

RCR for Postdocs: Promoting Ethical Professional Development

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Do Postdocs Need RCR Training?

- Most Postdocs have not had training in RCR
 - Sigma Xi: 64% no formal ethics training
 - Postdocs typically unaware of standard practices, rarely discuss with mentor
- Most postdocs (>60%) are international
 - Can have different research & behavioral norms
- Most formal training focuses on students, not postdocs
 - Postdocs have unique needs
- Increasing requirements for such training
 - NIH, NSF, some institutional requirements

post·doc (pōst'dŏk'), *n.*
adj. Postdoctoral.

1. A postdoctoral scholar

2. A postdoctoral program



Bring RCR Home Project

- NPA project to foster RCR programs for postdocs (2007-2008)
 - Funded by Office of Research Integrity
- Activities:
 - RCR Toolkit: www.nationalpostdoc.org/rcr-toolkit
 - Annual Train-the-Trainers Workshops - slides available
 - Technical Assistance in designing programs
 - Two rounds of \$1000 seed grant competitions to support program development (2007 & 2008)
- Recommendations here based on our findings



www.nationalpostdoc.org/rcr



What should a program cover?

- Satisfying NIH, NSF requirements?
 - NIH very specific - topic areas, hours, format
 - <http://www.grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>
 - NSF not specific
- Try to go beyond Misconduct, or FFP
 - FFP: Falsification, Fabrication and Plagiarism
 - RCR is about Conducting Research Responsibly, or everyday behavior
 - e.g. Deciding who to include on a paper
 - Modifying an image for publication
- *Tailor your program to your postdocs*



Unique Concerns for Postdocs

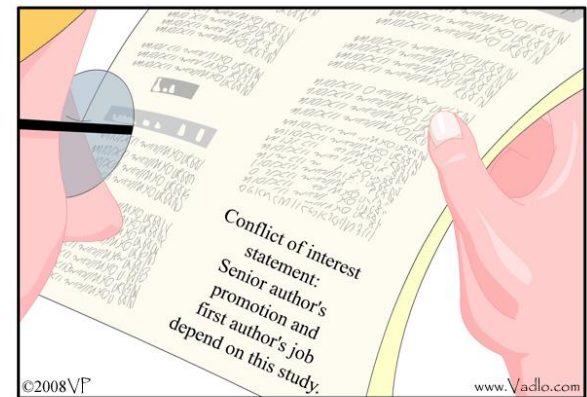
- Short-term appointments
 - Take data/project upon leaving lab/group?
 - Competition with mentor?
- Lack of official standing and sole reliance upon mentor
 - Authorship issues - who's work is it?
 - Can postdocs start collaborations outside the group?
 - The difficulties of whistle blowing





Unique Concerns for Postdocs

- Dual roles: mentor and mentee, collaborator and apprentice
- Most postdocs are international
 - Diversity of research cultures
 - English not always first language
- Difficult communication skills *essential*





General Approaches

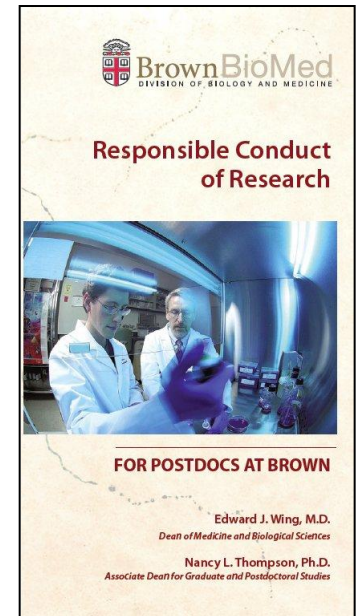
- Incorporate RCR into everyday professional development
 - Authorship practices with scientific writing & publishing
 - Peer review principles with grant writing guidance
 - Lab management, “faculty 101” can include RCR topics
- Take into account postdocs’ cultural diversity
 - Keep interactive so postdocs can engage their own experiences
 - *Consider*: embed RCR in English-language classes; RCR orientation for internationals





General Approaches

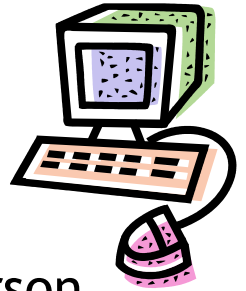
- Focus on problem-solving & application over knowledge acquisition
 - When issues arise, want postdocs to make ethically sound judgments
 - Provide them a toolkit for sticky situations
- Develop “Just in Time” Resources
 - Clear guidance on where to go questions
 - *Consider anonymous, informal avenues*
 - *Develop brochure on RCR for postdocs*





Program Ideas

- Offer informal opportunities to discuss RCR:
 - E.g. RCR topics during group meetings
- Train postdocs to teach others about RCR
 - Postdocs get that elusive teaching experience
- Carefully balance in-person interaction vs. technology
 - Clickers, teleconferencing, video recording: good
 - Online training: good if supplemented with in-person sessions
- Use pre- and post-surveys (see toolkit for samples)
 - Examine incoming knowledge and pre-conceptions
 - Assess program impact





Tips for Boosting Attendance

- Make clear career relevance
 - Most successful programs have a clear career advantage for postdocs -- *What's in it for me?*
 - Use catchy titles that emphasize usefulness
- Require attendance (*...hey, it works!*)
- Charge a fee, pre-register
- Engage postdocs in advance by soliciting topics/info for discussion with their RSVP
- Schedule at postdoc-friendly times: lunchtime or weekend
 - Many have families
 - Many feel guilty leaving the lab/office



RCR Resources

- RCR Toolkit for program ideas, sample materials, case studies, agendas:
www.nationalpostdoc.org/rcr-toolkit
- ORI's RCR Education Materials Clearinghouse:
<http://ori.dhhs.gov/education/products/>
- Children's Hospital of Philadelphia resources:
 - *A Guidebook for Teaching Selected RCR Topics to Culturally Diverse Trainee Groups.*
<http://ori.dhhs.gov/documents/Alexander.RCR%20Guidebook.BW.pdf>
 - *Mentoring International Postdocs: Working to Advance Science & Careers*
http://www.ori.hhs.gov/education/products/chop_mentoring/
- Contact the NPA for advice in designing programs



Take Away Points

- Tailor your programs to the needs & interests of postdocs
- Integrate RCR training with everyday research skills, e.g. lab management, grant writing, “faculty 101,” scientific writing & publishing
- Consider multiple venues for reinforcing info e.g. programs + “just in time” resources
- Take into account postdocs’ cultural diversity
- Visit NPA RCR Toolkit:
www.nationalpostdoc.org/rcr-toolkit