Resolutions for a Successful Postdoc Career

Adapted from Postdoc Training Kerstin Fritsches

It’s a New Year, and that time again to roll out the resolutions, like living in the moment, exercising more, being grateful, and so on. Beyond personal resolutions, it’s also a great time to think of some business resolutions, pertaining to our career success. It is well worth doing some ‘big picture’ planning at least once a year and now is the perfect time.

Step 1. Celebrate your 2012 achievements

Rather than making an agenda for all of 2013, how about a little celebration! We rarely take the time to pat ourselves on the back for a job well done.

♦ List all the things you achieved in 2012. “Life is what happens when you are not paying attention.” So think beyond work achievements, include your personal also.

♦ Highlight the achievements that you are most proud of, not the big-ticket items like loads of publications. Think of an achievement like getting a difficult technique going by yourself.

♦ Celebrating is always more fun with others than on your own! Share with a friend or your family.

By identifying your proudest achievements you get a better idea of what really motivates you in your current career. This is essential for the next step.

Step 2. Decide your mid-term goal (2-5 years)

This next step sometimes can provoke some resistance: “How do I know where I am going to be in 2-5 years?” Postdoc is a temporary position and you may face a forced decision point in this timeframe to find your next contract. Win your own fellowship or transition into a permanent academic (or other) position.

If you do not have a clear picture, take some time to decide what you want your next step to be. Identify what career options are ‘out there’ and whether they suit your strengths and preferences.

Step 3. Planning 2013 (and beyond)

The key to creating a great plan of attack that produces results is to work out exactly what you need to achieve and then work backwards from the date you need to achieve these goals by. Here are some examples:

♦ You plan for a second postdoc position in 2014 and have shortlisted several great labs.

To establish the necessary networks you have decided to attend conferences this year. This will be your chance to meet the right people and get your work known more broadly.

* Work backwards and plan your oral research talk, look out for travel scholarship deadlines, plan ways to get invited for giving talks at the labs you are interested in, and so on.

♦ You want to apply for a fellowship.

Identify what you need to have achieved by then to be competitive. Look at the actual application form for criteria and reach out to recent awardees, or someone on the selection committee. Let’s say, one of the criteria for the application is more publication.

* Work backwards through the estimated time it takes for the manuscripts to be accepted all the way finishing experiments and writing. Prioritize your experiments, set a date for submission and pick the right journal not only by impact but also speed of processing.

♦ You wish to apply for tenure track position or careers in industry by early 2015.

Through your research of the relevant career paths you have found out that you need to demonstrate experience in leading teams.

* Work backwards and actively search for initiatives or service opportunities that provide you with a track record of leadership. For example, join the postdoc association and bring in an idea to initiate and organize a postdoc conference in the Upstate, NY area. Planning some early activities for 2013 could be canvassing support from neighboring schools or universities, setting up an organizing committee, and so on.

Taking some time to plan is hugely valuable and important to your success. Wishing you a prosperous 2013!
We are in Dr. Richard N. Aslin’s Rochester Baby Lab, a research facility in the Department of Brain & Cognitive Sciences that focuses on early human development. Our studies investigate how infants and children think, learn, and make decisions. Working with infants is challenging because they cannot tell us what they are thinking nor respond to simple instructions (e.g. “press a button” or “pay attention”). Instead, we use indirect measures such as observing where and how long they look, their manual behaviors (e.g. reaching for objects), and how their brain responds.

Lauren’s work focuses on how experience supports the development of perceptual abilities including understanding the sounds of our native language and recognizing complex objects like faces. Currently, Lauren’s research employs a neuro-imaging technique called near infrared spectroscopy (NIRS), which uses light to record the same physiological substrate as fMRI (changes in blood oxygenation which are linked to neural activity, see photo below). Unlike fMRI, NIRS records when infants (5-7 months old) are awake and (ideally) learning. Currently, Lauren is comparing cortical responses to repeated vs. variable presentation of visual (faces) and auditory (speech) stimuli and finding that not all perceptual modalities are made (or rather developing) equally.

