PROGRAM

EIGHTY SIXTH
ANNUAL MEETING
OF THE
AMERICAN
ASSOCIATION
OF
NEUROPATHOLOGISTS

JUNE 10-13, 2010

LOEWS PHILADELPHIA HOTEL

PHILADELPHIA, PENNSYLVANIA

This activity is sponsored by the American Association of Neuropathologists

For additional information about the accreditation of this program, please contact the AANP office at 216-368-3671 or via email at aanp@case.edu

CONTENTS

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OFFICIAL JOURNAL

Journal of Neuropathology and Experimental Neurology
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E-mail jnen@pathology.wisc.edu
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DIAGNOSTIC SLIDE SESSION

Anthony T. Yachnis, MD, *University of Florida Medical College*, Moderator
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TARGET AUDIENCE

The educational design of this activity addresses the needs of physicians and scientist in the field of neuropathology involved in the diagnosis and/or treatment of patients with neurological disorders.

NEEDS STATEMENT

The purpose of this activity shall be to advance the knowledge of new techniques, scientific findings, treatments, practice and the teaching of neuropathology. The practice of neuropathology is understood to include diagnosis of diseases of the nervous system, and teaching and training in the science and practice of neuropathology

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OVERALL EDUCATIONAL OBJECTIVES

After completing this activity, the participant should be better able to:

1. Cite new information on the pathological basis of neurological diseases.

2. Explain new information on the practical laboratory diagnosis of neurological diseases.

3. Discuss the changing role neuropathologists play in the study and diagnosis of neurological diseases.

DISCLAIMER

Participants have an implied responsibility to use the newly acquired information to enhance patient outcomes and their own professional development. The information presented is this activity is not meant to serve as a guideline for patient management. Any procedures, medications, or other courses of diagnosis or treatment discussed in this activity should not be used by clinicians without evaluation of patient conditions and possible contraindications on dangers in use, review of any applicable manufacturer's product information, and comparison with recommendations of other authorities.

CME CREDIT

Physician Accreditation Statement

The American Association of Neuropathologists is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Physician Credit Designations

The American Association of Neuropathologists designates this educational activity for a maximum of 24.5 *AMA PRA Category 1 Credits*^{TM} . Physicians should only claim credit commensurate with the extent of their participation in the activity. The chart below details the maximum number of credit hours a physician can earn for each educational activity being certified for *AMA PRA Category 1 Credit*^{TM} at this year's Annual Conference.

Activity	CME Credit Hours
Special Course	6.5
Scientific Sessions	Platform=8; Posters = 2
Korey Lecture	1
DeArmond Lecture	1
Diagnostic Slide Session	3
Presidential Symposium	3
Total	24.5

Disclosure of Unlabeled Use:
This educational activity may contain discussion of published and/or investigational uses of agents that are not indicated by the FDA. The American Association of Neuropathologists do not recommend the use of any agent outside of the labeled indications.

The opinions expressed in the educational activity are those of the faculty and do not necessarily represent the views of any organization associated with this activity. Please refer to the official prescribing information for each product for discussion of approved indications, contraindications and warnings.

Attendees should claim credit only for those activities attended:
In order to receive credit for this activity, the participant must complete the CME credit application in the registration packet and return it to the American Association of Neuropathologists office at:

American Association of Neuropathologists
C/o Peggy Harris
Case Western Reserve University
2103 Cornell Road, WRB 5101
Cleveland, OH 44106

DISCLOSURE/CONFLICT OF INTEREST

The American Association of Neuropathologists requires instructors, planners, managers and other individuals who are in a position to control the content of this activity to disclose any real or apparent conflict of interest they may have as related to the content of this activity. All identified conflicts of interest are thoroughly vetted by AANP for fair balance, scientific objectivity of studies mentioned in the materials or used as the basis for content, and appropriateness of patient care recommendations.

The ***Planners and Managers*** reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME activity:

Name of Planner or Manager	**Reported Financial Relationship**
Eileen **Bigio**, Northwestern University Feinberg School of Medicine	None
Andrew **Bollen**, University California San Francisco	None
Steven L. **Carroll,** University of Alabama at Birmingham	Disclosure will be provided on-site
Elizabeth **Cochran**, Medical College of Wisconsin	None
Mark **Cohen**, University Hospitals Case Medical Center	None
Stephen W. **Coons**, St. Joseph's Hospital & Medical Center	Advisory Board of Global Media
Sandra L. **Cottingham**, Spectrum Health Hospitals	None
Barbara J. **Crain**, Johns Hopkins University	None
Sidney E. **Croul**, University of Toronto	None
Rebecca **Folkerth**, Brigham and Woman's Hospital/ Children's Hospital of Boston	None
Jonathan **Fratkin**, University of Mississippi	None
Gregory N. **Fuller**, MD Anderson Cancer Center	None
Kar-Ming **Fung**, University of Oklahoma	None

The ***Planners and Managers*** reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME Activity

Name of Faculty/Presenter	**Reported Financial Relationship**
Murat **Gokden**, University of Arkansas	None
Jeffrey A. **Golden**, Children's Hospital of Philadelphia	None
Kymberly A. **Gyure**, West Virginia University	None
Eyas M. **Hattab**, Clarian Pathology Laboratory	None
William F. **Hickey**, Dartmouth Medical School	Consultant for Orphagen, San Diego CA Governor – College of American Pathologists Chair of Education Council - CAP
John M. **Lee,** Loyola University	Consultant/Reviewer For Up to Date on CJD articles; Holds group patents with Cornelli Consulting
David N. **Louis**, Massachusetts General Hospital	None
William **McDonald**, Abbott Northwestern Hospital	None
Steven A. **Moore**, University of Iowa	None
Kathy L. **Newell**, University of Kansas Medical Center	None
Arie **Perry**, Washington University School of Medicine	None
George **Perry**, University of Texas at San Antonio	Consultant for Takeda Pharma, Company Advisory Board of Neurotez and a stockholder in Neurotez and Voyager.
Suzanne **Powell**, The Methodist Hospital	None
C. Harker **Rhodes**, Dartmouth-Hitchcock Medical Center	None
Amyn **Rojian**i, Medical College of Georgia	Advisory boards for Roche Diagnostics/Ventanna Medical Systems Inc. and Eisai Pharmaceuticals
Elisabeth J. **Rushing**, Armed Forces Institute of Pathology	None
Shahriar M. **Salamat**, University of Wisconsin Hospital	None
Raymond A. **Sobel,** Stanford University School of Medicine	None
Tarik **Tihan**, University California San Francisco	None
Karen M. **Weidenheim**, Montefiore Medical Center	None
Charles L. **White III,** University of Texas Southwestern Medical Center	None
Anthony T. **Yachnis**, University of Florida Medical College	None

The ***faculty*** reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME Activity

Adekunle **Adesina**, Baylor College of Medicine	None
Homa **Adle-Biassette**, INSERM	None
Irina **Alafuzoff**, Uppsala University	None
Kenneth **Aldape**, MD Anderson Cancer Center	None
Dana **Altenburger**, Orlando Health	None
Neil **Anderson**, Medical College of Wisconsin	None

The ***faculty*** reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME Activity

Name of Faculty/Presenter	**Reported Financial Relationship**
Liat **Apel-Sarid**, University of British Columbia	None
Fahad **Bafakih**, West Virginia University	None
Ada **Baisre**, UMDNJ- New Jersey Medical School	None
Frank **Bastian**, LSU Agricultural Center	None
Thomas **Beach**, Sun Health Research Institute	None
Marie **Beckner**, Louisiana State University	None
Christian **Begue**, Institute for Neurological Research, FLENI	None
Jose **Bonnin**, Indiana University School of Medicine	None
Thea **Brennan-Krohn**, Rhode Island Hospital	None
Peter C. **Burger**, Johns Hopkins University	None
Nigel **Cairns**, Washington University School of Medicine	None
Ignazio **Cali**, Case Western Reserve University	None
Sandra **Camelo-Pirague**, Massachusetts General Hospital	None
Valentina **Caracciolo**, Temple University Philadelphia	None
Rudy **Castellani**, University of Maryland	None
Karla **Castellanos**, University of Illinois at Chicago	None
Giovanna **Cenacchi**, Universita' di Bologna	None
Howard **Chang**, Michigan State University	None
Stephen **Coons**, Barrow Neurological Institute	Advisory Board for Global Media
John **Crary**, Columbia University	None
Sidney **Croul**, University of Toronto	None
Peter **Cummings**, Office of the Chief Medical Examiner, Boston, MA	None
Joseph **Dalmau**, University of Pennsylvania	Research support from Euroimmun, Inc.
Suzanne **de la Monte**, Rhode Island Hospital	None
Jeremy **Deisch**, University Texas Southwestern Medical Center	None
Marc **Del Bigio**, University of Manitoba	None
John **Donahue**, Rhode Island Hospital	None
Steven **Dubner**, Northwestern Memorial Hospital	None
Charles **Eberhart**, John Hopkins University	Consultant and Licensing agreement with Stemline Therapeutics
David **Ellison**, St. Jude Children's Research Hospital	None
Michael **Farrell,** Beaumont Hospital	None
Phyllis **Faust**, Columbia University	None
Yakov **Fellig**, Hadassah-Hebrew University Medical Center	None
Adam **Fleming**, British Columbia Children's Hospital	None
Rebecca **Folkerth**, Brigham and Woman's Hospital/ Children's Hospital of Boston	None

The ***faculty*** reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME Activity

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Sayaka **Funabe**, Tokyo Metropolitan Geriatric Hospital & Institute of Gerontology	None
Felix **Geser**, University of Pennsylvania	None
Bernardino **Ghetti**, Indiana University	None
Felice **Giangaspero**, University of Sapienza	None
Caterina **Giannini**, Mayo Clinic College of Medicine	None
Mark **Gilbert**, MD Anderson Cancer Center	Research support and honorariums from Merck and Genentech
Murat **Gokden**, University of Arkansas	None
Todd **Golde**, Mayo Clinic	Consultant and Research Support: Satoris, Lundbeck
Francoise **Gray**, Hôpital Lariboisiére	None
Claudia **Greco**, University of California Davis Medical Center	None
Katarzyna **Gustaw-Rothenberg**, Case Western Reserve University	None
David **Gutman**, Washington University St. Louis	None
Matthew **Hagen**, Indiana University School of Medicine	None
Brent **Harris**, Dartmouth Medical School	Research support – Reata Pharmaceuticals Inc.
Kimmo **Hatanpaa**, University of Texas Southwestern Medical Center	Consultant for Biosite
Cynthia **Hawkins**, The Hospital for Sick Children	None
Lili-Naz **Hazrati**, University of Toronto	None
Jonathan **Heath**, University of Maryland	None
Elizabeth Petri **Henske**, Brigham and Women's Hospital, Harvard Medical School	None
Mark **Hiken**, Oregon Health & Science University	None
Jason **Huse**, Memorial Sloan-Kettering Cancer Center	None
Kenneth **Hutchins**, Miami Dade County Medical Examiner Department	None
Boro **Ilievski**, New York State Psychiatric Institute	None
Michael **Jansen**, Massachusetts General Hospital	None
Kun **Jiang**, Penn State – Hershey Medical Center	None
Karen **Johnson**, Indiana University School of Medicine	None
Mahlon **Johnson**, University of Rochester School of Medicine	None
Alexander **Judkins**, Children's Hospital of Philadelphia	None
Christos **Katsetos,** Drexell Univeristy College of Medicine and St. Christopher's Hospital for Children	None
Syed **Kazmi**, University of Nebraska Medical Center	None

The ***faculty*** reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME Activity

Name of Faculty/Presenter	**Reported Financial Relationship**
Keyla **Kleyser-Sugrue**, Hartford Hospital	None
Julia **Kofler**, University of Pittsburgh	None
Wataru **Kudo**, Case Western Reserve University	None
Sunhee **Lee**, Albert Einstein College of Medicine	None
Edward **Lee,** University of Pennsylvania	None
Hyunpil **Lee**, Case Western Reserve University	None
Katherine **Lindstrom**, University of Virginia	None
Jian-Qiang **Lu**, University of Alberta	None
Branavan **Manoranjan**, McMaster Unviersity	None
Sarah **Martin**, Indiana University School of Medicine	None
Ann **McKee**, Bedford VAMC/Boston University School of Medicine	None
Rupal **Mehta**, University of California Los Angeles	None
C. **Miller**, University of North Carolina	None
Carol **Miller**, University of Southern California School of Medicine	None
Douglas **Miller**, University of Missouri School of Medicine	None
Wael **Milyani**, West Virginia University	None
Manjari **Mishra**, Northwestrn Cognitive Neurology and Alzheimer Disease Center	None
Bret **Mobley**, Stanford Hospital Pathology	None
Patricia **Moody**, University of South Florida	None
Abir **Mukherjee**, The Methodist Hospital	None
Karra **Muller**, University of Kansas Medical Center	None
David **Munoz**, St. Michael's Hospital, University of Toronto	None
Peter **Nelson**, University of Kentucky	None
Kathy **Newell**, University of Kansas Medical Center	None
Hilary **Nickols**, Vanderbilt University	None
Angeliki **Nikolakopoulou**, Mount Sinai School of Medicine	None
Brent **Orr**, The Johns Hopkins Medical Institutions	None
Bogdan F. **Papescu**, Mayo Clinic	None
Wener **Paulus**, University Hospital Münster	None
Arie **Perry**, Washington University School of Medicine	None
Joanna **Phillips**, University of California San Francisco	None
Christopher **Pierson**, Nationwide Children's Hospital and Ohio State University	None
Scott **Plotkin,** Massachusetts General Hospital	Research Support from PTC Therapeutics
Gianfranco **Puoti**, Case Western Reserve University	None
Jiang **Qian**, Albany Medical College	None

The ***faculty*** reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME Activity

Name of Faculty/Presenter	**Reported Financial Relationship**
Shakti **Ramkissoon**, Brigham and Women's Hospital	None
Tamas **Revesz**, University College of London	Consultant MerckSerono, Research Support Orion Pharma
Roy **Rhodes**, Robert Wood Johnson Medical School	None
Miguel **Riudavets**, FLENI	None
Fausto **Rodriguez**, Mayo Clinic	None
Amyn **Rojiani**, Medical College of Georgia	Advisory boards for Roche Diagnostics/Ventanna Medical Systems Inc. and Eisai Pharmaceuticals
Erin **Rowe**, University of Connecticut Health Center	None
Mariarita **Santi**, Children's Hospital of Philadelphia	None
Peter **Saunders**, Baystate Medical Center	None
Bernd W. **Scheithauer**, Mayo Clinic	None
Gustavo **Sevlever**, FLENI	None
Leroy **Sharer**, UMD-New Jersey Medical School	None
Suash **Sharma**, Medical College of Georgia	None
Julia **Shields**, University of Maryland	None
Namita **Sinha**, University of Toronto	None
Mark A. **Smith**, Case Western Reserve University	Speakers Bureau Medivation/Pfizer; Consultant Advana Science, Avanex Life Sciences and Medivation; Stockholder Neurotez, Panacea and Voyager; CSO Neurotez
Matija **Snuderl**, Massachusetts General Hospital	None
Xianyuan **Song**, Hartford Hospital	None
Virawudh **Soontornniyomkij**, University of California San Diego	None
Charles **Specht**, Penn State-Hershey Medical Center	None
Jennifer **Stall**, Indiana University School of Medicine	Speakers Bureau Eisai
Thor **Stein**, Massachusetts General Hospital	None
Anat **Stemmer-Rachamimov**, Massachusetts General Hospital	None
Kimberly St**ogner-Underwood**, Virginia Commonwealth University Health System	None
Jeremy **Stone**, Case Western Reserve University	None
Yasuo **Sugita**, Kurume University School of Medicine	None
Masaki **Takao**, Mihara Memorial Hospital	None
Ana Lia **Taratuto**, Institute for Neurological Research, FLENI	None
Dimitri **Trembath**, University of North Carolina	None
Spencer **Tung**, University of California Los Angeles	None
Tibor **Valyi-Nagy**, University of Illinois Medical Center	None

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Scott R. **VandenBerg**, University of California San Diego	None
Sriram **Venneti**, University of Pennsylvania	None
Harry V. **Vinters**, University of California Los Angeles	None
Mark **Vitucci**, University of North Carolina	None
Fulin **Wang**, Chinese PLA General Hospital	None
Karen **Weidenheim**, Montefiore Medical Center	None
Cecilia **Wu**, University of New Mexico	None
Gang **Xu**, Children's Hospital of Boston and Harvard Medical School	None
David **Zagzag**, New York University	None

GENERAL INFORMATION

Hotel: Loews Philadelphia Hotel
1200 Market Street
Philadelphia, Pennsylvania 19107

Phone: 215-627-1200

ALL MEETING SESSIONS WILL BE HELD AT THE LOEWS PHILADELPHIA HOTEL

All platform presentations and general sessions (Special Lectures, Korey Lecture, DeArmond Lecture, Business Meetings, Diagnostic Slide Session, and Presidential Symposium) will be held in the **Regency Ballroom** of the hotel on the second floor mezzanine.

