

BRAIN WAVES

Volume 2, Issue 1
February 1, 2005

State of the Department

We should be proud of our accomplishments. By all measures, 2004 was a banner year for Anatomy and Neurobiology. Our faculty excelled in teaching and research. Our professional expertise is making an impact at the national level. We served on 23 study sections/grant review groups, 22 editorial boards and were the editors for 5 professional journals. On the teaching side we have made major strides. I am especially pleased that under Pam Stein's direction, we were able to launch a new two semester sequence of undergraduate anatomy courses for pre-nursing students, ANA 109/110. We can take pride in Brian MacPherson's recognition as an Outstanding University Teacher. The process of selecting the Holsinger Teaching Award winners also showed the wide breadth of teaching excellence in the department. The three finalists from a strong field of nominees were Brian MacPherson (for his second 2004 teaching award), Jennifer Brueckner and Douglas Gould. On the research front, we set a new record for funding in 2004, with \$8,400,000 in grants and contracts.

However, we can not rest on our laurels. Research funding has always been a rollercoaster ride for the department, with a three year cycle emerging over the last six years (Fig 1).

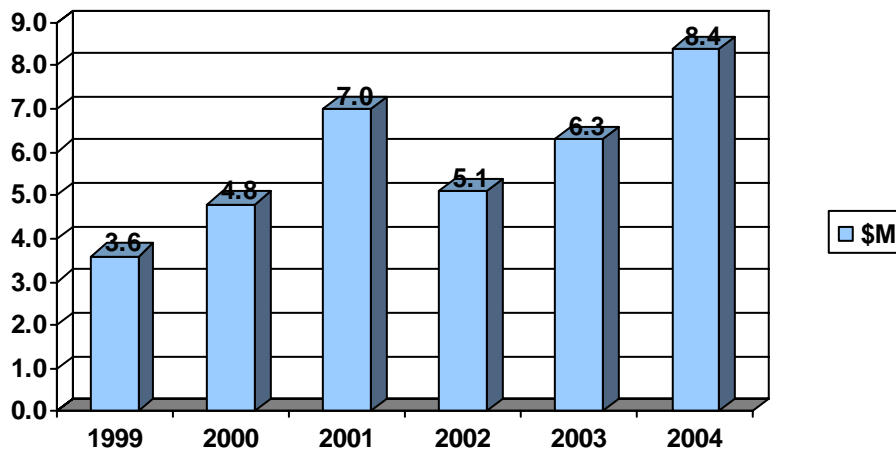


Figure 1. A & N Research and Contract Awards



Don M. Gash, PhD, Chairman,
Anatomy & Neurobiology,
Director MRISC

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Special points of interest:

- **Faculty Meeting** is scheduled for Friday, February 11 at Noon in MN 136.
- **February Mixer** TBA
- **HELP!!!!** - We need your nominations for Employee of the Quarter. [See Page 7](#)

State of the Department continued

Three good years in a row are followed by a precipitous drop. If this holds true, we are due for a sharp decline in 2005. And the key indicators suggest that this is happening! With a lead time of nine months or more between the submission of a grant proposal and funding, a

Table 1. A & N Submitted Grants

	PI	COINV
FY 98-99	19	6
FY 99-00	21	12
FY 00-01	31	16
FY 01-02	30	25
FY 02-03	34	15
FY 03-04	34	25
FY 04-05	6	8

a critical variable in predicting future funding is the number of grants submitted in the previous year (Table 1). Here the department is showing a dangerous downswing, with only eight grants (as of FEB 1. 05) submitted by faculty as principal investigators this fiscal year. The number of new grants on which our faculty are co-investigators is also down to a five year low. We currently project our research funding to drop to 5.5 million dollars for 2005. In basketball terms, we have to start hitting the boards harder. More grant applications are necessary to maintain and increase our research funding.

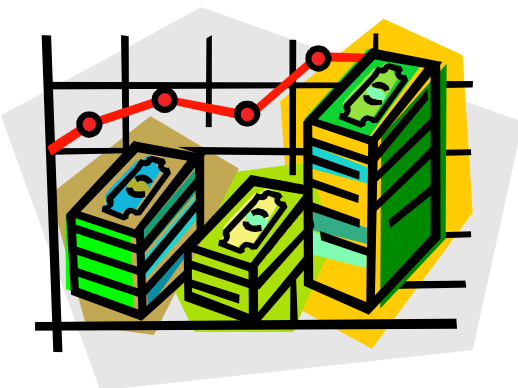


In particular, we need more program project and center grant applications.

