

# BRAIN WAVES

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## WELCOME, IBS STUDENTS

With the coming Fall Semester, we welcome new graduate students from the IBS Program as they rotate through our various laboratories. They will join the graduate students currently in our program, and the scores of previous students who have successfully earned their degrees and have moved on to the next stages of their careers.

Graduate and Postdoctoral training lies at the core of our profession. For faculty, the commitment to training the next generation of scientists and teachers is vital – and requires our best efforts. For students, the path to success is difficult and most challenging. Unfortunately, some will fall by the wayside. For to be a student is to simultaneously live in two worlds; it is both the best of times and the worst of times!

The best of times are many, including youth, intellectual freedom and opportunity. The freedom to think and the opportunity to explore are essential for scientific creativity. These educational principles must be protected and remain an integral component of our training program. The graduate and post-doctoral years of study are often the most creative period of one's life. Many of the most important breakthroughs in science have been made by young investigators. Jim Watson was a postdoctoral fellow when he co-discovered the paired helical structure of DNA. Jonas Salk was 33 years old when began his seminal research that led to the development of polio vaccine.

And as all who have survived their student days know, there are the occasional worst of times. Courses can be tedious and exams unfair. Months of research with all of the accompanying hard work can end in a failed experiment. Critics abound and the criticism of one's research can be intense. The anonymous reviewers of manuscripts and grant applications can assume the form of tormentors, raising patently unfair criticisms.

To survive and succeed in our profession, one has to possess an overriding love for learning and a strong work ethic. Integrity, ingenuity, insight and persistence are essential for success. The successes in research and in teaching should be fully enjoyed and appreciated. The vexations have to be met as a student, and then as a professional. Science can be an enormously rewarding career, but only for those up to the challenge.

~ Dr. Don Gash, Chair



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

## FROM THE DIRECTOR OF GRADUATE STUDIES



Dr. Jane Joseph  
Director of Graduate  
Studies (DGS)

I am delighted to welcome the incoming IBS students to the department of Anatomy and Neurobiology. As the new Director of Graduate Studies (DGS) for our department, together with Dr. Diane Snow, the Associate Director of Graduate Studies, we look forward to helping you discover everything that our department has to offer.

We are one of the top ranked Anatomy departments in the nation with regard to external support such as funding from the National Institutes of Health. In addition, this past year, the department achieved a ranking of 3<sup>rd</sup> in the nation of all Anatomy departments in terms of faculty productivity, as reported in the *Chronicle of Higher Education*. Our graduate students are an integral force in achieving such rankings by contributing to publications and grants.

Our neuroscience research interests run the gamut of topic and technique, from nanotechnology, to cellular/molecular approaches, to behavioral/cognitive and systems analyses. The research resources available to our graduate students are numerous and diverse. In addition, our commitment to education is evidenced by our strong teaching role in the medical center and our continued national prominence as leaders in educational technology development.

Importantly, our support staff is critical in helping the department accomplish its research, teaching and service missions for the university. You will find that the staff are always helpful and make many of the administrative details of graduate school bearable.

We hope that you will enjoy your exploration of our department and know that you will feel the same pride that we do in being a part of the UK College of Medicine no matter which department you eventually join.



Dr. Diane Snow  
Associate DGS

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### SPECIAL POINTS OF INTEREST:

- The next Faculty Meeting is scheduled for Friday, **AUGUST 10** at 12:00pm in MN 136.
- We need your nominations for Employee of the Third Quarter. See Page 5.

# IBS EXPERIENCES



When I first joined the IBS program in 2002, I wasn't quite sure what to expect or how to begin on the road that culminates in a PhD. The first step, I realized, was to do well in the coursework and find a lab home. Upon completion of the first year, I began to narrow down a topic of study and worked toward the next milestone: qualifying exams. Though sorely dreaded by most graduate students (myself included), qualifying exams proved very helpful in my graduate training because it focused my endeavors on developing a research plan that was novel and founded in the literature. Like most aspects of life, my graduate journey has taken many turns, I began a new research project that was different from my original proposal during the spring of last year. My current dissertation project involves Parkinson's Disease (PD) and employs cell culture techniques to investigate the role of small peptide molecules as therapeutic targets in the treatment of PD. Graduate

school has been both challenging and enriching, and even though the successful completion of a PhD indicates a major accomplishment, I've realized that the learning and refining process is a lifelong pursuit of the researcher and educator.

