

## WILLIAM R. “MIKE” SCOTT, PHD

### CURRICULUM VITAE

#### EDUCATION AND CERTIFICATIONS

PhD	Engineering Science State University of New York (SUNY) Buffalo, New York	1980
MS	Engineering Science State University of New York Buffalo, New York	1977
BS	Engineering Science State University of New York Buffalo, New York	1971

#### POST GRADUATE STUDIES

Post Graduate Studies	National Institute of Health (NIH) Research Fellowship Department of Physiology State University of New York Buffalo, New York	
Graduate	Traffic Accident Reconstruction Northwestern University Traffic Institute Evanston, Illinois	1990

#### PROFESSIONAL EXPERIENCE

Principal Consultant Biodynamic Research Corporation San Antonio, Texas	1989-Present
Research Engineer KRUG International San Antonio, Texas	1987-1989

Manager of Engineering Test Laboratory Scott Aviation Lancaster, New York	1985-1987
Assistant Professor King Abdullaziz University Jeddah, Saudi Arabia	1983-1985
NIH Post-Doctoral Fellow Department of Physiology SUNY at Buffalo Buffalo, New York	1980-1982
Teaching/Research Assistant Engineering Science Department SUNY at Buffalo Buffalo, New York	1974-1980
Engineer Ford Motor Company Dearborn, Michigan	1973-1974
Teaching Assistant Engineering Science Department SUNY at Buffalo Buffalo, New York	1971-1972

## **HONORS AND AWARDS**

National Institute of Health Research Fellowship Member, Tau Beta Pi Engineering Honor Society	1980
Graduated Cum Laude	1971
New York State Regents Scholarship	1967

## **PUBLICATIONS AND PRESENTATIONS**

### **THESES AND DISSERTATIONS:**

Scott WR. The Effect of Intrapulmonary Ventilation Differences on Gas And Aerosol Transport in the Lung. Doctoral Dissertation, State University of New York at Buffalo, School of Engineering, Buffalo, New York, 1980.

Scott WR. A Theoretical Model of Aerosol Deposition in the Nasal Passages, Master's Thesis, State University of New York at Buffalo, School of Engineering, Buffalo, New York, 1976.

**OTHER PUBLICATIONS:**

Scott WR, Taulbee DB, and Yu CP. "Theoretical study of nasal deposition." Bull. Math. Biol. 40:581-603, 1978.

Scott WR, and Taulbee DB. "Ventilation distribution in the lung over the breathing cycle due to the gravitational pressure gradient." Proc. First Mid-Atlantic Conf. on Bio-Fluid Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, Aug 9-11, 1978.

Scott WR, and Van Liew HD. "Measurement of lung emptying patterns during slow exhalations." J. Appl. Physiol.: Respirat. Environ. Exercise Physiol. 55(6):1818-1824, 1983.

Scott WR and Taulbee DB. "Aerosol deposition along the vertical axis of the lung." J. Aerosol. Sci. 16(4): 323-333, 1985.

Scott WR, and Simpson RE. "Evaluation of collective protection shelter systems." 25th Annual SAFE Symposium, pp. 34-40, Las Vegas, Nevada, 1987.

Scott WR, and Simpson RE. "The Application of Anthropometric Data to the Sizing of Aircrew Pressure Protective G-garments." 26th Annual SAFE Symposium, pp. 40-45, Las Vegas, Nevada, 1988.

Scott WR, and Simpson RE. Relationship Between the Amount of Methyl Salicylate Offgassed by Subjects in Sealed Booths and the Vapor Levels Measured in the Booths. Technical Report USAFSAM-TP-89-3, U.S.A.F. School of Aerospace Medicine, 1989.

Scott WR, and Simpson RE. An Evaluation of the Vapor Protection Capabilities of the M-17 Mask/Hood Assembly of the USAF Ground Crew CDE. Technical Report USAFSAM-TR-89-15, U.S.A.F. School of Aerospace Medicine, 1989.

Scott WR, and Simpson RE. Comparison of Vapor Transfer Associated with Collective Protection Entry of Subjects Wearing an Aircrew Chemical Defense Ensemble (CDE) Based on the CWU-66/P Flight Suit and the USAF Regulation Aircrew CDE. Technical Report USAFSAM-TP-89-16, U.S.A.F. School of Aerospace Medicine, 1989.

Scott WR. An Evaluation of the Vapor Protection Capabilities of the Jacket/Trouser Interface on the Regulation Ground Crew CDE. Technical Report USAFSAM-TP-89-13, U.S.A.F. School of Aerospace Medicine, 1989.

