

# CELL BIOLOGY UPDATE

[http://cellbio.emory.edu/pdf/newsletter\\_winter2003.pdf](http://cellbio.emory.edu/pdf/newsletter_winter2003.pdf)

Winter 2003

## *SPOTLIGHT ON WHITEHEAD 435*

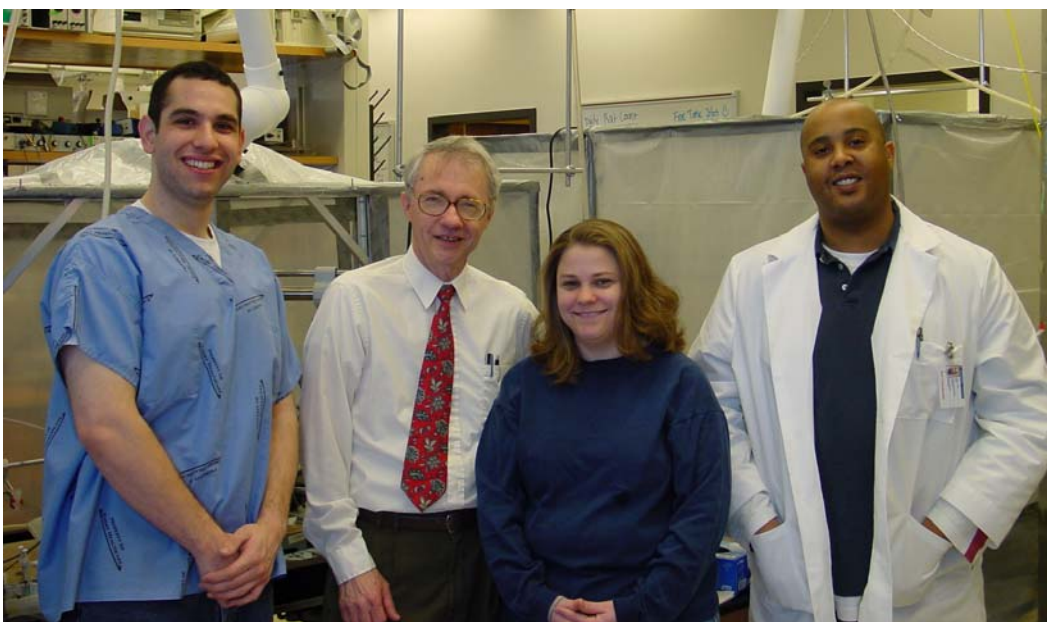
The John Scott lab opened with John's arrival at Emory in 1969 and has been going strong ever since. The lab has been doing neurophysiological studies with a primary focus on olfaction and the central nervous system since inception and we continue that tradition today. Our current areas of interest are in how the chemical structure of odorants determines where in the olfactory epithelial is the maximum response as well as how the central nervous system then uses this spatial information to discriminate and recognize odorants.

John was raised in central Alabama and received his undergraduate degree from Alabama College. He went on to University of Michigan where he worked on his PhD in Physiological Psychology under James Olds. His post-doctorate work was done at Rockefeller University with Carl Pfaffmann. It was here that he met his wife June, during the night of the big black out. June works for Emory as well, in the Department of Microbiology and Immunology. Her lab studies bacterial genetics. They enjoy traveling together and hiking in their spare time.

While not full time lab members, both Fred Schmidt and Bill Goolsby provide valuable assistance to our research. Fred assists with electronic problems while Bill has been doing some programming and building for us. Fred has a Masters of Science in Physics from Tulane. He came to Emory in 1964 from Medical College of Virginia. He has seven children, all of whom graduated from Emory. Retiring as Professor Emeritus in 1992 did not stop Fred from continuing his association with Emory and he still comes into the lab at least once weekly. His hobbies include photography. Bill has degrees in biology and electrical engineering. He's been working at Emory since 1981. Bill is a native Georgian and enjoys hiking, sailing, kayaking, photography and touring on his vintage 1971 BMW motorcycle. He's leading a March kayaking trip on the Altamaha River for his hiking/ecology group and is looking forward to warmer weather to break out the bike again.

