Neurology Electives Catalog

Residency Training Program
Department of Neurology
David Geffen School of Medicine at UCLA

Revised April 2015
by Josh Kamins and Peter Nguyen

Update History:
Jason Tarpley and Katie Mayo 2013-4
Tritia Yamasaki and Mike Su 4/2012

Special thanks to people contributing comments, including Michael Ho, Margaret Moscato, Joanna Dearlove, Carine Maurer, and Ana Beesen
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*Comments*: Organize your rotations early. Rather than doing a whole month of one subspecialty, you can design your own subspecialty clinic rotations in your 3rd and 4th years to help you maximize your exposure to all different neurological subspecialties. Subspecialty rotations that you should probably do individually include movement disorder, neurobehavior, neuromuscular, neuropathology, and possibly neuroradiology, because these rotations will fill up your weekly schedule. Nevertheless, even these may potentially be modifiable to optimize your educational time if you coordinate in advance with the attendings. The remaining subspecialties are more likely to be organized as a subspecialty clinic rotation.
Epilepsy/Video-EEG Monitoring Mini-Fellowship Elective
(Updated by J. Stern 5/2012)

1. Description: 4-6-week elective rotation for neurology residents during the second or third year of residency. Participating residents are expected to have completed the EEG and epilepsy rotation.

2. Educational goals of the rotation:
   a. Gain EEG interpretation skills for seizures, interictal epileptiform activity, normal variants, and artifacts.
   b. Increase familiarity with behavioral manifestations of seizures and paroxysmal nonepileptic activity.
   c. Understand process of evaluation for epilepsy surgery, including the incorporation of multiple diagnostic modalities in the identification of the epileptogenic zone.
   d. Participate in intra-operative electrophysiologic mapping of epileptic regions and normal function.

3. Schedule of Activities
   08:00 – 10:00  Rounding on VEM unit with attending
   10:00 – 12:00  Patient care responsibilities
   10:00 – 10:30  Individual teaching with senior fellow (Mondays)
   13:00 – 17:00  Epilepsy clinic (Mondays)
   12:00 – 14:00  Clinical neurophysiology lecture series (Tuesdays)
   13:30 – 16:00  Epilepsy surgery case conference (Wednesdays)
   10:00 – 10:30  Individual teaching with attending (Thursdays)
   10:00 – 12:00  Epilepsy clinic (Fridays)
   14:00 – 15:00  Epilepsy tutorial (Fridays)
   Various times  EEG reading with attending (Daily)

4. Patient Care Responsibilities
   Rotating residents will have primary responsibility for their patients on the VEM unit. This includes patient admission, reviewing daily video-EEG recordings, determining plan based on recording results, patient discharge, and presentation of results in epilepsy surgery conference. The epilepsy attending will supervise these activities, which will be equivalent to those performed by the epilepsy fellows. Monitoring reports for the medical record will be produced jointly, which also is equivalent to the epilepsy fellow responsibility. There will be no call or weekend responsibilities. Admission volume will be 1 – 2 patients weekly. The mini-fellowship will address competencies in all 6 areas.

5. Core Curriculum
   1. Principles of EEG
   2. Indications for EEG and video-EEG monitoring
   3. Classification of seizures
   4. Localizing features of ictal behavior
   5. Common EEG artifacts
6. EEG normal variants
7. Epileptiform EEG abnormalities
8. Scalp EEG features of seizures
9. Intracranial EEG of seizures
10. Intracranial evoked potentials
11. Cortical electrical stimulation for functional mapping
12. Indications for epilepsy surgery
13. Outcomes from epilepsy surgery

6. Recommended Reading
Atlas of EEG Patterns- Stern and Engel
Atlas of Video-EEG Monitoring- Sirven and Stern
Intraoperative Monitoring of Neural Function- Nuwer


Updated J. Stern 9-28-10

Comments: This elective is best scheduled as a more in-depth, practical follow up to the EEG reading rotation. Clinic staff will schedule patients for you to see in Monday and Friday clinics, so make sure to give them advance notice that you are doing the elective.
Headache/Interventional Pain/Oralfacial Pain

*Updated by Mollie Johnston (5/2012), Joshua Kamins (May 2015)*

*This elective can be combined or separated into its parts, and is flexible so that your education is optimized.*

**Goals of elective:** Back pain, headache, head and neck pain are the most common reasons to see a general neurologist. The goal of the rotation is to introduce neurology residents to interventional pain procedures, complicated headache patients, and oral facial pain to better prepare you for the majority of patients you will encounter after residency. Residents will have the opportunity to assist in interventional procedures including trigger point injections, botox, occipital nerve blocks, fluoroscopically guided procedures (epidurals and a multitude of nerve blocks), and live intraoperative ultrasound-guided and EMG-guided procedures. Appropriate headache management with prophylactics and abortive medications will be overviewed. In addition, time can be spent at the UCLA School of Dentistry Department of Oralfacial Pain learning about TMJ disorders, trigeminal neuralgia, and intraoral pain conditions.

