"Getting What You Need Out of Your Postdoctoral Training: It's Not a Job … It's an Adventure!"

Institute for Broadening Participation
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Graduate school trains you how to effectively *address a scientific problem*.

Postdoctoral training will help you *identify and address critical "gaps" in current knowledge* – i.e. learn how to "fish" for greater understanding and … funding.

http://www.ilexconsultinggroup.com/

"I won't be able to rest
'til I find it!"

http://www.cartoonstock.com/directory/j/jigsaw_puzzle.asp

NIH & NSF Definition of a Postdoctoral Researcher

"An individual who has received a doctoral degree (or equivalent) and is engaged in *a* ***temporary and defined period of mentored advanced training*** *to enhance the professional skills and research independence* needed to pursue his or her chosen career path."

Different institutions view a “postdoc” differently

Benefits

>500 postdocs:	55% do have different benefits
200-500 postdocs:	29% do have different benefits
<200 postdocs:	45% do have different benefits

Time Limits on PD Training

>500 postdocs:	78% do have time limits
200-500 postdocs:	50% do have time limits
<200 postdocs:	40% do have time limits

Professional Development

>500 postdocs:	78% do provide services
200-500 postdocs:	50% do provide services
<200 postdocs:	40% do provide services

http://www.cic.uiuc.edu/groups/WISEPanel/ archive/Presentation/postdocs.ppt

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The National Postdoctoral Association is an amazing resource for professional development tools and building communities!
http://www.nationalpostdoc.org/

Talk to your potential new mentor about opportunities for training in the Core Competencies developed by the NPA

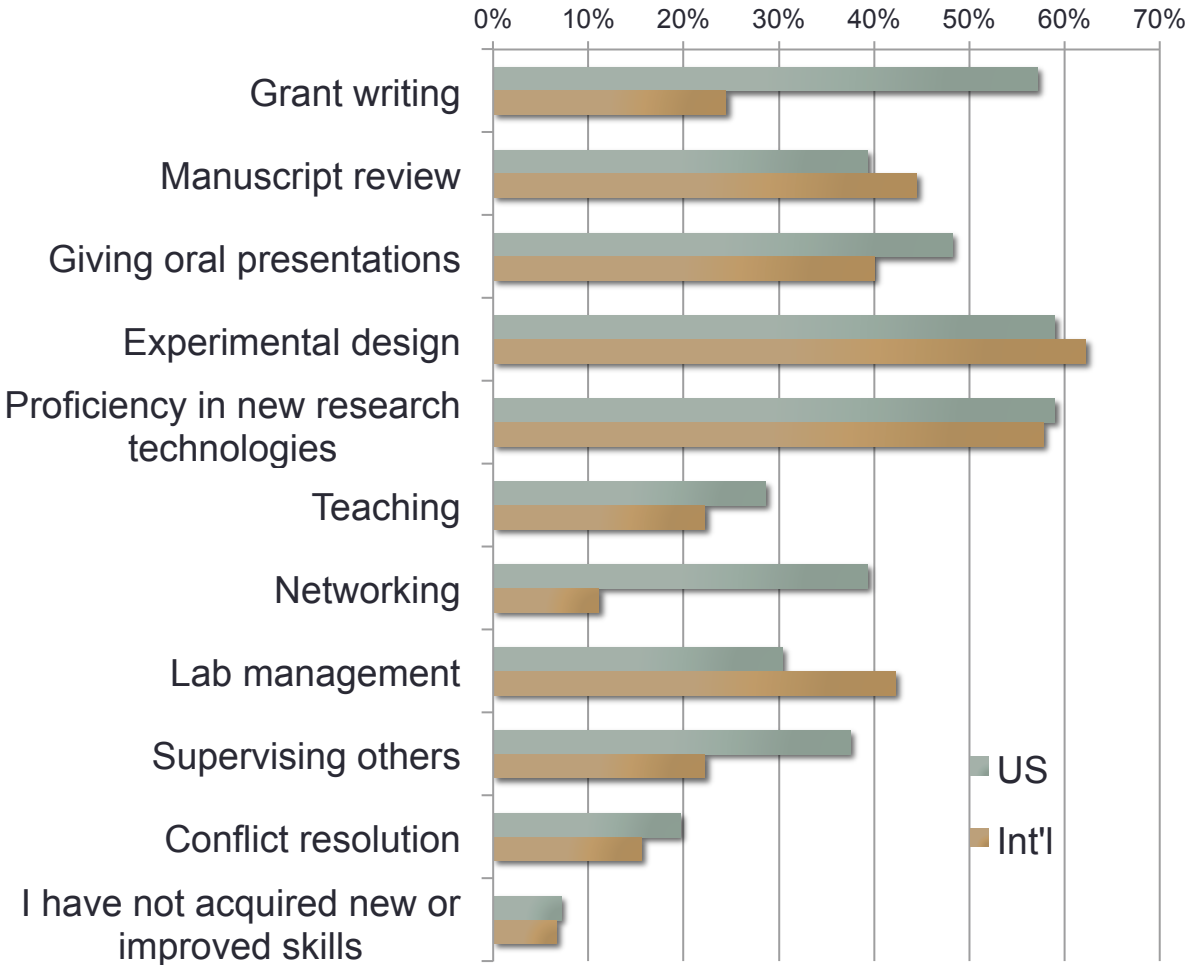
1. Discipline-specific conceptual knowledge
2. Research skill development
3. Communication skills
4. Professionalism
5. Leadership and management skills
6. Responsible conduct of research

