neuroscience Research, Milwaukee
1994 - 1998	Research Engineer	Department of Neurosurgery, Medical College of Wisconsin VA Medical Center Neuroscience Research, Milwaukee
1988 - 1993	Research Associate	Department of Biomedical Engineering/Ocean Engg. Center Indian Institute of Technology, Madras, India

BIOMEDICAL ENGINEERING SOCIETY HONOR

Fellow, American Institute of Biological and Medical Engineering (AIBME)

EDUCATION

PhD, Biomedical Engineering, Marquette University, Milwaukee, WI, 1997
MBA, General Administration, University of California at Los Angeles, CA, 2005
MSBE, Biomedical Engineering, Indian Institute of Technology, India, 1993
BSME, Mechanical Engineering, Kamaraj University, India, 1988

PATENTS

- Modular Patient Support System (US Patent # 7,028,351)
- Rapid Medical Evacuation System for Trauma Patients (US Patent # 7,188,880)
- Patient Support System for Medical Transport Vehicles (US Patent # 7,328,926)

PROFESSIONAL HONORS AND AWARDS

SAE Member Service Award
SAE Excellence in Oral Presentation Award
Bioengineering Symposium, US Air Force Academy Oral Presentation Award
Who's Who in Medicine and Healthcare
Who's Who in Science and Engineering
Sigma Xi, National Honor Society for Science and Engineering
University Consortium SDRC Finite Element Model Calendar Contest Award, Milford
Best Paper Award at All India NISA User's Conference, India
National Scholarship for Graduate studies, India
Meritorious Student Paper Writing Competition Award, India

PROFESSIONAL COMMITTEES

American Association of Automotive Medicine (AAAM), Scientific Program Committee
Society of Automotive Engineers, Transaction Selection Committee
Rocky Mountain Bioengineering Symposium, Awards Committee & Board Member
American Society for Testing and Materials, Spine Committee
Society of Automotive Engineers, Advanced Concepts Committee
International Conference on Scientific Computing, Scientific Committee
American Society of Mechanical Engineers, Solid Mechanics Technical Committee

RESEARCH GRANT

- Co-Investigator in Department of Veteran Affairs Medical Center Merit Review Grant, "Biomechanics of Cervical Spondylotic Degeneration", 10/1998 - 09/2001, \$265,800.
- Co-Investigator, Injury Research Center at Medical College of Wisconsin – Center Grant Center for Disease Control, "Clinical Biomechanics of Penetrating Traumatic Brain Injuries", 09/2001 - 08/2002, \$ 100,000.

RESEARCH GRANT REVIEWER/CONSULT

Center for Disease Control
National Science Foundation
University of Alabama Injury Research Center
Colorado Bio-seed Research Grant
Action Research Foundation of England
Health Research Council of New Zealand

GUEST EDITOR

Journal of Biomedical Sciences Instrumentation, Vol 45 (48), 2009
Journal of Mathematical Modeling and Scientific Computing in Biomechanics, Vol. 13 (1-2), 2001

JOURNAL/CONFERENCE REVIEWER/CONSULT

Annals of Biomedical Engineering
Accident Analysis & Prevention Journal
Society of Automotive Engineers Proceedings
Forensic Science International Journal
Medical Engineering Physics Journal
ASME Bioengineering Conference
Spine Journal
ASME Biomechanical Engineering Journal
Medical Biological Engineering & Computing Journal
Rocky Mountain Bioengineering Symposium
Stapp Car Crash Conference
Journal of Biomechanics
Journal of Mechanics in Medicine and Biology
Journal of Medical Systems

PROFESSIONAL AFFILIATIONS

American Society of Mechanical Engineers
Association for the Advancement of Automotive Medicine
American Society for Testing and Materials
Biomedical Engineering Society
Biomedical Engineering Society of India
New York Academy of Sciences
Society of Automotive Engineers
Rocky Mountain Bioengineering Symposium

TEACHING

Injury Biomechanics at University of California, Santa Barbara, CA (2003 - 2007)
Principles of Mechanics, RVS College of Engineering, India (1988)

CONFERENCE CHAIR

Rocky Mountain Bioengineering Conference, Milwaukee, 2009

SCIENTIFIC SESSION MODERATOR/ORGANIZER

1997 Biomechanics of Human Head and Neck. International Conference on Computing, Washington, DC.
1998 Impact Biomechanics. ASME Winter Meeting, Anaheim, CA.
1999 Spine. ASME Summer Meeting, Big Sky, MN.
1999 Head-Spine Biomechanics and Neuroscience. International Conference on Computing, Chicago, IL.
1999 Whiplash Biomechanics. ASME Winter Meeting.
2000 Impact Biomechanics. ASME Winter Meeting, Orlando, FL.
2001 Medical Imaging. Rocky Mountain Bioengineering Symposium, Copper Mountain, CO
2001 Vehicular and Pediatric Biomechanics. ASME Winter Meeting, New York, NY
2001 Pediatric Biomechanics. ASME Summer Meeting, Snowbird, UT
2001 Vehicular Biomechanics. ASME Summer Meeting, Snowbird, UT
2002 Injury Biomechanics. SAE Off-Highway International Congress, Las Vegas.
2002 Trauma and Injury. Rocky Mountain Bioengineering Symposium, Copper Mountain, CO.
2002 Vehicular Biomechanics. ASME Winter Meeting, New York
2002 Spine Biomechanics. ASME Winter Meeting, New York
2003 Impact Biomechanics. Rocky Mountain Bioengineering Symposium, Biloxi, MS

- 2003 Occupant Restraint System. Southern Biomedical Engineering Symposium, Charlotte, NC
- 2003 Vehicle crashworthiness-I. ASME Winter Meeting, Washington, DC
- 2003 Vehicle crashworthiness-II. ASME Winter Meeting, Washington, DC
- 2004 Vehicular Biomechanics and Occupant protection. ASME Winter Meeting, Anaheim, CA
- 2005 Trauma and Vehicular Biomechanics. ASME Summer Meeting, Vail, CO
- 2005 Injury Biomechanics. ASME Summer Meeting, Vail, CO
- 2007 Accident and Trauma Biomechanics. ASME Summer Meeting, Keystone, CO
- 2009 Spine Biomechanics. Rocky Mountain Bioengineering Symposium, Milwaukee, WI
- 2009 Biomedical systems. Rocky Mountain Bioengineering Symposium, Milwaukee, WI
- 2009 Post Crash, Association for the Advancement of Automotive Medicine, Baltimore, MD

STUDENT ADVISOR/RESEARCH COMMITTEE MEMBER/

- Peter Khoupngsy, Senior Student, Biomedical Engineering, Milwaukee School of Engineering, "Fabrication of artificial cervical spine vertebrae using Rapid Prototyping", 1997 – 1998.
- Brian Stemper, Senior Student, Biomedical Engineering, Milwaukee School of Engineering, "Development of computer image model of cervical spine vertebrae based on CT images", 1998.
- Joy Krekelberg, Senior Student, Biomedical Engineering, Marquette University, "Biomechanical analysis of degenerated lumbar spinal columns", 1998.
- Amy Yang, Junior Student, Biomedical Engineering, Marquette University, "Biomechanical analysis of normal lumbar spinal columns", 1998.
- Joseph Khoupngsy, Senior Student, Biology, Carroll College, "Histological study of intervertebral disc during aging process", 1998-1999.
- Brian Stemper, Graduate Student, Biomedical Engineering, Marquette University, Doctoral Dissertation, "Finite element modeling of head-neck for whiplash injury study", 1999 – 2004.
- Amy Yang, Senior Student, Biomedical Engineering, Marquette University, "Brain penetration finite element model to study the gun-shot wound mechanics", Undergraduate independent study, 1999.
- Rebecca Zick, Senior Student, Biomedical Engineering, Milwaukee School of Engineering, "Development of artificial cervical spine heterogeneous vertebrae model", 1999.
- John De Rosia, Graduate Student, Biomedical Engineering, Marquette University, Biomechanical studies of rear impact, 2006 – 2009.
- Lertsmitivanta D, Cadavona D, Burgos T, Heng H, Sakatani T, Senior Student, Mechanical Engineering, University of California, Santa Barbara, "Automotive restraint system", 2007.
- Neb Sebastijanovic, Graduate Student, Mechanical Engineering, University of California, Santa Barbara, Doctoral Dissertation, Monitoring and Restabilizing Structures under External Excitations through Detection and Prediction of Changes in Structural Properties", 2001 – 2008.

PRESENTATIONS AND INVITED LECTURES

- 1993 Three-dimensional finite element analysis of human head with and without protective system subjected to impact. 2nd NISA User's Conference, Bangalore, India.
- 1994 Free vibration analysis of the human head. International Conference on Recent Advances in Biomedical Engineering, Osmania University, India.
- 1996 Finite element biomechanics of cervical spine. 6th Injury Prevention through Biomechanics Symposium, Center for Disease Control, Detroit, MI.
- 1996 Finite element modeling of spine biomechanics. Department of Biomedical Engineering Department, Indian Institute of Technology, Madras, India (Invited Lecture).
- 1997 Importance of material properties on spinal components load sharing. International Conference on Mathematical, Computer Modeling & Scientific Computing, Washington DC.
- 1997 Finite element idealization of the joints of luschka in the cervical spine. International Conference on Mathematical, Computer Modeling & Scientific Computing, Washington DC.

- 1997 Biomechanics of the human cervical spine using the finite element approach. Biomedical Engineering Conference, Marquette University, Milwaukee, WI.
- 1997 Biomechanics of cervical spine under whiplash loading. ASME Summer Meeting, Sun River, OR.
- 1997 Nonlinear Finite element analysis of human cervical spine facet joint capsule. ASME Summer Meeting, Sun River, OR.
- 1997 Human cervical spine uncovertebral joint anatomy. ASME Summer Meeting, Sun River, OR.
- 1997 Adult and pediatric human spine finite element analyses. ASME Summer Meeting, Sun River, OR.
- 1997 Finite element biomechanics of cervical spine interbody fusion. International Conference on IEEE Engineering in Medicine and Biology Society, Chicago, IL.
- 1997 Age-specific pediatric cervical spine biomechanical responses. Stapp Car Crash Conference, Orlando.
- 1997 Sensitivity of cervical spine finite element model to material property variations. ASME Winter Meeting, Dallas, TX.
- 1997 Finite element study of human lower cervical spine. ASME Winter Meeting, Dallas, TX.
- 1997 Effect of anterior cervical interbody fusion on adjacent segments. Annual Cervical Spine Research Society Meeting, Palm Springs, CA.
- 1998 Pediatric cervical spine biomechanics. Department of Biomedical Engineering Department, Marquette University, Milwaukee, WI (Invited Lecture).
- 1998 Adjacent spinal component responses due to cervical anterior interbody fusion. Annual Orthopaedic Research Society Meeting, New Orleans, LA.
- 1998 Finite element study of geriatric cervical spine. Injury Prevention through Biomechanics Symposium, Center for Disease Control, Detroit, MI.
- 1998 Cervical spine biomechanics. Department of Biomedical Engineering Department, Indian Institute of Technology, Madras, India (Invited Lecture).
- 1998 Biomechanics of the cervical spine. Department of Orthopedics, Sri Ramachandra Medical College and Research Institute, Madras, India (Invited Lecture).
- 1998 Geriatric cervical spine biomechanics. ASME Winter Meeting, Anaheim, CA.
- 1998 Biomechanically analogous cervical spine model. ASME Winter Meeting, Anaheim, CA.
- 1998 Regional load sharing of cervical intervertebral discs. ASME Winter Meeting, Anaheim, CA.
- 1999 Development of mathematical model of WORLDSID-2 dummy. ISO Task Group of Design of WORLDSID-2 dummy, Ottawa, Canada.
- 1999 Tension-extension biomechanics of the cervical spine. ASME Summer Meeting, Big Sky, MO.
- 1999 Biomechanical responses of pediatric cervical spine using nonlinear finite element approach. ASME Summer Meeting, Big Sky, MO.
- 1999 Finite element modeling of spinal ligaments. ASME Summer Meeting, Big Sky, MO.
- 1999 Summary of pediatric biomechanical responses. ASME Summer Meeting, Big Sky, MO.
- 1999 Microstructural characterization of intervertebral disc for mathematical modeling studies. Conference on Mathematical, Computer Modelling & Scientific Computing, Chicago, IL.
- 1999 Biomechanics of human cervical spinal column under physiologic loads. Advances in Bioengineering, ASME Winter Meeting, Nashville, TN
- 1999 Intervertebral disc morphology in biomechanics. ASME Winter Meeting, Nashville, TN
- 1999 Biomechanics of cervical spine ligaments. ASME Winter Meeting, Nashville, TN
- 1999 Human Head-Neck Kinetics under whiplash loading. ASME Winter Meeting, Nashville, TN
- 2000 Morphology of young and old cervical spine intervertebral disc tissues. Annual Rocky Bioengineering Symposium, US Air Force Academy, Colorado Springs, CO
- 2000 Finite element methods in cervical spine Biomechanics, Department of Neurosurgery Grand Rounds, Medical College of Wisconsin, Milwaukee
- 2000 Computational Injury Biomechanics, Department of Computer Science, Colloquium, University of California, Santa Barbara (Invited Lecture)
- 2000 Finite element modeling of penetrating traumatic brain injuries. ASME Winter Meeting, Orlando, FL

