

BRAIN WAVES

Volume 1, Issue 3

May 1, 2004

Notes From the Chairman

FACULTY – FOR
YOUR EYES ONLY

DO NOT let students and staff read this communication!!! And by all means necessary and at all costs, this information must be kept from the Dean. For fellow faculty members, there is an emerging technology that can change forever the face of academia. Its announcement came in the form of a letter to *Nature*, the same scientific journal that published the now infamous report by Watson and Crick on the paired helical structure of DNA in 1953. That gave birth to molecular biology and the hoards of molecular biologists which still plague our profession. However, the consequences from this new, nefarious invention promise to wreak even more havoc. It may even relegate department chairs to the dustbins of history, as irrelevant relics of

the past.

Just what is this insidious device? Here is the original letter.

"Sir – Several graduate students would like to suggest a modest proposal to the authors of the recent article "Functional genomic hypothesis generation and experimentation by a robot scientist (*Nature* 427, 247-252; 2004).

We've been doing a little research of our own and have generated an exciting hypothesis: we can build a Virtual Principal Investigator.

The software platform will consist of a tiny amount of background knowledge about a completely different system from the one being actively investigated, a buzzword-invention engine, coffee-consumption apparatus, a grant-writing node and a cat-o'-nine-tails that will tie everything together.

For much less money than an actual investigator, we created a machine that resides in an office, drinking coffee at a steady rate. At bi-monthly intervals, the Virtual Principal Investigator spits out grants that are derivatives of highly successful grants from the past. Between these time points, it will play an endless loop of inspirational messages and test the effectiveness of the whip as a method of controlling subservient organisms.

Initial tests of our Virtual Principal Investigator have revealed no differences from our existing model of an investigative scientist, but we have yet to perform an experiment that was not naïve or random. We look forward to discussing our results with you." (**Several non-robot scientists**; *Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School*)



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

Inside this issue:

Meet the Teaching Faculty	2–3
Professional Announcements	4
Comings & Goings	5–6
Departmental Birthdays	6
Mixer Themes for the Year	6
Employee of the Quarter	6
Available Training	7

Special points of interest:

- **Faculty Meeting** is scheduled for Friday, May 21 at Noon in MN 136.
- **May Mixer** is scheduled for **May 5**, the Duncan & Jennes Lab are sponsoring a **Cinco** derby **Mayo** Celebration
- **HELP!!!!** - We need your help with giving our Employee of the Quarter/Year a fresh new look. **See Page 6**

Ordering Deadlines

May 26, 2004 ~ **Small dollar purchases**- Purchases under 20,000 where quotes may be obtained and delivered prior to July 1, 2004.

June 11, 2004 ~ **Contract equipment & supplies** - equipment and supplies that are on price contract and delivered prior to July 1, 2004.

June 25, 2004 ~ **Stores Requisition for IN Stock items** - Deadline for items in stock to be delivered by June 30.

July 9, 2004 ~ **Online Receiving - Any purchases must be received by June 30, 2004** in order to be paid in 2003-2004 fiscal year.

Questions, please contact Kim at 3-6926.

Meet the Teaching Faculty



Drs. Bruce Maley, Jennifer Brueckner, Pam Stein, Brian MacPherson and behind them is Dr. Doug Gould



Dr. Brian MacPherson came to UK in 1991 from the University of Alberta in Edmonton, Alberta, Canada where he did research and taught

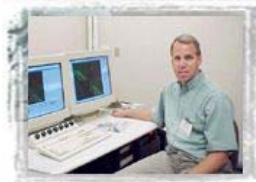
anatomy (histology and gross) for 15 years. He is currently a Full Professor in the Special Titles Series meaning that the greater majority of his time is spent face-to-face with students. During his tenure here at UK he has developed a number of courses and is currently course director for ANA812 medical histology; ANA530 – dental histology and oral histology, and ANA611/811 - PA/PT gross anatomy. In addition to his teaching duties he has also served as Director of Graduate Studies since July 2001 and Vice Chair of Anatomy & Neurobiology since September 2000.

His scholarly activity and interests lie in the development of valued-added computer-based learning aids that, rather than replace traditional teaching, enhance it and make learning the material more time-efficient for students. A CD-web hybrid program in oral histology, one example, is a complete on-line syllabus for dental and dental hygiene students. Selected topics in basic gross anatomy have had modules developed in various Macromedia software packages. Computer based practical exams as well as student self-evaluation modules are currently under development. This allows students to work and study using these web or CD-based materials anytime, anywhere – alleviating restricted access.

