From the Director:
Wendy Kartje, MD, PhD wkartje@lumc.edu

Dear members and friends of the NSI! It is my pleasure to introduce this new e-format version of the NSI Newsletter, fondly known as “The Neurotransmitter”. This newsletter will allow us to link our activities and information to sites that will be helpful and hopefully interesting to all, including photos taken at our yearly events. This past year was a major transition for the NSI, as I took over the directorship in August, 2010, and we bade a fond farewell to the previous director, Dr. Kathryn Jones, as she took on a new and exciting role as Chair of the Department of Anatomy and Cell Biology at the Indiana University School of Medicine. This issue details NSI activities for the past year including, the establishment of a new travel award, the visit to our campus by the world-renowned neuroscientist Dr. Pasko Rakic, and features our own neuroscientist, Dr. Evan Stubbs, among many other articles I think you will find of interest. It is indeed an honor and a privilege to lead the NSI during this time of excitement and hope in the neurosciences, as new breakthroughs and discoveries are transforming the lives of those suffering from neurological disorders. As the new director, I welcome any and all comments or suggestions that you may have to strengthen or improve our institute. Please contact me at any time. My door is always open.

Change in Leadership of the NSI
A reception was held for Kathryn Jones, PhD to honor and thank her for her service as Director of NSI. Dr. Jones served as Director of Neuroscience Institute until August 2010. Her service and dedication were acknowledged by current and past members of the institute.

Additional Photos

Society for Neuroscience 2011
The annual meeting of the Society for Neuroscience will be held in Washington D.C., November 12-16, 2011; for additional information visit www.sfn.org/am2011.

Loyola was well represented at the 2010 meeting in San Diego, CA with approximately 2 dozen posters and selected oral presentations. All abstracts from the 2010 meeting are available at http://www.sfn.org/index.aspx?pagename=abstracts_am2010. Photos from the Loyola reception available here.

Schuster Travel Award
Announcing the Charles Robert (Bob) Schuster Travel Award

The Neuroscience Institute at Loyola University Chicago is proud to announce the establishment of the annual Charles Robert (Bob) Schuster Travel Award to honor the memory of our former Director, Dr. Charles Robert (Bob) Schuster. Dr Schuster made seminal contributions to the fields of pharmacology, behavioral pharmacology and neuroscience. Dr. Schuster received his PhD in 1962 at the University of Maryland; where he was mentored by Professor J.V. Brady. Dr. Schuster’s many achievements include being a former recipient of the Nathan B. Eddy Award, and President of the College on Problems of Drug Dependence. He founded the U. of Chicago Drug Abuse Research Center, and served as the Director of the National Institute of Drug Abuse from 1986 to 1992. From 2006 to
2008, Dr. Schuster served as the Director of our Neuroscience Institute at Loyola. Dr. Schuster will always be remembered as a kind and generous man and a visionary scientist who was keenly interested in the scientific careers of young investigators.

The Schuster Travel award recognizes graduate student’s excellence in Neuroscience and promotes young scientist’s interaction with their peers by supporting their attendance to the annual International Meeting of the Society for Neuroscience. The NSI will grant awardees reimbursement for travel expenses to the meeting for up to $750. Criteria for students seeking this award:

- must be enrolled in the Neuroscience PhD program at Loyola or working on a neuroscience project in the laboratory of a member of the NSI
- must be registered to attend the meeting and be first author on a submitted abstract

See the article in this issue of the Neurotransmitter on Graduate student updates for this year’s winners.

Alexander G. Karczmar Distinguished Speaker Series
Members of the institute attended a seminar by Pasko Rakic, MD, PhD as part of the newly formed Alexander G. Karczmar Distinguished Speaker Series sponsored by Chicago Association for Research and Education in Science (CARES). Dr. Rakic is a Professor and Chairman of the Department of Neurobiology, Yale University and presented a seminar entitled “Making of the Human Brain”.

