

CURRICULUM VITAE

Richard A. Rowe, M.D.
Staff Neurosurgeon
Georgia Neurosurgical Institute
840 Pine Street
Macon, GA 31201

Education

Pacelli High School
Columbus, Georgia
Graduated May 1976

University of Illinois Chicago Circle
Chicago, Illinois
AB Chemistry
June 1983

Emory University School of Medicine
Atlanta, Georgia
Doctor of Medicine
May 11, 1987

Georgia Institute of Technology
Atlanta, Georgia
Electrical Engineering courses
Fall 1991

Post-graduate Training

Surgical Internship
Emory University School of Medicine Affiliated Hospitals
Atlanta, Georgia
July 1987 - June 1988

Research Fellow
Department of Surgery
Medical College of Georgia
Augusta, Georgia
July 1988 - June 1989

Resident in Neurosurgery

Department of Surgery
Medical College of Georgia
Augusta, Georgia
July 1989 - June 1994

Instructor, Skull Base Neurosurgery
University of Arkansas for Medical Sciences
Little Rock, Arkansas
August 1999- March 2000

Board Certification

Board Certified by American Board of Neurological Surgery, May 1998

Professional Employment

Staff Neurosurgeon, Georgia Neurosurgical Institute, Macon, GA JUL 09- present
Associate Professor Neurological Surgery Univ of Arkansas for Medical Sciences, Little Rock,
Arkansas SEP 04 – Jun 2009
Staff Neurosurgeon Naval Medical Center Portsmouth, VA SEP 03-AUG 04
Group Surgeon 3FSSG, JUL 2002-SEP 2003
United States Navy, OCT 2000-present, Staff neurosurgeon, USNH Okinawa, Japan
Piedmont Neurosurgery, MAR 2000-SEP 2000, Staff neurosurgeon, Greenville, South Carolina
Univ. Arkansas for Medical Sciences, OCT 1999-FEB 2000, Instructor Skull Base
Neurosurgery, Little Rock, Arkansas
United States Navy, JUL 1994-SEP1999, Staff neurosurgeon, USNH Okinawa, Japan, NNMC,
Bethesda, Maryland

Appointments

Adjunct Assistant Professor, Department of Applied Science, Donaghey College of Information
Science and Applied Engineering, University of Arkansas Little Rock, Arkansas OCT 04- JUN
09
Associate Professor of Surgery, Mercer University School of Medicine, 2011

Scientific and Professional Societies

American Medical Association
Congress of Neurological Surgeons
American Association of Neurological Surgeons

Presentations at National and Regional Meetings

S.Kockara, T. Halic, C. Bayrak, K. Iqbal and R. Rowe, "Collision Detection Algorithms: A Survey", 2007 IEEE International Conference on Systems, Man and Cybernetics (SMC), Montreal, Canada. (Peer Reviewed)

T. Halic, S.Kockara, C. Bayrak, K. Iqbal and R. Rowe, "Two-way Semi-Automatic Registration in Augmented Reality System", 2007 IEEE International Conference on Systems, Man and Cybernetics (SMC), Montreal, Canada. (Peer Reviewed)

T. Halic, S. Kockara, C. Bayrak, K. Iqbal, and R. Rowe, "Towards Optimized Data Structures for Real-Time Tissue Deformations by Mass-Spring Models", The International Conference on Mechanics in Medicine and Biology (ICMMB), 2006, Singapore.

T. Halic, S. Kockara, G. Huang, C. Bayrak, K. Iqbal, and R. Rowe, "3D Finite Element Analysis of Instrumentation in Cervical Disc Replacement Surgery", International Conference on Computational & Experimental Engineering and Sciences, ICCES'2008, Hawaii.

"Surgical Management of Back Pain." Congress of Neurological Surgeons Annual Meeting. San Francisco, CA April 2006

"Virtual Reality Surgical Simulation for Neurosurgical Training." Congress of Neurological Surgeons 46th Annual Meeting. Montreal, Quebec Oct 1996.

