

## Elsevier Advancing Postdoc Women

### Introduction

Since 2009, the NPA has been working with institutions to foster the advancement of postdoc women in academic careers through the NPA ADVANCE project funded by the National Science Foundation ADVANCE-PAID program. In the ADVANCE project, we learned that key providers of professional development for postdoc women were mentors, institutions, and professional societies. Through the Advancing Postdoctoral Women program, we focused our work to examine promising practices found in professional societies and associations.

In 2013, the National Postdoctoral Association (NPA) received a grant from the Elsevier foundation to conduct a survey of multidisciplinary societies and associations, to assess their programs and resources for postdoc women and to develop an online clearing house. Our goals included learning what professional development opportunities are offered by societies and associations, in various disciplines.

The first year of the program we launched an Elsevier Focus Groups screening survey through Survey Monkey to 59 participants. Survey participants included 37 individuals worked at a research institution and were in postdoctoral affairs. Thirty one percent were postdocs that answered the survey. Thirty five percent stated that they were seeking a higher education tenure track position, 17.6 % said they were interested in industry research related positions, and 17.6% were interested in industry non-research positions. The three main challenges faced by postdoc women were cited as

1. Career-life balance
2. Lack of mentoring, and support (women scientists)
3. Lack of childcare/family obligations

Prior to the 2013 Annual Meeting of the National Postdoctoral Association, a recruitment email was sent to all meeting participants. This letter invited female postdocs, research administrators who oversaw postdocs or a staff member of a professional society or association that included postdocs in its membership to participate in two focus groups. One focus group focused on postdocs, while the other focus group was made up largely postdoc offices.

These common themes emerged:

- Professional societies, being national, are in a better position to affect academic culture and influence policy at institutions. They can also provide accountability and monitoring of their membership and the applicable institutions.

- Professional societies could be better suited to offering women-only types of events which would encounter resistance at institutions. Postdoc women found value in having women-only programming, whereas the administrators were more resistant to this idea, with concerns about fairness and equity.
- Professional societies can serve as the seed of change in other respects, such as showing proof of concept of new programs or ideas that can then be disseminated to their stakeholders as well as offering train-the-trainers types of programs that also share promising practices that can be taken back to the institutions.
- Institutions and professional societies can serve complementary roles in providing career development to postdocs. Professional societies meet so infrequently that they may be better suited to information provision and catalyzing a postdoc's development efforts (e.g. programs on how to write grants) whereas institutions can then follow-up on this (e.g. ongoing support to a postdoc in writing a particular grant).
- Postdocs felt that their professional societies knew little about them as a group and did little for them.
- Postdocs more often mentioned targeted professional societies (e.g. AWIS) as a provider of professional development for women than their disciplinary societies, but felt that all societies should have these concerns embedded in their activities and mission. This suggested that there was little career development offered to them by their disciplinary societies, whereas comments from the administrators suggested that these types of programs for early-career researchers were more common than this.
- Professional societies can play a dual role in changing the culture and the institutional environment, as well as educating and supporting the individual in their own career advancement.
- The types of programs that were suggested for professional societies were:
  - Mentor matching activities whereby postdocs could find suitable mentors in a database with varied search fields. This would have particular value for those looking for interdisciplinary collaborators. A follow-up suggestion was that these mentoring relationships could be structured to involve an activity like co-writing a grant, or could be targeted mentoring, focusing on just one area, e.g. grant writing, scientific technique, switching fields.
  - Reverse mentoring or managing up, which ensures that there is benefit for the mentors.
  - Include information on the needs of women in any mentor training.
  - Fellowships for postdocs that tend to their long term career with embedded professional development.
  - Fellowships in career transition areas outside of academia, for example, science policy, science writing.

- Funding support for travel awards, transition funding for life transitions, professional development, childcare scholarships.
- Data collection and dissemination on topics such as: why researchers do and should take a postdoc position, various types of implicit gender bias, possibly on outcomes of professional and career development programs, salary disparities with their community.
- Policy statements or raising general awareness on: the importance of the postdoc as a training period, the varied career outcomes for postdocs, the need for early career planning by researchers well before the postdoc, awareness of implicit biases.
- In-person and online career seminars, particularly interactive venues.
- Childcare at meetings.
- Society committees dedicated to grad student and postdoc concerns.
- “Women’s lunches” at conferences/meetings that foster networking and information sharing. There was however some concern, by both the postdocs and the administrators, that a panel of women talking about their “one-shot” experiences was perhaps not as valuable as someone who was an expert and could speak broadly about lessons learned and actionable, “how to” advice.
- Fostering networking, particularly regionally or internationally, and providing guidance on how to network.

We developed a survey with the guidance of our Advisory Board, and asked questions about what programs and services are provided by professional societies and associations to assist postdoc women make a successful transition to faculty or non-academic careers. Forty-six professional societies and associations responded with exciting information about mentoring, career development, professional development, and childcare resources.