

CELL BIOLOGY UPDATE

SIXTH ANNUAL BCMB SYMPOSIUM

The following summary was provided by Eric Griffis (Powers Lab)

The sixth annual BCMB student symposium was held at Emory on April 4-5th. The symposium was organized by students in the Biochemistry Cell and Developmental Biology Program (BCDB) who are trainees of the Emory Biochemistry Cell and Molecular Biology (BCMB) NIH Training Grant. The students who ran the symposium this year were Valerie Horsley (4th year dept. of Pharmacology), Melissa McKay (3rd year dept. of Biochemistry), Brenda Bondesen (2nd year dept. of Pharmacology), Darren Ritsick (2nd year dept. of Pathology) and me (3rd year in this department for those of you keeping score). This year's very topical symposium was entitled "Stem Cells: Maintenance, Plasticity and Therapeutic Potential". Considering how much attention this field has generated this past year with the controversies over human embryonic stem cell research and cloning by somatic cell nuclear transfer, we were very lucky to attract five high caliber researchers to give talks. The guest speakers who presented their work at the symposium were Dr. Allan Spradling of the Carnegie Institution of Washington, Dr. Jeffrey Macklis of Harvard Medical School, Dr. Shannon Odelberg of the University of Utah, Dr. Margaret Goodell of the Baylor College of Medicine and Dr. Steven Stice of the University of Georgia.



Our symposium speakers outside the Houston Mill house looking well fed after lunch: From left to right - Shannon Odelberg, Margaret Goodell, Steven Stice, Allan Spradling and Jeff Macklis.

We had a welcoming reception on the 4th at the D. Abbot Turner Center where faculty and students were able to meet with and welcome the speakers over drinks and dinner. The symposium started bright and early the next morning at 8:30am in the Whitehead auditorium, and over the next 7 hours (with a two hour break for lunch at the Houston Mill House) we heard five excellent talks from our guests, which covered several different aspects of stem cell biology using model organisms ranging from *Drosophila* to newts to songbirds. All of the talks were well attended by members of the Emory community as well as researchers from as far away as UAB and the Medical College of Georgia. However, the largest crowd assembled for the final talk of the day given by Steven Stice who is not only a professor at UGA, but is also a vice-president at Bresagen, a company that owns four of the human embryonic stem cell lines approved for research by the NIH. He discussed potential therapies using human embryonic stem cells as well as the technique of somatic cell nuclear transfer that he has used to clone cattle. The symposium concluded at 4:00, after Dr. Stice's talk, at

which time the students and remaining speakers (Drs. Macklis and Goodell departed after lunch and Dr. Stice left immediately after his talk for a family commitment) adjourned to Oscar's in College Park to relax, unwind and celebrate another successful symposium before shuttling our guests over to catch flights out of Hartsfield.

The other organizers and I would like to thank our faculty sponsors Grace Pavlath of the department of Pharmacology and our own Marla Luskin as well as Barry Shur, Beckie Correll and Susan Hoffstadter. Barry functions as the PI for the training grant, and therefore, Beckie along with Susan played a big role in helping with the logistics of putting the symposium together. We are also indebted to the departments of Biology, Cell Biology, Biochemistry and Pharmacology, the Graduate Student Council and the Graduate Division of Biological and Biomedical Sciences (GDBBS) for ponying up the cash to cover the symposium expenses over and above what the training grant can pay.



The Symposium speakers and organizers after lunch: From left to right - Shannon Odelberg, Darren Ritsick, Brenda Bondesen, Valerie Horsley, Margaret Goodell, Steven Stice, Melissa McKay, Allan Spradling, Eric Griffis and Jeff Macklis.



