

BRAIN WAVES

Volume 4, Issue 4

May 2, 2007

ANNUAL LEXINGTON CONFERENCE ON TRANSLATIONAL NEUROSCIENCE A SUCCESS

April 17-19, 2007 marked the third annual Lexington Conference on Translational Neuroscience. This year's topic was *Trophic Factor Therapy for Parkinson's Disease*.

Drs. Don Gash, Greg Gerhardt, Hans Büeler from the University of Kentucky along with Dr. Mart Saarma from the University of Helsinki and Dr. Eugene Johnson from Washington University in St. Louis were the scientific organizers for the event. Avalon Sandoval coordinated the conference, handling organization, logistics, scheduling, travel and hotel arrangements, and special events. There were three international and nine national speakers for the event: Dr. Klaus Unsicker from the University of Heidelberg, Dr. Romain Zufferey from the Swiss Federal Institute for Technology, Dr. Kim Seroogy from the University of Cincinnati, Dr. Jeff Milbrandt from Washington University in St. Louis, Dr. Clive Svendsen from the University of Wisconsin, Madison, Matthew Adams, M.S. from Medtronic, Inc., Dr. Krys Bankiewicz from the University of California, San Francisco, Dr. Richard Grondin from University of Kentucky, Dr. Michael Zigmund from the University of Pittsburgh, and Dr. Roy Bakay from Rush University. Dr. John Slevin from the Department of Neurology graciously filled in when a speaker was unable to attend.



Dr. Michael Zigmund with Dr. Gash

Over 90 people were registered to attend, however a number of additional faculty and students were walk-ons, attending the event at the last minute. The meeting highlighted recent scientific advances in trophic factor research. Saarma reported isolating and cloning Conserved Dopamine Neurotrophic Factor, a novel protein with potent dopaminergic properties. Milbrandt described his seminal studies on the signaling pathways regulating axonal degeneration, identifying potential targets for clinical intervention. A major focus of the meeting was on advances in site-specific delivery of proteins to the brain, perhaps the major challenge for achieving effective trophic factor therapy. Bakay reported on the phase 1 Cerogene gene transfer studies in twelve patients using AAV to transfect CNS cells with the gene for synthesizing the trophic factor Neurturin.

The meeting was sponsored by the NIH National Institute on Aging Molecular and Cellular Basis of Brain Aging Training Grant, the Department of Anatomy & Neurobiology, The Morris K. Udall Parkinson's Disease Research Center of Excellence, Medtronic, Inc., Johnson & Johnson Regenerative Therapeutics, LLC., and Quanteon, LLC.

Students and trainees participating in the meeting and serving as hosts for speakers were April Richardson, Dr. J. George Quintero, Dr. Jeremiah Gates, Sarah Martin, Dušan Jeftinija, Michelle Stephens, Andrew Sauerbeck, Joshua Fuqua, Yun Kyung Hahn, Ayman Mustafa, Kristin Kelps, Aashish Joshi, Pooja Talauliker, Laurie Davis, Nathan Johnson, Lamin Mbye, Jordan Clark, Erin Rutherford, Kevin Hascup, Bin Xing and Dong-Young Choi.



Dr. George Quintero and graduate student Michelle Stephens



DON M. GASH, PH.D.
CHAIR, ANATOMY & NEUROBIOLOGY



Dr. Klaus Unsicker

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SPECIAL POINTS OF INTER-

- The next Faculty Meeting is scheduled for Friday, May 11 at 12:00pm in MN 136.
- We need your nominations for Employee of the Quarter. See Page 6.

PURCHASING DEADLINES

Fiscal Year 2006-2007 Closing Schedule Timeline

All old year documents must have a posting date of 06/30/2007 or prior.

- ✓ **May 25** Requisitions are due to Purchasing for small dollar purchases for commodities where informal quotes (phone or fax) may be obtained and the items will be delivered prior to July 1.
- ✓ **June 8** Requisitions are due to Purchasing for equipment and supplies which are on price contract and will be delivered prior to July 1.

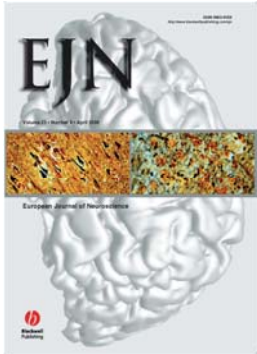
Please contact Kim Wilkerson at kdwilk1@email.uky.edu with any questions or concerns.

