



CURRICULUM VITAE
JEFFREY B. WHEELER

EDUCATION

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| 1993 | MS | UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA)
Department of Physiological Science (Biomechanics) |
| 1987 | BS | THE UNIVERSITY OF CONNECTICUT (UCONN)
School of Education (Sport Biomechanics) |

PROFESSIONAL EXPERIENCE

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| 2001 – DATE | VECTOR SCIENTIFIC, INC.
<i>Founder / President / CEO</i>
<i>Senior Biomechanist</i>
<i>Injury Biomechanics</i>
<i>Director of Biomechanics (2001 – 2025)</i> |
| 2000 – 2001 | KNOTT LABORATORY, INC.
<i>Vice President</i>
<i>Director of Biomechanics</i>
<i>Injury Biomechanics</i> |
| 1991 – 2000 | BIOMECHANICS RESEARCH & CONSULTING, INC.
<i>Founder / President</i>
<i>Senior Biomechanist</i>
<i>Injury Biomechanics</i> |
| 1993 | UCLA MEDICAL CENTER – UNIVERSITY OF CALIFORNIA, LOS ANGELES
<i>Staff Research Associate – UCLA Department of Orthopaedic Surgery</i>
UCLA Biomechanics Laboratory |
| 1991, 1992 | UNIVERSITY OF CALIFORNIA, LOS ANGELES
<i>Research Assistant – UCLA Department of Kinesiology/Physiological Science</i>
UCLA Biomechanics Laboratory
United States Olympic Committee Sport Science Research Grant |
| 1991, 1992 | UNIVERSITY OF CALIFORNIA, LOS ANGELES
<i>Teaching Assistant – UCLA Department of Kinesiology/Physiological Science</i>
Course K122 – Biomechanical Bases of Human Movement
Course K17A – Human Musculoskeletal Anatomy |
| 1988 – 1991 | BIOMAC (ACCIDENT RESEARCH & ANALYSIS)
<i>Researcher and Consultant</i>
<i>Injury Biomechanics and Accident Reconstruction</i> |
| 1987 | UNIVERSITY OF CALIFORNIA, LOS ANGELES
<i>Research Assistant – UCLA Department of Kinesiology</i>
UCLA Biomechanics Laboratory |

PROFESSIONAL APPOINTMENTS

- 2010 – DATE JOURNAL OF FORENSIC BIOMECHANICS
Editorial Board
- 2004 – 2007 WAYNE STATE UNIVERSITY – DEPARTMENT OF BIOMEDICAL ENGINEERING
Graduate Faculty / Adjunct Professor

FUNDED RESEARCH AND TESTING PROJECTS

- 2023 SGL/VSI
Wheel Separation Vehicle and Occupant Kinematics
- 2010 CASCADIA SPORT SYSTEMS, INC.
Biomechanical Impact Testing of Padded Ice Hockey Dasher Board Sill Caps
- 2010 PERSONAL SAFETY CORPORATION (PSC)
Biomechanical Evaluation of Secure® Floor Mats
- 2007 NATIONAL HOCKEY LEAGUE (NHL)
NHL Ice Resurfacing Machine Passenger Safety Study
- 2002 NATIONAL HOCKEY LEAGUE (NHL)
Biomechanical Evaluation of Facial Injury Tolerance to Hockey Puck Impacts
- 1996 TECHNOLOGY BC INVESTMENTS IN RESEARCH AND DEVELOPMENT
SCIENCE COUNCIL OF BRITISH COLUMBIA/MEA/VSI
Identification of Injury Mechanisms in Low-Speed Rear-End Automobile Impacts
- 1995 UNITED STATES OLYMPIC COMMITTEE SPORT SCIENCE & TECHNOLOGY COMMITTEE
United States Cycling Federation Cycling Project '96 – A Winning Tradition
- 1992 UNITED STATES OLYMPIC COMMITTEE SPORTS MEDICINE SCIENCE COMMITTEE
Knee Pain: A Biomechanical Analysis in Elite Cyclists

PUBLICATIONS

Clark JM, Baker WA, Wheeler JR, Wheeler JB. Rotational Head Acceleration in Rear-End Motor Vehicle Collisions and Associated Concussion Risk, *Proceedings of the North American Congress on Biomechanics*, Ottawa, Ontario, Canada, August 21-25, 2022.

