YoUR Postdoc Press

UR Postdoctoral Association (PDA)
URMC Office for Graduate Education and Postdoctoral Affairs (GEPA)

Get Involved with yoUR PDA

Who We Are?

URMC PDA was founded and established in 2006 by enterprising and enthusiastic postdocs. As a dynamic organization, and working closely with the office of Graduate Education and Postdoctoral Affairs (GEPA), yoUR PDA strives to enhance postdoctoral experience at the University of Rochester. Our activities, workshops and events are designed to bridge the gap and fill in niches of postdoctoral work and life.

What we do?

All activities of the postdoctoral assembly are overseen by the Executive Board consisting of a Chair, Vice Chair, Secretary, and a Treasurer. The PDA has four working committees with dedicated members that plan, and organize a variety of events for the URMC postdoc community: career development, communication, international and social.

The PDA board along with its members and GEPA staff meet once a month.

Accomplishment and Activities 2011-2012 (pictures on page 3)

In response to the NIH’s request for opinions on the “Future of the Biomedical Workforce”, the PDA board drafted a letter outlining ways to improve the postdoctoral experience. We presented our ideas to the Medical School Advisory Council as well. We are pleased to announce the formation of a Working Group on Postdoctoral Affairs which is currently addressing the issues of postdoc stipend minimums and the formation of a Staff Scientist position at the University of Rochester.

♦ Postdoc Appreciation Week Poster Session
♦ Talks on “Academics, industry and consulting” by Dr. Bob Sutherland (UR Alumni) and “How to market your science and yourselves” by Dr. Burns Blaxall
♦ Webinar by Lisa Marshall on “Ten tips for better scientific presentation”
♦ A seminar for the graduate students from the PDA on “How to prepare for a postdoc career”
♦ A workshop “Preparing academic scientists for careers in industry” by Dr. Randall Ribaudo (Human Workflows LLC, SciPhD)
♦ A seminar on “Path to permanent resident” by Immigration Attorney Ms. Margaret Catillaz and our ISO representative Ms. Kathleen Strout
♦ Tax workshop for international students and scholars
♦ Annual summer picnic kick off with BBQ and burgers, bocce ball and Frisbee
♦ Coffee hour: your morning fix!
♦ A warm reception to recognize your support to the PDA and all your hard work.
♦ Creating that holiday spirit with a winter social
♦ Luck O’ Irish with St. Patrick’s treats
♦ Spring fever happy hour to round it all off

Come join us to make a difference

Be involved at the U of R beyond the bench!
Improve your networking by interacting and collaborating with peers, top-level scientists, and university administrators.
Build your management, leadership, and communications skills—a selling point for your next job search.
Learn about planning and organizing meetings, seminars and other events of your interests while educating other postdocs.
Spend an hour helping with setup/tear down, help organize a single event, or better yet join the board!

Please visit our online version of this newsletter @ www.postdocs.urmc.edu
Dean Taubman came to the University of Rochester almost nine years ago as the Chief of Cardiology, but his stay in Rochester is not his longest yet. He spent thirteen years at the Mount Sinai Hospital in NYC, and eleven years at the Brigham and Women’s Hospital in Boston, Massachusetts. In 2009, when Dr. Bradford Berk (CEO of the University of Rochester Medical Center) was injured, Dr. Taubman became the acting CEO and 9 months later, after Dr. Berk’s return, he was named Dean of the School of Medicine and Dentistry. As a kid, Dr. Taubman loved science and particularly the heart; he wanted to be a heart surgeon. A defining experience in his life as he recalled, was his first lab course in research during college. He worked in the lab of Dr. James Darnell, chairman of the department of Biology at Columbia University. His project was to isolate sindbis virus RNA on sucrose gradients, with no fancy tools and no understanding of the ubiquitous nature of RNAses. Of course those experiments did not work, but what he really enjoyed was the scientific environment and the hands-on experience in the lab. This is when he knew he wanted to be a physician scientist. “Research is strategic planning...you keep applying new things and every time there is a result, you get to rethink what you are doing” – it is a reinvention process! Dr. Taubman, even when juggling five roles just in the Dean’s Office besides many others, makes time for science. His laboratory’s research (at the Aab Cardiovascular Research Institute) is focused on the role of vascular smooth muscle cells in regulating inflammation and thrombosis in the arterial wall.

Q: What can post-docs do to make sure they succeed in their career and what sets them apart from their competition?