All poster sessions will be held in Regency C Ballroom on the second floor mezzanine.

PRE-REGISTRATION PICK-UP

Attendees pre-registered and pre-paid for the Special Course and/or Meeting will have their name badge, course syllabus, program booklets, reception ticket(s) and registration receipt ready for pick-up at the AANP Registration Desk, located in the Regency Foyer of the hotel on the second floor mezzanine. On-site registration, additional tickets for the Annual Reception, and additional copies of the May 2010 JNEN will be available at the Desk.

REGISTRATION DESK

Location	**Regency Foyer**	
Time	Thursday, June 10	6:30 am - 12 noon 6:30 pm – 9:00 pm
	Friday, June 11	7:00 am - 12 noon 5:30 pm – 6:00 pm
	Saturday, June 12	7:00 am - 12 noon

PLEASE, wear your name badge!

Your name badge is *required for admittance* to any function of the Association, including the Special Course, all Friday, Saturday and Sunday sessions, and the Friday evening reception.

NOTES to PRESENTERS

Platform Presenters (PowerPoint)

Please include in your presentation a conflict of interest slide.

All platform presentations will be held in either the **Regency Ballroom A or B** of the hotel. *All* general sessions (Special Lecture, Korey Lecture, Business Meetings, Diagnostic Slide Session, and Presidential Symposium) will be held in the **Regency Ballroom B**.

Presenters should use PowerPoint for their presentation.
All PowerPoint presentations will be transferred onto a show computer prior to the start time of each session. Each room will be equipped with a lectern, audience microphones, central computer (loaded with MS Office XP), LCD/Data projector, screens and a laser pointer.

Special Notes for PowerPoint presenters:

- Each speaker must bring his/her PowerPoint presentation on a disc (CD-ROM) or USB memory stick.
- Please title the presentation with your name (name.ppt).

- Macintosh users, be sure to save your presentation as .ppt (*your name.ppt)*. If the ".ppt" extension is not present in the file name, the file will not be recognized by the PC computer.
- Label your disc with your name, session name, time, and day of presentation. Your presentation will be transferred onto the show computer for each session by the technician. Please make sure your presentation is in its final form, since once loaded onto the show computer, no changes can be made.
- Please take your disc or memory stick to the room in which you will be presenting, Regency Ballroom A or B, at one of the times indicated below. ***It is your responsibility to get your file to the AV staff prior to your presentation.***
- The AV staff will be available to load your file onto the computer during scheduled evening and morning times. **These will be the *only* times available to you to load and test your presentation.**

Schedule for Loading PowerPoint Presentations

Load show computer in *Regency A or B*	
Thursday, June 10	6:45 am - 7:45 am 5:30 pm - 6:30 pm
Friday, June 11	6:45 am - 7:45 am 6:00 pm - 7:00 pm
Saturday, June 12	6:45 am – 7:45 am 6:30 pm – 7:45 pm (Congress Room, 4th Floor)
Sunday, June 13	6:45 am - 7:45 am

- **If you are presenting in a morning session, it is preferable to check in the previous day**. Same-day presentations may be loaded in the morning prior to session start time, but since this time necessarily is limited, you are encouraged to have your presentation loaded on the evening preceding your talk. Presenters at the evening Diagnostic Slide Session also will be able to submit their files on Saturday evening in the Congress Room on the fourth floor from 6:30-7:45 pm.
- To avoid time delays and potential problems with your presentation, you will ***not*** be allowed to use your own computer, although you may bring your laptop as a backup.

Notes to Poster Presenters

All poster sessions will be held in **Regency Ballroom C.** Posters will be displayed all day Friday (Poster Session I) and all day Saturday (Poster Session II). Posters should be up by 8:00 am and taken down by 6:30 pm the same day. The poster board size is 6 ft wide x 3 ft high. Please plan your poster to be at least a few inches smaller in each direction. The poster board surface and construction should accommodate either Velcro or push pins.

To encourage interaction with interested attendees, authors are asked to be present at their posters for discussion/questions during morning or afternoon refreshment breaks, at the following designated times:

	Fri June 11 ***Poster Session I*** ***Authors Present at:***	**Sat June 12** ***Poster Session II*** ***Authors Present at:***
***EVEN* Numbered Poster**	*10:00 - 10:30 am*	*4:00 – 4:30 pm*
***ODD* Numbered Poster**	*4:00 – 4:30 pm*	*10:00 - 10:30 am*

SPEAKER READY ROOM

Electronic preview equipment will be available in the ***Tubman Room*** on the third floor of the hotel.

Location	**Tubman Room**	
Time	Wednesday, June 9	7:00 pm - 9:00 pm
	Thursday, June 10	7:00 am - 5:30 pm
	Friday, June 11	7:00 am - 5:30 pm
	Saturday June 12	7:00 am - 5:30 pm

MICROSCOPE VIEWING ROOM

Multi-headed microscopes will be available in the ***Anthony Room*** on the third floor of the hotel.

Location	**Anthony Room**	
Time	Thursday, June 10	7:00 am - 5:30 pm
	Friday, June 11	7:00 am - 5:30 pm
	Saturday June 12	7:00 am - 5:30 pm

BUSINESS MEETING

Location	**Regency Ballroom B**	
Time	Friday, June 11	11:45 am - 12:45 pm
	Saturday June 12	11:45 am – 12:45 pm

The Award for ***Meritorious Contributions to Neuropathology*** will be presented on Friday, June 11.

SPECIAL MEETINGS BY INVITATION ONLY

Date	**Meeting**	**Time/Location**
Thurs June 10	Executive Council Meeting	6:00 pm Lescaze Room, 33rd floor of the hotel
Fri June 11	Constitution Committee Meeting	7:00 am Solefood restaurant
	JNEN Editorial Board Meeting	7:00 am Lescaze Room, 33rd floor of the hotel
	Trainee Luncheon	12:45 pm – 2:00 pm Lescaze Room, 33rd floor of the hotel
	Awards Committee Meeting	5:30 pm – 6:30 pm Solstice Private Dining Room
Saturday June 12	NP Program Directors Meeting	1:00 pm – 2:00 pm Roberts Boardroom
	Awards Committee Meeting	6:00 pm 7:30 pm Lescaze Room, 33rd floor of the hotel
	Professional Affairs	6:00 pm – 8:00 pm Roberts Boardroom, 33rd floor of the hotel
	Presidential Reception	6:30 pm – 8:00 pm Solstice Private Dining Room
Sun June 13	Founders Breakfast	7:00 am – 8:00 am Roberts Boardroom, 33rd floor of the hotel

ABSTRACTS

Abstracts of the papers presented in the program are published in the May 2010 issue of the *Journal of Neuropathology and Experimental Neurology*. Separate abstract books are not printed. Members should take their copy of the JNEN to the meeting. Non-member registrants will receive a copy at registration. A limited number of copies of the JNEN will be available for purchase at the Registration Desk for $5 each**.**

ANNUAL RECEPTION

The annual reception will be held 6:30 to 8:30 pm. Friday on the Thirty-Third floor of the hotel. Registrants and guests of the AANP are welcome to attend. There will be an open bar for the first 1.5 hours followed by a cash bar. Additional tickets are $20 each for guests of AANP attendees, and may be purchased at the registration desk or at the door. Several "prizes" will be awarded to trainees.

Location	**33rd Floor**	
Time	Friday, June 11	6:30 pm – 8:30 pm

SPONSORS and DONORS

This meeting is sponsored in part by generous contributions from several sponsors and donors. Please visit their displays and exhibits in the Regency Foyer

Location	**Regency Foyer**	
Time	Thursday, June 10	12:00 pm – 5:30 pm
	Friday, June 11	7:00 am - 5:30 pm
	Saturday June 12	7:00 am - 5:30 pm

MEETING EXHIBITORS

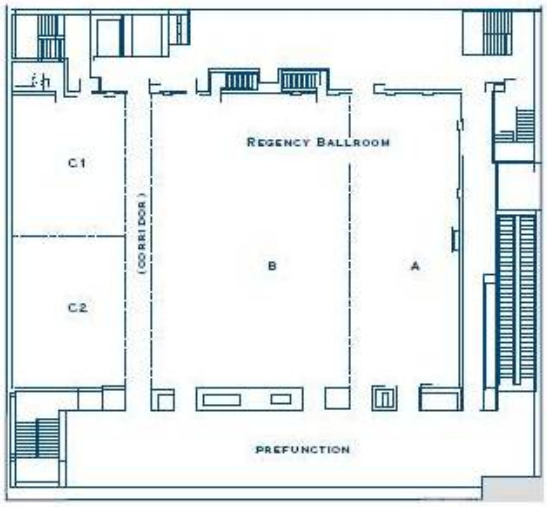
- Eisai Corportation
- iKaryos Diagnostics
- Wolter Kluwers Health
- Optical Apparatus Co. Inc.

RECEPTION PRIZE CONTRIBUTORS

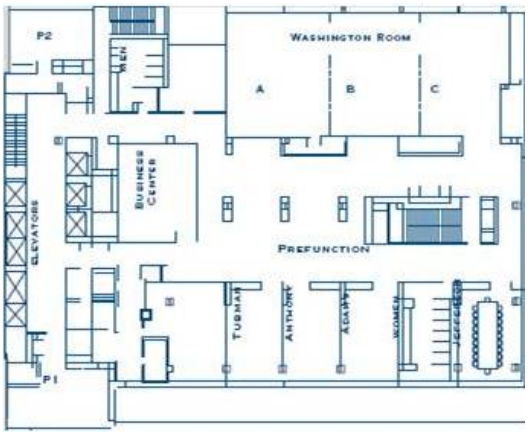
- Mosby/Saunders/Elsevier
- Wiley-Blackwell

Loews Philadelphia Hotel Floor Plan

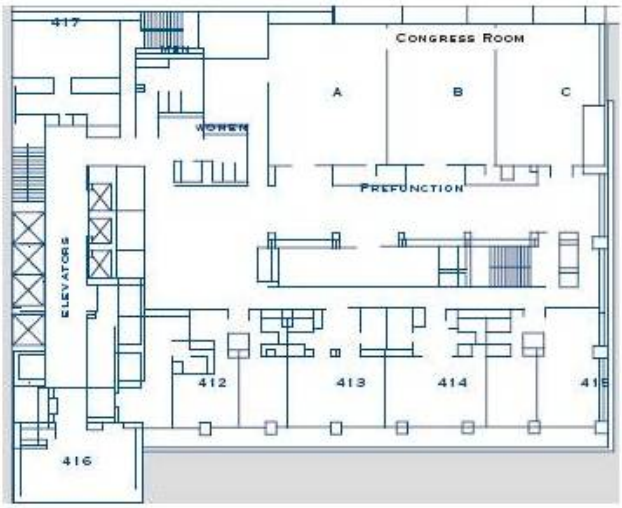
Second Floor



Third Floor



Fourth Floor



PROGRAM and SCIENTIFIC SESSIONS

SPECIAL COURSE:

Location	Regency Ballroom B	
Date/Time	Thursday, June 10	8:00 am - 5:15 pm
	Hereditary Tumor Syndromes of the Nervous System: Clinical, Pathological and Biological Updates. Directors: David N. Louis, MD and Anat Stemmer-Rachamimov, MD	

PLATFORM PRESENTATIONS

Location	Regency Ballroom A & B	
Date/Time	Friday, June 11	8:00 am – 4:30 pm
	Saturday, June 12	8:00 am – 4:30 pm

POSTER PRESENTATIONS

Location	Regency Ballroom C	
Date/Time	Friday, June 11 (Poster Session I)	8:00 am – 6:30 pm
	Saturday, June 12 (Poster Session II)	8:00 am – 6:30 pm

SAUL R. KOREY LECTURE

Location	Regency Ballroom B	
Date/Time	Friday, June 11	10:30 am - 11:30 am
	A Long Term Perspective on Pediatric CNS Tumors Peter C. Burger, MD *John Hopkins University, Baltimore, Maryland, USA*	

DEARMOND LECTURE

Location	Regency Ballroom B	
Date/Time	Saturday, June 12	4:30 pm – 5:30 pm
	Alzheimer's Disease: Models and Therapeutics Todd Golde, MD *Mayo Clinic, Jacksonville, Florida, USA*	

DIAGNOSTIC SLIDE SESSION

Location	Congress Room on the 4th Floor	
Date/Time	Saturday, June 12	8:00 pm -11:00 pm

PRESIDENTIAL SYMPOSIUM

Location	Regency Ballroom B	
Date/Time	Sunday, June 13	8:00 am – 12 noon
	"Big Science" And The Transition To Personalized Medicine: How Can Neuropathologists Play Roles In Large-Scale Clinical, Translational And Basic Research?	