FACULTY MEETING HIGHLIGHTS

- LCME Accreditation Standards have been revised—essentially the learning environment we provide must adhere to professional courteous behavior, the basic principles of clinical and translational research must be delineated and service learning activities must be explored by our students (particularly medical students).
- Currently there are 23 IBS recruits that have accepted, the program is aiming for 30-33 students for Fall 2007.
- Post-doctoral fellows and scholars need to take advantage of the Post-doc Steering Committee which provides opportunities to present research, learn new skills and learn about the university process. Please contact Dr. Diane Snow at 323-2613 or diane.snow@uky.edu.
- Please route **ALL** computer purchases and equipment moving/set-up through Joey Rose, our IT Administrator, as this will streamline the process.
- Bridge funding procedure revisions have been under discussion, but have not been approved. Please use the current procedures until further notice.
- The Faculty were formally introduced to Gianna Farley, our new financial team leader for the administrative staff.

Professional Announcements

Publications



Stein PA, Brueckner JK, Milliner, M. Sensory innervation of mandibular teeth by the nerve to the mylohyoid: Implications in local anesthesia. *Clinical Anatomy, In press.*

Zach S, Bueler H, Hengerer B, Gillardon F. Predominant Neuritic Pathology Induced by Viral Overexpression of alpha-Synuclein in Cell Culture. *Cell Mol Neurobiol.* 2007 Mar 23; [Epub ahead of print]

Announcements

Be sure to congratulate **Dr. Vidya Nag Nukala** and **Dr. Matthew Garcia** our newest PhD graduates!



Vidya defended on April 17, 2007. He will be attending George Washington University in Washington, D.C. to earn a M.A. in International Science & Technology Policy in the fall.

Matt defended on April 19, 2007. He will be pursuing a post-doctoral position in the near future.

Congratulations! We wish you the best in your future careers!

Erin Rutherford received the Bluegrass Chapter Spring Neuroscience Day Outstanding Poster Presentation Award 2007.

*Graduation is only a concept.
In real life every day you graduate.
Graduation is a process that goes on
until the last day of your life.
If you can grasp that,
you'll make a difference.
~ Arie Pencovici ~*

Announcements

University of Kentucky students **Andrew Lynch** and **Eddie Kobraei** have been named the 2007 Beckman Scholars at the University of Kentucky, providing each of them with \$19,300 over 14 months to support their own scientific research projects under faculty mentorship.



Kobraei, a junior majoring in biology from Murray, KY, will be exploring the inhibitory effect of molecules called chondroitin sulfate proteoglycans (CSPGs) on neuronal outgrowth and regeneration following spinal cord injury. A major goal of this project is to identify the inhibitory structural features of CSPGs so that drugs and therapies can be developed that specifically target the inhibitory influences of these molecules. Such therapeutic developments may then help to facilitate recovery of function in patients with spinal cord injury. He will perform his research under the mentorship of **Dr. Diane Snow**, Associate Professor in anatomy and neurobiology. ~ **UK News**

Presentations

Drs. Jennifer Brueckner and **Brian MacPherson** presented two posters this past month. The first was their developing project - Enhancing undergraduate anatomy pedagogy through development and implementation of a digital laboratory experience., funded by a TASC Teaching and Technology Initiative Grant. This was highlighted at the TASC Open House on April 18th in the Main Building on North Camous. The second was at the Southern Group on Educational Affairs (SGEA) held this year in Louisville, April 19-21st. Their poster was entitled "Using Team-Based Learning in the medical histology laboratory". Mr. Andrew Harris, a 4th year medical student was a co-author on this last poster - having helped develop some of the TBL cases.

Dr. Richard Grondin will present at the Fourteenth (14th) Annual Conference of the American Society for Neural Therapy & Repair (ASNT&R), Clearwater (FL), USA, May 3rd-6th, 2007 entitled: Neurturin infusion in MPTP-treated parkinsonian monkeys.

Presentations

The following presentation occurred at the 12th Annual Institute of Biological Engineering Conference in St. Louis over the weekend of March 30-31, 2007 by the Gerhardt Lab:

Katie Werner presented the following poster: "Second-By-Second Microelectrode Array Measurements of Acetylcholine". She took first place in the poster competition!