“It’s always been the ones who are thinking creatively who succeed as independent investigators. There is one mode in which you are doing experiments in a cookbook fashion one at a time, and another mode in which you really have the understanding to design a more long-term research program. Most labs are relatively narrow in their scope and use a limited number of procedures and approaches. What you are going to be asked as an independent investigator is to do something special, and something that is different. So you have to think about what can you bring to the project from as many angles as possible. I still remember a day in my own career development when I got a result, and for the first time I really saw the next year of experiments, and I knew where this was leading.” In order to be creative one needs to do a lot of reading, importantly making the time commitment to read. “If you are doing a lot of experiments, it means you are reading on the weekends, you are reading at night. To me, that’s the difference between somebody who is going to be more technical than somebody who is going to be independent.”

Next, he added, “find several mentors. The person running the lab may be comfortable acting as a mentor, or maybe not [read below his thoughts on mentoring vs. running a lab]. Going to seminars and talking to other scientists allows one to identify a group of people who can provide advice. Try to find at least one person who is actually more removed from your lab.” Dean Taubman points out “There is an irony that post-docs who need the most advice are often the shyest about actually getting it from senior people, whereas those who are senior investigators readily get advice from the most senior people. This is partly because academia is a hierarchical system, and the most junior people often don’t want to bother people of higher rank. It is especially important as post-docs to get advice from senior people when you are writing a grant. Start writing the grant early, so that people have plenty of time to read it and you have plenty of time to make adjustments. Find some people outside of the lab to read the grant; the advantage of doing this is that lab members are so invested in the project that they can possess a ‘shared delusion.’ You want somebody who is not so invested in the work, who can be honest about your science. It is also important to solicit opinions from scientists who are on study sections and who have the most current knowledge about what constitutes a strong proposal.”

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1 The Mentor is a character in Homer’s epic poem The Odyssey. When Odysseus, King of Ithaca went to fight in the Trojan War, he entrusted the care of his kingdom to Mentor. Mentor served as the teacher and overseer of Odysseus’ son, Telemachus.
At The Helm: A Laboratory Navigator (Kathy Barker)

Kathy Barker provides a guide for newly appointed Principal Research Investigators on how to lead a research team. She also discusses a wide range of management challenges and the skills that promote success with quotes and real-life examples.

Alternative Careers in Science: Leaving the Ivory Tower (Cynthia Robbins-Roth)

This book, *Illustrates a typical day's scenario, * Explains what career opportunities stem from a position, * Describes the basic job, qualifications, responsibilities, and expectations, * Covers how long to expect to be in a training phase, * Shows existing steps in the promotion ladder and salary ranges, * Presents a different career track in each chapter, * Allows scientists to compare career opportunities.

Q: Who exactly is a mentor and what are some of the qualities in a mentor?

“One of the things I always point out is that there is a big difference between running a lab and being a mentor. There are people who can run a lab very well and train people to be superb scientists, but who are not always good mentors. As a mentor, you have to be able to put your own interests aside and think of your mentees' career trajectory. True mentorship is having the bigger picture and thinking about what ones mentees want from life and what I need to do to help them get there.” The Dean adds that one should not just rely on the mentor. “…post-docs should always have a view of their own career path. The big issue for post-docs is to really come to grips with what they want to do for a career and have a real understanding of what that entails. [Ask yourselves] What is my trajectory? I am going to do a post-doc for how long? Then, what do I need to do to get to the next step? What kind of funding, grants, and publication do I need? Do I stay in academia; do I want to go into industry? There are a lot of options. But I think it is not sufficient to just go with the flow and let things advance passively. Particularly these days, you have to make things happen. The clearer your vision is of where you want to be and how you get there, the easier it is to understand whether you are on track or not.”

Q: Comments on post-doc experience at the University of Rochester

The University of Rochester is continually making strides in education and training and is currently developing a new educational strategic plan. Dr. Taubman says that post-doctoral education is not integrated the way other educational experiences are. “Your life as a post-doc tends to be very isolated and it depends tremendously on the environment of your lab. Yet it is at this stage of your career that it is most important to interact with as many scientists as possible. In particular, interacting with other post-docs is an important way to get new ideas and learn of new scientific techniques. We need an educational approach that allows greater exchange of ideas and greater interaction among post-docs and among laboratories.” Another hallmark of the educational strategic plan, the Dean says, is the need to educate and equip everybody (trainees at all levels) with the tools necessary to be competitive in a shifting research environment. For example, there is increasing emphasis from funding sources that projects have a translational research component. He adds, “we need to make sure that our young scientists, particularly those trained in mechanistic basic science labs, have the necessary training and exposure to adapt to the changing funding environment and to incorporate translational components into their research programs.”