MEETING AT A GLANCE

THURSDAY June 10, 2010	
	Regency Ballroom B
8:00 am - 5:15 pm	*SPECIAL COURSE* *Hereditary Tumor Syndromes of the Nervous System: Clinical, Pathological and Biological Updates.*

(Abstract Numbers in Italics)

FRIDAY June 11, 2010			
	Regency Ballroom A	Regency Ballroom B	Regency Ballroom C
8:00 - 10:00 am	Platform 1 Tumors- Glial *#1 - 8*	Platform 2 Neurodegenerative – Alzheimer's Diease *#9 - 16*	All Posters CME Credit offered for participation at the following times: Friday June 12th and Saturday June 13th 10:00 – 10:30 am 4:00 - 4:30 pm
10:00 - 10:30 am	*REFRESHMENT BREAK*		
10:30 - 11:30 am	Saul R. Korey Lecture TBA *Peter C. Burger, MD* *John Hopkins University, Baltimore MD, USA*		
11:45 - 12:45 pm	*BUSINESS MEETING I* *Regency Ballroom B*		
12:45 - 2:00 pm	*LUNCH*		
	Regency Ballroom A	Regency Ballroom B	
2:00 - 4:00 pm	Platform 3 Inflammatory/Infectious *#17-24*	Platform 4 Tumors- Pediatric *#25 -32*	
4:00 – 4:30 pm	*REFRESHMENT BREAK*		
4:30 – 6:00 pm	Selected Histories of Neuropathology in the United Sates (Not Offered for CME Credit) The Origins of Neurology - Neuropathology in the United States: A Philadelphia Story *Arthur K. Asbury, MD* *University of Pennsylvania, Philadelphia, PA* The Origins of Pathology - Neuropathology in the United States: A Boston Story *David N. Louis, MD, PhD* *Massachusetts General Hospital, Boston, MA* History of the AANP *Michael N. Hart, MD* *University of Wisconsin, Madison, WI* *Regency Ballroom B*		

6:30 - 8:30 pm *ANNUAL RECEPTION:*
Thirty-Third Floor of the Hotel

MEETING AT A GLANCE

(Abstract Numbers in Italics)

<table>
<tr><th colspan="4">SATURDAY June 12, 2010</th></tr>
<tr><td></td><td>Regency Ballroom A</td><td>Regency Ballroom B</td><td>Regency Ballroom C</td></tr>
<tr><td>8:00 - 10:00 am</td><td>Platform 5
Neurodegenerative – Prions/Other
#81-88</td><td>Platform 6
Pediatric Neuropathology
#89-96</td><td rowspan="11">All Posters
CME Credit offered for participation at the following times:

Friday June 12th and Saturday June 13th
10:00 – 10:30 am
4:00 - 4:30 pm</td></tr>
<tr><td>10:00 - 10:30 am</td><td colspan="2">REFRESHMENT BREAK</td></tr>
<tr><td>10:30 - 11:30 am</td><td colspan="2"></td></tr>
<tr><td>11:45 - 12:45 pm</td><td colspan="2">BUSINESS MEETING II
Regency Ballroom B</td></tr>
<tr><td>12:45 - 2:00pm</td><td colspan="2">LUNCH</td></tr>
<tr><td></td><td>Regency Ballroom A</td><td>Regency Ballroom B</td></tr>
<tr><td>2:00 - 4:00 pm</td><td>Platform 7
Neuropathology - Miscellaneous
#97-104</td><td>Platform 8
Tumors - Nonglial
#105-112</td></tr>
<tr><td>4:00 - 4:30 pm</td><td colspan="2">REFRESHMENT BREAK</td></tr>
<tr><td>4:30 - 5:30 pm</td><td colspan="2">DEARMOND LECTURE
Alzheimer's Disease: Models and Therapeutics
Todd Golde, MD
Mayo Clinic, Jacksonville, FL, USA</td></tr>
<tr><td>8:00 - 11:00 pm</td><td colspan="2">DIAGNOSTIC SLIDE SESSION
Congress Room, Fourth Floor</td></tr>
</table>

SUNDAY June 13, 2010	
	Regency Ballroom B
8:00 am - 12:00 pm	*PRESIDENTIAL SYMPOSIUM* *"Big Science" And The Transition To Personalized Medicine: How Can Neuropathologists Play Roles In Large-Scale Clinical, Translational and Basic Research?*

THURSDAY, June 10, 2010

SPECIAL COURSE

HEREDITARY TUMOR SYNDROMES OF THE NERVOUS SYSTEM: CLINICAL, PATHOLOGICAL, AND BIOLOGICAL UPDATES

Director: David N. Louis, MD, and Anat Stemmer-Rachamimov, MD
Regency Ballroom B

8:00 - 8:30 am	Introduction *David N. Louis, MD and Anat Stemmer-Rachamimov, MD* *Massachusetts General Hospital, Boston MA*
8:30 am – 9:15 am	TSC: Clinical and Biological Aspects *Elizabeth Petri Henske, MD* *Brigham and Women's Hospital, Harvard Medical School, Boston, MA*
9:15 am – 10:00 am	TSC: Clinical-Pathologic and Molecular Aspects *Harry V. Vinters, MD* *University of California Los Angeles, CA*
10:00 am - 10:30 am	*REFRESHMENT BREAK*
10:30 am – 11:15	NF1: Clinical and Genetic Aspects *David Gutman, MD, PhD* *Washington University, Saint Louis, MO*
11:15 am – 12:00 pm	Common and Uncommon Peripheral Nerve Sheath Tumors: Pathological Features *Bernd W. Scheithauer, M* *Mayo Clinic, Rochester, MN*
12:00 pm - 1:30 pm	*LUNCH*
1:30 pm – 2:15 pm	NF2: Pathological and Molecular Features/Meningiomas *Arie Perry, MD,* *Washington University, Saint Louis, MO*
2:15 pm – 3:00 pm	Schwannomatosis: The New Kid on the Block *Anat Stemmer-Rachamimov, MD* *Massachusetts General Hospital, Boston MA*
3:00 pm - 3:30 pm	*REFRESHMENT BREAK*
3:30 pm – 4:15 pm	INI1: Syndromes and Diagnostic Neuropathological Applications *Alexander Judkins, MD* *Children's Hospital of Philadelphia, Philadelphia, PA*
4:15 pm – 5:00 pm	The Next Step: Clinical Trials for NF2 *Scott Plotkin, MD* *Massachusetts General Hospital, Boston MA*

FRIDAY, JUNE 11, 2010

TRAINEE LUNCHEON: "NEUROPATHOLOGY: HOW TO GET THERE, STAY THERE AND LOVE IT"
(Not Offered for CME Credit)

12:45 pm – 2:00 pm - Lescaze Room, 33rd floor of the hotel

Neuropathology Training *Suzanne Z. Powell, MD* *The Methodist Hospital, Houston TX*
Your First Job *Brian E. Moore, MD* *Pathology Associates of Central Illinois, Springfield, IL*
Mentorship and Sustainability Anthony T. Yachnis, MD *University of Florida Medical College*

SPECIAL LECTURE

SELECTED HISTORIES OF NEUROPATHOLOGY IN THE UNITED STATES
(Not Offered for CME Credit)

Regency Ballroom B

4:30 pm – 5:00 pm	The Origins of Neurology- Neuropathology in The United States: A Philadelphia Story *Arthur K. Asbury, MD* *University of Pennsylvania, Philadelphia, PA*
5:00 pm – 5:30 pm	The Origins of Pathology- Neuropathology in The United States: A Boston Story *David N. Louis, MD, PhD* *Massachusetts General Hospital, Boston, MA*
5:30 pm – 6:00 pm	History of the AANP *Michael N. Hart, MD* *University of Wisconsin, Madison, WI*

SUNDAY, JUNE 13, 2010

PRESIDENTIAL SYMPOSIUM

"BIG SCIENCE" AND THE TRANSITION TO PERSONALIZED MEDICINE: HOW CAN NEUROPATHOLOGISTS PLAY ROLES IN LARGE-SCALE CLINICAL, TRANSLATIONAL AND BASIC RESEARCH?

Regency Ballroom B

8:00 am – 8:45 am	The Neuropathologist Using "Big Science": An Introductory Example *David N. Louis, MD, PhD* *Massachusetts General Hospital, Boston, MA*
8:45 am - 9:30 am	TCGA: Basic Genomics Meets Neuropathology *Kenneth D. Aldape, MD, PhD* *MD Anderson Cancer Center, Houston, TX*
9:30 – 10:00 am	*REFRESHMENT BREAK*
10:00 am – 10:45 am	SPORE: Translational Research and the Requirement of Neuropathology *Scott R. VandenBerg, MD, PhD* *University California, San Diego, CA*
10:45 - 11:30 am	***Matthew T. Moore Distinguished Lecture*** RTOG: Clinical Trials and the Increasing Role of Neuropathology *Mark Gilbert, MD* *MD Anderson Cancer Center, Houston, TX*
11:30-11:45 am	AWARDS CEREMONY
11:45 -12:00 pm	*INSTALLATION OF NEW OFFICERS*
12:00 pm	*ADJOURNMENT*

FRIDAY, JUNE 11, 2010
Regency Ballroom A
8:00 am – 2:00 pm

Platform 1 Tumors - Glial
Chairpersons: David Zagzag, MD, PhD, New York University New York, NY, and Craig Horbinski, MD, PhD, University of Kentucky, Lexington, KY

8:00- 8:15	1	**Notch3 Activation Promotes Site-Specific Invasive Glioma Formation** Charles Eberhart, Tarran Pierfelice, Karisa Schreck, Louis Dang, Nicholas Gaiano
8:15- 8:30	2	**Knock Down of HIF-1alpha in Glioma Cells Reduces Invasion and Impairs Tumor Sphere Formation** David Zagzag, Olga Méndez, Jiri Zavadil, Yevgeniy Lukyanov, Daniel Santovasi, Shu-Chi Wang, Elizabeth Newcomb
8:30- 8:45	3	**Expression and Activation of CSF1R and Its Ligands in High Grade Astrocytoma** Fausto Rodriguez, Aaron Bender, Gobinda Sarkar, Lara Collier, Bridget Hoesley, Mark Schroeder, Jann Sarkaria, David Largaespada, Robert Jenkins
8:45- 9:00	4	**Comprehensive Molecular Analysis of Oligodendroglial Tumors. Merging Genomic, Transcriptomic and Metabolomic Data** Gustavo Sevlever, Ruben Ferrer-Luna, Lina Nuñez, Jorge Calvar, Bernardo Celda, Horacio Martinetto
9:00- 9:15	5	**A Useful Panel to Differentiate Astrocytoma From Astrocytosis** Sandra Camelo-Piragua, Department Michael Jansen, Aniruddha Ganguly, J. ChulMin Kim, Arjola Cosper, Dora Dias-Santagata, John Iafrate, Catherine Nutt, David Louis
9:15- 9:30	6	**A Genetically-Defined, Orthotopic Allograft Model System of Glioblastoma: Pathological Features and Experimental Therapeutics** C. Miller, Ryan Bash, Mark Vitucci, Kristen White
9:30- 9:45	7	**Pharmacological Manipulation of the PI3 Kinase Pathway in a Genetically-Defined, PTEN-Deficient Model of Glioblastoma** Mark Vitucci, Ryan Bash, Kristen White, C. Miller
9:45- 10:00	8	**Increasing YAP1 Expression In Malignant Gliomas** Brent Orr, Haibo Bai, Robert Anders, Charles Eberhart

10:00 - 10:30 am REFRESHMENT BREAK

10:30 – 11:30 am Saul R. Korey Lecture
A Long-Term Perspective on Pediatric CNS Tumors
Peter C. Burger, MD; John Hopkins University, Baltimore MD,

11:45 am – 12:45 pm Business Meeting I

12:45 – 2:00 pm Lunch

FRIDAY, JUNE 11, 2010
Regency Ballroom B
8:00 am – 2:00 pm

Platform 2 Neurodegenerative – Alzheimers Disease
Chairpersons: Nigel J. Cairns, PhD, MRC Path, Washington University St. Louis School of Medicine, St. Louis, MO, and Eileen H. Bigio, MD, Northwestern University Feinberg School of Medicine, Chicago, IL

8:00- 8:15	9	**Phosphorylated Ribosomal Protein S6 is Greatly Increased in Alzheimer Disease** Rudy Castellani, Mark Smith, Yashi Gupta, Sandra Siedlak, Peggy Harris, Jeffrey Coller, George Perry, Xiongwei Zhu
8:15- 8:30	10	**Prediction of Alzheimer's Disease by β-amyloid Plaques and Tau Protein in Frontal Cortical Biopsy** Ville Leinonen, Anne Koivisto, Tomi Tillgren, Sannakaisa Vainikka, Sakari Savolainen, Mikael Fraunberg, Tuula Pirttilä, Juha Jääskeläinen, Hilkka Soininen, Jaakko Rinne, Irina Alafuzoff
8:30- 8:45	11	**TDP-43 Pathology in AD: Limbic vs. Diffuse, and the Association with HS** Steven Dubner, E Bigio, Manjari Mishra, Katherine Gasho, James Stinson
8:45- 9:00	12	**Gray and White Matter Pathology Associated With the F105L Mutation in the Presenilin 1 Gene** Matthew Hagen, Jill Murrell, Gregory Balko, Masaki Takao, Pedro Piccardo, Ruben Vidal, Francine Epperson, Salvatore Spina, Bernardino Ghetti, Clarissa Rentz
9:00- 9:15	13	**Simultaneous Onset of Alzheimer's Disease in a Husband and Wife in Their Mid Fifties: What Do We Really Know?** Jonathan Heath, Lindsay Goicochea, Mark Smith, Rudy Castellani
9:15- 9:30	14	**Alzheimer's Disease – Type Pathology in the Non-Demented Elderly** Peter Nelson
9:30- 9:45	15	**Comparison of GluR2 Regulation in 3xTg-AD Mice and Incipient AD patients** Carol Miller
9:45- 10:00	16	**Oxidative Stress Parameters in Newly Diagnosed Alzheimer's Disease Patients: A Population-Based Study** Katarzyna Gustaw-Rothenberg, Alan Lerner, Sandra Siedlak, Xiongwei Zhu, George Perry, Mark Smith

10:00 - 10:30 am REFRESHMENT BREAK

10:30 – 11:30 am Saul R. Korey Lecture
A Long-Term Perspective on Pediatric CNS Tumors
Peter C. Burger, MD; John Hopkins University, Baltimore MD,

11:45 am – 12:45 pm Business Meeting I

12:45 – 2:00 pm Lunch

FRIDAY, JUNE 11, 2010
Regency Ballroom A
2:00 pm – 6:30 pm

Platform 3: Inflammatory - Infectious
Chairpersons: Leroy R. Sharer, MD, New Jersey Medical School, Newark, NJ, and Carol K. Petito, MD, University of Miami, Coral Gables, FL