**Faculty Mentor(s):** Mollie Johnston, M.D., Andrew Charles, M.D., Sheldon Jordan, M.D., Marisa Chang, M.D.

**Contact Person(s):** Any of the above faculty mentors you plan to work with.

**Location:** RRUMC/UCLA, CAST (Center for Ambulatory Surgical Treatment) on Glencoe, Neurological Associates of WLA (NAOWLA) Dr Jordan and Dr Chang’s private practice

**Weekly schedule of activities, conferences, clinics, didactics, etc:**

<table>
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<tr>
<th></th>
<th>Monday</th>
<th>Tuesday/Procedures</th>
<th>Wednesday</th>
<th>Thursday/Procedures</th>
<th>Friday</th>
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<tbody>
<tr>
<td><strong>AM</strong></td>
<td>8am Headache clinic w/ Dr. Charles &amp;</td>
<td>7am to 1pm Clinic</td>
<td>UCLA Residency Didactics. Note:</td>
<td>8am Headache clinic</td>
<td>7:00am Headache clinic</td>
</tr>
<tr>
<td></td>
<td>Johnston (300 Med Plaza)</td>
<td>procedures with Dr.</td>
<td>7-9am you may do procedures</td>
<td>w/ Dr. Johnston (300</td>
<td>at UCLA Dental School</td>
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<tr>
<td></td>
<td></td>
<td>Johnston.</td>
<td>with Drs. Jordan/Johnston</td>
<td>Med Plaza)</td>
<td></td>
</tr>
<tr>
<td><strong>PM</strong></td>
<td>Headache clinic w/ Dr Johnston</td>
<td>UCLA procedures in</td>
<td>Interventional procedures with</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>300 Med Plaza</td>
<td>Dr Johnston @ CAST</td>
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</table>
Comment:
This is really a unique experience since we really get limited pain management training beyond headache yet get endless pain referrals from other specialties and will see mostly headache and back pain in the ‘real world’. The attendings are knowledgeable and enthusiastic about teaching. Take the unique opportunity to learn and participate in procedures for pain treatment. You will be exposed to the future of interventional pain neurology as a subspecialty, including procedures in intraoperative live EMG and live ultrasound-guided, fluoroscopic, and unguided procedures, as well as have the opportunity to see fMRI and transcranial magnetic stimulation in clinical setting. By report of prior rotators, Dr. Jordan is worth spending time with as he is an excellent teacher/mentor and will also let you assist in the OR. More recently Dr. Johnston has taken over many of the UCLA procedures, so it is up to you to discuss with the various attendings who you would want to work with.

Useful references (texts, review articles, websites):
Continuum: Neuropathic Pain
Image Guided Spine Intervention by Douglas Fenton
Motivational Interviewing
Stabbed in the Back
HIV Neurology
Updated by Yama Akbari (7/2009), Dr. Valdes-Sueiras (5/2012)

Goals of Elective: To become familiar with the diagnosis and treatment of the myriad neurological complications of HIV infection. This elective also offers opportunities to become more proficient in lumbar punctures.

Locations: UCLA- 300 Medical Plaza Neurology Clinic, OVMC- clinic C

Faculty Mentor(s): Miguel Valdes-Sueiras, M.D.; Elyse Singer, M.D.

Clinic Schedule:
Monday: Independent Reading/AHF Hollywood Clinic with Dr. Valdes (varies)
Tuesday PM: UCLA clinic with Dr. Singer
Wednesday AM and PM: AHF Hollywood Clinic with Dr. Valdes, starting at 0900
Thursday AM: OVMC- research clinic with Dr. Valdes (LP’s)
Thursday PM: OVMC ID clinic (area C) with Drs. Valdes and Singer

Contact Person(s):
Dr. Miguel Valdes-Sueiras, mvsueiras@mednet.ucla.edu
Dr. Elyse Singer, esinger@ucla.edu

Suggested Readings:

Comment: This rotation is very good in helping you get familiar with dealing with the different neurological problems that HIV patients can present with, and helps you devise a systematic approach to diagnosis and treatment. It can be a bit observational at times, especially at the AHF clinics because we do not officially have privileges there. However, if you take some initiative, you can take charge of the interview and exam and Dr. Valdes will happily step back and take care of the paperwork. Can be paired with other electives. Previously residents rotated at the Hollywood Clinic with Dr. Valdes, but currently this is not active.
Movement Disorders


Goals of Elective: To become familiar with diagnosis and treatment of various movement disorders, with particular emphasis on management of Parkinson’s disease, essential tremor, multiple system Atrophy, Tourette, Huntington disease, and dystonia. In addition a working knowledge of the surgical options for difficult to control PD, as well as ET and dystonia, and the appropriate uses of botox should be gained.

Location(s): UCLA- 300 Medical Plaza Neurology Clinic, WLAVA Outpatient Neurology Clinic on Tuesday afternoon.

Faculty Mentor(s): Drs. Jeff Bronstein, Indu Subramanian, Susan Perlman, Yvette Bordelon, Carlos Portera-Cailliau, Allan Wu, Ed Farag.

Contact Person(s):
Dr. Jeff Bronstein (jbronste@mednet.ucla.edu) is the primary contact faculty member. Touch base with Henrietta (hsalazar@mednet.ucla.edu) she usually coordinates everything with Drs. Bronstein, and Subramanian.

Clinic Schedule:

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<tbody>
<tr>
<td>UCLA Huntington clinic with Dr. Perlman and Dr. Bordelon</td>
<td>Self Study</td>
<td>Grand rounds Didactics NOC</td>
<td>UCLA clinic with Dr. Subramanian</td>
<td>UCLA clinic with Dr. Bronstein and Dr. Bordelon</td>
</tr>
<tr>
<td>Self study</td>
<td>12Noon Journal Club at VA</td>
<td>Self study</td>
<td>Self study</td>
<td>UCLA clinic with Dr. Wu (Botox)</td>
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<tr>
<td></td>
<td>VA Movement Clinic</td>
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<td></td>
<td>4PM Movement Disorder conference</td>
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Suggested Readings:
Dr. Bronstein will give you a handout on PD which is pretty succinct and good to get the basics. Other resources include the Continuum devoted to Movement DO, as well as Movement Disorders by Fahn and Jancovic.