Clark JM, Wheeler JB. Development of Refined Injury Corridors for Evaluating Concussion Probability Using Maximal Principal Strain and Directional Sensitivity, *11th European Solid Mechanics Conference (ESMC 2022), Mini-Symposia on Mechanics of Impact and Trauma*, National University of Ireland, Galway, Ireland, July 4-8, 2022.

Storvik SG, Campbell JQ, Wheeler JB. Asphyxia in Motor Vehicle Crashes: Analysis of Crash-Related Variables Using NASS-CDS and Forensic Case Studies, *American Journal of Forensic Medicine & Pathology*, 38 (2), June 2017.

Jones KO, McBeth Z, Campbell JQ, Zhang H, Wheeler J, Raymond D. Children in Rollover Accidents: Review of the NASS-CDS 1995-2007, *Proceedings of the Association for the Advancement of Automotive Medicine (AAAM)*, Las Vegas, Nevada, 2010.

Raymond DE, Wheeler JB, Bir CA. Utilizing Physical Evidence to Elucidate Seat Belt Usage in Automotive Collisions Through Biomechanical Simulation, *Proceedings of the 59th Annual Meeting American Academy of Forensic Sciences*, San Antonio, TX, 2007.

Raymond DE, Bir CA, Begeman PC, Chien HC, Wheeler JB. Forensic Determination of Seat Belt Usage in Automotive Collisions: Development of a Diagnostic Tool, *SAE 2006 World Congress*, Detroit, MI, *SAE Technical Paper Series*, 2006-01-1128, Warrendale, PA, 2006.

Raymond DE, Landerville JB, Wheeler JB, Dainty DA. A Parametric MADYMO Analysis for Determining Seat Belt Usage in a Frontal Collision. *Proceedings of the International Society of Biomechanics XXth Congress and the American Society of Biomechanics 29th Meeting*, Cleveland, Ohio, Aug 2005.

Raymond DE, Fatzinger EC, Connors TJ, Wheeler JB. Occupant Kinematic Analysis of an Unbelted Minivan Passenger: A Free Body Approach. *Proceedings of the International Society of Biomechanics XXth Congress and the American Society of Biomechanics 29th Meeting*, Cleveland, Ohio, Aug 2005.

Raymond DE, Kelley CM, Wheeler JB. Forensic Investigation of Lumbar Disc Injury in an Industrial Setting. *Proceedings of the XIXth International Congress on Biomechanics*, Dunedin, New Zealand, July 6-12, 2003.

Khurana V, Wheeler JB. Lateral Tibial Plateau Fracture from a Stair Descent Misstep. *Proceedings of the XIXth International Congress on Biomechanics*, Dunedin, New Zealand, July 6-12, 2003.

Khurana V, Wheeler JB. Unique Pedestrian Impact Dynamics and Trajectory. *Proceedings of the XIXth International Congress on Biomechanics*, Dunedin, New Zealand, July 6-12, 2003.

Brown DG, Kelley PB, Kluge WJ, Wheeler JB. Injury Mitigation Produced by Protective Padding on Ski Terrain. *Proceedings of the XIXth International Congress on Biomechanics*, Dunedin, New Zealand, July 6-12, 2003.

Brown DG, Wheeler JB. Determination of Snowboarder Versus Snowboarder Impact Configuration Using Injury Biomechanics. *Proceedings of the XIXth International Congress on Biomechanics*, Dunedin, New Zealand, July 6-12, 2003.

Wheeler JB, Dainty DA, Brown DG. Cervical Disc Prolapse in Rear-End Automobile Collisions: Injury Mechanism Unique to Occupant and Head Restraint Geometry. *Proceedings of the XVIIIth International Congress on Biomechanics*, Zürich, Switzerland, July 8-13, 2001.

