At UC San Diego, postdocs are under the jurisdiction of the Vice Chancellor for Research, in recognition of their status as early-career researchers. Under the authority of the Associate Vice Chancellor for Research, George Tynan, the Research Affairs Office is administered by Jennifer Oh, Director of Postdoctoral Scholar Affairs.

Beginning with this issue, the UC Postdoc Newsletter will feature postdoctoral research from the postdoc’s perspective. This way, you will see—through the eyes of the postdoc—how the University of California affects the lives of these young researchers. In the inaugural chapter of Postdoc Profiles, two UC Berkeley postdocs in the humanities and social sciences are highlighted.

Everyone knows these days that a postdoctoral fellowship is all but necessary to obtain a professional job in the science, technology, engineering, and mathematics fields. This has been increasingly obvious for more than a quarter of a century now. By contrast, spending time as a postdoc has not been required, or in many cases, even possible, in fields within the humanities and social sciences. However, times seem to be changing, even if slowly.

The University of California (UC) bargaining team is in the middle of a series of meetings with the United Auto Workers, the union representing UC postdocs under the name PRO/UAW. Meetings are to discuss the topics which remain to be resolved in order to finalize a contract. In the first round of meetings, held April 15 and 16, the UC team offered a series of proposals addressing several of the remaining six unresolved articles in the contract. During the follow-up negotiations on April 23, the union countered UC’s salary offer. The parties remain far apart on the issue of wages.

Also In This Issue:
- Know It All?! Editor’s Column
- Credits, and Invitation to Submit
- 2010 SACNAS National Conference Welcomes Postdocs
- Ask Adam
- Greater Retention Efforts Aimed at Postdoc Women
- UC San Diego Post-Doctoral Association Offers Something for Everyone
- Where are the Jobs for Ph.D.s in the Life Sciences Industry?
Teaching science to non-majors may be one of the hardest things you are ever asked to do. And in this day and age, it may also be one of the most important. Journalist Elizabeth Pain discusses this challenge with several faculty who regularly teach, or have taught, such classes [see Science Career Magazine, April 23, 2010, Teaching Science to Non-science Majors]. Some find this kind of teaching to be a difficult, but a rewarding creative challenge. One professor of Molecular and Cellular Biology, Edgar Moczetzuma, summarizes its importance by pointing out that [nonmajors] “will eventually become ... part of the workforce, and they become citizens of our society, and so I want them to be better informed and more science-savvy.”

The Rady School of Management at UC San Diego has a fellowship program for postdocs in science and engineering that provides financial assistance in obtaining a Masters in Business Administration (MBA). To be eligible for the fellowship, postdocs must be current, seeking to attend one of the Flex programs, or seeking to move directly from a postdoc into the MBA program full time. See http://rady.ucsd.edu/mba/fellowships/postdoc/ for more information, or contact Margie Frazee, Director of MBA Programs and Admissions (mfrazee@ucsd.edu) if you have specific questions.

Most jobs offered by non-profit organizations and foundations are listed on a website called Idealist [http://www.idealist.org]. While some are cross-listed on listservers, job-seeker websites, and journal job pages, the free site, created by Action Without Borders-Idealist.org is the go-to web page for non-profits. In addition to job listings, the site offers a guide to non-profit careers, blogs, groups, and volunteer opportunities.

Job listings in academia and biotech are easily accessed by subscribing to the career alerts available through the journals Science, Nature, and The Chronicle of Higher Education. U.S. government listings are all available on USAJOBS [http://www.usajobs.gov].

Some think that the U.S. may be producing too many PhDs.

Patricia Cohen [April 8, 2010, “Long-Haul Degree,” New York Times] describes how Ph.D.s in humanities can take up to three times as long as a professional degree (average nine years), with a very low chance of being hired in academia. The 50-60% increase in production of doctorates in the humanities and social sciences between 1987 and 1995 resulted from a prediction that more would be needed in academia by the late 1990s, a prediction that proved to be false. Although that increase has slowed in the last few years, greater than one third of Ph.D.s in these fields remain unemployed long after the completion date of the Ph.D. To date, proposals to expand degree requirements to allow a broader, more applied array of dissertation topics have not been adopted.

