

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

**LDEO Postdoctoral
Mentoring Plan
April 2019**

OFFICE OF ACADEMIC AFFAIRS & DIVERSITY
LDEO DIRECTORATE

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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 researchers based at Lamont in an attempt to solicit their input on matters pertaining to their postdoctoral experiences. Individual meetings/ interactions with a large number of postdoctoral researchers revealed that the postdoctoral experience at LDEO is varied. Based on the feedback received from postdoctoral researchers, along with input from the LDEO Executive Committee and principal investigators at LDEO, an institution-wide postdoctoral mentoring plan was developed. This plan signals to the Lamont community 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. Implementing an institutional postdoctoral mentoring plan 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 1 for NSF requirement).
3. It is expected to allow for greater retention of postdoctoral researchers, 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 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 has created 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 primary mentor or mentors. Each postdoctoral researcher at Lamont will have a Mentoring Committee comprising no less than two and no more than five mentors.
- **Step 2:** It is strongly recommended that the postdoctoral researcher meet with her/his primary mentor(s) at least once every three months to discuss career guidance, taking into consideration the items listed on the questionnaire. Further, each postdoctoral researcher should meet with his/her Mentoring Committee at least once every six months to discuss career guidance and mentoring. Not all items in the questionnaire are pertinent to all postdoctoral researchers or at all times; emphasis should be placed upon discussion of topics relevant to the particular postdoctoral researcher.
- **Step 3:** In preparation for the Lamont-wide annual performance review, the Mentoring Committee will write a report on the postdoctoral researcher’s performance, as well as offer specific suggestions to the postdoctoral researcher for his/her career advancement

for the remainder of his/her postdoc term at Lamont. Mentoring activities are part of the criteria by which mentors are evaluated at their (i.e. the mentor's) annual performance review by the LDEO Directorate.

- **Step 4:** The Assistant Director for Academic Affairs & Diversity will solicit feedback annually from the postdoctoral researchers on their overall mentoring experience. 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 are expected to remain confidential* unless specified 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 Lamont research scientists (all ranks). However, some postdoctoral researchers are mentored by individuals who do not fall into these categories (e.g. DEES, Barnard, APAM, EI, adjuncts). We encourage them to adopt this mentoring plan.
2. **Relevance of items in questionnaire:** The postdoctoral researcher's 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 item at each meeting – only ones that seem pertinent at any point in time. Nor are they expected to re-assess all their work at every single meeting.

* Confidentiality is limited to those cases that do not involve gender/sexual misconduct.

4. **Meetings with Mentoring Committees:** It is up to the Mentoring Committee and the postdoctoral researcher to decide whether they want to meet individually or as a group. 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. **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. If the Associate Director believes that including additional people would be beneficial, s/he may do so.
6. **Confidential feedback:** At any time the postdoctoral researcher would like to convey feedback on his/her mentoring experience, s/he may contact the Assistant Director for Academic Affairs & Diversity.
7. **Email / phone discussions:** At any time when the mentor(s) are away, it is possible to continue mentoring related discussions via Skype, email, and/or phone conversations. Mentors who are traveling are strongly encouraged to assign an alternate mentor in their absence who can serve as a resource for the postdoctoral researcher.
8. **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.
9. **Synopsis:** A synopsis of this Mentoring Plan is available in Appendix 2, which can be used to customize the description of mentoring activities when requesting postdoctoral grant funding. The synopsis is available at:

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 might not be applicable to you)*

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 1: National Science Foundation (NSF) Postdoctoral Mentoring Requirement

As of April 2009, all NSF grant proposals requesting postdoctoral funding 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 researchers supported by the project. From the Grant Proposal Guide:

“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.”

Appendix 2: Synopsis of LDEO Postdoctoral Mentoring Plan

Postdoctoral researchers and mentors are expected to follow the Postdoctoral Mentoring Plan, the goal of which is to provide the postdoctoral scientist with relevant skills, training and guidance on career advancement and to perform as successful individual scientists.

Mentoring Plan Outline:

The LDEO Postdoctoral Mentoring Plan involves the following steps:

- ***Step 1:*** The postdoctoral scientist answers a self-assessment questionnaire and discusses relevant topics with his/her mentor and Mentoring Committee.
- ***Step 2:*** The postdoctoral scientist and mentors meet at regular intervals to discuss career guidance, taking into consideration the relevant topics listed in the questionnaire.
- ***Step 3:*** In preparation for the annual performance review, the Mentoring Committee will write a report on the postdoctoral researcher's performance, and include any suggestions for career advancement.
- ***Step 4:*** The LDEO Directorate solicits feedback from the postdoctoral scientists on their overall mentoring experience. In addition, mentoring activities are part of the criteria by which mentors are evaluated at their (i.e. the mentor's) annual performance review by the LDEO Directorate.

In addition to this, postdoctoral scientists are encouraged to contact the LDEO Directorate at any time if they wish to discuss their mentoring experience.

Components of Self-Assessment Questionnaire:

Adapted from the National Postdoctoral Association (NPA) guidelines for postdoctoral evaluation, a questionnaire has been developed for LDEO postdoctoral scientists, with topics focusing on career guidance. These include:

A. Current Research Activities

- I. *Accomplishments during the past year:* any submitted or published papers; oral or poster presentations; grant proposals written (and whether funded); patents received or applied

for; awards and honors received; new assignments undertaken; networking activities within and outside LDEO; membership in any professional organizations;

II. *Improved skills during the past year*: evidence of writing skills; presentation skills; oral communication skills; and time-management skills.

B. Long-Term Research Activities

III. *Research Goals*: overall research goals; how to establish one's own credibility in one's field; additional research skills needed; any new ideas for research; pursuing long-term grants; seeking opportunities for presentations, networking and visibility; number of publications planned; professional courses planned

IV. *Career Goals*: overall career goals; envisioned road map for the next five years; familiarity with LDEO promotion processes and governance; level of preparation needed to transition to junior scientist rank; target date for moving to new position.

Outcome of Mentoring Plan:

As a result of this mentoring plan, postdoctoral scientists are expected to have the following available to them 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 externally
- Career counseling and guidance within LDEO (such as guidance on the promotion process within LDEO) and externally (such as the career paths that are best suited for the postdoctoral scientist), and
- Training in professional practices

Note: This mentoring plan has been designed to ensure maximum flexibility given the variation in the roles and responsibilities of postdoctoral scientists at LDEO.