



# Office of Education, Division of Intramural Research National Heart, Lung, and Blood Institute **FELLOWS NEWSLETTER**

The Fellows Newsletter is published monthly by the Office of Education, Division of Intramural Research, National Heart, Lung, and Blood Institute and distributed to NHLBI DIR members to promote the interest of DIR Fellows.

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## **Volunteers Wanted!**

The Fellows Advisory Committee is seeking new members. Contact the Office of Education for more

## ***The Education Director's Column***

### **Summer at the NIH**

Summer at the NIH is a schizophrenic time. On the one hand, we all look forward to spending time outdoors, away from work, especially before the weather becomes unbearable. On the other hand, our labs are host to summer interns from all over the country who bring a new level of enthusiasm and energy to the lab. Thus, fellows who are primary mentors for summer interns need to spend more, rather than less, time in the laboratory. The tradeoff is highly worthwhile: because almost all jobs require you to supervise people, having this experience on your C.V. will enhance your ability to obtain a position. There is great satisfaction in seeing your student achieve results that they could not have obtained without you. So if you have an intern in your lab, do your best to make sure that they have a productive and enjoyable summer. But do remember to take some time off!

## ***Post-Bacc Poster Day: A Post-Bacc's Perspective***

*By Theo Gomes*

On Wednesday, May 24, 2006, hundreds of NIH Post-Baccs gathered under a huge white tent for the annual Post-Bacc Poster Day. NHLBI was represented by 14 posters from its various labs (see page 2 for names). This was an exciting event where I haven't seen more post-bacc IRTAs in one place than neurotransmitters in a synaptic cleft. For two days, visitors streamed from one side to the other within two enormous tents that engulfed lot 10 H - the same lot in which everyone yearns to park, but no one can find a  
*(continued on page 2)*

## ***Lenfant Biomedical Fellowships***

*By Julie Donaldson*

Lenfant Fellowships are competitive awards given to outstanding postdoctoral fellows in the NHLBI Division of Intramural Research (DIR). The fellowship was named after Dr. Claude Lenfant, a former Director of NHLBI (1982-2003) who was a strong supporter of excellence in the NHLBI research program. The intent of this program is to recognize those fellows who have demonstrated an ability to perform outstanding research, and have a breadth and depth of understanding that indicates their likely success in a  
*(Continued on page 4)*

## Poster Day Participants



Post-Bacc Lynda Labranche (Left), from the Laboratory of Cell Biology, explains her poster entitled: "Structure Determination of the Cardiomyopathy Loop of Dictyostelium Myosin II Containing an A400V Mutation."

NHLBI was represented by 14 posters from the following post-baccs (**BOLD**) and their mentors:

**Christine J. Chung,**

*Mentor:* Lance Pohl (LMI);

**Stacey M. Cromer,**

*Mentor:* Nico Tjandra (LBC);

**Niccolo M. Fiorentino,**

*Mentor:* Elliot McVeigh (LCE);

**Theotonius J. Gomes,**

*Mentor:* Cynthia Dunbar (HB);

**Laura S. Kirby,**

*Mentor:* Mark Gladwin (CB);

**Lynda Labranche,**

*Mentor:* Edward Korn (LCB);

**Elinor Lee,**

*Mentor:* Adrian Wiestner (HB);

**Thomas E. McCann,**

*Mentor:* Herbert Geller (DNG);

**Vicki R. McGowan II,**

*Mentor:* Mark Gladwin (CB);

**Helena I. Mora-Jensen,**

*Mentor:* Adrian Wiestner (HB);

**Sara E. Rosenbaum,**

*Mentor:* Richard Childs (HB);

**Ajay Thomas,**

*Mentor:* Kenneth Kramer (LDB);

**Jorge A. Uribe,**

*Mentor:* Robert Adelstein (LMC);

**Veronica M. Vasquez,**

*Mentor:* Mark Gladwin (PCCMB).

*("Poster Day" continued)*

spot in front of Building 10. Just a few days before the festival, I, like many other post-baccs, scrambled to get my poster reviewed by my mentor, printed by CIT, and prepare a flawless presentation. Though it was a stressful time, I am amazed at how well it all came together at this one exciting event.

