

## How to do a Post-doc in the USA

Looking to do a post-doc in the USA? Here we have gathered info from various sources...

To do a post-doc in the USA you will either need to search for advertised positions, listed on job boards (see for example <http://www.career.edu/>), or contact a US professor in your field and ask if he/she is open to hosting a post-doc student. The steps:

### 1. Locate a lab

Step one is to identify a few labs doing the science you want to do and then to figure out which are good fits for you and your career objectives. The best way to find those labs is through journal articles and your network - your advisers and colleagues. Many, and possibly most, U.S. post-doc jobs aren't formally advertised, so the personal approach is best. You can also search job boards within your field (for example,) and set up specific e-mail alerts.

### 2. Write to the professor with whom you would like to work

In your email be sure to explain why this person is the exact fit for you and how you may contribute further to his/her research line. Even if they are not advertising positions currently.

### 3. Do some research before signing on

Consider more than just the scientific reputation of a lab before signing on. Talk to current and former lab members about their relationship with their supervisor and the lab's after-work lifestyle. Ask whether the supervisor offers career advice and welcomes creative input to the group. If possible, you should take the time to visit each lab you're considering for a whole day to get to know the lab members, the facilities, and how things work. This is what you can expect to get out of your post-doc:

- Respect and professional conduct from your post-doc mentor, now and in the future.
- A reasonable paycheck and benefits, including, especially, health insurance for you and your family. You may have to pay extra to get family coverage, but they should have access to a subsidized group plan.
- Good publications and appropriate authorship status.
- Money to travel to conferences and opportunities to network and present your work.
- A degree of independence, especially in the later years of your post-doc.
- Strong letters of recommendation (assuming you earn them by doing good work).
- Training and experience in grant writing, paper writing, lab management, and other career skills.

- The opportunity to take some of your post-doctoral work with you when you achieve independence.

A couple of these points require some explanation:

*Authorship:* If you did the work, it is reasonable to expect that you will have the opportunity to write the paper. If you did the work and wrote the paper, then you should be first author.

*Taking work with you:* Some PIs are very liberal here; others are stingy. Don't expect too much and be willing to negotiate.

In an ideal world, you'd get a formal offer letter that would spell out lab policies on these matters. In the real world, this isn't very likely--not, anyway, for the less tangible issues such as authorship and independence. You certainly have a right to expect--but may not get--an offer letter that spells out benefits, holidays, and work-schedule expectations.

The [National Post-doctoral Association](#) offers in-depth practical [advice and stories](#) from people who've made the transition to doing post-docs in the United States. *Science Careers' Independent Post-docs: Resources* contains more general links you might find useful.

Many published information sources exist, from classified ads in *Science* (and the online ads at [Science Careers](#)), to [The Chronicle of Higher Education](#), to the journals of your discipline's professional societies. Unless you're very interdisciplinary, the more discipline-specific publications ( [Physics Today](#), [Chemical & Engineering News](#), and so on) are likely to be richer sources of information than the more general magazines and journals.

Look for someone who knows the answers to all the following questions and is willing to help you. Who runs the best labs? Who publishes in the best journals? Who just won a big grant and is likely to be looking for people to do the work? Another question you need to know the answer to: Which scientists in your field do the best job supporting and nurturing the fledgling careers of their laboratory staffers?

#### **4. Finding Funding**

Look into funding at the same time you're looking for a lab to work in. Most post-doc positions are funded out of a principal investigator's (PI's) grant or by the PI's host institution, but up to a fifth of post-docs surveyed between 2003 and 2005 had independent funding. A prototype is emerging for what the post-doctoral experience ought to look like. It goes something like this: When you're first hired, you're supported by research grants or institutional money. Late in your first year, or during your second, you apply for a post-doctoral fellowship. That fellowship pays your way for the rest of your post-doc. As in Europe, if you can secure outside funding you'll be a more attractive candidate, but the competition for fellowships may be stiff because many U.S. funding sources are restricted to U.S. citizens or residents. European funding sources may require significant lead time and may insist that you locate an institution and adviser before applying.

When you start look for funding, try the National Institutes of Health: Its [Fogarty International Center](#) maintains [a list of international grants and fellowships](#) in the health sciences. The [Virtual Career Center](#) maintains a broader [list of fellowships](#), including those for which non-U.S. citizens are eligible.

There are more funding listings at [PhDs.org](#), the [Federation of European Biochemical Societies](#), and the [European Molecular Biology Organization](#), some of which include reintegration funding for your return home. The [Human Frontier Science Program](#) (HFSP) provides "young scientists with up to three years of post-doctoral research training in an outstanding laboratory in another country," according to its Web site. It also offers short-term fellowships for 2 weeks to 3 months for scientists to travel to another lab to learn new techniques or set up new collaborations.

The [Marie Curie Actions](#) and [HFSP](#) also have funds set aside specifically for reintegration.

## **5. Visa/ living**

Arranging a visa is another thing that needs to be dealt with well in advance. Many scientists initially seek H-1B visas, a work permit for highly skilled workers. But the more open-ended J-1 visa for "exchange visitors" may be a better choice for researchers considering permanent residency, because the H-1B's 3.5-year limitation can kick in before a green card -- America's permanent-resident credential -- is awarded. The U.S. Department of State provides information on [temporary worker visas](#). Bear in mind that your long-term plans may change after arrival, so you should build in as much flexibility as possible from the start.

Finding a residence requires time and planning and is a crucial first step in dealing with other administrative matters, like getting insurance or a bank account. It's not possible to simply arrive one day and enroll your children in school the next.

You should get health insurance via your employer for you and your family. You may have to pay extra to get family coverage, but the lab should have access to a subsidized group plan.

Try to make an effort to connect with your new colleagues, foreign and domestic. It is important to dive in head first and make the most of it.

## **Culture shock**

The differences between American and European academic research labs can sometimes surprise new post-docs. American Ph.D.s often take longer than in Europe. Undergraduate courses are also longer in the United States. The result is that new American post-docs are often older and more experienced than their European peers. Consequently, American PIs may assign more responsibility than fresh European Ph.D.s are comfortable with at first. Prospective post-docs should discuss their roles in detail with potential supervisors and other European lab members, so they have a chance to select the right environment and begin work with realistic expectations.

The research process itself may differ between labs in Europe and America, even if they're working in the same discipline. Greater resources and longer working hours in U.S. labs are one of the biggest differences, but lab management and even writing styles differ, too. Many American research groups expect longer hours and shorter vacations than are the norm in Europe.

Exposure and adaptation to such differences can be very useful. You will learn the importance of networking and intellectual exchange, and the experience of working at a (prestigious) US lab will give you confidence for your further career.

### **Time frame**

You should allow at least half a year, possibly more, to find a suitable position, apply for a visa and organize your move.

### **More links**

[http://www.bmbf.de/pub/talent\\_iii-3.pdf](http://www.bmbf.de/pub/talent_iii-3.pdf) A study about post-docs in the USA

[http://www.aamc.org/members/great/meetings/pd\\_timmins\\_peterson08.pdf](http://www.aamc.org/members/great/meetings/pd_timmins_peterson08.pdf) A presentation by the University of Pennsylvania about the expectations of post-docs vs. mentors and what to expect from culture shock.