Office of Education, Division of Intramural Research
National Heart, Lung, and Blood Institute

June 2005 Fellows Newsletter

From the Director of the Office of Education:

This issue of the Newsletter contains a synopsis of the Fellows Retreat prepared by Dr. Michael Adams, a member of the Fellows Advisory Committee. As you can see, the retreat provided an opportunity for those who attended to learn about emerging areas of science, share their work to other NHLBI fellows, and to increase their networking to enhance their career choices. In addition, we provided free time to enjoy the environment of St. Michaels and promote informal interactions between fellows. The Retreat is one of the major activities planned by the Fellows Advisory Committee. We are looking for volunteers to join this committee to ensure that our endeavors serve the needs of all NHLBI Fellows. In addition, this committee gives you valuable experience in organizational skills and in interpersonal interactions. This has been especially valuable for fellows who are not native Americans and want to acquire these skills outside the laboratory. So, please contact the Office of Education if you are willing to volunteer.

June is also the beginning of our Summer Internship Program. I strongly recommend that you participate in supervising a summer intern. This is a valuable experience in informal mentoring and training, and such experience is considered very positive when you are looking for your next position.

I wish you an enjoyable summer.

The Fellows Retreat

by Michael Adams

The Third Annual NHLBI Fellows Retreat was held Thursday and Friday May 12 & 13, 2005 at the Harbourtowne Resort and Conference Center in St. Michaels, Maryland. Approximately 125 fellows attended the two day event on Maryland's Eastern Shore that included science talks on Thursday and a Career Development session on Friday.

The scientific program started Thursday morning with speaker Dr. Richard P. Lifton. Dr. Lifton is the Chairman of the Department of Genetics and Professor of Medicine, Genetics, Molecular Biophysics, and Biochemistry at Yale University and an Investigator in the Howard Hughes Medical Institute. During his talk, Dr. Lifton discussed his investigations into the genetic components and specific mutations associated with various disease states including renal disease, hypertension, and diabetes. His work has identified several mutations that correlate with clinical phenotypes, add to the understanding of disease states, and will ultimately lead to new treatment options for common diseases.

Following Dr. Lifton's talk, the fellows were treated to talks from four current NHLBI fellows who will soon be moving on to the next phases of their career. Dr. Robert Fenton from the Laboratory of Kidney & Electrolyte Metabolism, Dr. Mihaly Kovacs from the Laboratory of Molecular Physiology, Dr. Ivan Rosas from the Pulmonary and Critical Care Medicine Branch, and Dr. Ruth Seggewiss from the Hematology Branch each talked about their NIH research projects. In addition to the talks by the departing fellows, three submitted abstracts were selected to give oral presentations. These included Dr. Felipe Lisboa from the Laboratory of Molecular Immunology, Dr. Wilmar Patino from the Cardiology Branch, and Dr. Hang Wang from the Developmental Neurobiology Group.

After some free time to enjoy the beautiful weather and surroundings at the Harbourtowne Resort, the fellows reconvened for an opportunity to share their work and interact with other fellows, Cores, and Offices in the poster session. Forty-five fellows submitted abstracts and presented posters in a competition for two $1000 travel awards. Drs. George Stan

from the Laboratory of Computational Biology and Jingqiong Hu from the Hematology Branch were awarded certificates at the awards ceremony Thursday evening for their exceptional poster presentations. Abstracts from all the posters submitted are available in the retreat program as published on the Office of Education's web site (http://dir-intranet.nhlbi.nih.gov/oe/2005Retreat.pdf).

The evening program and awards ceremony started with a talk by NHLBI Director Dr. Elizabeth Nabel. Dr. Nabel shared her career experiences, views on the mentoring process, and steps both the mentor and fellow can take to insure a successful fellowship. The theme of her talk was that mentoring is important at every stage of one's career - the mentors that you choose at the beginning of your career stay with you as you progress, and continue to be senior to you to provide advice and counseling when you need it. As an acknowledgment to the dedicated effort in mentoring, the Fellow's Advisory Committee recognized Dr. James Sellers with the Award for Outstanding Research Mentoring. In acknowledging his award, Dr. Sellers showed a brief presentation which highlighted the importance of mentoring in his own success. At the conclusion of the awards ceremony, everyone enjoyed another opportunity to network, socialize, and dance to the music provided by the DJ Robert Wells.