Comment: The above schedule is the formal schedule given out by Henrietta, but you may arrange to work with different attendings of your choice on Thursday and Friday, just email them in advance. Most of the clinics are observational with the exception of the WLAVA clinic, where they will schedule patients for you (so make sure they have advance notice that you are coming). Neurootology could be combined with this elective on Wednesday afternoon and Dr. Perlman’s ataxia clinic be combined with this elective.
on Tuesday AM. You can also see patients with Dr. Bordelon on Wednesday afternoon, where you have the chance to learn about DBS programming. Dr. Wu is great to rotate with as well, as he does EMG-guided botox. To get the most out of the experience it is worth trying to rotate with different attendings as they all have slightly different approaches. As a whole, the movement disorder group offers among the best teaching in the department. Friday conferences are especially interesting because they have a live patient presentation and a good discussion afterwards between the different movement disorder attendings. The 12 Noon WLAVA Conference on Tuesday is a phone conference presentation involving various movement disorder sites; ask the fellows ahead of time to find out if it is an interesting topic, as attendance seems to be optional.
Multiple Sclerosis

Goals and Objectives: To learn about MS diagnosis, following MS patients and management of MS complications, as well as to distinguish MS mimics and various demyelinating disorders.

Contacts: Dr. Giesser (BGiesser@mednet.ucla.edu), and Dr. Momtazee (CMomtazee@mednet.ucla.edu).

Weekly Schedule: MS clinics are Monday PM, Wed PM and Thursday AM. Dr. Giesser will let you see her new patients.

Comment: There may also be opportunities to see MS patients at Cedars. Please contact Dr. Nancy Sicotte (who recently moved from UCLA to Cedars) at nsicotte@ucla.edu for information on current opportunities. Dr. Giesser has a list of suggested readings that she can provide to interested rotators.
Neurobehavior

Goals of elective: To improve diagnostic and management skills regarding dementias and other neurobehavioral disturbances.

Locations: WLAVA New Outpatient clinic and CHS 300 Medical Plaza B level

Faculty Mentor(s): Mario Mendez, MD, PhD; Edmond Teng, MD, PhD; Ron Saul, MD; Michael Mahler, MD.

Contact Person(s): Dr. Mario Mendez, mmendez@ucla.edu

Weekly schedule of activities, conferences, clinics, didactics:

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<th>Monday</th>
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<tr>
<td>AM 8:00 – 4:00 UCLA Behavioral Neurology &amp; Neuropsychiatry Clinic – must be coordinated in advance (UCLA 300 Med Plaza, B200)</td>
<td>9:00 - 11:00 Inpatient Consult Rounds (VA 500, 2N, Rm 2015)</td>
<td>Neurology didactics at UCLA</td>
<td>8:00 - 9:00 Clinical Neurobehavior Seminar (VA 500, 3E, Rm 3229)</td>
<td>8:00 – 9:30 Cognitive Neurology Seminar (VA 206, Rm 13)</td>
</tr>
<tr>
<td>8:30 WLAVA Neuroradiology Rounds</td>
<td>Inpatient Consults</td>
<td>Neurology didactics at UCLA</td>
<td>9:00 - 12:00 Neurobehavior Clinic (VA 500, 4W)</td>
<td>11:00 WLA VA Neurology Grand Rounds</td>
</tr>
<tr>
<td>PM 4:30 – 5:30 Behavioral Neurology &amp; Neuropsychiatry Clinical Case Conference (UCLA 300 Med Plaza, Rm 3200 )</td>
<td>Inpatient Consults</td>
<td>Inpatient Consults</td>
<td>1:30 – 3:00 Inpatient Consult Rounds (VA 500, 2N, Rm 2015)</td>
<td>12:30 – 4:00 Neurobehavior Clinic (VA 500, 4W)</td>
</tr>
</tbody>
</table>

Useful references (texts, review articles, websites):
2) Cummings and Trimble, Concise Guide to Neuropsychiatry and Behavioral Neurology, 2002
4) American Academy of Neurology Continuum on Dementia, Volume 13, number 2, April 2007
5) AAN Dementia continuum

Comment: Although you get some exposure to neurobehavior as part of the PGY-3 and PGY-4 rotation at WLAVA, doing this elective will give you an opportunity to do more initial workups and see more neurobehavior patients. The schedule for this rotation sometimes changes and the fellows are good sources of information for an up-to-the-minute daily schedule. If you do the rotation in July, the ADRC meetings aren’t up and running at that time. Note also, that the number of inpatient consults can run light, as psychiatry residents also rotate through neurobehavior, and you divide the workload. Bring reading material as they expect you to hang out in an office at WLAVA for incoming consults. You will also be asked to do a short presentation of a neuropsychiatric test of your choice one Tuesday AM. Try to attend the Wednesday FTD clinic with Dr. Mendez; although you will likely be shadowing the neurobehavior fellow, the cases are interesting and Dr. Mendez is an excellent teacher.
**Neurogenetics**
*Submitted by Brent Fogel, M.D., Ph.D. (4/2010), Updated by Inna Keselman (4/2011)*

**Goals of Elective:**
Gain experience evaluating, differentiating, and diagnosing various hereditary ataxias (both autosomal dominant and autosomal recessive). Detailed exposure to the diagnosis and management of patients with Huntington’s Disease. Additional clinics may be arranged for more detailed exposure to patients with neuromuscular disease, mitochondrial disease, inborn errors of metabolism, or other disorders. Emphasis is placed on physical examination skills, differential diagnosis, distinguishing inherited from acquired conditions, understanding disease progression, and multimodal disease management options (including diagnostic evaluations; pharmacologic treatments; genetic counseling; physical, occupational, speech and other rehabilitation therapies; need for additional clinical specialty evaluations; etc.). Interested residents may also inquire about participation in research activities conducted by various faculty mentors to gain exposure to genetic/molecular neuroscience research and/or clinically-based research.