While teaching here at UK, Dr. MacPherson has been awarded all five

stars in the College of Medicine Abraham Flexner Master Teacher Program (Educational Leadership & Administration, Outstanding Teaching Contribution or Mentorship, Educational Innovation & Curriculum Development, Educational Evaluation & Research, and Faculty Development in Education). He was appointed as the *James and Barbara Holsinger Endowed Professor of Anatomy* in 2000. He has also been recognized by the Dental Student body with a ASDA (American Student Dental Association) Faculty of Excellence Award and this year was named a 2004 UK Great Teacher based on a nomination by all four years of dental students. Dr. MacPherson feels one of his most important roles is mentoring the junior Special Titles Series faculty.

Dr. Bruce Maley joined our faculty in July 1982. He currently is the course director for the medical school's Introduction to Human Anatomy, which is a required course for all first year



medical students. After the first year medical school course is completed, he is the course director for a fourth year elective course offered to medical students. This elective course typically has 60 – 65 students enrolled who are preparing for their specializations during residency. He also participates in teaching parts of the PA/PT anatomy course directed by Dr. MacPherson. He has also offered a course in microscopy for a limited number of graduate students each year which typically revolves around transmission electron microscopy but recently it has often included laser scanning confocal microscopy.

In 1997, Dr. Maley became the Director of the Imaging Facility located in the basement of the Health Sciences Research Building (HSRB). The Imaging Facility houses the transmission electron microscopes and laser scanning confocal microscopes used by investigators, their staff and students throughout the university. Due to a shortage of faculty, the past three years Dr. Maley has also been teaching anatomy to physical ther-

apy students at Hazard Community & Technical College via T1.



Dr. Douglas Gould

joined the Anatomy & Neurobiology faculty in August of 1998. This semester he is teaching PA/PT gross anatomy, is the course director for ANA209 – Principles

in Human Anatomy, the course director for our graduate neuroanatomy course, and the coordinator for both the graduate (ANA503) and undergraduate (ANA395) independent research in anatomy courses (spring, summer, fall). In the fall, he serves as a member of the medical gross anatomy team and the coordinator for the neuroanatomy for physical therapy students course. He also is the transfer equivalency coordinator for our department and the faculty representative for the medical school class of 2006 as well as being a member of a host of committees. Internationally, he is the Editor-in-Chief of the Journal of the International Association of Medical Science Educators. He is currently finishing up his sixth year with the department awaiting word on his tenure application.

Dr. Gould's scholarly/research interests lie in the area of medical education research; more specifically, exploring, developing and evaluating innovative teaching tools towards the end goal of making the most of increasingly limited resources and qualified teaching faculty. As most basic science "content" has long since been developed, the pursuit of how this existing material may be better used/structured/packaged is the focus of his scholarly pursuits. He has secured both intra- and extramural funding as well as partnered with publishing companies in his efforts to create more effective ways to educate students making better use of valuable and limited contact time.

Dr. Gould and his wife, Marie Culpert have been married for eight years and recently adopted a baby girl from China (see story on page 5).

Meet the Teaching Faculty



Dr. Jennifer Brueckner joined our department as an assistant professor in the Special Titles Series in July 2000. Prior to her current appointment, she was a Biology

works in progress, including programs addressing the clinical anatomy of the cranial nerves and the pterygopalatine fossa. The pterygopalatine fossa project is funded through a Project Pool grant from the American Dental Education Association (ADEA).

faculty member at Cumberland College in Williamsburg, KY. She teaches gross anatomy (medical, dental and undergraduate), embryology (medical), histology (medical histology and a summer preparatory program for dental students) as well as neuroscience (ANA 516 for the graduate students). This semester she also has an independent study student (Ali Piedel) working with her on developing narrated digital video clips for use in neuroanatomy lab instruction.

Her research/scholarly work focuses on several educational themes, including: **development and evaluation of instructional multimedia** [Published in *Medical Teacher* 25 (6): 643-648; *JIAMSE* 13 (1): 30-35], **student learning in the dental anatomy laboratory** [Published in *European Journal of Dental Education* 8: 72-77] and **the integration of basic and clinical sciences** [recently appointed to serve as basic science representative to the College of Medicine Clinical Performance Exam (CPX) committee]. Over the past 3 ½ years, she has developed several multimedia programs including a digital neuroscience atlas and a virtual electron microscopy guide that was recently adopted for use at the University of New South Wales in Sydney, Australia. She currently has 2 additional multimedia

“For good teaching rests neither in accumulating a shelfful of knowledge nor in developing a repertoire of skills. In the end, good teaching lies in a willingness to attend and care for what happens in our students, ourselves, and the space between us. Good teaching is a certain kind of stance, I think. It is a stance of receptivity, of attunement, of listening.” Laurent A. Doloz (20th century), U.S. educator. *Effective Teaching and Mentoring*, ch. 9 (1986).

