

The NICHD Connection

August 2010

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Advice from the 2010 Mentors of the Year

By Andrew Evans

A vital aspect of the NIH mission is to foster scientific development at all levels: undergraduate, postbaccalaureate, graduate, postdoctoral, and beyond. The success of this mission depends greatly on excellent mentoring, and as postdoctoral fellows we should strive to improve our mentoring skills as well as the relationship we have with our own mentors. So what *are* the qualities of a good mentor, and how can we as postdocs work to improve our mentoring skill set? To answer these questions, *The NICHD Connection* consulted the 2010 NICHD Postdoctoral and PI Mentors of the Year, Drs. Errett Hobbs and Ramanujan "Manu" Hegde. Dr. Hobbs is a postdoc in the Cell Biology and Metabolism Program, and Dr. Hegde leads the Section on Protein Biogenesis within the same program.

Asked to describe the role of a postdoc as a mentor, Dr. Hobbs stresses that our primary goal should be to encourage scientific growth for the development of "independently operating researchers." We should therefore focus on teaching our mentees how to "think science":

identify problems, ask questions, and formulate testable hypotheses. Along the way we will undoubtedly teach our trainees specific skills and techniques, but should remember that our students may move in a different scientific direction after leaving our laboratories. The role of a PI mentor involves more variety, and Dr. Hegde is quick to point out that this role will vary considerably depending on the mentee's personality, career and life stage, and future goals. Dr. Hegde strives to maintain a wide range of ages and experience in his laboratory, and tailors his mentoring approach to each mentee. Though challenging, he finds this approach useful for lab members and highly rewarding; he particularly enjoys personally mentoring and training the most junior staff and is energized by their enthusiasm. Regardless of career stage, Dr. Hegde says the universal goals of a mentor should be to impart enthusiasm, skills in logic and critical thinking ability, and collegiality.

Drs. Hobbs and Hegde both advocate a close working relationship with mentees. Early on, Dr. Hobbs

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Letter from the Editor

The *NICHD Connection* is excited to bring you a mentorship-focused August issue. We're approaching the final weeks with our summer students, and it may be time to stop and reflect on your summer goals for both you and your mentee. This issue offers advice from our 2010 mentors of the year; a review of the 2010 Summer Mentorship Workshop, information about mentorship resources, and an introduction to our new NICHD basic and clinical fellow representatives—complete with their views on mentorship!

Do you have mentoring stories you'd like to share or

comments about this month's articles? Please send your stories, comments, and suggestions to spindlersr@mail.nih.gov.

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Committee Corner: Mentorship Resources

By Shana Spindler

A useful list of mentoring guidelines and seminars can be found at the Office of Intramural Training & Education website: https://www.training.nih.gov/for_summer_mentors. The NIH Guide to Training and Mentoring, provided via a link on the above-mentioned site, offers a comprehensive outline of mentorship expectations and career planning tips. Other useful material on the site includes *Entering Mentoring, A Seminar to Train a New Generation of Scientists* (Howard Hughes Medical Institute) 2005, *Getting the Most Out of Your Mentoring Relationships: A Handbook for Women in STEM* by Donna J. Dean (Springer) 2009, and *Adviser, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering* (National Academy of Sciences) 1997.

Mentorship workshops provide an important opportunity to enhance mentoring skills—see [Elena Makareeva's article about the latest mentorship](#)

[workshop](#) in this month's newsletter! Workshops can be taken before, after, or in conjunction with mentoring a summer student. Fellow NICHD committee member Jason Riley describes the workshop as a guide "to take summer students for what they are: an experience in teaching and mentoring." Jason was able to utilize the concepts and tools taught during the workshop in his own mentorship experience this summer. "In explaining ideas to them, I learned more about my understanding," explains Jason, "a summer student will ask you the 'stupid' question that actually can be very incisive." He concludes that the workshop gave him "the ability to learn how to make mentoring a summer student a learning experience for my mentoring/teaching skills, and more importantly, how to make their project successful and useful to them and to my research—curiously, this is *not* by trying to make that the goal of the summer project."

August Announcements

2011 RETREAT PLANNING

You are invited to serve on the Steering Committee to plan the May 2011 retreat for fellows and graduate students. Please send a note to **Kristofor Langlais**, Chair of the Steering Committee, to express your interest. The group builds the program for the meeting, invites speakers, reviews abstracts, selects fellow/student presenters, and moderates sessions, among other responsibilities. It's a great opportunity to use your organizational skills and work in a team to plan this spring event!

ARE YOU INTERESTED IN SCIENCE WRITING?

If you are interested in science writing, contributing to *The NICHD Connection* is a great way to generate writing samples for your future. We are currently seeking writers for the newsletter and would love to hear from you! For more information, please contact Shana Spindler at spindlersr@mail.nih.gov.

Meet the new Basic and Clinical Fellow Reps for NICHD

CLINICAL SCIENCE REP: FARIHA KAMRAN, MD

Fariha Kamran graduated from King Edward Medical University in Lahore, Pakistan. She completed three years of pediatric residency at Nassau University Medical Center in Long Island, New York and is now a second-year clinical fellow at the Pediatrics Endocrine program at NIH. She currently works on two projects: elucidation of genetic mechanisms involved in somatic growth using microarray technology (mentored by Jeff Baron, MD) and leptin therapy in pediatric patients with Lipodystrophy (mentored by: Kristina Rother, MD).

Fariha Kamran would like to see the following qualities in a mentor: love for teaching, excellent work ethics, and an ability to place the fellow's interests before the mentor's interests.