~ April Richardson, Anatomy & Neurobiology doctoral candidate.

## ADVICE FROM NEW ANATOMY GRADUATE STUDENTS



Jonathan Clark

"When selecting a lab, finding an environment with helpful and friendly people can be just as important as choosing a research topic that is right for you. I found the Anatomy and Neurobiology department to be most welcoming and very receptive to the needs of graduate students."

"Take advantage of your opportunities during rotations. Stay open-minded about topics and techniques which you may not have planned to pursue."



Nathan Johnson

"Rotating in the Department of Anatomy and Neurobiology provided me with an opportunity to travel to Las Vegas, refine my presentation skills at a national conference, and network with hundreds of professionals within my area of interest. Of course, I also tried to take advantage of each and every amenity that Vegas had to offer - What happens in Vegas stays in Vegas."



Meagan Littrell

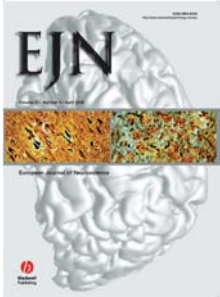
Initially I didn't have much interest in neuroscience, but after rotating in Dr. Sullivan's lab the summer I joined IBS, I really gained an appreciation for neuroscience research and realized mitochondria really are the center of the universe. I really like the teamwork and collaborative attitudes in SCoBIRC and the Anatomy and Neurobiology departments. My best advice for rotations is to keep an open mind, rotate in at least one lab that researches something you are unfamiliar about, you might end up loving that research.



Ryan Readnower

## Professional Announcements

### Publications



**Singh IN, Sullivan PG, Hall ED.** Peroxynitrite-mediated oxidative damage to brain mitochondria: Protective effects of peroxynitrite scavengers. *J Neurosci Res.* 2007 Aug 1;85(10):2216-23.

**Naga KK, Sullivan PG, Geddes JW.** High cyclophilin D content of synaptic mitochondria results in increased vulnerability to permeability transition. *J Neurosci.* 2007 Jul 11;27(28):7469-75.

### Announcements

**Dr. Luke Bradley** has just been awarded a Center of Biomedical Research Excellence "Molecular Basis of Disease" Pilot grant for the next two years. Congratulations, Dr. Bradley!

### Announcements



Congratulations to **Ying Deng Bryant** who passed her defense on Monday, July 23, 2007. Great job, Dr. Deng Bryant!

Five of our Graduate Students: **Joshua Fuqua** and **Kristen Kelps** who both received a Lyman T. Johnson fellowship; **Dong-Young Choi** and **Jordan Clark** both received a Research Challenge Trust Fund fellowship and **Bin Xing** received a Kentucky Opportunity fellowship for 2007-2008.

**Dr. Diane Snow** has been elected to the position of Vice President of the National Neurotrauma Society for 2008-09.

### Presentations

**Dr. Patrick Sullivan** presented at the Brainstorming III Congress on Stroke & Trau-

### Presentations

matic Brain Injury, Center for Systems Neuroscience, University of Hannover, Hannover, Germany July 6-7, 2007. The title was "The role of mitochondrial dysfunction in the neuropathology of traumatic brain and spinal cord injury"

**Dr. Diane Snow** presented at the National Neurotrauma meeting in Kansas City, MO, July 29-Aug. 1, 2007: "Designer PGs Identify Inhibitory Motifs of Glial Scar Chondroitin Sulfate Proteoglycans *In Vitro* and *In Vivo*." Diane M. Snow, Chris Calulot, Tru D. Huynh, Eddie Kobraei, Bailey Westerfiled, Danielle Cole, Binh Tran, Gabrielle Curinga, and Thomas Hering"