**Location(s):**
UCLA 300 Medical Plaza Neurology Clinic
Other UCLA Clinics and/or Laboratories

**Faculty Mentor(s):**
Susan Perlman M.D. (Hereditary Ataxias and Huntington’s Disease)
Yvette Bordelon M.D. (Huntington’s Disease and other Movement Disorders)
Brent Fogel M.D. Ph.D. (Hereditary Ataxias, Hereditary Spastic Paraplegias, and Leukodystrophies)
Other Faculty (variable, based on resident interests and scheduling availability)

**Contact Person(s):**
Susan Perlman M.D. (sperlman@mednet.ucla.edu)
Brent Fogel M.D., Ph.D. (bfogel@ucla.edu) (for research opportunities and/or specific clinical interests)

**Sample Clinic Schedule (can be tailored to individual interests):**

<table>
<thead>
<tr>
<th>Monday AM</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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</thead>
<tbody>
<tr>
<td>Huntington’s Disease Clinic</td>
<td>Reading, Research, or other Clinic</td>
<td>Grand Rounds and didactics</td>
<td>Ataxia Clinic</td>
<td>Ataxia Clinic</td>
</tr>
<tr>
<td>PM</td>
<td>Ataxia Clinic</td>
<td>Friedreich Ataxia Clinic</td>
<td>Reading, Research, or other Clinic</td>
<td>Reading, Research or other Clinic</td>
</tr>
</tbody>
</table>

Additional pediatric genetics, neuromuscular, movement disorders, and other clinics may also be available based on the individual resident’s interests.
Suggested Reading and Other Resources:

Books
Genetics of Movement Disorders; ed. Stefan M. Pulst M.D. 2003.
Neurogenetics (Contemporary Neurology Series #57); ed. Stefan M. Pulst M.D. 2000.

Journal Articles

Online Resources
Washington University Neuromuscular Disease Center at http://www.neuro.wustl.edu/neuromuscular/
The National Ataxia Foundation at http://www.ataxia.org/

Comment: There is a lot of exposure to important neurological conditions available on this rotation that are not often seen in general clinic or the inpatient setting, such as SCAs, Huntington’s, Friedrick’s ataxia, and others. Email Dr. Fogel in advance as he will help set up your schedule, which you can tailor somewhat to your own interests. Dr. Perlman is a great teacher and has a good collection of review articles and references which she can email you on your first day. You will see patients on your own and staff them with the attendings. On the first of the month there is also a Neurogenetics conference in C-128 from 1-2pm. Craniofacial clinic is worth attending maybe once, to see a variety of craniofacial abnormalities, treatment issues, and a multidisciplinary approach, but repeat clinics are less high yield. A good combination might include neuro-otology clinic with Dr. Baloh on Wednesday afternoons.
Goals of Elective:
1. To master an understanding of the basic electronics, biomedical instrumentation, and membrane physiology necessary for accurate recording of electrical events in the EMG laboratory.
2. To acquire a basic knowledge of the anatomy and physiology of peripheral nerve and muscle. This will require an understanding of the microscopic anatomy of the motor unit as well as the gross anatomy of all components of the peripheral nervous system relevant to clinical electrodiagnosis: dermatomes, myotomes, anatomy of individual nerves of the upper and lower extremities.
3. To have a hands-on experience with the standard procedures used in electrodiagnostic medicine: motor and sensory conduction studies, late responses, repetitive nerve stimulation, and the needle electromyographic examination.
4. To develop basic understanding of the principles of consultation and the clinical applications in electrodiagnostic medicine. Patient centered teaching during the clinical encounters in the EMG lab will focus on: which tests to perform, clinical correlation during the procedure, diagnostic interpretation, and report generation.

Location(s):
1. RRUCLA Medical Center – EMG lab, MDA clinic: Shieh, Graves, and Pleninger)
2. Olive View Medical Center – MDA Clinic on Friday AM, EMG/NCS on Friday PM.
3. West LA VA- EMG/NCS on Tues PM

Faculty Mentor(s)/Contact Person(s): At UCLA: Dr. Perry Shieh (PShieh@mednet.ucla.edu), Dr. Pleninger (ppleninger@mednet.ucla.edu), and Dr. Graves (mgraves@mednet.ucla.edu x57266). At Olive View: Mishra (818-891-7711)

You need to contact these people individually but all are very willing and eager to teach and let you tag along.

Neuromuscular schedule at UCLA:

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<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>AM</td>
<td>NM Didactics with Dr. Shieh</td>
<td>UCLA MDA Clinic</td>
<td>UCLA Residency Didactics</td>
<td>EMG/NCS with Dr. Shieh At WLA VA</td>
<td>OV MDA Clinic Muscle / Nerve biopsies are often done Fri AM at UCLA</td>
</tr>
<tr>
<td>Noon</td>
<td>Neuromuscular Conference</td>
<td>Neuropysiology Conference</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td>EMG/NCS with Dr. Shieh</td>
<td>EMG/NCS with Dr. Shieh/Graves at WLA VA</td>
<td>EMG/NCS with Dr. Shieh</td>
<td>EMG/NCS with Drs. Shieh/Graves At UCLA</td>
<td>OV EMG with Dr.Cardenas</td>
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Mon PM can also be spent with Mishra’s Neuromuscular clinic at WLA VA.

Every other Wednesday is Peds Neuromuscular Clinic, which is a multidisciplinary clinic (patients are seen by neuro, cards, PT, pulm, etc all on the same day. It is not unusual for it go past 8pm).

Fri PM can also be spent with Dr. Shieh / fellows clinic at UCLA.

Suggested reading:
EMG Pearls (Paperback) by Steven Greenberg (Author), Anthony Amato (Author)

*Essentials of Electrodiagnostic Medicine* - William Campbell, there should be a copy in the Rose room. This is a good primer for those of you who want to know the nitty gritty E&M theory and governing rules that EMG and NCS are based upon. If you’ve forgotten what capacitance and resistance are, this is a good primer.