Beryl Lief Benderly [February 22, 2010, “Does the U.S. Produce Too Many Scientists?” Scientific American] explores reasons why science Ph.D.s often do not have jobs in their chosen fields. Her detailed analysis explores a cycle of misperceptions about the field. Does the U.S. lack far behind other developed countries in science and math testing? While the average American test scores on international science and math tests at various levels are not at the top, some American testers are among the highest scoring. The U.S. has increased its production of Ph.D.s in science and technical fields by 18% since 1985, but only 15% of these Ph.D.s obtain secure jobs in academia or research. Only another 10% obtain jobs in research which are funded largely by soft money.
SACNAS is a society of scientists dedicated to fostering Hispanic/Chicano and Native American scientists in attaining advanced degrees, careers, and positions of leadership. For more information, visit http://www.sacnas.org/ SACNAS expects over 3,000 attendees-- including postdocs, faculty, and professionals in all STEM fields--at this unique diversity/mentoring event. Here, postdoc attendees will have the opportunity to attend career development sessions, to showcase their research, and to network with professionals in academia, industry, and other post-academic fields. The annual conference also offers numerous chances to mentor students, including reviewing submitted student poster abstracts and judging the poster competition.

Notably, the postdoc networking reception and poster session bring together attendees in a job/networking forum. Last year’s conference included recruiters from DuPont, Novartis, Procter & Gamble, St. Jude Children’s Hospital, Texas A&M University, and the University of Pennsylvania. Postdocs will showcase their research through the poster session. The poster abstract deadline for this year’s conference is July 20.

The conference will also include professional career development sessions on (i) creating an individual development plan; (ii) identifying and applying to postdoctoral fellowships; (iii) obtaining your first academic faculty job; (iv) exploring post-academic careers; and, (v) technical science writing for peer-reviewed journals. Postdoc attendees are also offered the opportunity to meet informally and socialize at an off-site postdoc mixer and at the conference banquet meals during the keynote presentations. Details of all postdoc-specific activities can be found at http://www.minoritypostdoc.org/view/conference-2010.html.

Given the current economic situation, and overall shortage of funding in California, this annual meeting provides an excellent opportunity for UC postdocs to get involved in professional activities close to home. To keep informed of other related postdoc activities, contact info@minoritypostdoc.org or the committee chair directly at mhiga@mail.med.upenn.edu to be added to the listserv.

**QUESTION:** I have heard that the U.S. Citizenship and Immigration Services (CIS) has recently responded more favorably to applications for permanent residence (“green card”) that are based upon the National Interest category. How can I qualify in this category?

**ANSWER:** The National Interest Waiver “green card” is granted to those performing work that is in the national interest of the U.S. Scientists who themselves are considered critical to a project that is in the national interest are also favorably considered. However, it must be clearly established, to the satisfaction of CIS, that the work to be performed, and the scientist him/herself, are both in the national interest if the U.S.

Please note that performing general services as a member of a large team led by a faculty member that is well funded by the NIH is not sufficient to qualify. In another example, if you are able to be replaced by another postdoc performing the same duties, your application will not be approved. But, if the work that you are performing is absolutely crucial to the success of a project, and, you can demonstrate that it would be a setback if you left the project, then it is possible that you could qualify for the National Interest “green card.”

**IMPORTANT NOTE:** You need to clearly demonstrate that by virtue of your personal accomplishments in the field, you are better able to serve the national interest instead of a U.S. researcher with the same qualifications. In this regard, when the application is submitted, it should be accompanied with letters of support from U.S. government agencies or other authoritative sources that can help support your claim. It is of no importance that there are no U.S. workers available to perform the duties, or that you possess unique or hard-to-find skills.

