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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.

Office of Education, DIR, NHLBI
Herbert M. Geller, Ph.D., Director
Jessica M. Llewellyn, MBA, Coord.
Aurora J. Taylor, Assistant Coord.
Building 10, Room 2N242
DIREDucation@nhlbi.nih.gov
Tel: 301-451-9440

Fellows Advisory Committee

Joshua Anzinger, TMB
Dawn Arrington, HB
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From the Director of the Office of Education

There is a high level of anticipation as we prepare to depart for the Fellows Retreat in Annapolis. Registration for this retreat is the highest ever, with over 170 fellows planning to attend. We also have over 70 posters in two poster sessions, giving fellows ample opportunity to share their research with each other and with our guest speakers and faculty. We will have several successful alumni at the Retreat, providing a networking opportunity to learn about their success in Academia, Pharmaceutical Industry and in Technology Transfer. As usual, there will be lots of opportunities to socialize and meet each other. This year, we will have a closing banquet which features a talk by NIH Deputy Director Dr. Susan Shurin, as well as the presentation of the NHLBI Outstanding Mentor Award and the awards for Fellows Research Presentations. You will also get a chance to meet with me and all the members of the Fellows Advisory Committee who want your input as to future activities to enhance your stay at NHLBI. For more information, you can download the complete program from the OE web site. Just follow the links for the Fellows Retreat.

Virtually as soon as we return, we'll have a Career Development Seminar by Dr. Candelario Zapata of the Division of International Services. This program will be especially useful for the large contingent of fellows in the NIH Visiting Program. Other monthly Career Development Seminars are planned, so watch for the announcement in your mailbox.



Your Academic Job

By

Herbert M. Geller, Ph.D.

Many postdoctoral fellows come to NHLBI with the intention of having their own laboratory in an academic institution. While this is a reasonable goal for many fellows, achieving the goal requires having acquired a necessary set of skills and attributes. Making sure that you have them all is then the objective of your time at NHLBI.

So what are these and how can you go about acquiring them? My own opinion is that the one essential feature for success is the ability to identify a major problem that is ripe for attack. The earlier you are able to do this, the easier it will be to shape your training and research so that you have the skills to approach this problem. Thus, as many of you know, one of the first questions that I ask new fellows is *what is your career goal?* If the answer is to be a principal investigator, then the next question is *if I gave you all the money in the world, what question would you address?* The earlier that you identify this question, the easier it will be to prepare for success.

Once you identify your potential research focus, the next step is to evaluate the level of importance. You will naturally pick a topic that interests you deeply, but it may not interest everyone else as much as you. Before proceeding further, it would be very important to talk to other fellows as well as your mentor about this topic and whether it is worth pursuing. You will also need to further narrow down your approach and outline an approach which will then translate to an experimental design.

The next step is to identify the technical skills necessary to execute the experimental design. If you have identified your approach before beginning your postdoctoral fellowship, your research here should be narrowly focused to prepare you to start your project. If not, then you will need to ensure that you can modify your project to prepare you for the future once you do identify your goals. The easiest way to keep track of your progress towards your goals is through the means of an Individual Development Plan – a formal way to identify the specific skills you need, the ones you already have, and, by comparison, the ones you need to acquire here. We have provided links to an Individual Development Plan on the Office of Education web site.

You will also need to have outstanding oral and written communication skills, especially in talking to people outside your field. The only way to do this is through repeated practice. You should present your work at every possible opportunity, both within the NIH community, such as at the NHLBI Fellows retreat and the NIH research festival, and also at national and international meetings. You should also present your work at least once a year to a large audience outside your laboratory, such as at one of the interest groups. You practice writing as you write up your publications. Fellows should always write the first draft of every publication. This will not be easy at first, especially if English is not your native language. However, each time you write a paper, the process goes much more smoothly. Once you get to the end of your second year, you should begin to put these skills together to write a grant that gives you the funds to start your

own lab, either a K99/R00 Pathway to Independence Grant, a K22 Career Transition Award or an AHA Scientist Development Grant.

Collaboration is an essential feature of research in the 21st century, and it would be important to learn how to collaborate while you are here. One easy way is to learn what is going on in other labs, either at seminars, research interest group meetings, or the Fellows Retreat, and then collaborate with fellows in other labs whose research overlaps with your own.

Finally, every Principal Investigator is a manager, both of people and resources. So it is essential for every future PI to gain supervisory experience here. To begin, ask to supervise a summer student in your laboratory, and once you have done that successfully, you can ask to supervise a post-baccalaureate IRTA. You should try to learn what things cost. While cost of research may not be as acute here as in the outside world, you will not have an infinite budget when you leave and cost-benefit analyses are an intrinsic part of management.

Come to the
Career Development Seminar
 featuring the
Division of International Services
Tuesday, March 18th
Noon to 1:30
10/13S235

Lenfant Award Winner- Hongjun Liu

This month, the OE interviewed Hongjun Liu, a third year research fellow in the Translational Medicine Branch under the mentorship of Dr. Toren Finkel. We are shining the spotlight on Dr. Liu this month for winning the Lenfant Award. He has also submitted a K99/R00 Pathways to Independence Award which was recently reviewed.

JL: How did it feel to be the winner of the Lenfant award?

HL: I felt greatly honored as this was so unexpected. However, I am not going to celebrate too much about the k99 until it's funded – but I am very hopeful!

JL: What are your career goals?

HL: I know that I definitely 100% want to stay in academia in a university position.

JL: What kind of research will you be working on in your academic career?

HL: Basic research on the biology of aging using mice model system, especially focusing on the effects of tissue

regeneration/maintenance and organ homeostasis on organismal aging.

JL: How has your mentor influenced your success?