We round out our staff with two research specialists, Humberto Acevedo and Lisa Sherrill. Humberto is originally from California. He came to Emory in 1998 to attend school and started in the lab as a work study in September of 2001. We liked him so much, that upon his graduation, we invited him to stay on. Humberto likes to exercise and build things, a skill we have exploited many times. He hopes to attend medical school in the coming year. Lisa joined the lab in 1998. She received her degree from Auburn University, but is originally from south Florida. She claims to be a beach bum at heart. Lisa is married and has a sixteen-month old son, and the family enjoys camping and board games in their spare time. We will be welcoming Elgin Green as our newest research specialist in a few weeks.

On the whole, our lab is a close knit group that seems to be made up of equal parts science, eating and fun. We're a bit loud, often smelly, and generally boisterous, but always open and welcoming. Stop by for a visit sometime. We'll get a cake.



## *SPOTLIGHT ON WHITEHEAD 435 CONTINUED...*

The following summary was provided by Dr. English.

The English lab was started in 1974. Art was recruited to teach Gross Anatomy and learn to do electromyography with John Basmajian, who was a member of the Departments of Anatomy and Rehabilitation Medicine. Over the past 29 years he has melded the anatomical training he received as a graduate student with the physiologic capabilities he learned at Emory to study both muscle and motoneurons. Today the lab studies two closely related topics: the regulation of both motoneuron and muscle fiber properties by testosterone; and the regeneration of the axons of peripheral nerves after injury. Part of this work is related to the Program Project that Art directs and this means that he interacts extensively with Rick Segal (Rehab Medicine), Richard Nichols (Physiology), Thom Abalew (Rehab Medicine) and Bob Gregor (Applied Physiology, GA Tech), as well as Bill Goolsby, and Sherrie Bolton-Preston. In addition, Art is the editor-in-chief of Cells, Tissue, Organs, and works closely with Luzene Hill to manage that journal.

Art grew up in the suburbs of Chicagoland and despite any stereotypes you might see in him, he is not related to anyone in organized crime. He left home to obtain his undergraduate training at the University of Oregon and, in what he now thinks was at the leading edge of a trend in modern America, he returned home to Chicago for graduate school. In 1981 he met a beautiful young anatomy faculty member, Barbara Brown, with whom he remains unbendingly smitten. After a whirlwind courtship they were married and now have three daughters. Barbara is currently the Chair of the Department of Social Sciences at Georgia Perimeter College in Dunwoody. Aside from an intense commitment to child rearing, Art and Barbara enjoy time at the beach, bird watching, and their three dogs.

The English lab also includes two research specialists and a postdoctoral fellow. Gail Schwartz has worked with Art for 15 years. At this point, she really manages the day-to-day running of the lab. She is originally from Northeastern Pennsylvania (Bethlehem) but received her degree from UNLV. She is married and has four children (3 boys, one daughter) and is incredibly adept at juggling all of her many life careers. In her spare time, Gail is active in all aspects of remodeling her home. She enjoys doing some of these things more than others. She is also a strong advocate for school reform. Kimberly Pierce came to the English lab with a degree from West Georgia College in 2000. She grew up in Decatur and attended Lakeside high school. She lives with her family in Decatur (following that trend that Art set) and is pursuing an advanced degree in public health in her spare time. When she is not busy with all these other things, Kim likes hiking. Dario Carrasco is a postdoctoral fellow in the English lab. Originally from Chile, he did his doctoral work in Exercise Science at the University of Georgia. He is enormously talented and learns new things very easily (which he shares with the lab). He is also enormously gregarious and few have avoided having a conversation with Dario unless they have not been around long. He is married and he and his wife, Jackie, are parents to a twenty-something daughter. In his spare time, Dario is in to fitness. He enjoys tennis and racquetball and is known to be an avid golfer.

Like the Scott lab, we think of ourselves as a group, all of whom are juggling careers, families, and hobbies. We always like to help others if we can, and like the Scott lab, we are known to like the occasional cake.



## FIFTH ANNUAL JEROME SUTIN LECTURE



On September 18, 2002, Dr. Scott E. Fraser presented the 2002 Jerome Sutin Lecture entitled "Imaging the Motions that Build Embryos." Sponsored by the Department of Cell Biology, this annual event was established to honor Dr. Sutin's many contributions to the department during the more than 30 years he was Chairman. The Lecture, which Dr. Sutin attended with members of his family, drew a large audience from across Emory's biomedical community. A reception, complete with string quartet, followed the presentation.

