

Lamont-Doherty Earth Observatory  
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# LDEO Postdoctoral Mentoring Plan

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Office of Academic Affairs & Diversity, LDEO Directorate  
Lamont-Doherty Earth Observatory  
Columbia University

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### Contact

Arthur Lerner-Lam, Interim Director, LDEO  
Email: [lerner@ldeo.columbia.edu](mailto:lerner@ldeo.columbia.edu)

Kuheli Dutt, Asst. Dir. Academic Affairs & Diversity  
Email: [kdutt@ldeo.columbia.edu](mailto:kdutt@ldeo.columbia.edu)

Office of Academic Affairs & Diversity  
LDEO Directorate  
211 Monell Bldg  
Lamont-Doherty Earth Observatory  
61 Route 9W, Palisades NY 10964  
Phone: 845-365-8603; Fax: 845-365-8162  
Website: <http://www.ldeo.columbia.edu/academicaffairs>

## **LDEO Postdoctoral Researcher Mentoring Plan**

### **Introduction:**

Since the creation of the Office of Academic Affairs & Diversity in October 2008, special efforts have been made to reach out to postdoctoral scholars in an attempt to solicit their input on matters pertaining to their postdoctoral experiences. Individual meetings/ interactions with a large number of postdoctoral scholars and junior research scientists revealed that the postdoctoral experience at LDEO is varied. Based on the feedback received from postdoctoral scholars, along with input from the LDEO Executive Committee and principal investigators at LDEO, an institution-wide postdoctoral mentoring plan has been developed. This plan sends out a signal to the Lamont community about the increasing importance that the institution places on mentoring.

### **Rationale of Mentoring Plan:**

Advisors play a crucial role in helping establish their postdoctoral researchers' careers and are expected to provide guidance and support in this area. Implementing an institutionally mandated mentoring plan for postdoctoral researchers is expected to be beneficial in the following ways:

1. It is expected to improve the overall postdoctoral experience by focusing on career-related activities in addition to scientific research.
2. It is expected to help proposals requesting funding for postdoctoral researchers be more competitive (see Appendix for NSF requirement).
3. It is expected to allow for greater retention of postdoctoral scholars, our most diverse group (in terms of gender and race), therefore contributing to the overall diversification of the research staff at LDEO.

### **Role of Mentors:**

Mentors are expected to do one or more the following activities:

- Provide intellectual leadership by acting as an advisor in research, and involve mentees in the full range of the scientific process, from defining a problem to reporting results

- Nurture their postdoctoral researcher's professional growth, and foster the development of talents, including research skills, teaching ability, presentation and writing skills, and time management skills
- Provide advice and input in the preparation of grant and fellowship applications and also review and edit grant proposals written by postdoctoral researchers for both content and language (LDEO has several postdoctoral researchers whose first language is not English)
- Act as an advocate and guide in administrative matters and ensure that postdoctoral researchers are aware of how the Observatory and Columbia University function, especially in areas of governance, promotions, appointments, etc.
- Promote postdoctoral researchers within the broader research community and help them develop a network of professional colleagues
- Advise postdoctoral researchers regarding career options, including both academic and non-academic career choices, and alerting them to opportunities to enrich their careers
- Help build a supportive environment for research and scholarship, and be supportive both professionally and personally
- Be supportive of circumstances that surround non-US postdoctoral researchers – such as visa- related issues as they pertain to promotion timelines and career advancement

**Goals and Outcome of Mentoring Plan:**

The goal of the mentoring plan is to provide the postdoctoral researcher with relevant skills, training and guidance to advance their careers and perform as successful individual scientists. As a result of this mentoring plan, postdoctoral researchers are expected to have the following available to them (wherever applicable) in order to advance their careers:

- Training in the preparation of grant proposals
- Opportunity to co-author publications
- Guidance on making scientific presentations
- Opportunities to network with the scientific community, both within LDEO and outside
- Career counseling and guidance
- Training in professional practices

*When requesting support for postdoctoral researchers in their grants, mentors are advised to indicate the following, wherever relevant / applicable:*