Further, with science getting even more complicated, there is increasing emphasis on multiple PI grants. In the future, success in securing funding may be based upon the ability to create multi-investigator teams. The Dean feels that it is important that our education of post-docs includes teams building.

Fun facts!

**Passion:** Music. He likes art in general, and visits the Metropolitan Opera twelve times a year. In his spare time it's almost all music. His hobby is high-end audio. Another passion of his is baseball - did I grab the attention of New York Yankee fans out there? So when he is not listening to music, he obviously tunes to the sports radio station especially during his drive to/ from work and his lab at the Aab CVRI.

**First choice for an alternate career:** Orchestra conductor.
The University of Rochester has joined a national effort to develop a new generation of college-level science and engineering faculty.

**The Center for the Integration of Research, Teaching, & Learning (CIRTL),** which began in 2003 with a handful of universities, was recently expanded to include 25 of the nation’s top educational institutions.

Supported by the National Science Foundation (NSF), and headquartered at the University of Wisconsin-Madison, CIRTL’s mission is to improve the teaching of science, technology, engineering and mathematics at colleges across the country. The core idea is simple: we can improve undergraduate teaching tomorrow, by equipping tomorrow’s faculty today. In other words, by equipping the next generation of faculty to teach while they’re still graduate students and postdoctoral fellows.

 Unlike many 'how to teach' courses, CIRTL’s approach is pointedly scientific. “CIRTL approaches teaching in the same way educators approach research”, says Wendi Heinzelman, Dean of Graduate Studies in Arts, Sciences and Engineering at the University of Rochester. "It comes down to solving problems."

A confounding principle to improve one’s teaching boils down to the key question, “What have my students learned?” That question, says Robert Mathieu, a University of Wisconsin-Madison professor of astronomy and co-founder of the Center, can be addressed in each classroom by the experimental concepts familiar to scientists: hypothesis generation, experiment, observation, analysis and improvement. Mathieu calls it “teaching-as-research.”

Rochester’s graduate students and postdoctoral fellows now have access to not only Rochester’s provisions, but to the contributions of all twenty-five CIRTL members, a menu slated to grow rapidly over the coming year.

Activity began this past term, with two ‘Coffee Hours’ — moderated panel discussions — considering non-teaching careers in academia, and maintaining a good work-life balance, and also a ‘CIRTLCast’ lecture on building a teaching portfolio for academic job applications.

CIRTL activities are delivered on-line through an interactive web interface, allowing access to resources from all twenty-five member institutions. You can attend via your own computer, submitting questions through the on-line chat interface. You can also join others on the River Campus at a larger screen, with an optional de-briefing immediately afterward.

A concrete benefit of CIRTL participation is the possibility of certification: CIRTL recognizes three levels of engagement, from initial awareness up to teaching-based research. A system to monitor and attest to engagement levels is currently in development.

The Rochester CIRTL program is housed in the Arts, Sciences and Engineering Center for Excellence in Teaching and Learning (CETL), which promotes educational excellence through a range of programs for faculty, graduate students, and undergraduate students.

To find out more, head to [www.rochester.edu/college/cetl/cirtl](http://www.rochester.edu/college/cetl/cirtl)
Late November of last year, I found myself in the passenger seat of a car traveling the tranquil nighttime Tanzanian countryside. As I looked at the dim lights off in the distance on an otherwise dark background, I found myself wondering what might be going on out there, what the people might be doing. The next thing I knew, I felt the car swerve and I was staring at a different set of lights – the very bright headlights of an oncoming car. I thought to myself, “What have I gotten myself into?” The answer: Welcome to Global Health.

Obviously, I survived to tell the tale. Now, while the rest of my two-week trip to East Africa wasn’t as harrowing, it certainly had its challenges. I was out of my comfort zone, I didn’t have all the laboratory amenities I was used to, and the electricity could be a little spotty. I still loved every minute of it. I had to remember that my purpose there was to help build laboratory capacity. To that end, during that trip I trained and worked with local Tanzanians on enteropathogen-targeted molecular diagnostics that I had developed in the United States. As a valuable bonus, I learned important differences about how laboratories operate in the developed and the developing world. One of the best parts about global health positions, like mine, is the opportunity to interact and work with people from all over the world – I have interacted with people from England, Scotland, South Africa, Kenya, the Gambia, Bangladesh, Pakistan, and Thailand.