Dr. Fraser, the world's leading investigator in the application of imaging technologies to the study of early development, is Anna L. Rosen Professor of Biology and Director of the Biological Imaging Center, Beckman Institute, at the California Institute of Technology. His elegant contributions have revealed new insight into the mechanisms underlying cell-specific gene activation, cell lineage determination, morphogenetic fate of cells and tissues, and guidance of

neural precursors to their appropriate targets, among many other topics pertinent to development. More information regarding Dr. Fraser's career and contributions can be found at <http://bioimaging.caltech.edu/>

## FACULTY SEARCHES UNDERWAY

Searches for a senior faculty member and one or more junior faculty (Assistant or Associate Professor) were initiated in the fall of 2002, with the expectation of bringing new faculty on board later in 2003. The Search Committee for the senior position is chaired by Win Sale and includes Maureen Powers, Criss Hartzell, Harish Joshi, Guy Benian and Barry Shur. No interviews have been scheduled yet for this position which is being recruited in conjunction with the Winship Cancer Center. The Search Committee for junior faculty is chaired by Kevin Moses and includes Krishna Bhat, Victor Faundez, Andreas Fritz, Karl Saxe and Barry Shur. From an application pool of 250, the committee selected the following eleven candidates to visit the department:

1) Martin Garcia-Castro, Postdoc, CalTech, Jan 15-16

Seminar: Chick neural crest cell induction

2) Michael Miller, Postdoc, Vanderbilt, Jan. 20-21

Seminar: Delineating the signaling pathways that control oocyte M-phase entry in *Caenorhabditis elegans*

3) Jim Martin, Assoc. Prof. , MD Anderson Cancer Ctr, Jan. 22-23

Seminar: The role of Pitx2 in left right asymmetry and craniofacial development

4) Brian Harfe, Postdoc, Harvard, Jan. 27-28

Seminar: Patterning of the vertebrate limb

5) Steve Johnson, Associate Professor, Washington Univ., Jan. 30-31

Seminar: Genetic analysis of melanocyte stem cells in zebrafish

6) Ping Chen, Sr. Research Assoc., House Ear Institute, USC, Los Angeles, Feb. 3-4

Seminar: Coordinated regulation of cell proliferation and differentiation in the developing hearing organ

7) Ken Moburg, Postdoc, MGH Cancer Center, Feb. 13-14

Seminar: Developmental control of growth and cell number in *Drosophila*

8) Adrian Moore, Postdoc, UCSF, Feb. 17-18

Seminar: To branch or not to branch: HAMLET controls dendritic arbor branching and lineage restriction in the *Drosophila* peripheral nervous system

9) Cathy Krull, Assistant Professor, University of Missouri-Columbia, Feb. 20-21

Seminar: EphA4-ephrin interactions in cell guidance and patterning

10) Yuani Feng, Postdoc, Harvard Neurology/HHMI, Feb. 24-25

Seminar: Molecular analyses of human neuronal migration disorders

11) Steve Wang, Assistant Professor, MD Anderson Cancer Ctr, Mar 5-6

Seminar: Transcriptional control of retinal ganglion cell formation

# CONGRATULATIONS!

Zhiqiang Qu (Hartzell Lab) and Erica Werner (Faundez Lab) have been promoted to faculty positions as Instructor, Research Track. Laura Fox-Goharion was promoted to Senior Research Specialist. Lisa Sherrill (Scott Lab) and Nathan Mortimer (Bhat Lab) were promoted to Lead Research Specialist.



Kudos to Triscia Hendrickson (Sale Lab) who received the Postdoctoral Poster Award from the Minority Affairs Committee at the annual meeting of the American Society for Cell Biology for her poster entitled "Characterization of IC138, a regulatory intermediate chain of inner arm dynein 11 in *Chlamydomonas*." In addition, she received praise for an invited platform talk on the Emory-Atlanta Universities Center NIH-supported FIRST program and received a travel award to attend the meeting.

