

How to Plan Your Post-Postdoc

Friday August 23rd, noon - 2pm
MBI conference room, LG110

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1. What career or job options is right for you?

1.1. career options (15 mins)

academic route:

- faculty at research intensive institution
- faculty at 4 year college
- faculty in a community college
- scientist at national lab or research institution
- institution administrator

Carnegie Classification of Institutions of Higher Education [source: Wikipedia]:

- 1) Research Universities (RU/VH)—very high research activity (about 100 institutions)
- 2) Research Universities (RU/H)—high research activity (about 100 institutions)
- 3) Doctoral/Research Universities (DRU) (about 100 institutions)
- 4) Master's Colleges and Universities (about 700 institutions)
- 5) Baccalaureate Colleges (about 800 institutions)
- 6) Associates Colleges (about 2000 institutions)
- 7) Special focus schools and other (about 900 institutions)

non-academic route (broader range):

- which industry is right for you? health care, pharmaceutical, chemical industry, semiconductor, defense, legal...
- which position is right for you? technical sales, clinical coordinator, engineer, manager, patent attorney...

SHORT BREAK

Each postdoc: find examples of people you know who have chosen different route/role after their PhD

BREAK DOWN in groups - split into different routes (academic and non-academic).
Discuss goals, route and role/position. Why you want to go into a particular role/route
[Stay within group for remainder of workshop]

Career planning resources: <http://www.nationalpostdoc.org/careers/career-planning-resources>

Table 1. Percent of doctorate recipients holding tenure and tenure-track appointments at academic institutions 3–5 years since degree. [source: science career]

	1993	1997	2003	2006
All SEH fields	27.0	24.2	23.8	25.9
Biological, agricultural, and environmental life sciences	17.3	18.1	15.5	13.7
Computer/information sciences	55.7	40.7	32.2	45.7
Mathematics and statistics	54.9	48.1	45.5	50.6
Physical sciences	18.8	14.5	18.3	19.7
Psychology	17.0	16.8	19.9	23.8
Social sciences	54.3	50.4	46.0	50.4
Engineering	22.7	19.4	15.9	16.3
Health	47.4	41.1	40.8	43.1

1.2. MyIDP by science career (15 mins) [Thierry]

There is a body of literature that finds that people, **and in particular postdocs**, who develop and implement strategies to pursue career-specific goals achieve greater career success as measured by salary, promotions, and level of responsibility. They also report greater career satisfaction and rate themselves as more successful than their peers compared to those without career plans.

Constructing an individual development plan (IDP) is a four-step process with myIDP:

- 1) Evaluate your own skills, values, and interests.
- 2) Use this self-assessment as a guide for exploring and evaluating career opportunities in your field and, ultimately, identifying your preferred career, as well as an alternative option that you think you'd be happy with.
- 3) Set specific goals to prepare you for the career paths to which you aspire.
- 4) Put the plan into place after discussing your goals and outlining strategies with your mentors

Figuring out what you are good at and how will those skills work in your future career.

self-evaluation of skills, strengths and weaknesses using <http://myidp.sciencecareers.org>

Show how to use the website, what it does and how it analyses the results of the self-evaluation.

The 6 core competencies which the self-evaluation survey is based on:

<http://www.nationalpostdoc.org/competencies>

The myIDP skills assessment has seven categories:

- 1) Scientific knowledge: Not only what is important for your thesis/project, but what is currently going on in your broader field and in the whole world of science. This requires reading widely and going to lots of seminars.
- 2) Research Skills: You must master a set of skills for your thesis/project, but for your future you should become familiar with other laboratory skills, including study design, statistical analysis, and publishing standards.
- 3) Communication: Must be able to present data in a variety of forums, from the basic 60 sec “elevator speech” to defending a poster, to presenting a literature paper in a seminar class, to discussing research “off the cuff”, i.e., when your mentor asks, “What did you think of that seminar yesterday?”.

4) Management and Leadership: Seek opportunities to plan experiments for a group of people or organize data to present to your lab group from several students. Mentoring younger students is critical here to demonstrate your potential leadership and inspirational skills. These are very important for academic AND company jobs.

5) Professionalism: Working on a schedule and doing things at the highest possible level to be a positive example. Following all rules of the laboratory or field of study.

6) Responsible Conduct of Research: Fully documenting all experimental parameters, even to the extent of having another person in the group observe your activities and co-sign your notebook. Following standards with respect to animal or human experiments.

7) Career Development: Learning about all options for careers where your particular skills and talents could be beneficial to others and could lead to high compensation and high satisfaction with your life. Finding out about resources available and using them.

SHORT BREAK

Each postdoc: identify people in your immediate surrounding who can evaluate your skills/strengths/weaknesses. They will fill the same survey you did for your self-evaluation. Example: use www.surveymonkey.com to make it easy for evaluators to respond.

2. professional development plan (60 mins)

FASEB based example: <http://postdoc.aa.ufl.edu/Data/Sites/32/media/documents/postdoctoral-professional-development-plan.pdf>

Adapted from link above:

"The Professional Development Plan maps out the general path you want to take and helps match skills and strengths to your career choices. It is a changing document, since needs and goals will almost certainly evolve over time as a postdoctoral fellow. The aim is to build upon current strengths and skills by identifying areas for development and providing a way to address these.

