

2009 Advanced Gamma Knife Course

Wednesday, September 16, 2009

7:15 - 8:00 a.m.	<i>Breakfast- Jordan Hall Conference Center</i>
8:00 - 8:15 a.m.	Dr. Mark Shaffrey - Opening remarks
8:15 - 8:45 a.m.	Dr. Edward Nemergut - Monitored anesthesia for Gamma Knife (GK) frame placement
8:45 - 10:00 a.m.	Dr. Jason Sheehan - Hands-on in the OR for frame placement and description of changes with frame application and use
10:00 - 10:10 a.m.	<i>Break</i>
10:10 - 10:30 a.m.	Dr. Prashant Raghavan - Neuro-imaging for GKRS of pituitary adenomas
10:30 - 11:00 a.m.	Dr. Mary Lee Vance - Endocrine considerations for Cushing's Disease, Nelson's, and non-functioning adenomas; patient selection for the GK
11:00 - 11:30 a.m.	Dr. Michael Thorner - Endocrine considerations for acromegaly and prolactinomas; patient selection for the GK
11:30 -12:00 p.m.	Dr. Steve Newman - Ophthalmological considerations for pituitary patients undergoing Gamma Knife Surgery (GKS)
12:00 - 1:00 p.m.	<i>Lunch</i>
1:00 -1:30 p.m.	Dr. John Jane, Jr. - Endoscopic Resection of pituitary adenomas versus GKS
1:30 - 2:00 p.m.	Dr. Edward Oldfield - Transsphenoidal Microcapsular Resection of pituitary adenomas versus GKS
2:00 - 2:15 p.m.	Dr. Jason Sheehan - Gamma Knife Surgery for pituitary adenomas. Methods to avoid damage to the Optic Apparatus
2:15 - 2:45 p.m.	Roundtable discussion on GKS for pituitary adenomas with Drs. Oldfield, Newman, Jane Jr., Sheehan, Thorner, and Vance
2:45 - 3:00 p.m.	<i>Break</i>
3:00 - 4:00 p.m.	Dr. David Schlesinger, Dr. Jason Sheehan, and Dr. Chun-Po Yen - Hands-on Dose Planning <ul style="list-style-type: none"> •Strategy with the Perfexion •Dynamic beam shaping and shielding •Composite Shots •Conformality Index •Dose Gradient •Discussion of participants' cases
6:30 p.m.	Dinner

Thursday, September 17, 2009

6:30 - 7:00 a.m.	<i>Breakfast-Jordan Hall Conference Center</i>
7:00 - 8:00 a.m.	Dr. David Schlesinger and Dr. Al Aqualino Hands-on Perfexion Unit Technical Description <ul style="list-style-type: none"> •Radiation Unit Safety •Calibration and Practical Physics •Patient Positioning Systems •Control Systems •Pertinent NRC Regulations •Commissioning a Perfexion
8:00 - 8:30 a.m.	Dr. Prashant Raghavan - Neuro-imaging of AVMs for GKRS (Image Distortion in Radiosurgery)
8:30 - 9:00 a.m.	Dr. Aaron Dumont - Embolization of AVMs prior to GKRS
9:00 - 9:30 a.m.	Dr. Neal Kassell - Surgical Resection versus GKRS of AVMs
9:30 - 10:00 a.m.	Dr. Mark Quigg - Epilepsy in AVM GK Patients
10:00 - 10:15 a.m.	<i>Break</i>
10:15 - 11:00 a.m.	Dr. Ladislau Steiner GKS for Arteriovenous Malformations <ul style="list-style-type: none"> •Value of Embolization before GKS •Patient selection for GKRS •Treatment of Large AVMs •Adverse effects
11:00- 11:30 a.m.	Roundtable discussion on GKS for vascular lesions with Dr. Aaron Dumont, Dr. Neal Kassell, and Dr. Ladislau Steiner
11:30 - 12:30 p.m.	<i>Lunch</i>
12:30 - 1:00 a.m.	Dr. Neal Kassell - High intensity focused ultrasound applications for Intracranial Pathology. Optional tour of UVA's HIFU center
1:00 - 2:00 p.m.	Drs. Jason Sheehan, David Schlesinger, and Chun-Po Yen - Hands-on Dose Planning with Gamma Plan PFX. Discussion of participants' cases
2:00 - 3:00 p.m.	Dr. Jason Sheehan and Dr. David Schlesinger Demonstration of Gamma Knife Perfexion Workflow and presentation of Unit Effect on Physician efficiency
3:00 p.m.	Historical Tour of the University of Virginia
6:30 p.m.	Dinner