On August 26, 2002, Jun Zhou (Joshi Lab) successfully defended his doctoral dissertation entitled "Molecular dissection of mitosis and apoptosis using small molecules that interfere with microtubules". Joyce Yao (Joshi Lab) successfully defended her dissertation entitled "Analysis of  $\gamma$ -tubulin function in the fission yeast, *Schizosaccharomyces pombe*, on September 5, 2002

Belated best wishes to Melissa Haley (Sale Lab) who married Micah Shaw on June 1, 2002. Melissa will be leaving Atlanta in August to attend Dental School at the Medical College of Georgia.

Criss Hartzell is organizing a meeting on the Biology of Chloride to be held at Woods Hole in September, 2003. See [www.spgweb.org](http://www.spgweb.org) for more information. You can also get a glimpse of Criss's artistic side at Martini Girl in East Atlanta where some of his photographs are on display.

## GRANTS AND CONTRACTS

### NEW AWARDS

Victor Faundez	"Mechanisms of Endosome Trafficking in Neurons", NIH \$1,155,200 (4 years)
Kevin Moses	"Map Kinase Phosphatase and Cell Fate in the Drosophila Eye", NIH Total Costs: \$500,000 (4 years)
Bryan Noe	"Emory's Bioscience Graduate PREP Program for Minorities", NIH Total Costs: \$2,262,890 (5 years)
Maureen Powers	"Nyo98 in Myelogenous Leukemia, University Research Committee Total Costs: "29,844 (1 year)
Sergei Prokopenko	"Signalling Pathways of derailed Axon Guidance Receptor Controlling Choice of Commissures in the CNS", Christopher Reeves Paralysis Foundation Total Costs: \$23,742 (9 months)

## REGULATORY AND POLICY CHANGES/APPLICATION INFORMATION

(from OSP and NIH web pages, university and other sources)

In August, 2002, NIH implemented a "Just-in-Time" policy for receipt of animal use approvals. With this change in policy, IACUC verification is no longer required to be submitted prior to NIH peer review, but instead is required prior to approval of an award. When NIH believes funding of a grant using animal subjects is likely, the NIH grants management specialist will request that the PI submit verification of IACUC approval. For further information, please see the NIH Guide for Grants and Contracts Notice Number NOT-OD-02-064 at: <http://grants1.nih.gov/grants/guide/notice-files/NOT-OD-02-064.html>.

NIH has revised the instructions for the PHS-398 (formset for new applications or competing renewals) and PHS-2590 (non-competing applications). Please discard previous versions and use the current versions to ensure that you have the most accurate information. Current instructions may be found at: <http://grants1.nih.gov/grants/forms.htm>.

NSF has announced that it will more strictly enforce the proposal preparation requirements specified in the Grant Proposal Guide. The agency referred specifically to the requirements that the Project Summary be written in the third person and include a statement of objectives and methods to be employed. It also must clearly address in separate statements within the one-page summary: (1) the intellectual merit of the proposed activity and (2) the broader impacts resulting from the proposed activity. Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website at:

<http://www.nsf.gov/pubs/2002/nsf022/bicexamples.pdf>. Proposals that do not address the two criteria in the project summary will be returned without review.

## CHANGES

**New Staff:** Susan Brooks, Embalmer (Body Donor Program); Elgin Green, Research Specialist (Scott Lab); Gino In, Research Specialist (Bhat Lab); Kristen Radde-Gallwitz (Powers Lab); Paul Winfrey, Embalming Assistant (Body Donor Program).

**New Postdocs:** Nirupama Deshpande (Bhat Lab); Tracy O'Leary Lane (Finch Lab); Sergei Prokopenko (Bhat Lab).

**Other Personnel News:** Barbara Boyan, Ph.D., Price Gilbert, Jr. Chair in Tissue Engineering and Professor of Biomedical Engineering, has been given a joint appointment as Professor of Cell Biology. Melanie Blevins (Powers Lab) has left the U.S. to attend the Royal College of Veterinary Medicine, London, England. Paul Griffin (Sale Lab) has left Emory to attend graduate school at the University of Georgia. Micaella Germain, an undergraduate science student from Strasbourg, France, will train in the Hartzell lab beginning in April, 2003.