"Virtual Reality Simulator for Intracranial Endoscopy." American Association of Neurological Surgeons 64th Annual Meeting. Minneapolis, MN Apr 1996.

"Development of a Neuroendoscopic Surgical Simulator." Joint International Congress on Minimally Invasive Techniques in Neurosurgery and Otolaryngology. Pittsburgh, PA Apr 1995.

"Microvascular Atlas of the Head and Neck." Fourth Annual North American Skull Base Society Meeting, Scottsdale, Arizona. February 1993.

"Use of Microcomputers in the Development of Tutorials in the Neural Sciences." Southern Neurosurgical Association, Key West, Florida. April 1990.

"Use of Microcomputers in the Development of Tutorials in the Neural Sciences." Macademia Southeast 1990, Daytona Beach, Florida. February 1990.

"Development of Computer Assisted Instructional Materials for the Neural Sciences." Association of American Medical Colleges, Washington, D.C. October 1989.

"Computer Assisted Instruction Applications in Clinical Anatomy." Information Technology in

the Health Sciences West, Portland, Oregon. September 1989.

"Use of the Macintosh II Computer in the Development of Animated Tutorials in Neuroanatomy." Information Technology in the Health Sciences, Memphis, Tennessee. May 1989.

Presentations at State and Local Meetings

"Simulators for Neurosurgical Applications." Georgia Neurosurgical Society Spring Meeting. Sea Island, GA May 2007.

"Development of a Surgical Simulator for Neurosurgical Training." Robert Watson Society Annual Meeting, Little Rock, AR MAR 2006

"Virtual Reality Simulator for Intracranial Endoscopy." Georgia Neurosurgical Society Spring Meeting. Sea Island, GA May 1995.

"Development of a Microvascular Atlas of Cerebrovascular Anatomy" Georgia Neurosurgical Society, Sea Island, Georgia. May 1994.

"Development of a Neuroendoscopic Surgical Simulator" Georgia Neurosurgical Society, Sea Island, Georgia. May 1994.

"Development of a Microvascular Atlas of Cerebrovascular Anatomy" Medical College of Georgia, Neurosurgery Resident's Reunion, Augusta, Georgia. February 1994.

"Microvascular Atlas of the Head and Neck." Medical College of Georgia Neurosurgery Resident's Reunion, Augusta, Georgia. February 1993.

"Three Dimensional Localization of Epileptic Foci." Medical College of Georgia Neurosurgery Resident's Reunion, Augusta, Georgia. February 1992.

"Computer Simulations for Neurosurgical Training." Georgia Neurosurgical Society, Sea Island, Georgia. May 1991.

"Use of Three Dimensional Computer Models for Training in the Neurological Sciences." Medical College of Georgia Neurosurgery Resident's Reunion, Augusta, Georgia. March 1991.

"Use of Halifax Clamps for Cervical Stabilization." Georgia Neurosurgical Society, Sea Island, Georgia. May 1990.

"Use of Microcomputers in the Development of Tutorials in the Neural Sciences." Georgia Neurosurgical Society, Atlanta, Georgia. November 1989.

"The Use of Microcomputers for Education in the Neural Sciences." University System of Georgia Computer Network, Eatonton, Georgia. October 1989.

"Application of Neural Transplantation Techniques to a Rat Model of Parkinson's Disease."
Medical College of Georgia Neurosurgery Resident's Reunion, Augusta, Georgia. February 1989.

"Neural Transplantation for Treatment of Parkinson's Disease."
University of Georgia Department of Biology Seminar, Athens, Georgia. February 1989.

Publications in Refereed Journals

S.Kockara, T. Halic, C. Bayrak, K. Iqbal and R. Rowe, "A survey of Contact Detection Algorithms: Pros and Cons", Academy publisher, The Journal of Computers (JCP, ISSN1796-203X), 2008.