I have worked at the University of Virginia Health System for a little over a year now. Prior to this position, my first postdoctoral position was at Wadsworth Center/New York State Department of Health (Albany, NY), where I developed influenza-targeted molecular diagnostics and served as Principal Investigator for a pilot epidemiology project studying anti-influenza prophylaxis strategies in long-term care facilities. What I’ve loved about these postdoctoral positions is that it has let me use skills gained from working toward my PhD and my Masters in Public Health – both of which were earned at the University of Rochester.

Since having made the transition from basic science to applied science, many have asked me about the differences between the two environments. The differences are less than you might think. Despite being an applied scientist, I work in an academic environment. In fact, I still interact with basic science researchers all the time, and still perform literature searches to enhance my own work. While I’m learning new lab techniques and technologies, I’m using the same analytical mindset and critical thinking skills that I used when performing basic science. Then, what is the biggest change/difference? The results of my work are much less abstract. Whereas my results in basic science could have multiple interpretations depending on other data, my results in applied science are much more straightforward. When I perform tests on real clinical samples, the data can tell me something concrete about that patient’s disease state.

In addition to my molecular diagnostics position, I serve as the current Chair of Outreach for the National Postdoctoral Association (NPA), of which the University of Rochester is a sustaining member. The NPA’s stated mission is “to improve the postdoctoral experience by enhancing training and the professional environment to benefit scholarship and innovation.” For me, the NPA has been much more than simply a networking opportunity. Involvement with the NPA has given me a chance to be part of a national voice to help improve postdoctoral training. As a member, I’m able to access resources that can help me figure out ways to improve my career outlook, including news on career trends, best practices, and Core Competencies assessments. As a Committee Chair, I get the chance to develop leadership and personnel management skills that I might not otherwise have the chance to if I were only focusing on my laboratory skills.

The opportunities that I’ve taken advantage of as a postdoc have come to me both because I was in the right place at the right time, and because I’ve gone after them. When giving a course on laboratory management in 2002, Dr. Thomas Cech, the HHMI President at the time, said of obtaining a faculty position, “All of a sudden you have all of this freedom to turn when you want to turn or to go straight when you want to go straight.” He also said, "On the other hand, you have to pay for the gas, and you've got some responsibility." The same applies to your career as a postdoc. You've got a little more freedom in your work versus when you were a graduate student. You're doing work that is (hopefully) of real interest to you. But, at the same time, you need to take control of where your career is going.

I’d like to leave you with what I hope are a few helpful lessons to take away from my experience.

“...basic science could have multiple interpretations depending on other data, my results in applied science are much more straightforward. When I perform tests on real clinical samples, the data can tell me something concrete about that patient’s disease state.”

The former is motivated by curiosity, and the latter is designed to answer specific questions...Continued on Page 7
LATA BALAKRISHNAN  
Dept of Biochemistry & Biophysics

**Publications**
- Gloor, J.W., **Balakrishnan, L.**, et al. Biochemical Analyses Indicate that Binding and Cleavage Specificities Define the Ordered Processing of Human Okazaki Fragments by Dna2 and FEN1, Nucleic Acids Research, May 7. [Epub ahead of print]

**Travel Award**
- Post Doctoral Travel Award ($1000) for Experimental Biology Meeting, San Diego, CA, from the American Society of Biochemistry and Molecular Biology (ASBMB), April 2012

**Award**
- NIH Pathway to Independence Award (K99/R00, 2012-2017) NIH/NIGMS. Regulating Pathways and Fidelity of DNA Replication and Repair by Acetylation. Role: Principal Investigator.