- 2000 Biomechanics of lumbar spondylotic degeneration. ASME Winter Meeting, Orlando, FL
- 2001 Pediatric neck injury scaling and tolerance. Rocky Mountain Bioengineering Symposium, Copper Mountain, CO
- 2001 Biomechanical modeling of penetrating traumatic head injury: A finite element approach. Rocky Mountain Bioengineering Symposium, Copper Mountain, CO
- 2001 Comparison of biomechanical head-neck responses of hybrid III dummy and whole body cadaver. Rocky Mountain Bioengineering Symposium, Copper Mountain, CO
- 2001 Head and Neck Injury Biomechanics. Department of Mechanical and Production Engineering, Nanyang Technological University, Singapore (Invited Lecture)
- 2001 Pediatric Head and Neck Injury Biomechanics. Department of Biomedical Engineering, Indian Institute of Technology, Madras, India (Invited Lecture)
- 2002 Biomechanical injury evaluation of laminated glass during rollover. SAE Off-highway International Congress meeting, Las Vegas.
- 2002 Injury Biomechanics. Karpagam College of Engineering, India (Invited Lecture).
- 2003 Injury biomechanics. Indian Institute of Technology, Madras, India (Invited Lecture).
- 2003 Trauma biomechanics. Anna University, India (Invited Lecture).
- 2003 Biomechanics of injury and occupant kinematics in recreational rides. Southern Biomedical Engineering Conference, Charlotte, NC.
- 2003 Biomechanics of occupant ejection during rollover accidents. Southern Biomedical Engineering Conference, Charlotte, NC.
- 2003 Biomechanical analysis of seat belt restraint deformation. Southern Biomedical Engineering Conference, Charlotte, NC.
- 2004 Trauma Biomechanics and Vehicular Biomechanics. Department of Mechanical Engineering, University of California, Santa Barbara (Invited Lecture).
- 2005 Injury Biomechanics. Department of Biomedical Engineering, Indian Institute of Technology, India (Invited Lecture).
- 2006 Investigation of injury potential through matched pair drop testing. Rocky Mountain Bioengineering Symposium, Rose-Hulman Institute of Technology, Terre Haute, IN.
- 2006 Biomechanics of side Impact. Engineering Medicine Biology Society Conference. New York City.
- 2006 Biomechanical trauma analysis of spinal cord neurological injury due to fracture-dislocation of posterior elements, Academy of Surgical Research. Tucson, AZ
- 2007 Effect of roof strength in injury mitigation during pole impact. Rocky Mountain Bioengineering Symposium, Denver, CO.
- 2007 Biomechanics of under ride motor vehicle crashes. Rocky Mountain Bioengineering Symposium, Denver, CO.
- 2007 Biomechanical evaluation of occupant anthropometry during frontal collisions. Rocky Mountain Bioengineering Symposium, Denver, CO.
- 2007 Inverted drop testing as a mechanism to evaluate rollover occupant injury potential. Rocky Mountain Bioengineering Symposium, Denver, CO.
- 2007 Biomechanical analysis of late airbag deployment in motor vehicle crashes using computer simulation, ASME Bioengineering conference, Keystone, CO
- 2007 Biomechanical quantification of flexion movement of the human head-neck and rollover accidents, ASME Bioengineering conference, Keystone, CO
- 2009 Biomechanical analysis of protective countermeasures in under ride motor vehicle accidents. Rocky Mountain Bioengineering Symposium, Milwaukee, WI
- 2009 Biomechanical analysis of child restraint system. Rocky Mountain Bioengineering Symposium, Milwaukee, WI

FULL LENGTH PAPER PUBLICATIONS

1. Kumaresan S, Radhakrishnan S, Ganesan N: Mixed models in finite element analysis. *J Computers & Structures* 51(1):117-123, 1994.
2. Kumaresan S, Radhakrishnan S, Ganesan N: Generation of geometry and discretization of closed human head for finite element analysis. *J Medical & Biological Engineering & Computing* 33(3):349-353, 1995.
3. Yoganandan N, Kumaresan S, Voo L, Pintar FA: Finite element modeling of the C4-C6 cervical spine unit. *J Medical Engineering & Physics* 18(7):569-574, 1996.
4. Kumaresan S, Radhakrishnan S: The importance of partitioning membranes of the brain and influence of neck in head injury modelling. *J Medical & Biological Engineering & Computing* 34(1):27-32, 1996.
5. Yoganandan N, Kumaresan S, Voo L, Pintar FA: Finite element applications in human cervical spine modeling. *J Spine* 21(15):1824-1834, 1996.
6. Voo L, Kumaresan S, Pintar FA, Yoganandan N: Finite element models of the human head. *J Medical & Biological Engineering and Computing* 34(5):375-381, 1996.
7. Yoganandan N, Pintar FA, Kumaresan S, Haffner M, Sances A Jr: Response of lower human thorax to impact. *40th Annual Meeting of Association for the Advancement of Automotive Medicine*, 33-43, 1996.
8. Kumaresan S, Yoganandan N, Pintar FA, Voo LM, Cusick JF, Larson SJ: Finite element modeling of cervical laminectomy with graded facetectomy. *J Spinal Disorders* 10(1):40-46, 1997.
9. Yoganandan N, Kumaresan S, Voo L, Pintar FA: Finite element model of the human lower cervical spine. *ASME J Biomechanical Engineering* 119(1):87-92, 1997.
10. Kumaresan S, Yoganandan N, Pintar FA: Methodology to quantify the anatomy of uncovertebral joints in human cervical spine. *J Musculoskeletal Research* 1(2):131-139, 1997.
11. Yoganandan N, Pintar FA, Kumaresan S, Maiman DJ, Hargarten SW: Dynamic analysis of penetrating trauma. *J Trauma* 42(2):266-272, 1997.
12. Yoganandan N, Pintar FA, Kumaresan S, Haffner M, Kuppa S: Impact biomechanics of the human thorax-abdomen complex. *International J Crashworthiness* 2(2):219-228, 1997.
13. Kumaresan S, Yoganandan N, Pintar FA: Finite element analysis of anterior cervical interbody fusion. *J Bio-Medical Materials and Engineering* 7(4):221-230, 1997.
14. Voo L, Kumaresan S, Yoganandan N, Pintar FA, Cusick JF: Finite element analysis of cervical facetectomy. *J Spine* 22(9):964-969, 1997.
15. Kumaresan S, Yoganandan N, Pintar FA: Pediatric neck modeling using finite element analysis. *International J Crashworthiness* 2(4):367-376, 1997.
16. Yoganandan N, Pintar FA, Kumaresan S, Boynton M: Axial impact biomechanics of the human foot - ankle complex. *ASME J Biomechanical Engineering* 119(4):433-438, 1997.

17. Kumaresan S, Yoganandan N, Pintar FA: Age-specific pediatric cervical spine biomechanical responses. *SAE Trans (41st Stapp Car Crash Conference)* 106:3581-3611, 1997.
18. Yoganandan N, Pintar FA, Kumaresan S, Elhagediab, A: Biomechanical assessment of human cervical spine ligaments. *SAE Trans (42nd Stapp Car Crash Conference)* 107:2852-2861, 1998.
19. Kleinberger M, Yoganandan N, Kumaresan S: Biomechanical considerations for child occupants. *42nd Association for the Advancement of Automotive Medicine* 115-136, 1998.
20. Kumaresan S, Yoganandan N, Pintar FA: Finite element modeling of human cervical spine facet joint capsule. *J Biomechanics* 31:371-376, 1998.
21. Kumaresan S, Yoganandan N, Pintar FA: Posterior complex contribution on the axial compressive and distraction behavior of the cervical spine. *J Musculoskeletal Research* 2(3):257-265, 1998.
22. Yoganandan N, Kumaresan S, Pintar FA: Pediatric cervical spine biomechanics study using finite element models. *International Conference on the Biomechanics of Impacts (IRCOBI)* 349-363, 1998.
23. Kumaresan S, Yoganandan N, Pintar FA: Finite element analysis of cervical spine: material property sensitivity study. *J Clinical Biomechanics* 14(1):41-53, 1999.
24. Maiman DJ, Kumaresan S, Yoganandan N, Pintar FA: Biomechanical effect of anterior cervical interbody fusion on adjacent segments. *J Bio-Medical Materials & Engineering* 9(1):27-38, 1999.
25. Kumaresan S, Yoganandan N, Pintar FA, Maiman DJ: Finite element modeling of the lower cervical spine: Role of intervertebral disc under axial and eccentric loads. *J Medical Engineering & Physics* 21(10), 689-700, 1999.
26. Wheeldon J, Khouphongsy P, Kumaresan S, Pintar FA, Yoganandan N: Finite element model of human cervical spinal column. *Biomedical Sciences Instrumentation* 36: 337-342, 2000.
27. Kumaresan S, Yoganandan N, Pintar FA, Maiman, DJ and Kuppa, S: Biomechanical study of pediatric human cervical spine: A finite element approach. *ASME J Biomechanical Engineering* 122: 60-71, 2000.
28. Kumaresan S, Pintar FA, Yoganandan N, Cusick JF: Morphology of young and old cervical spine intervertebral disc tissues. *Biomedical Sciences Instrumentation* 36: 141-146, 2000.
29. Kleinberger M, Yoganandan N, Kumaresan S: Biomechanics of child occupant protection. *J Crash Prevention and Injury Control* 2(1), 63-73, 2000.
30. Yoganandan N, Kumaresan S, Pintar FA: Geometrical and mechanical properties of human cervical spine ligament. *ASME J Biomechanical Engineering* 122(6):623-629, 2000.
31. Stemper, B, Kumaresan S, Pintar FA, Yoganandan N: Head-neck finite element model for motor vehicle inertial impact: material sensitivity analysis. *Biomedical Sciences Instrumentation* 36: 331-335, 2000.
32. Kumaresan S, Yoganandan N, Pintar FA: Biomechanics of pediatric cervical spine: Compression, flexion and extension responses. *J Crash Prevention and Injury Control* 2(2), 87-101, 2000.

33. Yoganandan N, Pintar FA, Kumaresan S, Gennarelli, Sun, E, Kuppa, S, Maltese, M, Eppinger, R: Pediatric and small female neck injury scale factors and tolerance based on human spine biomechanical characteristics. *International Conference on the Biomechanics of impacts (IRCOBI)* 345-359, 2000.
34. Yoganandan N, Kumaresan S, Pintar F: Importance of material properties on spinal components load sharing. *J Mathematical Modelling and Scientific Computing* 13(1-2): 90-93, 2001.
35. Kumaresan S, Yoganandan N, Pintar FA, Maiman DJ, Goel VJ: Contribution of disc degeneration to osteophytes formation in the cervical spine: A biomechanical investigation. *J Orthopedic Research* 19(5), 977-984, 2001.
36. Pintar F, Kumaresan S, Yoganandan N, Yang A, Stemper B, Gennarelli T: Biomechanical modeling of penetrating traumatic head injury: A finite element approach. *Biomedical Sciences Instrumentation* 37, 429-434, 2001.
37. Yoganandan N, Kumaresan S, Pintar, F: Biomechanics of the cervical spine Part 2: cervical spine soft tissue responses and biomechanical modeling. *J Clinical Biomechanics* 16(1), 1-27, 2001.
38. Sances, A, Kumaresan S: Comparison of biomechanical head-neck responses of hybrid III dummy and whole body cadaver during inverted drops. *Biomedical Sciences Instrumentation* 37, 423-427, 2001.
39. Kumaresan S, Pintar F, Yoganandan N: Finite element modeling of pre-tension in spinal ligaments. *J Mathematical Modelling and Scientific Computing* 13(1-2): 115-119, 2001.
40. Thacker B, Nicolella D, Kumaresan S, Yoganandan N, Pintar F: Probabilistic finite element analysis of cervical spine. *Ibid* 13(1-2): 12-21, 2001.
41. Pintar FA, Kumaresan S, Yoganandan N: Geometrical idealization of the uncovertebral joints of the cervical spine. *Ibid* 3(1-2): 133-135, 2001.
42. Hutchinson J, Rogers C, Bish J, Friedman K, Sances A, Kumaresan S: Finite element analysis of a bicycle helmet. *Ibid* 13(1-2): 128-132, 2001.
43. Zick R, Kumaresan S, Milkowski L. Computer surface modeling of cervical spine vertebra for rapid prototyping application. *Ibid* 13(1-2): 40-46, 2001.
44. Kumaresan S, Yoganandan N, Pintar F: Pediatric neck injury scaling and tolerance. *Biomedical Sciences Instrumentation*, 37, 435-440, 2001.
45. Thacker B, Nicolella P, Kumaresan S, Yoganandan N, Pintar P: "Probabilistic Finite Element Analysis of the Lower Cervical Spine under Eccentric Loading," *8th International Conference on Structural Safety and Reliability* 13 (1-2): 12-21, 2001.
46. Kumaresan S, Sances A, Carlin F: Biomechanical evaluation of padding in child seats and padding. *Biomedical Sciences Instrumentation* 38, 453-458, 2002.
47. Sances A, Carlin F, Kumaresan S: Biomechanical analysis of head-neck force in hybrid – III dummy during inverted vertical drop studies. *Ibid* 38, 459-464, 2002.

