RCR for Postdocs: Promoting Ethical Professional Development

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www.nationalpostdoc.org
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'dōk'), *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](http://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](http://www.nationalpostdoc.org/rcr)
What should a program cover?

- Satisfying NIH, NSF requirements?
  - NIH very specific - topic areas, hours, format
  - 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.
  - 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