



## THE GNI BULLETIN

Over 50 Years of Excellence

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### Neurosurgeons

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Arthur J. Ulm III, M.D.

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Dichen Zhao, M.D.

### Internist

M. Ajjan, M.D.

### Neuropsychologist

Leon A. Hyer, Jr., Ph.D.

### Neurophysiologist

Induk Chung, Ph.D., DABNM

## Welcome

Our New Colleague  
**Dr. Richard A. Rowe**



It is with great enthusiasm that we welcome our newest colleague, Dr. Richard Rowe to the Georgia Neurosurgical Institute. Dr. Rowe comes to Macon from the University of Arkansas for Medical Sciences (UAMS) in Little Rock, AK where he served as Assistant Professor of Neurosurgery. Dr. Rowe received his MD degree from Emory University School of Medicine in 1987, finished his residency in neurosurgery from the Medical College of Georgia in 1994, and was certified by the American Board of Neurological Surgery in 1998. He is a retired captain in the U.S. Naval Reserve and worked as a staff neurosurgeon at Bethesda Naval Hospital, Portsmouth Naval Hospital, and at the Naval Hospital in Okinawa, Japan. Dr. Rowe also maintains an active research interest in the use of virtual reality technology in surgical simulations. We are honored to welcome a physician of such distinction to our group.

### About Georgia Neurosurgical Institute



The Georgia Neurosurgical Institute is a group of physicians who specialize in state-of-the-art neurosurgical procedures, technologies and treatments of brain and spinal disorders, injuries and diseases including back pain, neck pain, tumors and trauma. The institute is located in The Medical Center in the Pine Street Building.

Since its founding in 1954, the Georgia Neurosurgical Institute has kept pace with the rapid advance in neurosurgery and technology in order to provide the latest and best clinical therapies.

Our heritage was initially shaped by the capable hands of Drs. Robert A. Clark, Samuel J. Hightower, Morgan A. Cowan, Robert A. Sears, Hugh F. Smisson, and Charles M. Rowley. Today our second generation of specialists - Drs. Joe Sam Robinson, Jr., Kim W. Johnston, Hugh F. Smisson, III, Arthur A. Grigorian and Arthur J. Ulm - continue that forward thrust. They are among the Southeast's leaders in the diagnosis and treatment of diseases, disorders and disabilities of the spine and brain among adults and children. All are certified by the American Board of Neurological Surgery. We are expecting Dr. Richard Rowe to join our group in July.

Our dedicated surgeons take time to share their knowledge and experience with medical students in the community and to conduct research projects with far-reaching implications for patient care. Moreover their writings and presentations are in great demand at seminars and other gatherings of colleagues. Indeed, the Institute's mission is to continue this high level of commitment and achievement in the field of neurosurgery.

## The Biplane Technology in Cerebrovascular Imaging



**Arthur A. Grigorian, MD**

The stroke rate in Georgia is 64.5 per 100,000 people compared to the national average of 53.4 strokes per 100,000. In a move to better serve the population of Macon the Medical Center of Central Georgia opened in 2007 a hybrid neuro-imaging surgical suite to provide advanced medical care for patients with cerebral aneurysms and strokes. The hybrid neuro-imaging surgical suite includes a new cutting-edge technology called the bi-plane angiography, an important innovation in the care provided to our community and a key element in The Medical Center's efforts to establish a comprehensive stroke system of care, involving prevention, treatment and rehabilitation services. The Medical Center of Central Georgia (MCCG) is one of four facilities in the world to include a biplane system suite.