The specific objectives of a typical Professional Development Plan are to:

- 1) Establish effective dates for the duration of your postdoctoral appointment.
- 2) Identify specific skills and strengths that you need to develop based on discussions with your mentors. Your PI is likely your principal mentor but it is not a requirement. You choose your mentor! You should have several mentors!! pick among the people you have listed in the exercise in section 1.1.

BREAK DOWN in groups (3-4) what is a reasonable time frame for your postdoc appointment. Discuss specific skills/strengths which can be improved

BREAK DOWN Share with whole group skills/strengths to work on - write on board (if available)

- 3) Define the approaches to obtain the specific skills and strengths (e.g., courses, technical skills, teaching, supervision) together with anticipated time frames.

BREAK DOWN in small groups (3-4, if possible change group) and discuss what you are going to do to improve your skills. Set Goals: attend workshop X, go to conference Y, network with

Director Z of institution/company A. Be specific (who/what/when), make sure these action items meet your Professional Development overall goal.

[On your own, at a later time, incorporate this specific targets with a time line]

4) Discuss your draft Professional Development Plan with your PI/mentor(s).

BREAK DOWN in pairs (preferably someone you do not know), discuss how you are going to discuss this with your PI and mentors. Which mentor will help you with which specific section.

5) Revise the Professional Development Plan as often as necessary and appropriate."

BREAK DOWN, find a partner (preferably someone you know or who is in a related field) with whom you are going to discuss your progress on a regular basis. This person is now your career development buddy!! Can act as mentor for each others.

6) Develop your network

Most scientists use face to face via conferences and existing collaborations to extend their network. LinkedIn is now being used by scientists. It is extensively used by the private sector to find talent and network! use of Google scholar for keeping track of publications and citations as well as work of collaborators. See who cited you... contact them! They already know who you are!

BREAK DOWN, find one person at the workshop who is new to you and network for a few minutes. Get to know what the person does, field, interest... exchange business cards/contact info...

Based on available time. Discuss the compact below.

Favorite reference: <http://www.med.umich.edu/postdoc/postdochandbook.pdf>

in particular the Appendix: compact between postdoc and PI/mentor.

From above reference:

"Postdoctoral training is an integral component for scholars and scientists as they advance in their professional careers. Postdoctoral appointees typically join an institution to further their training in a chosen discipline after obtaining a terminal degree (e.g., Ph.D., M.D., D.V.M.). This training is conducted in an apprenticeship mode where a postdoctoral fellow works under the supervision and guidance of a faculty mentor who is qualified to fulfill the responsibilities of a mentor. The postdoctoral fellow may undertake scholarship, research, service, and teaching activities that together provide a training experience essential for her/his career advancement."

Also page 26, 27, 28.

3. Mentoring and Evaluation (30 mins)

This section deals with finding mentors, help mentors be mentors to support the postdoc career goals and help with follow-through.

3.1. Mentoring

who is your mentor? most postdocs respond: "my PI". This is not sufficient!

First the PI may not know (especially if the postdoc is going in a direction different from the PI own career path), or may be too busy. Each postdoc need several mentors (board of directors concept). Mentors can be the postdoc colleagues (other PI, Professors, Postdocs,...) or people outside the direct environment (successful local entrepreneur, director level at a large company...) who want to see you succeed! The various mentors should be from different fields and/or career path and/or different institutions so they can bring different perspectives on a postdoc career.

resources: <http://www.nationalpostdoc.org/publications/mentoring-plans/360-proactive-in-mentoring>

BREAK DOWN, within your group (similar career path) discuss potential mentors which you can introduce to other fellow postdocs. For example, I can introduce postdocs to entrepreneur mentors.

Ask your mentor early on what conferences s/he recommends that you attend. The best start is the annual or biennial meeting of the scientific society that your lab and mentor are most closely aligned with. Ask if funds would be available to cover your expenses and **GET ENOUGH WORK DONE** to put a good poster together or a talk, so you become a participant in the conference. You can/should participate in professional society if possible. Introduce speakers at conferences... Increase networking!

3.2. Evaluation

Evaluate your progress toward your goals. Use your IDP and do regular checks. Plan regular meetings with your mentors and your career development Buddy and seek feedback. See link above about being pro-active.

You can use myIDP at science careers to keep track of your progress and/or team up with another postdoc to give each other mutual support and motivation.

Do an evaluation at least once a year, best, every 6 months. It is also a good time to seat down with your PI and show your progress then open the discussion to compensation, contract extension, new project...

It is OK to change your plan (i.e. IDP), as interests/opportunities change so should your plan/goals.

If time allows: **BREAK DOWN** in pairs, one person play postdoc, other play PI. Discuss evaluation/compensation/contract extension... then trade roles.

NETWORK NETWORK NETWORK

Add the people you met today on your Linkedin!! great way to keep track of who you meet and remember what they do!