

Career strategies for young European scientists (VII)

# EMBO Young Investigators

Are you a young, dedicated, creative and talented scientist? Have you already gained some independence and are you sick of successfully writing grant applications and publishing papers without anyone taking any notice? The solution to your problem is to become an EMBO Young Investigator and jump into the spotlight of the scientific community!

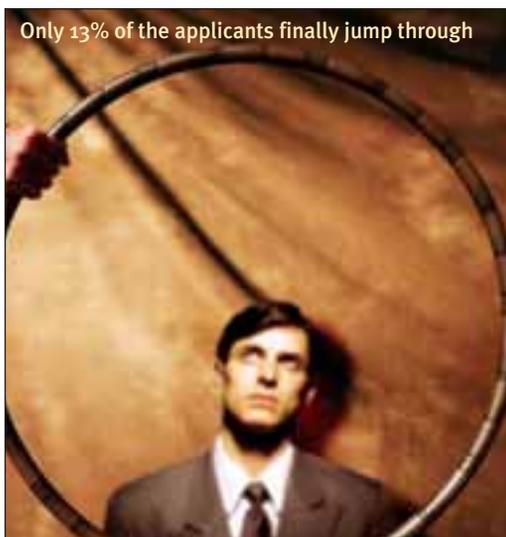
Last year I gave you an overview on the European Molecular Biology Organization (EMBO) and primarily focused on long-term and short-term fellowships (*LT* 4/2006, p. 24). This time the EMBO Young Investigator Programme (YIP) will be scrutinized. The EMBO YIP has a financing volume of about €1.6 million per year. In short, this programme is not going to fund your own position or provide you with any substantial pocket money. However, it comes with a whole bunch of additional benefits, which in the long run may lead to a decent permanent position in one of the leading international research institutions. Two such success stories from the first YIP selection round in 2000 are the German RNA researcher Thomas Tuschl, now HHMI investigator and associate professor at the Rockefeller University in New York, who came pretty close to winning the Nobel Prize in 2006, and the Australian neurobiologist Barry Dickson who is now research director at the IMP in Vienna and winner of the prestigious Wittgenstein Award of the Austrian Science Fund (FWF) in 2005.

## The benefits

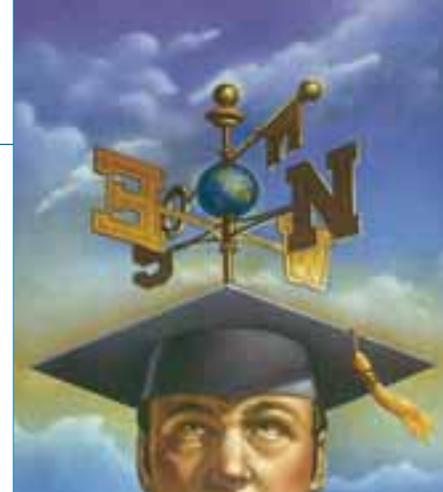
The EMBO YIP was conceived in 1997, commenced in 2000 and was intended to close the gap between the younger EMBO fellows, who are previous and present holders of an EMBO fellowship, and the more experienced fully established EMBO members. Currently, the EMBO YIP encompasses a network of almost 200 scientists and has rapidly gained worldwide reputation. It has substantially intensified and broadened its activities over the years. Right now, approximately 20 EMBO Young Investigators are selected each year. For a period of three years they receive an annual award of €15,000, which, with the exception of Greece and Denmark, is usually paid by the host country. In addition, EMBO has networking funds and a spe-

cial cash pot called “top-up funds”, which totalled €175,000 in 2006. This is used to kick-off some smaller projects of the Young Investigators. They have to write a proposal, which is evaluated, and the top 15 to 20 could get some extra money to spend on equipment or consumables. The overall amount is not too impressive but is certainly a great help to one or the other.

As already mentioned above, more importance is attached to the non-cash benefits. You will be assigned to an experienced EMBO member as a mentor and will receive money to foster your relationship with him, you are invited to the annual Young Investigator Meeting, where you can intermingle with other Young Investigators and EMBL group leaders and you may receive funds for a collaborative project to team up with



other Young Investigators or EMBL research groups. Furthermore, you are invited to give EMBO Young Investigator lectures at national and international meetings, to have access to the eight EMBL core facilities, albeit with a few restrictions, and the possibility to participate in a four-day lab management course, where you may learn how to run



your lab or how it should be run. Quite important is the Young Investigator brochure, where all current Young Investigators are featured. This brochure, also known as the “Who is Who of European Research Talent”, is distributed to heads of funding agencies and research institutes, where it becomes a treasure chest when open positions are to be filled or candidates are needed for a research award. Furthermore, you are invited to write a review on EMBO reports, which means one more on your publication list, and you may spend the whole day reading articles from EMBO reports or the EMBO Journal, because this is complimentary for Young Investigators. Also, last but not least your students might enjoy the extras from EMBO, too. They may participate in lab exchanges and attend a special EMBO Young Investigators PhD course, where scientific lectures are given, technical/practical problems are discussed and soft-skills are improved.

