From the Chair

We are now at the end of the calendar year and the midpoint of the 2014 fiscal and academic years. The first six months of FY14 saw continued growth in our faculty, with the addition of Dr. Enrique Alvarez as an Assistant Professor in the Neuroimmunology Group, followed on Jan 1, 2014 by our newest faculty addition, Dr. Pearce Korb as an Assistant Professor jointly shared by the Neurohospitalist and Epilepsy groups. We are anticipating the arrival, this June, of Stefan Sillau, Ph.D., as an Instructor in Neurology. Stefan received his PhD in Biostatistics here at CU and is completing a postdoctoral fellowship in Seattle. He’ll be joining the Department as our in-house biostatistician. Departures from our faculty have been a relative rarity, but I am sad to announce that Leila Jackson, PhD, Assistant Professor in the Neuroimmunology section, will be leaving to take a position in the pharmaceutical industry.

Due to changes in UPI’s book-keeping and billing systems, data related to clinical workload and activity has been coming in slower than usual. However, I am pleased to report that clinical charges for the first half of FY14 were up 9% to over $10 million and net payments were up a more modest 4%. We do not yet have the itemized analysis of wRVU data for the first half of FY14; however, total wRVU reached 23,651, up 11.1% from the same period in the prior FY. In terms of activity on the outpatient side, new patient visits and initial consults increased an impressive 19% over the same period in FY13 to nearly 3,000 and established outpatient visits grew 12% to nearly 9,000. The total outpatient volume reached 11,855 visits, compared to 10,413 (+14%). Growth on the inpatient side was also considerable, with initial inpatient visits up 17% to 651 and subsequent visits up 26% to 2,126. Total inpatient visits were 2,777 compared to 2,245 (+24%). The procedural side of activities saw more challenges, with coding and reimbursement changes, impacting the Department across a number of key procedure areas, including the use of botox, EEG monitoring, and EMG/NCV studies.

One of the most notable recent achievements was the granting of “Center status,” within the SOM, to our Alzheimer Disease Research and Clinical Center, led by Huntington Potter, PhD, and with Jonathan Woodcock, MD as the Clinical Director and head of the UCH Dementia and Memory Clinic. We are hopeful that this will set the stage for continued clinical and research growth in this critically important area. Our development of an Academic Headache Center is also progressing under the leadership of Marius Birlea, MD on the adult side and Sita Kedia, MD on the pediatric side.

The Department continues to expand its infrastructure in areas related to Quality Improvement. Jennifer Simpson, MD, Assistant Professor in the Neurohospitalist Group, has become our Director of Quality Improvement effective February 1st, and will work closely with Steve Ringel, MD (Vice-Chair) and Laura Palmer, Quality Process Improvement Manager, in this capacity. The addition of Stefan Sillau, PhD as the Departmental Biostatistician in June will facilitate further expansion of our clinical trials and quality enterprises, and hopefully set the stage for more academic and grant-related activities in these areas.

On the research front, and despite the persistence of a challenging and uncertain financial environment, the Department has continued to expand significantly. The latest data for 2013 from the Blue Ridge Medical Institute ranks us #27 in terms of NIH funding among U.S. Neurology Departments, with just over $5 million in grants. The SOM’s Office of Grants and Contracts data for the first half of FY14 lists our awards, to date, at $6.3 million, a 150% increase over the same period last year. We remain in fourth position among SOM Departments, with our research portfolio exceeded only by the Departments of Medicine, Pediatrics, and Psychiatry. Neurology’s research awards remain larger than any of the basic science departments (Pharmacology is the largest at $3.9 million). A complete list of active clinical trials by division can be found on the Department’s website and is regularly updated. A notable collaborative endeavor in the research area worth highlighting was our recent designation as an American Stroke Association-Buger Foundation Center for Excellence in Collaborative Research. We were one of three such grant awards made nationally, as a result of an application led by Dr. Richard Traystman and involving many adult and pediatric stroke faculty, including Tim Bernard, MD, William Jones, MD and Sharon Poisson, MD (who will lead the fellowship and training component of the award).

On the education and training front, our resident recruitment season has just concluded with our 8th interview date earlier this week. We received a new record of 422 applications to the program (up from 380 last year which had been our prior record). We interviewed 80 applicants and will be matching them for 6 positions. New fellowship opportunities were also added to the Department’s growing list of post-residency fellowship opportunities. The United Council of Neurological Societies (UCNS) approved our applications for new fellowships in neuro-oncology and in clinical neuromuscular pathology, and both will begin July 1, 2014. These fellowships join existing fellowships available in behavioral neurology, epilepsy, movement disorders (now 2 positions), neuromimmunology, neuromuscular, stroke, and neurovirology-molecular biology research (T32 training grant).