Raddin, J.H. Jr., M.D., Scott, W.R., Ph.D., J. Ziegler, M.S.E., J.V. Benedict, Ph.D., M.D.; and H.L. Smith, Ph.D., M.D. Concept Feasibility Analysis for a Large Radius Track-Centrifuge, Final Report for research conducted under U.S.A.F. Small Business Innovation Research Contract #F41622-89-C-1025. Technical Report USAFSAM-TP-90-3, U.S.A.F. School of Aerospace Medicine, June, 1990.

Raddin J.H. Jr., M.D., Scott, W.R., Ph.D., J.B. Bomar, Jr., Ph.D., H.L. Smith, Ph.D., M.D., J.V. Benedict, Ph.D., M.D., W.E. McConnell, M.D., P.K. Perret, H.M. Guzman. Adapting the Adam Manikin Technology for Injury Probability Assessment, Final Report for research conducted under U.S.A.F. Small Business Innovation Research Contract, Submitted for publication as U.S.A.F. School of Aerospace Medicine Technical Report, February, 1992.

Scott MW, McConnell WE, Guzman HM, Howard RP, Bomar JB, Smith HL, Benedict JV, Raddin Jr JH, and Hatsell CP. "Comparison of Human and ATD Head Kinematics During Low-speed Rearend Impacts." Presentation to Society of Automotive Engineers, Inc., 1993 SAE International Congress & Exposition, Detroit, MI, SAE Paper #930094, March 1993.

"Rollover Research on Injury Mechanisms"; Invited Lecturer, Vehicle Rollovers TOPTEC: An Update of the Current Issues; Society of Automotive Engineers, Dearborn, Michigan, August 1993.

Bomar JB, Scott MW, Smith DA. "Modeling Respiratory Gas Dynamics in the Aviator's Breathing System." USAF Materiel Command Technical Report AL/CF-TR-1994-0047-Vol. 1, May 1994.

Scott MW, Labra JJ, Guzman HM, Benedict JV, Smith HL, Ziegler J. "Injury Analysis of Impacts Between a Cage-Type Propeller Guard and a Submerged Head." SAFE Journal, Vol. 24 #3, October 1994.

"Auditory and Visual System Injury Potential with Airbag Deployment"; Presentation to Society of Automotive Engineers Airbag Design and Performance TOPTEC, Costa Mesa, CA. August 14-15, 1997.

Scott WR, Lloyd WC, Benedict JV, Meredith R. "Ocular Injuries Due to Projectile Impacts"; Presentation to Association for the Advancement of Automotive Medicine Annual Conference, Chicago, Illinois. October 1-4, 2000.

Benedict JV, Hiltner E and Scott W. Child Dummies and Injury Criteria, Where are we? Presentation at the “Booster Seats for Children” Conference Sponsored by AAAM, April 23-24, 2001, Washington, D.C.

Scott WR, Bain C, Manoogian SJ, Cormier JM, and Funk JR. “Simulation Model for Low-Speed Bumper-to-Bumper Crashes.” SAE International Congress & Exposition, Detroit, MI, SAE Paper #2010-01-0051, April 2010.

Scott W, Bonugli E, Guzman H, and Swartzendruber D. “Reconstruction of Low-Speed Crashes using the Quasi-Static Force vs. Deformation Characteristics of the Bumpers Involved in the Crashes.” SAE 2012 World Congress & Exhibition, Detroit, MI, SAE Paper #2012-01-0598, April 2012.

Wiechel JF and Scott WR. The effect of an operator compartment door on standup forklift off-dock and tip-over injuries. *Proceedings of the ASME International Mechanical Engineering Congress and Exposition*. November 2013.

Gwin LP; Guzman HM; Bonugli EB; Scott, WR; Freund MT. Measurement of Tolerable and Non-Injurious Levels of Back-to-Front Whole Body Accelerations. 2014 Society of Automotive Engineers World Congress & Exhibition.

Scott WR; Barnes TL; and Copes ML. Buckle up or else: Texas Supreme Court holds plaintiffs responsible for failure to wear seat belts. *The Review of Litigation*. 2016:19-27.

Scott WR; Bonugli EJ; Guzman HM; and Swartzendruber DJ. System Force-Deformation Modeling Apparatuses and Methods. Biodynamic Research Corporation, Assignee. U. S. Patent No. 9,453,786. 2016 Sep 27.

Scott WR; Bonugli EJ; Guzman HM; and Swartzendruber DJ. System Force-Deformation Modeling Apparatuses and Methods. Biodynamic Research Corporation, Assignee. U. S. Patent No. 9,470,606. 2016 Oct 18.

Scott WR; Wood RL; Reinhart LH; Guzman HM; Barraza AB. “The Effect of the Head-to-Head Restraint Distance on Occupant Kinematics during Low-Speed Rear-End Collisions.” SAE Paper #2018-01-0537, January 2018.