

# *Accident Reconstruction & Biomechanics, Inc.*

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## *Forensic Animations*

8391 Beverly Blvd. #493    268 Bush St. #2931    2037 Bullard Ave. #194    705-2 E. Bidwell St. #377    604 Village Ct.  
Los Angeles, CA 90048    San Francisco, CA 94104    Fresno, CA 93711    Folsom, CA 95630    Arroyo Grande, CA 93420

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### **CURRICULUM VITAE**

**Jesse L. Wobrock, Ph.D**  
**ACTAR #1594**  
**President/Senior Engineer**

#### **FORMAL EDUCATION**

UNIVERSITY OF CALIFORNIA, LOS ANGELES

*Doctor of Philosophy, Biomedical Engineering*

Emphasis in Biomechanics, Biomaterials and Tissue Engineering

Minor field: *Injury Epidemiology*

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

*Master of Science, Kinesiology – Graduated with Distinction*

Emphasis in Biomechanics

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

*Bachelor of Science, Kinesiology – Cum Laude*

Double Major in Health Science and Kinesiology

CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO

*Pre-Medicine and Mechanical Engineering*

Graduate School Major in Professional Development

#### **CONTINUING PROFESSIONAL EDUCATION**

TEXAS A&M UNIVERSITY - El Paso, Texas

*Pedestrian and Bicycle Collision Reconstruction*

Coursework: Analysis and reconstruction of pedestrian and bicycle vs. automobile collisions.

TEXAS A&M UNIVERSITY - Houston, Texas

*Analysis of “Low Speed” Collisions*

Coursework: Analysis, accident reconstruction, biomechanics, and injury mechanisms in low speed automobile collisions.

TEXAS A&M UNIVERSITY – Mesquite, Texas  
*Collision Trauma Biomechanics*  
Coursework: Injury mechanisms in automobile collisions.

UNIVERSITY OF CALIFORNIA, RIVERSIDE – Riverside, CA  
*Computer Assisted Traffic Accident Reconstruction using MathCAD*  
Coursework: Accident reconstruction techniques using MathCAD mathematical software.

UNIVERSITY OF CALIFORNIA, RIVERSIDE – Riverside, CA  
*Occupant Kinematics and Injury Mechanisms During Motor Vehicle Collisions*  
Coursework: Automobile collision biomechanics.

SOCIETY OF AUTOMOTIVE ENGINEERS – Davis, CA  
*Motor Vehicle Accident Reconstruction*  
Coursework: Motor vehicle accident reconstruction and cause analysis.

TNO MADYMO North America – Livonia, MI  
*MADYMO 6.1 Introductory Training*  
Coursework: Education and training regarding modeling applications using MADYMO 6.1.

TNO MADYMO North America – Livonia, MI  
*MADYMO 6.0 Introductory Training*  
Coursework: Education and training regarding modeling applications using MADYMO 6.0.

ENGINEERING DYNAMICS CORPORATION – Northridge, CA  
*EDC Simulation*  
Coursework: Application and physics-based education and instruction for computer simulations in accident reconstruction.

ENGINEERING DYNAMICS CORPORATION – Northridge, CA  
*EDC Reconstruction*  
Coursework: Application and physics-based education and instruction for accident reconstruction.

NORTHWESTERN UNIVERSITY TRAFFIC INSTITUTE – Independent Study  
*Traffic Accident Investigation (in progress)*  
Coursework: Instruction regarding investigation and evaluation of traffic accidents.

CALIFORNIA ASSOCIATION OF ACCIDENT RECONSTRUCTION SPECIALISTS  
*Sixth Annual CA<sup>2</sup>RS Training Conference*  
Coursework: Motorcycle investigation and reconstruction.

CALIFORNIA ASSOCIATION OF ACCIDENT RECONSTRUCTION SPECIALISTS  
*2006 Fall Crash Training Conference – Crash Reconstruction, Start to Finish*  
Coursework: Accident Reconstruction Training

AMERICAN BACK SOCIETY & St. MARY'S MEDICAL CENTER  
*Advanced Diagnosis and Treatment for Neck & Back Pain*  
Coursework: Medical topics in neck and back treatment and injuries