Wheeler JB, Brown DG. First Rib Fracture due to Cervical Hyperextension: A Clue to Solving a Colorado Ski Fatality. *Proceedings of the XVIIIth International Congress on Biomechanics*, Zürich, Switzerland, July 8-13, 2001.

Wheeler JB. An Investigation of Bicycle Seat Pressure and Pudendal Nerve Entrapment Mechanism During Recumbant Stationary Cycling. *Proceedings of the XVIIIth International Congress on Biomechanics*, Zürich, Switzerland, July 8-13, 2001.

Wheeler JB, Salem GJ. Nail-gun Discharge Distance, Nail Penetration, and Patella Fracture Severity. *Proceedings of the XVIIIth International Congress on Biomechanics*, Zürich, Switzerland, July 8-13, 2001.

Wheeler JB. Research and Applied Science in Forensic Biomechanics. *Proceedings of the XVIIIth International Congress on Biomechanics*, Zürich, Switzerland, July 8-13, 2001.

Brown DG, Landerville JB, Wheeler JB. PCL, ACL, and MCL Rupture in Rear-seat Occupants in Offset/Frontal Automobile Collisions. *Proceedings of the XVIIIth International Congress on Biomechanics*, Zürich, Switzerland, July 8-13, 2001.

Siegmund GP, Wheeler JB, Catania JJ, Brault JR. A Linked Data Set of Clinical and Kinematic Responses to Whiplash. In: *Frontiers in Whiplash Trauma: Clinical and Biomechanical*, Eds: Yoganandan N, Pintar FA. IOS Press, Amsterdam, 321-347, 2000.

Brault JR, Siegmund GP, Wheeler JB. Cervical Muscle Response During Whiplash: Evidence of a Lengthening Muscle Contraction. *Clinical Biomechanics*, 15(6):426-435, 2000.

Siegmund GP, Brault JR, Wheeler JB. The Relationship Between Clinical and Kinematic Responses from Human Subject Testing in Rear-End Automobile Collisions. *Accident Analysis and Prevention*, 32(2):207-217, 2000.

Brault JR, Siegmund GP, Wheeler JB. Muscle Response and Whiplash Injury Biomechanics. *Proceedings of the XVIIth International Congress on Biomechanics*, Finalist for the International Society of Biomechanics Clinical Biomechanics Award, Calgary, Alberta, Canada, Aug 8-13, 1999.

Siegmund GP, Heinrichs BE, Wheeler JB. The Influence of Head Restraint and Occupant Factors on Peak Head/Neck Kinematics in Low-speed Rear-end Collisions. *Accident Analysis and Prevention*, 31(4):393-407, 1999.

Siegmund GP, Brault JR, Wheeler JB. The Relationship Between Clinical and Kinematic Responses from Human Subject Testing in Rear-End Automobile Collisions. *Compendium of Papers, Traffic Safety and Auto Engineering Stream, World Congress on Whiplash-Associated Disorders*, pp.182-207, Vancouver, British Columbia, Canada, Feb 7-11, 1999.

Brault JR, Siegmund GP, Wheeler JB. Whiplash Injury Biomechanics: Cervical Electromyographic Response and Influence on Whiplash Dynamics. *Proceedings of the International Symposium Whiplash '98*, p.25, Tempe, AZ, Nov 5-6, 1998.

Siegmund GP, Wheeler JB, Brault JR. Volume Changes in the Human Cervical Spinal Canal Between the Neutral and Retracted Head Positions. *Proceedings of the International Symposium Whiplash '98*, p.41, Tempe, AZ, Nov 5-6, 1998.

Wheeler JB, Smith TA, Siegmund GP, Brault JR, King DJ. Validation of the Neck Injury Criterion (NIC) Using Kinematic and Clinical Results from Human Subjects in Rear-end Collisions. *Proceedings of IRCOBI'98, International Research Council on the Biomechanics of Injury*, pp.335-348, Göteborg, Sweden, Sept 16-18, 1998.

Brault JR, Smith TA, Wheeler JB, Siegmund GP. Cervical Muscle Response to Rear-end Automobile Collisions: Implications for Injury. *Proceedings of the North American Congress on Biomechanics*, pp.347-348, Waterloo, Ontario, Canada, Aug 14-18, 1998.

