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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
National Postdoctoral Association

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](http://www.nationalpostdoc.org/rcr-toolkit)
- Children's Hospital of Philadelphia resources:
- 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