Dr. Brueckner spends the rest of her time with her miniature dachshund, Levi and her husband Tom Goodness (a former postdoctoral fellow from A & N who is now Assistant Director of UK’s Intellectual Property Development & Technology Transfer Office). She enjoys gardening as a hobby and currently has over 100 seedlings growing in her basement “greenhouse” waiting to be transplanted into her garden in May.



Photo unavailable

Dr. Pam Stein joined our department this past July 2003 after thirteen years of private practice in dentistry. She is jointly appointed to Dentistry and Anatomy & Neurobiology. The previous three years she

worked as a part time instructor in various departments in the College of Dentistry. Currently, she is teaching ANA534 – Gross Anatomy for Dental Students in the morning and RSD825/826 – Pre-clinical Restorative Dentistry II, RSD810 – Fundamentals of Operative Dentistry, RSD814 Pre-clinical Restorative I and RSD835 – Advanced Esthetic Dentistry in the afternoons. These dental courses teach first, second and third year dental students how to drill, fill, crown and esthetically restore teeth in a pre-clinical setting. During most of the year she covers the student dental clinic one afternoon a week. In the fall she is a member of the team which teaches ANA511 – Gross Anat-

omy for Medical Students. She will begin teaching Anatomy & Physiology for Nursing Students, a year long course she is developing, this coming fall of 2004.

Dr. Stein hopes to relate “real life” clinical dentistry to anatomy, specifically in the area of local anesthesia, which is critical to successful dentistry. Before beginning their course in local anesthesia, dental students must have a solid understanding of the anatomy of the head, including neuroanatomy, vascular anatomy and bony landmarks. To help students review the anatomy of local anesthesia, Drs. Stein and Brueckner are creating a software program that will be distributed by Dentsply, the major distributor of lidocaine, to every dental student in the US and Canada. A related teaching goal is to create a head and neck dissection manual specifically for dental students with many clinical correlations throughout. This would be a collaborative effort between anatomy faculty and specialists and general practitioners in dentistry contributing ideas for relating anatomy to dentistry.

Currently, Dr. Stein is working with Dr. John Novak, the Associate Director of the Center of Oral Health Research on a grant “Alzheimer’s disease: Effects of Oral Infection, Inflammation and Disease.” She is also part of an NIH funded, multi-center study on the effect of periodontal disease on preterm birth.

Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not. **Thomas H. Huxley** (1825 - 1895)

Normal family activities of church, soccer, baseball, piano, home-

work etc. keep Dr. Stein busy with her two children, Lauren 12 and John 7. She also works as a dentist some evenings in Dr. William Hampton’s practice in Lexington. All this activity leaves very little time for a hobby, although she does enjoy playing the piano and writing; she wrote a romantic comedy a couple of years ago.

Professional Announcements



Publications

WS Rayens & **AH Andersen** (2004) Partial least squares as a target-directed structure-seeking technique.

Chemometrics and Intelligent Laboratory Systems 71:121-127.

MJ Duncan, KE Gear & MA Hoskins (2004) Aging and SB-26997-A, a selective 5-HT7 receptor antagonist, attenuate circadian phase shifts induced by microinjections of serotonergic drugs in the hamster dorsal raphe nucleus. Brain Research 1008:40-48.



Awards

Ann Gathers, graduate student in Dr. Jane Joseph's lab, was awarded the Commonwealth Research Award in the amount of \$1,000.

The Commonwealth Research Award (CRA) is designed to promote the development of graduate students as researchers and scholars, to encourage graduate students to conduct research and scholarship of the highest quality, and to allow graduate students to learn the traditions and values of disseminating new knowledge.

Jeremiah Gates, graduate student in Dr. Subbu Apparsundaram's lab, received a \$1,250 Travel Award to accompany the acceptance of abstract/poster to be presented at Vanderbilt University during the "Frontiers in

Awards con't

Addiction Biology: Genomics and Beyond" conference.

Xuan Nguyen, graduate student in Dr. Guoying Bing's lab, was awarded a Glenn/AFAR Scholarship for Research in the Biology of Aging in the amount of \$5,500.



Grants

Don Gash: "The Molecular and Cellular basis of

Brain Aging" from NIA, 05/01/04-04/30/09. Total \$1,588,181.



Seminars



Monday, May 3

Protective effects of selective COX-2 inhibitors in a mouse MPTP model of Parkinson's disease. Rattanavijit Vijitruth, Graduate Student, Anatomy & Neurobiology, 4:00 p.m., MN 263.