Friday, September 18, 2009

6:30 - 7:00 a.m.	<i>Breakfast-Jordan Hall Conference Center</i>
7:00- 8:00 a.m.	Dr. David Schlesinger and Dr. Al Aqualino Hands-on with the Perfexion <ul style="list-style-type: none"> •Quality Assurance •Clearance Procedures •Emergency Procedures •Radiation Safety •Basic Workflow
8:00 - 8:30 a.m.	Dr. David Schiff Medical management of brain metastasis patients
8:30 - 9:00 a.m.	Dr. Mark Shaffrey Surgical Resection versus GKS of brain metastasis
9:00 - 9:30 a.m.	<i>Break</i>
9:30 - 10:00 a.m.	Dr. James Larner Radiobiology of Radiosurgery WBRT versus GKS for brain metastasis
10:00 - 10:30 a.m.	Dr. Tyvin Rich <ul style="list-style-type: none"> • Circadian alterations in cell-cycle profile and radiosensitivity • Radiation toxicity with WBRT and GKS
10:30 - 11:00 a.m.	Dr. Jason Sheehan Gamma Knife Surgery (GKS) for brain metastasis
11:00 - 11:30 a.m.	Roundtable discussion on Gamma Knife Surgery for brain metastasis with Dr. Jason Sheehan, Dr. Mark Shaffrey, Dr. David Schiff, Dr. James Larner and Dr. Tyvin Rich
11:30 - 12:30 p.m.	<i>Lunch</i>
12:30 - 1:30 p.m.	Drs. David Schlesinger, Jason Sheehan, and Chun-Po Yen Hands-on dose planning strategy with the Perfexion and discussion of participants' cases
1:30 - 2:30 p.m.	Sophie Lee Yu Coding and reimbursement for the GK Perfexion
2:30 - 3:00 p.m.	Dr. Jason Sheehan Review and concluding remarks
OPTIONAL	Tour of Monticello

2009 Advanced Gamma Knife Course

Course Information

Date, Time, and Location

Participants will arrive on the evening of September 15, 2009. Classes will begin Wednesday, September 16, 2009 at 8:00 a.m. in the Jordan Hall Conference Center situated next to the Health Science Library in the UVA Medical Complex. The course will conclude September 18, 2009 at 2:00 p.m.

Topics

Gamma Knife Perfexion with specific focus on its use for AVMs, Pituitary Adenomas, and Brain Metastases.

Size and Participation

Individual participation in discussion and hands-on exercises is expected. The course is limited to 20 participants to foster an effective learning environment. TARGET AUDIENCE: Neurosurgeons, Medical Physicist, Radiation Oncologists, Medical Oncologist, Neuro-Oncologist and Otolaryngologists.

Course Overview

In this course, participants will develop a fundamental knowledge of radiosurgical principles using the Gamma Knife (GK) Perfexion. We will cover the use of the GK Perfexion. Participants will have a thorough knowledge of all aspects of Perfexion's practical for intracranial radiosurgery.

We will focus upon the nuances of Gamma Knife surgery for the treatment of AVMs, Pituitary Adenomas, and Brain Metastases. For AVMs, we will detail our protocol and outcomes for large AVMs, the role of embolization, retreatment of AVMs, a definition of sub-total obliteration and its prognosis, and the delayed changes (e.g. cyst formation and neoplasia) that may follow radiosurgery.

For pituitary adenomas, we will highlight the challenges of retreatment and treatment when there is no discernible lesion on MRI. We will outline the timing for endocrinological remission and the small chance of recurrence despite an initial remission. The potential complications (e.g. delayed hypopituitarism, visual dysfunction, secondary tumors, and stroke) associated with Gamma Knife surgery for pituitary adenomas will also be detailed. The importance of creating an appropriate distance between the tumor and optic pathways prior to Gamma surgery and methods for achieving this will be discussed.