48. Meyer S, Herbst B, Forrest S, Syson S, Sances A, Kumaresan S: Restraints and occupant kinematics in vehicular rollovers. *Ibid* 38, 465-469, 2002.
49. Sances A, Carlin F, Kumaresan S: Biomechanical injury evaluation of laminated glass during rollover. *SAE Off-highway International Congress meeting* SAE 2002-01-1446, 2002.
50. Kumaresan S, Sances A, Hutchinson J, Friedman K: Finite element analysis of pediatric head injury. *Computers in Biomechanics and Biomedical Engineering* 1-6, 2002.
51. Sances A, Carlin F, Kumaresan S: Biomechanical analysis of head-neck force in hybrid – III dummy during inverted vertical drop studies. *Computers in Biomechanics and Biomedical Engineering* 7-11, 2002.
52. Sances A, Carlin F, Kumaresan S, Enz, B: Biomechanical analysis of glass impacts. *Critical Reviews in Biomedical Engineering* 30(4-6), 345-377. 2002.
53. Sances A, Kumaresan S, Clarke R, Renfroe D, Herbst B, Pozzi M: Biomechanical analysis of motor vehicle seat belt buckles. *Biomedical Sciences Instrumentation* 39, 229-240, 2003.
54. Sances A, Kumaresan S, Carlin F: Biomechanical injury evaluation of laminated glass of side windows and sunroofs during rollover accidents. *Ibid* 39, 241-244, 2003.
55. Forrest S, Herbst B, Myers S, Sances A, Kumaresan S: Inverted vehicle drop test and neck injury potential. *Ibid* 39, 251-258, 2003.
56. Myers S, Forrest S, Herbst B, Sances A, Kumaresan S: Motor vehicle seat belt analysis during rollover. *Ibid* 39, 229-240, 2003.
57. Saczalski K, Sances A, Kumaresan S, Burton J, Lewis P: Experimental injury study of children seated behind collapsing front seats in rear impacts. *Ibid* 39, 259-265. 2003.
58. Sances A, Kumaresan S, Herbst B, Meyer S, Hock D: Biomechanics of seat belt restraint system. *Biomedical Sciences Instrumentation* 40, 377-380, 2004.
59. Saczalski K, Sances A, Kumaresan S, Burton J, Lewis P: Multivariate head injury threshold measures for various sized children seated behind vehicle seats in rear impacts. *Ibid* 40, 381-386, 2004.
60. Meyer S, Forrest S, Herbst B, Hayden J, Orton T, Sances A, Kumaresan S: Testing and injury potential analysis of rollovers with narrow object impacts. *Ibid* 40, 395-400, 2004.
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209. Kumaresan S, Sances A, Carlin F, Frieder R, Friedman K, Renfroe D: Biomechanics of Side Impact Injuries: Evaluation of Seat Belt Restraint System, Occupant Kinematics and Injury Potential. *IEEE Engineering in Medicine and Biology Society*, 87-90, WeC06.3, 2006.
210. Kumaresan S, Sances A: Biomechanical trauma analysis of spinal cord neurological injury due to fracture-dislocation of posterior elements in the cervical region. *22nd Annual Academy of Surgical Research*, Tucson, AZ, 2006 .
211. Kumaresan S, Sances A, Paden B, Carlin F, Frieder R: Biomechanical analysis of spinal injuries to rear occupants in frontal impact. *Annual Biomedical Engineering Society Conference*, #713, 2006.
212. Kumaresan S, Sances A, Paden B, Carlin F: Biomechanical evaluation of side airbags in injury mitigation. *Annual Biomedical Engineering Society Conference*, # 146, 2006.
213. Friedman K, Mihora D, Hutchinson J, Sances A, Kumaresan S: Bicycle helmet roll-off prevention design and testing. *XVI Canadian Multidisciplinary Road Safety Conference*, Winnipeg, Manitoba, pp 1-4, June 11-14, 2006.
214. Kumaresan S, Sances A, Paden B, Carlin F, Frieder R: Biomechanics of padding in injury mitigation. *Annual Biomedical Engineering Society Conference*, # 712, 2006.
215. Burgos T, Cadavona D, Heang H, Lertsmitivanta D, Sakatani T, Laguette S, Freider R, Kumaresan S, Paden B, Sances A: Review of whiplash mitigating automotive head restraint systems. *International Society of Biomechanics Conference*, # 0764, 2007.
216. Freider R, Kumaresan S: Biomechanical analysis of late airbag deployment in motor vehicle crashes using computer simulation. *ASME Summer Bioengineering Conference*, SBC07-176654, 2007.
217. Kumaresan S, Paden B, Carlin F, Freider R: Biomechanical quantification of flexion movement (ducking) of the human head-neck and rollover accidents. *ASME Summer Bioengineering Conference*, SBC07-176642, 2007.
218. Cadavona D, Burgos T, Heng H, Lertsmitivanta D, Sakatani T, Freider, R, Paden B, Kumaresan S: Biomechanical analysis of a vehicular seat head restraint system in whiplash injury. *Biomedical Engineering Society Conference*, # 1009, 2007.
219. Lertsmitivanta D, Cadavona D, Burgos T, Heng H, Sakatani T, Freider, R, Paden B, Kumaresan S: Biomechanical analysis of occupant and vehicular factors in whiplash injuries using MADYMO. *Annual Biomedical Engineering Society Conference*, # 1010, 2007.

220. Kumar S, Friedman K, Hutchinson J, Mihora D, Senesac S: Biomechanical Considerations in Automotive Rollover Accidents: Occupant Kinematics and Vehicular Restraint System. Annual Biomedical Engineering Society Conference, BMES 2009-001791, 2009.
221. Stemper B, Storvik S, Kumar S: Axial Head Rotation Increases Capsular Ligament Distractions During Simulated Automotive Rear Impact. Annual Biomedical Engineering Society Conference, BMES 2009-001776, 2009.
222. Kumar S, Friedman K, Hutchinson J, Mihora D, DeRosia J: Spinal Injuries in Automotive Frontal Crashes. Annual Biomedical Engineering Society Conference, BMES 2009-001887, 2009.

RONALD E. SNYDER, M.D.

MD Diagnostic Specialists, LLC

2014 S. Orange Ave, Suite 200-B

Orlando, FL 32806

668 N. Orlando Ave., Suite 1005

Maitland, FL 32751

407-644-0101 321-441-1559 fax

PHYSICAL MEDICINE AND REHABILITATION RESIDENCY

Residency Program: St. Francis Hospital, Pittsburgh, PA. Including 7/84-6/87 Children's Hospital of Pittsburgh, Mercy Hospital, D.T. Watson Rehabilitation Hospital, and Rehabilitation Institute of Pittsburgh.

PEDIATRIC RESIDENCY

Residency Program: Bridgeport Hospital, Bridgeport, CT., in affiliation 1972 – 1975 with Yale University School of Medicine. Chief Resident, 1975.

EDUCATION

B.A., Goshen College, Goshen, Indiana, 1968.

M.D., Indiana University School of Medicine, 1972.

OTHER STUDIES

PURDUE UNIVERSITY: Beltone Scholarship, Speech and Hearing Pathology, 1967.

U.C.L.A.: Space Medicine Studies in Association with N.A.S.A., 1968.

NORTHWESTERN UNIVERSITY: Upper and Lower Prosthetics, 1985.

HARVARD MEDICAL SCHOOL: Rehabilitation Overview, 1985.

NORTHWESTERN UNIVERSITY: Upper and Lower Orthotics, 1986.

U.C.L.A. SCHOOL OF MEDICINE: Medical Acupuncture for Physicians, 1999

CERTIFICATION/ACADEMIC MEMBERSHIP

- Diplomate of the American Board of Pediatrics, September 27, 1981.
- Fellow of the American Academy of Pediatrics, October 21, 1982. (closed)
- Fellow of the American Academy for Cerebral Palsy and Developmental Medicine, December 1985. (closed)
- Diplomate of the American Board of Physical Medicine and Rehabilitation, 1987.
- Fellow of the American Congress of Rehabilitation Medicine, 1988.
- Fellow of the Academy of Physical Medicine and Rehabilitation, 1988.
- President, Maine Society of Physical Medicine and Rehabilitation, Nov 1, 1999-Oct 30, 2001

- American Academy of Electro-diagnostics and Electromyography, Associate Member, 1987.
- Fellow of the American Academy of Clinical Neurophysiology, 1986.
- American Academy of Pain Medicine, 1987.
- Diplomate of the American Academy of Pain Management, 1991.
- American Academy of Medical Acupuncture, 1999.
- American Institute of Balance Education Foundation: Tampa: March 27-28, 2008: VNG Interpretation and Report Writing
- American Institute of Balance Education Foundation: Tampa: November 7-9: Vestibular Assessment

LICENSE

Florida April 24, 2004 #ME90201
Maine: January 1993, #013510 (closed)
Indiana: March 1973, #24346 (closed)
Connecticut: March 1974, #16528 (closed)
Pennsylvania: 1984, #MD 031363-E (closed)
Rhode Island: 1985, #7015 (closed)

PRESENTATIONS

- Caffeine Consumption in the Chronic Pain Patient, Annual Meeting of Pennsylvania Academy of Physical Medicine and Rehabilitation, 1986.
- "Traumatic Brain Injury - Rehabilitation," Rhode Island University, School of Physical Therapy, 1989, 1990, and 1991.
- "Rehabilitation and Musculoskeletal Injuries," Regional Vocational Rehabilitation Training Seminar (Rhode Island, Massachusetts, and Connecticut), 1989, 1990, 1991.
- "Chronic Pain," Cranston Hospital Residency Program, 1988, 1989, 1990, 1991.
- "Gait Patterns," Cranston Hospital Residency Program, 1988, 1989, 1990, 1991.
- "Etiology of Back Pain," Cranston Hospital Residency Program, 1989, 1990.
- "Rehabilitation of Back," Rehabilitation Seminar to Rehabilitation Professionals - Invitational, 1989.
- "Rehabilitation of the Back - Beyond Shake and Bake," The Aetna Insurance Company, In-Service for Claims Adjusters
- "Reflex Sympathetic Dystrophy," New Medico, Forest Manor, Therapists In-Service Program, 1990.
- "Acute Care of Musculoskeletal Injuries," State of Rhode Island Regional Association of Emergency Room Medicine, 1990.
- "Rehabilitation Medicine and Workmen's Compensation," The Travelers Insurance, In-Service for Claim Adjusters and Rehabilitation Nurses, Swansea, Mass Offices, 1991.
- "Traumatic Brain Injury - Acute Care and Rehabilitation," Diseases of Summer - South County Hospital, 1991.
- "Acute Rehabilitation and Industry," Rhode Island Association of Certified Occupational Nurses, 1991.

- Androscoggin Neuroscience Lecture Program, 1993.
- "Chronic Pain Concepts," Kennebec Valley Medical Center, 1993
- "Chronic Pain and Caffeine Abuse," Horizons 55, 1993
- "Braces, Canes and Therapy," M. S. Society, 1993
- "Chronic Pain," Stephens Memorial Hospital Medical Staff Grand Rounds, 1993.
- "Cerebral Palsy and Parenting," Northern Cumberland General Hospital, 1994.
- "ADL Tools: Braces, Crutches & Other Unmentionables," Maine Arthritis Association, 1994.
- "Chronic Pain Programming: The Physiatrist Vantage Point, Bio-behavioral Institute, Boston, 1994.
- "Chronic Pain Programming: Accreditation Programming, Bio-behavioral Institute, Boston, 1994.
- "Chronic Pain Programming/Myofascial Pain Comp Camp, Maine Worker's Compensation/Managed Care Autumn Meeting, 1994.
- "Concepts in Chronic Pain," Maine Bar Association, May of 1995.
- "Reflex Sympathetic Dystrophy, Maine Worker's Compensation/Managed Care, 1995.
- "Assistive Technology Training Program, Maine Medical Association, 1995.
- "Chronic Pain Control," Horizons/55, 1996.
- "Proving Permanent Impairment and Establishing Disability," Rhode Island Bar Association, September 5, 1996.
- "Complex Regional Pain Syndrome and Reflex Sympathetic Dystrophy," Maine Arthritis Association and Maine RSDS Patient Advocates, October 26, 1996.
- "Chronic Pain Syndromes: Myofascial Pain," Maine Safety Counsel, February 5 & 6, 1996
- "Chronic Pain Syndromes: Myofascial Pain," Scarborough Physical Therapy, March 10, 1997.
- "Therapeutic Treatment Modalities," Civic Center, Augusta, Maine, August 22, 1997.
- "Complex Regional Pain Syndrome (Reflex Sympathetic Dystrophy): Understanding the Symptoms and Treatment Options", Civic Center, Augusta, Maine, August 22, 1997.
- Pain in the Face of Brain Injury, Northeast Brain Injury Symposium, Maine Brain Injury Association, Portland, ME, March 4, 1999.
- Getting a Life Back, Chronic Pain Management, Northeast Pain Symposium, Nashua, NH, April 8, 1999.
- Chronic Pain Management, Grand Rounds, Maine General Medical Center, August 24, 1999.
- Alternative Medicine, The Science Behind the Ancient Healing Arts, The State of Maine Rehabilitation Nursing Association, Augusta, ME, August 20, 1999.
- Integrating Acupuncture into a Pain Practice, @ Mercy Hospital Pain Department, Portland, ME, October 20, 1999.
- Chronic Pain Management, Purdue Fredericks, Lewiston, ME, October 28, 1999, November 10, 1999, February 17, 2000.
- Chronic Pain Management, Grand Rounds, Waterville Hospital, September 16, 1999.
- Access to Assistive Technology: Evaluation of Persons with Disability, Assistive Technology, Access Partnership and Brown University Medical School, Providence, RI, September 30, 1999.

