



Mentoring International Postdocs: Working Together to Advance Science and Careers

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Preface

In 2002, a team of interested faculty, research administrators and human resources consultants at the Children's Hospital of Philadelphia (CHOP) set out on a fact finding mission to characterize the hospital's postdoctoral fellow (postdoc) population. The goal of the project was to identify areas for improvement and recommend ways to enhance the program. As was common in many institutions at that time, there were scattered reports of premature terminations, delayed visa processing, uneven mentoring and noncompetitive salaries. To begin the process, a postdoc survey was conducted to define the population and gather data on their education and training, desired skills, programmatic needs, etc. Analysis of the survey results provided valuable information that assisted the team in developing an infrastructure, and made the team aware that more than two-thirds of the CHOP postdoc community were foreign nationals (i.e. residents of other nations, visa holders). Subsequent review of training literature revealed that this trend was seen nationally. Through continued dialog and exploration, CHOP leaders quickly realized that international postdocs had a unique and complex set of training needs that were quite different from those of American postdocs. Clearly, if we were committed to training the next generation of scientists, it was critical that we address the needs of this trainee population.

Tackling this problem was no easy task. Few resources were available that addressed the complex issues associated with mentoring the international postdoc. Training materials described the importance of mentoring and placement in a good mentoring environment and may have briefly mentioned mentoring in a diverse (e.g. women, minorities) trainee population, but failed to alert mentors and institutions to the specific training needs of international postdocs. While recent highly publicized cases alleging misuse of data and intellectual property involved foreign nationals, training continues to ignore this population prompting the 2003 ORI funded "Guidebook for Teaching RCR in a Culturally Diverse Trainee Group" developed by the Department of Research Education at CHOP. The NIH instituted a requirement that all postdoc trainees on federally supported training grants receive instruction in the Responsible Conduct of Research (RCR). While this is valuable training for postdocs, a requirement that training grant supported trainees be US citizens or permanent residents excludes foreign nationals from eligibility and hence, from receiving RCR training.

Recognizing that a fillable void existed, we proposed in a 2004 application to the Resource Development Program at the Office of Research Integrity, to produce a series of engaging vignettes that would raise awareness of some of the common problems that can arise in the course of mentoring international postdocs. Through focus groups and on-going discussion with CHOP postdocs, invested faculty and administrators, we developed several short, dramatic presentations. We hope this guidebook and video supplement will increase the awareness and sensitivity of mentors who train international postdocs and enhance their mentoring skills. We suggest that the videos be used to stimulate open and frank discussion among mentors and international postdocs in a group or one-on-one training environment in a variety of research settings. The project was developed to be a teaching tool for faculty mentors but we believe it is also relevant for other research professionals.

Wendy Reed Williams, Ph.D.
Project Director



Introduction

The reality of modern science is that the laboratory is an increasingly international place. Half of the more than 52,000 postdocs conducting research in the US are from other countries¹. These individuals come to the US for a variety of reasons (e.g. learn new technologies, gain access to better research, work with a specific mentor²) and are faced with a specific and complex set of challenges (e.g. visa delays, language barriers, cultural biases³) that institutions and faculty mentors are often ill-equipped to handle. These issues have the potential to become barriers to success of these scientists resulting in decreased productivity and creativity, low morale and failure to achieve career goals. To increase awareness and assist mentors in the training process, we developed this series of video vignettes and discussion guide to provoke discussion, facilitate problem-solving and identify alternate courses of action. The videos and guidebook were developed with the following goals in mind:

- Identify and address specific issues related to training international postdocs
- Create awareness and sensitivity to cultural issues that may affect the success and performance of international postdocs
- Improve mentor skills and competencies in problem areas
- Outline clearly defined mentor and postdoc roles and responsibilities
- Provide case studies/real-life scenarios that illustrate positive mentoring practices, different mentoring styles and approaches to resolving conflict

References

1. *Enhancing the Postdoctoral Experience for Scientists and Engineers. A Guide for Postdoctoral Scholars, Advisors, Institutions, Funding Organizations, and Disciplinary Societies*. Washington, DC: National Academy Press, 2000.
2. Kreeger, Karen. "Special Report: International Postdocs". *Nature* 2002; 417:4-5.
3. Brown, Donna. "Special Challenges Facing International Postdocs". The National Academies. <http://www7.nationalacademies.org/postdoc/reportbacka4.html>



