

Overview of Postdoctoral Fellowships in Polar Regions Research The First Year

I. Introduction

In FY2004, OPP started a new postdoctoral fellowship program, which resulted in 6 Fellows for the first cohort. In the last several years, NSF has had a renewed interest in postdoctoral training issues, and the OPP Postdoctoral Fellowship is the latest addition to the group of independent postdoctoral research fellowships that NSF offers. The Polar Programs fellowship is intended to serve several goals for OPP and NSF:

- Support innovative research
- Foster the next generation of polar scientists
- Broaden participation in polar science
- Encourage best practices in the community for a postdoctoral research experience

II. Fellowship & Travel Grant Summary

The OPP postdoctoral fellowship supports training and research on any aspect of scientific study of the Antarctic and/or the Arctic. The fellowship program provides support for up to three years at a US host institution, and encourages applications from new investigators in Polar Regions research. The program also offers optional travel grant awards so that potential fellowship applicants may first visit prospective sponsoring scientists at their organizations. Applications from women and minorities are especially encouraged.

ELIGIBLE APPLICANTS: US citizens or permanent residents of the United States who have earned the doctoral degree or will complete a doctoral degree no more than 1 year after the proposal deadline date, and have not participated in postdoctoral training for more than three years.

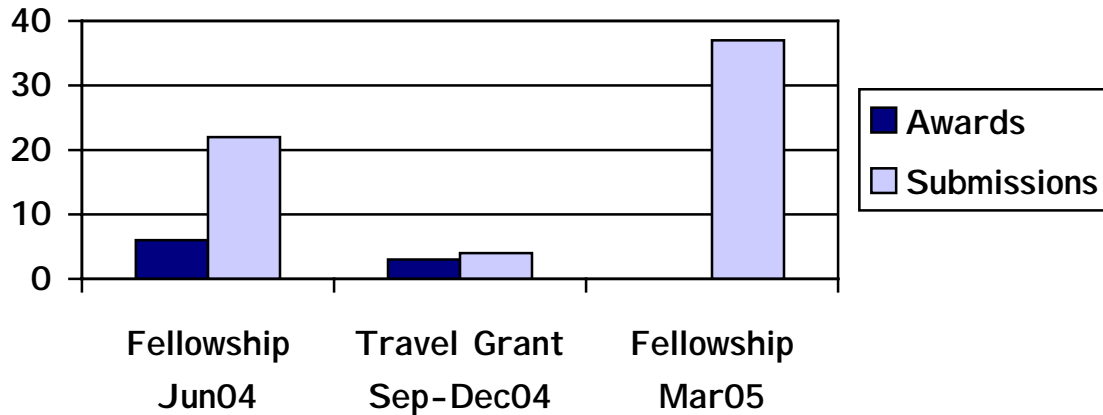
TRAVEL GRANTS: Travel grants support travel to one or two potential host institutions to meet prospective mentors and colleagues and to evaluate research facilities and professional development opportunities. Proposals must be submitted at least three months prior to the proposed travel.

FINANCIAL SUPPORT: Fellowship awards include a salary stipend, research funds, health insurance allowance for the Fellow plus dependents, as well as field research expenses. Travel grants support travel and per diem costs.

FIELD RESEARCH: OPP will support both arctic and antarctic fieldwork proposed by postdoctoral fellows through the Arctic Research Support and Logistics program and the US Antarctic Program, respectively.

III. Proposal Competition Overview

OPP Postdoc Proposals



FY2004 Competition – Deadline: June 2004

1st Fellowship Competition: 6 award recommendations

- Gregory A. Balco, who will work with Howard Conway at the University of Washington on cosmogenic-nuclide geochronology of glaciated surfaces in the upper Dry Valleys; Greg will join Jaakko Putkonen's group in November 2005.
- Nate A. Bickford, who will work with Brenda Norcross at the University of Alaska Fairbanks on habitat use and life history of fish in the eastern Bering Sea; Nate is working on a sample of flat fish collected on a Bering Sea cruise with his mentor last year.
- Bradley A. Buckley, who will work at Stanford with George Somero on the genomics of Antarctic notothenioids, an extremely cold-tolerant group of perch-like fish; Brad will conduct field and lab work at McMurdo station with collaborator Gretchen Hofmann's group in October 2005.
- Brook Nunn who will work with David Goodlett at the University of Washington on the effects of iron supply on the size, composition and bioavailability of dissolved organic carbon from *Phaeocystis antarctica*; Brook will be starting her fellowship in July 2005, and will join a cruise on the R/V Nathaniel B. Palmer with Wade Jeffrey in November 2005.
- Matthew D. Wallenstein, who will work with Josh Schimel at the University of California at Santa Barbara on the seasonal variability of the soil microbial communities responsible for decomposition of the arctic tundra carbon pool; Matt will be collecting field samples at the Toolik field station at regular intervals over his 3 year fellowships.

- Kenia Whitehead, who will work with Nitin Baliga of the Institute of Systems Biology in Seattle, Washington and with Ferran Garcia-Pichel of Arizona State University on global patterns of gene expression and regulation in response to UV radiation and low temperature stress. Kenia is conducting UV lab experiments using a model organism with a known genome.

FY2005 Competitions

- Travel Grants – First Deadline: September 2004
 - 1st Competition: 3 submitted proposals
 - November 2004: deadline removed, changed to rolling submissions so long as proposal is submitted at least three months before the intended travel dates
 - December 2004: 1 additional proposal received
 - All travel grant awardees later submitted fellowship proposals in March 2005
- Fellowship – Deadline: March 2005
 - 2nd Competition: 37 proposals, 70% increase over FY04
 - 54% women, 16% minorities
 - 27 proposals requesting fieldwork
 - 10 stand-alone projects, where the postdoc is not joining an existing PI project
 - Equal numbers working in Arctic and Antarctic

IV. Program Review

- Fellowship Publicity
 - Visibility of program appears to be increasing
 - Some misunderstanding of the program, that it is restricted only to scientists new to polar research
 - Need to invest some money in reaching under-represented groups
- Opportunity for independent fieldwork
 - Growing interest (37% of fieldwork proposed)

- Working to develop better understanding of how Antarctic postdoc proposals can be accommodated in USAP
- Workload
 - As expected, the program is higher maintenance than a standard grant
 - We are still determining what the steady-state workload will be