- Use of Opioids and Alternative Medicine with Reflex Sympathetic Dystrophy, @ State of Maine Reflex Dystrophy Support Group, National Meeting, RSD Hope, South Portland, October 2, 1999.
- Parenthood, A task for Life: Children and the Brain Injured Parent, Maine Brain Injury Associates Annual Meeting, Portland, ME November 4, 1999.
- Is There a Better Bullet, A Look into Alternative Medicine, Chronic Pain Management, Taking Pain Management into the Next Millennium, St. Mary's Center for Pain Management, Lewiston, ME, November 30, 1999.
- Chronic Pain Management, @ Martin's Point Medical Center Grand Rounds, Portland, ME, December 1, 1999.
- Using Medical Research to Prove Your Client=s >Non-Objective, State of Maine Trial Lawyer Association, @ Augusta, ME, February 10, 2000.
- Chronic Pain Management, Central Maine Pharmacy Association, Bath, ME, February 10, 2000.
- Ancient and Modern Discoveries and Brain Injury, Keynote Speech, Northeast Brain Injury Symposium, Maine Brain Injury Association, Portland, ME, March 24, 2000.
- Chronic Pain Syndromes, Medical Research and >Nonobjective Findings, Maine Trial Lawyers Association, February 10, 2000.
- Chronic Pain Management, Physicians of the Camden Downeast Physician Area, February 17, 2000.
- Chronic Pain Management, Opioids and Prescription Writing 101, Brunswick Shoreline Psychiatric Association, Brunswick, Maine, March 6, 2001.
- Chronic Pain Management, Appropriate Use of Opioids, Senator Inn, Augusta, Maine, March 16, 2000.
- Chronic Pain Management in the Face of Osteoporosis, Osteoporosis Support Group Central Maine Medical Center, Lewiston, Maine, April 12, 2000.
- Insomnia and Chronic Pain, Greene, Maine, Surrounding Area Physician Conference, Greene, Maine, May 2, 2001.
- Chronic Pain Management, The Use of Opioids in Nonmalignant Pain, Rumford Maine Area Physicians, May 10, 2000.
- AA Medical Odyssey, Use of Opioids in the Rehabilitation Process, Insurance and Rehabilitation Study Group, Spring Conference, Portland, Maine, May 22, 2001. *
- Pain and Addiction, Parallel Epidemics in America, The Use of Opioids in a Regulated Environment, Mixed Physicians and Professionals, Portland, Maine, May 30, 2001.
- Pain and Addiction, Parallel Epidemics in America, The Use of Opioids in a Regulated Environment, Ramada Inn, Lewiston, Maine, June 6, 2001.
- Ancient and Modern Discoveries for the Treatment of Chronic Pain in the Elderly, Elder Care, CHIP Bar Harbor, Maine, June 8, 2000, *
- Pain and Addiction, Parallel Epidemics in America, The Use of Opioids in a Regulated Environment, Embassy Suites, Portland, Maine, for Pharmacists, Portland, Maine, June 14, 2001.
- Pain and Addiction, Parallel Epidemics in America, The Use of Opioids in a Regulated Environment, local pharmacists, Greene, Maine, June 19, 2001. *
- Pain and Addiction, Parallel Epidemics in America, The Use of Opioids in a Regulated Environment, Southern Maine Osteopathic Study Group, Portland, Maine, June 28, 2001.

- Insomnia in Chronic Pain, Evaluation and Treatment, Area Physicians, Naples, Maine, August 10, 2000.
- Is there a Better Bullet, A Look into Alternative Medicine for Chronic Pain Management, Comp Summit 2000 Sugarloaf USA as put on by Law Publishers, Sugarloaf, Maine, September 19, 2000.
- Understanding Opioids and The Chronic Pain Patient, Cumberland County Pharmacies Association, Portland, Maine, September 20, 2000.
- Chronic Pain and Opioid Treatment, St. Mary's Regional Medical Center Grand Rounds, Lewiston, Maine, September 28, 2000.*
- Use of Alternative Medicine, Women=s Retreat, East Auburn Baptist Church, Auburn, Maine, September 6, 2001.
- Why Use Opioids Now? The Pain Assessment, Staying Out of Trouble: Office Techniques, Embassy Suites. Southern Maine Osteopathic Group.
- The Use of Chronic Opioids in Private Practice, Chronic Pain and Addiction, Parallel Epidemics, DownEast Association for Physician Assistants, Bethel, Maine, February 1, 2001. *
- Office Practices and Procedures to Prevent Diversion of Controlled Substances, Sweetser Psychiatric Department, Brunswick, Maine, February 6, 2001.
- Use of Opioids in Chronic Nonmalignant Pain, Pain Symposium Grand Rounds, Togus VA Medical Center, March 2, 2001.
- Traumatic Brain Injury Understanding the Injury, Maine Trial Lawyers Association, Sheraton Hotel, Portland, Maine, April 6, 2001.
- Is there a Better Bullet, A Look into Alternative Medicine, Maine Human Resource Convention, Rockport, Maine, May 9, 2001.
- Parenting with Traumatic Brain Injury, American Heart Association, Bangor, Maine, May 23, 2001.
- Picking up the Pieces Following the Diagnosis of Reflex Sympathetic Dystrophy, RSD Hope Annual National Chronic Pain Seminar, Portland, Maine, June 14, 2001.
- Chronic Nonmalignant Pain Management and Why Physicians Prescribe Opioids, Airport Embassy Suites, Portland, Maine, June 16, 2001.
- Why Use Opioids Now, The Pain Assessment, Staying Out of Trouble: Office Techniques, Ramada Inn, Lewiston, Maine, June 19, 2001.
- Treatment of Insomnia, Visiting Profession Program, Chopsticks Restaurant, Lewiston, Maine, January 8, 2001.
- Evidenced Based Study of Myofascial Pain and Fibromyalgia, Diagnosis and Management, Northern New England Defense Counsel Association, South Portland, Maine, September 21, 2001.
- Alternative Medicine in Cancer Pain Management, Maine Cancer Association, Maine Medical Center, Portland, Maine. *
- Chronic Pain and Addiction, Parallel Epidemics, St. Mary's Regional Medical Center Grand Rounds, Lewiston, Maine. September 27, 2001, *
- How to Stay Out of Trouble with Chronic Opioid Usage, Central Maine Medical Center Grand Rounds, October 2, 2001.*
- Pain and Addition, Parallel Epidemic in America, St. Mary's Regional Medical Center, Lewiston, Maine, October 9, 2001. *

- Effects on Providing Damages with Experts, The Rhode Island Trial Lawyer's Association, Providence, Rhode Island, October 19, 2001.
- Pain Management for Patients with Complex Regional Pain Syndrome, RSD Hope National Meeting, November 3, 2001.
- Chronic Pain and Substance Abuse, Parallel Epidemics in America, Use of Chronic Opioids in Chronic Nonmalignant Pain, Goodall Hospital, Sanford, Maine, November 29, 2001, *
- Pain Management with Bone Pain, Central Maine Medical Center, Osteoporosis Support Group, January 9, 2002.
- Pain Management Pain and Addiction, Parallel Epidemic in America, Maine General Hospital, January 25, 2002. *
- Addiction and Pain Management, Pain Experiences, Bates University Department of Physiology B Visiting Professional B February 1, 2002.
- Brain Injury Rehabilitation, Maine Medical Center Grand Rounds (Family Practice and Psychiatry), February 5, 2002, *
- New Concepts in Musculoskeletal Pain Management, Physician Small Study Group, Bangor, Maine, February 7, 2002.
- New Concept in Musculoskeletal Pain, Ellsworth Hospital Grand Rounds, Ellsworth, Maine, February 8, 2002, *
- Spasticity Evaluation and Treatment of Children with Cerebral Palsy, Lewiston, Maine, April 25, 2002.
- New Concept in Pain Management, Physician Small Study Group, Naples, Maine, June 20, 2002.
- COX-2 and Opioids in Pain Management -Wind up, Southern Maine Osteopathic Group, Portland, Maine, June 25, 2002.
- The Use of a Physician in Understanding Your Case, Maine Bar Association, Bar Harbor, Maine, June 29, 2002, *
- New Concepts in Pain Management, Maine Podiatry Society, Portland, MA, July 12, 2002, *
- Pain and Addiction, Parallel Epidemic in America, Case Management Society of New England, Yarmouth, ME, August 12, 2002.*
- Pain and Addiction, Parallel Epidemic in America, Miles Health Center Grand Rounds, Damariscotta, Maine, August 20, 2002. *
- New Concept in Pain Management, COX-2 and Opioids, -Wind up, Chronic Pain Team Members, Elliot Hospital, Manchester, NH, September 9, 2002*
- Pain and Addiction, Parallel Epidemic in America, Maine Medical Center Grand Rounds (Family Practice and Psychiatry), Portland, Maine, October 1, 2002. *
- New Pain Management For Chronic Old Pain, Maine Pharmacy Association, Greene, ME, October 1, 2002*
- Pain and Addiction, Parallel Epidemic in America, How to Evaluate, Maintain Medical Records, and Write Prescription Opioids, New England Association of Physician Assistants, University of Southern Maine, October 5, 2002.*
- Examination of the Back in a Patient with Chronic Low Back Pain, Primary Care Advisory Network, Purdue-Pharma, October 26, 2002.
- Maintaining Mobility in The Face of Pain, at the RSD Hope Annual Survivors Meeting, South Portland, ME, November 1, 2002.

- Playing The Cards You Were Dealt: Learning How to Deal with Reality, RSD Hope Annual Survivors Meeting, South Portland, ME, November 2, 2002
- Physician, Chiropractic, Consortium by Open MRI of Orlando and MDDS of Orlando:
 - January 17, 2008: Brain injury and Balance disorders and how the Impairment is determined for these types of injuries.
 - March 29, 2007 Diagnostic testing that can better document pain complaints and injuries
 - May 10, 2007, May 24, 2007, June 07, 2007, June 21, 2007, July 26, 2007: a modified Neuropsych testing added substantial insight to a patients complaints
 - August 23, 2007: Malingering testing that can add credibility to your narrative reports.
 - June 19, 2007: Cases reviews: Physiatry and Pain management
 - July 18, 2007: Overview of NCV/EMG testing procedures, test results and their clinical application in your practice
 - October 25, 2007: Fibromyalgia and some of the latest research regarding its treatment

MEDICAL PRACTICE

Norwich Pediatric Group P.C., Norwich, Connecticut, 1975-1978.

Children's Medical Associates of Norwich P.C., Norwich, Connecticut.

Founder and President of the corporation with three other physicians and thirteen employees, 1978-1984.

Forbes Regional Center, Monroeville, PA

Pediatric House Physician and Family Practice Clinical Instructor, (Emergency Room, Labor and Delivery Rooms, Pediatric Wards, Nursery, and Level II Newborn Intensive Care), 1984 - 1987.

Ocean State Rehabilitative Services, Cranston, Rhode Island

Medical Director, 1987 - 1992.

Medical Rehabilitation Associates, P.A., Lewiston, Maine

January 1, 1993 – June 30, 2004

Westside NeuroRehabilitation Center, Lewiston, Maine

Medical Director, October 1, 1996 – June 30, 2004

Headache and Pain Center of Palm Beach, August 1, 2004

M.D. Diagnostic Specialists, Maitland, Florida

Medical Director, June 2005 to present

Palm Beach Sports Medicine, West Palm Beach, FL

Staff physiatrist June 2005 to present

Treasure Coast Anesthesiology, Port St. Lucie, FL

Staff physiatrist, June 2005 to present

OTHER MEDICAL RESPONSIBILITIES

State of Rhode Island Department of Vocational Rehabilitation, Chief Medical Consultant, 1987 to 1990.

St. Joseph Hospital, Medical Director of the St. Joseph Center for Rehabilitation and Chief of Rehabilitation Medicine, 1988 to 1992.

Maine Hospitals: Central Maine Medical Center, Lewiston, ME
 St. Mary's Regional Medical Center, Lewiston, ME
 Maine Medical Center, Portland, ME

Florida Hospitals:
 Jupiter Hospital, Jupiter FL
 Florida Hospital, Orlando, FL

National Pharmaceutical Lecture Services: Pfizer, Organon, Alpharma, Purdue, and Allergan

Medical Missions: Places of Hope International:
 Mano de Ayuda, Ario de Rosales, Michacan, Mexico, Medical Team Director
 June 2005, June 2006, June 2007
 Poade de Amor, Cieneguilla, Peru, Medical Team Director
 July 2006, July 2007

TEACHING POSITIONS

University of Central Florida Department of Physical Medicine and Rehabilitation,
Assistant Professor, November 2011 to present

BOARD MEMBERSHIPS

Project Independence, Norwich, Connecticut, Board of Directors, Vice-President, 1980-1984.

First Baptist Church of East Greenwich, Board of Trustees, 1991 to 1993.

Year 2000, State of Rhode Island, Steering Committee, 1992.

Vocational Resources, Inc, Providence Rhode Island, Board of Directors, 1992.

Maine Employers' Mutual Insurance Co. Professional Medical Board Committee, 1994 to 1997

East Auburn Baptist Church, Auburn, ME, Elder Board, 2003-2004

The Pain Institute, (WWW.THEPAININSTITUTE.org), International Educational Forum, 2004

Nicholas D. A. Suite, M.D.