Project Methodology

Completion of this video project was based on a four-phase timeline. Phase I was to gather information on appropriate topics to include in the videos and develop written scenarios based on those topics. To accomplish this, the CHOP Department of Research Education conducted literature and web searches, reviewed reports on postdoc life and data from previous ORI-sponsored RCR focus groups and recounted personal experiences working in the lab environment to develop concepts for nine, unique scenarios. Highlighted topics included immigration status, communication difficulties, ethnic stereotypes, lab hiring practices and appropriate titles/classification.

Phase II was to consult with postdocs and faculty to solicit feedback on the scenarios and finalize topic selection. CHOP has over 100 postdocs conducting clinical and/or basic research. Of these, sixty-seven percent are international. Over half of CHOP postdocs received their doctoral training outside of the US with more than seventy-five percent being supported by investigator research grants, the rest are supported by institutional training grants or other funding sources (e.g. foundation grants).

In the second phase of the project, CHOP postdocs were invited to attend an hour-long discussion where feedback was solicited on five or six of the scenarios. Postdocs were asked to comment on the specific issues addressed in the scenarios, additional challenges, options, affected parties and share personal experiences.

Teaching points summarized from these discussions are included in this guide at the end of each vignette summary. We also asked for feedback on additional topics that were not represented. Forty-six postdocs participated in five sessions, averaging about nine postdocs per session; sixteen countries were represented. To solicit mentor and administrative perspectives, the scenarios were also presented to the CHOP Committee on Postdoctoral Affairs comprised of faculty, postdoc representatives and personnel from research administration, human resources and the immigration office for review and comment. The five scenarios that both groups agreed represented the most serious, relevant and common issues associated with international postdocs were selected to be developed into video vignettes. Based on feedback from the groups, a sixth scenario on adjusting to US culture and customs was added.

Phase III was to develop the scenarios into scripts and consult with an outside vendor for video production. Scripts were developed by in-house writing staff and CHOP entered into an agreement with Vision 3 Multimedia to film and edit the final videos using professional actors. Phase IV was the development of the scripts into educational videos and development of content for the discussion guide.



Project Development: Choosing Topics

The video shorts you will view depict real-life scenarios developed from consultations with postdocs and faculty. Each vignette addresses several problems germane to international postdocs. Those issues fall into five broad categories that incorporate mentor responsibilities:

1. Recruitment, Hiring and Appointment
 - Immigration and visa-related issues
 - Determining appropriate salary/stipend levels
 - Determining appropriate titles and classification
 - Identifying institutional support (e.g. designated immigration, postdoc affairs staff)
2. Scientific Career Development
 - Establishing trainee expectations
 - Goal-setting
 - Developing technical skills
 - Promoting independence
3. Professional Skill Development
 - Research success skills (grant writing, public speaking)
 - Forming collaborations
 - Professional networking
 - Improving language skills
4. Relationships in the Laboratory
 - Adjusting to the customs of the US and research group
 - Negotiating intra-laboratory relationships
 - Fostering cohesiveness among lab mates
5. Troubleshooting the Mentor/Trainee Relationship
 - Handling common difficulties
 - Providing guidance on conflict resolution
 - Defining boundaries of mentor responsibility

This guide was designed to accompany the dramatic presentations. It will offer basic information or instructions for using this video-based tool. To help facilitate discussion, this guidebook contains the following for each of the six vignettes:

- Setting description
- List of characters
- Scenario summary
- Discussion questions
- List of key issues
- Summary of teaching points (compiled from CHOP postdoc discussion feedback)
- Additional resources for further reading

Vignette #1: A Frustrated Mentor

(1 minute, 26 seconds)

This scenario focuses on issues relevant to troubleshooting the mentor/trainee relationship and professional skill development. It explores issues around what can happen when a mentor's expectations are not met and helps to define boundaries of mentor and trainee responsibilities. It is also intended to raise questions about effective verbal and written communication strategies, dealing with potential differences in cultural norms and customs, and touches on data management and ownership issues.