Wednesday, May 5—Molecular Regulation of Neurogenesis in the Olfactory Receptor Neuron Lineage. Anne L. Calof, PhD, Associate Professor, Department of Anatomy & Neurobiology and the Developmental Biology Center, University of California, Irvine, 3:00 p.m., MN 263.

Monday, May 10—Second-by-second Recordings of L-glutamate in the Striatum of Un-anesthetized Rats. Erin Rutherford, Graduate Student, Anatomy & Neurobiology, 4:00 p.m., MN 263.

Monday, May 10—Ying Deng, Graduate Student, Anatomy & Neurobiology, 4:30 p.m., MN 263.

Seminars

Monday, May 17—Effects of the mitochondrial uncoupler 2,4-dinitrophenol in a rodent model of stroke. April Richardson, Graduate Student, Anatomy & Neurobiology, 4:00 p.m., MN 263.

Monday, May 24—Role of Dynorphin in the Aging Striatonigral System: Investigations in Prodynorphin Knockout Mice. Xuan Nguyen, Graduate Student, Anatomy & Neurobiology, 4:00 p.m., MN 263.

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



Comings & Goings



Dr. Doug Gould, his wife Marie Culpert & their new baby, Maggie

Congratulations!!!!!!

Dr. Doug Gould and wife, Marie Culpert started paperwork to adopt from China about two years ago and then were delayed by the SARS epidemic. Doug and Marie spent two weeks in China recently finishing the adoption process to bring little Maggie home. Finally, they are home with their bundle of joy.

Maggie is nine months old. Her full name is Margaret Eleanor Fuying Gould ... it is typical/normal to retain a piece of the name they have in the orphanage (Fuying). She hails from an orphanage in the Yunnan Province of Southwest China, near Thailand and Burma.

Doug described China as a beautiful country filled with friendly people. It was easy to get around and relatively easy to communicate. They visited Beijing, Kunming, Guangzhou, and Hong Kong where everything was very inex-

pensive and negotiable. The service industry is second to none if you are a tourist and the food was everything they had hoped it would be!

Marie has quit her teaching position at The Lexington School in order to become a full-time, stay-at-home mom. Maggie is adjusting very well to both Doug and Marie. She is learning in leaps and bounds, smiles constantly, and babbles all of the time. She eats well, as evidenced by her cheeks and sleeps A LOT ... no complaints there though.



Welcome ... Maggie Gould



Brandon Sutton is a junior biology major conducting research in Dr. Diane Snow's lab. On March 31, it was announced that Brandon had been awarded a research scholarship from the Arnold and Mabel Beckman Foundation. Brandon has a 3.7 cumulative GPA and his research focuses on the glial scar that develops following spinal cord injury, inhibiting the regeneration of nerve cells.

The Beckman Scholars Program recognizes outstanding undergraduate students in chemistry and biological sciences research at select universities such as Duke University, UCLA, Furman University, Boston University as well as others. It is not only a prestigious individual award but for the University of Kentucky as well. Since the programs inception in 1977 only 412 students from 61 universities have received the award. For more information about the Arnold and Mabel Beckman Foundation visit their [website](#).



Anna Alpern is second from the left on the front row.

A young scientist in the making, Anna Alpern, daughter of Dr. Pam Knapp & Ron Alpern, won a KY Agriculture Day poster contest for school children sponsored by the KY Dept. of Agriculture. Children statewide entered drawings or essays around the theme, "Agriculture, from Farm to Table", showcasing how food

gets from a farm to their kitchen table. There was one statewide winner for each grade. Anna, who is 7 and a 1st grader at Maxwell Elementary School, was the only winner from Fayette County. Each child received a \$100 savings bonds and had their picture taken with State Dept. of Agriculture Commissioner (and former UK basketball star!) Richie Farmer during a special luncheon at the KY History Center in Frankfort. You can read more about the contest and see all the winning entries at www.kyagr.com. Below is Anna's winning poster, "Thank you cows".



Learning in Dr. Hauser's Lab. (Back to Front) Megan Campbell, Amy Wang, Dr. Indrapal Singh, Nazira El-Hage, Celeste Dean & Ken Martin at the computer



The Duncan and Jennes Labs Present

Cinco derby Mayo



May 5, 2004
127 Health Sciences Bldg.
(same place as the Gash Lab Mixer)
2pm-4pm

Authentic Mexican and Derby Day foods!

Fun and Games!

Prizes!!



Arriba Arriba!!

Derby Sombrero Contest !!
Wear your Derby Sombrero!
Prizes for the best!!