Erin Rutherford gave the following oral presentation entitled: "Second-by-Second Enzyme-Based Microelectrode Recordings of Resting L-Glutamate in Awake Rats".

Kevin Hascup gave the following oral presentation entitled: "Second-by-Second Measures of L-glutamate Resting Levels Using Enzyme-Based Microelectrode Arrays in the CNS of Conscious Freely Moving Mice".

Francois Pomerleau gave an oral presentation entitled: "Development of 8 and 16 site microelectrode arrays (MEAs) for CNS recordings".

Pooja Talauliker gave an oral presentation entitled: "Evaluation of Ceramic-based Microelectrode Arrays for *In Vivo* Recordings".

The following presentations occurred at the University of Kentucky Graduate Student Interdisciplinary Conference on April 13, 2007 from the Gerhardt and Glaser labs:

Kevin Hascup presented the following poster: "Second-by-Second Measures of L-glutamate Using Enzyme-Based Microelectrode Arrays in the CNS of Awake Freely Moving Mice".

Michelle Stephens gave an oral presentation entitled: "Comparisons of Second-By-Second Glutamate Regulation In the Rat Hippocampus During Aging".

Theresa Currier Thomas gave an oral presentation entitled: "Dopamine and Glutamate Alterations in Dopamine D4 Receptor Knockout Mice".

Pooja Talauliker presented the following poster: "Multi-site microelectrode array studies of L-glutamate dynamics in rodent hippocampus".

Departmental Birthdays

Comings and Goings



May

Ashley Walton ~
5/10

Kevin Hascup ~
5/11

Dr. Richard Grondin ~ 5/13

Charlotte Gorospe ~ 5/13

Dr. Jane Joseph ~ 5/14

Verda Davis ~ 5/18

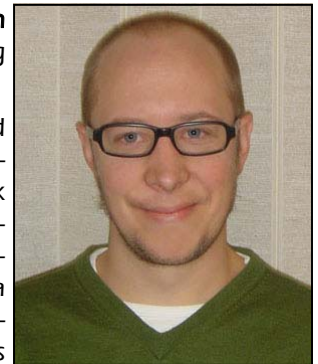
Dr. Lothar Jennes ~ 5/27

Dr. Kurt Hauser ~ 5/28

Angel Schumacher ~ 5/29

Yiqin Xiong ~ 5/29

Please welcome **Dr. Martin Lundblad** to Dr. Greg Gerhardt's lab!



I defended my thesis at Lund University (Sweden) in October 2004. The thesis work was focused on the development of rodent models of L-DOPA induced dyskinesia (LID), an adverse effect of L-DOPA therapy for Parkinson's disease and was carried out in Dr. Angela Cenci's lab. In this work I did behavioural, pharmacological and histological characterization of LID in two species, rat and mouse. After my dissertation I spent two years as a post doc in Dr. Ingrid Strömberg's lab at Umeå University (Sweden) where I used chronoamperometry with carbon fiber electrodes to measure the effect of chronic L-DOPA treatment on dopamine signalling dynamics in normal and Parkinsonian rats.

My post doc in Dr. Gerhardt's lab will focus on dopamine measurements in freely moving animals using ceramic dopamine microsensors.

~ Dr. Martin Lundblad

Employee of the Quarter

**THE EMPLOYEE OF THE
QUARTER
COMMITTEE
NEEDS YOUR
NOMINATIONS!!**



Dr. Gerhardt is also welcoming **Verda Davis** as his new Principle Research Analyst! (Verda previously worked in the lab of Dr. Duncan.)

Verda will be working on some new research initiatives with both the Gerhardt and Gash laboratories.

CONGRATULATIONS ON THE PROMOTION, VERDA!

Please submit your nominations to either Kim Wilkerson or Joey Rose

**kdwilk1@email.uky.edu
or
joey@uky.edu**

The nomination form is located on the next page.

Also be sure to say hello to Dr. Büeler's new post-doctoral scholar **Dr. Zhen Yu Huang**.

Dr. Huang is the second member of Dr. Büeler's new lab.

WELCOME, DR. HUANG!