The honoree, Dr. Karczmar, has a long and distinguished career in Neuroscience, including past chairman of the Department of Pharmacology at Loyola. This distinguished speaker series in his honor will continue on an annual basis, so keep tuned for the next major event. Additional Photos

Dr. DonCarlos’ paper received recognition in Dr. Whelton’s Weekly Message
“I want to acknowledge an outstanding item that crossed my desk this week. An important measure of the significance of a research paper is the number of times it has been cited by other authors. I’m pleased to note that an article by Lydia L. DonCarlos, PhD, professor in the Department of Cell & Molecular Physiology; has just passed the 500-citation milestone, according to Google Scholar. (Another citation index, Thomson Reuters' Web of Science, has counted 471 citations.) Dr. DonCarlos' paper, published in 2001 in Progress in Neurobiology, was among the first comprehensive reviews of the potential protective effects of estrogen against Alzheimer’s disease and other neurological disorders. Since publication, further data from the Women’s Health Initiative and other studies have refined our understanding of the benefits and risks of estrogen exposure, and Dr. DonCarlos has written subsequent review articles.”

Press Releases
Dr. Toni Pak; Assistant Professor in the Department of Cell and Molecular Physiology, was part of a press conference held at the 2010 annual SfN meeting. The press conference entitled “Teen Vulnerability: Drug Exposure During Adolescence Has Long-Lasting Consequences” featured four researchers from across the country. Dr. Pak’s study entitled "Binge Drinking in Adolescence Changes Stress Response in Adulthood" showed that teenagers respond differently to drugs than adults and explores the long-lasting effects of drug use on brain development. Other research featured at the press conference showed people who start using drugs at a young age have greater cognitive shortfalls, including mental flexibility. Animal studies also suggest adolescents are more susceptible to lower doses of cocaine, are willing to work more for a cocaine “fix” than adults, and are at risk of developing compromised stress responses. The research findings were presented at Neuroscience 2010, the Society for Neuroscience’s annual meeting and the world’s largest source of emerging news on brain science and health.

Other NSI Faculty in the News:
Featured NSI Faculty Member: Evan B. Stubbs, Jr, PhD

Evan B. Stubbs, Jr, PhD Evan.stubbs@va.gov

I’m delighted and honored to have the opportunity to share with the Loyola/Hines Neuroscience community a brief overview of the Stubbs lab, our current academic interests, and recent extracurricular neuroscience-related activities. Elucidating the pathophysiology of Guillain-Barré syndrome (GBS), a debilitating aggressive autoimmune disorder of the peripheral nerves, is one of three related research interests of the laboratory. Over the years our work on GBS has been generously supported both locally and nationally and continues to be a successful neuroimmunological training program for several talented LUMC Program of Neuroscience graduate students. Building on this success, attention of the laboratory was directed toward clinical translational expansion. In collaboration with clinician scientists Drs. Morris Fisher and Eileen Collins, an interventional program was developed to challenge the thesis that a combined aerobic and strength-training exercise program would attenuate the severity and/or slow the progression of neuropathy among affected diabetic patients. This on-going single-site clinical trial has played a major role in helping distinguish Edward Hines Jr. VA Hospital as one of 15 Neuropathy Association-designated Neuropathy Centers of Excellence addressing the compassionate and coordinated care of the neuropathic patient. Bedside-to-bench strategies addressing mechanism of causality from this clinical trial have fostered productive collaborative interactions with Dr. Erika Piedras-Rentería while providing additional student training opportunities. In my experience, bringing scientists with mutual interests together in the same facility often leads to productive collaborations. This was the case with a collective contribution made in collaboration with Drs. Neal Peachey, Jay Perlman, and Alan Chow evaluating the efficacy of an implantable microphotodiode retinal prosthesis. Lessons learned from this experience led to the development of a third research program testing novel therapeutic interventions for the management of glaucomatous neuropathy, providing yet another productive training opportunity for our students. Development, publishing, and ultimately procurement of extramural funding in three distinct research disciplines did not occur in a vacuum and is in large part the direct result of many fruitful collaborations with basic and clinician-scientists here at LUMC/Hines as well as at other prominently recognized institutions.