2:00 – 2:15	17	**Central Nervous System Pathology in Fatal Novel Human Influenza A (H1N1) Infection** A Mukherjee, JoElle Peterson, H Takei, S D Sandberg, M B Bhattacharjee, A M Adesina, J C Goodman, S Powell
2:15- 2:30	18	**Classical and Alternative Activation States of Human Adult Microglia** Julia Kofler, Stephanie Bissel, Mark Stauffer, Adam Starkey, Clayton Wiley
2:30- 2:45	19	**Increased Axonal Expression of Nectin-1 in Multiple Sclerosis Plaques** Karla Castellanos, Szatmar Horvath, Deepak Shukla, Howard Lipton, Tibor Valyi-Nagy
2:45- 3:00	20	**Avitene-Induced Necrotizing Granulomatous Inflammation Developing Post-Craniotomy: A Pediatric Case Series** liat apel-sarid, Doug Cochrane, Paul Steinbok, Angela Byrne, Christopher Dunham
3:00- 3:15	21	**Synthetic Triterpenoids Induce Cytoprotective Enzymes in Astrocytic and Neuronal Cells and Attenuate Microglial Activation** Brent Harris, David Graber, William Hickey
3:15- 3:30	22	**Three-Dimensional Cultures for the Identification of Tumor Cell Subpopulations Resistant to HSV-1 Mediated Oncolytic Therapy** Tibor Valyi-Nagy, Sandor Dosa, Krisztian Kovacs, Sarolta Bacsa, Andras Voros, Deepak Shukla, Klara Valyi-Nagy
3:30- 3:45	23	**Induction of Neuropathology After Intracranial Inoculation of Mouse-Tropic HIV** Leroy Sharer, Hongxia He, Alejandra Borjabad, Jennifer Kelschenbach, Chao Jiang Gu, Meilan Do, Mary Jane Potash, David Volsky
3:45- 4:00	24	**IgG4-Related Pachymeningitis: Five Additional Cases of a Recently Described Entity** Katherine Lindstrom, John Cousar, M. Beatriz Lopes

4:00 - 4:30 pm REFRESHMENT BREAK

4:30 – 6:00 pm Selected Histories of Neuropathology in the United States
(Not Offered for CME Credit)

Regency Ballroom B

4:30 pm – 5:00 pm	**The Origins of Neurology - Neuropathology in the United States: A Philadelphia Story** *Arthur K. Asbury, MD* *University of Pennsylvania, Philadelphia, PA*
5:00 pm – 5:30 pm	**The Origins of Pathology - Neuropathology in the United States: A Boston Story** *David N. Louis, MD, PhD* *Massachusetts General Hospital, Boston, MA*
5:30 pm – 6:00 pm	**History of the AANP** *Michael N. Hart, MD* *University of Wisconsin, Madison, WI*

6:30 – 8:30 pm Annual Reception
Thirty-Third Floor of the Hotel

FRIDAY, JUNE 11, 2010
Regency Ballroom B
2:00 pm – 6:30 pm

Platform 4: Tumors - Pediatric
Chairpersons: David W. Ellison, MD, PhD, St. Judes Children's Research Hospital, Memphis, TN and Murat Gokden, MD, University of Arkansas, Little Rock, AR

2:00 – 2:15	25	**MGMT Promoter Methylation Status Predicts Survival in Pediatric Glioblastoma** Adekunle Adesina, Wenyong Zhang, Vidya Mehta, Girard Courteau, Jack Su, Ching Lau, Renee Webb
2:15- 2:30	26	**Integrated Analysis of Copy Number Alteration and RNA Expression Profile in Pediatric Diffuse Intrinsic Pontine Glioma (DIPG)** Cynthia Hawkins, Maryam Zarghooni, Pawel Buczkowicz, Ute Bartels, Iris Fried, Uri Tabori, Eric Bouffet
2:30- 2:45	27	**Is Claudin6 a Useful Diagnostic Marker for Atypical Teratoid/Rhabdoid Tumor?** Felice Giangaspero, Manila Antonelli, Vittoria Donofrio, Paolo Nozza, Ospedale Gaslini, Libero Lauriola
2:45- 3:00	28	**BRG1 & CRINET: Two Exceptions to the Equation AT/RT = Inactivation of INI1** Martin Hasselblatt, Michael Frühwald, Reinhard Schneppenheim, Florian Oyen, Uwe Kordes, Stefan Gesk, Reiner Siebert, Werner Paulus
3:00- 3:15	29	**Wnt/beta-catenin and Radio-Response in Medulloblastoma Cell Lines** Giovanna Cenacchi, Alice Ronchi, Roberta Salaroli, Valeria Marchese, Elena Della Bella, Claudio Ceccarelli, Enza Barbieri, Felice Giangaspero
3:15- 3:30	30	**Comparative Pathology of Medulloblastoma in F-344 Rats and Humans** Dimitri Trembath, Deepa Rao, James Morrison, David Malarkey
3:30- 3:45	31	**Pathologic and Radiologic Features of an Unusual Congenital/Infantile Variant of Astrocytoma** Mariarita Santi, Tamara Feygin, Hayden Head, Brian Harding
3:45- 4:00	32	**Clinical, Pathological, and Molecular Variables Define Risk-Stratification Groups in Childhood Medulloblastoma** David Ellison, Mehmet Kocak, James Dalton, Hisham Megahed, Sarra Ryan, Meryl Lusher, Sarah Nicholson, Simon Bailey, Roger Taylor, Wei Zhao, Steven Clifford

4:00 - 4:30 pm REFRESHMENT BREAK

4:30 – 6:00 pm Selected Histories of Neuropathology in the United States
(Not Offered for CME Credit)
Regency Ballroom B

4:30 pm – 5:00 pm	**The Origins of Neurology - Neuropathology in the United States: A Philadelphia Story** *Arthur K. Asbury, MD* *University of Pennsylvania, Philadelphia, PA*
5:00 pm – 5:30 pm	**The Origins of Pathology - Neuropathology in the United States: A Boston Story** *David N. Louis, MD, PhD* *Massachusetts General Hospital, Boston, MA*
5:30 pm – 6:00 pm	**History of the AANP** *Michael N. Hart, MD* *University of Wisconsin, Madison, WI*

6:30 – 8:30 pm Annual Reception
Thirty-Third Floor of the Hotel

FRIDAY, JUNE 11, 2010
Regency Ballroom C

Poster Session I:
(CME Credit is offered only during scheduled times that authors are present for discussion)

33	**Neuronal Cell Cycle Re-Entry as a Neurotoxic Mechanism of Soluble Amyloid Oligomers in Hippocampal Slice Cultures** Wataru Kudo, Xiongwei Zhu, Vladan Bajic, Hyoung-gon Lee, Mark Smith
34	**PKR Induces Glycogen Synthase Kinase 3ß (GSK3ß) Activation and Tau Phosphorylation** Claire Paquet, François Mouton-Liger, Anindita Bose, Pierre Mazot, Jacques Hugon, Francoise Gray
35	**Neurodegenerative Changes in the Middle Aged: More Evidence of a Tau and Amyloid-Beta Disconnect** Jonathan Heath, Sandra Richardson, Mark Smith, Rudy Castellani
36	**Age-Old Questions: The Associative Impact of Neuropathological Lesions and Clinical Parameters in Advanced Aging** Peter Nelson
37	**Pathological Implication of Protein Kinase C Theta in Alzheimer Disease** Hyunpil Lee, Sandra Siedlak, Mark Smith, Hyoung-gon Lee
38	**Familial Dementia with Frontotemporal Features Associated with Met146Val Presenilin-1 Mutation** Miguel Riudavets, Leonardo Bartoloni, Naomi Arakaki, Juan Troncoso, Ana Lia Taratuto, Peter St George-Hyslop, Ricardo Allegri, Gustavo Sevlever
39	**Association of Leptin Receptor with Neurofibrillary Tangles of Alzheimer Disease** Jeremy Stone, David Bonda, Hyoung-gon Lee, Sandy Richardson, George Perry, Gemma Casadesus, Mark Smith
40	**Diet-Induced Obesity Does not Alter Cerebral Amyloidosis in Aged Tg2576 Mice** Edward Lee, Virginia Lee, John Trojanowski, Rexford Ahima
41	**A Case of Variant of Alzheimer's Disease with Spastic Paraparesis Due to Missense Mutaion of Exon 8 of Presenilin 1** Namita Sinha, David Grimes, Ekaterina Rogaeva, John Woulfe
42	**Alzheimer Neuropathological Changes in Brains from Subjects with Diabetes Mellitus: A Clinicopathological Study** Karra Muller, Christopher Liverman, Kathy Newell
43	**Pathological TDP-43 in Older Adults With and Without Severe Mental Illness** Felix Geser, John Robinson, Sharon Xie, Chris Clark, Linda Kwong, Paul Moberg, Erika Moore, Vivianna Van Deerlin, Virginia Lee, Steven Arnold, John Trojanowski
44	**Systemic Organ Tissue Pathology in Premutation Carriers of the FMR1 Mutation** Claudia Greco, Randi Hagerman, Flora Tassone, Celestine Navarro, Marian Spath, Renate Hukema, Johan Kros, Rob Willemsen
45	**Fixationtime and Outcome the of Immunohistochemical Staining** Maria Pikkarainen, Paula Martikainen, Irina Alafuzoff
46	**Encephalopathy with Neuroserpin Inclusion Bodies due to a Novel Mutation in the Proteinase Inhibitor 12 Gene** Matthew Hagen, Jill Murrell, Marie-Bernadette Delisle, Eva Andermann, Frederick Andermann, Marie Christine Guiot, Bernardino Ghetti
47	**Pathologic Findings in Rapidly Progressive Dementia in the Absence of Prion Disease** Julia Shields, Emily Maambo, Rudy Castellani, Pierluigi Gambetti
48	**Limbic Encephalitis as the Initial Manifestation of Low Grade Lymphoma-A Case Report** Erin Rowe, Beverly Greenspan, Douglas Fellows, Faripour Forouhar, Qian Wu
49	**CNS Mycobacterium Haemophilum Infection Manifested as a Pontine Mass in an HIV-Positive Patient. A Case Report** Li Li, Kelly-Ann Kim, Arnulf Koeppen, Jiang Qian
50	**Primary Lateral Sclerosis without TDP-43 Pathology: A Case Study** Jian-Qiang Lu, Jodi Carter, Wendy Johnston

Poster Session I Continued:

(CME Credit is offered only during scheduled times that authors are present for discussion)

51	**Phenotypic Heterogeneity and Type-1/2 PrPSc Co-Occurrence in Creutzfeldt-Jakob Disease Associated with a New Mutation of PRNP** Gianfranco Puoti, Massimiliano Nigro, Shu Chen, Ignazio Cali, Laura Cracco, Janis Blevins, Souhel Najjar, Ronald L. Hamilton, Pierluigi Gambetti
52	**Autopsy Findings in a Case of Neurodegeneration with Brain Iron Accumulation Caused by PANK2 Mutations** Mark Hiken, Marjorie Grafe, Randall Woltjer, Penelope Hogarth, Michael Kreuer, Susan Hayflick
53	**Acute Disseminated Encephalomyelitis in a 16-Year Old Patient After Receiving HPV-Vaccination: A Case Report** Xianyuan Song, Francis DiMario Jr., Thomas Ciesielski, Dean Uphoff
54	**Biopsy Findings Suggestive of Spongiform Change in 2 Cases of Neuromyelitis Optica Spectrum Disorder** Kathy Newell, Catherine Lewis, Cynthia Gouvion, Eugenio Taboada, Sharon Lynch
55	**Neuropathologic Features of the Area Postrema and the Floor of the Fourth Ventricle in Neuromyelitis Optica** Bogdan F. Popescu, Joseph E. Parisi, Jose A. Cabrera-Gómez, Sean J. Pittock, Vanda A. Lennon, Brian G. Weinshenker, Claudia F. Lucchinetti
56	**Fetal "Acrania/Exencephaly": Report of 2 Complete Autopsy Cases** Mirna Lechpammer, Adriana Florez-Vargas, C Buritica-Cifuentes, Rebecca Folkerth
57	**Hyperglycemia Following Pediatric Head Trauma as a Predictor of Injury Severity** Peter Cummings, Henry Nields
58	**Forensic Pediatric Neuropathology in a Two Year Period in Central Missouri** Douglas Miller, Carl Stacy
59	**Central Liponeurocytoma: A Case Report** Xianyuan Song, Srinivas Mandavilli
60	**Two Cases of Pediatric Spinal Cord Glioblastoma Multiforme** Dana Altenburger, Gary Pearl
61	**Expression and Distribution of Spastin and Spliced Variants in Glioblastomas and Human Glioblastoma Cell Lines** Christos Katsetos, Eduarda Draberova, Simon Pei Liu, Vladimira Sladkova, Joanna Solowska, Jean-Pierre de Chadarevian, Agustin Legido, Sverre Mork, Peter Baas, Pavel Draber
62	**Imaging Proteostasis in Pathological Conditions** Sidney Croul, Kevin Hadley, Michael Borrelli, Armen Manoukian, JoAnne McLaurin, James Lepock, Abhijit Guha, Avijit Chakrabartty
63	**ECRG-4 Expression in Normal and Neoplastic Choroid Plexus** John Donahue, Miles Miller, Sonia Podvin, Cynthia Jackson, Conrad Johanson, Edward Stopa, Andrew Baird
64	**An Analysis of the Role of microRNAs in the Phenotypic Expression of Oncogenic PDGF Signaling in Malignant Glioma** Joachim Silber, Tatsuya Ozawa, Hakim Djaballah, Eric Holland, Jason Huse
65	**Withdrawn**
66	**Beta-Catenin and Nestin: Patterns of Expression in Human Brain Tumors** Branavan Manoranjan, John Provias
67	**An Extracellular Endosulfatase that Accelerates High-Grade Gliomagenesis** Joanna Phillips, Anna Ward, Emmanuelle Huillard, Steven Rosen, David Rowitch, Zena Werb
68	**Group II Metabotropic Glutamate Receptor Allosteric Agents as Potential Tools in the Investigation and Treatment of Gliomas** Hilary Nickols, Douglas Sheffler, Shyama Sidique, Dhanya Panickar, Russell Dahl, Li Yang, Ananda Herath, Robert Ardecky, Nicholas Cosford, P. Conn

FRIDAY, JUNE 11, 2010
Regency Ballroom C

Poster Session I Continued:
(CME Credit is offered only during scheduled times that authors are present for discussion)

