



# BRAIN WAVES

Volume 4, Issue 10  
November 19, 2007

## DEPARTMENTAL SELF-STUDY

During September and October, our department conducted an extensive self-study as part of a Six Year Review of Anatomy & Neurobiology. The most helpful part of the self study was a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. I would like thank everyone who participated in this labor-intensive process. It has been extremely valuable in providing a high resolution picture of Anatomy & Neurobiology and our progress over the past six years. We are a dynamic department with real and significant strengths. But while as a group we are functioning at a high level, there are also clearly areas of concern that we need to address. We will discuss these as a department and take appropriate actions to move forward. A full copy of the self-study is available to all department faculty, staff and students by emailing Avalon Sandoval at [asand1@email.uky.edu](mailto:asand1@email.uky.edu).

Here, I would like to share with you a composite picture the department. As of October 1, 2007, we have a complement of 29 faculty members, 28 students (24 graduate students and 4 postdoctoral fellows) and 36 staff members. Twenty-two faculty members are in the Regular Title Series, where they are expected to develop strong, well-funded research programs and international reputations for excellence in scholarship. Their percent effort for teaching ranges from 10-25%. Three faculty members are in the Special Title Series, with extensive teaching commitments and a minimum of 25% effort for scholarship. We also have four faculty members in the Research Title Series who devote up to 98% of their effort to ongoing research projects.

The department has extensive teaching responsibilities. We teach three major first-year medical courses: Human Histology (ANA 812), Gross Anatomy (ANA 814) and Neuroscience (MD 817) with a class size of 103 medical students. Neuroscience is team taught with Neurology, Psychiatry and Physiology. College of Dentistry courses taught by our department include Histology (ANA 530), Gross Anatomy (ANA534), Embryology (ANA 536), and Neuroanatomy (ANA 538), with a class size of 56 dental students. For the College of Allied Health Sciences, we teach Gross Anatomy (ANA 611) on the UK Campus (97 students) and Hazard (cont'd)



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

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### SPECIAL POINTS OF INTEREST:

- THE FACULTY MEETING WILL BE HELD FRIDAY DECEMBER 14 AT 12 PM IN MN 136.
- THE HOLIDAY PARTY WILL BE HELD FROM 7PM TO 12AM ON FRIDAY DECEMBER 7 AT THE HILTON SUITES OF LEXINGTON GREEN.

## DEPARTMENTAL SELF-STUDY (CONTINUED)

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Campus (16 students), Histology for PT (ANA 810, 48 students), and Neuroanatomy for PT, (ANA 802, 48 students). Major undergraduate courses taught by the department are Anatomy and Physiology for Nursing (Fall Semester ANA 109, ~ 400 students; Spring Semester ANA110, ~ 300 students), and Principles of Human Anatomy (ANA 209, ~280 students per semester). Recently, an online version of ANA 209 was initiated with 22 students enrolled. Our faculty also lecture in the Integrated Biomedical Sciences graduate courses and advanced graduate courses offered by our department and the other basic science departments.

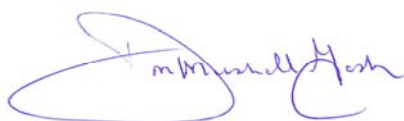
The department is noted for its excellence in teaching. Gross Anatomy has been voted as the best first-year medical course by the students for the past three years (2004, 2005, 2006), winning the Silver Podium Award. In addition, Dr. Jennifer Brueckner has received the Silver Pointer Award for four years in a row, voted as the best first-year teacher by the medical students.

The department has been innovative in teaching. In 2004, the Chair initiated the Holsinger Teaching Awards to recognize outstanding teaching. The concept was that an award series was needed to parallel the Wethington Awards for Research. The program has been successful in the department and is beginning to be adopted by other departments (e.g. Physiology). To meet a national shortage in faculty qualified to teach Human Anatomy, Drs. Jennifer Brueckner and Douglas Gould have developed a Teaching Certificate Program in Anatomy for graduate students. The first students will complete training in this program this year.

Research is a major strength in Anatomy and Neurobiology, with \$7.4 million dollars in research grants and contracts in 2007. To counterbalance the static funding levels at NIH, we have endeavored to increase funding support from the Pharmaceutical Industry. This effort is becoming increasingly successful with \$631,878 in fiscal year 2007 and an additional \$981,276 expected for fiscal year 2008 in research funding from companies including Medtronic, Johnson & Johnson, Eli Lilly and Pfizer. Departmental faculty members provide leadership in research in the Medical Center. Dr. Greg Gerhardt directs two Centers, the Udall Parkinson's Disease Center of Excellence and the Center for Microelectrode Technology. Dr. Edward Hall directs the Spinal Cord and Brain Injury Research Center. In addition, the Department has a Program Project directed by Dr. Don Gash.