Rachel uses eye-tracking (measuring looking behavior) and EEG (measuring brain activity) to investigate how infants figure out what to learn, and how they use information they previously learned. For instance, some of her studies have shown that infants learn better from people than on their own or from other cues that may direct their attention, such as a bright flashing light.
In reflecting on how I arrived at my current career, the persistent features throughout were networking and persistence itself. I now work for a small defense contracting company in Arlington, VA as a Science, Engineering, and Technical Advisor (commonly referred to as, SETA). While this is a dream job for me, I did not even know such jobs existed when I was a postdoc. If you will allow me a bit of storytelling, I will give you the brief version of my circuitous tale, to demonstrate the power of networking and persistence.

While working towards my PhD in Boulder, CO, my family relocated to Rochester, NY. Unexcited by leaving with my Master’s degree, I contacted two professors at URMC whose research aligned with my dissertation. Together, we secured a grant, set-up a new laboratory space for my experiments, and I completed my dissertation work in Rochester. To this day, I am extremely grateful to Kerry O’Banion and John Olschowka for the chance they took on me. They gave me the opportunity I needed to finish my PhD, without which, my career trajectory would have been very different. I continued my research with their labs as a postdoc, but I came to realize that the technical focus of an academic career was not for me. I took a break from my postdoc to complete a short science policy fellowship with the National Academies of Science. When I returned, I had my sights set on science policy.

I applied to a number of policy positions, and even interviewing with a policy office at NIH that seemed perfect, but to no avail. To gain more experience, I applied through two separate routes (double your chances right?) to the AAAS Science and Technology Policy Fellowship. I had positive interviews in both programs, and after the second interview, I was sure I had nailed it! Needless to say, I was devastated when neither came through. By this point, I was exhausted from applying, interviewing, and resuming writing. Had I not been forced to move as my family relocated again, I probably would have given up, at least until the next year, but I was moving to D.C. and needed a job. In a final attempt to salvage something from all of my applications and interviews, I called the office I had interviewed with at NIH and with the AAAS fellowship – what did I have to lose? To my surprise and elation, I was able to create an arrangement for an extra AAAS fellow in the office I had originally interviewed with!

I spent my AAAS science policy fellowship in the Office of Science Policy and Planning at the National Institute of Neurological Disorders and Stroke. While I had a number of incredible experiences there, including contributing to an advisory report on recommendations for the future of neuroscience radiobiology research at NASA, I had made too great of a leap away from science. I enjoyed the breadth of topics I was able to work on, but I was never able to delve into depth on any of them. Is this beginning to sound like the goldilocks problem?

Since I knew my fellowship would be over in a year, I found myself instantly looking for a job again. Therefore, I spent as much of my fellowship time as I could, networking with anyone I could. I talked with people from academia, industry, contracting, nonprofits, think tanks, and all facets of government. I met people for lunch, called people in their office, cornered them after meetings, and attended any special events I could. Most importantly, I also took the time to keep up with past contacts I had made, and it was actually through revitalizing one of these connections that led to my current job. In one of my first forays in the networking world, during my National Academies fellowship, I attended a recruitment event with Strategic Analysis, Inc. There, I met a SETA, who turned out to be a UR alumnus. With my new career focus, I contacted her again and after a few months landed a position with the company.

You may still wonder exactly what is a SETA and what do they do – great question. SETAs come in all shapes, sizes, and colors. Essentially, our role is to provide technical support and advice on particular science programs. For example, I support a program manager who funds Department of Defense research on a number of neuroscience related programs. For these programs, I track progress the funded researchers are making, talk with transition partners to ensure technologies developed will be useful, and research new ideas for programs, to name a few things.

I will echo comments from previous Career columns and PDA workshops about valuing your transferrable skills. In my PhD and postdoc, I studied rodent models of neuroimmunology, learning/memory, and radiation biology.