Characters:

Gwen Smith, a faculty mentor who is having trouble communicating with a postdoc in her lab

Bob, a colleague of Gwen's, who also mentors postdocs

Setting:

A research seminar has ended and the crowd is leaving

Scenario:

Dr. Gwen Smith is frustrated. She is quite pleased with the technical work and research results of a postdoc in her lab. But, there's one big problem. Dr. Smith finds it difficult to communicate with her. Dr. Smith has attended seminars on effective mentoring so she schedules weekly meetings with each of her postdocs. Often times, she's the only one that speaks during these meetings. Dr. Smith has also noticed that some of the entries in the lab notebook are written in the postdoc's native language. She has asked her not to do that. Dr. Smith has commented on her evaluations that her written and verbal communication skills need improvement. What else can she do? She thought the postdoc would get the message. How can Dr. Smith move past this? Sometimes she feels like giving up.

Discussion Questions:

1. What are the issues in this case? Who or what is affected?
2. Is Dr. Smith being insensitive?
3. What is Dr. Smith's responsibility in this situation? What is the postdoc's responsibility?
4. Has this ever happened to you or someone you know?
5. What other issues does this bring to mind?

Vignette #1: A Frustrated Mentor

(1 minute, 26 seconds)

Key issues:

- Communication/language barriers
- Mentor/trainee responsibilities
- Sensitivity to cultural issues
- Data management/ownership- proper maintenance of a laboratory notebook

Summary/Teaching Points:

- Effective communication is key to a successful relationship between postdoc and mentor. Mentor and postdoc should identify a communication style that works best (e.g. emails, in-person meetings, “chalk talks”, laboratory meetings, combination) for both parties.
- Institutions should provide written guidelines on data management and ownership. This will help clarify issues such as who owns data and in what language to record lab notebook entries.
- In US laboratories, entries in the lab notebook must be made in English. Lab notebooks are to be maintained so that anyone could pick up and continue the project. Also, information recorded in the lab notebook is used to establish dates of conception and reduction to practice for patents and is reviewed during scientific misconduct proceedings.
- Trainees should be flexible and show respect to the mentor. Lab culture varies from place to place; trainees should learn the rules of the particular lab and adjust accordingly.
- Mentors should be sensitive to cultural norms and customs around interactions with authority (e.g. debate or question authority). Mentors should encourage postdocs to dialogue openly and honestly, assure them that it is OK to express their opinion.
- Institutions should have dedicated professionals (e.g. ombudspersons or human resources representatives) that can help mentors and postdocs resolve issues.
- Mentors should listen and be patient. Identifying protected time for interactions may raise comfort level.

Vignette #2: A Tough Decision

(1 minute, 28 seconds)

This scenario explores issues around lab hiring practices and ethnic and cultural stereotypes. Topics addressed fall into the broad category of recruitment, hiring and appointment and relationships in the lab. The scenario also touches on the question of lab fit or match.

Characters:

Josephine, a PhD student approaching graduation who is seeking a postdoc position

Adam, a postdoc in a neighboring lab, and an acquaintance of Josephine's

Setting:

A hallway in one of the university laboratory buildings where Josephine and Adam conduct research

Scenario:

Josephine is finishing up her dissertation and is due to defend it in a few weeks. She's been interviewing for postdoc positions and thinks she's narrowed it down to two labs. During a tour of one lab, Josephine noticed that all of the postdocs were foreign nationals. Afterwards, Josephine shared her observation with the PI who said, "I like to hire postdocs from overseas because they work harder for less money." Josephine must have looked baffled because the mentor patted her on the shoulder and said that he was "just kidding." He then chuckled and went on to talk about potential projects. Josephine was stunned. Was the PI serious? Why would he make a statement like this? Leaving the lab visit, Josephine wonders if she should say something to the PI. Or should he just let it go, maybe the PI was kidding after all. She can't help but ignore the fact that this lab would be a good fit for her scientifically.

Discussion questions:

1. What are the issues in this case? Who or what is affected?
2. What is Josephine's responsibility in this situation? Should she address her concerns with the PI? Should she look the other way to advance her career?
3. Should the PI's comments impact Josephine's decision about which lab to join?
4. Do PIs have different expectations for what international postdocs might accomplish? Are there stereotypes? Are European trained postdocs treated differently than Indian- and Asian-trained postdocs?
5. What is the PI's responsibility as a mentor?
6. Have you or anyone you know heard comments like these?
7. What other issues or challenges come to mind when reading this case?