*Peripheral Neurology: Case Studies in Electrodiagnosis* - Jay A. Liveson, copy in Roseroom or with Dr. Pleninger. This is a great real world case based book.

First Aid for the Neurology Boards has good tables of muscle innervations.
The other books on this list are recommended by Dr. Pleninger and Dr. Shieh.
1) Electromyography and Neuromuscular Disorders: Clinical-Electrophysiologic Correlations, Textbook with CD-ROM (Hardcover) by David C. Preston (Author), Barbara Shapiro (Author)
10) *Focal Peripheral Neuropathies*; 3rd Edition; Stewart, J.D., 1999
Comments: This rotation should certainly be four weeks, as the anatomy is quite detailed and you're learning procedures. If you want to become proficient at performing EMGs, be sure to let Dr. Shieh know and there will be many opportunities. On the contrary, if you are not interested in learning how to actually do EMG/NCS, Dr. Shieh is flexible and you aren't required to do them. When at UCLA clinic with Dr. Shieh, try to do as many follow ups as possible (since the new patients so often have normal studies); can also ask fellows if they have interesting cases. The peds NM clinic is a good experience—2x/month, Wed PM. The Olive View muscular dystrophy clinic is also great and would recommend doing that weekly. Overall, one of the busier electives but a great learning experience, especially since many of us are uncomfortable with the topic Avoid: EMGs with Dr. Mishra have not been as helpful a learning experience for some residents, since we already do some in the PGY-2 Sepulveda rotation. Myasthenia clinic may also be less high-yield. VA EMGs may not be very interesting and there is a high no show rate.
Neuro-Oncology
Updated by David Piccioni / Yama Akbari (7/2009), Mark Stahl 4/2011

Goals of elective:
Learn about neuro-oncology. Hang out with the Neuro-onc team at UCLA
(Attendings: Dr. Cloughesy, Dr. Lai, Dr. Nghiemphu; Fellow David Piccioni, MD/PhD
(and new incoming fellows), and; along with Mady, Nanette, Carrie, Dan, Lu, Leo, etc.)
The focus at UCLA is on primary brain tumors, particularly glioblastoma.

Elective residents get to see patients (new and f/u) by themselves once Dr. Cloughesy
feels residents have a handle on things. Overall, it is still a closely supervised clinical
experience (which is good).

Locations: Location: UCLA 200 Med Plaza. 1st floor onc clinic (to the R down the hall
as you come in main door) and work your way into the back

Faculty Mentor(s):
Tim Cloughesy, MD - tcloughesy@mednet.ucla.edu
Albert Lai, MD, PhD - albertlai@mednet.ucla.edu
Leia Nghiemphu, MD - PNghiempthu@mednet.ucla.edu

Contact Person(s):
Tim Cloughesy

Weekly schedule of activities, conferences, clinics, didactics, etc:

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<tbody>
<tr>
<td>AM</td>
<td>Neuro-onc clinic starting at 9:30AM in Med Plaza 200</td>
<td>9am: Fellow &amp; Resident Didactic Lect</td>
<td>UCLA Residency Didactics</td>
<td>Self study or research</td>
</tr>
<tr>
<td></td>
<td>11am: Neuro-onc Dept meeting in Stouffer</td>
<td>11am: Resident Tumor board, in Rad Onc Suite in Med Plaza 200 basement</td>
<td>Self study or research</td>
<td>Self study or research</td>
</tr>
<tr>
<td>PM</td>
<td>Neuro-onc clinic continues until 5:30-7:30PM</td>
<td>Neuro-onc clinic</td>
<td>Self study or research</td>
<td>Self study or research</td>
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- sporadic study patients on other days (usually seen by Carrie Graham, NP)
- Tumor board is worth going to at least once, even though it means skipping some
regular didactics (this is encouraged).
- Sporadic meetings with the whole neuro-onc group (including the research side).
The clinic schedule is not that taxing (though Monday clinics are looong - bring food and drink), so in the past, it sounds like people have either tried to do a research project during this elective (Drs. Cloughesy and Lai are extremely willing to help you find something worth doing), or used the free time to go to other subspecialty clinics (e.g. you may be able to attend Dr. Perlman’s neurogenetics/ataxia clinics on Thurs/Fri). Overall though, the schedule is quite flexible, and of your choosing.

Useful references (texts, review articles, websites):
- Go to the Biomed library section for Neuro-oncology. There are tons of textbooks out there for basic background stuff. A highly readable intro primer is "Intracranial Tumors: Diagnosis and Treatment" by Lisa DeAngelis et al. A new edition is supposed to come out soon.
  This is a CME program from the SNO 2006 meeting - basically a collection of powerpoint presentations with audio from some of the leading people in the field. A great summary of research on the treatment of gliomas. (Sponsored by Schering Plough.)
- Ask the Fellows or Faculty for good articles to read

Comment:
Good rotation if you're interested in neuro-oncology. Fairly unstructured, which gives you time to read about the subject material, and think more from a scientific approach then we generally get to do as clinicians. The main focus of this rotation are 2 clinics. Dr. Cloughesy is a great mentor, and it's amazing how smoothly the whole department runs. A “great opportunity to brush up on neuro-imaging) as much of the clinic time is spent reviewing scans.
Neuro-Ophthalmology
Updated by Peiyee Lee (3/2007), Mark Stahl (4/2011)

Goals of elective: To learn about eye movement disorders and differentiate ocular vs. optic nerve problems. Learn how to properly perform fundoscopic evaluation.