Brault JR, Wheeler JB, Siegmund GP, Brault EJ. Clinical Response of Human Subjects to Rear-end Automobile Collisions. *Archives of Physical Medicine and Rehabilitation*, 79:72-80, Jan 1998.

Siegmund GP, King DJ, Lawrence JM, Wheeler JB, Brault JR, Smith TA. Head/Neck Kinematic Response of Human Subjects in Low-speed Rear-end Collisions. SAE Technical Paper No. 973341, Society of Automotive Engineers, *Proceedings of the 41st Stapp Car Crash Conference*, pp.357-385, Lake Buena Vista, Florida, Nov 13-14, 1997.

Wheeler JB, Gregor RJ, Broker JP. The Effect of Clipless Float Design on Shoe/Pedal Interface Kinetics: Implications for Overuse Knee Injuries During Cycling. *Journal of Applied Biomechanics*, 11(2):119-141, 1995.

Gregor RJ, Wheeler JB. Biomechanical Factors Associated with Shoe/Pedal Interfaces: Implications for Injury. *Sports Medicine*, 17(2):117-131, 1994.

Wheeler JB, Gregor RJ, Broker JP, Mandelbaum BR. Cycling Knee Pain and Shoe/Pedal Interface Kinetics. *Proceedings of the XIVth International Congress on Biomechanics*, Paris, France, pp.1458-1459, 1993.

Gregor RJ, Wheeler JB, Broker JP, Ryan MM. The Effect of Shoe/Pedal Interface and Load on Pedalling Kinetics in Cycling. *Proceedings of the XIVth International Congress on Biomechanics*, Paris, France, pp.508-509, 1993.

Wheeler JB, Gregor RJ, Broker JP. A Dual Piezoelectric Bicycle Pedal with Multiple Shoe-Pedal Interface Compatibility. *International Journal of Sport Biomechanics*, 8(3):251-258, 1992.

Wheeler JB, Broker JP, Gregor RJ. A Comparison of Torsional Moments Across Different Shoe/Pedal Interfaces in Cycling. *Medicine & Science In Sports & Exercise*, 24(5):S186, 1992.

Hight PV, Wheeler JB, Reust TJ, Birch N. The Effects of Right-Side Water Drag on Vehicle Dynamics and Accident Causation. SAE Technical Paper No. 900105, In: Accident Reconstruction: Human, Vehicle and Environmental Factors, pp.95-106, 1990.

Marcosky J, Wheeler JB, Hight PV. The Development of Seat Belts and an Evaluation of the Efficacy of Some Current Designs. *Journal of the National Academy of Forensic Engineers*, V1(2):21-46, 1989.

Hight PV, Wheeler JB, Reust TJ, Birch N. Asymmetric Water Drag, The Latent Cause of Some Accidents. *Proceedings of the Canadian Multidisciplinary Road Safety Conference VI*, Fredericton, New Brunswick, 1989.

UNPUBLISHED RESEARCH PAPERS

Wheeler JB. Applied M_z Moment Patterns at the Shoe/Pedal Interface: A Biomechanical Analysis of Clipless Pedals, Float Features, and Their Implications for Overuse Knee Injury During Cycling. Unpublished Masters Thesis, Department of Physiological Science, University of California, Los Angeles, June 1993.

Gregor RJ and Wheeler JB. Knee Pain: A Biomechanical Analysis in Elite Cyclists. Final Report to the United States Olympic Committee Sports Medicine Science Committee, United States Olympic Training Center, Colorado Springs, Colorado, Nov 1992.

ORAL PRESENTATIONS

Wheeler JB, Martin RB. Biomechanics in Catastrophic Motor Vehicle Accidents: Medical Causation versus Biomechanical Causation. DRI 2025 Product Liability Conference, Miami, Florida, February 2025.

Wheeler JB. Injury Biomechanics Applications in Forensic Biomechanics. Engineering Biomechanics and Injury, Guest Lecture, Western Colorado University, December 2022 and December 2023.