The number of faculty, staff and students has remained fairly stable over the past year (Table 2). We have lost three faculty members, with Joe Springer transferring to the Department of Physical Medicine and Rehabilitation, John Stanford accepting a position at the University of Kansas and Indrapal Singh moving to another position in SCoBIRC. On the positive side of the ledger, we added one new faculty member, Pam Stein. I do see a turnaround in faculty numbers in 2005. We have the ability to recruit up to four new faculty members. It will be a priority to recruit the brightest and best candidates to complement and expand upon our strengths in research and teaching.

Table 2. A & N Personnel

	2004	2005
Faculty	30	28
Regular Full-time Staff	48	48
Temp Part-time Staff	16	15
Total Staff	64	63
Graduate Students	24	23
Post Docs	8	7
Overall	126	121



The bottom line is that our department did exceptionally well in 2004. However, 2005 poses serious challenges. As always, we need to strive to maintain our tradition of excellence in teaching. At the same time, we must significantly increase the number of grant applications or risk losing our momentum toward becoming one of the top research departments at the University. Recruiting will be a major priority, with the goal of continuing to build in our areas of research strength. I look forward to working with you on achieving these common goals.

Professional Announcements



Publications

TV Getchell, H Liu, RA Vaishnav, K Kwong, AJ Stromberg & **ML Getchell** (2004) "Temporal Profiling of Gene Expression during Neurogenesis and Remodeling in the

Olfactory Epithelium at Short Intervals after Target Ablation" in The Journal of Neuroscience Research. (In Press)

CD Smith, **A Walton**, AD Loveland, GH Umberger, RJ Kryscio & **DM Gash** (2005) "Memories that last in old age: motor skill learning and memory preservation" in Neurobiology of Aging. (In Press)

JT Slevin, **GA Gerhardt**, CD Smith, **DM Gash**, RJ Kryscio & AB Young (2005) "Unilateral intraputamenal GDNF improves bilateral motor functions in patients with Parkinson's disease" in Journal of Neurosurgery. (In Press)

PA Hardy, **DM Gash**, R Yokel, **A Andersen**, **Y Ai**, & **Z Zhang** (2005) "Correlation of R2 with total iron concentration in the brains of rhesus monkeys" in Journal of Magnetic Resonance Imaging. (In Press)

Dimayuga, F.O., J.L. Reed, G.A. Carnero, C. Wang, E.R. Dimayuga, **V.O. Dimayuga**, M.E. Wilson, **J.N. Keller, and A.J. Bruce-Keller** (2005) "Estrogen and Brain Inflammation: Effects on Microglial Cytokine Release and MHC/Co-stimulatory Molecule Expression" in the Journal of Neuroimmunology. (In Press)

Chen J, Magavi SS, Macklis JD. "Neurogenesis of corticospinal motor neurons extending spinal projections in adult mice" in Proc Natl Acad Sci U S A. 2004 Nov 16;101(46):16357-62.

Paola Arlotta, Bradley J. Molyneaux, **Jinhui Chen**, Jun Inoue, Ryo Kominami, and Jeffrey D. Macklis (2005) "Neuronal Subtype-Specific Genes that Control Corticospinal Motor Neuron Development In Vivo" in Neuron Jan 2; 45 (2):207-221

Seminars

Thursday, February 10—"Effects of Glial Cell Line-Derived



Neurotrophic Factor (GDNF) on Stem/Progenitor Cell Proliferation and Differentiation", Yan Chen, Anatomy & Neurobiology PhD candidate, Dissertation Defense. 1:00 PM, MN 563.

Monday, March 7—"Space Flight, Cachexia, and Muscle Weakness", Dr. Michael Reid, University of Kentucky, Department of Physiology. 4:00 PM, MN 463.