### **PROFESSIONAL EXPERIENCE**

- April '09-      Crashtams Los Angeles  
                    *Partner for Los Angeles County Area*
- March '08-      Forensic Animations - Los Angeles, San Francisco,  
Present          Fresno, Folsom, Arroyo Grande, CA  
                    *Owner*  
                    Research, preparation, and design of forensic animations.
- March '05-      Accident Reconstruction & Biomechanics – Los Angeles, San Francisco,  
Present          Fresno, Folsom, Arroyo Grande, CA  
                    *President/Senior Engineer*  
                    Reconstruction and biomechanical analysis of accidents, including but not  
                    limited to wrongful death, homicide, criminal matters, slip/trip and falls, falls  
                    from heights, human factors issues, industrial accidents, gun shots, aviation  
                    accidents, law enforcement, fireworks accidents, high and low speed vehicle  
                    collisions, pedestrian collisions, tractor-trailer collisions, motorcycle  
                    collisions, bicycle collisions, and helmet/protective equipment issues.
- Sep '06-          California State Polytechnic University – San Luis Obispo, CA  
Jan '07          *Baseball Team Biomechanist*  
                    Biomechanical analysis of baseball players.
- March '04-      Biomechanics Engineering Accident Reconstruction – Davis, Sherman Oaks,  
Feb '05          San Diego, CA  
                    *Associate Biomechanics and Accident Reconstruction Consultant*  
                    Reconstruction and biomechanical analysis of accidents, including but not  
                    limited to slip-and-falls, industrial, law enforcement, automobiles, trucks,  
                    motorcycles, bicycles, and pedestrians.
- Sep '03-          Society of Automotive Engineers – Detroit, MI  
Sep '04          *Scientific Publication Reviewer*  
                    Volunteer reviewer of scientific research publications pertaining to accident  
                    reconstruction and forensic biomechanics.

- Jan '03-  
April '04      Head Protection Research Laboratory - Paramount, CA  
*Biomechanist/Data Analyst*  
Research regarding select biomechanical topics in relation to motorcycle crashes and motorcycle helmets.
- Jan '03-  
Feb '04      Roger Clark Associates - Paramount, CA  
*Biomechanics and Accident Reconstruction Consultant*  
Reconstruction and biomechanical analysis of accidents, including but not limited to slip-and-falls, industrial, law enforcement, automobiles, trucks, motorcycles, bicycles, and pedestrians
- Jan '03-  
April '03      University of California, Los Angeles – Los Angeles, CA  
*Graduate Student Researcher*  
Researcher in the department of Biomedical Engineering with emphasis on biomechanical topics.
- Jan '00 –  
Dec '02      Accident Research and Biomechanics - Valencia, CA  
*Research Associate*  
Reconstruction and biomechanical analysis of accidents, including but not limited to slip-and-falls, industrial, law enforcement, automobiles, trucks, motorcycles, bicycles, and pedestrians.
- Jan '01-  
Dec '01      California State University, Northridge – Northridge, CA  
*Part-time Faculty – Graduate Teaching Assistant*  
Instructor of biomechanics laboratory, which is an undergraduate upper division course.
- Aug '98-  
Jan '00      Los Robles Regional Medical Center – Thousand Oaks, CA  
*Physical Therapy Specialist*  
Application of therapeutic modalities, assisted and observed patient assessments and evaluations, coached patients through exercise programs, wound care, patient education, and patient ambulation assistance.

**VENUES TESTIFIED AT TRIAL**

Los Angeles County Superior Court, CA  
Fresno County Superior Court, CA  
Tulare County Superior Court, CA  
San Francisco County Superior Court, CA  
Washoe County Superior Court, NV  
Orange County Superior Court, CA  
Sonoma County Superior Court, CA  
Santa Barbara County Superior Court, CA  
San Luis Obispo County Superior Court, CA  
Stanislaus County Superior Court, CA  
Riverside County Superior Court, CA

San Bernardino County Superior Court, CA

**PROFESSIONAL CERTIFICATIONS**

Full Accreditation as a Traffic Accident Reconstructionist (ACTAR #1594)

**PROFESSIONAL ASSOCIATIONS**

American Mensa

UCLA Alumni Association

California Association of Accident Reconstruction Specialists (CAARS)

American Society of Mechanical Engineers (ASME)

National Association of Traffic Accident Reconstructionists and Investigators (NATARI)

Association for the Advancement of Automotive Medicine (AAAM)

Society of Automotive Engineers (SAE)

American Society of Biomechanics (ASB)

International Society of Biomechanics (ISB)

The Accident Reconstruction (ARC) Network

**PROFESSIONAL ACTIVITIES**

27<sup>th</sup> Annual Injuries in Baseball Course

American Sports Medicine Institute

Houston, Texas – January 2009

2006 International IRCOBI Conference on the Biomechanics of Impact

Sponsored by International Research Council on the Biomechanics of Impact

Madrid, Spain – September 2006

31<sup>st</sup> International Workshop on Human Subjects for Biomechanical Research

