The National Postdoctoral Association
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The National Postdoctoral Association (NPA) is a professional association that provides a national voice for postdocs, with the goal of enhancing the quality of the postdoctoral experience for the estimated 89,000 postdocs in the USA1 and, thereby, advancing scientific research enterprise in the USA. Before the founding of the NPA, postdoctoral researchers did not have national representation or unified representation in the scientific community. Such advocacy was badly needed for this underpaid and underappreciated group, described by some as ‘invisible’2 and by others as the ‘backbone of the research enterprise’3.

Today, the NPA consists of a small executive staff and hundreds of volunteer contributors, including postdocs, faculty, administrators and others. The NPA has more than 3700 individual members and more than 3000 additional subscribers to its quarterly newsletter and E-alerts. When an institution becomes a member of the NPA, the institution’s postdocs, faculty and administrators can register online for free affiliate membership in the NPA. There are more than 170 institutional members in the NPA, representing some 40,000 postdocs.

Financial support for the NPA comes from its members and charitable contributions, including the Alfred P. Sloan Foundation and the American Association for the Advancement of Science (AAAS). Since being founded in 2003, the NPA has engaged and coordinated multiple national and local institutional efforts in support of the postdoctoral community.

Providing a national voice

One way in which the NPA wants to make the formative years that scientists spend as a postdoc as useful and productive as possible, is by influencing public policy at the national level. The NPA played a major role in the adoption of an official definition of ‘postdocs’ by the National Institutes of Health (NIH) and the National Science Foundation (NSF) in 2007, and encouraged the NIH to establish the Pathways to Independence award in 2006 to support postdocs during their transition to tenure-track faculty positions. The NPA also actively supported the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Science (COMPETES) Act, a bill signed into law in 2007, which included a requirement stating that NSF grant proposals that fund postdocs must include mentoring plans for those postdocs.

Other major advocacy concerns for the NPA are: increasing awareness of postdoctoral researchers and their work; improving compensation and benefits for postdocs; increasing funding for scientific research; and facilitating better professional and career development for postdocs. The NPA supports the transition of postdocs into ‘alternative careers’. Many young scientists find themselves pursuing avenues outside of more traditional academic positions because employment in the academic science and engineering sectors is growing more slowly than other areas4. To help postdocs identify career options, the NPA offers career planning resources on its website, features career development workshops at its meetings, and visits institutions to talk about career development for postdocs.

In acknowledgement of the contribution of postdocs to science, the NPA has designated September 24, 2009, as the first ever National Postdoc Appreciation Day. Stacy L. Gelhaus, PhD, Chair of the NPA Board of Directors, said, ‘We want to celebrate the significant contribution that postdoctoral scholars make to the U.S. scientific research enterprise and, at the same time, to increase awareness of this contribution. We want to involve as many institutions as possible and invite postdocs, faculty and administrators to participate.’

Enhancing the postdoc experience

The NPA sponsors diverse venues for professional development and networking, providing postdocs with a way to connect with the scientific community outside of their research groups. Through annual meetings, the NPA provides networking opportunities that give young scientists the support and collaboration needed to advance their careers. Informative sessions present the most current issues facing postdoctoral scholars; the postdoc community recommends the topics for these sessions. During interactive sessions, postdocs communicate with researchers from other fields; senior scientists and administrators; entrepreneurs; immigration attorneys; and corporate/industry representatives, as well as representatives from scientific associations and societies. The NPA sponsors travel awards to help postdocs overcome the financial hurdles that might prevent their participation in its meetings. Since the 2010 annual meeting will be held in Philadelphia, PA, on March 12-14, applications for 2010 travel awards will open in November 2009. Institutional hosts include the University of Pennsylvania, the Children’s Hospital of Philadelphia, Drexel University, Temple University and Thomas Jefferson University.

To encourage local support, the NPA helped establish new postdoctoral offices (PDOs) and postdoctoral associations (PDAs) at institutions across the country, and continues to provide online toolkits and a guideline for recommended practices. These toolkits and others on mentoring and the responsible conduct of research, as well as one on participating in the National Postdoc Appreciation Day, are among the resources available to the postdoctoral community on the NPA website: www.nationalpostdoc.org. (Some of these resources are ‘for members only’, so if you are interested, please see the membership application at http://www.nationalpostdoc.org/membership/join-us.)
The NPA also organizes legal seminars regarding visa issues for international postdocs, and NPA members regularly present their work at conferences and annual meetings. In the last year, NPA representatives have presented on ‘core competencies’, mentoring plans, writing CVs, starting a PDA, and other topics. Additionally, the NPA oversees special projects that will benefit postdocs, currently including, ‘From postdoc to faculty: transition issues for women scientists,’ a project funded by the NSF ADVANCE-PAID program.