Bi-plane angiography provides sharp, high-resolution images that enable the physician to see minute blood vessels in great detail. The bi-plane system features two separate x-ray tubes positioned at 90-degree angles. Images are projected on a series of screens, enabling physicians to obtain two views at the same time. The equipment also replaces the need for multiple injections of x-ray dye thereby reducing table time, X-ray dose and contrast media exposure. Dr. Ulm has served as the founder and Medical Director of the neuro-endovascular program at The Medical Center of Central Georgia while treating patients from across the state over the past 2 years. Dr. Ulm will be departing for the Louisiana State University-New Orleans in the fall of 2009, and Dr. Grigorian is currently completing training to become credentialed in neuro-endovascular treatment of cerebrovascular maladies. Dr. Grigorian is a native of Eastern Europe. He is board certified both in the United States and Europe. Prior to moving his family to Macon, Georgia, he completed four years of neurosurgery residency in Moscow. He also completed a full neurosurgery residency at the University of Medicine and Dentistry of New Jersey. Following this, Dr. Grigorian had a cerebrovascular fellowship at the Albert Einstein College of Medicine in New York City. In 2004, he completed his Ph.D. thesis on Management of Intracranial Aneurysms.



# Healthcare Resources and The Medical Oath

Joe Sam Robinson, MD  
M. Sami Walid, PhD  
Aaron C. M. Barth, MBA



As with other professional oaths, the Medical Oath is a code imposed by physician elders to ethically bind new recruits to the profession. The Oath codifies medical practice and suggests high principles of conduct toward teachers, patients, colleagues, and society. The majority of graduating medical students from US medical schools swear to the Hippocratic oath. As this oath was intended to establish better care and mandate ethical behavior, we believe that current trends require a revision of the Hippocratic Oath. Healthcare currently faces serious challenges in healthcare cost, access, and quality, issues which physicians have sometimes shied away from confronting. Although the Hippocratic oath sets the bar high for honorable stewardship of one's clinical skills, it does not account for the importance for wise custodianship of healthcare resources.

The present economic state of healthcare calls for a shift in physician mindset. Healthcare costs are staggering; a shortage of medical professionals is looming; and 45 million Americans are without health insurance. The US spends more on healthcare than any country in the world yet the number of uninsured Americans grows steadily. The third party payor system, the litigation crisis and absence of tort reform, as well as the defensive practice of medicine contribute to increased healthcare costs. Hippocrates recognized the interaction of business and moral considerations, and urged that the former be subordinated to the latter; however, he did not deal with the finances of medical care, an issue which presently faces healthcare providers on a daily basis.

The principles of beneficence and non-maleficence set forth in the Hippocratic Oath have been the foundation of medical ethics for twenty-five centuries. What is an actual problem in the 21st Century that is not mentioned in any of the medical oaths is the problem of healthcare cost. The problem of healthcare cost and being a responsible guardian of the Nation's healthcare resources is a missing contemporary dimension of the physician's pledge. The relation of this problem to the principles of beneficence and non-maleficence is as intricate to the patient's health as it is to the economic wellbeing of the society in general. In effect, physicians should be as concerned about their responsibility in managing healthcare resources as in caring for the patient's medical health.

Codes of ethics unusually seek to guarantee quality of performance and to outline the standards of practice for persons who ascribe to them. For centuries, members of the medical profession have adhered to a built-in self-regulating mechanism involving ethical mandates and moral commitment. But, while the Hippocratic Oath urged that patient-health moral considerations be the physician's first duty above business considerations, technological, demographic and geopolitical realities have multiplied financial concerns related to the healthcare structure of the society. Physicians now, in our opinion, need to examine the impact of healthcare financial crisis on their ability to care well for their patients.

Arguably, healthcare is the public's second-highest priority after concerns the economy. In reality, these two issues are intertwined. The current budget deficit is towering, hitting 1.2 trillion dollars [1].

Medicare is "drifting towards disaster" [2] and may go bankrupt by the end of the coming decade. People understand the need to increase the percentage of the insured, improve the quality of care for all, control soaring costs, and revive the essential role of Medicare and Medicaid.

The text of the Oath of Hippocrates does not satisfy current realities of the profession. Physicians are increasingly encountering ethical issues brought about by the changing economic landscape of the medical profession. There is currently need for an amended oath with the inclusion of a statement about physicians serving as wise custodian of healthcare dollars.

