Brief CV – Russell J Andrews

Training: Medical school – Dartmouth College/Medical School, Hanover, NH (MD 6/78)

> Graduate school - Harvard University, Cambridge, MA (DEd Human Development 6/74) Surgical Internship – Walter Reed Army Medical Center, Washington, DC (7/78-6/79) Neurosurgery Residency – Stanford University Medical Center, Palo Alto, CA (7/81-6/86) Neurosurgery Registrar, National Hospitals for Nervous System Diseases, London (1-3/83)

Professional: Faculty member (Neurosurgery) at the following (1986-2001):

University of California, Davis, Medical Center (1986-92)

Stanford University Medical Center (1992-96)

State University of New York Upstate Medical Center (1996-98)

Texas Tech University Medical Center, El Paso (Chief, Neurosurgery) (1998-2001)

Ames Associate (Smart Systems & Nanotechnology) NASA Ames Research Center (1998present). Advisor since 2015 (Ames Associate program terminated). NASA Ames Nanotechnology has received 2 NIH grants for nanoelectrodes for the brain-machine interface, the last (\$1.8M, 2011-16), PI Kendall Lee, Mayo Clinic Neurosurgery

2001-17: Private practice neurosurgery, Silicon Valley/San Jose, CA.

Major Committees/Memberships:

Aerospace Medical Association

American Association of Neurological Surgeons: Past Chair, International Committee

Asian Congress of Neurological Surgeons: Executive Committee Bioluminate, Inc. (NASA patent licensee): Scientific Advisory Board

Computer Assisted Radiology and Surgery (CARS): Program Committee

Congress of Neurological Surgeons

Epilepsy Foundation of Northern California: Board Member

European Association of Neurosurgical Societies

European Association for Predictive, Preventive and Personalised Medicine

International Association of Neurorestoratology: Advisory Board International Conference on Neuroprotective Agents: President

New York Academy of Sciences (Life Member)

Society of British Neurological Surgeons

World Federation of Neurosurgical Societies (WFNS): Newsletter Editor

WFNS Committee Membership: Neurotrauma, Mass Casualty, Neurorehabilitation

World Neurosurgery: Feature & Section Editor

Publications: Editor, Intraoperative Neuroprotection. Williams & Wilkins, 1996

Author: Too Big to Succeed: Profiteering in American Medicine. iUniverse, 2013 Author/co-author of over 40 book chapters, and over 80 peer-reviewed research articles

Presenter/co-presenter of over 300 presentations at major national/international

scientific meetings (many as invited speaker)

Patents: "Multimodality Instrument for Tissue Characterization" US Patents #6,109,270 (August

29, 2000) #6,718,196 (April 6, 2004) - NASA on behalf of RW Mah and RJ Andrews.

"Carbon Nanotube-based Nanoelectrode Array for Deep Brain Stimulation" Patent Application by NASA on behalf of J Li, M Meyyappan, R Andrews, March, 2003.

California, Texas; Board Certified, Neurosurgery, 1989. Licenses: