



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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The Education Director's Column

This note is to call your attention to the work of the Fellows Advisory Committee, an essential part of the DIR Office of Education. This committee is comprised of NHLBI fellows who volunteer their time and efforts to participate in designing and implementing programs that benefit all NHLBI Fellows, and to be the "eyes and ears" for the Office of Education. The list of current members of the committee is presented on the sidebar at the left. Our goal is to have at least one representative from each Lab and Branch.

The Committee has major input into each of the activities that are run by the Office of Education. The major one, of course, is the Fellows Retreat, an annual event that brings together many of our fellows at an off-campus location. The next retreat is scheduled for April 23-24, 2007, so mark your calendars. The committee selects speakers, arranges the program, and provides essential help to make sure the retreat works for you.

The members of the committee have been instrumental in suggesting and planning the two major monthly activities sponsored by the Office of Education: the Career Development Seminars and the Fellows Science and Social Hour. In addition, they serve as a welcoming committee for new fellows.

Regular meetings of the committee are held once a month, at 4:00 PM on the second Monday of the month. If you would like to participate in these meetings, please contact the office for an invitation.

OE Programming Takes a Summer Break

The Career Development Seminars and Fellows Science and Social Hours are on break for the months of July and August. The office looks forward to an upcoming season of inspiring new presentations and entertaining social hours starting in September of 2006. Though our programs may be taking a break, our office is always around for you.

New NHLBI Fellows



Dr. Kang Chen is a recent fellow in the Laboratory of Biophysical Chemistry under the supervision of Dr.

Nico Tjandra. He comes to the NHLBI with a Ph.D. in Chemistry from New York University. During his tenure in this institute, Dr. Chen will be working on biophysical modeling techniques.



Dr. Stephane Lefrançois is a recent fellow in the under the auspice of Dr. Rosa Puertollano in the Laboratory of

Cell Biology. He received his Ph.D. in Anatomy and Cell Biology from McGill University in Montreal, Canada. Dr. Lefrançois will be working on the lysosomal trafficking mucolipin-3.



Dr. Geng Liu is a new visiting fellow in the Vascular Medicine Branch under the auspice of Mark Gladwin. She

joins the NHLBI with an M.D. and Ph.D. in Pathophysiology from

Zhejiang University School of Medicine, Hangzhou, China. Dr. Liu will be working on the role of nitric oxide in sickle cell disease.



Dr. Attila Nagy is a visiting fellow in the Laboratory of Molecular Physiology under the supervision of Jim

Sellers. Dr. Nagy received his Ph.D. in Muscle Biophysics from the Eötvös University in Budapest, Hungary and will be working on the structure and function of myosins while at the NHLBI.



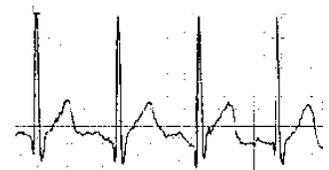
Dr. Hisayuki Yukoyama has recently joined the Hematology Branch as a visiting fellow under the

supervision of Dr. Richard Childs. Dr. Yukoyama comes to the NHLBI with an M.D. and Ph.D. in Rheumatology and Hematology from the Tohoku University School of Medicine in Sendai, Japan. His project will concern stem cell transplantation for hematological diseases.

Changing Faces of the Fellows Advisory Committee

Congratulations to the newest members of the Fellows Advisory Committee, who will serve as the representatives to all of our NHLBI laboratories. This month, we welcome Drs. Leticia Cano, Kang Chen, Hongjun Liu, Amar Sethi, Sruti Shiva Song, to the committee's table and look forward to a productive year!

As we welcome these new additions, we also say farewell to our departing members. These former committee members have dedicated an abundance of time and effort to improving the social and educational advancement of all NHLBI fellows. Best of luck to Drs. Dawei Liao, Ryan Morris, Marina Lee, and Lina Li. I know they will be shining stars wherever their passions may take them.



Jessica's Corner

On July 4th, I joined the thousands of other tourists and patriotic spectators who braved the weather to watch the fireworks on the National Mall. It was actually my first time ever being ON the mall with all of these people. Usually, I'm on a sidewalk, or a rooftop, or even on the GW Parkway. This year, as I sat in front of the US Capitol staring up at the sky, I was amazed at how a few sparks of light could bring people together. I looked around at the hundreds of other people from all different ethnicities, creeds, and even citizenships, who had waited all day with their small children - even through the terrible thunderstorm! - just to catch a few fireworks that they've seen every year. As I let Stevie Wonder play in the background, I found myself still looking to the sky and saying "Wow." This, my dear fellows, is the advice that I share with you: Remember, every now and then, to look to the sky for inspiration and amazement. You never know what wonder you'll rediscover.

Recent Publications by NHLBI Fellows

Fenton, R.A., Chou,C.L., Sowersby,H., Smith,C.P., and Knepper,M.A. (2006). Gamble's "economy of water" revisited: studies in urea transporter knockout mice. *Am. J. Physiol. Renal Physiol.* *291*, F148-F154.

Fodor, E. and Ginsburg,A. (2006). Specific DNA binding by the homeodomain N-kx2.5(C56S): Detection of impaired DNA or unfolded protein by isothermal titration calorimetry. *Proteins: Struct. Funct. Bioinform.* *64*, 13-18.

Graham,C., Hong,S., Mathur,A., Boehm,M., and **Wragg, A.** (2006). Bone marrow derived multi-potent progenitor cells augment perfusion of ischaemic tissues via paracrine mechanisms rather than by endothelial differentiation. *Heart* *92*, A90.

Hiroi, T., Okada,K., Imaoka,S., Osada,M., and Funae,Y. (2006). Bisphenol A binds to protein disulfide isomerase and inhibits its enzymatic and hormone-binding activities. *Endocrinology* *147*, 2773-2780.

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.

Hopenfeld, B. (2006). A mathematical analysis of the action potential plateau duration of a human ventricular myocyte. *J. Theor. Biol.* *240*, 311-322.

Jeong, W., Park, S.J., Chang, T.S., Lee, D.Y., and Rhee,S.G. (2006). Molecular mechanism of the reduction of cysteine sulfinic acid of peroxiredoxin to cysteine by mammalian sulfiredoxin. *J. Biol. Chem.* *281*, 14400-14407.

Khakoo, A.Y., Pati,S., Anderson,S.A., Reid,W., **Elshal, M.F.,** Rovira,I.I., Nguyen,A.T., Malide,D., Combs,C.A., Hall,G., **Zhang, J.H.,** Raffeld,M., Rogers,T.B., Stetler-Stevenson,W., Frank,J.A., Reitz,M., and Finkel,T. (2006). Human mesenchymal stem cells exert potent antitumorigenic effects in a model of Kaposi's sarcoma. *J. Exptl. Med.* *203*, 1235-1247.

Kim, H., Pennisi,P.A., Gavrilova,O., Pack,S., Jou,W., Setser-Portas,J., East-Palmer,J., Tang,Y., Manganiello,V.C., and LeRoith,D. (2006). Effect of adipocyte beta(3)-adrenergic receptor activation on the type 2 diabetic MKR mice. *Am. J. Physiol. Endocrinol. Metabol.* *290*, E1227-E1236.

Liu, J.H., Kouzine,F., Nie,Z.Q., Chung,H.J., Zichrini,E.F., Weber,A., Zhao,K., and Levens,D. (2006). The FUSE/FBP/FIR/TFIIH system is a molecular machine programming a pulse of c-myc expression. *EMBO. J.* *25*, 2119-2130.

Ma, 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.