Vignette #2: A Tough Decision

(1 minute, 28 seconds)

Key issues:

- Cultural bias
- Ethnic stereotypes
- Lab hiring practices and working environment
- Abuse of authority/power

Summary/Teaching Points:

- Postdocs believe that some PIs have different expectations for international postdocs (ask to work longer hours, start projects on Friday evening); some are especially demanding of Asian vs. European postdocs.
- Postdocs from certain cultures are reluctant to challenge authority and would not speak up about unreasonable expectations.
- Postdocs believe that some PIs do stereotype them and subscribe to the notion that international postdocs place a higher value on length of hours worked and productivity.
- Some institutions grapple with salary equity among postdocs. Some mentors believe they are justified (e.g. provide an opportunity to train in the US, offset visa processing expenses) in paying international postdocs less money. To address this issue, many institutions have instituted a requirement that all postdocs are paid according to the NIH postdoc stipend/salary level guidelines.
- PIs should be aware of making potentially insulting comments whether in jest or not because they encourage stereotyping and perpetuate bias.

Vignette #3: An Unfortunate Misunderstanding

(1 minute, 27 seconds)

Concerns about immigration are probably the most sensitive issue for foreign postdocs. This scenario is meant to provide insight on visa status implications, the need for institutional infrastructure support and mentor and trainee responsibilities around immigration. Topics addressed fall into the broad categories of recruitment, hiring and appointment, and troubleshooting the mentor/trainee relationship.

Characters:

Sunny, an international postdoc who is concerned about her visa status

Dr. Robert James, Sunny's mentor and a researcher at a top research institution

Setting:

The office of faculty mentor, Dr. James who appears very busy; Sunny interrupts to inquire about her visa status

Scenario:

Sunny joined the lab of Robert James, a prominent molecular biologist at a top research institution. Her student visa was due to expire soon but she was not worried because Dr. James promised her that he would secure a green card for her. When Sunny asked Dr. James about it a few months later, he said that he consulted with someone in the international affairs office and was told that he will not be able to help her. He apologized and offered to help her explore other options. Sunny is upset and disappointed and worries that she will have to return to her home once her visa expires. She blames herself for the misunderstanding and for not taking the initiative to change her status on her own.

Discussion questions:

1. What are the issues in this case? Who or what is affected?
2. What options does Sunny have and where can she turn for help?
3. What is Dr. James' responsibility in this? Is he required to help Sunny with her visa issues?
How much should he know about the immigration process in general?
4. What is Sunny's responsibility as an international postdoc?
How much should she know about the immigration process?
5. Does this case resonate with you? Has this happened to you or someone you know?
6. What other concerns about immigration do international trainees have?
7. What additional challenges do international postdocs face?
8. What resources are available inside and outside the institution to help with immigration issues?

Vignette #3: An Unfortunate Misunderstanding

(1 minute, 27 seconds)

Key issues:

- Postdoc anxiety about immigration issues
- Fostering trust between mentor and trainee
- Trainee expectations (false vs. realistic)
- Effective communication between mentor and trainee

Summary/Teaching Points

- Postdocs need to be able to communicate with their mentor; perhaps Sunny did not feel comfortable but she could have been more assertive.
- Postdocs must take responsibility for important issues like immigration; cannot rely on PI to follow through.
- Mentors who hire international postdocs should have a general understanding of the immigration process and be trained on these issues.
- Mentors should research issues before making promises; should understand the severity of the situation if they are unable to follow through.
- There is the misconception among foreign postdocs who are less knowledgeable of US immigration law that they will be forced to leave the US once their visa expires. US Citizenship and Immigration Services provides guidance that more commonly, restrictions are placed upon re-entry into the US.
- Mentors should be aware of visa processing timelines (delays) and fees; should understand implications and be aware of process changes (especially post 911).
- Institutions must provide support for international trainees; infrastructure is key to successful postdoctoral fellowships; goes beyond just processing visas- should help introduce postdoc to life in the US.
- Visa/immigration issues are the most serious issue for international postdocs (above salary inequity and cultural stereotypes).