- Professional trainings that you encourage or require for your postdoctoral researcher
- Funding provided for travel to conferences and other networking opportunities
- Co-authoring of publications and/or grant proposals with your postdoctoral researcher
- Frequency of meetings with the postdoctoral researcher focused on career advancement, especially with respect to the topics mentioned in the “*Postdoctoral Self-Assessment Questionnaire*” section of this document
- That the LDEO Directorate solicits confidential feedback from the postdoctoral researchers on their overall mentoring experience at LDEO, and is in the process of creating an institutional database tracking the career path of LDEO postdoctoral scholars
- Any other activity aimed at enhancing the postdoctoral researcher’s experience at LDEO

**Plan Outline:**

The LDEO Postdoctoral Researcher Mentoring Plan involves the following steps:

- **Step 1:** The postdoctoral researcher fills out the self-assessment questionnaire (provided in a subsequent section of this document) and discusses relevant questions with his/her mentor. If considered necessary or appropriate by the mentor and/or postdoctoral researcher, additional mentors could be included.
- **Step 2:** The postdoctoral researcher and mentor/s meet at least once every three months to discuss career guidance, taking into consideration the items listed on the questionnaire. These meetings are strongly recommended. It is recognized that not all items in the questionnaire are pertinent to all cases or at all times; emphasis should be placed upon discussion of topics relevant to the particular case. The Assistant Director for Academic Affairs & Diversity will solicit feedback on a quarterly basis from the postdoctoral researchers on whether such meeting/s took place.
- **Step 3:** The Assistant Director for Academic Affairs & Diversity will solicit feedback annually (in the form of a written review) from the postdoctoral researchers on their overall mentoring experience. In the case of multiple mentors or group mentoring, the postdoctoral

researcher should include these relevant details in the review. The postdoctoral researcher should also indicate whether s/he would like any part of his/her mentoring situation to be changed in any way. The Assistant Director for Academic Affairs & Diversity, LDEO, then consults with the Director, LDEO on any situations that might need to be resolved. All comments and reviews will remain confidential unless specifically indicated otherwise.

**Other Relevant Information:**

1. **Applicability:** This plan will be put into effect for all postdoctoral researchers whose mentors are either Lamont research professors (all ranks) or Research Scientists within the purview of the Observatory (all ranks). However, some postdoctoral researchers are mentored by individuals who do not fall into either of the above categories (e.g. DEES, Barnard, APAM, EI, adjuncts). The Office of Academic Affairs and Diversity, LDEO will work to encourage adoption of this mentoring plan; however, the Observatory is not in a position to enforce it.
2. **Relevance of items in questionnaire:** The postdoctoral researcher's original job description, *as decided by the mentor/s*, will determine which questions are relevant and which ones are not. For example, if a postdoctoral researcher was specifically hired for a particular project and is not expected to raise his/her own funding, or have his/her own research agenda, then questions pertaining to those things in the questionnaire will be irrelevant.
3. **Frequency of discussion points listed on questionnaire:** The postdoctoral researcher and mentor are not expected to go over every single item at each meeting – only the ones that seem pertinent at that specific point in time. Nor are they expected to keep re-assessing all their work at every single meeting.
4. **Meetings with multiple mentors:** It is up to the mentors and the postdoctoral researcher to decide whether they want to meet individually or as a group or not at all. It is possible for the postdoctoral researcher to regularly meet with one mentor and not the others, depending on the needs and preferences of the postdoctoral researcher and mentors in question.

5. **Advice on governance issues:** For new postdoctoral researchers the mentor is expected to inform them where they can find information on LDEO governance/ policy related issues, including promotions and reviews. One venue is the Academic Affairs & Diversity website (<http://www.ldeo.columbia.edu/academicaffairs>) but there may be other possible venues that mentors and postdoctoral researchers could use.
6. **Additional people assigned to meetings:** If the postdoctoral researcher and/or mentor believe it would benefit them to have additional people present when they meet for mentoring discussions, they may do so. In such a case it would be useful to seek the Associate Director's input on who should be included, but it is not required. If the Associate Director believes that including additional people would be beneficial, s/he may do so.
7. **Confidential feedback:** At any time the postdoctoral researcher feels that s/he is not satisfied with his/her mentoring experience but is hesitant to express it, s/he may contact the Assistant Director for Academic Affairs & Diversity. Discussions will be kept confidential.
8. **Email / phone discussions:** At any time when the mentor is away, it is possible to continue mentoring related discussions via email or phone conversations. If the postdoctoral researcher wishes, s/he may request the Associate Director to assign him/her an alternate mentor until the original mentor returns.
9. **Revisions to Mentoring Plan:** This plan may be revised depending on feedback received. Any changes to this plan must be endorsed by the LDEO Directorate and the LDEO Executive Committee.