In the application process, you must also establish a past history of achievements with some degree of
influence in the field. For example, did you develop an
electronic component that is needed to advance an
artificial vision system? In such a case, it would be good
to have letters of support from both the National Insti-
tutes of Health and the Department of Defense.
In addition to this, CIS will expect to see that your
research has influenced the work of others in your field.
Have others relied on your research findings? Are your
research accomplishments unusually significant?

If you would like “Dear Adam” to evaluate your chances of
obtaining the National Interest “Green Card”, please
e-mail him at adamgreen@earthlink.net. There is no
charge for this free evaluation.

Adam Green, Attorney at Law, Los Angeles, CA
www.employment-family-sponsoredimmigration.com

Greater Retention Efforts
Aimed at Postdoc Women

By Kathleen Flint, ADVANCE Project Manager,
National Postdoctoral Association

In mid-March of this year, the National Postdoctoral Association (NPA) held
a National Summit on Gender and the Postdoctorate in Philadelphia,
Pennsylvania. Women scientists are significantly more likely than men to
leave the academic career path between the Ph.D. and the tenure-track,
say several studies on academic diversity (see Goulden, Frasch and Mason
2009, and references therein). The goal of the Summit was to examine the
reasons that postdoc women leave this path and to identify promising
practices for retaining them. While the reasons noted by participants were
neither simple to identify nor quick to solve, a number of themes emerged
that could point to areas for action, such as the establishment of
family-friendly policies available to postdocs and better mentoring
opportunities.

Family formation was the main issue affecting postdoc women’s career
decisions, said Mary Ann Mason, a professor at UC Berkeley. Amber
Budden, a postdoc at the National Center for Ecological Analysis and
Synthesis at UC Santa Barbara, also noted the importance of family status,
finding that postdocs with families were more likely to be postdocs longer
and to have had multiple postdoc positions, thus delaying the time to
transition to a tenure-track or permanent academic position.

Sessions also focused on what can be done to retain postdoc women in
academia, with an emphasis on improving mentoring approaches, training
in career and professional development, and implementing effective
postdoctoral policies. Other recommendations included offering financial
support for postdocs experiencing family events and enforcing compliance
with Title IX prohibitions on discrimination due to pregnancy or family
status. These recommendations along with other promising practices will
be summarized in a forthcoming resource handbook under development by NPA ADVANCE. For more information on NPA ADVANCE and the Summit,
visit http://www.nationalpostdoc.org/advance.

NPA ADVANCE is supported by the National Science Foundation’s ADVANCE
program supporting the advancement of women scientists in academia.
Any opinions, findings, and conclusions or recommendations expressed in
this material or during the Summit are those of the author(s) and do not
necessarily reflect the views of the National Science Foundation.

UC San Diego Post-Doctoral Association (PDA)
Offers Something
for Everyone

The UC San Diego PDA is an active, diverse group of enthusiastic postdocs
who creatively approach their mission to provide supplemental information,
training, and social networking to all postdocs. The PDA sponsors a variety
of activities, including seminars, networking events, advocacy events,
PDA-themed t-shirt sales, and even Facebook™ and Twitter™ communica-
tions. The PDA board works closely with Jennifer Oh, Director, Postdoc-
toral Scholar Affairs, Office of the Vice Chancellor for Research. Board
members of the PDA also work with other offices on campus to create
ideas to meet postdoc needs.

An example of the hard work and care undertaken by the PDA is demon-
strated with the ongoing seminar series for international postdocs.
Because nearly 65% of postdocs in the U.S. are international and entered
the country on non-immigrant visas, it is crucial that these postdocs be
fully aware of the non-immigrant visa process and “green card”
(permanent resident) issues. This way, postdocs can avoid situations
where they might jeopardize their stay and be forced to return to their
country thereby interrupting their careers. In order to give these postdocs
access to relevant immigration laws and regulations as well as the most
recent updates, Hady Felfly, then Vice Chair for External Relations and
Finances of the PDA, worked with the UC San Diego International Scholars
Office (ISO) located in the International Center. Based on periodic surveys
of postdoc needs, the ISO designs seminars which are planned and
coordinated by the PDA.