**Age is an issue of  
mind over matter.  
If you don't mind,  
it doesn't matter.  
~ Mark Twain ~**

## Faculty Meeting Highlights

- The Council of Chairs may recommend an extension of the tenure clock to 8-9 years in order to deal with funding shortages. They would also like to increase the flexibility between appointment tracks (tenured and non-tenured).
- We plan to recruit up to four new faculty members: two in the Regular Title Series and two in the Special Title Series
- IBS Orientation will be held Monday, August 6 at the Red Mile Clubhouse from 11:00am to 7:00pm.
- Just a reminder: Cost comparisons are now required for booking non-UK vendor flights (see [July's newsletter](#) for details.)
- Be sure to always complete and absence record for vacation, illness and business travel. Dalene Rice in the Administrative Office must have these to keep accurate records for the Dean's Office.
- Gianna Farley and Kim Wilkison will be contacting individual labs to set up brief training sessions on the new purchasing requirements. For details contact Gianna at [gianna.farley@uky.edu](mailto:gianna.farley@uky.edu) or Kim Wilkison at [kdwilk1@email.uky.edu](mailto:kdwilk1@email.uky.edu)
- Any expenditures for faculty members that cost more than their allotted discretionary and salary reimbursement funds will be taken from their individual Wethington and Holsinger Awards.
- The seminar schedule for 2007-2008 will be such that more balance is achieved between the faculty and graduate student seminars. Ideally, both will be interspersed throughout the year versus the graduate students presenting mostly in the latter half of the academic year. The seminar format may be changed to feature full seminars for upper level graduate students and seminar workshops for entering students.

If you have any ideas or opinions on this subject please email Dr. Indrapal Singh at [Indrapal.singh@uky.edu](mailto:Indrapal.singh@uky.edu) and Dr. Don Gash at [dongash@email.uky.edu](mailto:dongash@email.uky.edu).

## Departmental Birthdays

## Comings and Goings

# August



Avalon Sandoval ~8/10

Dr. Luke Bradley ~ 8/14

Dr. Anders Andersen ~ 8/14

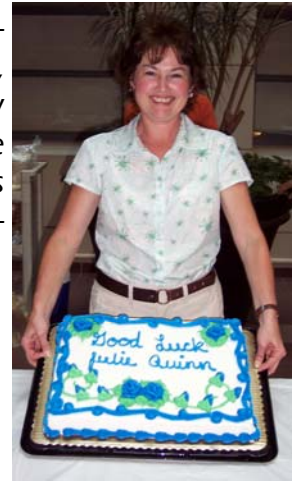
Ying Deng ~ 8/23

Randy Hunter ~ 8/26

Kristen Kelps ~ 8/27

Dr. Don Gash ~ 8/27

Julie Quinn's farewell reception was held on Tuesday, July 17th. She was very touched by the event. We know that everyone wishes her the best on her new adventure.



## Employee of the Quarter

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



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.



Naomi (Carter) Hudson will be leaving the Gash Lab to join the College of Public Health as a full-time doctoral student August 17, 2007. She will be missed, but we are happy for her new opportunity. Good Luck, Naomi!

Graduate student, **Kristen Kelps** has joined the laboratory of Dr. Luke Bradley. She will be the first student to study with Dr. Bradley at UK. Welcome to your new lab, Kristen!



# 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 August 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

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>

- 8-2 ~ Coaching Your Front-Line Staff
- 8-3 ~ Developing a Winning Image
- 8-8 ~ Providing Exceptional Customer Service
- 8-9 ~ Facilitating Meetings and Teams
- 8-15 ~ Basics of Training and Development for Managers
- 8-17 ~ Basics of Leadership
- 8-20 ~ Teamwork in a Changing Workplace
- 8-21 ~ Group Problem Solving
- 8-21 ~ Handling Anger in the Workplace

- 8-22 ~ Recognizing Performance Problems
- 8-22 ~ Managing Staff Conflict
- 8-29 ~ Motivating for Top Performance
- 9-4 ~ Communicating with Success
- 9-6 ~ Thinking Critically
- 9-7 ~ Facing the Challenge of Change
- 9-10 ~ Personality Differences
- 9-11 ~ Business Etiquette
- 9-17 ~ Communicating Across Cultures
- 9-18 ~ Personal Decision Making
- 9-20 ~ Trip Manager



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