Monday, March 14—Kevin Hascup/Theresa Currier-Thomas, Anatomy & Neurobiology Graduate Student

Monday, March 21—Erin Rutherford, Anatomy & Neurobiology Graduate Student

Monday, March 28—Sarah Martin, Anatomy & Neurobiology Graduate Student

Monday, April 4—TBA

Monday, April 11—TBA

April—"A Developmental fMRI Study: Face and Object Recognition", Ann Gathers, Anatomy & Neurobiology PhD candidate, Dissertation Defense. TBA

Monday, April 18—Go Vjitruth, Anatomy & Neurobiology Graduate Student

Monday, April 25—Jeremiah Gates, Anatomy & Neurobiology Graduate Student

Monday, May 2—Michael Smith, Anatomy & Neurobiology Graduate Student

Monday, May 9—Yiqin Xiong, Anatomy & Neurobiology Graduate Student

Monday, May 16—Vidya Nukala, Anatomy & Neurobiology Graduate Student

Seminars

Monday, May 23—Justin Nickell, Anatomy & Neurobiology Graduate Student

Monday, June 6—Matt Joyce, Anatomy & Neurobiology Graduate Student

Monday, June 13—Ying Deng, Anatomy & Neurobiology Graduate Student

Monday, June 20—Lamin Mbye/Laurie Davis, Anatomy & Neurobiology Graduate Student

Monday, June 27—April Richardson, Anatomy & Neurobiology Graduate Student

All seminars will be held in MN 463 at 4:00PM unless otherwise noted.

For updates and further options please check out the website
<http://www.mc.uky.edu/coa/events.asp>



Other Announcements

Dr. Marilyn Duncan has been elected to the Electorate Nominating Committee of the Neuroscience Section of the American Association for the Advancement of Science beginning February 28, 2005.

Class Evaluations—We are working on finding a more streamlined mode for collecting and reporting class evaluation results.

Comings & Goings

Departmental Birthdays



- 01/03 ~ Vidya Nukala
- 01/03 ~ Dr. Diane Snow
- 01/05 ~ Swatee Dey
- 01/10 ~ Mike Salvatore
- 01/11 ~ Dr. Marilyn Getchell
- 01/12 ~ Dr. Wayne Cass
- 01/12 ~ Juan (Amy) Wang

01/15 ~ Dr. Steve Smith

01/24 ~ Jill Gee

01/24 ~ Justin Nickell

01/27 ~ Dr. Jennifer Brueckner

01/27 ~ Theresa Currier-Thomas

01/31 ~ Sara Jones



- 01/31 ~ Rattanavijit (Go) Vjitruth
- 02/01 ~ Dr. Betty Sisen
- 02/02 ~ Dr. Will Maragos
- 02/04 ~ Xun Liu
- 02/05 ~ Stewart Surgener
- 02/06 ~ Kim Wilkerson

02/11 ~ Dr. Brian Gold

02/13 ~ Dr. Guoying Bing

02/14 ~ Kathy Franklin

02/14 ~ Guanghan Wu

02/18 ~ Yan Chen

02/25 ~ Dalene Rice



The Goings

Vaughn Leake has received a promotion and will be taking a new position with the Department of Diagnostic Radiology. They are getting a really nice guy and a



very hard worker. His new office will be located over in the KY Clinic.

Vaughn has worked with the faculty and staff here in Anatomy & Neurobiology since November 1999 and will be sorely missed. His last day with Anatomy was Friday, January 7, 2005.



The Business Office surprised our student worker, Becca Haggard, who is a die hard UK fan with a "Merry Christmas" visit from a member of the UK Football team, Jacob Tamme #18.

2005 Mixer Themes

January—Admin Staff "Surprise"

February—

March—Joseph Lab

April—

May—Gash Lab

June—MacPherson/Ginn "Cookout"

July—Keller Lab

August—Gerhardt Lab

September—Snow Lab

October—

November—Teaching Faculty

December—Departmental Holiday Potluck

We still need folks to sign up to sponsor a mixer for 2005. Please stop by & see Angel or call her at 3-5155.



Who is going to challenge the Gerhardt Lab for the trophy this year?

2004 Employee of the Year



Dr. Jennifer Brueckner & Dalene Rice

Dalene Rice, Administrative Support Associate, from the Business Office was named our 2004 Employee of the Year. She works hard at ensuring that we are all paid correctly and on time. The announcement was made at the January mixer "Chocolate Paradise".