Employee of the Quarter Nomination Form

The Quarterly Employee Awards are will be announced at the Departmental Bashes - May (for nominations submitted January through March); August (April through June); October (July through September) and December (October through December). The Employee of the Year Award will be selected from the winners throughout the year and will be announced annually at the Annual Holiday Potluck. **Due to Joey Rose or Kim Wilkerson ASAP.**

When considering someone for the award, think of the individual who has made your job easier or assisted you in performing your job. To complete the nominations please complete the following questions. Use additional paper or the back of this if necessary.

Date: _____ Candidate: _____

Nominator: _____

Is this individual a regular full-time employee in the Department of Anatomy & Neurobiology? _____ Yes _____ No

1. What attributes or actions make this individual worthy of your nomination? Give examples.

2. How is this individual an asset to the Department of Anatomy & Neurobiology? Give examples.

3. How have you seen this individual contribute to the UK and/or greater community? Give examples.

4. With 1 = average and 5 = outstanding, please rank the nominee in the following areas:

Quality of work: 1 2 3 4 5

Attitude toward performing job duties: 1 2 3 4 5

Problem solving skills: 1 2 3 4 5

Willingness to help others: 1 2 3 4 5

Service to the department/university: 1 2 3 4 5

Submit to Kim Wilkerson in MN 225 Medical Sciences Bldg. 0298 Phone: 323-6926

Anatomy & Neurobiology

MN 225 Medical Sciences Building
Lexington, KY 40536-0298
Phone: 859-323-5155
Fax: 859-257-6700

<http://www.mc.uky.edu/neurobiology/>

Please send comments & submissions to Avalon Sandoval at asand1@email.uky.edu or call 859-257-5036.

The Next Deadline is May 23, 2007

Available Training

Training for the Labs

The University requires safety training classes to be completed before beginning certain types of work. The requirements apply to all individuals involved in the covered work, including faculty, staff, students, postdocs, visiting researchers and volunteers. To find out what classes you need to take, consult the [Training Checklist](#).

NOTE: Anyone who works with chemicals in a laboratory **must** complete the following three classes: Chemical Hygiene Plan/Laboratory Safety, Hazardous Waste, and Fire Extinguisher Use.

Chemical Hygiene Plan/Lab Safety

This class is available [online](#).

Bloodborne Pathogens This class is available upon request and [online](#).

Hazardous Waste This class is available [online](#).

Initial Radiation Safety: Initial Radiation Safety (~ 15 minutes total) is offered every day at 1:30 pm at the Radiation Safety Office, 102 Animal Pathology Building (other times can be arranged). You must bring two completed forms with you: On-Site Radiation Safety Training Form and Radiation Worker Registration Form, both signed by your Authorized User or unit supervisor. If you have questions, contact Tracy Cayson at 323-6777.

Basic Radiation Safety

May 23 1-4p Rm. NURS 504
June 21 9a-12p Rm. NURS 504
July 27 9a-12p Rm. NURS 214

Advanced Radiation Safety is only available [online](#).

Fire Extinguisher Use is available [online](#).

NOTE: *Online courses can only be taken using a UK computer.*

Preventing Sexual Harassment is also a **MANDATORY** training. This training can be done online at (<http://training.newmedialearning.com/psh/ukentucky/index.htm>). Remember to print your certificate when complete; sign it and turn it in to Dalene to be placed in your personnel file.

Ignoring these MANDATORY trainings can result in dismissal from employment at the University of Kentucky

Human Resources

Development course offerings

<http://hr.uky.edu/TandD/welcome.php>

5-7 ~ Mediation Skills
5-9 ~ Leading Customer Service Providers
5-10 ~ Communicating with Success
5-11 ~ Resolving Workplace Conflict
5-11 ~ Developing a Winning Image
5-17 ~ Travel Program
5-17 ~ Trip Manager
6-6 ~ Multi-generational Diversity in the Workplace: Veterans, Boomers, X'ers

and Nexters

6-8 ~ Communicating Across Cultures
6-8 ~ Teamwork in a Changing Workplace
6-11 ~ Managing Staff Conflict
6-13 ~ Personality Differences
6-15 ~ Group Problem Solving
6-19 ~ Facing the Challenge of Change
6-20 ~ Presenting Effectively Day 1
6-21 ~ Basics of Leadership
6-27 ~ Presenting Effectively Day 2



**All the world is a laboratory
to the inquiring mind.
~ Martin H. Fischer ~**