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I work in the laboratory of Dr. Schwarz’s at the Center for Musculoskeletal Research. I am particularly interested in developing an automated/semi-automated analysis of histomorphometry. Here I would like to tell you about an APP (application), just like many others on your smart devices, that we are developing.

Let me give you an example, say we want to quantify the areas of different tissues during bone allograft healing (Image A). If you do this in a traditional way using the Osteomeasure system, you will need to draw precisely and carefully using a special screen pen on the boundary of different tissues to define regions for analysis. This is laborious, time-consuming, and boring as shown in Image B. Investigators in our center have analyzed around 10,000 samples this way over the last decade. Therefore, an efficient, precise way for such quantitative analysis is warranted and deemed urgent. Now, here is the good news!

The free SPINPlus mechanism is one way to automatically and effortlessly locate funding opportunities. Follow the instructions below to register with SPINPlus and receive emails with up-to-date funding information.

1. Go to ORPA’s website
2. Click on Funding Opportunities along the left-hand sidebar. Note: This page contains many other links to grant opportunities
3. Select GENIUS/SMARTS/SPIN WWW from the top of the Funding Opportunities page
4. Select GENIUS/SMARTS REGISTRATION to enter the InfoEd system and create a GENIUS profile
5. Select Create a New Profile and specify: Institution, First name, last name, email, dept affiliation, Social Security number (not required), Username and password
6. By clicking Submit, your registration will be sent to ORPA for approval

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University of Rochester Medical Center celebrated the work and commitment to research of postdoctoral scholars during the week of September 17, as part of the fourth annual National Postdoctoral Appreciation Week. Enjoy these pictures from our celebrations. Poster session winners were Brendaliz Santiago, Rashmi Ram, and Andrew Wojtovich.

Funding Opportunities: Where to Look? ...continued
Alicia Augustine

7. Upon ORPA approval (via email), you will need to edit your GENIUS profile to activate SMARTS
   Note: Investigators can upload their CV to GENIUS, but this is not required for SMARTS matching

8. Select General from the Profile Summary Page and answer the 5 questions. Question 3 will allow you to receive SMARTS matches

9. At least one keyword from the Keyword section must be selected in order to receive matches

10. Further specifications to your matching criteria can be made under “Used in SMARTS matching”

11. Enjoy regular emails that outline new funding opportunities related to your project!
The power of persistence and networking can determine your career success!

While my fellowships provided valuable experiences that I leveraged in my applications and interviews, a fellowship experience is not required to transition out of academia. For example, I know many SETAs who went directly from their postdoc to their technical advisory position. If you are interested in alternative careers, seek additional experiences away from the bench, while you are a postdoc. Don’t, however, use a lack of a fellowship as an excuse not to network and apply for non-research positions, if you are interested. **People's first response will often be no – in your research, in your job searches, and especially in government. Just don’t let that be their last response.** A little creative thinking can go a long way to changing a “no”, to a “maybe”, to a “yes”.

I also cannot emphasize enough the importance of networking and keeping up your network. LinkedIn is a great resource, but nothing is better than face-to-face meetings. When you go to conferences, look up 3+ people ahead of time that you would like to meet and ask your advisor/mentor to introduce you. When you get back from the meeting, and periodically throughout the year when you see relevant papers or have interesting findings, follow-up with those people. You have little to lose and everything to gain. Although I have proactively networked these past few years, anyone who knows me will tell you that I am a quiet introvert. Don’t let that be an excuse not to talk with people about their work and your interests. Take this opportunity to add networking to your New Year’s resolution, and you can start with me. Email me anytime to talk more about your interests or my experiences in science policy and government contracting.

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**Got Ideas? Get Involved! Join UR PDA**

**Why join a UR PDA Committee?**

♦ Be involved at U of R beyond conducting scientific research.

♦ 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.

**How much time does it take?** We realize as a postdoc your time is valuable. The executive committee meets only once a month for an hour. Otherwise, any additional time commitment is completely your decision.