Faculty members also participate in many service activities. These include serving on 22 Study Sections for NIH and 52 other Review Panels and Grant Review Groups. Department Faculty members have Editorial Board/Manuscript Editorial responsibilities for 30 journals. For example Dr. Greg Gerhardt is the Editor-in-Chief for the Journal of Neuroscience Methods and Dr. James Geddes is the Editor-in-Chief for Alzheimer's Disease Review and serves on the editorial board and Neural Systems section editor of Experimental Neurology.

Once again, Julie Poole and myself would like to thank all those who participated in the surveys and meetings. We truly appreciate the effort and level of involvement so many of you have shown. We look forward to building an even stronger department in the near future.



Don Marshall Gash, Ph.D.

## CALL FOR POSTDOCTORAL ABSTRACTS

College of Medicine Postdoctoral Poster Session  
 Wednesday, December 12, 2007, Combs Atrium  
**Poster Presentations and Judging: 11 am-12:30 pm**  
**Buffet Lunch: 12:00-1:00 pm**  
 Sponsored by the Postdoctoral Advisory Committee

**Mission Statement:** The primary objective of the University of Kentucky College of Medicine Postdoctoral Advisory Committee (PAC) is to develop the postdoctoral trainee and scientist community in the College. The PAC is comprised of faculty, administrative staff and postdoctoral representatives who serve as resources to enhance the postdoctoral training environment for all postdoctoral trainees in both the basic and clinical sciences. Among the programs instituted under the auspices of the PAC are a Postdoctoral Development Seminar Series and social events designed to promote interaction both between postdoctoral trainees and between postdoctoral trainees and faculty. An important aspect of postdoctoral training is the provision of venues for the presentation of data and the development of presentation skills. In an effort to broaden the scope of presentation opportunities, the PAC is instituting a peer-reviewed (by post-docs and faculty) poster session. This unique opportunity will permit postdoctoral trainees across diverse disciplines to present their work in progress in a friendly environment for constructive feedback. The PAC Poster Awards will facilitate travel to national conferences to present these research results.

### Content:

- Abstracts may be submitted on any aspect of original research performed by the postdoctoral trainee at the University of Kentucky College of Medicine. This includes areas of both basic and clinical research including epidemiological studies and outcomes research.
- Abstracts and posters may describe work that has been or will be submitted at other meetings. This is an excellent opportunity to receive feedback on the presentation of data for a meeting in the near future.
- Abstracts are NOT restricted to work that is completed or near completion. Poster presentations describing the design of new studies and work that is in progress can and should be submitted as well. Presentation of such data or experimental plans to peers offers an opportunity for the establishment of collaborations.

### Who may submit:

All postdoctoral trainees (including both US citizens/permanent residents and foreign nationals) in the UK College of Medicine may participate. Postdoctoral trainees are individuals in "postdoctoral status" regardless of employment category who are receiving additional research training prior to seeking a permanent position. They may be postdoctoral scholars, postdoctoral fellows, residents, clinical fellows, research associates, scientists I, II, III, etc. The mentor's signature on the Abstract certifying "postdoctoral status" is required for submission of an Abstract.

### Format:

Abstracts may describe work that has been or will be submitted at other meetings. The abstract should be submitted as an email attachment no later than **Wednesday, November 28, 2007**. For mentor certification the abstract should be printed out, signed by the postdoc's mentor, and either faxed to (859) 323-2039 or sent via campus mail to Deborah Reining, College of Medicine Dean's Office, MN150 UKMC 0298. There is NO fee for participation in this unique opportunity. Submitted Abstracts will be compiled and distributed to attendees.

**Award:** Prizes will be awarded to support presentations at professional conferences and/or professional expenses based on (1) abstract, (2) poster quality and (3) oral presentation of poster and research.

**ABSTRACT:** Postdoctoral Poster Session  
 Wednesday, December 12, 2007  
**Abstract submission deadline:**  
 Wednesday, November 28, 2007.

Project Title:

Postdoctoral Trainee  
 Name:  
 Current Position/Title:

Mentor:

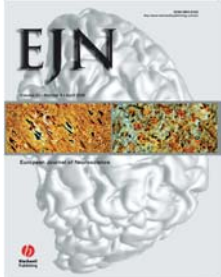
Additional Research Collaborators:

Trainee and Mentor Department:

Abstract (no more than 200 words):

## Professional Announcements

### Publications



**Stein PA**, Desrosiers M, Donegan SJ, Kryscio R, Yepes J. Tooth loss, dementia, and neuropathology in the Nun Study. *Journal of the American Dental Association*, October 2007, 38:1314-22.