## Get ready for your application

You must lead your first independent lab as a molecular biologist for at least one but not more than four years (for female scientists with children this is extended by one year per child). The nationality of your host institution and your own nationality are not relevant, you just have to work in one of the 26 current EMBC member states (for a list go to <http://www.embo.org/embc/index.html>). You must have an excellent track record. This means that during your thesis and your 1st and maybe 2nd post-doc you have been at the right place together with the right people, have been doing the right experiments and have been publishing above average. In addition, from your present life as an independent scientist you should have at least one last author paper submitted or published. You need sufficient funding to run your lab. What now? According to the EMBO YIP manager Gerlind Wallon, the

YIP selection committee will decide as to whether you actually have enough money to run a group and do the research as outlined in your application. No problem passing these hurdles? Then apply!

### No pain, no gain!

However, as always in your life as a scientist you first have to fill out a couple of forms in order to get something. Most of the things requested might already be on your hard drive. Though it certainly helps, if you modify these documents according to the YIP selection criteria. You have to demonstrate that you are truly independent and outstanding, that you haven't stuck to the same research topic since your diploma thesis, that there is some novelty in your approaches, that you are still realistic and haven't lost touch with mother earth and that the composition of your group and the quality of your host institution enables you to carry out the work in your proposal. You do not currently work at one of the premier European research institutions? Don't



worry! This is taken into account but you will definitely not be elected a Young Investigator because of your neediness!

Go to the URL <http://www.embo.org/yip> and download the most recent application guidelines and application forms. You have to use the online application system, by first registering with a valid e-mail address to get an ID plus password. You may further modify your application up until the deadline and each modification will be acknowledged by an automated email.

You need a detailed CV, a publication list, a description of your research plans for the next three years and a summary of your past and ongoing research. In addition, you are requested to provide pdf files of your top four publications and a confirmation from your host institution that you are in the position to freely decide on your direction of research and are legally entitled to request funds for research on your own. You also have to make sure that the three letters of reference are delivered to the online ap-

plication system in time. Lists of your lab members and your funding situation complete the application.

### The selection process

At first EMBO will check whether your application is in accordance with the aforementioned criteria. Your application is then sent to the YIP committee. In 2007 it is chaired by Regine Kahmann from Marburg (Germany), who is supported by ten additional EMBO members including, for example, Thomas Boehm from the MPI for Immunobiology in Freiburg (Germany), Elisa Izaurralde from the Max Planck Institute for Developmental Biology in Tübingen (Germany) and Doron Lancet from the Weizmann Institute of Science (Israel). They do a pre-screen and trash about one third of all applications. An EMBO member who is familiar with the research topic of the applicant interviews the remaining candidates. You might like to have a look at the new interview report forms that will be posted on the YIP pages soon and see what you, as an interviewee, have to score. The interviewer's report and the application are ►►

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Go to the URL <http://www.embo.org/yip> and download the most recent application guidelines and application forms. You have to use the online application system, by first registering with a valid e-mail address to get an ID plus password. You may further modify your application up until the deadline and each modification will be acknowledged by an automated email.

You need a detailed CV, a publication list, a description of your research plans for the next three years and a summary of your past and ongoing research. In addition, you are requested to provide pdf files of your top four publications and a confirmation from your host institution that you are in the position to freely decide on your direction of research and are legally entitled to request funds for research on your own. You also have to make sure that the three letters of reference are delivered to the online ap-

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## What former EMBO Young Investigators say about the programme

► **Jürgen Knoblich:** Senior Scientist and Deputy Scientific Director at the Institute of Molecular Biotechnology (IMBA) in Vienna:



“The EMBO YIP helped me primarily to gain recognition and to become more visible at an early stage in my career. It also helped to network with other young scientists and set up collaborations. I keep in touch with the programme through the regular newsletters and regular visits to EMBO, which I have to do as a member of the fellowship committee. In my view, the member states would be well advised to increase the financial support for individual YIP members and remove any hurdles that prevent YIPs from spending this money on any research-related purpose they like. This could increase the visibility of the programme even further. In my view, it has become an essential activity to integrate with

the European research community at an early stage of a scientific career.”

► **Ykä Helariutta:** Professor of Botany at the University of Turku and Research Director at the Institute of Biotechnology at the University of Helsinki:

“In my country (Finland) but I am afraid also more widely in Europe, plant science is sort of marginal science. It was important to get recognized among my peers concerning all branches of science. Although this recognition didn't immediately translate to more funding resources, it was an important signal to my research group when trying to push for even higher research standards that then finally also brought more resources. I am following up the program by screening which plant scientists are awarded the EMBO YIP. Also which Finns are awarded. It offers a nice framework to interact at that level. One more thing! Very early the EMBO YIP had quite a low profile in my country,

since it was a new thing. However, it is a pleasure to see that the program has become quite visible during recent years.”

► **Silvia Arber:** Full Professor for Neurobiology at the Biocenter Basel:



“I don't know how my career would have progressed without the EMBO YIP. However, I believe that one of the strongest aspects of the YIP is the networking, also getting to know scientists in other fields but in similar positions, who you don't normally meet at the typical meetings you go to. I think having this “quality label” in your CV certainly attracts attention. Considering improvements of the YIP, I think that most features one would wish to have are well in place. Of course, it would be wonderful if the programme could also be financially more attractive.”