As this was my first NIH poster session, it was incredibly important for me to get it right. It was a chance for me to demonstrate my accomplishments in the past year. Modeling my poster after ones previously made by those who have had to defend their research in actual conferences, I offered my poster in review to my mentor, Dr. Cynthia E. Dunbar. Expecting her to tear my poster into pieces and point out every flawed piece of information, I was surprised and relieved to find that she was pleased by my work. I felt confident enough to present my work to the NIH community.

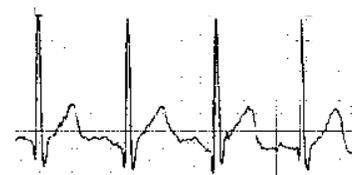
When the day of the research festival finally surfaced, I began to get a bit nervous again. My nervousness was assuaged when my mentor reassured me that it was okay if you didn't know what other posters were about, because she felt the same way. Besides, everyone knows the best part of the entire festival was the free food.

This day signified a time for all post-baccs to defend their work to the clueless and the wise. As I looked beyond my designated poster location, I saw an immense sea of knowledge just waiting to be unraveled by each presenter. I decided to walk around and read the titles of all of the posters, and became genuinely interested in many of the projects in which post-baccs were

involved on campus. After talking with many post-baccs about their projects, I realized that this is what made the NIH unique - the myriad of different research that occurs simultaneously. There were definitely a few posters that stood out among the crowd. Everyone remembers the one about the enhanced 3-dimensional sonogram and the incredible pictures they were able to acquire. And no one could forget the labyrinth presentation that allowed you to go through one of their courses and reach a sense of inner peace right on the spot.

After three excruciating hours of standing under a tent on a hot day, being interrogated by individuals you knew nothing about, harassed by members of your lab who asked you the most unprofessional questions, and admired for the layout and structure of your poster, (and yes I did have a few poster enthusiasts who cared nothing about the content of my work but the layout and aesthetic appeal of my poster itself), you realize there are still many positive aspects. From the poster day experience, I have gained a true sense of belonging, a sense of pride, new friends, a newfound knowledge of my own project, and finally a sense of accomplishment.

*Theotonius Gomes is a first year post-bacc in the Hematology Branch.*



## New NHLBI Fellows



**Dr. Steven Kim** is one of the newest fellows to join the Laboratory of Developmental Biology under the mentorship of Dr. Yosuke Mukoyama. He earned his Ph.D. in Cancer Biology from the Uniformed Services University of the Health Sciences in Maryland. Dr. Kim's project will focus on the characterization of the neuro stem cell niche.



**Dr. Melanie Kotys** has joined the NHLBI/NIBIB as a Research Fellow after a one year tenure as a contract fellow in the Laboratory of Diagnostic Radiology Research in the Clinical Center. She will be under the mentorship of Dr. Roderic Pettigrew. Dr. Kotys received her D.Sc. from Washington University in St. Louis, Missouri. While in the NIBIB, her project will focus on coronary imaging using MRI and characterization of atherosclerosis.



**Dr. Eric Odom** has recently joined the Genetics and Developmental Biology Center as a

research fellow under the auspice of Dr. Kenneth Kramer. He earned his Ph.D. in Marine and Environmental Sciences from the University of Maryland. Dr. Odom's project entails the role of heperan sulfate in cardiac development.



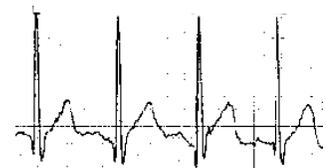
**Dr. Ho Joong Sung** is the newest addition to the Laboratory of Cell Biology under the supervision of Dr. Paul Hwang. He received his Ph.D. from Yonsei University in Seoul, Korea. While in the LCB, his project will focus on p53 and mitochondria function using proteomic techniques.



**Dr. Kinnosuke Yahiro** has recently joined the Pulmonary and Critical Care Medicine Branch as a visiting fellow under the supervision of Dr. Joel Moss. He received his Ph.D. in Applied Chemistry from Nagasaki University, Japan. While at the NHLBI, Dr. Yahiro will be working on the identification and characterization of ARH3 interaction protein in human cells.