**Stein PA**. Invited Book Review. *Theime Atlas, Head and Neuroanatomy, Clinical Anatomy*, November 2007, 20:1004.

**Don M. Gash**, Kathryn Rutland, Naomi L. Hudson, **Patrick G. Sullivan**, **Guoying Bing**, **Wayne A. Cass**, Jignesh D. Pandya, **Mei Liu**, **Dong-Yong Choi**, **Randy L. Hunter**, **Greg A. Gerhardt**, Charlie D. Smith, John T. Slevin and T. Scott Prince. Trichloroethylene: Parkinsonism and Complex 1 Mitochondrial Neurotoxicity. *Annals of Neurology* (in press).

Liu, X., Steinmetz, N. A., Farley, A. B. Smith, C. D., & **Joseph, J. E.** (in press). Mid-fusiform activation during object discrimination reflects the process of differentiating structural descriptions. *Journal of Cognitive Neuroscience*.

Thomas TC, Kruzich PJ, Joyce BM, Gash CR, Suchland K, **Surgener SP**, **Rutherford EC**, Grandy DK, **Gerhardt GA**, Glaser PE. Dopamine D4 receptor knockout mice exhibit neurochemical changes consistent with decreased dopamine release. *J Neurosci Methods*. 2007 Nov 30;166(2):306-314.

Nickell J, Salvatore MF, **Pomerleau F**, Apparsundaram S, **Gerhardt GA**. Reduced plasma membrane surface expression of GLAST mediates decreased glutamate regulation in the aged striatum. *Neurobiol Aging*. 2007 Nov;28(11):1737-48.

Yu CG, **Geddes JW**. Sustained calpain inhibition improves locomotor function and tissue sparing following contusive spinal cord injury. *Neurochem Res*. 2007 Dec;32(12):2046-53.

Kelley BJ, **Lifshitz J**, Powlislock JT. Neuroinflammatory responses after experimental diffuse traumatic brain injury. *J Neuropathol Exp Neurol*. 2007 Nov;66(11):989-1001.

### Publications

Zhang L, Li F, Dimayuga E, Craddock J, **Keller JN**. Effects of aging and dietary restriction on ubiquitination, sumoylation, and the proteasome in the spleen. *FEBS Lett*. 2007 Nov 6; [Epub ahead of print]

**Dimayuga FO**, **Wang C**, **Clark JM**, Dimayuga ER, **Dimayuga VM**, **Bruce-Keller AJ**. SOD1 overexpression alters ROS production and reduces neurotoxic inflammatory signaling in microglial cells. *J Neuroimmunol*. 2007 Jan;182(1-2):89-99.

**Bruce-Keller AJ**, **Dimayuga FO**, Reed JL, **Wang C**, Angers R, Wilson ME, **Dimayuga VM**, **Scheff SW**. Gender and estrogen manipulation do not affect traumatic brain injury in mice. *J Neurotrauma*. 2007 Jan;24(1):203-15.

**Gold BT**, Rastle K. Neural Correlates of Morphological Decomposition during Visual Word Recognition. *J Cogn Neurosci*. 2007 Sep 24; [Epub ahead of print]

As we express our gratitude, we must never forget that the highest appreciation is not to utter words, but to live by them.  
  
~ John Fitzgerald Kennedy ~

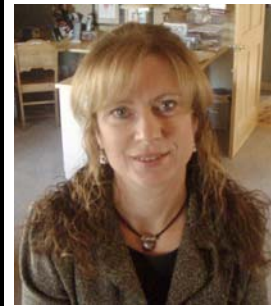
**Xing B**, **Liu M**, **Bing G**. Neuroprotection with pioglitazone against LPS insult on dopaminergic neurons may be associated with its inhibition of NF-kappaB and JNK activation and suppression of COX-2 activity. *J Neuroimmunol*. 2007 Oct 30; [Epub ahead of print].

### Announcements

Congratulations to **Kevin Hascup** who successfully passed his defense on October 4, 2007. He will be heading to Sweden in January to complete a post-doctoral position. Bravo, Dr. Hascup!

### Announcements

We would also like to congratulate **Xuan Nguyen** who successfully defended on October 17, 2007. He will now complete a residency in Diagnostic Radiology. Great job, Dr. Nguyen!