Dr. Leroy Hood, the President of the Institute for Systems Biology, opened the retreat Friday morning as the Keynote Speaker. Dr. Hood discussed his approach to systems biology as a powerful tool to study and monitor disease states. He also highlighted the technological advances and hurdles of the recent past and identified technological difficulties to be addressed for the full power of systems biology to come to fruition. His talk generated a significant amount of discussion on the potential of personalized genetic medicine to influence therapy and also the potential ethical consequences of such information.

The conclusion to the retreat was a Career Development Panel including representatives with scientific careers in academia, industry, and government. Dr. Minoo Battiwalla (NHBLI alumnus) now at the Roswell Park Cancer Institute, discussed his recent experiences with interviewing, negotiating, and accepting a clinical research position. He emphasized the differences between being at NIH and at University are substantial, and that it is important to negotiate well before leaving NIH.

Wyeth Pharmaceuticals Senior Vice President and Head of Discovery Research, Dr. Frank Welch (NHLBI alumnus) discussed his career path through an academic institution to his current industry position and his current responsibilities in staffing and project direction at Wyeth. His talk demonstrated that a career path is never pre-ordained and that different opportunities arise over time.

Dr. Anne Plant discussed her career as a government scientist in the National Institute of Standards and Technology and contrasted her research role in the Department of Commerce with other governmental agencies like the NIH. The panel concluded with questions from the fellows and lunch with the speakers.

If you would like more information about this Retreat or any of the previous retreats, please visit the Office of Education web site at (http://dir-intranet.nhlbi.nih.gov/oe/default.asp) for programs, pictures, and other useful links. The 3rd Annual Fellows Retreat was a great success because of the attendance of the fellows and the generous contributions of time and energy by the guest speakers. Plans are already underway for next years retreat and many other services for fellows. If you would like to participate in the Fellow's Advisory Committee and planning the Retreat, please contact Dr. Geller at the Office of Education.

New NHLBI Fellows

Dr. Atushi Kasamatsu is currently working at the Pulmonary Critical Care Medicine Branch as a Visiting Fellow under the supervision of Dr. Joel Moss. Dr. Kasamatsu completed his D.D.S. from Nihon University, School of Dentistry at Matsudo, Japan in 1998. He recently earned his Ph.D. in Molecular Biology from Graduate School of Medicine, Chiba University, Japan in March 2005.

Dr. Margarita Kunin is a Visiting Fellow who has recently joined the Laboratory of Kidney and Electrolyte Metabolism under the supervision of Dr. Maurice Burg. Dr. Kunin completed her M.D. from Technion-Israel Institute of Technology in Haifa, Israel.

Dr. Fuminobu Kuroda is a Visiting Fellow who has recently joined the Laboratory of Pulmonary Critical Care Medicine Branch under the supervision of Dr. Joel Moss. Dr. Kuroda earned his M.D. from the Kyorin University School of Medicine in Japan in 1996. He then completed his Ph.D. from Graduate School of Medical and Pharmaceutical Sciences in Chiba, Japan.

Ms. Chunhua Pan has recently joined the Laboratory of Developmental Biology as a Visiting Fellow under the supervision of Dr. Kenneth Kramer. Ms. Pan earned her M.S. Degree in Environmental Monitoring from Beijing Institute of Light Industry, Beijing, China in 1991. She is completing her Ph.D. in Analytical & Physical Chemistry from University of Missouri, Kansas City. She will be working on chemical approaches to the function of proteoglycans in development.

Dr. Linda Passaro recently joined the Cardiovascular Branch under the supervision of Dr. Mark Gladwin. Dr. Passaro earned her B.S. in Chemistry at Marist College, Poughkeepsie, New York in 1995. She then completed her Ph.D. in Organic Chemistry from the College of Environmental Social and Forestry at State University of New York, Syracuse, NY in 2001. Dr. Passaro is working on enzymatic function of hemoglobin as a nitrite reductase.

Dr. Edgar Rizzatti has recently joined the Hematology Branch as a Visiting Fellow under the supervision of Dr. Adrian Weistner. Dr. Rizzatti completed his M.D. from the University of São Paulo at Ribeirão Preto Medical School, SP, Brazil in 1998 where he also completed his Ph.D. in 2005. Dr. Rizzatti is working on investigating the effects and molecular sequelae of proteasome inhibition in mantle cell lymphoma.

Dr. Weixing Shen is a Visiting Fellow who has recently joined the Laboratory of Pulmonary Critical Care Medicine Branch under the supervision of Dr. Vincent Manganiello. Dr. Shen received his Bachelor of Medicine in Traditional Chinese Medicine from Nanjing University, China in 1993. He then also completed his M.S. in Medical Sciences at Nanjing University in 2000.