## The Interns are Here!

Over 60 High School, College, and Graduate Students have joined NHLBI labs this summer. They are supported by several different programs such as the BRTPUG (Biomedical Research Training Program for Underrepresented Groups) BESIP (Biomedical Engineering Summer Internship Program), ORWH (Office of Research on Women's Health). UGSP (Undergraduate Scholars Program), SRFP (Summer Research Fellowship Program), and of course the SIP (Summer Internship Program). These interns can be found on the main campus and in Rockledge as part of the Division of Epidemiology and Clinical Applications. A complete list of all the interns and their mentors can be found on the Office of Education Intranet at: <http://dir.nhlbi.nih.gov/oe/summer2006.asp>.



## Jessica's Corner

One of the best parts about summer is the government vacation days! I plan to spend the time eating ice cream, reading romance novels, catching summer block buster movies while they are still in the theater, and of course revisiting some of DC's famous monuments. I hope you remember to take some time away from the lab and enjoy the summer sunshine. As famous artist/ scientist Leonardo DaVinci once said: "Every now and then go away, have a little relaxation, for when you come back to your work, your judgment will be surer."

*(Lenfant continued...)*  
 research career. The recipient of the Lenfant Fellowship receives an increase in salary support (10%) and a one-time \$1000. travel award. Lenfant Fellows are also honored by presenting their research findings to DIR Investigators and Fellows.

Nominations for the Lenfant Fellowship are initiated by the Principal Investigators who submit a memo describing the research accomplishments and role played by the fellow. Also submitted are the fellow's C.V., statement of research accomplishments and future goals and a reprint (as a pdf) of a high-quality, peer reviewed publication. The Lenfant Fellowship Selection Committee (Drs. Julie Donaldson, Jay Chung, Herbert Geller, Rodney Levine, Vince Manganiello, and James Sellers) interviews each candidate to probe for depth of

understanding of the candidate in their present and future research areas. Applications are reviewed twice a year (May 1 and November 1). To date, we have had five application review periods, totaling 21 candidates. Of that 21, 9 have been awarded the Lenfant Fellowship.

The newest recipients of the Lenfant Fellowship are Drs. Katayoun Rezvani and Wenjun Zheng (see sidebar). Dr. Rezvani is a Senior Research Fellow in the Stem Cell Allotransplantation Section of the Hematology Branch working with Dr. John Barrett. She works in the area of cancer immunology and in particular the development of vaccines for leukemia immunotherapy. She received a Bench to Bedside Award in 2004 and is Principal Investigator on a recently approved clinical trial of a leukemia vaccine which began in March of this year. Dr. Zheng is a Research Fellow in the laboratory of Dr. Bernard Brooks in the Laboratory of Computational Biology. Dr. Zheng has developed an innovative approach to dynamic modeling of large macromolecular systems, which generally due to their size are not amenable to dynamic modeling. He has also set up and maintains a web server that provides access to his programs to the research community. Drs. Rezvani and Zheng will present their exciting research findings to the DIR this fall. We congratulate them for receiving this award and for their excellence in research.

*Dr. Julie Donaldson is a Senior Investigator in the Laboratory of Cell Biology. She is also the Chair of the Lenfant Fellowship Selection Committee.*

## **Rezvani and Zheng Win Lenfant Awards**



Congratulations to Drs. Katayoun Rezvani and Wenjun Zheng, who are the most recent recipients of the 2006 Lenfant Award. This award, named in honor of the former Director of NHLBI, is given to NHLBI fellows in recognition of their research achievements early in their career. The winners were selected by a committee of NHLBI Faculty chaired by Dr. Julie Donaldson.

Dr. Zheng is hoping that this award will help him in his future career goals of establishing his own research group in computational biology. This visiting Chinese Fellow currently resides in Gaithersburg with his wife and one year old son, both of who are extremely happy for Dr. Zheng.

Dr. Rezvani stated that winning this award was a "real honor" for herself and her department. It has given her more encouragement to pursue the field of translational research. After the conclusion of her tenure here at the NIH, Dr. Rezvani plans to return to her home town of London to pursue academic haematology. She hopes to take the skills learned during her four year stay at the NIH and start up a vaccine study of Leukemia patients in the UK and across Europe. Dr. Rezvani currently lives in Ledroit Park in Northwest DC with her stray cat, aptly named, "Cat."