SAMANTHA ENGLAND  
Ctr for Pediatric Biomedical Research

**Award**
- New York Stem Cell Foundation Druckenmiller Fellowship.

CHAD GALLOWAY  
Dept of Anesthesiology

**Publication**
- **Galloway, C.A.**, et al. Transgenic control of mitochondrial fission induces mitochondrial uncoupling and relieves diabetic oxidative stress. *Diabetes*
- **Galloway, C.A.** and Yoon, Y. 2012. Mitochondrial Morphology in Metabolic Diseases. *ARS*

FERNANDO ONTIVEROS  
Dept of Microbiology & Immunology

**New Job**
- Assistant Professor at St. John Fisher College, Biology Dept. Fall 2012

BETHANNY PLAKKE  
Dept of Neurobiology and Anatomy

**Award**
- The Schmitt Program on Integrative Brain Research.

MAX POPP  
Dept of Biochemistry & Biophysics

**Award**
- HHMI Fellowship of the Damon Runyon Cancer Research Foundation

ISSAC K. SUNDAR  
EHS Toxicology Training Program

**Publication**
- **Sundar IK**, Rahman I. Vitamin D and susceptibility of chronic lung diseases: role of epigenetics. *Front Pharmacol* (Review)
Postdoc Accomplishments 2011...continued

MASAHIRO TAKEYAMA
Dept of Biochemistry and Biophysics

Publication
♦ Takeyama, M et al. Factor VIII light chain contains a binding site for factor X that contributes to the catalytic efficiency of factor Xase. Biochemistry

EDWIN TAN
Dept Electrical Engineering

Honor
♦ Was part of the University’s Carillon Society which plays music each Thursday on the carillon bells high above Eastman Quadrangle in Rush Rhees Library to mark “A Season for Nonviolence” and honor the legacy of Mohandas Gandhi and Martin Luther King Jr.
Watch <http://www.youtube.com/watch?v=96-s45c97SO>

Career: From Basic Science to Applied Science...continued
Darwin Operario, Assistant Professor

Lesson 1: “To thine own self be true”. Find your personal truth, and reassess it often.

Toward the end of my career at the University of Rochester, performing my science, and basic science in general, weren’t making me happy - realizing this was indeed scary. Actually admitting it to myself was tough. I hadn’t lost any love for science, but I needed to find a new career path. Point being: every so often (not only on bad experiment days) ask yourself if the career path you are pursuing is still the right one for you. If the answer is yes, then by all means move ahead with as much effort as you can muster. If the answer is no, you need to figure out why and what needs to change. I’m not suggesting that a drastic change in career path is the automatic answer. What I am definitely saying is that you should do what is necessary to be happy with what you do. Not being happy leads to a lack of productivity, and that’s not good for you, your work, or your postdoctoral advisor.

Lesson 2: You aren’t just your bench skills/ Don’t be just your bench skills

One comment I hear a lot from grad students and postdocs alike is, “I don’t know anything. I only know X technique”. Not true. As a scientist, you know how to do literature searches and how to use literature databases to get the information you need. You know how to plan and execute a well-controlled experiment. You know how to look at data critically and figure out if it makes sense in the context of previous data and hypotheses.

If you want to assess your skills, get a look at the NPA Core Competencies toolkit. This document helps individuals to evaluate themselves in 6 different categories and gives guidance on how to develop new skills to enhance ones you already have. Developing leadership, personnel management, communications, and other non-laboratory skills are necessary to your future success.

Lesson 3: You never know from where your next job offer will come.

Whether or not you are currently on the job hunt, you should always be prepared to talk about your work. I got my current job because my boss was a guest speaker at my last institution and I was lucky enough to attend lunch with him. I’ve had a Professor come up to me immediately after a presentation and offer me a position. If you haven’t developed an “elevator talk” yet, do so immediately. Those 30 seconds to one minute you might have with someone to whom you’ve just been introduced could mean the difference between that person forgetting you ten minutes later and that person telling you, “I’m writing a grant and I’d like to keep you in mind for a position.” Not only that, but you should have multiple elevator talks prepared: one for a layperson and one geared toward an expert in your field.

1 “Moving Up the Academic Ladder” Science Careers

Contact Darwin Operario @ Darwin.Operario@virginia.edu

Suggestions for our newsletter? Send your feedback to the PDA Communications Committee @ Ashley_Whipple@urmc.rochester.edu

We are looking for creative authors! Submit your article, creative writing, pictures, cartoons...Don’t miss out on increasing your visibility among your colleagues! Submit entries to Ashley_Whipple@urmc.rochester.edu
With the current economic downturn and a bleak funding scenario, working towards a postdoctoral grant fellowship can be a daunting process. This path is further complicated for international postdocs who compete for the extremely limited number of funds available for non-US nationals. However, every so often we come across a shining example - they survive and win against all odds, and show there is light at the end of the tunnel after all!

