



**Science**



Magazine

News

Signaling

Careers

Multimedia

Collections

**Science Careers** From the journal *Science*

<a href="#">Jobs</a>	<a href="#">Funding</a>	<a href="#">Meetings and Events</a>	<a href="#">Career Development</a>	<a href="#">For Advertisers</a>	<a href="#">About Science Careers</a>
----------------------	-------------------------	-------------------------------------	------------------------------------	---------------------------------	---------------------------------------

[Science Home](#) > [Science Careers](#) > [Career Development](#) > [Previous Issues](#) > [2008](#) > [2008-07-04](#) > [Bikfalvi](#)

## CAREER DEVELOPMENT : ARTICLES

[E-Mail This Article](#) [Print This Article](#) [Share This](#) [Related Articles](#)



### In Person: Research in France

Andreas Bikfalvi  
France  
4 July 2008

Originally from Hungary and raised in Germany, I first came to France in 1975 to do part of my medical training. After finishing my medical training in Germany, conducting some research in France, and doing a postdoc in the United States, I settled in France for good in 1995, becoming a professor of cell and molecular biology at the [University of Bordeaux](#). Today, I am the director of a research department in tumor angiogenesis, which is affiliated with both the university and the French *Institut National de la Santé et de la Recherche Médicale* ([INSERM](#)).

"I have seen many scientists who've only done research in the United Kingdom or in the United States move to France and struggle with the system's peculiarities."  
--Andreas Bikfalvi.

I have been successful partly because of my knowledge of the complexities of the French academic system. But I have seen many scientists who've only done research in the United Kingdom or in the United States move to France and struggle with the system's peculiarities. All scientists planning a research career in France need to understand their new working context if they are to be successful in this country.

#### THE BASICS

In France, public research takes place mainly within two types of institutions: at universities and at national research agencies, such as [INSERM](#), the *Centre National de la Recherche Scientifique* ([CNRS](#)), and the *Institut National de Recherche Agronomique* ([INRA](#)). But joint departments (*unités mixtes*) run by both national research agencies and universities (such as my own department) are also very common. University-based research is somewhat undervalued in France, so to be better recognized and funded, it is important for academics to be affiliated with one of the national research agencies.

The vocabulary for research groups can be misleading. In France, the large research units that pull together several groups working under a similar theme are usually called *laboratoires*. As such, the *laboratoires* are the French equivalent of the "departments" found in Anglo-Saxon countries. And what would be called a "laboratory" or "group" in the United Kingdom becomes *une équipe* in France.

#### BUSINESS OFFICE FEATURES

Industrial Postdocs: The Road Less Traveled  
13 June 2008

Packaging Yourself for Product Companies  
23 May 2008

Affinity Groups for Diversity  
9 May 2008

[More](#)

#### CAREER TOOLS AND RESOURCES

##### Current Employers

Learn more about the employers advertising positions on our site.

##### Science Careers Forum

Post a question, get an answer on our online community

##### Graduate Programs

Browse our database of program profiles

##### How-To Guides

[Writing a resume/CV](#)

[Beating the interview](#)

[Getting funding](#)

[Managing a lab and staff](#)

[Building your network](#)

## YOUNG SCIENTISTS AND SCIENTIFIC INDEPENDENCE

Early-career scientists in France may be recruited for a permanent position such as a *chargé de recherche* in a national research agency or a *maître de conférences* in a university. Later in their careers, they may take the position of *directeur de recherche* in a research agency or of university *professeur*.

In principle, early-stage recruitment at both universities and research agencies may take place right after the Ph.D., but nowadays, some period of postdoctoral research abroad gives candidates the best chance of landing a job. Recruitment for positions within one of the national research agencies or the university system is centralized rather than done by the individual institutions. Positions are usually advertised between December and February.

### Information on recruitment processes at:

- [INSERM](#)
- [CNRS](#)
- [INRA](#)
- [Universities](#)

**Science magazine editorial:**  
["Long Road to Reform in France,"](#) 27 June 2008 (PDF, subscription required)

### Salary Tools

Find out how much you're worth with our salary calculator

[To Advertise](#) [Find Products](#)

A peculiarity of the French research system is that once a researcher gets a position, the position belongs to the individual rather than to the research group. This means that permanent researchers can easily move to groups in other departments within their national research agency or university system. That's a big advantage for young scientists seeking a different working environment or new scientific opportunity.

Another peculiarity is that individual groups (*équipes*) in both national research agencies and universities usually include several scientists with permanent positions. In fact, a group is only created when the leader is able to bring a minimum number of permanent scientists together. This contrasts with most other countries, where research is structured around a single principal investigator--the grant-holder--who, with few exceptions, recruits everyone else on a nonpermanent contract.