Dr. Shiwei Song is currently working at the Cardiovascular Branch as a Visiting Fellow under the supervision of Dr. Toren Finkel. Dr. Song completed his M.D. at Beijing Medical University, Beijing, China in 1987. He later completed his Ph.D. in Molecular & Cellular Biology at Oregon State University in 2005. Dr. Song is working on a search for the genes regulating mitochondrial functions and investigating the role of PINK1 protein in the pathogenesis of Parkinson's disease.

Recent Publications by NHLBI Fellows

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.

Honda A., Al-Awar O. S., Hay J. C. and Donaldson J. G. (2005) Targeting of Arf-1 to the early golgi by membrin, an ER-Golgi SNARE. J. Cell. Biol. 168, 1039-1051.

Kovacs M., Wang F. and Sellers J. R. (2005) Mechanism of action of myosin X, a membrane-associated molecular motor. J. Biol. Chem. 280, 15071-15083.

Lee D. W., Zhao X. H., **Scarselletta S.,** Schweinsberg P. J., Eisenberg E., Grant B. D. and Greene L. E. (2005) ATP binding regulates oligomerization and endosome

association of RME-1 family proteins. J. Biol. Chem. 280, 17213-17220.

Li L. N., Yang L. and Kotin R. M. (2005) The DNA minor groove binding agents Hoechst 33258 and 33342 enhance recombinant adeno-associated virus (rAAV) transgene expression. J. Gene. Med. 7, 420-431.

McCarthy J., **Mcleod C. J.,** Minners J., Essop M. F., Ping P. P. and Sack M. N. (2005) PKC is an element of activation augments cardiac mitochondrial respiratory post-anoxic reserve - a putative mechanism in PKC is an element of cardioprotection. J. Mol. Cell. Cardiol. 38, 697-700.

Nakahata S. and Kawamoto S. (2005) Tissue-dependent isoforms of mammalian Fox-1 homologs are associated with tissue-specific splicing activities. Nucleic Acids Research 33, 2078-2089.

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Rhee S. G., Yang K. S., Kang S. W., **Woo H. A.** and Chang T. S. (2005) Controlled elimination of intracellular H2O2: Regulation of peroxiredoxin, catalase, and glutathione peroxidase via post-translational modification. Antiox. Redox Sig. 7, 619-626.

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Rothstein E. C. and Lucchesi P. A. (2005) Redox control of the cell cycle: A radical encounter. Antiox. Redox Sig. 7, 701-703.

Sachdev V., **Shizukuda Y.,** Brenneman C. L., Birdsall C. W., Waclawiw M. A., Arai A. E., Mohiddin S. A., Tripodi D., Fananapazir L. and Plehn J. F. (2005) Left atrial volumetric remodeling is predictive of functional capacity in nonobstructive hypertrophic cardiomyopathy. Am. Heart J. 149, 730-736.

Wei C. J., Francis R., Xu X. and Lo C. W. (2005) Connexin43 Associated with an N-cadherin-containing multiprotein complex Is required for gap junction formation in NIH3T3 cells. J Biol. Chem. 280, 19925-19936.

Zhao H. T., Joseph J., Fales H. M., Sokoloski E. A., Levine R. L., Vasquez-Vivar J. and Kalyanaraman B. (2005) Detection and characterization of the product of hydroethidine and intracellular superoxide by HPLC and limitations of fluorescence. Proc. Natl. Acad. Sci. U. S. A 102, 5727-5732.

Zheng G., Joo J., **Ganesh S. K.,** Nabel E. G. and Geller N. L. (2005) On averaging power for genetic association and linkage studies. Hum. Hered. 59, 14-20.

Zheng W. J., Brooks B. R., Doniach S. and Thirumalai D. (2005) Network of dynamically important residues in the open/closed transition in polymerases is strongly conserved. Structure 13, 565-577.

Zheng W. J. and Brooks B. R. (2005) Normal-modes-based prediction of protein conformational changes guided by distance constraints. Biophys. J. 88, 3109-3117.

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

June 14th - Dr. Deborah Beebe,
Director, Division of Extramural Research, NHLBI
"Opportunities in the NHLBI Review Branch"

Published by the Office of Education, NHLBI Division of Intramural Research, Dr. Herbert M. Geller, Director.