Sponsored by NHTSA

San Diego, CA – October 2003

47<sup>th</sup> Stapp Car Crash Conference

Sponsored by the Stapp Organization

San Diego, CA – October 2003

International Whiplash Trauma Congress

Sponsored by Spinal Injury Foundation

Denver, Colorado – October 2003

2003 International IRCOBI Conference on the Biomechanics of Impact

Sponsored by International Research Council on the Biomechanics of Impact

Lisbon, Portugal – September 2003

47th AAAM Annual Scientific Conference  
Sponsored by the Association for the Advancement of Automotive Medicine  
Lisbon, Portugal – September 2003

Southern California Conference on Biomechanics  
Sponsored by Pepperdine University  
Malibu, CA – March 2003

CSUN Student Research and Creative Works Symposium  
Sponsored by CSUN  
Los Angeles, CA – November 2002

Technologies Shaping the Future  
Sponsored by UCLA  
Los Angeles, CA – October 2002

Southern California Tissue Engineering Symposium  
Sponsored by UCLA Biomedical Engineering Society  
Los Angeles, CA – September 2002

TRB 81<sup>st</sup> Annual Meeting  
Sponsored by Transportation Research Board  
Washington, D.C. – January 2002

American Society of Biomechanics Annual Conference  
Sponsored by American Society of Biomechanics  
San Diego, CA – August 2001

SAE World Congress  
Sponsored by Society of Automotive Engineers  
Detroit, MI – March 2001

Clinical Seminar in Sports Medicine, “New Approaches to Disorders of the Spine”  
Sponsored by California State University, Northridge.  
Northridge, CA - March 2000

Motorsports Safety – Presented by John Melvin, Ph.D.  
Sponsored by the Society of Automotive Engineers  
San Luis Obispo, CA – February 2000

SWACSM Annual Conference  
Sponsored by Southwest American College of Sports Medicine  
San Jose, CA – November 1999

Participant and/or human volunteer in “low speed” rear, lateral, frontal, and  
underride/override impact crash tests.

Participant in pedestrian dummy and bicycle vs. automobile crash tests.

### **AWARDS**

Young Investigator Award - Association for the Advancement of Automotive Medicine (AAAM) 47<sup>th</sup> Annual Scientific Conference

CSUN Student Research and Creative Works Symposium - 1<sup>st</sup> Place Award for College of Health and Human Development

American Society of Biomechanics - 2002 Student Travel Award

Graduate Student Researcher Award - Winter Quarter 2002, UCLA

### **PROFESSIONAL PRESENTATIONS**

“Choosing Your Accident Reconstruction & Biomechanics Expert”

MCLE approved instruction  
Mark R. Weiner & Associates  
Glendale, CA – October 2007

“Choosing Your Accident Reconstruction & Biomechanics Expert”

MCLE approved instruction  
Law Office of David Mastan  
Glendale, CA – July 2007

“Accident Reconstruction and Biomechanics: Assessing the Impact of Vehicular Crashes and Resultant Injuries”

MCLE approved instruction  
Selman Breitman  
Los Angeles, CA – June 2007

“Accident Reconstruction and Biomechanics: Assessing the Impact of Vehicular Crashes and Resultant Injuries”

MCLE approved instruction  
Ericksen, Arbuthnot, Kilduff, Day & Lindstrom  
Oakland, CA – May 2007

“Accident Reconstruction and Biomechanics: Assessing the Impact of Vehicular Crashes and Resultant Injuries”

American Back Society – Advanced Diagnosis & Treatment for Neck & Back Pain  
Las Vegas, NV – December 2006

“Pelvic Injury Potential and Motorcycle Gas Tanks”  
International Research Council on the Biomechanics of Impact  
Madrid, Spain – September 2006

“Biomechanics: Biomechanics: Injury Mechanisms, and Causation in Vehicle Collisions”  
MCLE approved instruction  
Law Offices of Veatch & Haung  
Los Angeles, CA – June 2006

“Biomechanics: Biomechanics: Injury Mechanisms, and Causation in Vehicle Collisions”  
MCLE approved instruction  
Law Offices of Prindle, Decker, & Amaro  
Long Beach, CA – June 2006

“Biomechanics: Biomechanics: Injury Mechanisms, and Causation in Vehicle Collisions”  
MCLE approved instruction  
Law Offices of Robinson, Dilando, & Liebhaber  
Los Angeles, CA – June 2006