In addition to developing a viable and productive research program at LUMC/Hines, I have enjoyed nearly 18 years of helping educate and mentor graduate students, medical students, and clinical residents. My specific role and competency as an educator is evidenced as a three-time nominee by the Graduate Student Council for Faculty Member of the Year for Outstanding Mentorship and Teaching. I was honored with this
award in 2006 among many very fine and talented fellow educators, an accomplishment for which I am particularly proud. To date, my participation as an educator on the Loyola campus is extended to serving as member or chair on 19 student thesis committees. Local administrative duties are a necessary evil of any educator, and I have served on my fair share of academic/hospital committees. I have also had the pleasure of serving, ad hoc, on study sections and other national committees. While serving the academic community, each of these experiences have been particularly rewarding by providing me with unique opportunities to meet and work directly with many talented and dedicated colleagues.

In an effort to enhance student awareness and education of the neurosciences in the Chicago area, I continue to embrace the opportunity to actively participate in council activities of our local Society for Neuroscience Chapter. For the past three years, first as President-elect and then as President, I have had the pleasure and privilege of helping this society continue its time-honored tradition of bringing recognized authorities in field of neuroscience to speak at our annual Chicago forum. Of particular emphasis are our efforts to provide an interactive forum at which Chicago area undergraduate, graduate, and postdoctoral students interested in the neurosciences have the opportunity to present and discuss their research findings with their fellow students and hypercritical faculty. Efforts to enhance community awareness of neuroscience have also received notable success as evidenced by several local community reports of our Chapters outreach activities. This year, with the help of students and LUMC faculty we presented outreach booths at Evergreen Park High School, A.N. Pritzker Elementary School, and Evergreen Park Fire Department. At these events, students and parents were presented with a hands-on approach to brain anatomy and function, including the opportunity to actually see and indirectly touch a human brain. I strongly encourage student and faculty alike to take the time to “pay it forward” the generosity of mentors past and present and personally experience the satisfaction of helping “develop” the next generation of neuroscientists.

Hines Happenings
Keith Fargo, PhD; Keith.fargo@va.gov

New Equipment. Neuroscience at Hines has a new tool on the “cutting edge” of tissue collection. Earlier this year, CARES purchased a Leica LMD6500 laser microdissection microscope for the Hines/Loyola research community. The microscope is housed in historic Building One on the Hines campus. The unit, which has both brightfield and fluorescence capabilities, is useful for collecting microscopic regions of interest (such as neuronal nuclei) from tissue sections, and can be used in diverse applications including gene expression studies and analysis of protein content. Anyone with interest in learning how to use the new instrument or collaborating on a project should contact Keith Fargo (keith.fargo@va.gov) or Eileen Foecking(eileenfoecking@gmail.com).

Post-Doctoral-Young Investigator Updates
Amy Herrold, PhD; Amy.herrold@va.gov

It is a common thread among us that we are enthusiastic and passionate about neurosciences research. In the spirit of this common belief, and in an effort to raise the profile of neuroscience at Loyola and Hines, a new, informal group has been formed for early career neuroscientists called the Hines Brain Trust. This group will meet monthly on Wednesdays over a provided lunch. It is open to early career investigators, post-doctoral fellows and students -- did I mention that there will be free food?? These meetings are meant to provide a positive, supportive and collegial environment where we can share and trouble shoot struggles to climbing the academic ladder – or pursuing alternative careers. Other suggested topics of discussion are writing critiques, bringing in and/or nominating seminar speakers, grantsmanship, and journal club. If you would like to be added to the e-mail list or would like more information, please contact Amy Herrold @ Amy.Herrold@va.gov or 708-202-5867.