Patient Care Services:

- ❖ 2525 Embassy Drive, Suite 7
Cooper City, Florida 33026
- ❖ 1108 Kane Concourse, Suite 300B
Bay Harbor Islands, Florida 33154
- ❖ 11420 North Kendall Drive, Suite 101
Miami, Florida 33176

Telephone (954) 431-6884

Facsimile (954) 436-6936

Website: www.EmbassyHealth.com

Conferences, Medical Records and Administrative Office:

- ❖ 11860 West State Road 84, Suite B-10
Davie, Florida 33325

Email: academicneurologynetwork@gmail.com

Telephone (954) 626-0618

Facsimile (954) 626-0619

Additional Contact Information:

Direct Email: nsuite@gmail.com

Cellular: (954) 868-1567 (if no answer, please leave a text message)

Patient Appointment Scheduling Assistant's Email:

Email: embassy2525@gmail.com

EDUCATION

- 1982 – 1986** M.D.
The Johns Hopkins University School of Medicine
720 Rutland Avenue, Baltimore, Maryland 21205
- 1978 – 1982** B.A. (Biology)
The Johns Hopkins University of Arts and Sciences
3400 N. Charles Street, Baltimore, Maryland 21218
- 1970 – 1977** Campion College, Kingston, Jamaica (High School)

POSTGRADUATE TRAINING

- 1992 – Present** Private Practice (see below)
Neurology and Neurological Rehabilitation
- 1991-1992** Additional year of Residency in Neurology
Department of Neurology
University of Miami School of Medicine, Miami, Florida
- 1989-1991** Residency in Neurology, Chief Residency in Neurology
Department of Neurology
The New York Hospital - Cornell University Medical Center,
Memorial Sloan Kettering Cancer Center,
Hospital for Special Surgery, New York, New York 10021
- 1986-1989** Internship and Residency in Internal Medicine
Department of Medicine
The New York Hospital - Cornell University Medical Center
Memorial Sloan Kettering Cancer Center
Hospital for Special Surgery, New York, New York 10021

TEACHING

- 2001 – Present** Science Instructor – American Heritage High School, Plantation, FL
Courses: Introduction to Human Diseases, Honors Genetics,
Medical Terminology, Sports Medicine, Embryology.
Co- Founder – Pre Medical Program
American Heritage High School, Plantation, FL
- 1993 – 2008** Voluntary Clinical Assistant Professor of Neurology
University of Miami School of Medicine
Miami, Florida 33136
- 1977 – 1978** Assistant Teacher – Cooper City High School
Mathematics Remedial Program, Cooper City, FL

LICENSURE

New York #170969
Florida #59343
Michigan #4301088933

BOARD CERTIFICATION

1994 – Current Certified – American Board of Psychiatry and Neurology (Neurology)
1991 – 2001 Certified – American Board of Internal Medicine

ELECTIVES

1986 Osler Medical Service, The Johns Hopkins Hospital
 Sub Internship

1986 Neurology, The Johns Hopkins Hospital, Dr. G.M. McKhann
 Sub Internship

1985 Neurology Clerkship
 Prof. John Marshall; Prof. J. Newsom Davis; Prof. R.W. Ross Russell
 National Hospital for Nervous Diseases
 Queen Square, London

AWARDS & HONORS

1985 Research Award
 “The Effect of Volatile Anesthetics on Calcium uptake in Rabbit Cardiac
 Sarcoplasmic Reticulum”
 The Johns Hopkins School of Medicine

1981 Alpha Epsilon Delta – Premedical Honor Society
 The Johns Hopkins University

1979 – 1982 Alumni Scholar – The Johns Hopkins University

EXTRACURRICULAR ACTIVITIES

Men’s Squash Champion - The Johns Hopkins University 1983 and 1984
Winner- Maryland, DC and Virginia Insilco Squash Tournament 1983-1984
Washington, DC

Grand Finalist – Insilco National Squash Championship 1983 – 1984
Los Angeles, CA

PROFESSIONAL ASSOCIATIONS

American Academy of Neurology

PUBLICATIONS

(Non Peer Reviewed)

Suite, N.D.A. "The Descriptive Terminology Pertaining to Intervertebral Disk Pathology," *Neurology Associates Group Newsletter*, Vol.1, No.2, September, 2001

Suite, N.D.A. "Neurology Associates Group is the Gold Standard in Personal Injury Care," *Neurology Associates Group Newsletter*, Vol.1, No.1, April, 2001

(Peer Reviewed)

Barbut D; Borer S; Gharavi A; Wallerson D; Devereux R.B; Supino, P; Suite N.D.A "Anticardiolipin Antibody in Isolated Mitral or Aortic Regurgitation or Both, and Possible Relation to Cerebral Ischemic Events" *American Journal of Cardiology* Vol.70 pp.901-905, October, 1992

Wong M.C; Suite N.D.A; Labar D.R. "Seizures in Immunodeficiency Virus Infection" *Arch. Neuro.* Vol. 47 pp. 640-642, June, 1990

Sundaresan N.; Suite N.D.A "Optimal Use of the Ommaya Reservoir in Clinical Oncology" *Oncology* Vol.3 No 12 pp.1 5-22, December, 1989

Casella, E.S; Suite, N.D.A; Fisher, Y. Blank TJJ "The Effect of Volatile Anesthetics on the pH Dependence of Calcium Uptake by Cardiac Sarcoplasmic Reticulum" *Anesthesiology* 67 (3) pp. 386-390, September, 1987

Suite, N.D.A.; Sequeiros, J; McKhann G; "Machado Joseph Disease in a Sicilian American Family" *Neurogenetics* 3 (3) pp. 177-182, May, 1986

ABSTRACTS

(Peer Reviewed)

Casella, E.S; Suite, N.D.A; Fisher, Y. Blank TJJ "The Effect of Volatile Anesthetics on the Ph Dependence of Calcium Uptake by Cardiac Sarcoplasmic Reticulum" *Biophysical Journal*, February, 1986

Suite, N.D.A.; Sequeiros, J; McKhann G; " Presumable Machado Joseph Disease in a Family of Sicilian Extraction" *American Journal of Human Genetics* Vol.37 No 4, July, 1985

LETTERS

(Peer Reviewed)

Wong M.C; Suite N.D.A; Labar D.R. "Generalized Status Epilepticus in a Patient with the Acquired Immuno-deficiency Syndrome" *Annals Internal Medicine* Vol.116, No 2, pp.171, January, 1992

Suite, N.D.A.; Sequeiros, J "Spinopontine Atrophy Disputed as a Separate Entity: The First Description of Machado Joseph Disease" *Neurology* Vol.36, No 10, pp. 1403, October, 1986

LECTURES GIVEN

Insurance Adjusters' CEU Update Lecture: "Medical Terminology", Texas Property and Casualty, 9120 Burnett Road, Austin, TX, August 5, 2009

Insurance Adjusters' CEU Update Lecture: "Complex Regional Pain Syndrome/ RSD, Diskogenic back pain; treatments and controversies ("Perc disk phenomenon"), JL Companies, Austin, TX, August 4, 2009

Insurance Adjusters' CEU Update Lecture: "Management of painful disease states: The percutaneous disk phenomenon, CRPS/ RSD, and other topics." July 30th, 2009 at Geico Headquarters, 3535 West Pipkin Road, Lakeland, FL 33811

Insurance Adjusters' CEU Update Lecture: "Degenerative disease from acute trauma", July 7, 2009, Webinar, CNA Nursing Case Managers, Syracuse, NY

Florida Bar CLE series of Ethics Lectures: " Ethical Issues vs. Patient Benefits in the management of painful disease states", North Miami Beach, FL, January 2009

Florida Bar CLE series of Ethics Lectures: "Internet Medicine; Good practice or Malpractice", North Miami Beach, FL, September 2008, series of four

"Successful Intra-arterial tPA treatment of Basilar artery thrombosis in a 44 year old man presenting with 'Locked-in syndrome'", Neurology Resident Education Series, Cleveland Clinic, FL, June 2006

"Avoiding neurological misdiagnosis in the ER: Case vignettes and lessons for discussion", Audience: Emergency Room physicians and nursing staff, Memorial Regional Hospital, Hollywood, FL, February 2004

W"Brain Death: The Debate Continues on When to Pull the Plug", Keynote Speaker, CLE Seminar, Ft. Lauderdale, FL, March 14, 2002

"I Got It, I Got It! I Ain't Got It. Pearls and Pitfalls in the Preparation of a Personal Injury Case", Keynote Speaker, CLE Seminar, North Miami Beach, FL, April 18, 2002

"The Best Medical Approach to Evaluating Your Case", Keynote Speaker, CLE Seminar, North Miami Beach, FL, May 30, 2002

"The Best Medical Approach to Evaluating Your Case", Keynote Speaker, CLE Seminar, North Miami Beach, FL, June 13, 2002

"The Emergency Treatment of Stroke: Current Approaches", Keynote Speaker, Nassau, Bahamas, February 4, 1999

SCIENTIFIC MEETINGS ATTENDED AND CME'S

Nicholas D A Suite, MD
REPORT OF AMA PRA
CATEGORY 1 CME CREDIT™

2/2/2015 CONTINUUM - Cerebrovascular Disease 2014 2.00

2/2/2015 CONTINUUM - Neurology of Systemic Disease 2014 2.00

2/2/2015 CONTINUUM - Neuro-ophthalmology 2014 2.00

2/2/2015 CONTINUUM - Peripheral Nervous System Disorders 2014 2.00

2/2/2015 CONTINUUM - Patient Management Problem - Sports Neurology 2014 2.00

2/2/2015 CONTINUUM - Pre and Post Test Cerebrovascular Disease 2014 12.00

2/2/2015 CONTINUUM - Pre and Post Test Neurology of Systemic Disease 2014 12.00

2/2/2015 CONTINUUM - Pre and Post Test Neuro-ophthalmology 2014 12.00

2/2/2015 CONTINUUM - Pre and Post Test Peripheral Nervous System Disorders 2014 12.00

2/2/2015 CONTINUUM - Pre and Post Test Sports Neurology 2014 12.00

1/26/2015 CONTINUUM - Neurology of Pregnancy 2014 2.00

1/26/2015 CONTINUUM - Pre and Post Test Neurology of Pregnancy 2014 12.00

1/22/2015 CONTINUUM - Patient Management Problem - Movement Disorders 2013 2.00

1/22/2015 CONTINUUM - Pre and Post Test Movement Disorders 2013 12.00

12/31/2014 CONTINUUM - Patient Management Problem - Dementia 2013 2.00

12/31/2014 CONTINUUM - Patient Management Problem - Sleep Disorders 2013 2.00

12/31/2014 CONTINUUM - Post Test Dementia 2013 10.00

12/31/2014 CONTINUUM - Post Test Sleep Disorders 2013 10.00

01/24/2013 Patient Management Problem – Neurorehabilitation 2.00

01/24/2013 CONTINUUM – Neurorehabilitation 2011 10.00

01/24/2013 CONTINUUM – Spinal Cord, Root and Plexus Disorders 2011 10.00

01/24/2013 Patient Management Problem – Spinal Cord, Root & Plexus Disorders 2011 2.00

01/24/2013 CONTINUUM – Neurologic Consultation in the Hospital 2011 10.00

01/24/2013 Patient Management Problem – Neurologic Consultation in the Hospital PMP 2011 2.00

01/24/2013 Patient Management Problem – Secondary Stroke Prevention 2011 2.00

01/24/2013 CONTINUUM – Secondary Stroke Prevention 2011 10.00

01/24/2013 Patient Management Problem – Peripheral Neuropathy 2012 2.00

01/24/2013 CONTINUUM – Peripheral Neuropathy 2012 10.00

01/24/2013 Patient Management Problem – Neuro-oncology 2012 2.00

01/24/2013 Patient Management Problem – Critical Care Neurology 2012 2.00

01/24/2013 CONTINUUM – Critical Care Neurology 2012 10.00

01/24/2013 CONTINUUM – Headache 2012 10.00

01/24/2013 Patient Management Problem – Headache PMP 2012 2.00

01/24/2013 Patient Management Problem – Neuro-otology 2012 2.00

01/24/2013 CONTINUUM – Neuro-otology 2012 10.00

01/24/2013 Patient Management Problem – Infectious Disease 2012 2.00

01/24/2013 CONTINUUM – Infectious Disease 2012 10.00

01/22/2013 Patient Management Problem – Neurologic Complications of Systematic Disease 2011 2.00

01/22/2013 CONTINUUM – Neurologic Complications of Systematic Disease 2011 10.00

01/22/2013 Patient Management Problem – Neurogenetics 2011 2.00

01/22/2013 CONTINUUM – Neurogenetics 2011 10.00

01/22/2013 CONTINUUM – Movement Disorders 2010 10.00

01/22/2013 CONTINUUM – Dementia 2010 10.00

01/22/2013 CONTINUUM – Epilepsy 2010 10.00

01/22/2013 CONTINUUM – Behavioral Neurology 2010 10.00

01/22/2013 CONTINUUM – Multiple Sclerosis 2010 10.00

01/22/2013 CONTINUUM – Traumatic Brain Injury 2010 10.00

02/02/2010 CONTINUUM – Multiple Sclerosis 2007 10.00

02/02/2010 CONTINUUM - Autonomic Disorders 2007 10.00

02/02/2010 CONTINUUM - Critical Care Neurology 2009 10.00

02/02/2010 CONTINUUM - Myasthenic Disorders and ALS 2009 10.00

02/02/2010 CONTINUUM - Neurologic Manifestations of Systemic Disease 2008 10.00

01/19/2010 CONTINUUM - Acute Ischemic Stroke 2008 10.00

01/19/2010 CONTINUUM - Childhood Neurologic Disorders in Adulthood 2009 10.00

01/19/2010 CONTINUUM - Neuro-ophthalmology 2009 10.00

01/19/2010 CONTINUUM - Neuroendocrinology 2009 10.00

01/19/2010 CONTINUUM - Neuroimaging 2008 10.00

01/19/2010 CONTINUUM - Neuropathic Pain 2009 10.00

01/19/2010 CONTINUUM - Neurotoxicology 2008 10.00

12/31/2009 CONTINUUM - Neurogenetics 2008 10.00

12/31/2009 CONTINUUM - Spinal Cord, Root, and Plexus Disorders 2008 10.00

01/12/2007 CONTINUUM - Critical Care Neurology 2006 8.00

01/12/2007 CONTINUUM - Dementia 2004 10.00

01/12/2007 CONTINUUM - Epilepsy 2004 10.00

01/12/2007 CONTINUUM - Infectious Diseases 2006 10.00

01/12/2007 CONTINUUM - Movement Disorders 2004 6.00

01/12/2007 CONTINUUM - Muscle Diseases 2006 8.00

01/12/2007 CONTINUUM - Neuro-oncology 2005 10.00

01/12/2007 CONTINUUM - Neuro-otology 2006 10.00

01/12/2007 CONTINUUM - Pain and Palliative Care 2005 10.00

01/12/2007 CONTINUUM - Psychiatry for Neurologists 2006 10.00

01/12/2007 CONTINUUM - Spinal Cord Disorders 2005 10.00

Completed CME Activities on MedscapeActivity

Current and Emerging Treatment Options in Advanced Ovarian Cancer

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 1.00

Highlights of the Summit on ADHD: Targeting and Overcoming the Challenges of Diagnosing and Treating ADHD in an Adult Population
Scepter, division of QED Communications, Inc.