## **Postdoctoral Self-Assessment Questionnaire**

This self-evaluation questionnaire has been adapted from the National Postdoctoral Association (NPA) guidelines for postdoctoral evaluation. Please answer the following questions. Wherever relevant, please indicate how your mentor can play a role in providing help or guidance.

*(Note: Some questions may not be applicable to you; in which case please answer N.A.)*

### **A. Current Research Activities**

I. Accomplishments during the past year:

1. Have you submitted any papers?
2. Have you applied for or been granted any patents?
3. Have you presented your work at any meetings?
4. Did you write any individual grant applications? Were they funded? If not, why?
5. Have you received any awards or honors?
6. Have you undertaken any new assignments?
7. Have you networked with LDEO scientists outside of your immediate group?
8. Have you become involved with any professional organizations?
9. Are you involved in any “outside” activities with professional relevance?
10. In your opinion, what have you done well over the past year?

II. How have your skills in the following areas improved in the past year? How will you work to improve them in the coming year?

1. Writing skills
2. Presentation skills
3. Oral Communication skills
4. Time management skills

### **B. Long-Term Research Activities**

III. Research goals:

1. What are your research goals?



2. How do you plan to establish credibility and make a name for yourself?
3. What additional research skills do you need to achieve your goals?
4. Do you have any new ideas for your research?
5. What grants are you trying to pursue/ obtain?
6. Are you seeking different opportunities to make presentations? What meetings/ workshops are you planning to attend over the next few years?
7. How many planned publications have you got for the next few years?
8. How are you trying to increase your potential collaborations?
9. Do you plan to take any professional training courses?

#### IV. Career Goals

1. What are your career goals?
2. Where do you want to be five years from now and what do you need to do to get there?
3. How familiar are you with LDEO promotion processes, bylaws and governance?
4. When will it be appropriate for you to begin your LDEO promotion process or job search? How prepared are you for this transition?
5. What have you done in the past year to develop contacts relevant to your job search and what do you plan to do in the coming year?
6. What additional skills or training do you need to acquire to achieve your desired career objectives?
7. When is your target date for moving to a new position?

## **Appendix: National Science Foundation (NSF) Postdoctoral Mentoring Requirement**

Starting April 2009, all NSF grant proposals requesting funding for postdoctoral scholars are required to include a description of mentoring activities. These mentoring plans must be an explicit part of the proposal and will be reviewed under NSF's broader impacts criteria. The mentoring plan is a one-page supplementary document that describes mentoring activities for all postdoctoral scholars supported by the project. The relevant text (from the April 2009 Grant Proposal Guide, Chapter II Section C2(j)) is quoted here:

*“Postdoctoral Researcher Mentoring Plan: Each proposal [28] that requests funding to support postdoctoral researchers must include, as a supplementary document, a description of the mentoring activities that will be provided for such individuals. In no more than one page, the mentoring plan must describe the mentoring that will be provided to all postdoctoral researchers supported by the project, irrespective of whether they reside at the submitting organization, any subawardee organization, or at any organization participating in a simultaneously submitted collaborative project. Proposers are advised that the mentoring plan may not be used to circumvent the 15-page project description limitation. See GPG Chapter II.D.4 for additional information on collaborative proposals.*

*Examples of mentoring activities include, but are not limited to: career counseling; training in preparation of grant proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices. The proposed mentoring activities will be evaluated as part of the merit review process under the Foundation's broader impacts merit review criterion. Proposals that include funding to support postdoctoral researchers, and, do not include the requisite mentoring plan will be returned without review (see GPG Chapter IV.B.)*

*[28] For purposes of meeting the mentoring requirement, simultaneously submitted collaborative proposals, and, collaborative proposals that include subawards, constitute a single unified project. Therefore, only one mentoring plan may be submitted for the entire project.*