All in all, this is an exciting first half to the academic and fiscal year that we hope will only develop further as we enter 2014.

Welcome Newcomers!
NEW FACULTY

Pearce J. Korb, MD, shares, "Until now I have lived in the South and I am excited about moving West. My wife and I moved with our 16 month-old daughter Lucille. I received my undergraduate training in Business Administration at the University of Florida and my medical training (medical school, residency and fellowship in CNP- Epilepsy) at Emory University in Atlanta, Georgia. Here I will be dividing my time as a Neurohospitalist and with the Epilepsy division. My clinical research interests include the use of EEG in critical care and advanced imaging techniques for epilepsy. My other interests are in education, training and curriculum design as well as health policy and operations." Welcome, Dr. Korb!

NEW ADMINISTRATORS and PRAs

Zachery Baud, BS, joins us as Database Administrator. Zach graduated in December from UC Denver with a major in biology and several minors, including Computer Science, and was a Labcoats student who worked with Neurology and other faculty. He has built databases for Fortune 300 businesses in the oil exploration and property management, as well as for the company he owns and operates. Zach will develop and maintain databases, collecting front-end data and conducting back-end analysis, for the myriad systems (finance, travel, quality improvement, human resources, events, etc.) that support our clinical, educational, and research enterprises. Zach loves to travel and is a fan of the ocean, mountaineering, and the great outdoors.

Matthew Bishop, BS, will transition from Administrative Assistant for Drs. Filley, Woodcock, Birlea, Bennett, and Nagel to his new duties as Finance and Procurement Specialist on February 1st. Our temporary Financial Aide, Kristie Fields, will fill in for Matt’s position in the interim, and they will be able to cross-train during the transition.

Isabel Boersma, MS, began working with Dr. Kluger in October and will focus on projects related to Palliative Care and Parkinson’s disease. She recently completed a Master of Science in Biomedical Sciences from Tufts University and will be starting medical school in the Fall of 2014. As a newcomer, she enjoys exploring Colorado, eating Indian food, and hanging out with her dogs.

Eric Engebretson graduated from Metropolitan State College of Denver with a degree in Behavioral Science. He is a PRA who will work primarily on patient reported outcomes with the MS team. Previously, he worked as a CARE Team Assistant in the neurology outpatient clinic at UCH.

Kristie Fields is serving as our temporary Financial Aide. She comes to us from the Colorado School of Public Health, which began as the Department of Preventive Medicine & Biometrics, where she was for 12 years in the positions of Assistant to the Department Chair; Executive Assistant to the Dean; Department Administrator; and most recently, Facilities Coordinator/ Finance Administrator/IT Administrator. Kristie also has 15 years of experience in the travel industry.

Kawonas Jenkins joins us as a PRA working with studies to measure and improve MS patients’ quality of life around bladder issues. He has worked as a National Certified Medical Assistant with DV urgent care in Rancho Cucamonga, CA and with our Neuroscience Clinic, and recently became certified as an Emergency Medical Technician. Kawonas enjoys snowboarding with his children, live jazz bands, karting, cooking, and riding his custom Harley on nice weekends.
Awards and Publications

The University has approved the establishment of the Alzheimer Disease Clinical & Research Center within the Department of Neurology, an effort accomplished with the hard work of Hunt Potter, PhD, Christopher Filley, MD and Jonathan Woodcock, MD and many of our department faculty and administration. We hope this official designation as a Center will serve as a nidus for philanthropy and help us set the stage for our next goal of achieving funding as an AD Center from the National Institutes on Aging.

Folio: Magazine recognized the April 2013 issue of Neurology Clinical Practice (NCP) with an "Eddie" award for editorial excellence. John Corboy, MD is editor of the journal, which won in the business-to-business category for healthcare/medical/nursing. Among the articles in the issue was a piece by Maria Nagel, MD and Don Gilden, MD, and the cover (below, left) features a picture of a VZV virus particle from the article. Neurology Today (NT), the AAN publication edited by Steve Ringel, MD, received an honorable mention in the "single article" category for an article by Orly Avitzur on medicare reimbursement slashes to neurology related billing codes. NCP and NT are among the American Academy of Neurology’s (https://www.aan.com/) premier publications.

Marius Birlea, MD, and co-authors including Maria Nagel, MD, Randy Cohrs, PhD, Don Gilden, MD and others, had their paper titled "VZV trigeminal ganglionitis without rash" and the associated cover picture (above, right) in the (Vol. 82 No.1 ) Jan 7, 2014 issue of Neurology.

