



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

From the Director of the Office of Education:

The Fellows Advisory Committee is initiating a "Work in Progress" hour for NHLBI Fellows on the 3<sup>rd</sup> Wednesday of each month at 4:30 PM. This is an opportunity for fellows to present short talks about their work in an informal setting, followed by a social gathering. Refreshments will be provided. The first session is on April 19<sup>th</sup> at 4:30 PM in the 2<sup>nd</sup> Floor conference room of Bldg. 50. Dr. Lina Li of the Laboratory of Molecular Immunology and Dr. Philip Padilla of the Pulmonary Critical Care Medicine Branch will be presenting. I hope to see you there.

I would like to remind you once again that the Fellows Retreat will be held on May 12-13<sup>th</sup> this year at the Harbortowne Conference Center. 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. 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. There are only a limited number of rooms, so please register and submit your poster as early as possible to guarantee your place. The registration deadline is April 10<sup>th</sup>.

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

## *The Individual Development Plan*

*Herbert M. Geller, Director, Office of Education*

We have heard a lot about the "Roadmap", which provides direction to the NIH research programs. The question then arises as to whether each fellow should have their own "Roadmap" to achieve their goals. *"If you don't know where you are going, you'll probably end up.....someplace else"* is clearly applicable here. So how do you know where you are going? And how can you get there? This is the primary purpose of the Individual Development Plan.

As many of you know, I have encouraged fellows, early in their stay at NIH, to identify their career goals. This is the first and most important step, and allows the development of a plan to achieve the goals. Most fellows want a career that involves research, and acquiring research skills is the primary focus of most fellowships at NIH. However, most careers demand more than research. For example, academic research requires the ability to teach and obtain grant funds; clinical research calls for a high level of clinical proficiency and the ability to conduct and understand clinical trials.

An Individual Development Plan allows you to identify both your goals and the

skills you need to achieve those goals. At the same time, you evaluate your current skills and identify those that need to be acquired during your fellowship. At set intervals during your fellowship, you then revisit the plan to see how well you are progressing and modify your training goals accordingly.



What if your career goals change? This situation is more common than you think. The career goals of many fellows change during their stay at NIH, and when this happens, it's time to revisit the Individual Development Plan to redefine the goals and identify the particular skills that are necessary for that goal.

We have two Individual Development Plans available at our Web site: <http://dir-intranet.nhlbi.nih.gov/oe/new-fellows.asp> The FASEB form is a skeletal plan that provides general categories, while the one for NHLBI fellows is more detailed and provides for more tight assessment of your progress.

Try these out, and remember that the Office of Education is here to help you acquire the skills that you need.



### New NHLBI Fellows



**Mr. Gilberto Botello** has recently joined the Hematology Branch as a Postbaccalaureate IRTA under the supervision of Dr. Neal Young. Mr. Botello completed his B.S. in Biology at the California State University, Los Angeles, California. He is working on accessing association of biochemical and genetic markers of oxidant stress and cardiac functional abnormalities in patients with hereditary hemochromatosis.



**Ms. Tullia Bruno** is with the Hematology Branch as a Postbaccalaureate IRTA and is under the supervision of Dr. Neal Young. She earned her B.S. in Chemistry and Molecular Biology from Vanderbilt University, Nashville, Tennessee. She is working on

V-beta repertoire in aplastic anemia patients and Roll of toll like receptors in aplastic anemia.



**Dr. Qingyuan Fan** is currently working at the Pulmonary Critical Care Medicine Branch as a Visiting Fellow and is under the supervision of Dr. Joel Moss. He received his M.D. from the Secondary Military Medical University, Shanghai, China which was where he also completed his Ph.D. in 1997. Dr. Fan is working on Characterization of the metastatic tumor cells in Lymphangiioleiomyomatosis (LAM).



**Dr. Victor Meza-Carmen** has recently joined the Pulmonary Critical Care Medicine Branch under the supervision of Dr. Martha Vaughan. He is completing his Ph.D. at the University of Guanajuato. Dr. Meza-Carmen is working on Signal transduction in liver cells and the role of ARD1.



**Mr. Michael Riegelman** is a Predoctoral IRTA Fellow who has recently joined the Laboratory of Molecular Cardiology under the supervision of Dr. James Sellers. Mr. Riegelman completed his B.S. in Mechanical Engineering from the George Washington University in 2002. He then earned his M.S. also in Mechanical Engineering from the University of Pennsylvania in 2004, and is enrolled for a Ph.D. at Penn. He is currently working on myosin for nanomanipulations.



**Dr. Silvia Vergarajauregui** is a Visiting Fellow working in the Laboratory of Cell Signaling under the supervision of Dr. Rosa Puertollano. She completed her M.S. in

Biology from the University of Navarra, Spain in 1998. She then completed her Ph.D. in Molecular Biology from Universidad Autónoma de Madrid, Madrid, Spain in 2004.