Albert Jesse Schuette

James Bartz

COHEN AWARDS FOR 2001 AND 2002

Albert Jesse Schuette was awarded the Ralph Cohen Anatomy Award for 2001 and James Bartz received the 2002 award which acknowledges outstanding performance in each M1 class in Human Anatomy. The award is made possible by a gift from the estate of Paula Cohen to honor her husband who was a member of the Emory Medical School Class of 1933. Recipients were given a \$500 cash award and a personalized plaque. Their names are also added to a departmental plaque which lists all recipients.

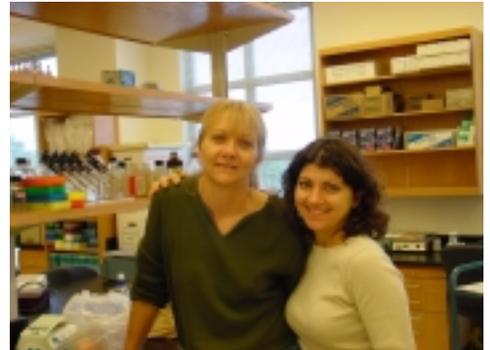
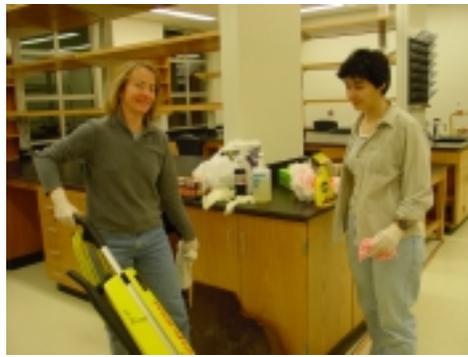
UPDATE FROM THE KOWALCZYK LAB



It has been a good year for the Kowalczyk lab, although we are feeling a deep sense of loneliness with the department's move to Whitehead. Nonetheless, we do notice better physical fitness setting in, as we make numerous daily treks to Whitehead for seminars, fine coffee, and good conversation. As far as our progress this year, a manuscript from the lab was accepted for publication in the American Journal of Physiology (Cell Physiology). The paper is entitled "Regulation of Endothelial Barrier Function and Growth by VE-cadherin and the Armadillo Family proteins plakoglobin and beta-catenin", and it represents a real team effort that was led by Kanyan Xiao, Susan Summers and Catharine Calkins. More recently, Kanyan and David Allison have been developing a project in collaboration with the Faundez laboratory to study VE-cadherin endocytosis, and we are currently writing a manuscript describing the results of this study. Also, Kanyan was awarded a 2 yr postdoctoral fellowship from the American Heart Association to continue her work on this project. The other major effort in the lab focuses on the armadillo protein p0071, and we have

also had some success with this project with a new R01 awarded to support the work, and a paper describing our initial observations on p0071 being submitted to the JBC by Catharine Calkins. Bridgett Hoepner, a Technician in the lab, departed for Wisconsin, where she was recently married and will be attending medical school in Milwaukee. New lab members starting this summer will be Shannon Setzer, a pathology resident who has decided to spend a couple of years gaining experience in basic science research, and a BCDB student, Kate Buckley, who plans to determine the role of the proteasome system in VE-cadherin trafficking.

MOVING PICTURES



JANE BOYD LEE'S RETIREMENT PARTY



CONGRATULATIONS!

John Louis-Ugbo was selected by the 2002 School of Medicine graduating class to be an Honorary Class Member during Spring, 2002 graduation ceremonies.

Win Sale received an Emory University School of Medicine Dean's Teaching Award for the academic year 2002-03. In addition to the signal honor of being nominated and chosen by students and faculty, he also received a cash award of \$5,000. Win was also invited speaker, Gordon Conference on Signal Transduction and was selected to serve as Chair of the American Cancer Society's Cell Structure and Metastasis Review Group.

John Scott was selected to serve as President-Elect of the Association for Chemoreception Sciences (AChemS). This is an international association of about 600 academic, clinical, and industrial scientists from 23 countries who are interested in taste, smell and other chemical sensation in humans, other vertebrates and a range of invertebrates. The total commitment is for four years, including a year as President.