Wheeler JB, Weimer Z, Storvik SG, Baker WA, Clark JM, Sreedhar A. Accident Reconstruction and Injury Biomechanics in Low-Speed Motor Vehicle Collisions. CLE/MCLE Accredited Seminars in Arizona, California, Colorado, 2021 – 2023.

Wheeler JB. Forensic Biomechanics: Applying Injury Biomechanics to Catastrophic Accidents. CLE/MCLE Accredited Seminars in Arizona, California, Colorado, Connecticut, Florida, Illinois, New Jersey, Nevada, New York, Tennessee, Washington, 2020 – 2022.

Baker WA, Clark, JM, Wheeler JR, Wheeler, JB. Validation of Rotational Head Kinematics in IIHS Rear-end Impact Tests Determined by Video Analysis. 49th NHTSA Workshop on Human Subjects for Biomechanical Research, Virtual, October 2021.

Wheeler JB. Forensic Biomechanics: Applying Injury Biomechanics to Sport & Recreation Accidents. MCLE Accredited Seminar in California, April 2021.

Clark JM, Wheeler JB. The Effect of Active Head Restraints (AHRs) on Head Kinematics in Rear Impact Sled Tests. 48th NHTSA Workshop on Human Subjects for Biomechanical Research, Virtual, October 2020.

Wheeler JB, Storvik SG. Injury Biomechanics in Low-Speed Motor Vehicle Collisions. White and Steele Wyoming Insurance Claims Seminar, Denver, Colorado, February 2020.

Wheeler JB, Durisek NJ. Biomechanics and Crash Reconstruction. Caltrans Annual Tort Conference, Ventura, California, May 2019.

Wheeler JB. Injury Biomechanics in Low-Speed Motor Vehicle Collisions. 6th Annual RBLs Conference, Fullerton, California, May 2019.

Wheeler JB, Le H, Brauns N, McMains L. Biomechanics of Mild Traumatic Brain Injury (mTBI). ASCDC 58th Annual Seminar, Los Angeles, California, January 2019.

Egner C, Celmer CE, Wheeler J. Simplifying through Storytelling: Use of Animations and Graphics in Complex Product Liability Claims. CLM Product Liability Conference, Atlanta, Georgia, May 2016.

Wheeler JB, Davis AP. Building a Cutting-Edge Biomechanical Analysis Using Case Specific Data in Complex Automobile Collisions. ABA Emerging Issues in Motor Vehicle Product Liability Litigation, Phoenix, Arizona, April 2014.

Wheeler JB. Forensic Biomechanics. University of Colorado Department of Integrative Physiology, Boulder, Colorado, March 2014.

Wheeler JB. Concussion Awareness in Ice Hockey. Arvada Hockey Association Coaching Clinics, Arvada, Colorado, Feb – November 2010.

Wheeler JB, Vaughan TR, Warburton RT. Effective Presentation of Simulations and Other Complex Trial Evidence. DRI Product Liability Conference, San Diego, California, April 2009.

Wheeler JB. Bioengineering Seminar Series, Colorado School of Mines, Golden, Colorado, September 2005.

Wheeler JB. Roundtable Discussion: Forensic Biomechanics. XIXth International Congress on Biomechanics, Dunedin, New Zealand, July 2003.

Wheeler JB. Research and Applied Science in Forensic Biomechanics. XVIIIth International Congress on Biomechanics, Zürich, Switzerland, July 2001.

Wheeler JB. Cervical Disc Prolapse in Rear-End Automobile Collisions: Injury Mechanism Unique to Occupant and Head Restraint Geometry. XVIIIth International Congress on Biomechanics, Zürich, Switzerland, July 2001.

Wheeler JB. Computer Aided Simulation, Visualization, and Animation: Current Technology and Application in Biocommunications. Plenary Lecture – Association of Biomedical Communication Directors, Biocommunications Association, Health Sciences Communications Association Joint Annual Meeting, Dallas, Texas, June 2001.

Gardner CG, Wheeler JB. Child Occupant Safety in Automobiles. ABC Child Development and Community Services, Commerce, California, March 1999.

