ANDREW H. FRIEDMAN, M.D.

Course Directors:

BRIAN P. ANDERSEN, ISSAM A. AWAD, HENRY BREM, ROBERT J. DEMPSEY, CHARLES HODGE JR., AND EDWARD OLDFIELD

Course Coordinator:

KAREN KOENIG

The Mission of the course Research Update in Neuroscience for Neurosurgeons (RUNN) was to combat what he perceived as potential illiteracy in basic neurobiology that he feared would weaken the specialty of neurosurgery. Dr. Schmidek’s RUNN Course has been instrumental in establishing laboratories and writing grants. In 1999, the leadership of the RUNN Course was entrusted to Issam A. Awad. Dr. Awad, a distinguished neurosurgeon and basic scientist, brought a fresh perspective to the course, emphasizing the importance of scientific thinking and the need for neurosurgeons to stay abreast of the latest research in neuroscience.

The course is designed to stimulate neurosurgical trainees to participate in basic, clinical, and translational neuroscience research and to foster a culture of inquiry and critical thinking. It features lectures and panel discussions led by accomplished neuroscientists, interactive sessions that encourage discussion among trainees and faculty, and workshops focused on grant writing and scientific discourse. The goal is to equip neurosurgeons with the skills and knowledge necessary to succeed in the ever-evolving field of neuroscience.

The Mission Statement of the course Research Update in Neuroscience for Neurosurgeons (RUNN) is to:

- **Educate and inspire neurosurgeons to actively participate in neuroscience research and education.**
- **Foster a culture of scientific inquiry and critical thinking among neurosurgeons.**
- **Provide a platform for the exchange of ideas and knowledge in neuroscience relevant to neurological surgery.**
- **Prepare neurosurgeons to write scientific grants and publish research findings.**
- **Support the development of scientific careers in neurosurgery.**

The course is a collaborative effort supported by the Society of Neurological Surgeons and is held annually in Woods Hole, MA, USA, on Martha’s Vineyard Island. It provides an unparalleled opportunity for neurosurgeons to learn from experts in the field, network with peers, and gain a deeper understanding of the molecular, cellular, and physiological mechanisms underlying neurological diseases and injuries.
An Enthusiastic Cast of Attendees

There were 76 attendees from Programs (see list) representing programs throughout the United States, Canada, Puerto Rico and Portugal. The replete card is ideal for young attending neurosurgeons just embarking on their academic career. Our goal is to attract one neurosurgeon from each neurosurgical program in North America. We will work hard until we achieve representation of at least one participant from each North American Program.

Our participants continue to be enthusiastic. It is exciting to see the participants敞开 their minds and spontaneously contribute to the lectures with insightful questions. If this group is representative of neurosurgical residents, the future of neurosurgery looks very bright.

Course Report by Ciaran Powers, M.D., Ph.D., Resident Attende

Neurological Resident Duke University Hospital

For the 21st year, the Research Update in Neurosciences for Neurosurgeons (RUNN) course took place in the historic Marine Biological Laboratory (MBL) in beautiful Cape Cod. The course brought together neurosurgeons from a broad range of fields in the neurosciences together with over seventy eager residents and neurosurgeons in practice for a week of lectures and conversation. As one of the residents mentioned, the opportunity to attend the RUNN course was once again an intellectually-stimulating escape from the rigor of patient care during our training. Personally, it provided me a chance to indulge the curiosity that got me interested in research to begin with as a college student.

The course directors, Drs. Allan Friedman and Robert Friedlander, brought an engaged group of speakers from across the country to speak on their research. Toppers ranged from the molecular signaling pathways during development to cellular responses to spinal cord injury to the biomechanics of neck injury. Fed from the traditional lectures of a day and a half, the speakers went on to introduce novel and exciting ideas about how we think about solving neurological problems. For example, Dr. Marc Simard introduced the idea of harnessing patients following neurosurgical SAH to prevent vasospasm and Dr. Joseph Mason articulated the problems with our current paradigm of hydrocephalus and slit ventricle syndrome. Speakers were also able to describe the cutting edge of advances in technology and our ability to treat patients with crippling neurocognitive impairments. Such was the case of Dr. Leigh Flodmark, who presented his most recent experience in with cortically-based brain-machine interfaces.

Perhaps more important than the scientific content of the lectures was the lessons learned by these physician-scientists regarding the actual balance of scientific and clinical responsibilities. At the end of each lecture we heard how these scientists succeeded in creating the situations that allowed them to have both a successful clinical practice and productive research programs. There was as many ways of achieving this balance as there were speakers. Dr. Friedlander discussed several examples of successful programs, and Dr. Michael Haglund described the importance of serendipity in finding a productive situation in which to start a research career. Dr. Michael Haglund stressed the usefulness of incorporating a research project into the unique opportunities of a fellowship. The course was also able to put experiments in the operating room. And Dr. Robert Dempsey encouraged the participants not to give up at the first rejected grant, but to doggedly pursue our ideas.

Important opportunities for questions also occurred outside of the lectures. In fact, the between-session period was especially useful at the MBL, we were able to engage in academic conversations over hot dogs or a beer. The social settings in addition, residual and different programs were able to interact with each other and compare our experiences. It was very interesting to see the different ways in which different hospitals/ programs manage similar neurosurgical problems, such as surgical versus endovascular management of ruptured aneurysms. Many of us residents had not seen each other since we were interviewing for the Match and it was a great to see the familiar faces.

Between lectures and meals, there was still time to explore the MBL and its surroundings. The University is just a short drive from Woods Hole but was accessible 24 hours a day and provided a quiet place for reading and writing. There was also the opportunity for running along the coast or up past the lighthouse. In addition, many residents took advantage of Wood Hole’s only open bar in the off season. Captain Kingly, for evening entertainments, to indulge the inquisitive drive that got me interested in research to begin with as a college student.

Generous Educational Grants

We acknowledge generous sponsorship, level grants from STRYKER and MARATHON and generous educational grants in support of the 2005 RUNN Course by MM MARATHON MEDICAL INC. These grants paid for the purchase of textbooks for each participant and subsidized faculty travel and honoraria costs.

Toward RUNN 2006 and Beyond!

We have finalized space contracts with the MBL for the year 2006 through 2009. RUNN 2006 will take place from October 21-28, 2006. For those of you interested in volunteering as Coordinators, I encourage you to contact the MBL to book your space now. We hope that the RUNN courses will also attract fellows and young faculty at formative states of their academic careers, and to practicing neurosurgeons who want to start their future neurosurgical careers.