Volkan Coskan received the local runner-up travel award from the Atlanta Chapter of the Society for Neuroscience.

Belated congratulations to **Natia Eason**, Carolyn Eason's daughter, who was selected as a Wadsworth Elementary School Board Scholar, 2001-02, Natia also won Wadsworth's spelling bee and represented her school at the county spelling bee held at Stone Mountain High School.

Best wishes to **Ted Pettus** and his bride, Amy Stout, who were married on May 26 in downtown Decatur. Amy is a researcher in the Neurology Department. Ted is an Assistant Professor, Department of Emergency Medicine, and continues to teach in Cell Biology.

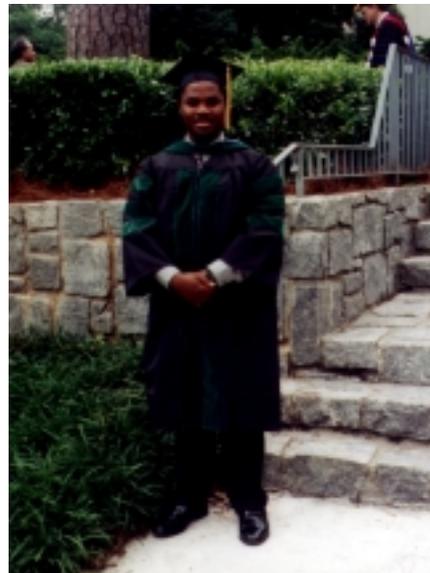
CHANGES

New Staff: Humberto Acevedo, Lab Assistant - Temporary (Scott Lab); Summer Cook, Research Specialist (Moses Lab); Branch Craige, Lead Research Specialist (Powers Lab); Melissa Dawson, Research Specialist (Moses Lab); Gurraj Deol, Research Specialist- Temporary (Shur Lab), Erica Phillips, Research Specialist (Powers Lab); Lavette Pittman, Lead Research Specialist (Luskin Lab); Melissa (Haley) Shaw, Research Specialist (Sale Lab), Xiaping "Jennie" Wang, Lead Research Specialist (Finch Lab), Raymond Wei, Research Specialist (Hartzell Lab).

New Postdocs: Triscia Hendrickson, Sale Lab; Tanuja Merianda, Bhat Lab; Gloria Salazar, Faundez Lab; Songli Xu, Powers Lab.

New Graduate Student: Melanie Styers, Faundez Lab.

During the past year **Bob DeHaan** has been serving as a consultant to the National Academy of Sciences Center for Education where his role is to help reorganize and refocus the Committee on Undergraduate Science Education (CUSE) and to assist with the Committee on Science Education K-12 (COSE-K-12). He continues to commute from Washington, DC to Atlanta.



John Louis-Ugbo

GRANTS AND CONTRACTS

NEW AWARDS

- Joanna Bonsall** (Luskin Lab) “Neuronal Progenitor Cell Migration in the Forebrain, NIH
Total Costs: \$121,509 (3 years)
- Michael Ensslin** (Shur Lab) “Mutational Analysis of Sperm P24 Function During Mouse Fertilization”,
Lalor Foundation Fellowship
Total Costs: \$30,000 (1 year)
- Victor Faundez** “Functional Heterogeneity of Synaptic Vesicle”, March of Dimes
Total Costs: \$150,000 (2 years)
- Victor Faundez** “Selective Disruption of Melanosome Biogenesis...”, Melanoma Research Foundation
Total Costs: \$56,937 (2 years)
- Harish Joshi** “Molecular Analysis of Microtubule Organization”, NIH
Total Costs: \$146,800 (2 years)
- Kevin Moses** “Gene Discovery: Fragile X Mental Retardation 1 Modifiers”, NIH
Total Costs: \$361,000 (2 years)
- Daniela Zarnescu** “A genetic screen for dominant modifiers of Drosophila EMR...”,
FRAXA
Total Costs: \$35,000 (1 year)
- Win Sale** “Functional Substructure of Flagellar Dynein”, NIH
Total Costs: \$1,894,800 (5 years)
- Barry Shur** “Glycosyltransferase Function During Fertilization”, NIH
Total Costs: \$1,710,000 (5 years)

Win Sale received a MERIT Award from NIH for his research project noted above entitled “Functional Substructure of Flagellar Dynein.” The award was designated by special recommendation of the National Advisory General Medical Council. The award extends the length of the original project period and provides additional features applicable only to MERIT projects.