Wheeler JB. Validation of the Neck Injury Criterion (NIC) Using Kinematic and Clinical Results from Human Subjects in Rear-end Collisions. IRCOBI International Conference on the Biomechanics of Impact, Göteborg, Sweden, September 1998.

Wheeler JB. Biomechanics of Low-speed Rear-end Automobile Impacts: Current Knowledge and Review of Recent Human Subject Research. 1998 Combined Conference SOAR/WATAI/TAARS, Colorado Springs, Colorado, August 1998.

Brault JR, Wheeler JB, Siegmund GP, King DJ. Human Subject Protection in Low-speed Rear-end Automobile Testing. Twenty-Fourth International Workshop on Human Subjects for Biomechanical Research, Albuquerque, New Mexico, November 1996.

Wheeler JB. Guest Lecture UCLA Department of Physiological Science, Limb Dynamics PhySci 151, University of California, Los Angeles, May 1996.

Wheeler JB. Biomechanics of Low-speed Rear-end Collisions. National Institute of Forensic Studies Biomechanics of Injury from Traffic Collisions, Anaheim, California, May 1996.

Wheeler JB. Biomechanics of Low-speed Rear-end Collisions. Texas A&M University Texas Engineering Extension Service, Downey, California, September 1995.

Wheeler JB. Biomechanics of Low-speed Rear-end Collisions. Southwestern Association of Technical Accident Investigators, Phoenix, Arizona, July 1995.

Wheeler JB. A Comparison of Torsional Moments Across Different Shoe/Pedal Interfaces in Cycling. American College of Sports Medicine Annual Meeting, Dallas, Texas, May 1992.

Wheeler JB, Broker JP. Guest Lecture – UCLA Department of Kinesiology, Biomechanical Bases of Human Movement – K122, University of California, Los Angeles, March 1992.

Broker JP, Wheeler JB. Forensic Issues in Biomechanics. American Association of Legal Nurse Consultants, Los Angeles Chapter, Manhattan Beach, California, October 1991.

Reust TJ, Wheeler JB. Anti-lock Brake Systems (ABS): Results of Recent Testing. Society of Forensic Engineers and Scientists, Las Vegas, Nevada, April 1989.

PROFESSIONAL ACTIVITIES

American College of Sports Medicine (ACSM)

- 1994 American College of Sports Medicine Annual Meeting – Indianapolis, Indiana
- 1992 American College of Sports Medicine Annual Meeting – Dallas, Texas

American Society of Biomechanics (ASB)

- 1992 The Second North American Congress on Biomechanics: The Sixteenth Annual American Society of Biomechanics and The Seventh Biennial Canadian Society of Biomechanics - Chicago, Illinois

ASTM International

- 2008 ASTM Committee F08 on Sports Equipment and Facilities:
Fifth International Symposium on Safety in Ice Hockey – Denver, Colorado

Association for the Advancement of Automotive Medicine (AAAM)

- 1997 41st Annual Proceedings – Lake Buena Vista, Florida
- 1989 33rd Annual Proceedings – Baltimore, Maryland
- 1988 32nd Annual Proceedings – Seattle, Washington

International Research Council on the Biomechanics of Injury (IRCOBI)

- 2024 IRCOBI Conference 2024 – Stockholm, Sweden
IRCOBI 2024 Workshop: Tissue based head injury criteria and risk curves for virtual assessment
- 2022 IRCOBI Conference 2022 – Porto, Portugal
IRCOBI 2022 Workshop: Wearable Technologies for the Study of Head Injury: Applications, Challenges, and Opportunities
- 1998 IRCOBI Conference 1998 – Göteborg, Sweden
IRCOBI 1998 Workshop: Neck Injury Criterion (NIC) measurement techniques and result interpretation

International Society of Biomechanics (ISB)

- 2005 The XXth International Congress on Biomechanics and 29th Meeting of the American Society of Biomechanics – Cleveland, Ohio (Reviewer, Chairperson – Injury Biomechanics Session)
- 2003 The XIXth International Congress on Biomechanics – Dunedin, New Zealand
(Reviewer, Chairperson – Forensic Biomechanics Session)
- 2001 The XVIIIth International Congress on Biomechanics – Zürich, Switzerland
- 1993 The XIVth International Congress on Biomechanics – Paris, France
- 1989 The XIIth International Congress on Biomechanics – Los Angeles, California