Jennifer Simpson, MD, has completed the School of Medicine’s Institute for Healthcare Quality, Safety and Efficiency (IHQSE) inaugural Certificate Training Program. Her group’s project, titled "Pathway to Home," examined methods to streamline discharge. As a result, length of stay was reduced by ~0.42 days, a major accomplishment with the hospital running so close to capacity. Dr. Simpson has been appointed the Department's Director of Quality Improvement, and will work closely with Steve Ringel, MD, Laura Palmer, the divisions’ QI project leaders, and the residents' QI/PI projects.

Several of our faculty members attended the October 2013 American Neurological Association’s (ANA) 138th Annual Meeting in New Orleans, LA. Kenneth Tyler, MD, Chair of Neurology, Steven Ringel, MD, Vice Chair, and Amy Brooks-Kayal, MD, Chair of Pediatric Neurology, also serve as ANA Executive Council members. As part of the conference, Drs. Tyler and Ringel had the opportunity to meet President Bill Clinton, who delivered the keynote address regarding health care policy. Clinton spoke about the need for Americans to recognize and adopt better systems, particularly when it comes to the administrative costs of health care. He suggested working through the kinks in the Affordable Care Act, reducing health-care overhead, and using some of the money saved to fund critical research.

Drs. William Jones, Assistant Professor and Director of Inpatient Services, and Timothy Bernard, Associate Professor of Pediatrics, Neurology and Child Neurology, are Co-PI's on the recently funded 4-year Bugher Foundation/American Stroke Association/American Heart Association "Center of Excellence in Stroke Collaborative Research" Award, one of three nationwide. The aim of the collaborative project is to understand how children recover from stroke. Once we understand more about the mechanisms of injury, recovery and repair, we can then try to restore function to these injured brains and try to determine how to restore some of the remarkable brain plasticity that is lost with age. These experiments will better help us to understand how to relieve the harmful consequences of stroke, thereby allowing people to more fully recover from the devastating effects of heart disease on the brain.

Richard Hughes, MD, is the son of Capt. John F. Hughes. Capt. Hughes served as a medical officer in the Korean War and his humorous drawings and notes to his four year-old daughter at home is now the subject of a new book, "Letters to Ann: The Korean War 1950-1951." Edited by Ann Marie (not the "Ann" of the book), the work of nonfiction was just featured on a national radio tour and is receiving positive reviews in the press. Its unique and unorthodox perspective sets it apart. "My dad," says Dr. Hughes with a smile, "had a wonderful sense of humor." The book may be found at Tattered Cover Book Store, amazon.com or barnesandnoble.com.
Curious about how your brain relates to music? In the Fall 2013 edition of CU Medicine Today, Dr. Christopher Filley, Professor of Neurology and Director of the Behavioral Neurology Section, discusses how classical music and jazz engage distinct areas of the brain. Dr. Filley, a pianist, talks about his journey with music and medicine. Benzi Kluger, MD, Associate Professor of Neurology and also a musician, notes Dr. Filley’s influence on his medical education.

Teerin Liewluck, MD, Assistant Professor in the Neuromuscular division, is the recipient of a Muscular Dystrophy Dedication Award for ALS research.

Congratulations to Dr. Maureen Leehay and the Movement Disorders Division, who have won the Fox Trial Finder Challenge. We competed against all the Parkinson’s Disease centers in the U.S. to get our population signed up with the Fox Clinical Trials to further Parkinson’s research. The Foundation is rewarding us by sponsoring an educational event here. This brings us national recognition, and even the possibility of meeting Mr. Fox.

View a list of the Department’s recent publications.

**In Our Clinics**

The Neuromuscular Division has implemented the first successful diaphragm pacing system surgery in ALS. The division is engaged in two process improvement projects: diagnosing and treating depression, and developing a standardized approach to peripheral neuropathy evaluation.

The Rocky Mountain Multiple Sclerosis Center (RMMSC) has named Gina Berg as its new CEO, responsible for oversight of the strategic direction and operation of the MS Center’s programs and services. Berg has more than 14 years of experience as a nonprofit executive. She served as a major gifts officer for the Edith Sanford Breast Cancer Foundation, director of development for the Denver affiliate of Susan G. Komen for the Cure, executive director of the Argyle Foundation, and development and communications coordinator at Red Rocks Community College. Berg earned her B.S. from CU Boulder, where she majored in journalism. She is a member of Colorado Chapter of the Association of Fundraising Professionals, where she serves on the board of directors and chairs the local mentoring program.

