



Office of Education, Division of Intramural Research National Heart, Lung, and Blood Institute April 2005 Fellows Newsletter

From the Director of the Office of Education:

Preparations are complete for the Fellows Retreat on May 12-13th at the Harbortowne Conference Center. Over 130 NHLBI fellows have registered to attend. Our featured speakers are Richard P. Lifton M.D., Ph.D., Chairman, Department of Genetics, and Professor of Medicine (Nephrology), Genetics & Molecular Biophysics & Biochemistry, at Yale, and Lee Hood, M.D, Ph.D, President of the Institute of Systems Biology. NHLBI Director Dr. Elizabeth Nabel will give a talk on mentoring and training. In addition, we have a panel of experts who will talk about careers in Academia, Venture Capitalism, Government Research and the Pharmaceutical Industry.

A major feature of the retreat is the Poster session for you to present your research. Two fellows will receive \$1000 Fellows Awards based on the research presented in the poster. In addition, we will have lots of time for social interactions, including a DJ on Thursday evening. The web site <http://dir-intranet.nhlbi.nih.gov/oe/2005-dir-retreat.asp> is now open for poster submission only for registered attendants until this Friday, April 22nd.

As always, I am eager to hear from you about potential activities that you would like to have sponsored by our office.

Writing Your First Research Paper

Herbert M. Geller, Director, Office of Education

Writing your first research paper can be either an exhilarating or debilitating experience. Of course, once the paper gets accepted, you begin to forget the pain and effort that went into it's production, and focus on the next one. But there are certain rules and procedures that you can follow to ensure that the process flows smoothly.

The first rule is to plan your manuscript as early as possible. Here, as in your career choices, the earlier you define the goals of your research, the easier it will be to evaluate whether you have achieved them or need to do more experiments. A manuscript should tell a story. Many research papers begin as a series of probe experiments, either

hypothesis based, to evaluate whether a narrow hypotheses has some validity and whether data can be collected in a reasonable amount of time to evaluate it, or exploratory, to collect data, such as array data, which may provide clues for future investigations. In either case, once the data from these probe experiments is analyzed, it's best to sit down with your advisor and make some firm plans about the direction of the research. This should include an outline of the story, and sketches of the kinds of figures will be necessary to tell the story. Having this information, you can then plan and execute the experiments that will complete the story.

As you plan the specific experiments, you should think about how the data will look in a finished product. For example, the order of lanes in a gel should be chosen to best illustrate the findings. If you are doing a dose-response curve,

choose enough of a range and enough points to make sure that your data falls in the middle. Finally, always include enough replicates to ensure that you have adequate statistics, even if one or two of your samples accidentally get washed away. It's always easier to include an extra sample at the beginning as compared to finding out that you didn't have enough at the end and need to repeat. Finally, put your data in a secure place and label it carefully so that, in a year's time, you can go back and understand what you did.

Once you have done the experiment, make your final figure as early as possible. Show the figures at meetings and seek feedback from your lab group to make sure that they understand the figure and how it fits in with your story.

Once all the data are collected, and the figures made, it's time to write. We'll continue next month with some tips on the writing process.

New NHLBI Fellows



Dr. Shunli Ding has recently joined the Cardiovascular Branch as a Visiting Fellow under the supervision of Dr. Manfred Boehm. Dr. Ding completed his M.D. at Tianjin Medical University, China in 1992. He then earned his Ph.D. in Biology and Biotechnology at Université Paris VII, Paris, France in 2004.



Dr. Edward Beck earned his M.A. in Biological Sciences from Temple University, PA in 1992. He then completed his Ph.D. at Thomas Jefferson University. Dr. Beck is currently working at the Laboratory of Kidney & Electrolyte Metabolism as an IRTA Fellow under the supervision of Dr. Viswanathan Raghuram.

Recent Publications by NHLBI Fellows

Hawkins C. A., Alba, E. and Tjandra N. (2005) Solution structure of human saposin C in a detergent environment. *J. Mol. Biol.* **346**, 1381-1392.

Heymann J. B., **Iwasaki K.**, **Yim Y. I.**, Cheng N. Q., Belnap D. M., Greene L. E., Eisenberg E. and Steven A. C. (2005) Visualization of the binding of Hsc70 ATPase to clathrin baskets - Implications for an uncoating mechanism. *J. Biol. Chem.* **280**, 7156-7161.

Hoffert J. D., Chou C. L., **Fenton R. A.** and Knepper M. A. (2005) Calmodulin Is Required for Vasopressin-stimulated Increase in Cyclic AMP Production in Inner Medullary Collecting Duct. *J. Biol. Chem.* **280**, 13624-13630.

Kim J. A., **Park S.**, Kim K., Rhee S. G. and Kang S. W. (2005) Activity assay of mammalian 2-cys peroxiredoxins using yeast thioredoxin reductase system. *Anal. Biochem.* **338**, 216-223.

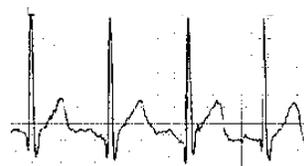
Ly H., **Calado R. T.**, Allard P., Baerlocher G. M., Lansdorp P. M., Young N. S. and Parslow T. G. (2005) Functional characterization of telomerase RNA variants found in patients with hematologic disorders. *Blood* **105**, 2332-2339.

Patino W. D., Mian O. Y., **Kang J. G.**, **Matoba S.**, Bartlett L. D., Holbrook B., **Trout H. H.**, Kozloff L. and Hwang P. M. (2005) Circulating transcriptome reveals markers of atherosclerosis. *PNAS* **102**, 3423-3428.

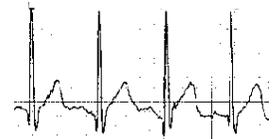
Schieke S. M., Ruwiedel K., Gers-Barlag H., Grether-Beck S. and Krutmann J. (2005) Molecular crosstalk of the ultraviolet A and ultraviolet B signaling responses at the level of mitogen-activated protein kinases. *J. Invest. Dermatol.* **124**, 857-859.

Seggewiss R., Lore K., Greiner E., Magnusson M. K., Price D. A., Douek D. C., Dunbar C. E. and Wiestner A. (2005) Imatinib inhibits T-cell receptor-mediated T-cell proliferation and activation in a dose-dependent manner. *Blood* **105**, 2473-2479.

Xu K. F., **Shen X. Y.**, Li H., Pacheco-Rodriguez G., Moss J. and Vaughan M. (2005) Interaction of BIG2, a brefeldin A-inhibited guanine nucleotide-exchange protein, with exocyst protein Exo70. *PNAS* **102**, 2784-2789.



**Come to the
Career Development Seminars
2nd Tuesday of Each Month
Noon
7S235**



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direducation@nhlbi.nih.gov