## References

1. Budget deficit to hit \$1.2 trillion in fiscal 2009. Reuters. Accessed 1/12/2009. URL: <http://www.reuters.com/article/businessNews/idUSN0643708720090107?feedType=RSS&feedName=businessNews&sp=true>
2. Medicare "drifting towards disaster": U.S. official. Reuters. Accessed 6/15/2009. URL: <http://www.reuters.com/article/healthNews/idUSN2936521220080429?pageNumber=1&virtualBrandChannel=0>

## Latest News



**May 2007:** Dr Robinson became a founding member of the Georgia Trauma Commission.

**March 2009:** Dr Robinson presented in Savannah on the situation with stroke in Georgia.

**April 2009:** Dr Hyer presented at the Second Stroke Symposium which was held at the Medical Center of Central Georgia and organized by Georgia NeuroCenter in cooperation with Georgia Neurosurgical Institute.

**April 2009:** Dr Hyer presented at the Georgia Geriatric Education Center C.A.R.E. for Older Adults Conference which was held at the Medical Center of Central Georgia and organized by Georgia Neurosurgical Institute in cooperation with the University of Georgia.

**April 2009:** Dr Robinson presented "The Georgia trauma system as a model for a state-wide stroke system" to the Trauma Commission in Atlanta.

**May 2009:** Dr Robinson was invited as a guest examiner for the American Board of Neurological Surgeons in Texas.

**August 2009:** Dr Hyer will conduct a workshop "What psychologists need to know about the management and treatment of older patients" at the APA Convention in Toronto, Canada.

**September 2009:** Dr Robinson will present "Computational Model for Determining Hemodynamic Influence of Vasospasm Diameter of Middle Cerebral Artery and Efficacy of HHH Therapy with Respect to Increasing Blood Pressure and Decreasing Hematocrit." and Dr Chung will present "Correlation between clinical symptoms, operative approach and intraoperative electrophysiological changes in patients with cervical spondylotic myelopathy (CSM)" at the World federation of neurosurgical Societies meeting in Boston, MA.

**October 2009:** Dr Walid will present a Top Ten oral presentation titled "Impact of Postoperative Fever on Length of Stay and Hospital Cost in Spine Surgery Patients" at the World Congress of Neurological Surgeons in New Orleans, LA.

## Trials in Process



Several trials are being conducted at Georgia Neurosurgical Institute in different fields of neurosurgery. The following studies are recruiting patients for voluntary participation in the research program:

An international, double-blind, randomized, multi-center, parallel group, historical-control conversion to monotherapy study to evaluate the efficacy and safety of brivaracetam in subjects ( $\geq$  16 to 75 years old) with partial onset seizures with or without secondary generalization

Primary Investigator: Dr Dichen Zhao

A Double-Blind, Placebo-Controlled Trial of Ramelteon for Disturbed Sleep, Behavior, Cognition, and Neuroprotection in Synucleinopathic Dementia

Primary Investigator: Dr Leon A. Hyer and Dr Sam Shillcutt

Impact of Cymbalta on Pain in Perioperative Spine Patients

Primary Investigator: Dr Mohammed Ajjan and Dr Leon A. Hyer

CogMed Working Memory Training.

AIM Grant on Neurodegenerative Diseases for Memory Problems

Primary Investigator: Dr Leon A. Hyer

*For more information about participation in the studies and inclusion and exclusion criteria you can contact Ms. Ciera Scott  
Research Coordinator*