**How to get Involved?** Determine which postdoctoral issue interests you the most. Find the committee that interests you (executive, career development, communications, international, or social) and email the chair listed above. It is that easy!
Postdoc Accomplishments 2012

DIANA ADLOWITZ
Allergy, Immuno, Rheumatology Dept.
Oral Presentation
♦ Activated Memory B Cell Compartment in Rheumatoid Arthritis: Impact of B Cell Depletion Therapy. Annual meeting for American College or Rheumatology (ACR) in Washington, DC November 2012.

RAMAN BALDZIZHAR
Dept. of Pathology & Lab Medicine
Publications

KYUNGSUN HEO
Aab Cardiovascular Research Institute
Publications
Award
♦ The Melvin L. Marcus Young Investigator Award Finalist (Sponsored by the Council on Basic Cardiovascular Sciences), 2012 AHA scientific sessions, LA convention center, USA
Grant
♦ American Heart Association Scientist Development Grant. Regulation of phagocytic clearance (efferocytosis) in atherosclerosis formation

EONYOUNG PARK
Dept of Biochemistry & Biophysics
Publication
♦ Park E, et al. Staufen2 functions in Staufen1-mediated mRNA decay by binding to itself and its paralog and promoting UPF1 helicase but not ATPase activity. Proc Natl Acad Sci USA.

JENNA PUCCINI
Dept of Neurology, Child Neurology
Publication
♦ Marker DF*, Puccini JM*, et al. LRRK2 kinase inhibition prevents pathological microglial phagocytosis in response to HIV-1 Tat protein. J of Neuroinflammation. *co-first author
Fellowship
♦ NIMH F32 Fellowship: LRRK2 Mediated HIV1 Tat Induced Microgliosis is Detrimental to Synapses
Award
♦ Poster Award Winner, World Aids Day

NICHOLAS TURIANO
Dept of Psychiatry
Publication

RACHEL WU
Dept of Brain and Cognitive Sciences
Publication
♦ Wu R. The Learner. The Psychologist.
Fellowship
♦ Ruth L. Kirschstein National Research Service Award (NRSA) for Individual Postdoctoral Fellows. Optimal neural and behavioral markers for learning to learn during infancy
Award and Recognition
♦ Robert J. Glushko Dissertation Prize, Cognitive Science Society
♦ Travel Fellowship, Center for Visual Science Symposium (U of R)
♦ Feature in Rochester Democrat and Chronicle Arts Community Blog.

CONGRATS!!
CHIUAN-REN YEH
Dept of Urology & Pathology
Publication
♦ Vitkus S, Yeh CR, et al. The Distinct Function of Estrogen Receptor α in Smooth Muscle and Fibroblast Cells in Prostate Development: The Results of Specific Estrogen Receptor α Knock Out Mouse. *Molecular Endocrinology
♦ Yeh CR*, Chen M*, et al. Reduced Prostate Branching Morphogenesis in Mice Lacking Stromal Estrogen Receptor α but not in Mice Lacking Epithelial Estrogen Receptor α. *Asian Journal of Andrology
♦ Yeh CR*, Yu SQ*, et al. Altered Prostate Epithelial Development in Mice Lacking the Androgen Receptor in Stromal Fibroblasts. *Prostate

♦ Yeh CR*, Chen M*, et al. Loss of Epithelial Estrogen Receptor α (ERα) Inhibits Estrogen Mediated Squamous Metaplasia Evident by In Vivo Tissue Selective ERα Knockout Mouse Models. *Journal of Pathology
Poster
♦ Presented at the American Urological Association

LONGZHE ZHANG
Center for Musculoskeletal Research
Publication

Postdoc Social
yoUR PDA organizes a social event, fostering an excellent opportunity to share your experiences, network with future colleagues, make international connection, and, importantly, have lots of fun! Thanks for your participation, it is key to our success. Check out our website for future events.