Vignette #4: A Long-Distance Hire

(1 minute, 43 seconds)

Issues around staffing a laboratory and the importance of interviewing are raised in this vignette. Recruitment, hiring and appointment (e.g. visa concerns and hiring practices) issues and scientific career development (establishing trainee expectations, promoting independence) are addressed.

Characters:

Lee Lawson, a faculty mentor who is interested in hiring an international postdoc that he may not have the opportunity to interview in person

Diane Reed, a faculty colleague of Lee's

Setting:

Professor Diane Reed walks into a faculty lounge where her colleague, Lee Lawson is eating lunch

Scenario:

Dr. Lee Lawson is a principal investigator of a laboratory in the US. He has been in touch with an individual from abroad who would like to join his lab as a postdoc. Dr. Lawson usually prefers to interview perspective candidates in person to discuss their current work in detail. He also likes postdoc candidates to present their research project to the members of the lab but the distance makes this almost impossible. The candidate does have an impressive publication record and has worked out a technique Dr. Lawson believes will further a neglected project in the lab. He just doesn't know what to do and consults with his colleague, Dr. Diane Reed. Dr. Reed relays a story about a similar situation where Dr. Lawson, another colleague, hired a postdoc candidate first as a technician, only promoting him to a postdoc appointment once he was certain he could perform independently. Dr. Lawson wonders if this is the way to resolve this issue.

Discussion Questions:

1. Should Dr. Lawson trust the postdoc's publication record and research techniques without a meeting? What if he does hire the postdoc sight unseen and his expectations aren't met?
2. Is it OK for Dr. Lawson to bring this person on at the technician level, then promote to postdoc once the individual has proven themselves? Are there visa issues associated with this? Would he consider this approach with a US trained postdoc?
3. Has this ever happened to you or someone you know?
4. What other issues does this bring to mind?



Vignette #4: A Long-Distance Hire

(1 minute, 43 seconds)

Key issues:

- Laboratory hiring practices
- Mentor expectations
- Appropriate titles/classification
- Visa status/implications

Summary/Teaching Points:

- A face-to-face interview is very important for establishing a “good match”. When an in person interview is not a feasible option, current technology affords mentors the opportunity to conduct Webinars or video conferences. Phone interviews or identifying a “surrogate” interviewer (a colleague at the candidate’s institution or your colleague who is traveling to that institution) is also an option.
- Mentors should check references and obtain copies of publications. If unsure, mentors should ask candidates to annotate their precise contributions to publication.
- It is generally accepted that it is unfair to hire someone in a technical position if they are qualified for a postdoc appointment. This may be insulting to the candidate and could be damaging to the trainee’s career even though some international postdocs might be willing to accept a technician position just to come to the US.
- Most institutions have probationary periods where performance is assessed often after a 90-day period. Mentors also have an option of offering limited appointments (1 year). Mentors should establish clear goals for postdocs, including what should be accomplished on the first 90 days, year, etc.
- The prevailing sentiment is that there should be a level of trust in a candidate’s record and in his/her scientific integrity before offering him or her a position.



Vignette #5: Navigating Life in the United States

(1 minute, 47 seconds)

Several issues are raised regarding navigating life in the US. This scenario is intended to make mentors aware of the special considerations that are associated with bringing international trainees to the lab. Broad categories of recruitment, hiring and appointment and relationships in the lab are covered.

Characters:

Emilio, a new international postdoc who has encountered some financial trouble

Gabriella, Emilio's lab mate who is an experienced postdoc and once faced the same issues as Emilio

Setting:

A lab bench where Gabriella is working; Emilio enters

Scenario:

Emilio is a new postdoc in a US. laboratory. He has been in the lab for just a few weeks but has managed to get his research project up and going. He's even mastered a difficult technique. There's one problem. Emilio has come to the US. from overseas and is concerned because he has not received a paycheck and his bills are mounting. He has called the payroll department on several occasions but hasn't been able to get a good answer. As is customary in his new lab, a welcome dinner has been planned in his honor and he has to tell his colleagues that he has no money and cannot make the dinner.