Is your intended institution a member of NPA?

Are you a member of NPA?

"Transferrable" skills help you prepare for a variety of careers

e.g. *Which of the following skills have you acquired or improved upon during your postdoc training?*



Sigma Xi Survey Correlated Involvement in Teaching Activities with Greater Satisfaction in Postdoctoral Training

"Professional development is the strongest predictor of subjective success and of good advisor relations…"

- Teaching experience highest indicator of subjective success for postdocs
- Teaching experience also correlated positively with number of manuscripts submitted

http://postdoc.sigmaxi.org/results/

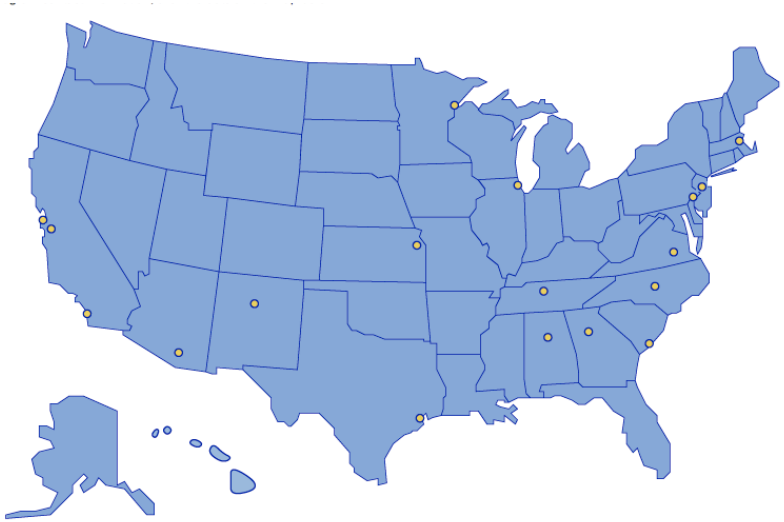
Yet…

- Only 5% of postdocs receive formal training in teaching
- 64% of postdocs receive no formal training in teaching

G. Davis (2009) http://www.nber.org/chapters/c11619

The NIGMS IRACDA Program promotes both postdoctoral career development and STEM diversity

- University of Alabama at Birmingham (Oakwood University/Stillman College)
- University of Arizona, Tucson (Pima Community College)
- Stanford University (San Jose State University)
- University of California, San Diego (San Diego State University)
- University of California, San Francisco (San Francisco State University)
- Emory University School of Medicine (Clark Atlanta/ Morehouse College/Morehouse School Medicine/ Spelman College)
- Northwestern University (Northeastern Illinois University)
- University of Kansas, Lawrence (Haskell Indian Nations University)
- Tufts University (Bunker Hill Community College/Pine Manor College/University of Massachusetts, Boston
- University of Minnesota, Duluth (Fond du Lac Tribal and Community College/Lake Superior College)
- University of Medicine & Dentistry of New Jersey (Long Island University, Brooklyn/Medgar Evers CUNY/New Jersey City University)
- University of New Mexico (Central New Mexico Community College/New Mexico State/Southwestern Indian Polytechnic)
- University of North Carolina, Chapel Hill (North Carolina A&T State/North Carolina Central/Fayetteville State/ Johnson C. Smith)
- University of Pennsylvania (Delaware County Community College/Lincoln/Rutgers at Camden)
- Medical University of South Carolina (Claflin University)
- Baylor College of Medicine (Prairie View A&M/St. Thomas/University of Houston Downtown)
- Virginia Commonwealth (Elizabeth City State/Virginia State/Virginia Union)



http://www.nigms.nih.gov/Training/CareerDev/TWDInstRes.htm

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Interests Assessment

Below is a summary of your self-assessment for interests. This assessment will be used to recommend career paths that may be a good fit for you. We recommend that you look this over to confirm that you have ranked each item appropriately. ***Remember, this step will be most helpful if you used the entire range of scores.***