Matoba, S., Kang, J.G., Patino, W.D., Wragg, A., Boehm,M., Gavrilova,O., Hurley,P.J., Bunz,F., and Hwang,P.M. (2006). p53 regulates mitochondrial respiration. *Science* *312*, 1650-1653.

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.

Ogasawara, Y., Amexis, G., Yamaguchi,H., Kajigaya,S., Leppla,S.H., and Young,N.S. (2006). Recombinant viral-like particles of parvovirus B19 as antigen carriers of anthrax protective antigen. *In Vivo* *20*, 319-324.

Patino, W.D., Kang, J.G., Matoba,S., Mian,O.Y., Gochuico,B.R., and Hwang,P.M. (2006). Atherosclerotic plaque macrophage transcriptional regulators are expressed in blood and modulated by tristetraprolin. *Circul. Res.* *98*, 1282-1289.

Rothstein, E.C., Nauman,M., Chesnick,S., and Balaban,R.S. (2006). Multi-photon excitation microscopy in intact animals. *J. Microsc.* *222*, 58-64.

Savage, S.A., Calado, R.T., Xin,Z.T., Ly,H., Young,N.S., and Chanock,S.J. (2006). Genetic variation in telomeric repeat binding factors 1 and 2 in aplastic anemia. *Exptl. Hematol.* *34*, 664-671.

(cont'd on page 4)

Recent Publications by NHLBI Fellows - Continued

Scheinberg, P., Nunez,O., and Young,N.S. (2006). Retreatment with rabbit anti-thymocyte globulin and ciclosporin for patients with relapsed or refractory severe aplastic anaemia. *Brit. J. Haematol.* *133*, 622-627.

Scheinberg, P., Nunez,O., Wu,C., and Young,N.S. (2006). Treatment of severe aplastic anaemia with combined immunosuppression: anti-thymocyte globulin, ciclosporin and mycophenolate mofetil. *Brit. J. Haematol.* *133*, 606-611.

Seggewiss, R., Pittaluga,S., Adler,R.L., Guenaga,F.J., Ferguson,C., Pilz,I.H., Ryu,B., Sorrentino,B.P., Young,W.S., Donahue,R.E., von Kalle,C., Nienhuis,A.W., and Dunbar,C.E. (2006). Acute myeloid leukemia is associated with retroviral gene transfer to hematopoietic progenitor cells in a rhesus macaque. *Blood* *107*, 3865-3867.

Solomou, E.E., Keyvanfar,K., and Young,N.S. (2006). T-bet, a Th1 transcription factor, is up-regulated in T cells from patients with aplastic anemia. *Blood* *107*, 3983-3991.

Srinivasan, R., Daniels,J., Fusaro,V., **Lundqvist, A.**, Killian,J.K., Geho,D., Quezado,M., Kleiner,D., Rucker,S., Espinac,V., Whiteley,G., Liotta,L., Petricoin,E., Pittaluga,S., Hitt,B., Barrett,A.J., Rosenblatt,K., and Childs,R.W. (2006). Accurate diagnosis of acute graft-versus-host disease using serum proteomic pattern analysis. *Exptl. Hematol.* *34*, 796-801.

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.

Zhao, B., Li, Y.F., **Buono, C.**, **Waldo, S.W.**, Jones,N.L., Mori,M., and Kruth,H.S. (2006). Constitutive receptor-independent low density lipoprotein uptake and cholesterol accumulation by macrophages differentiated from human monocytes with macrophage-colony-stimulating factor (M-CSF). *J. Biol. Chem.* *281*, 15757-15762.

Zheng, W.J., Brooks,B.R., and Thirumalai,D. (2006). Low-frequency normal modes that describe allosteric transitions in biological nanomachines are robust to sequence variations. *Proc. Natl. Acad. Sci. U. S. A* *103*, 7664-7669.

Zheng, W.J. and Brooks,B.R. (2006). Modeling protein conformational changes by iterative fitting of distance constraints using reoriented normal modes. *Biophys. J.* *90*, 4327-4336.