

Biologistes sans frontières

Junior researchers are encouraged to gain experience abroad, and for senior scientists, sabbaticals remain popular. France has taken the next step in fostering international exchange, by supporting long-term collaborations with foreign laboratories and by creating research units abroad.

Many life scientists chronically distracted by juggling the running of their laboratories with writing and reviewing, as well as administrative and teaching duties, pine for a sabbatical. In reality, sabbaticals can be fruitful and frustrating in equal measure — the lab still requires supervision, but with the added inconvenience of long-distance management. Could the solution be to move your lab somewhere new, with immediate access to the expertise or research infrastructure missing at home? Over the years some have experimented with this idea by spending summers at Woods Hole in Massachusetts, where lab space can be rented.

However, both sabbaticals and science ‘summer camps’ are short term solutions and often require rapidly adapting to unfamiliar surroundings and learning new approaches, which can limit their success. Establishing long-term cooperations with other groups is often the more pragmatic option. This collaborative approach is currently favoured by many funding agencies, such as the Human Frontier Science Project, or European Union ‘Collaborative Projects’ and ‘Networks of Excellence’. However, these projects only guarantee funds for a short period, which may jeopardise long-term cooperation. For the past four years, INSERM, the main French biomedical research agency, has initiated measures to facilitate longer-term collaborations, culminating in the opening of INSERM units in the United States this summer.

Christian Bréchet, director general of INSERM, explains that the aim of these initiatives is to provide a framework to optimally develop a project chosen for its scientific value, by offering researchers the opportunity for more exchange. Through the creation of ‘associated laboratories’ involving an INSERM group located in France and a collaborator’s laboratory that is independently funded and located in a foreign country, INSERM scientists are able to move abroad for a period of up to eight years while keeping their position in France. In parallel with this measure, a second initiative from INSERM involves the implantation of units in foreign institutions, which are run by INSERM scientists who do not have a laboratory in France. To date, this has been accomplished in institutions in Glasgow, Kyoto, Heidelberg and Montreal. This summer, the first two units in the USA will be launched by the neurologist Emiliana Borrelli (at the University of California at Irvine) and by the immunologist Jacques Banchereau (at Baylor University, Texas), which underlines INSERM’s intention to expand these initiatives.

What are the advantages of these costly initiatives for science in general, and for French science in particular? According to Bréchet, as the scientists participating in the collaborative projects keep their positions in France, the schemes encourage high-risk projects often avoided by tenure-track scientists. Facilitating long-term international cooperation between laboratories seems to be well received by funding agencies, as reflected by the success of such projects in obtaining the required independent grants to fund equipment and running costs. Borrelli, who previously worked in France for 20 years, explains that

the fear of losing contact with the research organizations at home sometimes constitutes a psychological obstacle for French scientists wishing to have a long-term experience outside France. The INSERM ‘branding’ of the foreign units may alleviate such concerns.

Critics of these initiatives are bound to exist, especially in a country with constrained research spending and where opposition to change is often considered a national sport — it is easy to view them as an incentive for further brain drain. In a recent interview with *Nature*, the newly elected French president Nicolas Sarkozy “regretted the fact that many young scientists choose to leave the country because they no longer felt they could succeed at home”. Bréchet for one does not see French scientists moving abroad as ‘abandoning the ship’, but more as a diaspora of French researchers who are often keen to continue to contribute to French research efforts. The umbrella of INSERM-associated laboratories and of foreign units creates a framework to work towards this goal. Although it is easy to argue that the money could have been spent more efficiently at home, by eventually bringing cutting edge ideas and techniques back to France, scientists are in reality likely to significantly reinvigorate research at home. In addition, by being abroad, they could make INSERM more attractive to foreign researchers — over the last five years, 50% of the new INSERM recruits at the senior level were foreign, as were 25% of the start-up INSERM grant awardees.

What do host institutions and countries have to gain? Both affiliations would be expected to appear on the articles or patents derived from the projects. INSERM units abroad will also be able to recruit local scientists: under its new recruitment policy, they can contract researchers irrespective of their nationality for a period of 1–5 years. In the case of the associated laboratories, INSERM also offers researchers from the host institution the opportunity to join the group located in France for a period of 4–8 years. If such reciprocal initiatives were adopted on a large scale by research institutions across the globe, the notion of ‘scientists without frontiers’ could become a reality.

What politicians will have their eye on is whether such projects measurably benefit the countries promoting them: Will researchers bring back hard currency, or at least academic laurels? Will they return reinvigorated to boost local research activity? Will these opportunities be used to escape the doom and gloom of scientific life at home? To be efficient, these innovations will also need to be accompanied by changes in the national systems. Only the future will tell if these exciting initiatives will ultimately benefit all partners involved, and not merely further bolster the dominant science destinations.

For now, kudos to France for these initiatives aimed at internationalizing science. If the advantages for France are not immediately apparent, the move towards more exchanges should benefit cell biology at a global level.