12/31/09 AMA PRA Category 1 Credit(s)TM 1.00

Recommendations for Prescribing NSAIDs in the Primary Care Setting

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM; AAFP Prescribed credit(s) 0.25

Cancer Survivors at "Substantial" Risk of Cardiovascular Disease

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM; AAFP Prescribed credit(s) 0.25

Recognizing and Addressing Healthcare Disparities in Medication Prescribing
Among Racial and Ethnic Minorities with Acute and Chronic Pain

University of Medicine and Dentistry of New Jersey (UMDNJ) - Center for Continuing/Outreach Education

12/31/09 AMA PRA Category 1 Credit(s)TM 0.75

Postherpetic Neuralgia in the Elderly

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Herpes Zoster Attacks Increase Stroke Risk By 30%

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM; AAFP Prescribed credit(s) 0.25

Progressive Leg Weakness in a Patient with AIDS

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM (s) 0.25

Unintended Pregnancy During Radiotherapy for Cancer

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.25

Chronic Pelvic Mass in a Young Patient with Ascites

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Community-Associated Methicillin-Resistant Staphylococcus Aureus, Iowa, USA

Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Recognition and Treatment of Breakthrough Pain in Patients with Cancer:
Key Concepts for Radiation Oncology Professionals

Educational Review Systems, Inc.

12/31/09 AMA PRA Category 1 Credit(s)TM; AAFP Prescribed credit(s) 1.00

A Case of Diabetic Charcot Arthropathy of the Foot and Ankle
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Minimizing Blood Loss During Orthopaedic Surgery and Spinal Surgery:
The Advent of a New Technology and the Role of the Harmonic Scalpel in
Orthopaedic and Spinal Surgery
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

From Bench to Bedside -- Advances in Immune Inflammatory Rheumatic
Diseases: An Expert Interview with Joseph A. Markenson, MD
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Revisiting the Effectiveness of Standard Antidepressants in Bipolar Disorder:
Are Monoamine Oxidase Inhibitors Superior?
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Cases from AHRQ WebM&M: EMR Entry Error -- Not So Benign
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Considerations in the Role of Male Circumcision in the Prevention of HIV
Transmission in the USA
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 1.00

Lumbar Spinal Stenosis: Syndrome, Diagnostics and Treatment
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 1.25

Migraine During Pregnancy: Is It More Than a Headache?
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.75

Delirium in Elderly Adults: Diagnosis, Prevention and Treatment
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 1.00

Intravascular Lymphomatosis of the Brain in a Patient with Myelodysplastic Syndrome
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Diagnosis of Pheochromocytoma in the Setting of Parkinson Disease
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Sudden Unexpected Death in Epilepsy: Risk Factors and Potential Pathomechanisms
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 1.00

Neurological Complications of Chronic Kidney Disease
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.75

Pediatric Multiple Sclerosis
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 1.25

Cavernous Malformations: Natural History, Diagnosis and Treatment
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 1.25

Chemotherapy-Related Posterior Reversible Leukoencephalopathy Syndrome
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

When Metals Compete: A Case of Copper-Deficiency Myeloneuropathy and Anemia
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

A Case of Maternal Herpes Simplex Virus Encephalitis During Late Pregnancy
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.50

Short-Term and Long-Term Stroke Risk Increased After Transient Ischemic Attack
Medscape 12/31/09 AMA PRA Category 1 Credit(s)TM 0.25

Iatrogenic Events Common, Often Serious, in Neonates
Medscape 01/10/09 AMA PRA Category 1 Credit(s)TM; AAFP Prescribed credit(s) 0.25

Part 1: The Case of the Emergency Department Physician Who Burned Out:
Risk Factors, Impact, and Early Interventions
Medscape 01/10/09 AMA PRA Category 1 Credit(s)TM 0.75

Medication Errors and Patient Safety in Mental Health
Medscape 01/10/09 AMA PRA Category 1 Credit(s)TM 1.50

Recent Advances in Anticoagulation Therapy
Medscape 01/10/09 AMA PRA Category 1 Credit(s)TM 1.00

Cases From AHRQ WebM&M: Mistaken Identity
Medscape 01/10/09 AMA PRA Category 1 Credit(s)TM 0.25

Medication Compliance and Avoiding Adverse Drug Reactions
Medscape 01/28/07 AMA PRA Category 1 Credit(s)TM 1.00

Patterns of Errors Contributing to Trauma Mortality: Lessons Learned from
2594 Deaths
Medscape 01/28/07 AMA PRA Category 1 Credit(s)TM 1.00

American Academy of Neurology 2002
Continuum – Epilepsy, Neurological Disorders & Pregnancy,
Neuroimmunology, Muscle Disease, Occupational Neurology

American Academy of Neurology 2002
Continuum – Neurology Update, Practice Management & Technology

American Academy of Neurology 1998
Continuum – Pain Management

American Academy of Neurology 1998
Continuum – Neurorehabilitation

American Academy of Neurology 1998
Continuum – Substance Abuse

American Academy of Neurology 1998
Continuum – Motor Neuron Disease

American Academy of Neurology 1998
Continuum – Critical Care

American Academy of Neurology 1998
Continuum – Sleep Disorder

American Academy of Neurology 1998
Continuum – Psychiatry

American Academy of Neurology 1998
Continuum – Geriatric Neurology

Memorial Hospital Pembroke – “AIDS/HIV Update” 1997

Memorial Hospital Pembroke – “Domestic Violence/Surgery” 1997

EMSA - “Cardiovascular Disease in the 90’s” 1995
Ft. Lauderdale, FL

Med. Col. Wisconsin- “Clinical Applications of MRI, Planar Imaging” 1995
Boca Raton, FL

American Neurological Association- “Medical Leadership Council” October 1995
Georgetown University Medical Center

University of Miami- “Symposium for the Dept. of Neurology” 1995
The Alexander Hotel, Miami Beach, FL

EMSA- “Risk Reduction/Documentation of Cobra Update” 1994
Ft. Lauderdale, FL

Emergency Medical Institute- “Overview of Herpes Zoster”- 1994
Pembroke Pines, FL

Risk Management for Physicians 1993
Naples, FL

University of Miami “Neuro Oncology Symposium 1993”
Miami Beach, FL

University of Kansas “Movement Disorders Update 1993”
Miami, FL

Memorial Hospital Pembroke – AIDS/HIV Update 1993
Naples, FL

University of Miami “Update in Neurology 1992”

Miami Beach, FL

WORK HISTORY / APPOINTMENTS

2011 to Present	Owner & Director of "NDAS" Neurology, Diagnosis & Applied Solutions Inc.
September 2009 to November 2010	Medical Director * Reliance Medical Rehabilitation West Palm Beach, FL
July 2009 to November 2010	Voluntary Neurologist* La Clinica Caridad (Free Clinic) Boynton Beach, FL
January 2008 to November 2011	Staff Neurologist* Johnson Medical Center Hollywood, FL
September 2008 to November 2011	Consultant Neurologist* Neurology Associates Group Miami, FL
September 1992 to Present	Founding Neurologist Nicholas D.A. Suite M.D. & Sydney O. Suite M.D. (Deceased) & Neurology LLC Davie, FL/Cooper City, FL
September 1998 to April 2007	Staff Neurologist & CEO Neurology Associates Group Miami, FL
2007 Sabbatical Year	Senior Staff Neurologist* The Henry Ford Hospital West Bloomfield, MI

HOSPITAL AFFILIATIONS / APPOINTMENTS

2005-2008	Executive Committee Member Cleveland Clinic of Florida Weston, FL
2003-2005	Vice Chief of Staff Memorial Hospital Pembroke Pembroke Pines, FL
2003- 2005	Chairman - Quality Care Committee Memorial Hospital Pembroke Pembroke Pines, FL

1999-2003	Secretary Treasurer of the Medical Staff Memorial Hospital Pembroke Pembroke Pines, FL
1995-2005	Executive Committee Member Memorial Hospital Pembroke Pembroke Pines, FL
1995- 2003	Co-Chairman of the Unified Credentials Committee Memorial Health Care System
1992-1997	Chief, Section of Neurology Memorial Hospital Pembroke Pembroke Pines, FL

ACTIVE STAFF MEMBER

2005 – 2008	Cleveland Clinic of Florida Weston, FL
2005 – 2008	Plantation General Hospital Plantation, FL
1993 – Present	Memorial Hospital West Pembroke Pines, FL
1993 – 2005	Memorial Regional Hospital Hollywood Medical Center Hollywood, FL
1994 – 2000	HealthSouth Sunrise Rehabilitation Hospital Sunrise, FL
1997 – 2000	Greater Miami Jewish Home Miami, FL

Curriculum Vitae
William A. Williams
219 Ridge Street
Georgetown, SC 29440
843-546-9400

Summary

Bill Williams has been involved in the automotive service industry for just over 20 years. He spent his first 14 years working for a large undercar chain in the northeast. Starting as a technician he worked his way through the ranks holding the positions of assistant manager, manager and regional manager. He moved from operations to training in 1991 becoming the second person in a fledgling training department. Soon after joining the department he was promoted to director of training. Realizing technicians are visual learners he taught himself how to use the computer to develop state of the art training software. This software combined with creative mockups and demos helped to establish his department as a leader in the industry. Deciding to pursue a career in software development and training he left and started his own company. WISAT (Williams' Innovative Software and Training) was established in 1996.

Since 1996 WISAT has worked with a number of equipment and parts manufacturers including Hunter Engineering, RTI, Pro Cut, Northstar Manufacturing and Phoenix Systems. His work has included custom software development, web site design and training video production. In addition to this he has conducted seminar and hands on training for companies including Cole Muffler & Brake, Mighty Distributing of America, Undercar Express and many others. In this capacity he has provided training to over 20,000 technicians in the areas of brakes, steering & suspension and alignment training. He was rated best technical speaker at the Las Vegas Undercar Show and is now the featured technical contributor for Brake and Front End Magazine. The magazine won awards with 2 of his articles. He designed, implemented and currently conducts all the brake training for a 52 store regional chain in central New York and sits on the undercar MAP UICS committees.

Education

High School: Fort Leboeuf High School, Waterford, PA

Continuing Education

Wagner ABS Clinic
Wagner Steering & Suspension Clinic
Raybestos ABS Clinic
Ammco Brake Service Class
Hunter Alignment School
Pro-Cut Big Three Brake Symposiums

Currently enrolled at Penn Foster College - Mechanical Engineering Technology Program

Employment History

11/96 to present Owner and operator of WISAT – Williams' Innovative Software and Training. WISAT services include:

- Training in Automotive Theory, Diagnosis & Repair – Specializing in Brakes, Steering & Suspension, Alignment
- Software Development – Ground up software development for interactive training, presentations, product demonstrations
- Point of Purchase (POP) Graphic Arts – Graphics provided for posters, flyers, ads, articles
- Expert Witness, consulting services for product liability law suits – Including trial preparation, computer graphics and animations, demonstrative aids.

Employment History (continued)

- Equipment testing & prototyping – Equipment evaluation & testing, Prototyping of new equipment, Product evaluation
- Consulting Services – Automotive based
- Consulting Services/Expert Witness
- Website Development
- 3D modeling & animation
- Technical Assistance Phone Service
- Technical Writer
- Production of automotive training videos

WISAT Customer List:

- Hunter Engineering Company
- Northstar Manufacturing
- Canadian Tire
- Pro-Cut International
- Accuturn Industries
- RTI
- Brake Parts Inc.
- Federal Mogul
- Phoenix Systems
- Merlin Muffler Brake
- Cole Muffler Brake
- Mighty of America
- Undercar Express
- Direct Tire
- Stempf Automotive
- Anderson's Tireman
- Radiator Warehouse
- Satisfied Brake
- Canadian Tire

5/83 – 10/96

Monro Muffler Brake

05/83 - 07/84 Technician
08/84 - 09/85 Assistant Store Manager
10/85 - 08/87 Store Manager
09/87 - 05/91 Regional Manager
06/91 - 09/92 Technical Trainer
09/92 - 10/96 Director of Training

Responsibilities/Achievements:

In 4 years grew the department from 1 person to 9 and established the training being provided as a leader in the industry. Responsible for curriculum development for technical and sales training, new store openings, and management training. Department responsible for delivering over 30,000 hours of training a year.

All curriculum was developed in-house and included the use of state of the art computer graphics, 3D models and animations. Curriculum was enhanced with the use of creative mockups and working demos including table-top functioning ABS systems, functioning plexi-glass master cylinder, and a 4 foot wheelbase alignment car.

Publications/Articles:

101 Brake Tips, Tricks & Techniques – Book is to be published.

Lead contributing technical writer for Brake and Front End Magazine, which was founded in 1931 to assist master technicians expand their capabilities of proper and successful brake and front end repair.

Articles written include:

5/99	Understanding CV Joint Components *
5/99	Diagnosing Bosch ABS Systems
5/99	Curing a Soft Brake Pedal *
6/99	Ford Brake Service Tips
7/99	ABS – Trouble Codes Help Pinpoint ABS Problems
8/99	Diagnosing Wheel Speed Sensors
9/99	Troubleshooting RWAL ABS Systems
11/99	Servicing Captive Rotor Vehicles
2/00	Reading Brake Pad Wear
3/00	Solving Brake Lockup
4/00	Getting the Shake Out – Driveline Balance
5/00	Brake Valves: Operation & Service
6/00	Strut Technology
7/00	Toyota Suspension Service
8/00	Brake Fluid – Bleeding and Flushing
9/00	Curing Brake Drag
10/00	Quieting Brake Noise
2/01	Troubleshooting Driveshafts
3/01	Installing Alignment Shims
4/01	Diagnosing Height Sensitive Control Valves
5/01	Uncovering RWAL ABS Problems
6/01	Uncovering the Causes Behind a Low Brake Pedal
7/01	Diagnosing Steering Complaints
8/01	Preventing Noise
9/01	SUV Suspension Service
10/01	Diagnosing Faulty Wheel-Speed Sensors
1/02	Servicing Drum Brakes
2/02	Retrieving ABS Trouble Codes
5/02	Bleeding ABS Systems
6/02	ABS Series – Bosch 2U
7/02	Aligning Jeeps
8/02	Solving Brake Balance Problems
9/02	Diagnosing Alignment Angles
10/02	Diagnosing Overheating Brakes
2/03	Proportioning Valves and ABS
4/03	Testing ABS Wheel Speed Sensors
5/03	Ball Joint Inspection & Service
6/03	Four Wheel Alignment
7/03	Diagnosing Lack of Stopping Power
8/03	False ABS Activation
10/03	Diagnosing and Curing Pedal Pulsation
2/04	Electrical Diagnosis for the Undercar Technician
4/04	Diagnosing Premature Pad Wear
5/04	Diagnosing Kelsey Hayes Dump Valves
7/04	Diagnosing Brake Hoses and Lines
12/04	Drum Brake Service Pointers

* Award winners

Presentations

- Since entering the field of training, Williams has conducted hundreds of seminars on undercar topics. His training department at Monro Muffler Brake was responsible for training a workforce of over 1400 technicians. His department averaged over 30,000 hours training annually, of which he had direct participation. In his current capacity, he trains between 1,000 and 2,000 technicians a year in seminar and hands on based training seminars covering brakes, steering & suspension and alignment.