Meet Dr. Lata Balakrishnan, Postdoctoral Research Associate in the lab of Dr. Bob Bambara, currently in the department of Microbiology. Dr. Balakrishnan was recently awarded the coveted K99/R00 grant, also known as the NIH Pathway to Independence Award. This award provides 1-2 years of mentored support for highly promising, postdoctoral research scientists followed by up to 3 years of independent support contingent on securing an independent research position. Aside from being a moment of pride for the postdoctoral community, it is a matter of prestige for our institution since, this is only the second time in the history of the University of Rochester that a K99/R00 grant has been awarded for basic science research. A few weeks ago, I sat down with Lata to understand what it took to achieve her goal.

Q: **Give us a brief description about your project that was funded.**

My project focuses on understanding the functional alterations that occur to DNA replication and repair associated proteins when they are post-translationally modified by acetylation. We believe acetylation to be a regulatory process that modulates the enzymatic activities of the proteins associated with DNA transactions allowing for higher fidelity duplication of the nuclear DNA, thereby improving genome stability. Understanding these processes is important because the errors that build up on the genome over decades in humans are a direct cause of aging and the onset of age-related diseases.

Q: **In your opinion, is the field of research important while applying for this grant?**

The main reason for NIH instituting the K99 award is to make sure that postdocs spend less time in their training period and move quickly towards an independent position. The award ensures that you have the funds available to train yourself in what you believe is lacking in your scientific repertoire and to help kick start your own independent research. In line with this thought, I don’t believe that NIH only funds specific areas of research, so if you have a good research proposal and you can make a strong case of why you are an ideal candidate for the NIH to invest money to train you further; you have a good chance of being competitive for this grant.

Q: **What tips do you have for fellow researchers who are planning on applying for this funding?**

- Start the grant application process by the end of two years of postdoctoral training.
- This is not an application that you can put together in a couple of weeks. Every document that goes along with the main scientific proposal is equally important. I spent a lot of time writing and revising my Research Proposal, Career Development Statement, and Mentor Statements.
- Allow others to critique your writing. Have an almost final draft a couple of weeks before the grant deadline, so that you have ample time to revise the document.
- Make a strong case for why you need additional training in your postdoc career. Don’t think of this grant as just a means to secure funding to land in an academic faculty position.
- While a CNS (Cell, Nature, Science) publication is neither a pre-requisite nor considered competitive for this grant, a consistent track record of publication will surely help.
- Call the Program Officer for the K99 grant in the agency that you plan to apply to. The POs are generally willing to offer advice and help with the grant application process.
- Ask for your letters of support (minimum of three required) ahead of time. It generally helps having an expert in your field write the letter, rather than your collaborator or someone else who has a vested interest in you receiving the grant.

Q: **As an international postdoc, was it more difficult to achieve this goal?**

Unlike most K awards, the K99/R00 permits non-US citizen/ permanent residents (including J-1, H-1B/TN visas). This definitely increases your competition in the applicant pool. But other than that, I don’t think being an international postdoc made it any easier or difficult to achieve this goal.

Q: **What was your visa status when you applied for the grant?**

I was on an H1B visa when I applied for the grant. I am currently working towards obtaining my permanent residence in the US.

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Technology Transfer: Turning Innovation into Commercialization
Matan Rapaport

Let me first confess that unlike many in our profession, after just a few months of grad school I already knew I wasn’t going to be a Principal Investigator (PI) in an academic institution. But my passion for translational biomedical projects remained from the first day of college. I received a Biomedical Sciences degree from the Hebrew University’s Medical School and then continued on to do my PhD. My thesis project focused on developing an enzyme replacement therapy to treat mitochondrial diseases. I had a great plan for my future career – the minute I had my thesis approved I would be a Research and Design (R&D) scientist in a therapeutic company, climb up the ladder to a managerial position, and reach the goal as chief scientist or chief technology officer. Well, it was a good plan! As graduation day came closer, many of my colleagues who were looking to utilize their highly skilled hands at R&D positions ended up settling for jobs as entry-level scientists or Quality control technicians. The best R&D positions were reserved for returning postdocs. So, while I did not consider an academic career I decided to pursue postdoctoral training in the United States, a chance for me to also build my experience and skills.