Dr. Steven Ringel, Vice Chair of Neurology and UCH Vice President for Clinical Effectiveness and Patient Safety, is profiled in a recent UCHealth Insider. Did you know Dr. Ringel worked for a year as a policy aide in Washington DC to then U.S. Senator Jay Rockefeller? Learn about how Dr. Ringel’s experiences in our nation’s capital influenced his career in the full article. You can also view Dr. Ringel in several clips addressing current neurological subjects at the Neurology Today video gallery.

Imagine if every day, you saw circles or static or colors that weren’t there and that never went away. That’s the description of a rare condition called Visual Snow, but even many doctors have never heard of it and there is no cure. Dr. Victoria Pelak, Associate Professor of Neurology and Ophthalmology, notes the condition is easy for doctors to miss because it is so rare. The good news is, she notes, there are no known cases of visual snow causing blindness: “One way to look at it is the brain is filled with circuits. The thought is that Visual Snow is an electrical circuit you can’t shut off -- like a lamp you can’t shut off.” Link here to view a 7News piece on Visual Snow.

The Denver Broncos are on their way to the February 2, 2014 Super Bowl...and a growing number of professional coaches in the “pressure cooker” of stress are suffering health consequences. In a 9News piece, Dr. William Jones, Assistant Professor of Neurology and Director of Neurology Inpatient Services, emphasizes that anyone experiencing signs or symptoms of a stroke -- numbness or weakness on one side of the body or the other, loss of vision to one side or the other and difficulty speaking or understanding what others are saying to them-- should immediately call 911, as the short window for treatment is critical.

**The Edge on Education**

Residency Update (-by Dr. Augusto Miravalle)

The Residency Program just finished recruitment season for residency positions with a record number (422, a 10% increase from last year; 176 were U.S. graduates) of applicants from a diverse list of schools (e.g., University of Texas–Houston; Indiana University; University of Colorado; University of Texas Southwest; and Florida State University). The Committee interviewed 80 applicants.

It is with great enthusiasm that we announce the Chief Residents for the 2014-2015 academic year. Our residents and faculty have endorsed Laura Friedlander, MD, as Chief Resident for Education (handling didactic activities, lectures and curriculum design). Their tasks will be challenging, as they continue with the excellent job that our current chief residents (Alex Mohler, MD and Mario Cerdan, MD) and assistants (Laura Friedlander, MD, Michelle Leppert, MD, Taylor Finseth, MD, and Cliff Hampton, MD) are doing.

During this academic year, our residents have assisted with a number of relevant developments, including: interactive, simulation-based learning for neurological emergencies; RITE exam review courses intended to cover popular test topics; monthly Neuroanatomy and Neuroradiology case-based conferences; and Professor’s Rounds, a weekly morning report case-based learning activity with collaboration with Neurology, Radiology and Pathology. Drs. Cerdan, Finseth, and Hampton have done strong work in these areas.

Fellowship Update (-by Dr. Ken Tyler)

Denise Dames, MD and Teerin Liewluck, MD ushered through the UCNS (United Council for Neurologic Subspecialties) formal approval of new accredited fellowship programs in Neuro-oncology and Clinical Neuromuscular Pathology (one of 6 in the U.S.). These two programs join the long accredited Behavioral Neurology fellowship (Christopher Filley, MD and Al Anderson, MD, program directors) and the previously ACGME accredited Neuromuscular fellowship (Dianna Quan, MD, program director). The UCNS Neuromuscular Clinical Pathology track will be part of the
regular fellowship training program and the Neuro-oncology fellowship will be inaugurated by Alex Mohler, MD, PGY3 in July. The Neuroimmunology Fellowship is pleased to announce that Julie Seibert, MD will be joining the department in April 2014 as a fellow instructor.

These programs join our ACGME accredited Stroke Fellowship (William Jones, MD, program director) as well as fellowships available in Epilepsy, Movement Disorders, Neuroimmunology, MS, and Neurovirology-Molecular Biology (Don Gilden, MD, program director, NH T32). The just funded ASA/AHA/Bugher "Center of Excellence in Stroke Collaborative Research" Award also includes a core stroke/stroke research fellowship training component (Sharon Poisson, MD, program director) and the National MS Society Collaborative Research Center Award has a neuroimmunology/MS research fellowship component as well.

Dr. Augusto Miravalle, Dr. Jennifer Simpson and Alina Rich, MPH, will present their poster "Assessing Milestone Levels for Neurology Residents on Patient Simulations and Case Based Learning Tests" at the February 27–March 2, 2014 ACGME conference in National Harbor, Maryland.