### **Don't forget the Fellows Science and Social Hour**

**Thursday, June 15th  
10/7S235A**

**Presentation by:  
Dr. Yasuharu Takagi**

**"Using Single Molecule  
Experiments to  
Determine the  
Mechanism of Muscle  
Contraction"**

**Social excursion to  
Bethesda immediately  
following!**

**Recent Publications by NHLBI Fellows**

Chen, J., **Larochelle, A.**, Fricker, S., Bridger, G., Dunbar, C.E., and Abkowitz, J.L. (2006). Mobilization as a preparative regimen for hematopoietic stem cell transplantation. *Blood* *107*, 3764-3771.

**Faranesh, A.Z.**, Kraitchman, D.L., and McVeigh, E.R. (2006). Measurement of kinetic parameters in skeletal muscle by magnetic resonance imaging with an intravascular agent. *Magn. Reson. Med.* *55*, 1114-1123.

**Hoffert, J.D.**, **Pisitkun, T.**, **Wang, G.H.**, Shen, R.F., and Knepper, M.A. (2006). Quantitative phosphoproteomics of vasopressin-sensitive renal cells: Regulation of aquaporin-2 phosphorylation at two sites. *Proc. Natl. Acad. Sci. U. S. A* *103*, 7159-7164.

**Larochelle, A.**, Krouse, A., Metzger, M., Orlic, D., Donahue, R.E., Fricker, S., Bridger, G., Dunbar, C.E., and Hematti, P. (2006). AAM3100 mobilizes hematopoietic stem cells with long-term repopulating capacity in nonhuman primates. *Blood* *107*, 3772-3778.

Lepore, A.C., **Neuhuber, B.**, Connors, T.M., Han, S.S.W., Liu, Y., Daniels, M.P., Rao, M.S., and Fischer, I. (2006). Long-term fate of neural precursor cells following transplantation into developing and adult CNS. *Neuroscience* *139*, 513-530.

Mar, X.F., Kawamoto, S., **Uribe, J.**, and Adelstein, R.S. (2006). Function of the neuron-specific alternatively spliced isoforms of nonmuscle myosin II-B during mouse brain development. *Mol. Biol. Cell* *17*, 2138-2149.

**Morris, R.G.**, **Hoorn, E.J.**, and Knepper, M.A. (2006). Hypokalemia in a mouse model of Gitelman's syndrome. *Am. J. Physiol. Renal Physiol.* *290*, F1416-F1420.

**Tang, S.**, Tao, M.F., McCoy, J.P., and Zheng, Z.M. (2006). The E7 oncoprotein is translated from spliced E6\*1 transcripts in high-risk human papillomavirus type 16- or type 18-positive cervical cancer cell lines via translation reinitiation. *Journal of Virology* *80*, 4249-4263.

**Vergarajauregui, S.**, San Miguel, A., and Puertollano, R. (2006). Activation of p38 mitogen-activated protein kinase promotes epidermal growth factor receptor internalization. *Traffic* *7*, 686-698.

**Wang, G.H.**, Wu, W.W., **Zeng, W.H.**, Chou, C.L., and Shen, R.F. (2006). Label-free protein quantification using LC-coupled ion trap or FT mass spectrometry: Reproducibility, linearity, and application with complex proteomes. *J. Proteome Res.* *5*, 1214-1223.

**Yang, Y.**, **Kovacs, M.**, **Sakamoto, T.**, **Zhang, F.**, Kiehart, D.P., and Sellers, J.R. (2006). Dimerized Drosophila myosin VIIa: A processive motor. *Proc. Natl. Acad. Sci. U. S. A* *103*, 5746-5751.

Zhou, H., Yuen, P.S.T., **Pisitkun, T.**, **Gonzales, P.A.**, Yasuda, H., Dear, J.W., Gross, P., Knepper, M.A., and Star, R.A. (2006). Collection, storage, preservation, and normalization of human urinary exosomes for biomarker discovery. *Kidney International* *69*, 1471-1476.

## Come to the Career Development Seminar

Tuesday, **June 13th**  
10/7S235A

Presentation by:  
**Dr. Fraser Brown**  
"From Post-Doc  
to Patent Lawyer"

## **OE Web Site Events Page Up and Running !**

The Office of Education encourages you to visit our events Web site for all the upcoming events occurring at the NHLBI. Fellows are invited to post Social or Scientific Events in an effort of bringing people together. For more information, contact the Office at 301-451-9440, e-mail: DIR\_Education@mail.nih.gov, or visit the Events Page at:

<http://dir-intranet.nhlbi.nih.gov/oe/events.aspx>