Discussion questions:

1. What are the issues in the case? Who or what is affected?
2. How would you advise Emilio?
3. How can foreign nationals find out how to navigate life in the US? What resources are available? How involved should mentors be in the process?
4. Has this ever happened to you or someone you know? How was the situation resolved? How involved was the mentor in the final resolution?
5. What other challenges exist for international postdocs?



Vignette #5: Navigating Life in the United States

(1 minute, 47 seconds)

Key issues:

- Postdoc anxiety about immigration issues
- Fostering trust between mentor and trainee
- Trainee expectations (false vs. realistic)
- Effective communication between mentor and trainee

Summary/Teaching Points

- International postdocs are not always prepared for the transition from their home country to the US. There may be some initial feelings of frustration and anxiety.
- International postdocs should consider how much money they need to rent an apartment, order utilities, and cover bills before the first paycheck. It is important for them to know that they must immediately request a social security number and that the social security number may be a prerequisite to getting a bank account, being paid, etc.
- Institutions should provide in-coming postdocs with guidance on these issues and have procedures in place to provide emergency loans.
- Learning the “in’s” and “out’s” of the US may take some time. It is important for institutions and mentors to recognize this.
- Providing support and resources are recommended and conveys the institution’s commitment to supporting international trainees.
- Many mentors hire postdocs without realizing the special considerations that are associated. Mentor awareness and sensitivity are critical.



Vignette #6: Saeed's Dilemma

(1 minute, 27 seconds)

This scenario explores conflict resolution and was designed to promote discussion of what steps to take when the mentor/trainee relationship goes awry. It also focuses on visa status and career guidance. Troubleshooting the mentor/trainee relationship, scientific and career development and recruitment, hiring and appointment are the broad categories addressed.

Characters:

Saeed, an international postdoc in the laboratory of Dr. Agnes

Jane, a fellow postdoc and concerned friend

Setting:

The cafeteria in a research building. Saeed has asked Jane to join him for coffee

Scenario:

Saeed is a 2nd year postdoctoral fellow at an academic institution. He has managed to be productive, but Saeed has been unsatisfied with his postdoc experience for quite some time and has begun to explore other career options. His relationship with his mentor has soured tremendously over the past year; often times, their meetings end in an exchange of very unpleasant dialog. Saeed is left feeling unable to communicate with his advisor. To make matters worse, Saeed is an international postdoc and has the added dilemma of changing his visa status if he leaves his lab. Saeed wonders if he can just change advisors rather than leave the institution.

Discussion Questions:

1. What options does Saeed have? What is his responsibility to his mentor?
2. Where can Saeed go to find out about his visa and its limitations?
3. Should Saeed be able to change labs if the situation just isn't working out?
4. Does this case resonate with you? Has this ever happened to you or someone you know?
5. What other issues does this bring to mind?



Vignette #6: Saeed's Dilemma

(1 minute, 27 seconds)

Key issues:

- Communication
- Mentor/trainee relationship- mentor's ability to affect visa status and pay
- Performance assessment
- Visa/immigration status
- Career guidance

Summary/Teaching Points:

- Many international postdocs fear that questioning or challenging a mentor will result in the mentor negatively impacting the postdoc's visa status.
- Unhappiness at the lab bench may lead to decreased productivity. Quality of life issues are important to successful postdoc experiences.
- Changes to visa status are time consuming and sometimes costly and may force some international postdocs to remain in labs that may not be a good fit for them.
- When the mentor/postdoc relationship does not work out and a decision to terminate the relationship has been made, the postdoc should give enough notice to bring the project to a concluding point. The mentor should give the postdoc time to find another position.
- Institutions need strong immigration resources and dedicated postdoc staff to help postdocs navigate these issues.



References

General

“A Better Life for Postdocs”. *The Scientist* 2006; 20(3):13.

Abdul-majid, Khairul-bariah. “Unlock the Box”. *The Scientist* 2003; 17(7):61.

Association of American Universities, Graduate and Postdoctoral Education Committee. Postdoctoral Education Survey: Summary of Results. October 2005.
http://www.aau.edu/education/05_PostDocSumm101705.pdf

Dalton, Rex. “US Undervalues Foreign Researchers, Survey Reveals”. *Nature* 2005; 434:426.