NOTE FROM THE “EDITOR”

Can you believe it has been a year since our last newsletter! Unfortunately, a lot of time has passed, primarily due to demands made on all of us during the planning and implementation of the move to the Whitehead Building. Though we have done our best to include what could be remembered and gathered, we know that important newsy bits have probably been missed. Please accept our sincere apology if something which is important to you has not been included. Send it along and we will add it next time.

REGULATORY AND POLICY CHANGES/APPLICATION INFORMATION

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

NIH continues to shift to electronic notification of Non-Competing Grant Progress Reports. To facilitate this transition, NIH will continue to mail pre-printed type 5 face pages for awards with start dates through November, 2002, but after that time procedures will change. Starting in August 2002, the NIH Office of Extramural Research will host a public website of Non-Competing Progress Report due date information that will have search and sort capabilities. Grantees may choose to use this website until they register for the NIH Commons. Users of this website will not receive reminders electronically or have pre-printed face pages available. Then, upon registration for the NIH Commons, institutional officials will have the opportunity to establish a central e-mail address for notification of NIH pending actions and general NIH Commons activities. By this means the institution will receive a list of pending non-competing progress reports. Once PI's create an account and provide their preferred e-mail they will have the option to receive e-mail reminders of Non-Competing Progress Report due dates with links to pre-populated face pages. NIH expects registration for the NIH Commons to begin in August, 2002.

WEB SITES OF NOTE

View grant 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>).

Emory faculty profiles can be viewed at: <http://www.medadm.emory.edu/faculty>.

2001 CELL BIOLOGY RETREAT



PUBLICATIONS

Zhou, J., Panda, D., Landen, J.W., Wilson, L, and **H.Cc Joshi.** (2002) Across kinetochore pairs and activates the spindle checkpoint. *J Biol Chem.* May 10; 277 (19): 17200-8.

Zhou, J., Shu, H.B., and **H.C. Joshi.** (2002) Regulation of tubulin synthesis and cell cycle progression in mammalian cells by gamma-tubulin-mediated microtubule nucleation. *J Cell Biochem.* 84(3): 472-83.

Ye, K., **Zhou, J., Landen, J.W.,** Bradbury, E.M., and **H.C. Joshi.** (2001) Sustained activation of p34 (cdc2) is required for noscapine-induced apoptosis. *J Biol Chem* Dec. 14; 276(50): 46697-700.

Landen et al. (2002) Noscapine alters microtubule dynamics in living cells and inhibits the progression of melanoma. *Cancer Res.* (in press).

Herrera, J., Yang, H., S.C. Zhang, Proschel, P., Tresco, I., Duncan, **Luskin, M.** and M. Mayer-Proschel. (2001) Embryonic derived glial restricted precursor cells (GRP cells) can differentiate into astrocytes and oligodendrocytes in vivo. *Exptl Neurol.* 171: 11-21.

Pencea, V., Bingaman, K.D., Freedman, L. J. and **M.B. Luskin.** (2001) Neurogenesis in the neonatal and adult primate forebrain subventricular zone and rostral migratory stream. *Exptl Neurol.* 172: 1-16.

Stewart, R.R., Hoge, G.M., Zigova, T. and **M.B. Luskin.** (2002) Neuronal precursor cells from the anterior subventricular zone of the neonatal rat forebrain: sensitivity to GABA mediated GABAA receptors. *J Neurobiol.* 50: 305-322.