BASIC SCIENCE REP: KRISTOFOR LANGLAIS, PHD

Kristofor Langlais received his doctorate in Molecular and Developmental Biology from Oregon Health and Science University in 2005. After three years of teaching high school and undergraduate science in Oregon and Vermont, he arrived at NIH to expand his expertise into the field of epigenetics and to experience the workings of a federal agency. He now seeks to apply his scientific training to a non-bench career that combines science and public policy.

Kristofor Langlais believes a real mentor cares about you personally, and is interested in seeing you succeed in your career and life goals, whatever they are, and whether or not that benefits the mentor. Dr. Langlais believes that if your supervisor isn't readily accessible, or doesn't provide inspiration as well as truly honest and thoughtful guidance, then he or she isn't your mentor and you should seek an actual mentor elsewhere.





The Summer 2010 Mentoring Workshop

By Elena Makareeva

This summer I attended a course on “Mentor Training” conducted by Dr. Lori Conlan, Director of the Office of Postdoctoral Services, and Betsey Wagener, Deputy Director of the Graduate Partnerships Program, Office of Intramural Training and Education (OITE). The course was based on the book “Entering Mentoring, A Seminar to Train a New Generation of Scientists.”

Dr. Conlan began the workshop with a presentation entitled “Summer Interns Are Coming – Are You Ready?” This was followed by eight weekly small-group sessions that were tailored to mentoring summer interns.

During the initial sessions, we reviewed ways to design an achievable, challenging, and meaningful project for a summer intern. We discussed the importance of teaching students to develop analytical and critical thinking skills, perform literature searches, troubleshoot experiments, and last but not least, love science. In particular, the workshop highlighted two key aspects of mentoring a summer student: the importance of effective communication between the fellow and intern and the establishment of clear expectations during the first week of the internship.

Much of the workshop enforced that effective communication, established expectations, and positive role modeling can aid in the most common mentoring challenges: a lack of student understanding, slow progress, and inap-

propriate use of social electronic devices. We discussed different approaches and tools to assess a student’s level of independence and comprehension. A separate session was devoted to the issues that can arise from students’ diverse backgrounds. Specifically, we conferred about how differences in culture, language, gender, age, race, religion, politics, social skills, family situations, and motivation may affect mentor-mentee relationships, and the workshop covered options to deal with such issues.

To solidify the ideas and concepts taught during the workshop, each fellow participated in a series of homework assignments. Fellows were encouraged to write a mentoring philosophy, generate a perfect letter of recommendation, describe a mentee’s project, reflect on the ways to communicate with a mentee, and consider how mentor and mentee differences may affect the mentorship relationship.

The topics discussed during the Mentor Training Workshop are relevant to any mentor-mentee relationship and promote the confidence to handle difficult issues. The most important lesson I learned during the workshop series was to be flexible in my mentoring approaches and to appropriately adjust my mentoring style to the student’s needs. Group discussions were particularly useful: listening and considering other fellows’ opinions—sometimes very different from my own—opened my mind to try new approaches in my own mentoring.



Advice from the 2010 Mentors of the Year (continued from page 1)

works side-by-side with trainees and makes a point of meeting to discuss weekly and daily goals. While this takes significant time away from his own projects, the approach builds trust and confidence for both mentor and mentee. Dr. Hobbs also believes that presentations “early and often” are critical for development of organization and communication skills while encouraging trainees to understand the “broad picture” perspective of their research. Dr. Hegde says that frequent interaction need not mean less independence, adding “it is possible to interact very frequently but still have independence. This in my view leads to a sense of the mentor and mentee working together as a team towards a common goal, rather than as a boss-employee relationship.”

So how should a mentor handle the frequent scientific challenges that arise throughout the course of a research project? For Dr. Hobbs, these challenges are good teaching moments and a large part of scientific growth for the trainee. His approach is to allow the mentee to evaluate the problem, search for easy answers first (missed step in protocol, etc.) and provide advice and encouragement as needed. Dr. Hegde agrees that difficulties are important for development, and encourages trainees by providing plenty of stories and anecdotes of similar situations for reassurance. Adds Dr. Hedge, “Sometimes, the best role I can play is one where I help to prioritize goals and shift the mentee towards more attainable ones.”

Mentoring is not a one-way relationship, and both Drs. Hobbs and Hegde clearly benefit themselves: for Dr. Hobbs, his career goal of leading his own laboratory requires excellent mentoring skills, and he believes that success can in some ways be measured by how well you train, coach, and guide others in your group. Training an inexperienced scientist can also convince you that you *do* have knowledge and wisdom worth passing on. Dr. Hegde finds mentoring to be deeply satisfying in the way it teaches him to see things from unique perspectives, and provides motivation and a personal sense of pride when his mentees are successful. When asked to give advice to first-time mentors, both mentors suggested assimilating positive aspects from current and previous mentors to form one’s own unique mentoring philosophy.

A final piece of advice from each 2010 NICHD Mentor of the Year?

Dr. Hobbs: “In order to be a successful mentor you have to *enjoy* mentoring, and be able to gain insight from those times when things aren’t going well. Be patient and empathize—remember that you also started with no knowledge.”

Dr. Hegde: “Try very hard to think about when you were in the same situation, and what you did and didn’t like about it. Work to cultivate enthusiasm first and worry about concrete, tangible results later. Start modestly and build up in goals and complexity, and remember to be appropriately enthusiastic about initial successes, keeping in mind that at early stages in one’s training, all successes can be exciting. Of course, patience is paramount.”

