

Report on the 2023 Polar Postdoc Leadership Workshop hosted by the Polar Science Early Career Community Office

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The Polar Science Early Career Community Office (PSECCO) organized and hosted the first Polar Postdoc Leadership Workshop (PPLW) to bring together polar scientists from across disciplines to engage with each other and empower their leadership skills. The workshop was held from May 15 to May 19, 2023, and was attended by twenty postdoctoral researchers¹ from sixteen US-based institutions, representing eight nationalities. Workshop sessions were facilitated by Mariama Dryák-Vallies and Rebecca Batchelor, with contributions from twelve external mentors, panelists, and speakers, as well as two NSF program officers². Day one took place at the Sustainability, Energy and Environment Community Building on the University of Colorado (CU) Boulder campus, while the rest of the workshop took place at the CU Mountain Research Station outside of Nederland, Colorado.

Workshop summary

The workshop began with five-minute scientific lightning talks from all participants. The range of scientific disciplines within polar research was impressive, spanning from physical oceanography to Indigenous community-engaged research. While the participants came from a variety of different scientific and life backgrounds, there was limited representation of individuals from communities historically excluded in the polar sciences.

Because of the wide-ranging scientific expertise of the participants, a large emphasis was placed on developing interpersonal skills that can be applied across varied polar research disciplines and career paths. Sessions typically began with expert guest panelists speaking on the session topic, followed by a Q&A-style group discussion, and finished with break-out groups to discuss more specific themes within the broader session topic. Below, some of the main workshop topics and discussion points are briefly summarized:

- **Effective collaboration strategies:** The expert panel highlighted the importance of establishing expectations up front within collaborative relationships. Participants further discussed how to ensure that collaborations are mutually beneficial, which may include advance consideration of outputs and the establishment of acknowledgement beyond publications.
- **Inclusive pedagogy and mentoring practices:** Participants were encouraged to incorporate teaching practices that meet the needs of a diverse array of informally or formally educated individuals. It was emphasized that inclusive instruction is equitable, welcoming, active, and feedback driven. In a separate session, workshop participants

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² Facilitator, mentor and speaker bios can be found at psecco.org/outreach/conferencesworkshops/polar-postdoc-leadership-workshop#tab-29-5

- completed a mentor map exercise³, prompting reflection on how different mentoring needs can be fulfilled by people in various areas of life.
- **Community engagement:** For this topic, panelists highlighted the importance of community engagement in research, largely focusing on Indigenous community engagement and equitable co-production of knowledge techniques. Discussions highlighted the need to evaluate whether community engagement is mutually beneficial, and if it is not, then it's better not to pursue the project.
 - **Science communication:** Professionals from CU Science Discovery⁴ facilitated a session on science communication, explaining that good science stories have narrative structures. PPLW participants practiced a science communication technique following an “and, but, therefore” structure to help synthesize takeaways from complex topics. This strategy was applied to various conversations throughout the workshop and during the proposal-writing exercises.
 - **Work-life balance:** Panelists emphasized the importance of including space for personal time when scheduling, and that saying ‘no’ is always okay if a project does not fit your schedule, needs or interests at that time. Saying no to an opportunity may open doors to another later on. Participants also discussed the importance of celebrating achievements, both major and minor.
 - **Proposal writing:** Panelists and NSF program officers shared insights into the NSF funding structure and the proposal writing process, highlighting best practices and resources. Additionally, the workshop featured two separate collaborative proposal writing exercises, during which participants brainstormed project ideas, drafted a one-pager for NSF program managers, and pitched their projects to the group.

Moving forward

On the first day of the workshop, participants and facilitators set standards for what we wanted the workshop community to look like for the remainder of the week. This was an extremely helpful practice that set the tone for a thoughtful, inclusive, and productive meeting. These standards included ensuring everyone had space to share and contribute, assuming the best intentions of others, and being brave by sharing insight and experiences with the group. With this in mind, at the close of the workshop, participants reflected on standards and community norms that they would like to see within the larger polar research community. These reflections, along with a more in-depth workshop summary will be shared in an upcoming opinion paper co-authored by the PPLW participant cohort.

Throughout the workshop participants reflected on the weird, transitory nature of the postdoc career stage. Postdoctoral or similar positions are often short term, limited in structure, and may require long-distance moves, making it difficult to develop a sense of community. The 2023 PPLW succeeded in bringing together people at this unique career stage, creating a sense of unity and ambition for a more equitable, diverse, accessible and inclusive polar research community. Participants strongly feel that many of the resources, skills and tools gained at the workshop should be available to others unable to attend. Therefore, the participant cohort is currently compiling a resource guide that will be shared with the wider community in the coming months.

³ This Earth Science Women’s Network mentor map was used at the workshop: eswnonline.org/mentor-mapping/

⁴ CU Science Discovery is a STEM education outreach program at CU Boulder: www.colorado.edu/sciencediscovery/

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