With regard to brain metastases, we will focus on the changing treatment paradigms with regard to the management of patients with stage IV carcinoma. Gamma Knife surgery along with other treatment options will be discussed. In particular, the role of initial and repeat GKS for the Brain Metastasis along with GKS of a Surgical Resection cavity that will be discussed in the fall.

The course will also offer much "hands-on" training. We will schedule cases relevant to the particular topics being covered on each

day. Each day will begin with stereotactic frame placement performed in the operating room. The advantages of frame placement under monitored anesthesia will be discussed. Participants will observe frame placement in the operating room.

In order to offer a diverse and well rounded course, we have invited others to speak about the history and future of radiosurgery and the roles of medical management, microsurgery and neuro-interventional approaches in the context of radiosurgery patients.

In summation, we believe the course outlined below will represent a course unlike that offered by other institutions. It will hopefully help allow us to share a different philosophy and a set of techniques not covered in other courses or written about in the literature.

Accreditation

The University of Virginia School of Medicine is accredited by the AC-CME to provide continuing medical education for physicians.

The University of Virginia School of Medicine designates this continuing medical education activity for up to 19.75 hours in category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

The University of Virginia School of Medicine awards 0.1 CEU (Continuing Education Unit) per contact hour to each non-physician participant who successfully completes this educational activity. The CEU is a nationally recognized unit of measure for continuing education and training activities that meet specific educational training requirements. The University of Virginia School of Medicine maintains a permanent record of participants who have been awarded CEUs.

University of Virginia Faculty Lecturers

Al Aqualino, PhD

Division of Medical Physics
Department of Radiation Oncology

Aaron Dumont, MD

Department of Neurosurgery

John Jane, Jr., MD

Department of Neurosurgery

Neal F. Kassell, MD

Department of Neurosurgery

James Larner, MD

Department of Radiation Oncology

Edward Nemergut, MD

Department of Anesthesiology

Steven A. Newman, MD

Director of the Division of Neuro-Ophthalmology

Edward Oldfield, MD

Professor of Neurosurgery

Prashant Raghavan, MD

Director of the Division of Neuro-Radiology

Mark Quigg, MD

Department of Neurology

Tyvin A. Rich, MD

Department of Radiation Oncology

Mark Shaffrey, MD

Department of Neurosurgery

David Schiff, MD

Department of Neurology

David Schlesinger, PhD

Lars Leksell Gamma Knife Center

Jason P. Sheehan MD, PhD

Department of Neurosurgery

Ladislau Steiner MD, Ph.D

Department of Neurosurgery

Michael Thorne, MD

Division of Endocrinology and Metabolism

Mary L. Vance, MD

Division of Endocrinology and Metabolism

Chun-Po Yen, MD

Department of Neurosurgery

Ms. Sophie Lee Yu

Department of Neurosurgery / Gamma Knife

Area Information

Meals and Lodging

All meals are included with the advanced course. Transportation is provided to and from lodging, course location and social events. Breakfast, lunch, dinner and a variety of refreshments will be provided through catered meals. For more information about lodging, please see the contact information below.

Hampton Inn and Suites - \$113 weekday rate and \$163 weekend rate beginning Friday (+ tax) each night

900 West Main St.

phone: (434) 923-8600 fax: (434) 923-8601

Boar's Head Inn - \$169 weekday rate and \$269 weekend rate beginning Friday (+ 10% tax & \$8 resort fee) each night

Route 250 West

phone: (800) 476-1988 fax: (434) 296-2181

email: reserve@boarsheadinn.com

Courtyard by Marriott - \$119 weekday rate and \$169 weekend rate beginning Friday (+ tax) each night

1201 West Main St.

phone: (434) 977-1144 fax: (434) 245-0978

Charlottesville - home to the University of Virginia, the birthplace of Thomas Jefferson, and a true representative of the heartland of historic Virginia. Located in central Virginia in the foothills of the Blue Ridge Mountains, Charlottesville has a population of 42,000 in a rural/metropolitan area of about 88,400. Washington, D.C. is less than two hours away, but there are many things to see and do here in town.

Jefferson's Academical Village - the University of Virginia is famed for the beauty of its buildings. Designed by Thomas Jefferson, they are considered among the finest examples of classic American architecture. The University is also noted for its scholarly achievements and historical associations. It began with Jefferson's concept and design for a community of scholars, and "academical village." The Rotunda, modeled after the Roman Pantheon, served as focal point, library and classroom. Two ranges extended from the Rotunda. Professors lived and taught in the large Pavilions, and students lived in the smaller rooms in between. This tradition is carried on today and the Department of Neurological Surgery holds its teaching conferences in Pavilion V regularly.