*478-7437092 ex 254*

**Latest  
10 Publications  
In 2008 more than  
30 papers have  
been published**



1. Fountas KN, Tasiou A, Kapsalaki EZ, Paterakis KN, Grigorian AA, Lee GP, Robinson JS Jr. *Serum and cerebrospinal fluid C-reactive protein levels as predictors of vasospasm in aneurysmal subarachnoid hemorrhage.* Clinical article. *Neurosurg Focus.* 2009 May;26(5):E22.
2. Russo A, Albanese E, Quiroga M, Ulm AJ. *Submandibular approach to the C2-3 disc level: microsurgical anatomy with clinical application.* *J Neurosurg Spine.* 2009 Apr;10(4):380-9.
3. Ulm AJ, Russo A, Albanese E, Tanriover N, Martins C, Mericle RM, Pincus D, Rhoton AL. *Limitations of the transcallosal transchoroidal approach to the third ventricle.* *J Neurosurg.* 2009 Jan 30.
4. Simon S, Yao T, Ulm AJ, Rosenbaum BP, Mericle RA. *Dural arteriovenous fistulas masquerading as dural sinus thrombosis.* *J Neurosurg.* 2009 Mar;110(3):514-7.
5. Walid MS, Woodall MN, Nutter JP, Ajjan M, Robinson JS. *Causes and risk factors for postoperative fever in spine surgery patients.* *South Med J.* 2009 Mar;102(3):283-6.
6. Albanese E, Russo A, Ulm AJ. *Fenestrated vertebrobasilar junction aneurysm: diagnostic and therapeutic considerations.* *J Neurosurg.* 2009 Mar;110(3):525-9.
7. Dimopoulos VG, Chung I, Lee GP, Johnston KW, Kapsalakis IZ, Smisson HF 3rd, Grigorian AA, Robinson JS Jr, Fountas KN. *Quantitative estimation of the recurrent laryngeal nerve irritation by employing spontaneous intraoperative electromyographic monitoring during anterior cervical discectomy and fusion.* *J Spinal Disord Tech.* 2009 Feb;22(1):1-7.
8. Walid MS, Yelverton JC, Robinson JS Jr. *Penetrating orbital trauma with internal carotid injury.* *South Med J.* 2009 Jan;102(1):116-7.
9. Ulm AJ, Russo A, Albanese E, Tanriover N, Martins C, Mericle RM, Pincus D, Rhoton AL. *Limitations of the transcallosal transchoroidal approach to the third ventricle.* *J Neurosurg.* 2009 Jan 30. [Epub ahead of print]
10. Hyer L, Yeager CA, Hilton N, Sacks A. *Group, individual, and staff therapy: an efficient and effective cognitive behavioral therapy in long-term care.* *Am J Alzheimers Dis Other Demen.* 2008 Dec-2009 Jan;23(6):528-39.

**Latest  
Conferences  
In 2008 more than  
20 poster and oral  
presentations has  
been presented**



**American Associations of Neurological Surgeons,  
San Diego, CA 2009**

*Recanalization after coil embolization of posterior communicating artery aneurysms: hemodynamic and morphological considerations*

Albanese E, Quiroga M, Russo A, Hyun S, Mericle R, Ulm AJ

*Ultra high-dose intra-arterial infusion of verapamil through in-dwelling microcatheter for medically refractory severe vasospasm*

Albanese E, Russo A, Quiroga M, Ulm AJ

*Submandibular approach to C2-C3 disc: microsurgical anatomy with clinical application*

Russo A, Albanese E, Quiroga M, Ulm AJ

*3D Computational Model of Selective Mild Hypothermic Treatment for the Brain by Cooling Cerebrospinal Fluid*

S Hyun, C Menard; J Raborn; I Somani; J Whitten; MS Walid, JS Robinson

*Efficient Patient Discharge: Successes And Challenges In Stewardship Of Healthcare Resources*

JS Robinson, KF Mancini, MS Walid, DC Cole, ACM Barth

*Viability of U.S. stroke centers:*

*A tension between patient care and financial stability*

ACM Barth; MJ Conforti; MS Walid; JS Robinson

*Expression of the immunoglobulin superfamily protein Kirre in cortex endothelial cells*

L Kong, J Kang, JS Robinson, Z Wang

**Congress of Neurological Surgeons  
Orlando, FL 2008**

*Prevalence of undiagnosed disturbance of glucose metabolism in spine surgery patients and impact on total cost*

MS Walid, BF Newman, M Ajjan, JS Robinson

**57th National Congress of the Society of Italian  
Neurosurgery**

**Udine-Venice, Italy 2008**

*Normal anatomical variation of the V3 segment of the vertebral artery: anatomical and angiographic study*

E Albanese, A Russo, AJ Ulm

**Georgia Neurosurgical Society Fall Meeting,  
Atlanta 2008**

*High rate of PComA aneurysms recanalization*

E Albanese, M Quiroga, A Russo, R Mericle, Ulm AJ