

## **RICHARD ALTON WATSON**

### **CURRICULUM VITAE**

#### **EDUCATION**

MS	Biomedical Engineering UT Health Science Center San Antonio/ University of Texas at San Antonio	2014
BS	Mechanical Engineering University of Texas at San Antonio	2005

#### **POST GRADUATE STUDIES**

LSDYNA Training, Livermore, CA.	2010
EDC Simulations Training Course, Northridge, CA	2007
Traffic Accident Reconstruction I & II Northwestern University Traffic Institute, Evanston, IL	2006
MADYMO Advanced Training Course, Detroit, MI	2006
MADYMO 6.1 Training Course, Detroit, MI	2005

#### **PROFESSIONAL EXPERIENCE**

Technical Director Biodynamic Research Corporation San Antonio, TX	2010-Present
Engineer Biodynamic Research Corporation San Antonio, TX	2005-2010
Engineering Intern Biodynamic Research Corporation San Antonio, TX	2003-2005

Aircraft Mechanic 1998-2000  
Able Engineering  
Phoenix, AZ

Flight Engineer 1994-1998  
United States Army  
Ft. Campbell, KY

### **PROFESSIONAL REGISTRATIONS**

Accredited Traffic Accident Reconstructionist (#2188) 2009-Present  
Accreditation Commission for Traffic Accident Reconstruction

### **PROFESSIONAL AFFILIATIONS**

The International Society of Air Safety Investigators 2007-Present

Society of Automotive Engineers 2002-Present

### **ACADEMIC AFFILIATIONS**

Clinical Adjunct Professor, USAF School of Aerospace  
Medicine – San Antonio, TX 2010-Present

### **COURSES/SEMINARS**

CTH Shock Physics Training August 2012  
Sandia National Labs  
Albuquerque, New Mexico

ARAS360 December 2011  
Advanced 3D Computer Diagramming and  
Animation for Incident Reconstruction  
San Antonio, Texas

### **PEER-REVIEWED JOURNAL PUBLICATIONS**

Bonugli, E., Watson, R., Freund, M., and Wirth, J., “Expanded  
Characterization of Force-Deflection Properties of Vehicle-to-Vehicle

Systems,” SAE Technical Paper 2017-01-1417, 2017, doi: 10.4271/2017-01-1417.

Van Arsdell, W., Weber, P., Stankewich, C., Larson, B. et al., “Load-Limiters Effect on Occupant Restraint System Performance,” SAE Technical Paper 2016-01-1505, 2016, doi:10.4271/2016-01-1505.

Watson R, Gray W, Sponsel WE, et al. Simulations of porcine eye exposure to primary blast insult. 2015;4(4):8, doi:10.1167/tvst.4.4.8.

Funk JR; Watson RA; Cormier JM; Guzman H, and Bonugli E. Kinematics and kinetics of vigorous head shaking. *J Appl Biomech.* 2015; Ahead of Print.

Sherwood D; Sponsel WE; Lund BJ; Gray W; Watson R; Groth SL; Thoe K; Glickman RD, and Reilly MA. Anatomical manifestations of primary blast ocular trauma observed in a postmortem porcine model. *Invest Ophthalmol Vis Sci.* 2014; In Press.

Funk JR, Cormier JM, Bain CE, Wirth JL, Bonugli EB, and Watson RA, “Factors Affecting Ejection Risk in Rollover Crashes,” *Annals of Advances in Automotive Medicine.*, 56:203-211, 2012.

## **PEER-REVIEWED CONFERENCE PUBLICATIONS**

Funk JR, Wirth JL, Bonugli EB, Watson RA, and Asay A. “An Integrated Model of Rolling and Sliding in Rollover Crashes,” *Society of Automotive Engineers (SAE) World Congress*, Paper 2012-01-0605, 2012.

Funk JR, Watson RA, Cormier JM, Bain CE, Guzman HM, and Bonugli EB. “Neck Muscle Strength Measured During Vigorous Head Shaking,” *Proceedings of the ASME 2011 Summer Bioengineering Conference*, SBC2011-53193, 2011.

## **SCIENTIFIC PRESENTATIONS**

Banks, R.D.; Watson, R.A. Analysis of Complex Crash Events in Air and Space, FAA CAMI Injury Workshop, Oklahoma City, OK, November 3-5, 2015.