Be Sure to Come!!!

Employee of the Quarter/Year Award

We are going to give the award a facelift and we NEED your INPUT. Please email Dalene (darice2@uky.edu) with your ideas related to the following:

- ~ What criteria must one meet to be eligible for the award?
- ~ Who should be on the committee?
- ~ What makes one an "Employee of the Quarter/Year"?
- ~ Who can nominate someone for the award?

Some ideas that have been suggested so far are:

- ~ Criteria:
 - a) Regular Full-time employee and have been employed at least 6 months OR
 - b) Everyone, including students, part-time employees and post docs, should be eligible
- ~ Committee Makeup: two representatives of the administrative staff, faculty, lab staff and graduate students (total 8 individuals); one from each building.
- ~ Suggested leading questions:
 - a) When considering someone for the award, think of the individual who has made your job easier or assisted you in performing your job.
 - b) What attributes/actions make this individual worthy of your nomination?
 - c) How is this individual an asset to the department?
 - d) What other activities/contributions has this individual made to the greater community?
- ~ Who can nominate: any student, employee or faculty member receiving compensation from the department

Departmental Birthdays

- 
- 05/05 ... Megan Campbell
 - 05/08 ... Dr. Bill Cotter
 - 05/08 ... Radhika Vaishnav
 - 05/10 ... Ashley Walton
 - 05/13 ... Dr. Richard Grondin
 - 05/13 ... Dr. Billie Winer
 - 05/14 ... Dr. Jane Joseph
 - 05/18 ... Verda Davis
 - 05/19 ... Tianyong Zhao



- 
- 05/25 ... Janelle Reed
 - 05/27 ... Dr. Lothar Jennes
 - 05/28 ... Dr. Kurt Hauser
 - 05/29 ... Angel Schumacher

Mixer Themes for the Year

- January - none
- February - Keller Lab "Valentines"
- March - Gerhardt Lab "π in the Sky"
- April - Gash Lab "Survivor Isle of Reil"
- May - Duncan/Jennes Lab "Cinco derby Mayo"
- June - MacPherson/Ginn "Cookout"
- July - Brueckner/Gould "Fireworks"
- August - Knapp Lab "Surprise"
- September - Admin Staff "Tailgate Party"
- October - Joseph Lab "Halloween"
- November - Snow Lab "Surprise"
- December - Holiday Potluck

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@uky.edu or call 859-323-8260.

Next Deadline is May 19, 2004

<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](#).

May 11 ... Tuesday ... 9:30–10:30

June 16 ... Wednesday ... 9:30–10:30

August 17 ... Tuesday ... 9:30–10:30

Bloodborne Pathogens

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

Hazardous Waste 220 Scovell Hall or [online](#).

May 11 ... Tuesday ... 10:30–11:30

June 16 ... Wednesday ... 10:30–11:30

August 17 ... Tuesday ... 10:30–11:30

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)

May 24 ... Monday ... 9:00–12:00

June 18 ... Friday ... 1:00–4:00

July 15 ... Thursday ... 9:00–12:00

Advanced Radiation Safety

This class is only available [online](#).

Fire Extinguisher Use (220 Scovell Hall)

May 11 ... Tuesday ... 11:30–12:00

June 16 ... Wednesday ... 11:30–12:00

NOTE: [Online courses can only be taken using a UK computer.](#)

Corporate Compliance Training is a **MANDATORY** 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 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/>

05/07 ~ Principles of Business Writing

05/11 ~ Travel

05/13 ~ Conducting Performance Evaluations

05/20–06/17 ~ SuperVISION (for supervisors 1-A-Week session)

05/27 ~ Participating in Performance Evaluations

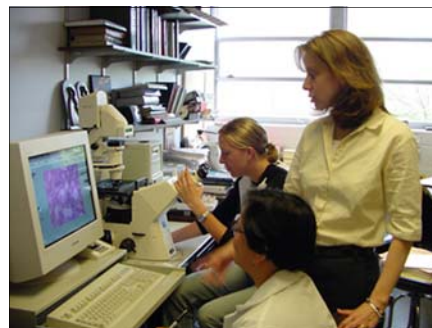
06/01 ~ Conducting Performance Evaluations

06/02 ~ Managing Staff Conflict

06/04 ~ Group Problem Solving

06/18, 06/25, 07/02 ~ 7 Habits of Highly Effective People (Sessions 1–3)

For additional details, signing up, location, etc ... please check out the training calendar for Human Resource Development as noted above.



Dr. Annadora Bruce-Keller (standing) with Fe Dimayuga at the computer & Janelle Reed at the microscope.