2005 Employee of the Quarter Committee

Faculty: Drs. Jane Joseph & Doug Gould

Lab Staff: Ashley Walton & Adrian Centers

Admin Staff: Julie Poole & Angel Schumacher

Graduate Students: Justin Nickell & April Richardson

Verda Davis, of the Duncan Lab was named Employee of the Quarter for the 4th Quarter of 2004. This was announced at the Annual Departmental Holiday Luncheon in December. She is a very dedicated, hard worker and always has a smile.

Congratulations Verda!!



(L to R) Dalene Rice, Verda Davis & Dr. Don Gash



Pete Heuttl of the Gerhardt Lab hoists the trophy for Mixer of the Year—2004. The Gerhardt Lab won this year with their mixer entitled "π in the Sky" where we had various kinds of pies. We also enjoyed giving CR Gash, Dr. Don Gash's son, pie in the face.



Some needed pie more than others ... as you can see they dove right in.

First Announcement

LEXINGTON CONFERENCE ON TRANSLATIONAL NEUROSCIENCE

April 28 – 29, 2005

Co-organizers: Professors Don M. Gash and Greg A. Gerhardt

Purpose: To bring together biomedical engineers, neuroscientists and physicians working on BRAIN INTERACTIVE DEVICES (BIDs). This is an emerging scientific area with applications the early stages of clinical testing or in clinical use. The meeting will explore common issues, such as the brain - implant interactions and CNS responses/plasticity, that link these applications. Early clinical experiences with using BIDs are raising many questions that will require extensive study at the basic science level in appropriate model systems. The goals of the meeting are: 1) To bring together the leading members of the scientific community working on BIDs. 2) To determine the critical gaps in our knowledge about the mechanisms of action, long term effects and pathophysiology of BIDs. 3) To assess the clinical effects (neurosurgical, neurological and psychiatric) of BIDs. 4) To identify and prioritize future directions for BIDs research. 5) to better understand the patient community receiving BIDs, their perspectives and needs.

Session 1—CNS Prosthesis ... Drs. Greg Gerhardt and Ted Berger, Co-organizers

Session 2—Parkinson's Disease and Other CNS Disorders ... Drs. Jean St. Cyr and Don Gash, Co-organizers

Session 3—Spinal Cord Injury ... Drs. Sasha Rabchevsky and Ed Hall, Co-organizers

Employee of the Quarter Nomination Form

The Quarterly Employee Awards are announced in April (for nominations submitted January through March); July (April through June); October (July through September) and December (October through December). The Employee of the Year Award will be selected from all nominations throughout the year and will be announced annually at the January Mixer. **Due to Julie Poole or Angel Schumacher by March 30, 2005.**

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 Julie Poole in 305 Whitney Hendrickson Bldg, 0098 Phone: 323-5242

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

Please send comments & submissions to Dalene Rice
at darice2@email.uky.edu or call 859-323-8260.

Next Deadline is Feb 20, 2005

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

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
220 Scovell Hall or [online](#).

Bloodborne Pathogens

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

Hazardous Waste 220 Scovell Hall or [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 (214 Health Sciences Learning Center)

02/18 ... Friday ... 9-12 ... NURS504

03/17 ... Thursday ... 1-4p ... NURS214

04/12 ... Tuesday ... 9-12p ... NURS214

Advanced Radiation Safety

This class 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 a **MANDATORAY** training for all individuals who receive a paycheck from the UK Medical Center. It is only offered from 3:00-3:30 p.m. during the UK Hospital Orientation. Ignoring this requirement can result in dismissal from employment at the University of Kentucky.

Human Resource Development course offerings

<http://www.uky.edu/HR/HRD/>

<http://www.uky.edu/IS/Training/>

02/10 ~ Creating Trustful Relationships

02/11 ~ Leading Effective Teams

02/17 ~ Building a Climate of Trust

02/22 ~ Principles of Effective Writing

02/24 ~ Group Problem Solving

03/08 ~ Communicating Multi-Culturally

03/10 ~ Personal Decision Making

03/17 ~ Trip Manager

03/22 ~ Critical Thinking

04/01, 04/08, 04/15 ~ 7 Habits of Highly Effective People



Never Stop Learning!!!!