69	**Multiplex Ligation Probe Amplification (MLPA) Detects Multiple Amplified Genes in Glioblastomas and Brain Metastases** Marie Beckner, Shashikant Patil, Long Truong, Sherry Martin, Jay LeBlanc, Kristopher Katira, Anil Nanda, Mary Nordberg
70	**Overexpression of Gamma-Tubulin Transcripts in Human Glioblastoma Cell Lines** Christos Katsetos, Eduarda Draberova, Vladimira Sladkova, Barbora Horejsi, Pavel Draber
71	**Utility of Alpha-Internexin Immunostaining to Identify 1p/19q Co-deleted Oligodendrogliomas** Abir Mukherjee, H Takei, S Powell
72	**Gliosarcoma – An Immunohistochemical Profile Including Matrix Metalloproteinase 2 Expression** Amyn Rojiani, Mumtaz Rojiani, Fiona McPherson
73	**The Noncoding Oncofetal H19 Gene in Brain Tumors** Yakov Fellig, Doron Amit, Imad Matouk, Iris Lavon, Tali Siegal, Abraham Hochberg
74	**Pilomyxoid Astrocytoma of the Foramen of Monro: A Case Report** Karen Johnson, Laurie Ackerman, Annette Douglas-Akinwande, Eyas Hattab
75	**Oligodendroglioma Arising in a 7 Month Old Infant** Kimberly Stogner-Underwood, Gary Tye, Christine Fuller
76	**Astroblastoma: An Uncommon CNS Tumor Presenting as a Cyst with a Mural Nodule** Kimberly Stogner-Underwood, William Broaddus, Christine Fuller, Nitya Ghatak
77	**Directed Pten Loss in Olig2+ Stem Cells Results in Massive Myelination and Neurodegeneration in The Absence of Neoplasia** Shakti Ramkissoon, Cecile Maire, Keith Ligon
78	**Malignant Ependymoma with Cartilage Formation in an Adult: Can Glial Cells Form Mesenchymal Tissue?** Knarik Arkun, Patrick LaSala, Yvonne Lui, Karen Weidenheim
79	**Rosette-Forming Glioneuronal Tumor of the 4th Ventricle: A Pineal Region Mass with IDH1 and IDH2 Mutation Analyses** Rupal Mehta, Orestes Solis, Albert Lai, Rashi Mehta, Lama Farchoukh, Richard Green, Jerry Cheng, Sathima Natarajan, Harry Vinters, Timothy Cloughesy, William Yong
80	**Anaplastic Astroblastoma Presenting With Massive, Sudden-Onset, Intraparenchymal Hemorrhage: A Case Report** Karen Johnson, Joel Boaz, Annette Douglas-Akinwande, Jose Bonnin, Eyas Hattab

Platform 5: Neurodegenerative – Prions/Other
Chairpersons: Bernardino Ghetti, MD, Indiana University, Indianapolis, IN and Kathy L. Newell, MD, University Kansas, Kansas City, KS

8:00 –8:15	81	**Expression Analysis of Metallothionein Ie and IIa in FTLD-TDP with ALS, FTLD-TDP, and Alzheimer Disease** Manjari Mishra, Timothy Scarella, Eileen Bigio
8:15 –8:30	82	**Regulation of Progranulin Expression in Human Microglia and Astrocytes: Implications for Neuroinflammatory Diseases** Hyeon-Sook Suh, Namjong Choi, Sunhee Lee
8:30 –8:45	83	**Hyaline Protoplasmic Astrocytopathy of Neocortex in a Case of Tangle-Predominant Dementia** John Crary, Jean Paul Vonsattel, Michael Shelanski, James Goldman
8:45 –9:00	84	**Pathologic Basis of Hyperintensities of Diffusion-Weighted Imaging in Creutzfeldt-Jakob Disease Using Autopsy Images of MRI** Masaki Takao, Ban Mihara, Shinichi Aoyagi, Mitsutoshi Tano, Katsura Suwabe, Go Yasui, Yoji Yoshida
9:00 –9:15	85	**TDP-43 Proteinopathy in Cognitively Normal (CDR 0) Individuals** Lisa Taylor-Reinwald, Elizabeth Grant, John Morris, Nigel Cairns
9:15 –9:30	86	**Protease-Sensitive Prionopathy in a Cognitively Normal 93 Year Old** Nupur Ghoshal, G Puoti, Pierluigi Gambetti, John Morris, Nigel Cairns
9:15 –9:30	87	**Creutzfeldt-Jakob Disease E200K in Argentina** Christian Begue, Carlos Romero, Horacio Martinetto, Marcelo Schultz, Estefania Rojas, Oscar Meichtry, Gustavo Sevlever, Manuel Somoza, Ana Lia Taratuto
9:30 –9:45	88	**Heidenhain Variant of Sporadic Creutzfeldt-Jakob Disease with the Co-occurrence of Two Different Types of Prion Protein** Ignazio Cali, Gianfranco Puoti, Janis Blevins, Adeela Alizai, Pierluigi Gambetti

9:45 - 10:30 am REFRESHMENT BREAK

11:45 am – 12:45 pm Business Meeting II

12:45 – 2:00 pm Lunch

SATURDAY, JUNE 12, 2010
Regency Ballroom B
8:00 am – 2:00 pm

Platform 6: Pediatric Neuropathology
Chairpersons: Brian N. Harding, DPh, FRCPath, Children's Hospital of Philadelphia, Philadelphia, PA and Rebecca D. Folkerth, MD, Brigham & Women's Hospital, Boston, MA

8:00 –8:15	89	**The Development of GABAergic Neurons in the Human Cerebral Cortex** Gang Xu, Kevin Broadbelt, Robin Haynes, Natalia Borenstein, Rebecca Folkerth, Felicia Trachtenberg, Joseph Volpe, Hannah Kinney
8:15 –8:30	90	**Id Proteins are Differentially Expressed in Medulloblastoma Tumor Cells and Endothelia** Christopher Pierson, Andrew Snyder, Ronald Houston, Jordan Marshall, Basil Kahwash, Ashley Dulin-Smith
8:30 –8:45	91	**Cerebral White Matter Hypoxia and Antioxidant Therapy in Rats with Hydrocephalus** Marc Del Bigio, Osaama Khan, Terry Enno, Luiza da Silva Lopes
8:45 –9:00	92	**Cerebellar Hemorrhagic Injury in Premature Infants and its Associated Neuropathology: A Clinicopathologic Study of 18 Cases** Krista Smith, Carl Boesel, Anna Hughes, Christopher Pierson
9:00 –9:15	93	**Ectopic Cerebellar Neurons in a Novel Tuberous Sclerosis Mouse Model** June Goto, Spencer Tung, David Kwiatkowski, Harry Vinters
9:15 –9:30	94	**Atypical Teratoid Rhabdoid Tumours at British Columbia Children's Hospital: "Cryptic Cases" and Long-Term Survivors** Adam Fleming, Diane Birks, Stephen Yip, Michael Handler, B.K. Kleinschmidt-DeMasters, Christopher Dunham
9:15 –9:30	95	**Moderate Intermittent Hypoxia Protects Neurodevelopment in Newborn Mice** Homa Adle-Biassette, Myriam Bouslama, Boris Matrot, Geraldine Favrais, Pierre Gressens, Jorge Gallego
9:30 –9:45	96	**Distribution of Beta 4 Tubulin-Positive Cells During Human Brain Development** Angeliki Nikolakopoulou, Susan Staugaitis, Ansi Chang, Bruce Trapp

9:45 - 10:30 am REFRESHMENT BREAK

11:45 am – 12:45 pm Business Meeting II

12:45 – 2:00 pm Lunch

SATURDAY JUNE 12, 2010
Regency Ballroom A
2:00 pm – 6:00 pm

Platform 7: Neuropathology - Miscellaneous
Chairpersons: Hannes Vogel, MD, Stanford University Medical Center, Palo Alto, CA, and Mark L. Cohen, MD, Unviersity Hospitals Case Medical Center, Cleveland, OH

2:00 – 2:15	97	**Polymyositis Associated with Metastatic Thymomas: Report of Two Cases** Jodi Carter, Zaeem Siddiqi, Jian-Qiang Lu
2:15- 2:30	98	**Alcohol-Related Peripheral Neuropathy-Characterization in an Experimental Animal Model** VanAnh Nguyen, Michelle Mellion, Ming Tong, James Gilchrist, Suzanne de la Monte
2:30- 2:45	99	**Glial-Vascular Degeneration in CADASIL** Thea Brennan-Krohn, Stephen Salloway, Stephen Correia, Matthew Dong, Suzanne de la Monte
2:45- 3:00	100	**Degos Disease Involving the CNS: Report of a Case and Review of the Literature** Stephen Coons, Sandipan Pati
3:00- 3:15	101	**A 20 year Retrospective Review of Traumatic Spinal Cord Injuries at a Statewide Medical Examiner's Office** Cecilia Wu, Sarah Lathrop, R. Ross Reichard
3:15- 3:30	102	**Causes of Death And Neuropathology in Autism Spectrum Disorder: A Medical Examiner Perspective** Kenneth Hutchins, Mariana Nunez, Carol Petito
3:30- 3:45	103	**The Mtm1C205T Knock-in Mouse: A New Model of Myotubular Myopathy with a Mild Phenotype** Christopher Pierson, Ashley Dulin-Smith, Kristen Roth, Morgan Marshall, Nada Naiyer, Jordan Marshall, Andrew Snyder, Jordan Gladman, Dawn Chandler, Alan Beggs
3:45- 4:00	104	**Choroidal Findings in Neurofibromatosis Type 1 (NF1)** Caterina Giannini, Fausto Rodriguez, Charles Eberhart, Diva Salomão

4:00 - 4:30 pm ***REFRESHMENT BREAK***

4:30 – 5:30 pm ***DEARMOND LECTURE***
Alzheimer's Disease: Models and Therapeutics
Todd Golde, MD, Mayo Clinic, Jacksonville, FL, USA

8:00 – 11:00 pm ***Diagnostic Slide Session***
Congress Room, 4th Floor

SATURDAY JUNE 12, 2010
Regency Ballroom B
2:00 pm – 6:00 pm

Platform 8: Tumors - Nonglial
Chairpersons: Stephen W. Coons, MD, St. Joseph's Hospital and Medical Center, Phoenix, AZ, and Sidney E. Croul, MD, University of Toronto, Toronto, Canada

2:00 – 2:15	105	**MicroRNA-9 and MicroRNA-200a Differentiate CNS Hemangioblastomas from CNS Metastatic Clear Cell Renal Cell Carcinomas** Sriram Venneti, Aihua Liu, John Tobias, Donald Baldwin, Alexander Judkins, Zissimos Mourelatos, Priti Lal
2:15- 2:30	106	**BCL-6 Gene Abnormalities are Common in Primary Central Nervous System Diffuse Large B-cell Lymphoma** Sarah Martin, Magdalena Czader, Mousa Al-Abbadi, Ryan Stohler, Gail Vance, Eyas Hattab
2:30- 2:45	107	**Epstein-Barr Virus-Associated Primary Central Nervous System Lymphomas in Immunocompetent Elderly Patients** Yasuo Sugita, Daisuke Niino, Fumiko Arakawa, Koichi Ohshima
2:45- 3:00	108	**Expression of SALL4 and LIN28 by Malignant Rhabdoid Tumors of the Central Nervous System** Jeremy Deisch, Dinesh Rakheja, Kimmo Hatanpaa, Christa Hladik, Emily Herndon, Dennis Burns, Charles White, Jack Raisanen
3:00- 3:15	109	**Prox1 Protein of Prospero-Related Homeobox Gene In Meningiomas And Adult CNS** Roy Rhodes, Eric Richfield
3:15- 3:30	110	**Transforming Growth Factor B Receptor Expression in Higher Grade Meningiomas** Mahlon Johnson, Aubie Shaw, Mary O'Connell, Fraser Sim, Harold Moses
3:30- 3:45	111	**Malignant Transformation of Intracranial Meningeal Melanocytoma. Case Report and Review of the Literature** Fulin Wang, Xin Lou, Guangyu Qiao, Xin Song
3:45- 4:00	112	**Carcinoma, Metastatic to Intracranial Meningioma – Unusual Pattern of Metastasis** Patricia Moody, Kevin Murtagh, Sarat Piduru, Steven Brem, Reed Murtagh, Amyn Rojiani

4:00 - 4:30 pm REFRESHMENT BREAK

4:30 – 5:30 pm DEARMOND LECTURE
Alzheimer's Disease: Models and Therapeutics
Todd Golde, MD, Mayo Clinic, Jacksonville, FL, USA

8:00 – 11:00 pm Diagnostic Slide Session
Congress Room, 4th Floor

Poster Session II:

(CME Credit is offered only during scheduled times that authors are present for discussion)

113	**Synaptic Plasticity in Parkinson's Disease as Revealed by the Study of Trans-synaptic cell Adhesion Molecules** Lili-Naz Hazrati
114	**GRN/PGRN Gene Expression Regulation via a microRNA, Studied Using in vitro and in vivo Experiments** Wang-Xia Wang, Kathryn Saatman, Sindhu Madathil, Bernard Rajeev, Peter Nelson
115	**Cognitive Improvement After Ventriculoperitoneal Shunt Placement in Alzheimer Disease and Non-Alzheimer Dementias** John Donahue, Conrad Johanson, Petra Klinge, Edward Stopa, Stephen Salloway, Brian Ott, Stephen Mernoff, John Stoukides, Suzanne de la Monte, Miles Miller, Gerald Silverberg
116	**Clinicopathologic Characterization of Frontotemporal Dementia Associated with the IVS10-10G>T MAPT Gene Mutation** Bernardino Ghetti, Jill Murrell, Matthew Hagen, David Geldmacher, Tatiana Foroud, Michel Goedert, Salvatore Spina
117	**Bridge Cases Between the Classical Variants of FUSopathies** David Munoz, Lorne Zinman, Ekaterina Rogaeva, Beverly Young, Ian Mackenzie, Juan Bilbao
118	**Neurites Containing C-Terminally Truncated α-Synuclein in Alzheimer's Disease without Conventional Lewy body Pathology** Karen Lewis, Yang Su, Olina Jou, Caroline Ritchie, Chan Foong, Linda Hynan, Charles White, Philip Thomas, Kimmo Hatanpaa
119	**The Spectrum of FUS-positive Pathology in Frontotemporal Lobar Degenerations** Tamas Revesz, Tammaryn Lashley, Zashen Ahmed, Jonathan Rohrer, Jason Warren, Safa Al-Saraj, Nick Fox, Hans Braendgaard, Martin Rossor, Andrew Lees, Janice Holton
120	**TDP-43 Proteinopathy in Chronic Traumatic Encephalopathy** Ann McKee, Brandon Gavett, Robert Stern, Christopher Nowinski, Robert Cantu, Chris Sullivan, Daniel Perl, E. Tessa Hedley-Whyte, Daniel Daneshvar, Neil Kowall, Andrew Budson
121	**Distribution of Phosphorylated Alpha-Synuclein Histopathology in the Bodily Organs of Subjects with Lewy Body Disorders** Thomas Beach, Charles Adler, Lucia Sue, Charles White, Haru Akiyama, John Caviness, Holly Shill, Marwan Sabbagh, LihFen Lue, Douglas Walker
122	**Incidence and Extent of Alpha-Synucleinopathy in the Human Aging Peripheral and Central Nervous System** Sayaka Funabe, Hiroyuki Hatsuta, Tadashi Adachi, Mikiko Sugiyama, Yuko Saito, Tomio Arai, Motoji Sawabe, Nobutaka Hattori, Shigeo Murayama
123	**Isolation of Spiroplasma from the Eyes of Sheep Infected with Scrapie Reveals a New Direction for TSE Research** Frank Bastian, Charles Boudreaux, Sue Hagius, Marie Bulgin, Sharon Sorensen-Melson, Frederick Enright, Philip Elzer
124	**Whipple's Disease: An Endless Infection Forty Four Years of Disease and 15 Years of Brain Involvement, Report of a Case** Ana Lia Taratuto, Graciela Zuccaro, Eugenia Arias, Pieter Mac Keith, Clara Muller, Raul Dominguez
125	**Fatal Case of Deer Tick Virus Encephalitis** Phyllis Faust, Heng Wang, Michelle Dupuis, Rene Hull, Gregory Ebel, Emily Gilmore, Norma Tavakoli
126	**Ribonucleic Acids Co-localize to Prion Protein Aggregates in Sporadic and Variant CJD** Brent Harris, Pablo Valdes, Colin Smith, Surachai Supattapone
127	**Cerebral ß-Amyloid Deposition in HIV Infection** Virawudh Soontornniyomkij, Schafer Boeder, David Moore, Ben Gouaux, Cristian Achim