“Accident Reconstruction & Biomechanics”  
MCLE approved instruction  
Ford, Walker, Haggerty, & Behar, LLP  
Long Beach, CA – March 2005

“Choosing Your Biomechanics Expert”  
MCLE approved instruction  
Law Offices of Marsh Munemura  
Glendale, CA – March 2004

“Biomechanics of Low Speed Automobile Collisions”  
Automobile Club of Southern California (ACSC) Adjuster Group  
Diamond Bar, CA – November 2003

“Biomechanics of the Spine”  
Automobile Club of Southern California (ACSC) Adjusters Group  
Costa Mesa, CA – October 2003

“Biomechanics: Injury Mechanisms and Causation”  
Ford, Walker, Haggerty, & Behar, LLP  
Long Beach, CA – October 2003

“Effectiveness of Collision- Involved Motorcycle Helmets in Thailand”  
47th AAAM Annual Scientific Conference  
Lisbon, Portugal – September 2003

“Biomechanics: Pursuing the Truth About Injuries”  
Automobile Club of Southern California (ACSC) Training Seminar  
Los Angeles, CA – July 2003

“Collision Involved Motorcycle Helmets and Injury Potential”  
Southern California Conference on Biomechanics  
Malibu, CA – March 2003

“Injury Potential for Helmeted Motorcyclists in Roadway Collisions”  
CSUN Student Research and Creative Works Symposium  
Los Angeles, CA - November 2002

“Biomechanical Response of Wheelchair Users to Decorative Crosswalks.”  
Transportation Research Board, Poster Presentation  
Washington, D.C. - January 2002

“Driver Characteristics at Signal-Controlled Intersections.”  
SAE World Congress  
Detroit, MI - March 2001

## **PUBLICATIONS**

UCLA Graduate Quarterly, Spring 2005. *Graduate Student Profile - Jesse Wobrock, Biomedical Engineering*. Written by Jacqueline Tasch.

Motorcycle Consumer News, July 2006. *Dangerous Design? Read this and you'll never look at a motorcycle the same way again*. Written by Wendy Moon.

Wobrock, JL, Mal, A, Kraus, J, and Wu, B (2006). Pelvic Injury Potential and Motorcycle Gas Tanks. 2006 International IRCOBI Conference on the Biomechanics of Impact.

Wobrock, JL (2005). MADYMO Simulation, Reconstruction, and Biomechanical Analysis of Motorcycle Crashes. University of California, Los Angeles – Ph.D. Dissertation.

Wobrock, JL (2002). Head Impacts and Injury Potential in Motorcycle Collisions. California State University, Northridge - Master Thesis.

Wobrock, JL, Smith, T, Kasantikul, V, and Whiting, B (2003). Effectiveness of Collision-Involved Motorcycle Helmets in Thailand. 47<sup>th</sup> Annual Conference Proceedings for Association for the Advancement of Automotive Medicine.

Fugger, TF, Wobrock, JL, Randles, BC, Stein, AC, and Whiting, WC (2001). Driver Characteristics at Signal-Controlled Intersections. Society of Automotive Engineers, Paper No. 2001-01-0045

Fugger, TF, Randles, BC, Wobrock, JL, Welcher, JB, Voss, DP, and Eubanks, JJ (2002). Human Occupant Kinematics in Low Speed Side Impacts. Society of Automotive Engineers, Paper No. 2002-01-0020.

Fugger, TF, Randles, BC, Wobrock, JL, and Eubanks, JJ (2002). Pedestrian Throw Kinematics in Forward Projection Collisions. Society of Automotive Engineers, Paper No. 2002-01-0019.

Fugger, TF, Randles, BC, Wobrock, JL, Stein, AC, and Whiting, WC (2001). Pedestrian Behavior at Signal-Controlled Crosswalks. Society of Automotive Engineers, Paper No. 2001-01-0896.

Fugger, TF, Randles, BC, Wobrock, JL, and Eubanks, JJ (2001). An Analysis of Pedestrian Dummy Throw Characteristics for Forward Projection Pedestrian Collisions (published abstract). International Research Council on the Biomechanics of Impact (IRCOBI).

Fugger, TF, Randles, BC, Wobrock, JL, Stein, AC, Whiting, WC, and Gallagher, B (2001). Analysis of Elderly Pedestrian Gait and Perception/Reaction at Signal-Controlled Crosswalk Intersections. Transportation Research Board Annual Conference Proceedings.