Invited Lectures

- Developing Multimedia Presentations , North American Council of Automotive Teachers (NACAT) Annual Meeting, Charleston, SC, 1999
- Advanced Brake Diagnostic Class, Delco VI ABS System Diagnosis & Service, North American Council of Automotive Teachers (NACAT) Annual Meeting, Williamsport, PA, 1999
- ABS System Diagnosis & Repair , Undercar Digest Showpower Trade Show, San Antonio, TX, 1997
- RWAL & RABS ABS System Diagnosis & Repair , Undercar Digest Showpower Trade Show, Cincinnati, OH , 1995
- Implementation of MAP in the Automotive Shop Environment, Motorist Assurance Program (MAP), Chicago, IL, 1994

Skills

Curriculum Development
Training Aids & Mockup Fabrication
Creating Part Cutaways for Trial and Training Aids
Interactive Training Software Development
Website Development
3D Modeling & Animation
Graphic Arts
Training Video Production

Inventions

Rust-Buster	Specialized abrasive blast cabinet.	Patent Granted
Rotor Puller	On the vehicle press used to remove seized hubless rotors.	Patent Granted

Memberships/Certifications

- Motorist Assurance Program (MAP)
- International Automotive Technician's Network (IATN)
- Automotive Service Excellence (ASE) Has Held Certifications in Brakes, Steering & Suspension

Awards

- Motor Magazine's 2002 Top 20 Tools – Rust-Buster
- American Society of Business Publication Editors (ASBPE) Bronze Award, How to Article, *Brake & Front End*, "Curing a Soft Brake Pedal", October 1999
- ASBPE Bronze Award, Technical Article Graphics, *Brake & Front End*, "Understanding CV Joint Components", May 1999

Expert Witness

KEHMARRAY KAMARA by and through A.R. Kamara, as Guardian vs Ford Motor Company; Civil Action: 01-VS-014754Y; Plaintiff expert witness; deposed

Strickland, et. al vs. Ford et. al; Civil Action: 4.00-1391-25 US District Court; Plaintiff consulting & expert witness; deposed

Harvey, et. al. v. Sears, Roebuck and Co.: No. C-144-02; Defense witness consulting expert

Anita Benning Beatty, Administrator, et. al. v. Ford Motor Company: Civil Action No.: 7:01-CV-40; Plaintiff consulting expert

Ward, et. al vs. Ford et. al; Civil Action: Case#: 03AS02215; Plaintiff consulting & expert witness; deposed

Sanders vs. Ford; Civil Action 2:04-22002-12, U.S. District Court, South Carolina; Plaintiff consulting & expert witness; deposed

Milam v. Ford; Civil Action 2:04-22001-12, U.S. District Court, South Carolina; Plaintiff consulting & expert witness; deposed

Watson, et al. vs. Ford, et al.; Civil Action 02-CP-23-8147, South Carolina State Court; Plaintiff consulting & expert witness; testified

Fine, et al. vs. Ford, et al.; Civil Action 05 CVS 2641 General Court of Justice, Superior Court Division, South Carolina State Court; Plaintiff consulting & expert witness

Motelson, et al. vs. Ford, et al.; Index #: 12660/01; Supreme Court of the State of New York; Plaintiff consulting & expert witness

Simmons, et al. vs. Ford, et al.; Case Number CJ 2005 2838; District Court State of Oklahoma; Plaintiff consulting & expert witness; deposed

Baier, et al. vs. Ford, et al.; Cause No. 05CC-004148, Division No. 5; Missouri Circuit Court, Twenty First Judicial Circuit
Plaintiff expert witness

Clapp et al. vs. Ford et al.; Case No. Civil Action No.: 2:06-CV-101 1-DCN; DISTRICT COURT FOR THE DISTRICT OF SOUTH CAROLINA; Plaintiff consulting & expert witness
CHARLESTON DIVISION

USA v Steve C. Garren; Case No. 8:08-CR-555, United States District Court for the District of South Carolina Greenville Division; Defense consulting and expert witness

Borsack v. Ford; Civil Action 04CV-3255 (RCC), District Court, New York; Plaintiff consulting & expert witness

Fact Witness

Allison, et al. vs. Torrez, et al.; Civil Action CV-2005-668, U.S. District Court, Idaho

Hollifield v. Ford; Civil Action 05-CV-03449-RED, District Court, Missouri

Love v Ford; Civil Action 1:03CV638-D-D, U.S. District Court, Mississippi

Testified

Hayward v Ford; Civil Action 9:03-CV-3878, U.S. District Court, South Carolina

Wiles, et al. vs. Ford, et al.; Civil Action 03-10376-D, Texas State Court
Deposed

**D. Theodore Zinke
Mechanical Engineer**

Automotive Safety Research, Inc. 1999 - Present

Restraint system design and performance analysis, product defect investigation, accident reconstruction, and general traffic safety consultation. Areas of emphasis include airbag restraint systems, crash sensor performance, module design, occupant packaging, inflation induced injuries and overall vehicle/restraint system crash performance. Evaluation and analysis of the technical issues of litigation cases, as well as expert testimony.

AVS Technologies 1992 - 1999

Consultant to automotive industry in restraint system design and development; analysis of vehicle safety system performance relative to occupant injuries and human impact tolerance; computer modeling of vehicle impact phenomenon; vehicle crash and crash simulation testing; analysis and specification of restraint system component performance; investigation, reconstruction and analysis of motor vehicle field accidents.

Breed Automotive Corporation 1986 - 1991

Director of Restraint System Design for a major automotive industry component supplier. Responsibilities included: Development of driver and passenger airbag restraint systems; component design and testing; evaluation of system performance through sled and crash test analysis; study of crash induced forces and accelerations relative to occupant injury and human impact tolerance; computer modeling of seat belt and inflatable restraint systems; administrative and technical management of specific customer programs involving restraint system development.

Consultant 1981 - 1986

Vehicle restraint system and accident analysis; evaluation and validation of National Highway Traffic Safety Administration ("NHTSA") computer models for driver and passenger seat belt and airbag systems. Automotive supplier and research consultant for various restraint system development projects.

Accident investigation, technical analysis and reconstruction of motor vehicle collisions including vehicle speeds, pre-impact maneuvering, impact severity, post-impact trajectories, occupant movements and interactions within the vehicle, and injuries sustained by occupants. Computer analysis of vehicle accidents.

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MCR Technologies 1977 - 1981

Program Manager for various Department of Transportation (NHTSA) automobile occupant safety system development contracts. Responsibilities included: Design, implementation and testing of advanced restraint system concepts (airbags, seat belts, side and rear impact protection); supervision and subsequent data analysis of vehicle crash and crash simulation testing; analysis of restraint system performance relative to human impact tolerance and potential for injury; use of computer modeling in the design and analysis of occupant restraint systems; program management.

Education: University of California at Santa Barbara

BSME 1973; Chosen by the Faculty as the Outstanding Graduate in Mechanical Engineering, 1973;

MSME 1975; University of California Fellowship, 1973-74

Publications:

1. "Small Car Driver Inflatable Restraint System Evaluation," Final Report, (with C. Strother, et al), U.S. Department of Transportation Contract DOT-HS-6-01412, Report #DOT HS 805-053, DOT HS 805-054, DOT HS 805-055, July 1978.
2. "Development of Air Cushion Restraint Systems for Small Car Front Seat Occupants," SAE Technical Paper 800294, February 1980.
3. "A Systems Analysis Approach to Air Bag Design and Development," Eighth International Conference on Experimental Safety Vehicles, October 1980.
4. "Chevrolet Citation Crash Test with Air Bags," Final Test Report, (with U. Seiffert, et al), Volkswagenwerk, A.G., Wolfsburg, Germany, November 1980.
5. "Small Car Front Seat Occupant Inflatable Restraint System Evaluation," Final Report, U.S. Department of Transportation Contract DOT-HS-8-01809, Report #DOT HS 805-943, DOT HS 805-944, April 1981.
6. "Upgrade the 1975 Volvo Production Restraint Systems," Final Report, (with M. Foster, et al), U.S. Department of Transportation Contract DOT-HS-02178, Report #DOT HS 805-960, May 1981.

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7. "Validate the Passenger Air Cushion (PAC) Computer Program," (with M. Fitzpatrick, et al), U.S. Department of Transportation Contract DOT-HS-02178, December 1981.
8. "Design and Fabricate Restraint system Fabric Membrane Components," Final Report, U.S. Department of Transportation Contract DTNH22-82-0718, June 1982.
9. "Passenger Air Cushion (PAC) Computer Model Validation Study," Final Report, U.S. Department of Transportation Contract DTNH22-82-P-07337, Report #DOT HS 806 520, August 1982.
10. "Air Bag Surface and Geometric Investigation Techniques," (with W. G. Broadhead), Proceedings of the American Academy of Forensic Sciences, 50th Anniversary Meeting, Volume IV, February 1998.
11. "Airbag Inflators," (with W. G. Broadhead) BED-Vol. 43, 1999 Advances in Bioengineering ASME 1999.

VITA
J. Rody Borg, Ph.D.
Professor of Economics
Davis College of Business
Jacksonville University

Office Phone: (904) 256-7464
Fax: (904) 256-7465

Cell Phone: (904) 945-9392
email: rborg@ju.edu

Mailing

Address: 6999-02 Merrill Rd., #281
Jacksonville, FL 32277

Office (Hand Delivery Only)

Address: Davis College of Business
Jacksonville University
2800 University Boulevard N.
Jacksonville, FL 32211-3394

Education: Ph.D., Economics, 1986, University of North Carolina at Chapel Hill B.A., Cum Laude, 1976, Huntingdon College

Ph.D. Fields: Economic History (major)
Industrial Organization/Regulation (minor)

Dissertation: "Merger Participation and the Return to the Stockholders of Acquiring Firms: 1905-1930"

Fellowships, Scholarships and Honors:

Undergraduate: Huntingdon Scholar, 1972-1976; Sigma Sigma Sigma Service and Academic Honorary Society; Alpha Beta Academic Honorary Society

Professional: Elected as 2006-2007 Professor of the Year at Jacksonville University. Elected to Omicron Delta Kappa leadership society at Jacksonville University.

Academic Experience:

Administrative: Jacksonville University: Chair, Department of Economics, Jan. 2013 to present; Director Accelerated Degree Program, October 2008 – May, 2011. Interim Dean, Davis College of Business, Oct. 2007 to July, 2008; Feb. 1998 to July 1, 1998; Director, Jacksonville University Center for American Free Enterprise. Jan. 4, 1999 to July 1, 2001; Director, Florida Business Challenge, Davis College of Business, January, 2003-June 2004; Director, Executive Development and Training Programs, Davis College of Business, Jacksonville University, July 1-Dec. 31, 2001, member of Davis College of Business Leadership Team, January 1999 to Fall 2004; MBA Program Director, July 1987 - July 1990.

Instruction: Jacksonville University, Jacksonville, FL: Professor of Economics, Sept. 1994 – present; Associate Professor of Economics (Tenured), August 1990 - August 1994; Assistant Professor of Economics, Fall 1986 – 1990; Instructor of Economics, August 1984 – 1986; Wake Forest University, Winston-Salem, NC, Visiting Instructor, 1983-1984 Academic Year; North Carolina State University, Raleigh, NC, Visiting Instructor, 1980- 1983;

Areas of Instruction:

Fields: Principles of Economics, Managerial Economics (MBA), Intermediate Microeconomic Theory, Intermediate Macroeconomic Theory, Economic History (U.S./ European), Industrial Organization and Regulation, Econometrics, Labor/Labor History.

Special Courses Taught: Freshman Interest Network: Un(CIVIL)ized Society (linked course with freshman English); Environmental Economics; Leadership; Advanced Economic Theory; Economics of Human Ecology with Dr. Ken Hoover; TEAM: Integrated course in Mathematics and Principles of Economics with Dr. Marilyn Repsher; Numerous independent study courses supervised during tenure at Jacksonville University.

Scholarly Work:

Articles Selected for Reprinting: John D. Leeth and J. Rody Borg "The Impact of Takeovers on Shareholder Wealth During the 1920s Merger Wave", *Journal of Financial and Quantitative Analysis*, 35, 217-38(2000). Reprinted in: *Corporate Restructuring*, Vol.1, edited by John J. McConnell and David J. Denis; Vol 15 in *The International Library of Critical Writings in Financial Economics - Series Editor: Richard Roll*. Edward Elgar Publishing Ltd., London, 2005.

Published Articles:

"Closing the achievement gap between high-poverty schools and low-poverty schools," with Dr. Mary O. Borg(UNF) and Dr. Harriet A. Stranahan (UNF) *Research in Business and Economic Journal*, Academic and Business Research Institute, February, 2012.

"School Grades Based on Standardized Test Scores: Are They Fair?," with Dr. Harriet Stranahan (UNF) and Dr. Mary Borg (UNF), *Journal of Academic and Business Ethics*, Academic and Business Research Institute, September, 2008.

"Voter Characteristics and Distance in Voting Patterns," with Dr. Barry Thornton and Colleen Powell (UNF), *Research in Business and Economics*, Academic and Business Research Institute, August, 2008.