University of Virginia Health System - can trace its beginnings directly to Thomas Jefferson, under whose leadership as Rector, eight schools including a School of Anatomy and Medicine opened on March 7, 1825. Jefferson chose the school's original faculty, a single professor, Robley Dunglison, whose first class of 20 students met in his home on the Grounds. Walter Reed is

among the alumni of the Medical School. The teaching hospital, which opened in 1901 as a 25-bed facility, is today housed in a new eight-story building with 597 beds and 30 bassinets. It has nearly 100 intensive care beds. A recent report by U.S. News and World Report listed the Neurosciences clinical program at UVA as among the best in the nation.

Monticello - Thomas Jefferson began construction on this architectural masterpiece in 1769 and continued for more than 40 years. He also designed the grounds of his "little mountain home." The roundabout walks, oval flower beds, vegetable gardens, vineyards, grove, and graveyard have been fully restored. (434) 984-9800 Hours 8 a.m. to 5 p.m. (Fee)

Michie Tavern Museum - This famous tavern of the 1700's still serves meals in the "Ordinary," a converted log cabin used 200 years ago. Guests enjoy food of the colonial times and can tour the Tavern, outbuildings, general store, and Meadow Run Grist Mill. The general store sells handcrafts and antiques of Virginia. (434) 977-1234 Open year-round. (Fee)

Ash Lawn - Home of President James Monroe, Ash Lawn is a 550-acre historic estate & has been almost fully restored as a working plantation. Special events at Ash Lawn include operas, concerts, & festivals. (434) 293-9539 Hours: 9 a.m. to 6 p.m. (Fee)

Wineries - There are many local wineries that offer tours, wine tastings and sales. Ask us for further information.

Skyline Drive/Blue Ridge Parkway - Enjoy the beauty of the Blue Ridge Mountains, scenic overlooks, exhibits, & hiking trails. Located 25 miles west of Charlottesville with easy access via I-64.

For more information about Charlottesville & its surrounding area, visit: <http://www.charlottesville.org/> or <http://www.pursuecharlottesville.com/>

Other Information

Disclosure of faculty financial affiliations

The University of Virginia School of Medicine, as an ACCME accredited provider, endorses and strives to comply with the Accreditation Council for Continuing Medical Education (ACCME), Standards of Commercial Support, Commonwealth of Virginia statutes, University of Virginia policies and procedures, and associated federal and private regulations and guidelines on the need for disclosure and monitoring of propriety and financial interests that may affect the scientific integrity and balance of content delivered in continuing medical education activities under our auspices. The University of Virginia School of Medi-

cine requires that all CME activities accredited through this institution be developed independently and be scientifically rigorous, balanced and objective in the presentation/discussion of its content, theories and practices. All faculty presenters participating in an accredited CME activity are expected to disclose relevant financial relationships with commercial entities occurring within the past 12 months (such as grants, or research support, employee, consultant, stock holder, member of speakers bureau, etc.) The University of Virginia School of Medicine will employ appropriate mechanisms to resolve potential conflicts of interest to maintain the standards of fair and balanced education to the reader. Questions about specific strategies can be directed to the Office of Continuing Medical Education, University of Virginia School of Medicine, Charlottesville, Virginia.

The faculty and staff of the University of Virginia of Continuing Medical Education have no financial affiliations to disclose.

Disclosure of discussion of non-FDA approved uses for pharmaceutical products and/or medical devices

The University of Virginia School of Medicine, as an ACCME provider, requires that all faculty presenters identify and disclose any "off label" uses for pharmaceutical and medical devices/products. The University of Virginia School of Medicine recommends that each physician fully review all the available data on new products or procedures to instituting them with patients.