Locations: Jules Stein Eye Institute 2nd floor

Faculty Mentor(s)/Contact Person(s):
Dr. Anthony Arnold (arnold@jsei.ucla.edu, or call his office and leave a message with his secretary Janet (310-8254344). Janet will make sure Dr. Arnold gets the message). Dr. Arnold has special interest in the optic nerve; his clinic will allow you to see more ocular/optic nerve disorders.
Dr. Joseph Demer (jld@ucla.edu) has special interest in eye-movement disorders; he is another potential person to contact.
Dr. Bonelli (Bonelli@jsei.ucla.edu) has a special interest in neuro-optho and is also reportedly very resident friendly

Weekly schedule of activities, conferences, clinics, didactics:
Schedule changes, so ask Dr. Arnold for update. For now, he has clinic on Monday and Tuesday.

Useful references (texts, review articles, websites):
2006-2007 Basic and Clinical Science Course (BCSC) Section 5: Neuro-Ophthalmology Section editor: Lanning B. Kline, MD (Order through www.aao.org, the book is kind of pricey if you are not a member of AAO).

Comments: This is a pure observational rotation. You will be shadowing the senior ophthalmology resident through the history and initial eval. When the ophthalmology resident presents the case and you can be involved in the discussion of the case. You will get plenty of chances to be familiar with the anatomy of the optic disc and also with evaluation of eye movements. This rotation may be best suited for 2wks, but by all accounts can be a very good experience. You may get to practice with the slit-lamp. Previous rotators have recommended working with Dr. Bonelli as she sees more interesting patients and is more engaging. This rotation should be done in conjunction with another.
Goals of elective:
A. Learn the fundamentals of neuropathology
   1. Gross pathology through brain cutting conference and reading/teaching specimens.
   2. Microscopic examination through surgical and consultation signout, study sets, conference presentations.
B. Learn the fundamentals of skeletal muscle/peripheral nerve pathology
   1. Microscopic examination
      a. Enzyme histochemistry
      b. Plastic sections/E.M.
C. Optional: Prepare a case or small clinicopathologic series for publication.

Locations: CHS

Faculty Mentor(s): Dr. Harry V. Vinters, CHS Rm 18-171, #310-825-6191

Other active faculty: Dr. William H. Yong, Dr. Negar Khanlou, Dr. Paul S. Mischel, Dr. M. Anthony Verity (Emeritus)

Contact Person(s): Neuropathology fellow, CHS Rm 18-126, #310-825-5044; or Dr. Harry Vinters, CHS Rm 18-170. [Administrative assistant Ms. Tina Thomas]

Weekly schedule of activities, conferences, clinics, didactics, etc:
Daily PM: Neuropathology signout in Surgical Pathology residents room or in room 18-126. This usually takes place at 1:00pm, but it varies according to the workload, talk to neuropath fellow for details.
Also, every other Wednesday, you can go with Dr. Verity to the LA County Coroner's office for gross and microscopic neuropath on coroner's cases.

Thursday: no conferences scheduled.

Neuropathology Surgical Frozen sections occur at various times during the day in the surgical pathology residents area and the rotator is encouraged to attend these (leave pager number with neuropathologist on call).

There are also several sets of teaching slides with legends that can be reviewed independently during time not otherwise allocated above.

Useful references (texts, review articles, websites):

1. Gray F, Poirier J, DeGioralami U. Escourolle and Poirier's Manual of Basic Neuropathology. 4th Edition. Elsevier, 2004. - Dr. Vinters has a copy of this texts which he was willing to loan. It is not too technical and is written in a straightforward manner.


6. Washington University Neuropathology Webpage:

http://www.neuro.wustl.edu/neuromuscular/pathol/index.htm

Comment: A rotation that is well suited for the self-motivated. I had the opportunity to work with Dr. Vinters, whom was always willing to answer questions. The bulk to the rotation is centered around surgical pathology signout where the rotator sits at a multiheaded scope and reviews the cases that the path resident read. Usually, the neuropathology fellow will sign out cases just before or after the path resident. If they are not too busy, you will sit with them prior to sign out and review cases more in depth.
Neuroradiology
Updated by Yama Akbari / Dr. Noriko Salamon (7/2009), Mark Stahl (4/2011)

Goals of elective: To improve interpretation skills of MRI/CT/Angio of the nervous system, and to learn the appropriate imaging tests to order.

Faculty Mentor(s): Dr. Noriko Salomon at RRUMC/UCLA; Drs. Suzie El-Saden and Gasser Hathout at WLA VA.

Contact Person(s): Dr. Noriko Salomon (NSalamon@mednet.ucla.edu) at RRUMC. Drs. Suzie El-Saden (SELS@mednet.ucla.edu) and Gasser Hathout (ghathout@ucla.edu) at WLAVA.

Location: RRUMC/UCLA; WLAVA

Weekly schedule of activities, conferences, clinics, didactics, etc:
At RRUMC: Contact Donald Woods at the neuroradiology office for updated schedule (DJWoods@mednet.ucla.edu). Show up at 8AM in the RRUMC Neuroradiology reading room for overnight study read out. You can pretty much readout with any attending at the reading room as long as you have emailed them and coordinated things in advance. See the following page for detailed schedule at RRUMC.

At WLA show up at 8-8:30AM at the outpatient neuroradiology reading room (next to the parking lot) on Tue and Friday. On Monday and Thursday show up at the inpatient neuroradiology reading room in the basement for radiology rounds. You will read out the overnight neuroradiology studies with Dr. El-Saden and Dr. Hathout. Around 10 or 11 AM there might be 30min to 1hr teaching session. Dr. Hathout and Dr. El-Saden may also give noon conferences to the radiology residents. You are encouraged to attend these sessions.