National Highway Traffic Safety Administration – NHTSA Human Injury Research Division

- 2022 50th NHTSA Workshop on Human Subjects for Biomechanical Research
- 2021 49th NHTSA Workshop on Human Subjects for Biomechanical Research
- 2020 48th NHTSA Workshop on Human Subjects for Biomechanical Research
- 1996 24th NHTSA Workshop on Human Subjects for Biomechanical Research

Society of Automotive Engineers (SAE)

- 1998 International Symposium Whiplash '98 – Tempe, Arizona
- 1997 2nd Child Occupant Protection Meeting – Lake Buena Vista, Florida
- 1988 SAE Accident Investigation Practices Committee, Anti-Lock Brake System Workshop, California Highway Patrol Academy – Sacramento, California

Stapp Car Crash Conference

- 1997 41st Stapp Car Crash Conference – Lake Buena Vista, Florida
- 1995 39th Stapp Car Crash Conference – San Diego, California
- 1991 35th Stapp Car Crash Conference – San Diego, California
- 1989 33rd Stapp Car Crash Conference – Washington, DC
- 1988 32nd Stapp Car Crash Conference – Atlanta, Georgia

Southwestern Association of Technical Accident Investigators (SATAI)

- 1995 Staged Vehicle Crash Test: Auto vs. Auto – Phoenix, Arizona
- 1990 Staged Vehicle Crash Tests: Auto vs. Auto; Motorcycle vs. Auto – Phoenix, Arizona
- 1989 Staged Vehicle Crash Test: Solo Auto Rollover – Phoenix, Arizona

- 1995 Passenger Car Staged Crash Tests – Texas Engineering Extension Service (TEEX)
Texas A&M University, College Station, Texas

Car vs. Car Low-Speed; High-Speed Frontal Crash Air Bag Evaluation

- 1994 Low-Speed Passenger Car Crash Tests – MacInnis Engineering Associates (MEA)
Vancouver, British Columbia
Car vs. Barrier; Car vs. Car; Human Volunteer Tests

- 1993 Tour de France – Team Carrera/Tassoni
Observer and Guest of Team Physician Giovanni Grazi, M.D.

- 1992 Scientific Aspects of Cycling – Seminar and Clinic – UCLA Biomechanics Laboratory
Clinic Organizer and Supervisor

- 1990 United States Olympic Training Center – Colorado Springs, Colorado
US Cycling Junior National Team Camp, Technical Support

- 1989 First World Congress of Biomechanics
University of California, San Diego

- 1990 National Aeronautics and Space Administration (NASA)
Ames Research Center, Moffett Field, California
The Influence of Gravity and Activity on Muscle and Bone

- 1987 New England Professional Tennis Association Science Committee
Storrs, Connecticut