SATURDAY, JUNE 12, 2010
Regency Ballroom C

Poster Session II Continued:
(CME Credit is offered only during scheduled times that authors are present for discussion)

128	**An Autopsy Study of Putative Lyme Disease with Neurological Manifestations** Boro Ilievski, Ziyan Liang, Branislav Mancevski, Brian Fallon, Andrew Dwork
129	**Clostridium Septicum Pneumocephalus and Hemolytic Uremic Syndrome: A Case Report and Review of the Literature** Sarah Martin, Stephen Allen, Philip Faught, Dean Hawley, Jose Bonnin, Eyas Hattab
130	**Neuropathologic Findings in a Fatal Case of H1N1 Influenza Virus Infection** Wael Milyani, Kathryn Skitarelic, Fahad Bafakih, Kymberly Gyure
131	**Cerebellar Ganglioglioma, an Uncommon Location for a Rare Tumor: a Report of Three Cases** Peter Saunders, Luis Moral, Dennis Oh
132	**Leptomeningeal Amyloidosis in an Argentinian Patient of Basque Descent** Ana Lia Taratuto, Horacio Breyter, Rosana Salvatico, Ahmet Dogan, Christopher Klein, P James Dyck
133	**The Spectrum of Spinal and Paraspinal Pathological Processes Encountered in Neuropathology Practice** Mahtab Tehrani, Theodore Friedman, Glenn Pait, Murat Gokden
134	**One hundred Years of Neuropathology in Canada (1874-1974)** Marc Del Bigio
135	**Acute Autonomic, Sensory, and Motor Neuropathy with Associated Autoimmune Myositis** Neil Anderson, Khang-Cheng Ho, Richard Komorowski, Rahul Nanchal, Julia Durrant
136	**Pathological Findings in a Case of Familial Amyloidosis, Thr60Ala (Appalachian-type), with Prominent Peripheral Neuropathy** Juanita Evans, Charles Specht, Zachary Simmons
137	**Compressive Spinal Elastolytic Granuloma Secondary to Occult Plasmacytoma** Jane Cryan, Catherine Moran, Conor O'Keane, Michael Farrell
138	**Rosai-Dorfman Disease Mimicking Plasmacytoma of the Skull** Dana Altenburger, Gary Pearl
139	**Embryonal Rhabdomyosarcoma Arising in the Pituitary Gland** Thor Stein, Yang-seok Chae, Namehee Won, Jeong-hyun Lee, E. Tessa Hedley-Whyte
140	**Posterior Column Degeneration in The Cervical And Thoracic Spinal Cord In Lesch-Nyhan Syndrome** Jennifer Stall, Matthew Hagen, Marilyn Bull, Dean Hawley, Eyas Hattab
141	**Two Cases of Paraspinal Atypical Teratoid/Rhabdoid Tumor** Dimitri Trembath, Thomas Bouldin, Stuart Gold, Julie Blatt, Krystal Bottom, Arie Perry
142	**Clincopathologic and Immunohistochemical Characteristics of Metastatic Breast Carcinoma to the Brain: A Series of 59 Cases** Sarah Martin, Karen Johnson, Patricia Steeg, Eyas Hattab
143	**Differential Expression of Gamma-Tubulin and Class III Beta-Tubulin in Medulloblastomas and Human Medulloblastoma Cell Lines** Valentina Caracciolo, Luca D'Agostino, Eduarda Draberova, Vladimira Sladkova, Dimitri Agamanolis, Jean-Pierre de Chadarevian, Agustin Legido, Antonio Giordano, Pavel Draber, Christos Katsetos
144	**Plasmablastic Lymphoma and Cryptococcal Meningitis in a Patient with Chronic Steroid Therapy for Sarcoidosis** Matthew Hagen, Kathryn Rizzo, Thomas Witt, Riley Snook, Jose Bonnin
145	**Intraventricular Dysembryoplastic Neuroepithelial Tumor in a Child: Is It the Most Common Extracortical Location of DNT?** Jane Yuan, Haroon choudhri, Suash Sharma

Poster Session II Continued:
(CME Credit is offered only during scheduled times that authors are present for discussion)

146	**Frequent Gain at Chromosome 1q Occurs in Atypical Meningioma but is a Poor Predictor of Likelihood of Recurrence** Michael Jansen, Gayatry Mohapatra, Catherine Keohane, David Louis
147	**Sinonasal Teratocarcinosarcoma with Extensive Intracranial Involvement and Normal Chromosome 12p Status. A Case Report** Ada Baisre, James Liu, Gaurav Gupta, Manuel Cruz, Lisa Osborne, Neena Mirani
148	**Evaluation of Microscopic Criteria Used in Selection of Archived Meningiomas for Pending Studies of Tumor Genomes** Marie Beckner, Kristopher Katira, Raghu Sampath, Shashikant Patil, Mary Nordberg, Anil Nanda
149	**Intracranial Mesenchymal Chondrosarcoma: Light and Electron Microscopic Study of a Pediatric Case** Kun Jiang, Yue Wang, Mark Iantosca, Melanie Comito, Charles Specht
150	**Central Nervous System Amyloidomas Presenting with Progressive Cognitive Impairment** Matthew Hagen, Merrill Benson, Juris Liepnieks, Thomas Witt, Jose Bonnin
151	**Intrathecal Ossifying Neurothekeoma or Nodular Arachnoiditis Ossificans: A case report** Howard Chang
152	**Tuberous Sclerosis Complex and Langerhans Cell Histiocytosis in an 11 Month-Old Infant** Joshua Bradish, Matthew Hagen, Yi Zeng, William Nunery, Jose Bonnin
153	**Primitive Neuroectodermal Tumors of the Leptomeninges Mimicking Meningitis: A Report of Two Cases** Kathy Newell
154	**Multiple Epstein-Barr Virus-Associated Smooth Muscle Tumors in a Pediatric Patient Following Renal Transplantation** Syed Kazmi, Michele Aizenberg, James Harper, McComb Rodney
155	**Rosai-Dorfman Disease of the Sellar Region with Multiple Intracranial Recurrences: Report on Two Cases** Fulin Wang, Xin Lou, Guangyu Qia
156	**A Case of Adrenomyeloneuropathy with Frontal Lobe Type Dementia** Namita Sinha, John Wherrett, Sidney Croul
157	**Primary Central Nervous System Lymphoma Presenting as a Solitary Brainstem Lesion in an Immunocompetent Adult** Kimberly Stogner-Underwood, Gary Tye, Christine Fuller
158	**Immunohistochemical Analysis of INI1 in a Retrospective Study of the Central Nervous System Tumors with Embryonal Morphology** Maria Gorgan, Keyla Kleyser-Sugrue, Xianyuan Song, Deborah Stevens, Richard Cartun, Thomas Ciesielski, Srinivas Mandavilli
159	**Inhibition of Placental Growth Factor (PlGF) Leads to Regression of Medulloblastoma** Matija Snuderl, Nathaniel Kirkpatrick, Elisa Walsh, Euiheon Chung, Walid Kamoun, Teresa Peterson, Dan Duda, Dai Fukumura, Peter Carmeliet, Lei Xu, Rakesh Jain
160	**Utility of the Presence of Brain Tissue as a Surrogate Marker of Brain Invasion in Predicting Recurrence in Meningiomas** Fahad Bafakih, Salwan Almashat, Kenneth Fallon, Kymberly Gyure

American Association of Neuropathologists

Endowed Lectureships
Meritorious Awards
Presidential Symposium

The Saul R. Korey Lectureship–a Brief History

The *Korey Lectureship* was established by Dr. Robert D. Terry in honor of Dr. Saul R. Korey, the founder and first Chair of the Department of Neurology at Albert Einstein College of Medicine. Dr. Korey's vision of an interdisciplinary approach to the study of neurological diseases by basic and clinical scientists has inspired generations of colleagues and trainees. Dr. Terry, a close collaborator and colleague of Dr. Korey, was the first recipient of the prestigious *Potamkin Prize for Pick's and Alzheimer's Disease* in 1988, in recognition of his seminal observations of the pathological changes in Alzheimer disease. Dr. Terry generously contributed a portion of the prize funds to endow the *Korey Lectureship*, to be administered by the American Association of Neuropathologists, with the lecturer to be chosen annually by the president.

Dr. Terry has summarized the qualities of the Korey lecturer as someone who has "… been an active member of the Association…a working MD or MD/PhD neuropathologist…responsible for diagnostic work as well as teaching and research. The lecture should be aimed at the members of the Association, and the lecturer might well serve as a role model for younger members."

We are pleased to have Dr. Peter C. Burger join our list of distinguished speakers.

Year	Lecturer	Title
1989	Nicholas K. Gonatas	MG-60, a Novel Sialoglycoprotein of Medial Cisternae of the Neuronal Golgi Apparatus: Implications and Applications
1990	Henry M. Wisniewski	Amyloidosis in Alzheimer's Disease and the Spongiform Encephalopathies
1991	Robert D. Terry	Alzheimer's Disease as Seen by a Lucky Morphologist
1992	Henry deF Webster	Formation and Regeneration of Myelin
1993	Kunihiko Suzuki	Molecular Genetics of Tay-Sachs and Related Disorders: The Legacy of Saul Korey
1994	*No Lecture*	*XIIth International Congress (Toronto)*
1995	Blas Frangione	Amyloid Genes and Chaperones in Alzheimer Disease
1996	Floyd Gilles	The 3R's of Neuro-oncology – Recording, Reliability and Reporting
1997	Donald L. Price	The Role of Neuropathologists in the Analyses of Models of Neurodegenerative Disease
1998	Sandra H. Bigner	Molecular Genetics of Medulloblastoma
1999	William F. Hickey	Key Participants in the Initiation of Inflammation in the Central Nervous System
2000	Mary E. Case	Neuropathology and Forensic Pathology: A Natural Synergism
2001	Paul H. Kleihues	Molecular Biology of Brain Tumors
2002	James E. Goldman	Astrocytes, Intermediate Filaments, Cellular Stress and Neuropathology
2003	Samuel K. Ludwin	Pathology and Pathogenesis in Multiple Sclerosis
2004	James M. Powers	The Road Not Taken
2005	Bernardino Ghetti	Deciphering Hereditary Presenile Dementias: Neuropathology at the Crossroads of Neuropsychiatry and Molecular Genetics
2006	Donna M. Ferriero	Molecular Mechanisms of Hypoxic-Ischemic Injury in the Developing Nervous System
2007	Dennis W. Dickson	Neuropathology and Genetics of Parkinsonism
2008	David N. Louis	Brain Tumor Classification: Little Steps and Big Jumps
2009	Stephen J. DeArmond	Mechanisms of Neurodegeneration in Prion Disease Orgininating from the Neuronal Plasma Membrane
2010	Peter C. Burger	A Long-Term Perspective on Pediatric CNS Tumors

2010 SAUL R. KOREY LECTURE
A Long-Term Perspective on Pediatric CNS Tumors
Peter C. Burger, MD

Within the span of one career, diagnostic techniques and scientific understanding of CNS tumors have changed drastically, with many advances yet to come. In the context of the then state-of-the-art techniques, H&E sections and a battery of histochemical stains, immunohistochemistry was a major innovation, and defied some predictions by refining, rather than replacing, histopathology. Metaphase cytogenetics intimated at the coming molecular era in the form of isodicentric chromosome 17q, later determined to be a less favorable prognostic indicator in classic meduloblastomas. About the same time, monosomy 22 first contributed to the diagnosis of atypical teratoid/rhabdoid tumor, and provided a clue to the location of the responsible gene, *INI1*. Working backward from the genetics of tumor syndromes, molecular features of sporadic medulloblastomas were discovered in a flurry of activity in the late 1990s and early 2000s. Delineation of the two critical signaling pathways, in concert with the influence of age and histological tumor type, helped formulate of prognostically and therapeutically important subcategories that minimize the chance that individual patients are either over- or undertreated. Animal models and specific small molecule tumor inhibitors of the sonic hedgehog pathway appeared. Contention about nomenclature for embryonal tumors/PNETs peaked, but then subsided as molecular features increasingly defined subgroups. In regard to gliomas, a long awaited genetic signature of pilocytic astrocytoma, a tandom duplication/fusion (*KIAA1549-BRAF)*, was elucidated in 2008. Laboratories worldwide are evaluating its potential as a diagnostic maker. Tumors with ependymal differentiation became more complicated as "splitters" freely described new categories, while "lumpers" remain skeptical that these are entities distinct from ependymoma. Molecular features may help resolve this issue. The "cells of origin" of ependymomas at various sites may well have proven to be regional radial glia. Much has thus changed, but techniques and approaches will evolve even more rapidly and fundamentally. Neuroimagers are working day and night to replace tissue-based diagnosis. Molecular characterization of tumor DNA fragments in serum and CSF is being pursued as a minimally invasive technique with great specificity. Real-time whole genome sequencing may be as routine as blood chemistries. The cause of CNS tumors may even be found.