Coskun, V. and **M.B. Luskin.** The intrinsic and extrinsic regulation of the proliferation and differentiation of cells in the rostral migratory stream. *J Neurosci Res.* (In press).

Morin, C., **Luskin, M.B.,** Bushnell, M. C. and A.D. Craig. (2002) Case report: Disruption of the thermal perception in a multiple sclerosis patient with central pain. *Clinical J of Pain.* 18:191-195.

Luskin, M. B. and **V. Coskun.** The progenitor cells of the embryonic telencephalon and the neonatal anterior subventricular zone differentially regulate their cell cycle. *Chem Senses.* (In press).

BITS AND BYTES

Submitted by Danny Rouk

A few computer related changes will be coming your way. The server was upgraded with additional hard drives, greatly increasing the server space. That doesn't mean it should be a warehouse for your long term data, but hopefully it means I won't be coming around yelling at folks to get things off quite so often.

Also an upgrade of the server will allow you to access your files from anywhere a web browser exists. Simply put your files in your web-folder, and they will be visible from any machine that can browse the web and knows how to login. You can use this service as a backup for when you are off campus giving lectures, or for moving data from your home to your work computers. I'll be sending out a further announcement about this once I've made certain the service is secure.

As usual, please be wary of emails claiming to offer virus fixes. These actually seem to be more prevalent than the virus files themselves. Any email asking you to delete a file, or forward the info to everyone you know is almost assuredly a hoax. If you ever have any questions about a message, please feel free to ask me about it. These sort of messages are so widespread that a quick internet search for keywords almost always gives a few hits, so you can research them yourself as well. And as always, please make certain your antivirus software is up to date and is running its auto-update program successfully at least once a week. A download today keeps the bad guys away.

UPCOMING EVENTS

(Summer/Fall/Winter 2002-2003)

| | |
|-----------------|--|
| September 2 | Labor Day |
| September 30 | March of Dimes |
| October 1 | NIH New Submissions |
| November 1 | NIH Competing Renewals and Revisions |
| December 5 | Individual NRSA (NIH) |
| September 27-28 | Cell Biology Research Retreat at Unicoi State Park |
| November 28-29 | Thanksgiving |
| December 24-25 | Christmas |
| January 1, 2003 | New Year's Day |
| January 10 | National Science Foundation (Biology Directorate) |

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.

CELL BIOLOGY SEMINAR SCHEDULE

| | |
|---------|---|
| Sept 11 | Erwin Goldberg, Northwestern University |
| Sept 18 | Sutin Lecture - Scott Fraser, Cal Tech |
| Sept 25 | Mike Ehlers, Duke University |
| Oct 2 | Thomas Jongens, Univ. Pennsylvania |
| Oct 9 | Alexey Khodjakou, Wadsworth Center, NY |
| Oct 16 | Larry Katz, Duke |
| Oct 23 | Thomas Sudhof, Univ. Texas, Southwestern Medical Ctr. |
| Oct 30 | Mary Dasso, NIH, Lab. of Gene Regulation & Dev. |
| Nov 6 | David Papermaster, University of Connecticut |
| Nov 13 | John Condeelis, Albert Einstein College of Medicine |
| Nov 20 | Conly L. Rieder, Wadsworth Center, NY |
| Dec 4 | Thoru Pederson, University of Massachusetts Medical |
| Dec 11 | Tom Brushart, Johns Hopkins |
| Feb 18 | Pico Caroni, Friedrich Miescher Inst. For Biomedical Research, Basel, Switzerland |

B&G SCHEDULE

| | |
|-------------------|--------|
| October 14, 2002 | Luskin |
| January 13, 2003 | McKeon |
| November/December | none |
| February 10, 2003 | Moses |
| March 10, 2003 | Powers |
| April 7, 2003 | Sale |
| May 12, 2003 | Saxe |