So far, the UC San Diego PDA has held three seminars: one on general
visas, one specifically on “green card” issues, and a third special seminar
which provided information about the visa interview process.
UC San Diego Postdoc Office Maximizes Events for Postdocs

She and Merritt Bradford oversee all aspects of postdoctoral affairs and strive to enhance the training experience of the postdoc community at UC San Diego.

The Research Affairs Office receives a nominal but consistent budget to implement their programming vision. Because the San Diego campus is collaborative by culture, this attitude extends to other institutions around the Torrey Pines Mesa area.

In order to share the cost and logistical effort of organizing and running numerous annual events, Jennifer works with the dedicated UC San Diego Postdoctoral Association (PDA), as well as other postdoc administrators and postdoc associations from a number of other research institutions in the area, including The Scripps Research Institute and Sanford/Burnham Institute for Medical Research.

For the last four years, this network has organized the San Diego Lab Management Symposium, which is a two-day workshop modeled after the Burroughs Wellcome Fund/Howard Hughes Medical Institute program in scientific management. This program trains postdocs on the fundamentals of managing their own labs (for more information about this program, see http://www.hhmi.org/resources/labmanagement/partners.html).

This same network of talented administrators has also developed the Transition to Industry Workshop, which is a one- to two-day program to expose postdocs to career opportunities in the private sector. The next scheduled event is the Funding Fest, which has at times included events spread over a two- to three-week period, but which will this year be a three-day event. It will include a presentation by a National Institutes of Health (NIH) program officer, and cover grant writing, specific funding opportunities such as the NIH K99-R00 and California funding opportunities, and feature a special workshop by UC San Diego’s Sponsored Projects Office. The network also co-sponsors invited speakers, broadens access to workshops, and shares information on other postdoctoral career development opportunities.

On a day-to-day basis, the Office of Research Affairs is responsible for managing postdoctoral policies, appointments, exceptions, benefits, funding, services as well as administering funding and administrative support to the UC San Diego PDA. Currently, Jennifer is the UC San Diego liaison with the UC Council of Graduate Deans Postdoc Workgroup, a member of the campus advisory committee to the UC bargaining team, and serves on campus committees to advise on postdoctoral issues. She also is responsible providing services to the UC San Diego visiting scholar community.

Jennifer points out that although the Office of Research Affairs offers professional development programs, postdoctoral education and support begin with faculty. In this regard, the faculty at UC San Diego are committed to training postdocs, as evidenced by the 45 NIH training grants held by UC San Diego faculty, including a highly competitive Institutional Research and Academic Career Development Award (IRACDA). The latter is run by Dr. Larry Brunton, Professor of Pharmacology and Medicine, who received IRACDA funding through the NIH to support training of under-represented minorities in biomedical research. In addition, academic departments provide fiscal support to the UC San Diego PDA. Faculty encourage their postdocs to seek additional professional development opportunities, especially the ones offered by the Office of Research Affairs.

It should be noted that Jennifer and Merritt have accomplished a lot within the resources at hand. This is possible in large part to the cross- and intra-institutional efforts as well as faculty support that their office enjoys.
specific time as stipulated in the article, and negotiated separately from other conditions. Attaching a short and separate duration to some of the disputed articles would allow a contract to be signed and become effective, while the teams continue to negotiate for the future terms of these disputed articles.

Gayle Saxton, Interim Director of Labor Relations at the University of California Office of the President (UCOP), has expressed her hope that the offers on the table will help to move the process forward toward an agreement. She is interested in achieving a mutually satisfactory resulting contract between UC and the UAW as quickly as possible.

For UCOP’s summary of the bargaining process, please go to the UCOP postdoc website, or navigate to it from http://atyourservices.ucop.edu. A description of most of the resolved and unresolved articles may be found on the PRO/UAW website at this page: http://www.prouaw.org/bargaining/bargaining.php.