Objectives:

At the end of the Lecture attendees should be able to:

- Cite the historical context in which our understanding of pediatric CNS tumors has evolved
- Review salient pathological features of new and/or controversial entities
- List mechanisms by which new entities are certified

The DeArmond Lecture

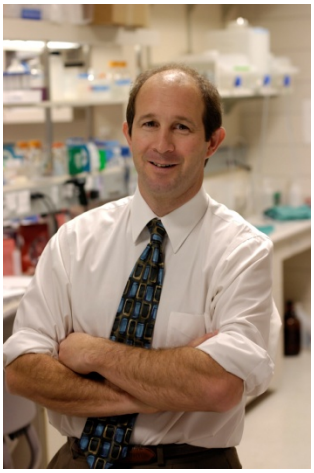
The DeArmond lecture was established in recognition of Stephen J. DeArmond's excellent leadership and organization of the scientific program for the 2006 International Congress of Neuropathology. This successful meeting garnered significant support intended for the future advancement of the mission of the American Association of Neuropathologists. To continue these intended goals and recognize Dr. DeArmond's contributions, the American Association of Neuropathologists has honored him by establishing the *DeArmond Lecture*. Dr. DeArmond is a leading authority on prion disease, where his work has been fundamental in demonstrating mechanisms of transmission and routes to therapeutics. The DeArmond Lecture focuses on honoring those making major advances in the field of neurodegeneration and aging with a particular emphasis on translating these findings to patient care.

We are pleased to have Dr. Todd Golde join our list of distinguished speakers.

2008	Virginia M. –Y. Lee	TDP-43, A New Class of Proteinopathies in Neurodegenerative Diseases
2009	Rudy Tanzi	Decoding Alzheimer's Disease Gene by Gene
2010	Todd Golde	Alzheimer's Disease: Models and Therapeutics

2010 DEARMOND LECTURE

Alzheimer's Disease: Models and Therapeutics
Todd Golde, MD



The amyloid β (Aβ) and tau proteins, which accumulate in the Alzheimer's disease (AD) brain, are implicated as central factors in a complex neurodegenerative cascade. Studies of mutations that cause AD and promote Aβ accumulation in the brain strongly support the notion that inhibiting Aβ aggregation will prevent AD. Similarly, genetic studies of frontotemporal dementia with parkinsonism linked to chromosome 17 show that mutations in the *MAPT* gene encoding tau lead to abnormal tau accumulation and neurodegeneration. Additional pathologic, biochemical and modeling studies further support the concept that misfolded and aggregated Aβ and tau are prime targets for disease modifying therapies. Treatment strategies aimed at preventing the aggregation and accumulation of Aβ, tau, or both proteins should therefore be theoretically possible, assuming that treatment can be initiated before either irreversible damage is present or downstream, self-sustaining, pathological cascades have been initiated. Herein, I will discuss the challenges that face the field as we attempt to translate an enhanced understanding of disease pathogenesis into effective therapies.

Objectives:

At the end of the Lecture attendees should be able to:

- Cite the role of various Abeta and tau aggregates in Alzheimer's Disease
- Compare the link between AD neurodegeneration and the senescence associated secretory phenotype
- Identify new insights into the role of inflammatory factors in AD and other neurodegenerative disorders.
- Describe current therapeutic strategies targeting Aβ and tau
- Recall the treatment versus prevention paradox
- Explain the role of Neuropathology in therapeutic development

Awards for Meritorious Contributions to Neuropathology

The *Award for Meritorious Contributions to Neuropathology* recognizes a member who has made significant contributions to the advancement of knowledge in neuropathology and provided service to the American Association of Neuropathologists. Each recipient of the award is nominated by the president, in conjunction with the nominating committee and with the approval of the executive council.

The qualities of outstanding scientific achievement and service are embodied in this year's recipients, Drs. Stephen J. DeArmond and Samuel K. Ludwin. They join the rich roster of distinguished former award recipients.

Year	Recipient
1959	Armando Ferraro
	Arthur Weil
1960	Joseph H. Globus
	George B. Hassin
1968	Abner Wolf
	Paul I. Yakovlev
	Harry M. Zimmerman
1970	Webb E. Haymaker
1971	James W. Kernohan
1972	George A. Jervis
1979	Raymond D. Adams
	David Cowen
	Matthew T. Moore
1981	Richard Lindenberg
1983	Orville T. Bailey
1984	Margaret Murray
1985	Kenneth M. Earle
	Nathan Malamud
	Leon Roizin
1986	Martin G. Netsky
1987	*No Award Presented*
1988	Edward P. Richardson, Jr.
	F. Stephen Vogel
1989	Lucien J. Rubinstein
	Robert D. Terry
1991	Lysia K. S. Forno
1992	John Moossy
	Gabriele M. ZuRhein
1993	Peter W. Lampert
	Elias E. Manuelidis
1994	Murray B. Bornstein
	Samuel P. Hicks
	Lowell W. Lapham
1995	Amico Bignami
	Asao Hirano
1996	Pasquale A. Cancilla
	Franz Seitelberger
1997	Henryk M. Wisniewski
1998	Richard L. Davis
	Wolfgang Zeman
1999	Lucy B. Rorke
2000	William R. Markesbery
2001	John J. Kepes
	Henry de Forest Webster
2002	Dikran S. Horoupian
	Fusahiro Ikuta
	Kurt A. Jellinger
2003	Bernardino F. Ghetti
2004	Michael N. Hart
2005	E. Tessa Hedley-Whyte
	Suzanne S. Mirra
2006	Joseph E. Parisi
	Jeannette J. Townsend
2007	James M. Powers
	Cedric S. Raine
2008	Kinuko Suzuki
	Margaret G. Norman
2009	Peter C. Burger
	Pierluigi Gambetti
	Nicholas K. Gonatas
2010	Stephen J. DeArmond
	Samuel K. Ludwin

Awards for Meritorious Contributions to Neuropathology

2010 AWARD RECIPIENTS

Stephen J. DeArmond, MD, PhD and Samuel K. Ludwin, MBBCh, FRCPC

Stephen J. DeArmond, M.D., Ph.D. attended the Medical College of Pennsylvania in Philadelphia and received a PhD in Physiology and an MD. While a graduate student he taught Neuroanatomy to medical students and developed a teaching atlas for neuroanatomy that was published by Oxford University Press, has undergone three editiions and is still in use at many medical schools. After medical school he was elected to the Alpha Omega Alpha Medical Honor Society. He completed his internship and residency in Pathology at Stanford and then completed his Fellowship in Neuropathogy under the celebrated Dr. Lucien Rubinstein. He remained on as a junior faculty member at Stanford and received a career development award at the Palo Alto VA Hospital from 1980-1983. During these years at Stanford he studied neurochemistry and immunohistochemistry under the tutelage of Dr. Lawrence Eng, who discovered the Glial fibrillary acidic protein (GFAP). Dr. DeArmond's research emphasized the metabolism of GFAP.

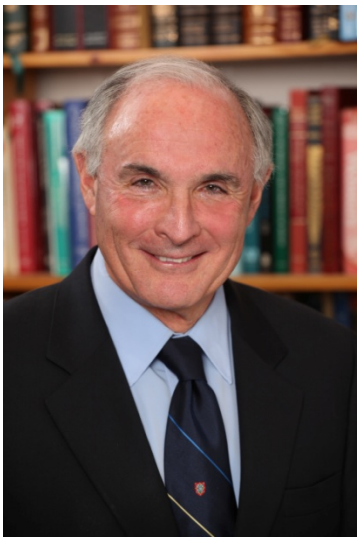
In 1983 Dr. DeArmond obtained an Assistant Professorship in the Neuropathology Unit of the Department of Pathology at the University of California San Francisco (UCSF). For almost 10 years he and Dr. Richard Davis provided all the clinical neuropathology services for Neurosurgery, provided neuropathology diagnosis for neuro-muscular diseases for the Department of Neurology, and conducted all of the brain autopsies for UCSF, the San Francisco Veteran's Administration Hospital, and San Francisco General Hospital. During this time Dr. DeArmond also had a very active research program, which started with GFAP studies and transitioned to prion diseases in 1884 when Dr. Stanley Prusiner approached him for assistance. Dr. Pruisner's group had just developed antibodies to the prion protein and he needed a Neuropathologist. The Neuropathology Fellow working with Dr. DeArmond at this time was Dr. Hans Kretzschmar, who is now Director of the German Institute for Neurodegenerative Diseases in Munich. Dr. DeArmond obtained the materials and stained slides of Syrian hamster scrapie with the PrP specific antibodies. When he and Hans looked at the slides and found the amyloid plaques in them were strongly stained with the antibodies, Steve turned to Hans and said, "We're stopping all GFAP studies and will focus only on prion diseases." That was 25 years ago. Both Dr. DeArmond and Dr. Kretzschmar have spent the last 25 years studying prion and other neurodegenerative diseases.

Dr. DeArmond's research has led to an understanding of the cellular pathogenic mechanisms leading to early synapse degeneration and late occurring nerve cell death in prion diseases and to a new *ex-vivo* model for prion disease using embryonic neural cells organized into brain aggregates. His work demonstrated that the γ-secretase system is directly related to the formation of PrP^{Sc} and neurodegeneration in prion diseases and showed that treatment of scrapie-infected mice with a γ-secretase inhibitor plus quinacrine stopped PrP^{Sc} formation and prevented dendritic degeneration. Other laboratories have also reported that the γ-secretase system is directly related to the formation of PrP^{C}, and therefore to PrP^{Sc}, just as it is with the formation of pathogenic Aβ-42 and neurodegeneration in Alzheimer's disease (AD). In reviewing a large number of brains from patients with prion disease over the past 25 years, Dr. DeArmond noted that many of these patients also showed the neuropathologic changes of Alzheimer's disease. His lab is now using its expertise in

molecular pathology to explore similarities between Creutzfeldt-Jakob disease (CJD) and AD, which suggest that overlap between the two is not coincidental.

Dr. DeArmond is a former President of the American Association of Neuropathologists (AANP) from 1999-2000, President of the 16th International Congress of Neuropathology from 2003-2006 and Vice-President of the International Society of Neuropathology from 2003-2006. In 2007 he was honored by the AANP Executive Council and Members at Large, with an Annual Endowed Lectureship on Neurodegenerative Diseases for outstanding translational research in neurodegenerative diseases. He was the Saul Korey Lecturer at the 2009 Annual AANP meeting and his laboratory received the Weil Award for the "Programmed Dendritic Atrophy in Prion Diseases" at the 2004 Annual Meeting.

Currently Dr. DeArmond is a Professor of Pathology and Neuropathology at the UCSF Medical School. He continues to study the pathogenesis of prion diseases, to explore treatments for prion diseases, and to study the interaction of prion diseases with AD.



Samuel K. Ludwin, M.B., B.Ch. attended medical school at the University of Witwatersrand, Johannesburg, South Africa, and followed this with residency and fellowship training in Pathology and Neuropathology at Stanford University in California from 1970-1975, under the legendary Lucien Rubinstein. He moved to Queen's University and Kingston General Hospital in Kingston, Canada in 1975 where he is now a Professor of Pathology (Neuropathology). He served as Chairman of the Department of Pathology at the University of Western Ontario in London, Ontario from 1991-1992. His clinical practice covers neuropathology, his primary specialty, as well as anatomic pathology. He teaches undergraduate medical and life sciences students, as well as Residents and Interns. He received the Queens Faculty of Medicine Aesculapean Education Award for medical students, and the 3M Award for Teaching Excellence.

He has served on numerous committees both in the Faculty and the Hospital and was President of the Medical Staff and Medical Director at Kingston General and Hotel Dieu hospitals. From 2002-2006 he served as Associate Dean (Research) in the Faculty of Health Sciences, Queen's University and Vice-President (Research Development) Kingston General and Hotel Dieu Hospitals.

He is a Past-President of both the International Society of Neuropathology and of the Canadian Association of Neuropathologists.

Dr. Ludwin's research has centered on mechanisms of remyelination and demyelination, particularly oligodendrocyte and astrocyte behaviour in relationship to Multiple Sclerosis, and clinical and experimental studies on the pathology of MS. He has received many years of research funding from the MRC (CIHR precursor) and the MS Society of Canada. He has lectured extensively at national and international meetings and institutions. He has been and remains on the Editorial Board of numerous journals. He has also had a long interest and has published in neuro-oncology. He is responsible for well over one hundred publications related to his diverse research interests.

Dr. Ludwin is a Past-Chairman of the Medical Advisory Board of the Multiple Sclerosis Society of Canada and has served on the Research Development Committee of the National Multiple Sclerosis Society of the United States. He is also currently a member of the National Board of Directors of the MS Society of Canada, and of the MAB of the International Federation of MS Societies. He headed the formation of the endMS Canadian National Research Training Network in Multiple Sclerosis. He was awarded the Queen Elizabeth II Golden Jubilee Medal for services to Multiple Sclerosis.

Dr. Ludwin was a founding member of the Myelin Project, an international venture promoting research into myelin repair, and has currently been appointed to the Scientific Advisory Board of the Myelin Repair Foundation in San Francisco.

He is currently the incoming Chair of the Federal Tri-Agency (CIHR, SSHERC, NSERC) Panel on Research Ethics in Canada, responsible for developing the Tri-Council Policy Statement; this Policy guides the conduct of all human research ethics in Canada. Dr. Ludwin is also the President of the Maurice Price Foundation, a private Ottawa-based charitable organization.

The American Association of Neuropathologists annually recognizes outstanding neuropathologists who have contributed significantly to our field, as well as to our association. Dr. Ludwin's scientific and biomedical credentials are impeccable, and our neighbor-to-the-North has participated in our

annual meeting throughout his career. He has twice won the Weil Award of the AANP for experimental neuropathology in 1974 and 1979, and was the Saul Korey Lecturer in 2003. He also was a member of the editorial board of the Journal of Neuropathology and Experimental Neurology from 1997-2005. Dr. Ludwin was Chair of the Committee on Congresses for the AANP from 1990-1994, and a member of the Diagnostic Slide Session Committee for a decade.

Even though the AANP, the JNEN and our annual meetings have benefitted immensely and regularly from our foreign membership, rarely has the AANP awarded its lifetime achievement award to one of these members. Sam Ludwin is one of these select few. L'Chaim!

AANP PRESIDENTIAL SYMPOSIUM
Sunday, 13 June 2010

"Big Science" and the Transition to Personalized Medicine: How can Neuropathologists Play Roles in Large-Scale Clinical, Translational and Basic Research?