## WEB SITES OF NOTE

Take a look at the updated Cell Biology web site which is still under development at <http://cellbio.emory.edu>.

Review Emory's new intellectual property policy at: <http://www.osp.emory.edu/policies.cfm>.

View grants deadlines for the next six months in 25 major disciplines on the OSP web site at: <http://www.osp.emory.edu/funding/cfm>. (Scroll down the page and click on "List of Upcoming Deadlines" or go directly to the list at: <http://carousel.lis.uiuc.edu/-iris/deadlines/index.html>).

The OSP web site also provides Proposal Writing Tips at <http://www.osp.emory.edu/proposals/propprep.html>

Emory faculty profiles can be viewed via the departmental web site or directly at: <http://www.medadm.emory.edu/faculty>.

Valuable information about visas can be accessed on the web site for Emory's International Student and Scholar Programs: <http://www.emory.edu/ISSP>.



## PUBLICATIONS

- Rodeheffer, C. and Shur, B.D. 2002. Targeted mutations in  $\beta$ 1, 4-galactosyltransferase reveal its multiple cellular functions. *Biochem. Biophys. Acta Reviews* 1573: 247-257.
- Talbot, P., Shur, B.D. and Myles, D.G. 2003. Cell adhesion and fertilization: Steps in oocyte transport, sperm-zona pellucida interactions and sperm-egg fusion. *Biol. Reprod.* 68:1-9.
- Louis-Ugbo, J., Leeson, B., and Hutton W.C. 2003. Tensile properties of fresh Achilles tendon allografts. *J. Clin. Anat.* 16:2003.
- Louis-Ugbo, J., Kim, H.K., Mayr, M.T., Li, R.C.;Augusta, D., Seeherman, H., Blake, C., Jiao, A., and Peckham, S. 2002. Retention of 125I-labeled recombinant human bone morphogenetic protein-2 by biphasic calcium phosphate or a composite sponge in a rabbit posterolateral spine fusion model. *J. Orth. Res.* 20: 1050-1059.
- Griffis, E.R., Xu, S. and Powers, M.A.. 2003. Nup98 localizes to both nuclear and cytoplasmic sides of the nuclear pore and binds to two distinct nucleoporin subcomplexes. *Mol. Biol. of the Cell.* Vol. 14, February, 2003.
- Luskin, M. B. and Coskun, V. 2002. The progenitor cells of the embryonic telencephalon and the neonatal anterior subventricular zone differentially regulate their cell cycle. *Chem. Senses* 27:577-580.
- Coskun, V. and Luskin, M.B.. 2002. The intrinsic and extrinsic regulation of the proliferation and differentiation of cells in the rostral migratory stream. (Mini-review) *J. Neurosci. Res.* 69:795-802.

## UPCOMING EVENTS

### (Spring/Summer 2003)

May 12	End of spring semester and commencement
May 26	Memorial Day Holiday
June 1	NIH New Submissions
July 1	NIH Competing Renewals and Revisions
July 4	Independence Day Holiday
August 5	NIH Individual NRSA
September 1	Labor Day Holiday

## FEEDBACK REQUESTED

This is your newsletter and your involvement is crucial to its success. Please send comments, suggestions, or ideas for articles or columns to Linda Jordan by departmental mail, telephone at 727-3748 or e-mail to [linda@cellbio.emory.edu](mailto:linda@cellbio.emory.edu).

## CELL BIOLOGY SEMINAR SCHEDULE

- Mar 26, 2003 - Kai Zinn, CalTech, Krishna Bhat, Host
- Apr 9, 2003 - Steven Goldman, Cornell University, Barry Shur, Host
- April 16, 2003 - Pierre Coulombe, Johns Hopkins, Univ., Andrew Kowalczyk, Host
- April 23, 2003 - David Clapham, Harvard University, Criss Hartzell, Host
- May 7, 2003 - Pasko Rakic, Yale University, Marla Luskin, Host

## B&G SCHEDULE

March 10, 2003	McKeon
April 7, 2003	Moses
May 12, 2003	Powers
June 16, 2003	Sale
July 2003 – No B&G	
August 2003 – No B&G	
September 8, 2003	Saxe
October 13, 2003	Scott