### Recent Publications by NHLBI Fellows

**Blinova K., Carroll S., Bose S., Smirnov A. V., Harvey J. J., Knutson J. R. and Balaban R. S.** (2005) Distribution of mitochondrial NADH fluorescence lifetimes: steady-state kinetics of matrix NADH interactions. *Biochemistry* **44**, 2585-2594.

**de Silva R. and Lederman R.** (2004) Delivery and tracking of therapeutic cell preparations for clinical cardiovascular applications. *Cytotherapy* **6**, 608-614.

**Dick A. J., Raman V. K., Raval A. N., Guttman M. A., Thompson R. B., Ozturk C., Peters D. C., Stine A. M., Wright V. J., Schenke W. H. and Lederman R. J.** (2005) Invasive human magnetic resonance imaging: Feasibility during revascularization in a combined XMR suite. *Catheter. Cardiovasc. Interv.* **64**, 265-274.

**Dmitrieva N. I. and Burg M. B.** (2005) Hypertonic stress response. *Mutat. Res.* **569**, 65-74.

**Ennis D. B., Kindlman G., Rodriguez I., Helm P. A. and McVeigh E. R.** (2005) Visualization of tensor fields using superquadric glyphs. *Magn Reson. Med.* **53**, 169-176.

**Lundqvist A.**, Srinivasan R., Leitman S. F. and Childs R. W. (2005) Persistence of recipient plasma cells and anti-donor iso-haemagglutinins in patients with delayed donor erythropoiesis after major ABO incompatible non-myeloablative haematopoietic cell transplantation. *Br. J. Haematol.* **128**, 668-675.

**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.

**Jobsis P. D.**, Combs C. A. and Balaban R. S. (2005) Two-photon excitation fluorescence pH detection using 2,3-dicyanohydroquinone: a spectral ratiometric approach. *J. Microsc.* **217**, 260-264.

**Khakoo A. Y.** and Finkel T. (2005) Endothelial progenitor cells. *Annu. Rev. Med.* **56:79-101.**, 79-101.

**Laabs T.**, Carulli D., Geller H. M. and Fawcett J. W. (2005) Chondroitin sulfate proteoglycans in neural development and regeneration. *Curr. Opin. Neurobiol.* **15**, 116-120.

**Matoba S.**, Hwang P. M., Nguyen T. and **Shizukuda Y.** (2005) Evaluation of pulsed Doppler tissue velocity imaging for assessing systolic function of murine global heart failure. *J. Am. Soc. Echocardiogr.* **18**, 148-154.

Meshel A. S., **Wei Q.**, Adelstein R. S. and Sheetz M. P. (2005) Basic mechanism of three-dimensional collagen fibre transport by fibroblasts. *Nat. Cell Biol.* **7**, 157-164.

**Oubrahim H.**, Wang J., Stadtman E. R. and Chock P. B. (2005) Molecular cloning and characterization of murine caspase-12 gene promoter. *Proc. Natl. Acad. Sci. U. S. A* **102**, 2322-2327.

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

Risitano A. M., Maciejewski J. P., **Muranski P.**, Wlodarski M., O'Keefe C., Sloand E. M. and Young N. S. (2005) Large granular lymphocyte (LGL)-like clonal expansions in paroxysmal nocturnal hemoglobinuria (PNH) patients. *Leukemia* **19**, 217-222.

**Roh T. Y.**, **Cuddapah S.** and Zhao K. (2005) Active chromatin domains are defined by acetylation islands revealed by genome-wide mapping. *Genes Dev.* **19**, 542-552.

**Rothstein E. C.**, Carroll S., Combs C. A., **Jobsis P. D.** and Balaban R. S. (2005) Skeletal Muscle NAD(P)H Two-Photon Fluorescence Microscopy In Vivo: Topology and Optical Inner Filters. *Biophys. J.* **88**, 2165-2176.

**Shu S.**, Liu X. and Korn E. D. (2005) Blebbistatin and blebbistatin-inactivated myosin II inhibit myosin II-independent processes in Dictyostelium. *Proc. Natl. Acad. Sci. U. S. A* **102**, 1472-1477.

**Vichi A.**, **Payne D. M.**, Pacheco-Rodriguez G., Moss J. and Vaughan M. (2005) E3 ubiquitin ligase activity of the trifunctional ARD1 (ADP-ribosylation factor domain protein 1). *Proc. Natl. Acad. Sci. U. S. A* **102**, 1945-1950.

**Winitzky S. O.**, Gopal T. V., Hassanzadeh S., **Takahashi H.**, Gryder D., Rogawski M. A., **Takeda K.**, Yu Z. X., Xu Y. H. and Epstein N. D. (2005) Adult Murine Skeletal Muscle Contains Cells That Can Differentiate into Beating Cardiomyocytes In Vitro. *PLoS. Biol.* **3**, e87.

**Xu K. F.**, **Shen X.**, 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. *Proc. Natl. Acad. Sci. U. S. A* **102**, 2784-2789.

**Zheng W.** and Brooks B. (2005) Identification of dynamical correlations within the myosin motor domain by the normal mode analysis of an elastic network model. *J. Mol. Biol.* **346**, 745-759.



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