1 *I would like to never do this in my career*	2	3	4	5 *I would like to do this often in my career*
• Building new devices or developing/refining techniques • Using quantitative methods in understanding science (e.g., statistics, mathematical modeling) • Performing research with animal subjects • Performing research with human subjects	• Writing project reports or other business-related correspondence • Giving presentations about science • Learning about other fields • Keeping up with current events in science • Learning how to use new equipment or techniques • Writing about science to non-scientists • Speaking about science to non-scientists • Analyzing financial data or budgets • Assessing business trends and strategies, entrepreneurial ideas • Planning or organizing events • Leading or supervising others	• Designing experiments • Performing experiments • Writing scientific manuscripts • Writing position papers or policy papers • Creating presentations • Reading papers in your field • Discussing science with others • Teaching in a classroom setting • Negotiating agreements • Serving on committees • Organizing things, creating systems in the workplace	• Planning new scientific projects or developing new research directions • Writing grant proposals • Representing data in figures/illustrations • Thinking about science • Attending conferences or scientific meetings • Using qualitative methods in understanding science (e.g., focus groups, in-depth interviews, field observations) • Developing collaborations • Working in a team • Networking with others • Work-related travel	• Developing curricula • Mentoring or teaching one-on-one

Publications are the *currency of academic professionals*… and the #1 issue of conflict between a postdoc and mentor

The International Committee of Medical Journal Editors *suggests* that authorship credit should be based on:

- *Substantial contributions* to conception and design, or acquisition of data, or analysis and interpretation of data;
- Drafting the article or *revising it critically for important intellectual content*; and
- *Final approval* of the version to be published.
- Authors must *meet all three conditions*

http://www.icmje.org/#author

The ***BEST*** time to discuss authorship policies is before joining the lab.

A ***GOOD*** time to discuss authorship is when starting a project - knowing it might change as the research proceeds.

The ***WORST*** time to discuss authorship is after the manuscript is complete.

Mentors are essential in career development - there is no "bad" mentor … just those that are **not** "mentors"

Areas for mentoring:

- Personnel issues
- Conflict resolution
- Career counseling
- Budget and planning
- Training of trainees
- Grants and contracts
- Establishing expectations
- Curriculum and pedagogy
- Facilities
- Administrative operations
- Personal development
- Collaborations
- The "first 100 days"

Entering Mentoring

A Seminar to Train
a New Generation of Scientists

Handelsman, Pfund, Miller-Lauffer, and Maidl-Pribbenow
http://www.hhmi.org/resources/labmanagement/

Compact Between Postdoctoral Appointees and Their Mentors

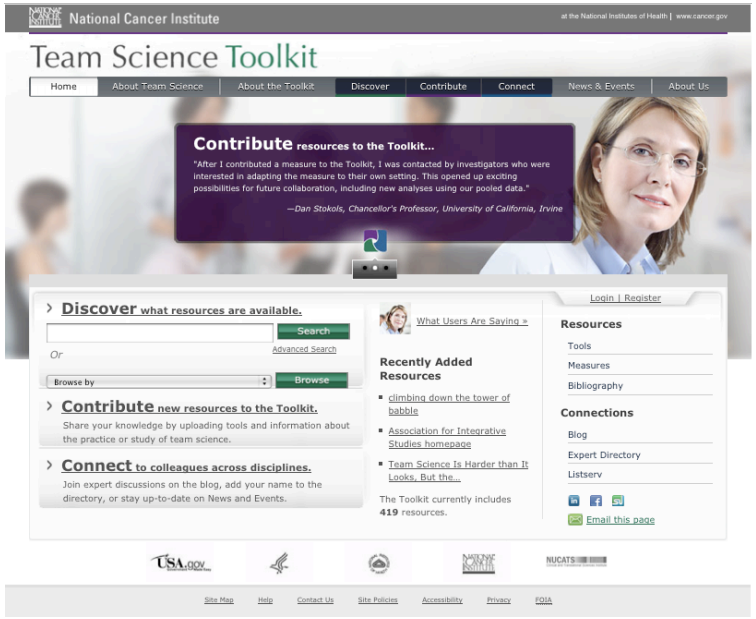
AAMC

www.aamc.org/postdoccompact

BOTTOM LINE:

The key to successful postdoctoral training is having a *mentoring community!*

http://clevermarketer.com/2011/03/accountability/



https://www.teamsciencetoolkit.cancer.gov/public/Home.aspx

http://www.teamscience.net/