**Dr. Diane Snow** has been named Director of the Circles of Power Leadership Program for Women Faculty. Congratulations, Dr. Snow!

### Presentations

**Dr. Diane Snow** had an invited lecture at Drexel University (Philadelphia) on Wed, Oct. 24 entitled, "Neuronal psychology: understanding choices growth cones make at inhibitory boundaries"

**Dr. Pamela Stein** was an Invited speaker presenting "Tooth Loss and Dementia: Findings from the Nun Study" at Texas A & M Health Sciences Center, Baylor College of Dentistry, Dallas, TX, on October 12, 2007.



*Dr. Pamela Stein and Dr. Bill Wathen, the former editor of the Journal of the American Dental Association*

# WELLNESS DAY 2007



**December 7**  
**10 a.m.-3 p.m., Alumni Gym**

## **Give yourself the gift of wellness ...**

Your holiday gift from the UK Health & Wellness Program: useful information on nutrition, fitness, Healthtrac Rewards, stress relief, and more. Enroll in programs such as Body Shop Fitness, Biggest Blue Loser, and Weight Loss Matters\*. Enjoy free refreshments and chances to win prizes all day.

- 10-12 p.m.            Relaxation techniques, fitness class and tai chi demos
- 10-11:30 a.m.        Ask the Nutrition Expert
- 11 a.m.-1 p.m.        Ask the Fitness Expert
- 12-12:20 p.m.        See why dance is a hot fitness trend - Zumba class demo
- 1-3 p.m.                Ask the Relaxation Expert

\*Enrollment fee payments will be accepted on site.



UNIVERSITY OF KENTUCKY  
Health & Wellness Program

**116A Seaton Center • Lexington, KY 40506-0219**  
**[www.uky.edu/HR/wellness](http://www.uky.edu/HR/wellness) • (859) 257-WELL (9355)**

## Departmental Birthdays

## Comings and Goings



### November

11/17 ~ Jason Hinzman

11/19 ~ Ryan Readnower

## Employee of the Quarter

THE EMPLOYEE OF THE QUARTER

COMMITTEE NEEDS YOUR NOMINATIONS!!



Please submit your nominations

to either

Kim Wilkirson or Joey Rose

[kdwilk1@email.uky.edu](mailto:kdwilk1@email.uky.edu)

or

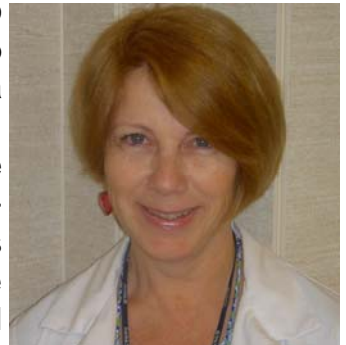
[joey@uky.edu](mailto:joey@uky.edu)

The nomination form is located on the next page.



Please welcome, **Melissa Jones** to the administrative office! Melissa will be joining our finance team to balance our accounts. She joins us from Treasury Services at UK. Be sure to say hello when you see her!

We would also like to welcome **Sue Bizzarro** to the Gerhardt lab as a laboratory technician. Sue joins us from the Department of Laboratory Animal Resources (DLAR) where she worked as an animal caretaker. We are glad you are here, Sue!



We would like to offer our belated congratulations to **Pooja Talauliker**, from Dr. Greg Gerhardt's lab! She was married on August 26th, 2007 to Prasad Chowdavarapu in Hyderabad, India. Prasad is a former UK alumni from the Department of Computer Science and currently works with the American Board of Family Medicine.



# 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](mailto:asand1@email.uky.edu) or call 859-257-5036.

**The Next Deadline is December 7, 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

November 15 1-3p HS504 HSLC

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

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

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

**Corporate Compliance** training is mandatory for employees working in the UK hospital or medical center. All HR Temporary Employment employees are required to view the Corporate Compliance video in orientation. For more information, please visit the UK [Corporate Compliance Program](#) Web site.

**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>

11-27 ~ Communicating Across Cultures

11-30 ~ Getting to Know Office 2007

- 12-4 ~ Basics of Diversity
- 12-5 ~ Developing a Winning Image
- 12-7 ~ Managing Your PC
- 12-11 ~ Personal Decision Making
- 12-13 ~ Recognizing Performance Problems
- 12-13 ~ Searching the Web Effectively
- 12-14 ~ Motivating for Top Performance
- 1-9 ~ Customizing Your PC
- 1-11 ~ Getting to Know Office 2007
- 1-16 ~ Resolving Workplace Conflict
- 1-24 ~ Navigating the Web
- 1-29 ~ Building a Climate of Trust



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