S. Kockara, T. Halic, Coskun Bayrak, E. Ermisoglu, Kamran Iqbal, and R. Rowe, "On Deformable Spanner", submitted to IEEE Transactions on Systems, Men, and Cybernetics Part –C, 2008.

S. Kockara, T. Halic, Coskun Bayrak, E. Ermisoglu, Kamran Iqbal, and R. Rowe, "Balls Hierarchy and Possible Application Areas", submitted to Elsevier Journal of Information Theory, 2008.

S. Kockara, T. Halic, C. Bayrak, K. Iqbal, and R. Rowe, "CEDE: Collaborative Egocentric Design Environment for CAVE", submitted to ACM Transactions on Applied Perception, 2008.

Rowe, RA "Transforaminal Interbody Fusion: Principles and Technical Notes" in Approaches for Spinal Fusion and Instrumentation, Hitchon PW editor. Pan Arab Journal of Neurosurgery 2007

Rowe, RA. "Surgical Approaches to the Trigone" Contemporary Neurosurgery; Vol. 27 No. 5:1-5

Cover, SA, Ezquerro, NF, O'Brien, JF, Rowe, RA, Gadacz, T, Palm, E. "Interactively Deformable Models for Surgery Simulation." IEEE Computer Graphics and Applications; Vol. 13 No. 6: 68-75.

Cordova J, Rowe RA, Furman M "Visualization of Intracranial EEG electrodes using Magnetic Resonance Imaging." Computers and Biomedical Research.

Publications in Non-refereed Journals

Colborn, GL, Berlin, GJ, DiLorenzo, CL, Rowe, RA, Weidman, TA, Gest, TR. "Computer Assisted Instruction in Clinical Anatomy." Wheels for the Mind; Vol. 5, No. 2: 60-61.

Colborn, GL, Berlin, GJ, DiLorenzo, CL, Rowe, RA, Weidman, TA, Gest, TR. "Development of Computer Assisted Instructional Materials for the Anatomical Sciences." Proceedings from the

IME Group on Medical Education; Innovations in Medical Education Exhibits. 100th Annual Meeting of the AAMC. Oct. 1989.

Rowe, RA , DiLorenzo, CL, Berlin, GJ. "Use of Microcomputers in the Development of Tutorials in the Neural Sciences." Proceedings from the Annual Meeting of the Southern Neurosurgical Society, April, 1990.

Abstracts

Rowe, RA , DiLorenzo, CL, Berlin, GJ. "Use of Microcomputers in the Development of Tutorials in the Neural Sciences." *Neurosurgery*, Vol. 26, No. 6, p. 1074.

Software Releases

Rowe, RA , DiLorenzo, CL, Berlin, GJ, Weidman, TA.
"Microvascular Atlas of the Head and Neck." Licensed to Bayer, Inc. for distribution as an educational gift to physicians and medical schools. 1993.

Rowe, RA , DiLorenzo, CL, Berlin, GJ, Weidman, TA.
"Neuroanatomy: An Electronic Atlas." Licensed to Miles, Inc. for distribution as an educational gift to physicians and medical schools. 1990.

Rowe, RA , DiLorenzo, CL, Berlin, GJ. "Animated Tutorials on Neuroanatomy in HyperCard." *Encyclopedia of Multimedia*. Apple Computer, Inc., December 1990.

Rowe, RA , DiLorenzo, CL, Berlin, GJ. "A Demonstration of the Use of 3D Computer Animation to Illustrate Pharmaceutical Action of a Calcium Channel Blocker on Receptor-Operated Channels." *Media in Motion*, MacroMind, Inc. December, 1990.

Awards / Recognitions

Director's Award for most outstanding scientific videographic presentation. Fourth Annual Meeting North American Skull Base Society Annual Meeting, Scottsdale, Arizona. February 1993.

Selected as one of Arkansas' best neurosurgeons. *Arkansas Times* August 2008.