Keeping my desired industry-oriented career track in mind, I chose a lab where the PI was just forming a start-up company. Conducting research in his lab exposed me to industry R&D project goals and a “new way of thinking” (which usually differs from pure academic basic research goals). I was exposed more to the business side of the biotech start-up world and I liked it. I was still working at the bench, but I knew I would have to keep practicing lab work for just a few more years before moving to managerial positions. So after almost two years as a postdoc I felt it was time to look for jobs in the industry. Landing a good biomedical R&D position in Rochester (could not plan relocation due to family restrictions) wasn’t all that easy. In the end, with a few connections, networking my way around town, and a few interviews, I received an offer from a start-up company to be part of their R&D team. At the same time, I found out about an open position at the Medical Center’s Office of Technology Transfer as a Biomedical Licensing Associate. I had heard of technology transfer as a grad student but only after some more googling did I realize the field’s breadth, and I was very surprised! Tech transfer is great for those of us who want to stay on the cutting edge of scientific work but do not want to be the ones practicing it. How perfect is that? Well, for me it was, and ever since (more than a year ago now) I have discovered many more advantages.

So what is tech transfer? Generally speaking, in the academic sector, tech transfer is the process of new technologies commercialization — bringing technologies to the marketplace as developed products. It helps move discoveries forward for the public good. A very exciting and rewarding career! As a Licensing Associate I play three major roles – I am a scientist, a patent attorney, and a business development person. So I need to speak each of their languages (which are very different, by the way). Scientifically, I am exposed to loads of great research projects from all areas of science. I am not restricted to one very narrow field, and I get to see the “big picture”. I am constantly gaining knowledge in biomedical fields new to me. In addition, I am deeply involved with patent applications and prosecutions (dealing with intellectual property).

On the business side of things, I am involved with marketing, and negotiating license agreements with companies. I correspond with government agencies, entrepreneurs, companies, other Universities, etc. Every day I am challenged with new and exciting tasks, so I am never bored. “A day in the life of a licensing associate” (http://bit.ly/tPdoe7) posted on our office’s blog is a good read. I would encourage you to keep an open mind – a scientist can do great things, even if not on the bench!

Contact Matan @ matan_rapopoport@urmc.rochester.edu
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Technology Transfer
♦ Working at the interface of science and business helps move discoveries forward for the public good!
♦ It is a career for multitaskers.
♦ Each day in the office brings new challenges.

Want to learn more about Tech Transfer?
♦ Check out the Tech Transfer Office web site
♦ Follow our very active social media platforms: LinkedIn, Twitter, and Facebook
♦ Scroll our weekly blog where we discuss issues related to tech transfer, commercialization, and entrepreneurship.
♦ Attend the F.I.R.E series organized every month. Details can be found at our website or through David Englert. Next event is in Sept. of 2012.
**Career Perspective from a K99 Awardee...Continued**

**Sonia D’Silva**

**Q: What presented the biggest challenge while working on the grant?**

I definitely underestimated the amount of time it would take to put together this application. I was fortunate to have my mentor Dr. Robert Bambara support me throughout this process; he let me take time out of bench work to write the application. When I turned in my first application, I did not give importance to supporting documents such as the Career Development Section or the Mentor Statements as I did for the Research Strategy. I was critiqued for not having a strong training plan in my mentored phase during my first review, which resulted in receiving a score that was not fundable. I had to rewrite the application taking into consideration the concerns of the reviewers and the second time around; I think I made a good case for why I required additional training. However, between submission, resubmission and getting the final word on getting awarded this grant, it took a total of 18 months!!!

**Q: How much funding does this grant provide?**

I was funded through NIGMS, $90,000/year – during the mentored phase (for a total of two years) and $250,000/year - during the independent phase (for a total of three years). Some institutes such as NCI fund at a much higher level during the mentored phase.

**Q: How is this grant likely to impact your career plan?**

A career in academia has always been my goal since the beginning of my graduate education. Being funded with the career development grant eliminates a lot of the stress associated with finding a job in the current funding climate and allows me to focus on pursing a faculty position in the right academic environment. The comfort of being funded in the first three years of the faculty position will also allow me to focus on obtaining preliminary data for the projects that will form the foundation of my academic career instead of writing grant applications in the initial years.

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**Many of you might still have questions for Lata. Email lata_balakrishnan@urmc.rochester.edu to get in touch with her.**

**Also, look out for a K99/R00 workshop coming up in early Fall 2012.**