Useful references (texts, review articles, websites):
Noriko’s website: http://www.radnet.ucla.edu/sections/DINR/index.htm
UCSD Neuroradiology teaching files: http://spinwarp.ucsd.edu/NeuroWeb/TF.html

Comment: You will get some exposure to neuroradiology during your PGY-3 rotation at WLAVA, but it is a much more fragmented experience. If you want to dedicate a little more time to neuroradiology, this elective is quite educational and you will feel a lot more comfortable with MRI and CT. There is a summer noon lecture series run by neuroradiology attendings that prior residents have found very helpful. It typically goes from around July 8th to 29th. Ask for an updated didactic schedule.
Neurorehabilitation

Updated by David Alexander MD (5/2012), Peter Nguyen (4/2015)

Goals of elective: Learn the fundamentals of neurorehabilitation and the medical/neurological care of the neurologically impaired patient. You will learn to obtain a focused rehabilitation history and physical examination on functional limitations and needs and potential. Post stroke rehabilitation will be a big part of the rotation, but you will also have the unique opportunity to care for patients with traumatic brain injury and spinal cord injury as well as neuromuscular disease, Parkinson’s disease, and multiple sclerosis following the acute inpatient setting.

Location: 1W Neurorehabilitation Unit (UCLA)

Faculty Mentors:
David N. Alexander, M.D.; Tom Carmichael, M.D., Ph.D.; Andy Dorsch, M.D., Bruce Dobkin, M.D.

Weekly schedule of activities, conferences, clinics, didactics, etc:
Daily rounds begin around 9 am on M, Th and Friday and 1pm on Wednesdays. Multidisciplinary rounds with RN, PT, OT, ST, SW, and neuropsychology take place on Tuesday afternoons at 1pm. In addition, triage/intake rounds at RRUCLAMC with brief visits and reviews of rehabilitation consults will occur after morning rounds. The afternoons are generally free for independent reading. Admissions to the unit typically occur in the late morning/early afternoon period. The resident is encouraged to attend the Neural Repair Seminar on Fridays at 12pm in the Gonda 1st floor conference room. Review of clinical trials in rehabilitation including LEAPS, EXCITE, FLAME, and other relevant trials including PROGRESS.

Introductory Reading:
“Neurologic Rehabilitation” Chapter 182 by Laura Lennihan and David N Alexander, for Merritt’s Neurology, 12th ed., pages 1110-1115, 2010

Useful References:
The Clinical Science of Neurologic Rehabilitation by Bruce Dobkin
Veteran’s Administration/Department of Defense Clinical Practice Guideline Management of Stroke Rehabilitation, published October 2010
Textbook of Neural Repair and Rehabilitation Vols 1, 2

Comments: During this rotation, you will gain an appreciation of the recovery process from stroke and other neurological disorders. This rotation also provides one of the few opportunities during our residency to care for patients with traumatic brain injury and traumatic spinal cord injury. When you are doing this rotation, you will observe and learn about what the physical therapist, occupational therapist and the speech therapist actually do, and learn how rehab helps patient recover from their neurologic illnesses. Interested residents can also use this time to visit the various neurorehab labs around UCLA to learn about ongoing research in stroke and spinal cord injury.
Generally, a light rotation. Rounds are very laid back. You can expect to do some H&Ps, admission orders, discharge summaries, and inpatient consults to evaluate if patients are appropriate for acute rehab. You will manage quite a few general medical issues, and may call medicine or other subspecialty consults. You will get to see a large variety of patients, including spinal cord, post neurosurgical / post NeuroICU patients. It is also nice to see patients actually improve. You will usually be done by 3-4p after all notes and consults are completed. This is an excellent elective to do early in PGY2 because you will get a lot of referrals from the inpatient neurology teams and get to review their acute hospital course. There is one clinic day out of the week that is mostly observational with one of the rehab attendings. The attendings are a great educational resource and love to teach general neurology. There may be opportunities in the future to work with Dr. Alexander at the new rehab hospital in century city.
The UCLA Sleep Disorders Center is a multidisciplinary medical referral facility for the diagnosis and treatment of a variety of sleep disorders ranging from sleep disordered breathing to narcolepsy, circadian rhythm sleep disorders, restless leg syndrome and parasomnias. The sleep program at UCLA has established a productive, well-functioning clinical program, capable of assessment of a range of sleep disorders and providing interventions to assist those conditions. The UCLA Sleep Disorders Laboratory (currently housed in the Center for the Health Sciences) is fully accredited by the American Academy of Sleep Medicine. It contains 11 private bedrooms equipped with modern equipment for digital polysomnography (a sleep study). About 1200 nocturnal studies are performed each year. The Sleep Disorders Clinic, which meets weekly in the Neurology Department outpatient area, addresses and provides support for determining the nature and treatment of disordered sleep.

**Goals and Objectives:**

1. Acquire the basic skills needed to score sleep studies independently.
2. Learn interpretation of recording of patients with sleep apnea, narcolepsy and motor disorders of sleep including the parasomnias.
3. Become familiar with the diagnostic tools utilized in the sleep laboratory including polysomnography, multiple sleep latency testing and sleep logs.
4. Recognize the clinical features of sleep disorders such as sleep apnea, insomnia, parasomnias, narcolepsy, circadian rhythm sleep disturbances, restless legs syndrome and periodic leg movement disorder of sleep.
5. Gain experience in the diagnosis and management of a wide range of sleep disturbances as outlines in #4.