In other local neuroscience news, the Chicago Chapter Society for Neuroscience meeting was held on March 24, 2011 at DePaul University campus. A new opportunity this year was the poster competition for post-doctoral fellows with a travel award prize to the Annual International Society for Neuroscience Meeting. It would be wonderful if Loyola and Hines could make an ever greater showing next year! Also, our Cynthia Von
Zee (Cynthia.VonZee@va.gov) from Hines was the First Year Postdoctoral Councilor this year. Thanks for representing us, Cynthia!

**Neuroblast-Graduate Student Updates**
Ginny Keeling; Ginny.keeling@gmail.com

The Neuroscience graduate program accepted two new PhD students this summer: Son Ton, a B.S in biochemistry from Loyola University and Jonathan Lautz, a B.S. in chemistry from Hope College in Michigan. Welcome to Loyola, and much success as you begin your graduate student careers.

As we welcome two new students, we see several move on. Drs. Michael Calik, Alicia Case, Maureen Rutherford and Magdalena Przybycien-Szymanska and Molly Shaw, M.S. all successfully defended their theses earlier this year. Dr. Alicia Case from Dr. Kartje’s lab has accepted a post-doctoral position at Rosalind Franklin University in the lab of Dr. Michelle Hastings, Ph.D. Dr. Maureen Rutherford from Dr. Battaglia’s lab has begun a teaching position at the University of Indiana Northwest. Molly Shaw, M.S. from Dr. Bakowsa’s lab recently received a grant from Sigma Xi. After defending her thesis, she accepted a research assistant position at the Cincinnati Children’s Hospital Medical Center in the lab of Dr. Eric Mullins, M.D. studying the role of hematological factors in multiple sclerosis. Dr. Magdalena Przybycien-Szymanska from Dr. Pak’s lab accepted a postdoctoral position at the University of Chicago working with Dr. Paul Vezina, Ph.D. Dr. Michael Calik from Dr. Stubbs’ lab is currently pursuing a postdoctoral research position in academia.

The three second year neuroscience students have finished rotations and chosen labs. Britney Cirullo has left the program to pursue a career in Clinical Psychology, Nastaran Khodaie joined Dr. Collins’ lab, and Jonathan Cunha switched to the Pharmacology M.S./M.B.A. program and is doing the research portion of his degree in Dr. Scrogin’s lab.

This year, the Neuroscience Institute introduced the memorial Charles Robert (Bob) Schuster Travel Award. The award recognizes excellence in neuroscience and promotes young scientist’s interaction with their peers by supporting their attendance to the annual International Meeting of the Society for Neuroscience, November 2011 in Washington, D.C. The post-doctoral winners are Drs. Paula Perissinotti and Cynthia von Zee from the Dr. Erika Piedras-Rentería’s lab and Dr. Stubbs’ lab, respectively. The graduate student awardees are Steve Nawara and Ian Vaagenes from Dr. Kartje’s lab and Kelly Clinkenbeard from Dr. Stubbs’ lab. Congrats everyone!

**On the Waterfront – Updates from the Lakeshore Campus**
Raymond Dye Jr., Ph.D rdye@luc.edu

The Interdisciplinary Neuroscience Minor has fostered an active Loyola chapter of the Neuroscience Society. During the Fall Semester, the students arranged the first ever Chicago Neuroscience banquet on December the 4th, 2010, held at the 111 E. Pearson. The local chapter brought in Dr. Michael Goldberg from Columbia University and virtually everyone at Loyola Lakeside Campuses who is associated with Neuroscience was in attendance. The Loyola chapter of the Neuroscience Society planned and arranged the entire banquet.