HL: My mentor was very influential and supportive of me. Without his mentoring, support, and help, I could not have achieved these. I am so lucky to have him.

JL: What advice would you give to fellows trying to obtain similar successes?

HL: Working hard is a must – to have anything you have to work hard. But you also have to be enthusiastic about what you are doing. It helps to have a good mentor and keep a good relationship. All of this will help with future success. I can't say it enough - Keep positive and pursue your interests!

JL: Any other comments you would like to make?

HL: Dr. Geller and the Office of Education has been so helpful in helping to write a grant – giving me the opportunity to be trained. Without his training I might not have achieved such a high scoring grant. I really appreciate it!



JL: What other activities have you done at NIH that you think has enhanced your future success?

HL: I think definitely being a part of the Fellows Advisory Committee has been good training for my future goal as a university faculty member. It allows me to be a part of a group and lead small initiatives. I would encourage anyone to be a part of it.

Hongjun lives with his wife and two sons in Rockville, Maryland. He is currently a representative of the Fellows Advisory Committee and one of the nicest people you will ever meet. Way to go Hongjun!

New NHLBI Fellows



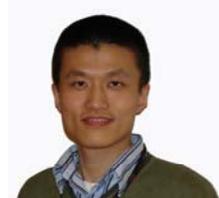
Cheng Cui, Ph.D. is a new fellow in the Laboratory of Developmental Biology under the mentorship of Dr. Cecilia Lo. He received his Ph.D. in Physics from Indiana University and is originally from the PR of China. Dr. Cui will be working on an expression of MEGF8 while at the NHLBI.



Verl Siththanandan, Ph.D. is a new fellow in the Laboratory of Molecular Physiology under the mentorship of Dr. James Sellers. He received his Ph.D. in Biophysics from the Imperial College of London. Dr. Siththanandan will be working on Myosin VII characterization while at the NHLBI.



Shoko Iwaki, Ph.D. is a new fellow in the Laboratory of Molecular Imaging under the mentorship of Dr. Michael Beaven. She received her Ph.D. in Medical Sciences from Ehime University in Ehime Japan. While at the NHLBI, Dr. Iwaki will be investigating the role of sphingosine kinase in mast cell signaling.



Xianmin Zhu, Ph.D. is a research fellow in the laboratory of developmental systems biology under the mentorship of Dr. Alan Michelson. He received his Ph.D. in biology from Drexel University in Philadelphia, PA and is originally from the People's Republic of China. While at the NHLBI he will be working on validation of the cis regulatory modules for the novel genes involved in embryonic heart development.

Recent Publications by NHLBI Fellows

Aune, C. N., Chatterjee, B., Zhao, X. Q., Francis, R., Bracero, L., Yu, Q., Rosenthal, J., Leatherbury, L., & Lo, C. W. (2008). Mouse model of heterotaxy with single ventricle spectrum of cardiac anomalies. *Pediatr Res* 63.

Cuddapah, S., Cui, K., & Zhao, K. (2008). Transcriptional enhancer factor 1 (TEF-1/TEAD1) mediates activation of IFITM3 gene by BRG1. *FEBS Lett.* 582, 391-397.

Feng, X., Kajigaya, S., Solomou, E. E., Keyvanfar, K., Xu, X., Raghavachari, N., Munson, P. J., Herndon, T. M., Chen, J., & Young, N. S. (2008). Rabbit ATG but not horse ATG promotes expansion of functional CD4+CD25highFOXP3+ regulatory T cells in vitro. *Blood*.

Gharib, A. M., Elagha, A., & Pettigrew, R. I. (2008). Cardiac magnetic resonance at high field: promises and problems. *Curr. Probl. Diagn. Radiol.* 37, 49-56.

Ledesma-Carbayo, M. J., Derbyshire, J. A., Sampath, S., Santos, A., Desco, M., & McVeigh, E. R. (2008). Unsupervised estimation of myocardial displacement from tagged MR sequences using nonrigid registration. *Magn Reson Med* 59.

Rezvani, K., Yong, A. S. M., Mielke, S., Savani, B. N., Musse, L., Superata, J., Jafarpour, B., Boss, C., & Barrett, A. J. (2008). Leukemia-associated antigen-specific T-cell responses following combined PR1 and WT1 peptide vaccination in patients with myeloid malignancies. *Blood* 111.

Schones, D. E. & Zhao, K. (2008). Genome-wide approaches to studying chromatin modifications. *Nat. Rev. Genet.* 9, 179-191.

Schwartz, D. R. & Sack, M. N. (2008). Targeting the mitochondria to augment myocardial protection. *Curr. Opin. Pharmacol.*

Takahashi, Y., Harashima, N., Kajigaya, S., Yokoyama, H., Cherkasova, E., McCoy, J. P., Hanada, K. I., Mena, O., Kurlander, R., Abdul, T., Srinivasan, R., Lundqvist, A., Malinzak, E., Geller, N., Lerman, M. I., & Childs, R. W. (2008). Regression of human kidney cancer following allogeneic stem cell transplantation is associated with recognition of an HERV-E antigen by T cells. *J. Clin. Invest.*

Wen, H., Marsolo, K. A., Bennett, E. E., Kuten, K. S., Lewis, R. P., Lipps, D. B., Epstein, N. D., Plehn, J. F., & Croisille, P. (2008). Adaptive postprocessing techniques for myocardial tissue tracking with displacement-encoded MR imaging. *Radiology* 246.

Zanella, A., Cressoni, M., Epp, M., Stylianou, M., & Kolobow, T. (2008). A double-layer tracheal tube cuff designed to prevent leakage: a bench-top study. *Intensive Care Med.*

Jessica's Corner

Jess's Skiing Adventure Take 2

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