In France, then, researchers may obtain a permanent contract much earlier in their careers than in most other countries, but this does not necessarily mean earlier scientific independence. Most remain under the direction of a group leader. If they obtain their own funding for projects and staff, and their group leader gives them sufficient independence, then researchers may be able to set up subgroups. But for real independence, a researcher needs to apply for a group leader position.

Several programs have been initiated to help promote young investigators, such as the [Avenir](#) program at INSERM, which provides young scientists who already have a permanent position with fully equipped space within their host department and funding toward research expenses and salaries for nonpermanent staff for up to 5 years. Scientists without a permanent position may also apply and will be offered a salary.

Furthermore, whereas French research groups traditionally have received national public funding mostly through their own research agency or university and through specific calls from French ministries, several national agencies have been set up to fund more research projects on a nationwide competitive basis, such as the [Agence Nationale de la Recherche](#) (ANR) or the [Institut National du Cancer](#). Scientists can directly apply to these agencies to get their research projects funded, and ANR has specifically launched a project funding call for young scientists ([ANR jeunes chercheurs](#)).

## SENIOR SCIENTISTS AND GROUP STABILITY

Having several permanent researchers in a single group means that issues of research ownership frequently come up. One issue is publication credit. Because of the way research groups are structured, the group leader is not always the senior author: A specific research project may be carried out by a Ph.D. student



Andreas Bikfalvi

supervised by another permanent scientist who may have little or no available funding but who may nevertheless request last authorship on the publication. This can have a negative impact on the publication record of the group leader. On the other hand, denying last authorship to other permanent scientists in the group would also hamper their career development. Thus, how authorship is attributed depends on the individual research team and may be a source of conflict.

Who owns the research also becomes critical when permanent scientists want to leave and take their projects with them. I had some research going in my lab on the mechanisms of endothelial cell migration that came to an

abrupt halt for this reason. Because the project was initiated by the researcher who left, ownership was not an issue. But it can become much more of a headache when the leaving researcher has been working on projects the group leader initiated or greatly contributed to. Again, there are no specific rules governing how to handle this matter.

I believe there is a need to reevaluate the status of the permanent researchers and the group leaders. This would greatly help foster career development at all levels of the career ladder. Until then, however, laboratories can function quite well if there is good communication.

#### A SYSTEM IN TRANSITION

Since 2005, the French system has been undergoing profound reform with the new [Pacte pour la Recherche](#), which aims in particular to simplify the structure of academic research and give more independence to universities. For example, in the future, it is hoped that universities will be able to offer different teaching loads in accordance with the profile and career aspirations of the individual scientists. The *pacte* doesn't clearly address the issue of permanent status, but I still believe it should improve the situation between group leaders and permanent researchers and increase competitiveness both within France and on a global scale.

#### IN PERSON SUBMISSION GUIDELINES

*Science Careers* welcomes reader submissions for the In Person series. Your essay should be about 800 words, personal in tone, and with direct relevance to education or career development (in the broadest sense) in the sciences and engineering.

Please attach your submission to an e-mail message to [snweditor@aaas.org](mailto:snweditor@aaas.org) (Subject: In Person submission) as an editable text document; Microsoft Word format is preferred, but the OpenOffice format is acceptable.

Each manuscript we receive will be given careful consideration. We will contact you if we decide to publish your essay. Most essays will be edited prior to publication. Please do NOT include photographs or other attachments with the original submission. If we decide to publish your essay, we will contact you within 6 weeks. If you do not hear from us in 6 weeks, feel free to submit your work elsewhere.

Andreas Bikfalvi, M.D., Ph.D., is director of the Department for Molecular Angiogenesis at the *Université Bordeaux I* and INSERM in Talence, France.

Comments, suggestions? Please send your feedback [to our editor](#).

Photo courtesy of Andreas Bikfalvi

DOI: 10.1126/science.caredit.a0800100

#### RELATED CONTENT

**In Person: Series Index**

16 November 2007,

**Country Collection: France**

24 May 2002,

**The New Pact for Research in France - What's in it for Young Scientists**

14 October 2005,

**Boosting Independence to Attract Young Talent**

10 January 2003,

---

 [E-Mail This Article](#)  [Print This Article](#)  [Share This](#)  [Related Articles](#)

[Magazine](#) | [News](#) | [Signaling](#) | [Careers](#) | [Multimedia](#) | [Collections](#) | [Help](#) | [Site Map](#) | [RSS](#)  
[Subscribe](#) | [Feedback](#) | [Privacy / Legal](#) | [About Us](#) | [Advertise With Us](#) | [Contact Us](#)

© 2008 American Association for the Advancement of Science. All Rights Reserved.  
AAAS is a partner of HINARI, AGORA, PatientInform, CrossRef, and COUNTER.