The Loyola Chapter of the Neuroscience Society and the Interdisciplinary Neuroscience Minor sponsored two events during Brain Awareness Week (3/21-3/28). The first was a screening of “Memento” on March 21st, followed by a discussion with Dr. Ken Paller of Northwestern University. Dr. Paller is the Director of the Cognitive Neuroscience Program at Northwestern and is an expert on the brain mechanisms of human memory. The second was a talk entitled “A Short Story of Alzheimer’s Disease,” given by Marsel Mesulam, M.D., director of Northwestern’s Cognitive Neurology and Alzheimer’s Disease Center. Dr. Mesulam is a world renowned expert on Alzheimer's Disease and primary progressive aphasia.

Dr. Richard R. Fay who served as the Director of the Interdisciplinary Neuroscience Minor since 2001 retired in June of 2011 after 36 years of service to Loyola University Chicago. Dr. Fay was a leading expert on comparative aspects of hearing, particularly in fish. He was replaced as Director in January 2011 by Raymond H. Dye whose research area is psychoacoustics, with an emphasis on
binaural processing. The Department of Psychology looks forward to hiring a behavioral neuroscientist during this upcoming academic year to replace Dr. Fay who will contribute to the Interdisciplinary Neuroscience Minor.

Chicago SfN Chapter of the Year Award
The Society for Neuroscience Chicago Chapter was recognized with the Chapter-of-the-Year Award by SfN at the 2010 Annual Meeting.

This relatively new award was created by the Membership and Chapters Committee in 2009 in order to recognize individual SfN Chapters for outstanding accomplishments across a broad range of activities that are consistent with the mission and strategic initiative of the SfN.

Then President (2009-2011), Dr. Evan Stubbs, Jr., accepted the award on behalf all current and past officers and councilors of the Chicago Chapter. Current Loyola officers include Dr. Toni Pak, Treasurer; Dr. Joanna Bakowska, Councilor; Dr. Saverio Gentile, Councilor. In addition to the recognition the chapter also receives $1000 to be used to support the Chapter goals and on-going outreach programs.

In the News…..

Hines Physicians Recognized as Top Docs by U.S. News and World Report
Fifteen Hines physicians were nationally recognized this week as top in their specialty by being named to U.S. News & World Report’s 2011 List of Top Doctors. Congratulations to: Elaine Adams, MD, Rheumatology, Joseph Clark, MD, Medical Oncologist, Bahman Emami, MD, Radiation Oncologist, Patrick J. Fahey, MD, Pulmonologist, Martin Tobin, MD, Pulmonologist, Charles G. Alex, MD, Pulmonologist, Juan Angelats, MD, Plastic Surgeon, Michael S. Bednar, MD, Hand Surgeon, Robert S. Dieter, MD, Interventional Cardiologist, Baltazar Espiritu, MD, Allergist-Immunologist, Morris Fisher, MD, Neurologist, Karen Griffin, MD, Nephrologist, Raymond Joehl, MD, Surgeon, Gregory J. Matz, MD, Otolaryngology, and John Wheeler, MD, Urologist.

“We are proud to be home to 15 of the top doctors in the Chicago area as ranked by U.S. News and World Report,” said Sharon Helman, Hospital Director. “At Hines we have always known that our physicians are second to none. Veterans who seek care here can be assured that the health care professionals caring for them are recognized by their peers as the best in their field.”

U.S. News & World Report’s Top Doctors was created in collaboration with Castle Connolly Medical Ltd., publisher of America’s Top Doctors and other consumer health guides. It draws from Castle Connolly’s database of Top Doctors, all recommended for their clinical skills by other doctors and individually vetted by a physician-led research team. Consumers can search for a Top Doctor by location, hospital affiliation, and a full range of specialties and subspecialties by going to the website: http://health.usnews.com/top-doctors/

Recent Publications by NSI Members:
We now have a link on the Neuroscience Institute (NSI) website http://www.strutsch.luc.edu/NSI/ that will take you to a list of recent publications by our members.

Please send Kimberly Stubbs kstubbs@lumc.edu the information for your newly published manuscripts and she will update the website.

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