Where are the Jobs for Ph.D.s in the Life Sciences Industry?

By Sheldon M. Schuster, President, Keck Graduate Institute of Applied Life Sciences, Claremont, CA

While the economy is slowly recovering from the worst recession in memory, the job outlook for Ph.D.s, especially for positions in higher education, is still quite poor, with few forecasts predicting a rapid turnaround. Jobs in the biopharmaceutical sector are also very tight: Astra Zeneca announced this year that it would reduce its workforce by 12% by 2014; GlaxoSmithKline is aiming to reduce its headcount by 4,000 this year; and, after buying Wyeth, Pfizer is reducing its workforce by 31,000 – all with a disproportionately large proportion of the lost jobs in research. However, when we examine the employment picture in the biotechnology industry a little more closely, there are some hopeful signs for those with deep scientific knowledge in life sciences and engineering.

Specifically, the jobs that are available primarily involve what I like to call “science +.” The very limited jobs in the biosciences industry are primarily research-related. The forces driving the mergers and acquisitions in the pharmaceutical industry are the same as those causing the decrease in the U.S. research workforce – globalization, difficult cost and patent issues, outsourcing, and laboratory automation – and are not likely to abate any time soon. However, there are many opportunities for those interested in using their science training to underpin careers in such diverse areas as strategic marketing, clinical trial design and management, management of intellectual property, business development, bioprocessing and operations, clinical and regulatory affairs, project management, and product development. All of these occupational areas benefit from a deep understanding of the scientific foundation of life sciences as well as quantitative analysis skills. In addition, they demand expertise or experience in a portion of the industry that is, at first glance, not based on scientific skills – the “+” part of the formula.

The Keck Graduate Institute of Applied Life Sciences (KG) has conducted focus groups with postdoctoral fellows and Ph.D. students around the country to ask what careers are sought and what is being done to prepare for them. Additionally, KG conducted a national survey through the National Postdoctoral Association (NPA). The focus groups involved discussions at UC Berkeley, UC Irvine, UC Los Angeles, UC Riverside, UC San Diego, UC San Francisco, the California Institute of Technology, the University of Southern California, Emory University, the University of Georgia, the University of Nebraska, Texas A&M, and others. The results of the study were presented at the recent NPA annual meeting in...
Philadelpha. The figure below shows postdoc and Ph.D. student responses to the question: “If you are considering a career in industry, which areas interest you?”

What is immediately apparent, of course, is that while by far the greatest interest is for research careers, this is precisely the area in which it is most difficult to find jobs.

During the focus groups, the most frequently asked question was “What are the skills I need, and how do I learn about these other applied areas?” The brief answer to this question is that you need the coursework equivalent of a Masters in Business Administration, focused exclusively on the life sciences, the experience of working in multifunctional teams, and a network of life science industry leaders. KGI plans to work with and help interested postdocs to keep informed of the opportunities, networking, and basic business skills required.

For those postdocs who are interested in moving decisively to careers where “science +” is required, KGI has developed the first Postdoctoral Professional Masters (PPM) in Bioscience Management. In this new nine-month professional program, KGI includes intense life science-focused business and management courses, Team Masters Project experience in a life science industry setting, and extensive industry networking opportunities, to prepare you to be competitive for a wide range of careers in the life sciences. You can find out more about the program at http://www.kgi.edu. If you are interested in meeting industry leaders and exploring your career options, we are hosting a Preview Day at KGI in Claremont, California (Los Angeles area) on June 3, 2010. Inquire about the program and available travel scholarships for the event by emailing PPMinfo@kgi.edu.

There has never been a more exciting time for the life sciences industry, and there are rewarding, exciting and important jobs that require Ph.D.-level scientists with an understanding of the industry. It takes some creativity, planning and effort to find the best opportunity for your career. I personally would welcome your questions and suggestions. Feel free to email me at president@kgi.edu.