"The Reverse Robin Hood Effect: The Distribution of Net Benefits from the Florida Bright Futures Scholarship," with Dr. Mary O. Borg , *Florida Political Chronicle*

"Teaching Critical Thinking Through Courses that Combine Economics with Other Disciplines", with Dr. Mary O. Borg, *College Teaching*.49: 1 (Winter, 2001), 20-25.

"The Impact of Takeovers on Shareholder Wealth During the 1920s Merger Wave", with Dr. John D. Leeth. *Journal of Financial and Quantitative Analysis*.3S: 2 (June, 2000),217- 238.

"A TEAM Teaching Experience in Mathematics/Economics," with Dr. Marilyn Repsher, .in B. Gold, S. Keith, W. Maron, eds., *Assessment Practices in Undergraduate Mathematics*. MAA notes #49, Mathematical Association of America, Washington, D.C., 1999, pp. 213-215.

"The Impact of Mergers on Acquiring Firm Shareholder Wealth: The 1905-1930 Experience," *Empirica*, Winter, 1994, co-authored with Dr. John D. Leeth, Bentley College.

"The Success of Mergers in the 1920's: A Stock Market Appraisal of the Second Merger Wave," *International Journal of Industrial Organization* 7 (1989) 117-131, co-authored with Dr. Mary O. Borg and Dr. John D. Leeth.

Working Papers:

"Bright Futures versus Hope: Comparative Net Benefits From Lottery Funded Scholarships in Florida and Georgia," Dr. Mary Borg, UNF.

"Micro-Markets and Localized Variations in Gasoline Prices: The Market around Jacksonville, Florida."

"College Choice Decisions: The Effect of State Funded Scholarships for Both Private and Public Institutions".

"Student Topic Introductions: Attitudes Toward and Learning of Economics"

"The Tax and Benefit Incidence of Higher Education Funding: The Case of Florida", with Dr. Mary O. Borg, The University of North Florida.

"Comparing the Benefit Incidence of State Spending on Welfare Programs Versus State Spending on Higher Education", with Dr. Mary O. Borg, UNF.

"Measuring the Disparate Impact of Farm Support Programs on Large versus Small Farms", with Dr. Mary O. Borg, UNF.

"County Level Net Benefits From Dedicated Lottery Programs: A State to State Comparison for the United States," with Ryan Suske, Jonathon Hughes and Bradley Finch, JU undergraduate students.

Research Presentations:

"Voter Characteristics and Distance in Electorate Voting Patterns: The Case of Cecil Field NAS", with Colleen Powell (JU graduate) and Dr. Barry Thornton, (scheduled) Eastern Economic Association Meetings, Boston, MA, March 9, 2008.

"The Reverse Robin Hood Effect: The Distribution of Net Benefits From the Florida Bright Futures Scholarship," Dr. Mary O. Borg, UNF, Southern Economic Association Meetings, November, 2005.

"Student Topic Introductions: Attitudes Toward and Learning of Economics", Southern Economic Association Meetings, November, 1999.

"Using Student Focus Groups as a Tool for Evaluating Teaching," Dr. Mary O. Borg, UNF, Southern Economic Association Meetings, November, 1998.

"Teaching Critical Thinking with Interdisciplinary Courses," with Dr. Mary O. Borg, UNF, Southern Economic Association Meetings, November, 1996.

"TEAM: An Integrated, Active Approach to the Principles Course," with Dr. Marilyn Repsher, Jacksonville University, Southern Economic Association Meetings, November, 1996.

"TEAM: An Interdisciplinary Course in Mathematics and Economics", with Dr. Marilyn Repsher, Jacksonville University, MAA Annual Meetings, January, 1996.

"Personality and Performance in Intermediate Economics Courses," with Dr. Mary O. Borg, and Dr. Stephen Shapiro. Presented at Southern Economic Association Meetings, November 1994.

"Measuring the Disparate Impact of Farm Support Programs on Large versus Small Farms", with Dr. Mary O. Borg, UNF, presented at the Southern Economic Association Meetings, November, 1991.

"The Tax and Benefit Incidence of Higher Education Funding: The Case of Florida", with Dr. Mary O. Borg, The University of North Florida. Presented at the Southern Economic Association Meetings. Nov. 1991.

"The Success of Mergers in the 1920's: A Stock Market Appraisal of the Second Merger Wave," Southern Economic Association Meeting, 1987. (with Mary O. Borg and John D Leeth).

"The Impact of Mergers on Acquiring Firm Shareholder Wealth: The 1905-1930 Experience," Financial Management Association Meeting, 1987. (with Mary O. Borg and John D. Leeth).

"Merger Profitability and Stock Market Trends: 1905-1930," Presented at the Southwest Society of Economists Meetings, 1984

"Class, Economic Status, and Crime: A Test of Alternative Hypotheses," Atlantic Economic Society (1977) and American Criminology Society (1977). (with Thomas Orsagh, University of North Carolina).

Grants and Fund Raising:

Raised over \$21,000 between January 2003 and June 2004 to support Florida Business Challenge. Sources included businesspersons and Rotary Club of Arlington.

Recipient with Dr. Marilyn Repsher of a National Science Foundation matching ILI grant (\$14,140) to fund the TEAM project at Jacksonville University for 1995-1997. (Grant number DUE- 9551340)

Other Professional Activities:

Professional Development Seminars/Conferences:

Attendee/Participant: AAHE Assessment Conference, 1991; Improving Introductory Economics by Integrating the Latest Scholarship on Women and Minorities, Faculty Development Project funded by the National Science Foundation, Wellesley College, June 1995. AACSB Assessment Seminar, February, 2005; Teaching Innovations Program, teaching development project funded by NSF held June, 2007, MIT Endicott House, Dedham, MA; AACSB Dean's Conference, Feb., 2008.

Invited Presenter/Participant: "Water, Cheaper than Dirt: The Economics of Water", Water Issues Conference, May, 1992, Jacksonville, FL; "Economics and the Ecology", session at the Earth Stewardship Conference, February, 1992, Marywood Conference Center, Switzerland, FI; Regular Session Chairperson and Discussant at the Southern Economic Association Annual Meetings, 1988-present.

Consulting Work:

Business Valuation work for local Jacksonville firm interested in valuing potential acquisition target.

Expert testimony as Forensic Economist since November, 1989. Determination of economic damages for loss of income in personal injury, wrongful death, employment discrimination cases and equal settlement values for divorce cases. Work has been for both plaintiffs and defendants. Qualified as expert witness regarding economic damages in both State and Federal courts in both Florida and Georgia with court testimony in both states. Complete analysis and reports on

approximately 25 or more cases per year. Court testimony averages six times per year. Extensive network of client attorneys.

Professional Affiliations:

Southern Economic Association; National Association of Forensic Economics; Commission on Accelerated Programs.

University Service:

University Level Service: Jacksonville University

Faculty Recognition Dinner Committee, 2010 – 2012; Chair of the Faculty, January 2005 – May, 2007 (Chaired Faculty Chairs Committee); President's Executive Council, January 2005 – May, 2007, Dean's Plus Council, Oct. 2007 – July, 2008, January 2005 – May, 2007, Feb. 1998 - July 1, 1998; Vice Chair of the Faculty, June 1996 - Feb., 1998, September 2003 to January 2005; Presidential Search Committee, Spring 2004; Provost's Academic Assessment Committee, May 2003-2005; ODK Faculty Secretary 2000 - present; ODK Region V Faculty Secretary 2001-2002 academic year; Chair United Way Campaign, Fall, 1996 and Fall 2004; By-Laws Revision Task Force, Summer, 1996; Spring 2003- Spring 2006; Commencement Committee: member 1999-2003, 2007-2008; Chair 2001-2003; Consultant, Spring 2004 – Spring 2007.

Committee/Task Force Assignments:

University: Accreditation Self Studies: 2003: Member of Self Study Steering Committee, Chair of Graduate Education Section; 1993 SACS Self Study Committee: Chaired Institutional Effectiveness Sub-Committee. Core Curriculum Task Force and Committee: April, 1996 - Jan. 1999; Institutional Research and Assessment Advisory Council, 1992-1996; Faculty Administrative Council, 1992-1996; Chair, University Disciplinary Committee, 1992-93; Chair, Planning and Evaluation Subcommittee,; Ad- Hoc Committee on University Assessment, 1987-90; Graduate Studies Committee, Fall 1987 - August, 1990; Individualized Studies Committee, Fall 1986-1991, Chair 1988- 1991; Information and Technology Committee Oct. 1986 - Jan. 1988, 1991-1993; Chair; 1992-1993; Assistant Dean of Students Search Committee, Spring 1988.

College of Business: DCOB Student Affairs Committee, 2004-2005, 2011-2012; Chair, DCOB Assessment Committee, Fall 2002-2004; DCOB Dean's Search Committee, Spring 2002; College of Business AACSB Committees: 1996-97: Curriculum Content and Evaluation Committee; 1995-96: AACSB Self-Study Steering Committee: Self-Study Curriculum Content and Evaluation Sub-Committee; College of Business Computer Advisory Committee, Fall, 1988 - 1990; MBA Advisory Committee, July, 1987 - July, 1990; Sept. 1993-1999.

Other University Service:

Member of Jacksonville University Speakers Bureau, 1986 - present; Have appeared as a guest speaker in various classes across JU campus; Instructor for AXXESS JU summer program for youth directed by Dr. Toufic Hakim; "The Economics of AIDS", class presentation for Dr. Karen Jackson; "WWII: A Watershed for Economics?", class presentation for Dr. Craig Buetttinger; Regular presenter of sample classes at Jacksonville University Scholarship Days. Presenter in Spring 2005 for the Teaching and Learning Center of seminar on Assessment Update from AACSB.

Community Service:

Rotary Club of Arlington - member since March, 1986; President, 1993-94, President- Elect, 1992-93, Vice President, 1991-1992, Sergeant at Arms - 1987-1988, Board Of Directors - 1988 -

1991; Chair, Club Service Avenue - 1990-91, Chair, Youth Services Avenue - 1988-89, Chair, International Service Avenue - 1989-90, Chair, Rotaract Committee - 1987-1992. Ambassadorial Scholarships Coordinator - 1996-2005. Have directed applications for over 20 JU students/alumni with approximately 10 receiving scholarships ranging from \$8 to \$55,000; Rotary International District 6970: Awards Committee Chair, 1995-96; Rotaract Chair, 1994-95; Region 1 Scholarship Sub-Committee: member since 1998, Chair 2002-Feb. 2008 (Efforts have resulted in highest percentage of applicants being awarded scholarships of any region in District 6970); Rotary District 6970 Scholarships Sub-Committee, Feb. 2008 (appointed to final scholarships selection committee), Florida Regional Ambassadorial Scholars Seminar, presenter and facilitator, June, 2004 - 2006.

Other: Episcopal Church of the Redeemer: Vestry member May 2007 – present; Senior Warden, May 2007 – present. Pennsylvania Free Enterprise Week: Volunteer as Company Advisor for week long business education program for Pennsylvania High School students, 2001- present; President, Charter Point Homeowner's Association, March 1999-May 2001; Diocese of Florida, Episcopal Church, Committee on Training and Education, September 1997; Board of Directors: Asbury Child Development Center, 1992 - October 1997; Jacksonville Community Council Incorporated: Assessment Review Task Force, 1999.

Media: Numerous interviews on local and national media outlets including print, Internet, radio and television.

Speeches: (This is a partial list.)

Joe Berg Science Seminar, October 1996 – 2008, 2012 (every two years): "Economics and Politics: Economic Issues and the Presidential Campaign"; Rotary Club of Arlington, "Florida Business Challenge", April, 2004; Jacksonville Exchange Club, "Florida Business Challenge", February, 2004; JCCI: Panel participant in current Town and Gown study, Dec., 2003.; Service Core of Retired Executive, "Florida Business Challenge", Jan., 2004; "The U.S. Economy: Now and the Future", Southside Civitan Club, Oct., 2003; "The National and Local Economic Outlook and the Homebuilding Industry", North Florida Component, Manufacturers Association, January, 2003; "The Near Economic Future", local chapter of Independent Investors, April, 2003; "The Economic Outlook for 1999 and the Eurodollar," Rotary Club of Arlington, January, 1999; "Time: The Ultimate Resource", Jacksonville Trial Lawyers Association, February 26, 1998; "The State of the Economy: A Local, State, and National Overview", Jacksonville Businessman's Association, January 1995, 1996, 1997, 1998 and 1999; "Looking for the Bogeyman: Who's at Fault for America's Economic Woes?", Arlington Rotary Club, January, 1992, Southside Rotary, February, 1992; "Merger Mania: Corporate Bulimia in America", Sertoma Club of Jacksonville, June, 1988; "An Introduction to the American Economic System", presented before selected high school students participating in the Joe Berg Science Seminar, January, 1988; "The Relationship Between Economics and Politics in the United States", Advanced Placement American Government Class, The Bolles School, December, 1987; "Feeding a Hungry World in the Future", program with Dr. Ken Hoover for the Jacksonville Chapter United Nations Association of America, February, 1987; "The Social Security Dilemma: Man the Pumps or Abandon Ship?", Downtown Sertoma Club, May, 1986; "The Social Security Dilemma: Man the Pumps or Abandon Ship?", Mt. Carmel Gardens AARP Chapter, May, 1986; "Tax Reform: Robbing Peter to Pay Paul?", Mandarin Business Association, January, 1987; "The Gramm-Rudman Deficit Reduction Act", Arlington Council of the Jacksonville Chamber of Commerce, September, 1986; "The Gramm-Rudman Deficit Reduction Act", St. Paul United Methodist Church, October, 1986; "The Social Security Dilemma: Man the Pumps or Abandon Ship?", Lakewood Presbyterian Church Seniors Club, October, 1986, and Northeast Florida Exxon Annuitants Club, June, 1986.