**Locations:** Neurology Ambulatory Clinic (300 Medical Plaza) and UCLA Santa Monica Hospital

**Contact person:**

Alon Y. Avidan MD, MPH
Associate Professor of Neurology
Director, UCLA Sleep Disorders Center
Phone: 310-825-0703
Fax: 310-825-6956
Email: avidan@mednet.ucla.edu
Representative Weekly Schedule

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<td>UCLA Residency</td>
<td>Polysomnogram Review</td>
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<td>Avidan</td>
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Readings

Comment: This is the only chance to get any exposure to sleep medicine. It can be done as 1 month rotation, although some residents feel that 2 weeks is sufficient. Dr. Yan-Go’s clinic may be purely observational, but Dr. Avidan will let you see his new patients. Their approaches to patient care are very different. Observing Dr. Yan-Go, you will learn how to educate patients on their sleep problems. Dr. Avidan will teach you the essentials on taking a good sleep history and involve you and making diagnosis and treatment plans.
Independent Reading / Research
Updated by Yama Akbari (7/2009), Peter Nguyen (4/2015)

Goals of elective: Improve your neurological knowledge base, start/continue an independent research project
Locations: wherever you like- home, beach, library.
Faculty Mentor(s)/Contact Person(s): Any UCLA Neurology attending
Weekly schedule of activities, conferences, clinics, didactics, etc: Mostly determined by the resident except for Wednesday AM is Neurology Grand Rounds and didactics.

Note: Currently, the maximum time allowed for this elective is 1 block (approximately 4-6 weeks depending on the class and year) during the whole 3 year residency. Any additional blocks for this elective need to be authorized by the residency director. To pursue this elective, you must seek a faculty mentor at least 1 month prior to the start of the elective and design a reading agenda with specific educational goals for the elective. You may be required to meet with your faculty mentor approximately one time per week to follow-up on your reading agenda, ask questions, and modify any further reading that you may pursue over the next week. In other words, this is not meant to be a vacation elective but rather a very independent and flexible educational elective!

One may however devote longer periods of elective time to continue independent research projects outside of a structured R25. This may be a good opportunity to start a project that may extend into your fellowship training at UCLA. Scheduling would be flexible and require you to identify a research mentor/supervisor. During this block one can also shadow in other specialty clinics or attend other departmental didactics.
More Electives to consider:

**Sport-TBI** with Dr. Giza (cgiza@mednet.ucla.edu) and Dr. Choe. TBI clinic happens 2-3 times per week. They generally see sport related concussions or other traumatic brain injury. Mostly pediatric patients at this point, but an increasing number of adult patients are being seen. You will help manage their post concussive symptoms such as headache and behavior as well as advise on return to play recommendations for athletes. There is also journal club once a month at BJs and lab meeting every Tuesday afternoon from 2-3pm.

**Neuro-otology** with Dr. Baloh (rwbaloh@ucla.edu). Neuro-otology usually has a weekly conference/journal club/patient presentation (with neuro-genetics) on a Monday 2-3PM in the Oldendorf conference room usually the first 15-20 minutes there will be a live patient interview, followed by discussion of the disease processes. The live patient portion of the conference is worthwhile attending. Clinics are on Monday AM and Wed PM and are mostly observational, but Dr. Baloh is a great teacher.

**Private Practice** with Dr. Andrew Woo (ahwoo@ucla.edu, 310-829-2126x4). *By all accounts a worthwhile experience.*

**Neurohospitalist** with Dr. Doojin Kim (DKim@mednet.ucla.edu) at Santa Monica UCLA hospital

**Neuro-interventional radiology** with Dr. Reza Jehan (RJahan@mednet.ucla.edu). Coordinate through Tracy Aden, the dept coordinator. See and discuss aneurysm coiling, angiography, interventional stroke procedures.

**Away Rotation at Department of Movement Disorders, Chulalongkorn Hospital, Bangkok, Thailand**
Dr. Richard Bhidayasiri (rbh@ucla.edu) heads the Movement Disorders Department at Chulalongkorn Hospital in Bangkok, Thailand. He did his residency and fellowship at UCLA and is originally from Bangkok. He has two fellows per year and runs an inpatient consultation service, general Movement disorder clinic, and specialty Botox clinic. There are several conferences and teaching sessions each day in addition to the clinical work. You may even be invited to give some lectures or lead conferences. You may also round in the morning with the general neurology residents. You may stay at the international dormitory on campus which is in central Bangkok. You may even be invited to give some lectures or lead conferences. Katie Mayo (mmayo@mednet.ucla.edu) has done this elective and is happy to talk to you about it if you are considering it.
Special Away Rotation at Queen Square, London: This rotation was available until 2008 and was reportedly a great rotation. However, various issues arose with coverage or subsidization of the cost of tuition (previously covered by UCLA), housing, and other expenses. The previous Electives Catalog (pre-2009) has a detailed description by the last resident who did this elective, Sarah Kremen (now an attending in neurobehavior at WLA VA), as well as the actual application form. The resident prior to Sarah Kremen who pursued this elective, Steven Sykes, did it 1 or 2 years prior to her. Read Dr. Kremen’s detailed description in the prior edition of the Electives Catalog, then if you have additional questions, you can contact her for further discussion at skremen@ucla.edu. The prior contact person in the UK for this rotation was Jean Reynolds, j.reynolds@ion.ucl.ac.uk. You should coordinate this elective closely with Dr. Avidan as well as the contact person in the UK as you will need 2-3 letters of recommendation and arrangements to be made well in advance, but obviously was feasible in prior years.

A note about away rotations- set them up months in advance. You may need to start planning as far as 6 months in advance, especially if you are doing an “audition” away elective. Cedars Sinai is 15 min drive away and has some good opportunities as well, for example, if you want a more hands on neuro ICU experience or you can work with Dr. Sicotte (Multiple Sclerosis).

Away rotations at other universities: You can do any type of rotation as long as you find an accepting faculty supervisor. Doing a visiting elective requires a mutual contract agreement between UCLA and the other university site (check to see if we have an existing one). If a contract does not exist, you will have to obtain the necessary contract documents (may vary by site) and submit it for review. Contracts may last several years so check to see if one needs to be renewed. Will require a lot of planning, so give yourself a few months to get the necessary documents (i.e. letter of good standing, immunization record, proof of HIPAA training, proof of liability insurance, etc).