The NPA has partnered with the Ewing Marion Kauffman Foundation to recognize entrepreneurial excellence in the scientific community. The Kauffman Foundation Outstanding Postdoctoral Entrepreneur Award will be presented at the 2010 annual meeting, and the recipient will receive a US$10,000 honorarium. The Emerging Postdoctoral Entrepreneur Award will be given to a promising postdoctoral entrepreneur and the recipient will receive a US$2500 honorarium. Information about eligibility and applications are available on the NPA website.

Led by postdocs
Of special interest to many postdocs is the opportunity to serve on the Committees of the Membership and/or the Board of Directors. Such volunteer service provides ‘on-the-job’ training regarding the structure and function of non-profit organizations in the research enterprise, and provides an avenue for volunteers to direct the strategic efforts of the NPA on behalf of all postdocs.

The NPA Board of Directors has close ties to the postdoc experience since they are current or recent postdocs themselves, and are elected by dues-paying members, who are also postdocs. The 2009 Chair of the Board, Dr Gelhaus, is a National Research Service Award (NRSA) postdoctoral fellow with the Center for Cancer Pharmacology at the University of Pennsylvania.

The Board oversees the NPA staff, the Diversity and International Officers, and the four membership committees, which include Advocacy, Meetings, Outreach and Resource Development. Currently, around 100 persons serve on these active committees, which meet at least monthly through teleconferences. The Officers work closely with the membership committees to provide an organization-wide awareness of diverse constituencies and an emphasis on inclusion.

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Additional information
For more information on joining and participating in NPA efforts, please visit www.nationalpostdoc.org, e-mail cjphillips@nationalpostdoc.org, or phone (00)1-202-326-6424.


United States Department of Defense provides biomedical research funding

The Defense Advanced Research Projects Agency (DARPA) funds research that should spur breakthroughs in science and technology with the ultimate goal of providing support for soldiers in the field and promoting national security. Their sponsored research includes a surprising amount of medical and basic science that uses model organisms. DARPA encourages broad-spectrum proposals with the potential to make big technological leaps. Funded program topics range from infectious disease and wound healing to neuroscience and beyond.

‘We want to take the technological hurdles off the table,’ says Dr Leo Christodoulou, Director for the Defense Sciences Office (DSO), ‘we don’t want people to tell us about the incremental steps they could add to the project that they have worked on for the last 10 years. We want to hear about their dream and what they might do that could change the world.’

DARPA program managers review the applications and may consult with other US government experts in certain cases.

Criteria for funding include the potential importance of the idea and the project’s technical feasibility. Realistic budgets are also considered when deciding which grants to fund. There are no citizenship or residency requirements for applicants.

DARPA invites proposals from the research community through two distinct types of solicitations: thrust areas and Broad Agency Announcements (BAAs).

Thrust areas
Specific needs identified within DARPA are directly solicited through requests for grant applications that fit within ‘thrust areas’. Individual program managers within the DARPA organization focus these requests to reflect their interests and anticipated needs. Disease researchers working with model organisms might want to check the thrust areas defined by the DSO.

Some of the biomedical thrust areas funded recently by the DSO include: systems to create red blood cells from progenitors through new ‘blood pharming’ techniques; rapid vaccine assessment; deep bleeder coagulation; and methods to promote recovery from significant blood loss. Current thrust areas range from stress and pain management, to infectious disease detection and treatment, and understanding visual processing in the brain. Also on the DARPA wish list are better swimming techniques and aquatic devices stemming from ideas generated by model organisms, such as fish or aquatic birds. More information about targeted thrust areas from DSO can be found at http://www.darpa.mil/dso/thrusts/index.htm.

Broad Agency Announcements
DARPA welcomes all grant applications that address the health of soldiers or the welfare of national security through open BAAs. These general requests encourage innovative ideas in biology and are renewed yearly to provide scientists with frequent opportunities to submit applications. The criteria and guidelines for submitting grants through BAAs are online at http://www.darpa.mil/dso/solicitations/baa09-31.htm.

If you are considering a grant submission to DARPA, a well-written ‘white paper’ could save you time and produce a more successful grant application. White papers are a mechanism to allow applicants to communicate their ideas for grants in a shorter, less formal way than a grant proposal. More importantly, white papers invite a dialogue with the reviewers, usually the program managers, which is not possible with official grant proposals. White papers can precede a grant submission to either a thrust area or a BAA. The response could prove valuable for the focus of an application. More information about white papers can be found at http://www.sainc.com/dso0631/dsowhitepaper/index.asp.

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