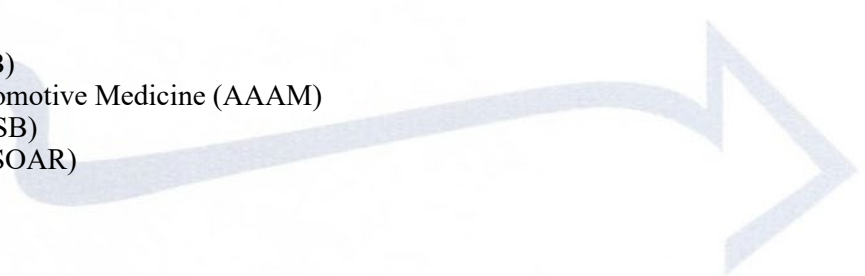
SEMINARS AND SHORT COURSES

- 2024 / July National Association of Professional Accident Reconstructionists (NAPARS)
Counterfeit Airbags – Crash Investigation and Reconstruction of Counterfeit Airbags and Non-Genuine Component Parts
- 2024 / Jan Association for the Advancement of Automotive Medicine (AAAM)
AAAM's Child and Youth Global Road Safety Special Interest Group
The Road Safety Experts' Journey: Protecting Kids from Concept to Practice
- 2023 / Nov carhs Empowering Engineers Training Seminar
The Safe Seats Experience 2023
- 2023 / Mar Association for the Advancement of Automotive Medicine (AAAM)
AAAM's Child and Youth Global Road Safety Special Interest Group
Promoting Child Passenger Safety: Perspectives from Professionals in Medicine and Law Enforcement
- 2023 / Jan ai2-3D Forensics
Forensic Photography Symposium
- 2005 / Apr Society of Automotive Engineers – Professional Development Program
Occupant and Vehicle Kinematics in Rollovers Seminar – Detroit, MI
- 2002 / Apr Society of Automotive Engineers – Professional Development Program
Passenger Vehicle Rollover; TOPTEC: Causes, Prevention and Injury Prevalence – Scottsdale, AZ
- 1999 / Dec Society of Automotive Engineers – Professional Development Program
Accident Reconstruction: State-of-the-Art TOPTEC – Costa Mesa, California
- 1998 / Sept International Research Council on the Biomechanics of Injury and the Chalmers
University of Technology, Crash Safety Division, Department of Machine and Vehicle Design
IRCOBI Course on Whiplash Associated Disorders – Göteborg, Sweden
- 1995 / Aug Society of Automotive Engineers – Professional Development Division
Automotive Seat Design for Safety TOPTEC – Marina Del Rey, California
- 1995 Inter-Industry Conference on Auto Collision Repair
I-CAR Collision Repair Course – Carson, California
- 1992 / Sept Society of Automotive Engineers – Professional Development Division
Vehicle Rollovers TOPTEC – Scottsdale, Arizona
- 1992 / Aug The Second North American Congress on Biomechanics
Biomechanics and Physiology of Lifting – Chicago, Illinois
- 1991 / Nov University of California, San Diego, School of Medicine
Accidental Injury: Biomechanics & Prevention – La Jolla, California
- 1990 / Apr Southwestern Association of Technical Accident Investigators (SATAI)
Derivation of Basic Collision Formulas – Phoenix, Arizona
- 1990 / Apr *Occupant Kinematics – Phoenix, Arizona*
- 1989 / Nov *Forensic Pathology of Injury Mechanisms – Tucson, Arizona*
- 1989 / Nov *The Technical Aspects of Accident Scene Photography – Tucson, Arizona*
- 1989 / July *Airbags; Motorcycle Dynamics – Phoenix, Arizona*

- 1989 / Oct Association for the Advancement of Automotive Medicine (AAAM) and the Volvo Car Corporation
Head Injury Mechanism Symposium – Washington DC
- 1989 / Aug Medi-Legal Institute
The Biomechanics of Injury in Motor Vehicle Accidents – San Diego, California
- 1989 / July Institute of Police Technology and Management, University of North Florida
Investigation of Seat Belt / Child Restraint Injuries – Tempe, Arizona
- 1989 / Feb Association for the Advancement of Automotive Medicine in cooperation with International Research Council on the Biomechanics of Impact
Crash Performance Standards and the Biomechanics of Impact: What are the Relationships? – San Antonio, Texas
- 1989 / Jan Engineering Dynamics Corporation
Computer Aided Accident Reconstruction – Northridge, California
- 1988 / Oct National Academy of Forensic Engineers
Accident Reconstruction – Culver City, California

PROFESSIONAL MEMBERSHIPS

American Society of Biomechanics (ASB)
Association for the Advancement of Automotive Medicine (AAAM)
International Society of Biomechanics (ISB)
Society of Accident Reconstructionists (SOAR)
Society of Automotive Engineers (SAE)



AWARDS

- 2003 Finalist for International Society of Biomechanics Young Investigator Poster Award
Forensic Investigation of Lumbar Disc Injury in an Industrial Setting
- 2003 Finalist for International Society of Biomechanics Young Investigator Poster Award
Determination of Snowboarder Versus Snowboarder Impact Configuration Using Injury Biomechanics
- 1999 Finalist for International Society of Biomechanics Clinical Biomechanics Award
Muscle Response and Whiplash Injury Biomechanics