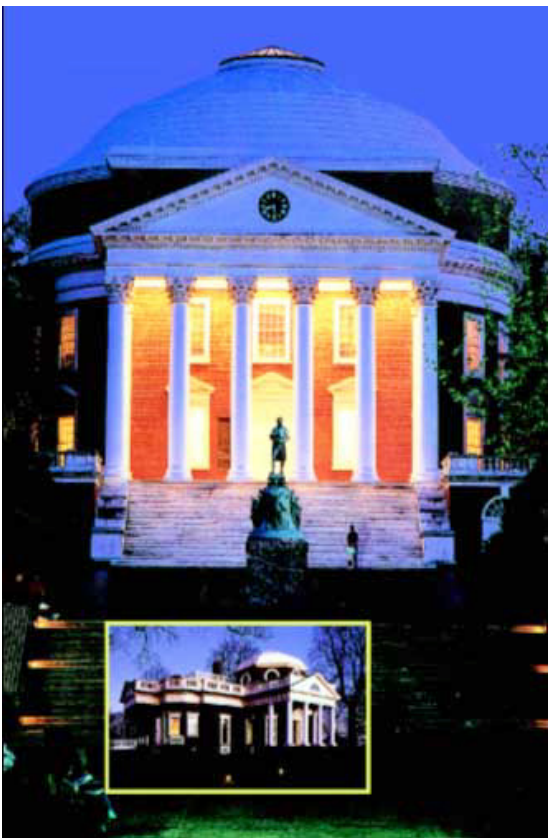
Disclosure for attendance records & certificate distribution

The University of Virginia Office of Continuing Medical Education requires that all participants sign attendance sheets daily to confirm participation in the CME activity for that day. Certificates of attendance, designating the maximum number of hours of participation, are distributed to each participant at the CME activity. Replacement certificates can be obtained from the Office of Continuing Medical Education by submitting a request for a replacement certificate accompanied by the \$10 fee.

Special Needs

The Americans with Disabilities Act of 1992 requires that all individuals, regardless of their disabilities, have equal access. The Office of Continuing Medical Education of the University of Virginia School of Medicine is pleased to assist participants with special needs. **Requests need to be made in writing and sent to the Office of Continuing Medical Education, Box 800711, 6202 Hospital West, University of Virginia School of Medicine, Charlottesville, VA 22908-0711.**

Advanced Gamma Knife Course
at the
University of Virginia
 Jordan Hall Conference Center
 September 16-18, 2009



Department of Neurological Surgery
University of Virginia, Charlottesville, VA

Sponsored by:
 The Office of Continuing Medical Education
 University of Virginia, Charlottesville, VA

Please mail this registration form and payment to:

UVA Dept. of Neurosurgery
 PO Box 800212
 Atn: Sophie Lee Yu, Conference Coordinator
 Charlottesville, VA 22908 USA
 Phone: 434-924-2336
 Fax: 434-977-6279
 E-mail: sly9p@virginia.edu

____ Last Name First Name Initial Degrees

____ Department and Institution

____ Mailing Address

____ Work Phone Fax E-mail

____ Date of Birth (required for tracking CME credits/CEU)

____ Special needs (sight impaired, wheelchair, etc.):

Registration fee includes breakfast, lunch, and dinner as described in the program. Make checks payable on a U.S. bank only to the UVA Dept. of Neurosurgery. Registration will not be accepted without tuition payment. Cancellations must be made two weeks prior to the start of the course; otherwise the tuition will count towards a future training course.

____ Check Enclosed
 ____ Dept. check to follow

Credit Card registration:

____ VISA ____ Master Card ____ AMEX ____ Discover
 Account no. _____
 Expiration Date _____
 Signature _____

Check all that apply:

____ **Physicians and Medical Physicists Course \$ 3,000**
 ____ **Nurse - \$2,500 Residents/Fellow \$ 750**
 ____ **Spouse / Guest (for all social events) \$200**
 ____ **Attending social functions on** ____ Wed ____ Thurs

Please indicate to us your background:

____ Neurosurgeon
 ____ Radiation Oncologist
 ____ Medical Physicist
 ____ Other (Please describe) _____

You May Also Register online at:

[http://www.healthsystem.virginia.edu/
 internet/gammaknife/conference/advanced_
 course.cfm](http://www.healthsystem.virginia.edu/internet/gammaknife/conference/advanced_course.cfm)

Registrations will not be processed unless full payment is received.

Please Describe your Experience with Gamma Knife:

None _____
 Rare (Less than 4 times a Year) _____
 Quarterly _____
 Monthly _____
 Weekly _____