Gottesman, MM. *A Guide to Training and Mentoring in the Intramural Research Program at NIH, Bethesda, MD*: National Institutes of Health, 1999.

Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty. Research Triangle Park, NC and Chevy, Chase, MD: Burroughs Welcome Fund and Howard Hughes Medical Institute, 2004.

Postdoctoral Fellows Focus Group. “A 10-Step Plan for Better Postdoc Training”. *The Scientist* 2006; 20(1):24.

Woolston, Chris. “Postdocs Across the Pond”. *The Chronicle of Higher Education* 2005; June 16.

Recruitment, Hiring and Appointment

Barker, Kathy. *At the Helm: A Laboratory Navigator*. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press, 2002.

Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty. Chapter 4, Staffing Your Laboratory. Research Triangle Park, NC and Chevy, Chase, MD: Burroughs Welcome Fund and Howard Hughes Medical Institute, 2004.

Science’s Next Wave. Articles on science careers and career transitions, <http://nextwave.sciencemag.org/>

National Postdoctoral Association. International Postdoc Survival Guide.
http://www.nationalpostdoc.org/site/c.eoJMIWOBIRH/b.1459343/k.DF5D/International_Postdoc_Issues.htm.



References

Career and Professional Skill Development

“Do’s and Don’ts for Keeping Lab Notebooks”, Fasse and Beattie
<http://www.fr.com/practice/pdf/LABBOOK2.pdf>

Gadlin, Howard and Jessar, Kevin. “Preempting Discord: Prenuptial Agreements for Scientists”. RCR Instructional Resources. Office of Research Integrity, <http://ori.dhhs.gov>

NIH Guide to Grants and Contracts <http://grants.nih.gov/grants/guide/index.html>

Office of Extramural Research <http://grants.nih.gov/grants/oer.htm>

Schwartz, Joan. “Silence is not Golden: Making Collaborations Work”. RCR Instructional Resources. Office of Research Integrity, <http://ori.dhhs.gov>

Science’s Next Wave. Articles on science careers and career transitions, <http://nextwave.sciencemag.org/>

Steneck NH (2003): *ORI Introduction to the Responsible Conduct of Research*. Washington, DC: Department of Health and Human Services.

Mentoring

Enhancing the Postdoctoral Experience for Scientists and Engineers. A Guide for Postdoctoral Scholars, Advisors, Institutions, Funding Organizations, and Disciplinary Societies. Washington, DC: National Academy Press, 2000.

Gottesman, MM. A Guide to Training and Mentoring in the Intramural Research Program at NIH, Bethesda, MD: National Institutes of Health, 1999.

Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty. Chapter 5, Mentoring and Being Mentored. Research Triangle Park, NC and Chevy, Chase, MD: Burroughs Wellcome Fund and Howard Hughes Medical Institute, 2004.

National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. Committee on Science, Engineering, and Public Policy. *Advisor, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering*. Washington, DC: National Academy Press, 1997.

Smaglik, Paul. “Postdocs, Mentor Thyselves”. *Nature* 2005; 434:415.



References

Visa/Immigration

Kreeger, Karen. "Access Delayed". *Naturejobs*. 2003; 422:96-97.

US Citizenship and Immigration Services (USCIS) <http://www.uscis.gov>

US Department of Homeland Security <http://www.dhs.gov/dhspublic/>

US Department of State- Bureau of Consular Affairs <http://www.travel.state.gov/>

US Department of State- Bureau of Consular Affairs. Visa Wait Times Website
http://travel.state.gov/visa/tempvisitors_wait.php

UPenn's Office of International Programs <http://www.upenn.edu/oip/>

Communication

Booth, V. 1993. *Communicating in Science: Writing a Scientific Paper and Speaking at Scientific Meetings*, 2nd edition. New York: Cambridge University Press.

Day, R.A. 1994. *How to Write and Publish a Scientific Paper*, 5th edition. Phoenix:Oryx Press.

Federation of American Societies for Experimental Biology. Individual Development Plan (IDP)
<http://www.faseb.org/>

Moriarty, M.E. *Writing Science Through Critical Thinking*. New York: Jones and Bartlett.

Teachers of English to Speakers of Other Languages, Inc. (TESOL)
http://www.tesol.org/s_tesol/index.asp.