Maria Nagel, MD and Don Gilden, MD continue to mentor undergraduate research interns from UC Denver, Metro and Regis for course credit. In addition, Dr. Nagel continues to mentor underrepresented high school students through the Denver Student Training in Research Science (STaRS) Program, which brings together the University of Colorado, CCTSI, and Office of Inclusion and Outreach at the Anschutz Medical Campus.

On the Research Front

Drs. Nagel and Gilden and colleagues recently published a study that VZV vasculopathy can mimic giant cell arteritis (Nagel et al., 2013); both were also interviewed by Neurology Today (in press) to comment on a recent UK study showing that zoster was an independent stroke risk factor.

The research of Huntington Potter, PhD, Professor of Neurology and Director of the Alzheimer’s Disease Programs, is highlighted in the Fall 2013 edition of CU Medicine Today. Dr. Potter continues his groundbreaking exploration of the link between Alzheimer’s Disease (AD) and Down Syndrome. He is studying whether or not an experimental treatment of the drug Leukine can reverse brain damage and mental impairment caused by Alzheimer’s disease. A compound will be synthesized that binds to Alzheimer’s brain proteins to make them detectable with a PET/CT scan. Study subjects with mild to moderate AD will be injected with the compound and scanned to determine the amount of AD-related protein in the brain before treatment. Patients will be scanned after 3 weeks of Leukine treatment to test if the AD protein has decreased. Mental function will also be assessed for improvement; if it improves, it could lead to one of the first successful treatments to reverse AD effects.

Primary focal dystonia (PFD) is a chronic and often disabling neurological disorder that causes excessive muscle movements. There is no cure, and current treatments are only partially effective. Gamma-aminobutyric acid (GABA) is the chief neurotransmitter that is responsible for inhibiting activity in the brain. While the cause of PFD is not known, it is believed that GABA dysfunction plays a key role. Brian Berman, MD, MS, Assistant Professor of Neurology, will investigate whether reduced brain receptors for GABA is the cause of PFD. A better understanding of the cause of PFD is needed so that new treatment options can be developed. Scientists in the CTRIC laboratory will synthesize a compound that binds to GABA receptors and has a radioactive element that can be measured by the PET/CT scanner. How many GABA receptors throughout the brain are bound by the new compound can then be measured and compared between PFD patients and study subjects who do not have the disease. Dr. Berman expects that there will be fewer GABA receptors in certain brain regions of people with PFD and that this reduction of receptors will correspond to the severity of excessive muscle movement symptoms.

Clinical Studies (~by AJ Stein and Haley Steinert)

Revenue from clinical research for 2012 totaled $12 million, making Neurology the 3rd largest clinical research division in the School of Medicine (after Medicine and Pediatrics). Of the current 121 studies, 81 are actively open to enrollment and in the follow up stage, and 40 are in the startup phase. This double the number (65) of studies in 2012. The Neuroradiological division, for example, is conducting a transthyretin-associated amyloid neuropathy randomized control trial; a randomized trial of rixutimab in myasthenia gravis; and a diagnosis and treatment of critical illness polyneuromyopathy. The first patient for Dr. Liewluck’s Diaphragm Pacing System in ALS patients was enrolled and had a successful surgery. Dr. Schreiner’s Environment and Genes study for pediatric MS patients has enrolled the most patients of all participating sites. She is also set to begin recruitment for one of the world’s first pediatric MS, industry-sponsored studies, evaluating the safety and efficacy of oral fingolimod daily versus interferon weekly injections.

The MS team is launching multiple Patient Reported Outcomes (PRO) studies. In collaboration with the School of Pharmacy, Biogen is funding a study that allows us to study PRO change over time between two common MS medications (Gilenya vs. Tysabri). Several clinical outcomes studies look at patients on various disease modifying therapies v. healthy controls and the quality of life changes as compared to imagining outcomes. A QI project focuses on bladder health for the MS population. The MS team is also launching its first standard-of-care PRO program which will be administered to the entire clinical population to help reduce practice variability; other divisions plan to develop similar programs.

The MS group works closely with Justin Honce, MD, a Neuroradiology Instructor. Dr. Honce is involved in quality improvement initiatives to revamp and improve the standard MRI protocols for MS imaging, with specific interests in quantitative imaging and diffusion tensor imaging. Julie Seibert, MD, who completed her residency here in 2004 and has worked in the community, will join us as an MS Fellow in April.

To search for open studies by subspecialty, visit the Clinical Trials page on our website.

SAVE THE DATE! The Department’s day-long Research Retreat will be held on June 4, 2014.

Contact NEURO-NEWS

Please send articles, comments, and suggestions to Co-Editors Kathy Illian, MA and Diane Strong, MBA at: Neurology-newsletter@ucdenver.edu