►► now returned to three YIP committee members and the best 40 or so applications are sent to two additional committee members. The final selection of approximately 20 Young Investigators is made at a committee meeting. If you fail, you may re-apply after having at least one more publication and it is not uncommon for scientists to be successful at the second shot. Usually, the deadline for applications is once a year in spring (April 1st), the final committee meeting is in autumn of the same year. After approximately six months you will be informed as to whether you are doomed to spend the rest of your scientific life as unnoticed as before, or whether you are a shining new star on the horizon of European research. Since your own position does not depend on the award, this handling time seems to be okay.

### For number fetishists only

Although my editors keep telling me that all these numbers are boring they can't be ignored. In 2006 153 applications and 21 awards were made, which amounts to a success rate of 13%. In 2007 the number of applications dropped to 132 and the awardees will be announced next month. Overall in the first 7 rounds of the YIP, 180 awards have been made to 1350 applicants; 180 Young Investigators have been ennobled, 140 male and 40 female scientists, which

amounts to a success rate of approximately 14% and 12%, respectively. In the EMBO Annual Report 2006 a statistic can also be found with details of the all-time average Young Investigator at the time of selection. Almost 35 years old, the YI has more than 4½ years of post-doctoral experience and a publication record of 21 with more than 3 senior authorships and more than 9 first authorships. The numbers, however, don't reveal anything about the quality of the publications but this is definitely no piece of cake! Approximately two thirds of all Young Investigators have spent some time in the US and more than 50% of them have previously received a stipend from either EMBO or HFSP. This gives you a picture of what is expected from a successful candidate.

### EMBO Installation grants

Under the YIP, another funding line, the EMBO Strategic Development Installation Grants, was launched early in 2006. Right now Croatia, the Czech Republic, Hungary, Estonia, Portugal, Poland and Turkey are participating. The purpose of this programme is to support less wealthy countries and bring scientists back home to establish their own independent lab. The programme is financed by the individual host countries, the awardees receive €50,000 annually for three years, which, after a positive evaluation, may be prolonged to five years. In ad-

dition, the awardees enjoy all the benefits of an EMBO Young Investigator. A group leader planning to set up his lab in one of these countries must have a job offer for a full position and have been working outside this particular country for 2 years or more. There is no age limit and the annual deadline is April 15th. The application is done together with the receiving institution, which has to provide more all round support and not only the position for the incoming group leader and lab space. The EMBO YIP committee handles the selection process, too. In the first round, 70 applications came in and the best 10 applications were approved in December 2006.

### The future of YIP

According to the EMBO Young Investigator Programme manager, Gerlind Wallon, there are a few minor alterations planned for the future. For example, the awardees are currently forming sectoral groups with specific scientific interests (e.g. neurobiology, DNA repair, etc.) and sectoral meetings will in future replace the YIP symposia. There are also advanced lab management courses available now and the Young Investigators will orchestrate PhD courses in less-developed countries in and outside of Europe. An increase in financing of the YIP will not be discussed before 2010.

RALF SCHRECK

► **Freddy Radtke:** Senior Scientist at ISREC and Associate Professor at the School of Life Sciences at EPFL in Lausanne:



“The YIP was very important for starting my career as an independent group leader. My first grant applications in Switzerland were unsuccessful, mostly because I hadn’t any credibility. Receiving the YIP award gave me credibility and opened

the gates to the national funding agencies. In the first 4 years I followed the programme closely, attended the YIP meetings and even once went to China for the YIP. Now I follow the programme from more of a distance. Overall, it is a very important programme and in my case it fulfilled exactly its objectives namely helping a young scientist to get recognised by the scientific community and even more importantly by the national funding bodies.”

► **Barbara Conradt:** Associate Professor of Genetics at Dartmouth Medical School, Hanover, New Hampshire:



“To have been awarded the YIP definitely was good to have on my CV when I was applying for jobs. It is still useful now since people associate you with the EMBO. Through the programme itself I also met a lot of other young investigators and to exchange experiences and ideas with them has been a big plus. It was also nice to get some extra money for the lab. The programme has also been great for my students. A couple of them participated in the PhD student course and they loved it! They came back extremely motivated. I do not really have any suggestions how to improve the YIP but it’s something that should definitely be continued.”

► **Andreas Schedl:** Group leader and Professor at the CNRS Institute of Signalling, Developmental Biology and Cancer in Nice:

“To my mind the YIP award makes an enormous impact on a young scientist’s career. While the money provided is insignificant (in my case it was approximately €22,000), the ‘stamp’ of being a YIP fellow certainly makes a difference in helping to secure other grants and awards. It also makes the lab more attractive for good students, which is a problem many of the young ‘unknown’ researchers face, when starting their own group at a new place. Two of my students have participated in the PhD course, which is a fantastic way of training your staff in a wide range of techniques. I also think the EMBO lab management course is a very important addition to the programme, as it provides training of new lab heads in areas (e.g. budgeting, management of personnel,...) they have never been confronted with before.”