8:00 am – 8:30 am	Introduction *David N. Louis, MD, PhD* *Massachusetts General Hospital, Boston, MA*
8:30 am - 9:15 am	TCGA: Basic Genomics Meets Neuropathology *Kenneth D. Aldape, MD, PhD* *MD Anderson Cancer Center, Houston, TX*
9:15 am – 10:00 am	SPORE: Translational Research and the Requirement of Neuropathology *Scott R. VandenBerg, MD, PhD* *University California, San Diego, CA*
10:00 – 10:30 am	*REFRESHMENT BREAK*
10:30 - 11:15 am	***Matthew T. Moore Distinguished Lecture*** RTOG: Clinical Trials and the Increasing Role of Neuropathology *Mark Gilbert, MD* *MD Anderson Cancer Center, Houston, TX*
11:15-11:45 am	AWARDS CEREMONY
11:45 -12:00 pm	*INSTALLATION OF NEW OFFICERS*
12:00 pm	*ADJOURNMENT*

Overall Objectives:
Upon completion of this activity, the attendee should be able to:

1. Describe the Utility of translational Science Large-Scale Resources for the field of Neuropathology

2. Describe the utility of basic scientific large-scale resources for the field of neuropathology

3. Define how neuropathologists can participate in these resources

2010 PRESIDENTIAL SYMPOSIUM

The Neuropathologist using "Big Science": An Introductory Example

David N. Louis
Massachusetts General Hospital and Harvard Medical School, Boston, MA

Dr. David N. Louis is the Benjamin Castleman Professor of Pathology at HMS and Pathologist-in-Chief at MGH. Dr. Louis' own clinical neuropathology practice and research focuses on brain tumors, with an emphasis on the molecular basis of malignant gliomas and the application of molecular diagnostics to glioma classification. He has contributed over 300 original articles, reviews and chapters to the literature. His laboratory was the first to demonstrate that molecular approaches could be used to subdivide malignant gliomas in a biologically relevant manner, and that molecular approaches could be used to predict the response of particular malignant gliomas to specific therapies. Dr. Louis has received a number of prestigious awards for his work, including the 2008 Zülch Prize of the Max Planck Society. Dr. Louis served on the 2000 WHO Committee on the Classification of Tumours of Nervous System and co-chaired the 2007 WHO Classification of Tumours of the Central Nervous System. He has served as chair of the Scientific Advisory Panel of the Brain Tumor Society, on the Board of Directors of the Society for Neuro-Oncology, and on editorial boards of more than 10 national and international journals. Dr. Louis is one of three editors for the 8th edition of *Greenfield's Neuropathology* and author of the AFIP Fascicle on Non-neoplastic Disease of the Central Nervous System. He was also co-chair of the Brain Tumor Progress Review Group sponsored by the NIH, and was the founding chair of the Cancer Biomarkers Study Section at NIH.

Objectives:

At the end of the lecture, the attendee should be able to:

- Describe some examples of "big science" (i.e., large collaborative, multi-institutional) initiatives.
- Describe the role of MSH6 inactivation in mediating alkylator agent chemoresistance in glioblastoma.
- Describe the putative relationship between MGMT inactivation and MSH6 inactivation in mediating alkylator agent chemoresistance in glioblastoma.

Abstract:

"Big science" initiatives are large, collaborative, multi-institutional projects that provide many opportunities to benefit the biomedical community. They span from more basic scientific undertakings (such as the Human Genome Project and The Cancer Genome Atlas [TCGA]), to translational endeavors (such as Specialized Programs of Research Excellence [SPOREs]), and to more clinically applicable efforts (such as large clinical trial organizations, e.g., the Radiation Therapy Oncology Group [RTOG]). All of these "big science" projects present important opportunities for neuropathologists. The present lecture provides an example of the interplay between neuropathology translational research and "big science" by illustrating the discovery and clarification of the role of MSH6 inactivation in mediating alkylator agent chemoresistance in glioblastoma--largely through interactions between the Louis laboratory and the Wellcome Trust-Sanger Institute, TCGA and the Zinc Finger Consortium. The interplay between MGMT inactivation and MSH6 (a mismatch repair protein) inactivation appears to account for glioblastoma resistance to temozolomide

in many patients, as evidenced by both *in vivo* and *in vitro* observations. The following Presidential Symposium follows this introductory talk with examples of how neuropathologists can benefit from "big science" initiatives such as TCGA, brain tumor SPOREs and the RTOG.

Disclosures: Dr. Louis has nothing to disclose.

2010 PRESIDENTIAL SYMPOSIUM

TCGA: Basic Genomics Meets Neuropathology

Kenneth D. Aldape, MD, PhD
MD Anderson Cancer Center, Houston, TX

Dr. Kenneth Aldape is a Professor of Pathology at UT MD Anderson Cancer Center. He received his medical degree from The University of California, San Francisco in 1991. Following residency in pathology and fellowship in neuropathology at UCSF he joined the faculty there in 1995. In 2001, he moved to MD Anderson as an Associate Professor. In 2008 he was promoted to the rank of Professor. His work is focused on basic and translational aspects of brain tumors especially gliomas. Over the past 10 years, he has conducted a series of high-throughput microarray screens to identify molecular subtypes of gliomas. Robust markers have been identified from these screens and are currently being tested for their applicability to routinely process formalin-fixed paraffin embedded tissue with the goal of identifying clinical tests which could be used to personalize therapy for patients with glioma. Most recently he has been involved with The Cancer Genome Atlas (TCGA) where along with colleagues; he identified a subset of glioma that shows the CpG Island Methylator Phenotype (CIMP). It was found that CIMP-positive gliomas have distinct molecular and clinical characteristics and were also highly positively associated with the presence of IDH1 mutations. Future work will integrate data from multiple platforms to refine our classification of glioma based on clinically relevant molecular signatures. Dr. Aldape is a member of Board of Directors of the Society of Neuro Oncology and serves on the External Advisory Board for several academic institutions as well as the Sontag Foundation and the American Brain Tumor Association.

Objectives:

At the end of the lecture, the attendee should be able to:

- Describe current methodologies used for molecular classification of glioma.
- Describe existence of the CpG island methylator phenotype in glioma.
- Discuss methodologies that translate data obtained from high-throughput screens to routinely available clinical samples.

Abstract:

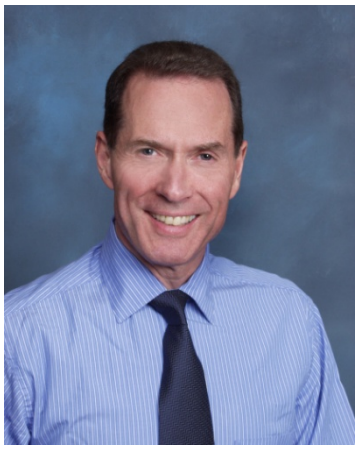
The Cancer Genome Atlas (TCGA) chose glioblastoma as the initial tumor type for study. A unique feature about TCGA was the use of a multidimensional profiling approach to identify clinically relevant molecular signatures. We have focused on two platforms profiled by TCGA: expression microarray analysis and CpG island methylation analysis. Using expression microarray data from TCGA and other sources, we have identified a survival prediction model and have validated this model in independent microarray datasets. Current work involves translating these data into assay amenable to routinely available formalin-fixed paraffin embedded specimens for future clinical applicability. In addition, we have examined epigenetics data from TCGA. Analysis of these data indicated concordant methylation of a cassette of genes that occurred in approximately 10% of the GBM samples. This pattern is similar to the CpG island methylator phenotype (CIMP) found in other tumor types. Clinical correlation showed that CIMP-positive tumors were from younger patients with a significantly improved outcome. Since CIMP-positive tumors had characteristics of secondary GBM, we investigated this phenotype in low-intermediate grade glioma. Approximately 80% of grade II gliomas and 50% of grade III gliomas were found to be CIMP positive. CIMP was also positively correlated with the presence of IDH1 mutation. Current work involves the integration of

CIMP status with molecular subsets defined by expression microarray data to further refine molecular classification of gliomas. Application of these technologies to paraffin tissues, especially from clinical trial samples, are underway to validate them as clinically relevant.

Disclosures: Dr. Aldape has nothing to disclose.

SPORE: Translational Research and the Requirement of Neuropathology

Scott R. VandenBerg, MD, PhD
University California, San Diego, CA



Scott R. VandenBerg is a Professor of Pathology and Chief of the Neuropathology Division at the University of California, San Diego. He was awarded an M.D. and Ph.D. in Neurosciences at Stanford University, and received training in Anatomic Pathology at the University of Colorado Health Sciences Center and at the University of Virginia Health System. He completed his Neuropathology Fellowship with Lucien J. Rubinstein and also received postdoctoral training in the Laboratory of Developmental Neurochemistry with Roland Ciaranello at Stanford University. In 1984 he joined the Division of Neuropathology at the University of Virginia as an Assistant Professor of Pathology and rose to the rank of Professor and Chief of the Division of Neuropathology. In 1998 he was named as the John T. and Louise Nerancy Professor of Neurosciences at the University of Virginia. In 2003, he moved to UCSF to become Professor of Pathology and Neurological Surgery, and Director of the Tissue Core of the Brain Tumor Research Center Tissue Core and UCSF Neuropathology Biomarkers Laboratory. In this capacity, he also served as the Director of the UCSF Brain SPORE Tissue Core and in 2007, became a member of the GBM Working Group of the Cancer Genome Atlas Project to establish consensus histopathologic features for the TCGA data base. In 2008, he became Co-Director of RTOG Biospecimen Resource for neurological pathology. In 2009, he transferred to the University of California San Diego and now heads the newly established Human Tissue Technology Center, a campus-wide biospecimen repository and tissue translational research laboratory.

Objectives:

At the end of the lecture, the attendees should be able to:

- Describe how the NIH Brain SPORE Program contributes to the translational brain tumor research.
- Delineate the fundamental collaborative functions of the neuropathologist in the Brain SPORE Program.
- Describe the key roles of the neuropathologist for ensuring the quality of bio-specimens in the post-genomics era of biomedical science.

Abstract:

Neuropathologists have key roles in the discovery of the morphologic, cell biological, and molecular basis of neurological diseases. This presentation will review the spectrum of essential and collaborative functions of the neuropathologists in the Brain Tumor SPORE Program. This Program was initiated by the National Cancer Institute with co-sponsorship of the National Institute of Neurological Disorders and Stroke in the year 2002 with the funding of two P50 SPOREs. The Program has grown into four fully funded SPOREs and throughout its history, tissue cores have been an essential and highly valuable resource. Neuropathologists have played a central and highly collaborative role in the function of these cores. The presentation will highlight the variety of scientific collaborations facilitated by neuropathologist as a part of SPORE research in addition to an essential role for safeguarding the quality of brain bio-specimens available for translational research.

Disclosures: Dr. VandenBerg has nothing to disclose.

Matthew T. Moore Distinguished Lecture

RTOG: Clinical Trials and the Increasing Role of Neuropathology

Mark Gilbert, MD
MD Anderson Cancer Center, Houston, TX

Dr. Mark Gilbert is Professor and Deputy Chair at the Department of Neuro-Oncology at The University of Texas M.D. Anderson Cancer Center, Houston, Texas, USA. Dr. Gilbert received his MD from the Johns Hopkins University School of Medicine, Baltimore. He completed Residences and Fellowships in the Departments of Internal Medicine and Neurology at Johns Hopkins Hospital, and was appointed Keck Foundation Fellow in Neuro-Oncology, at Johns Hopkins Hospital from 1986 to 1987. Dr. Gilbert is current board certified in Internal Medicine and Neurology and Psychiatry. Dr. Gilbert has also been awarded the Blanche Bender Professorship in Cancer Research Endowment.

Dr. Gilbert is a member of various societies and organizations including the American Association for Cancer Research, the American Academy of Neurology, the American Society of Clinical Oncology, and the Society for Neuro-Oncology.

Dr. Gilbert's current research focuses on the development of new chemotherapy agents, phase I testing, pharmacology, and drug resistance modulation. As well as participating in trials developed locally at MD Anderson Cancer Center. Dr. Gilbert takes part in clinical studies conducted in conjunction with the Radiation Therapy Oncology Group and the Adult Brain Tumor Consortium, for which he serves as Principal Investigator for the UT M. D. Anderson clinical site.

Objectives: At the end of the lecture, the attendees should be able to:

- Describe how the Radiation Therapy Oncology Group contributes to the clinical brain tumor research.
- Delineate the key roles of the neuropathologist in large cooperative trial organizations such as RTOG.
- Describe some of the molecular markers being employed in large clinical trials of malignant gliomas.

Abstract:
The prognosis for patients with malignant gliomas remains quite poor. As often stated, there have been advances in each of the clinical disciplines, neurosurgery, radiation oncology and medical oncology. However, until 5 years ago, there were no substantive data that confirmed that these advances translated into improved patient outcomes. In 2005, a seminal paper was published in the New England Journal of Medicine, reporting the results of a randomized, phase III trial in patients with newly diagnosed glioblastoma. This study, performed by the EORTC and the NCI-Canada, compared the standard of care of external beam radiation with a novel concurrent chemotherapy and radiation treatment followed by 6 months of chemotherapy alone. This effort provided level 1 evidence that the combination led to improved median survival, 2-year and 5-year survival rate. Furthermore, tumor tissue was available from a subset of patients. A methylation-specific PCR system was used to look at the methylation status of the promoter region of the MGMT, a likely mechanism of temozolomide resistance in gliomas. The tumors were characterized as either with methylated promoter (decreased expression) or unmethylated (higher levels of expression). As

predicted, outcomes were markedly better for patients with methylated tumors. However, importantly, these data with additional information, confirmed the prognostic, but not full predictive ability of this test. Importantly, this study and additional correlative investigations confirmed the pivotal role of the cooperative group mechanism in establishing new standards of care and the importance of correlative studies in better understanding the apparent variability of response and benefit of treatment. These would be important steps towards personalizing treatment for patients.

The Radiation Therapy Oncology Group (RTOG) has the largest US-based cooperative group effort studying new treatments for brain tumors. The RTOG developed the successor trial for newly diagnosed glioblastoma that builds on the EROTC-NCIC-Canada trial, examining the potential therapeutic benefit of intensifying temozolomide treatment to modulate MGMT activity. In the RTOG 0525 trial, patients with glioblastoma were required to have tumor tissue blocks submitted at the time of entry so that the diagnosis can be confirmed (central neuropathology review) and tumor MGMT gene promoter methylation status can be determined. This latter component is critical as it is a stratification factor. RTOG 0525 accrued 1173 patients and tissue blocks received from 1168. Study accrual was rapid, requiring only 26 months for study completion. Although results are expected by early 2011, there already have been important implications of this success. RTOG 0525 represents the largest brain tumor clinical trial ever completed and the mandatory tumor tissue requirement and real-time central review and molecular (MGMT) analysis, represents a landmark study.

More recently, the RTOG launched a large, phase III trial designed to determine the role of the anti-angiogenic agent, bevacizumab, in patients with newly diagnosed glioblastoma. For this study, the tissue requirement remained, but with an accelerated timeline. Tumor tissue must undergo central review and real-time determination of MGMT methylation status and a 9-gene prognostic marker (developed by K. Aldape and colleagues) that are both incorporated into the stratification schema. This rapid tumor analysis has been successfully implemented into the ongoing trial.

These clinical trials with integrated correlative studies underscore the role of neuropathology in the most highly productive clinical trials in neuro-oncology. At the broadest scope, provision of optimal tumor tissue blocks is a critical step in successful completion of these seminal clinical trials. Moving forward, it is likely that neuropathologists will provide critical information beyond the traditional histologic designation and grading. In addition to providing tumor material for the study, this may include performance and interpretation of molecular profiling so that optimal patient selection can occur both efficiently and ultimately, as a routine component of care. Currently, the collaborative efforts of neuropathologists both as a part of the multidisciplinary care of individual patients who participate on clinical trials and as lead investigators on the studies that are leading to even more precise characterization of tumors and more specific, personalized treatment for patients.

Author Index