

Atlanta EU/US Research and Education Workshop

Key messages

Session III

Brain circulation schemes for developing lasting networks of excellence

Topic A: New models of transatlantic research integration

Sabine O' HARA

Transatlantic collaboration among scholars has long been very active. From the founding days of the Fulbright scholar program in 1946, for example, the representation of European nations was dominant. This may not be too surprising given the dominant role of Europe and the US in industrialization, scientific discovery and access to higher education following WW II. Yet in 2000 Europe and the US still comprised 38 of the 54 countries forming the core set of international co-authorship relations across the world.

And opportunities for transatlantic scholarly collaboration continue to grow. Yet some of this growth is due to the changing characteristics of scholarly work itself. For example, knowledge has become more portable in the internet age; large data bases and reports can be accessed in real time from various locations around the world; knowledge is exchanged no longer bilaterally but in multifaceted knowledge networks; collaboration takes place within the more traditional venue of the research university, yet increasingly also extends to the private sector, to research institutes, and associations; and the ability to conduct research, and actively contribute to a knowledge network has expanded to other countries and continents. These developments make it challenging to reliably track the mobility of scholars and scholarly collaboration. Collaboration is no longer dependent on the physical proximity of collaborators but can take place anywhere any time.

What does this mean for the future of transatlantic research collaboration? In many ways, it further facilitates the process. Yet research collaboration may also take on new forms. Research networks are likely to expand and include multiple collaborators and locations both within transatlantic boundaries and beyond. Research networks will increasingly span multiple disciplines and methodologies as progress invariably occurs at the intersection of previously discrete fields of inquiry. This is particularly true for applied research that has rarely fit neatly within the confines and definitions of academic disciplines or fields of inquiry. And research networks will increasingly include teams of junior and senior scholars, including even undergraduate students, as effective approaches to generating future interest in research move out of the classroom and into the field and the lab.

Effective programs to increase transatlantic research collaboration will have to reflect these realities and become more flexible to include multiple locations, multiple collaborators and multiple disciplines.

Pavel EXNER

The European *Research Council (ERC)* is a new pan-European structure for support of frontier research which came to existence in February 2007. For the first time Europe recognizes in it the need to support on the EU level high-level curiosity driven research and creates an institution which should develop into a partner to major funding agencies around the world, in particular, to the NSF and NIH in the U.S.

In contrast to the existing European funding schemes, the ERC is strictly bottom-up, focusing on bringing ideas to life: the only important criterion is the excellence of the project. In particular, it is an ERC intention to provide benchmarks for the European research scene where traditional a variety of uneven criteria existed. One of the two ERC programs called *Starting Grant* targets young researchers in the postdoctoral period with the aim to help them to establish themselves as independent scientific personalities.

The ERC grant system has several features helping scientific collaboration and researcher mobility. To name the most important ones, there are *no nationality restrictions* imposed on ERC funding applicants and the grants are *portable*. Moreover, the peer review is based on *global expertise*: many renowned scientists from the overseas are members of the topical panels, some serve even as their chairs. We hope that the ERC will make a significant contribution to the transatlantic scientific collaboration.

Topic B: Lasting early careers networking of excellence

Richard BISSELL

1. The development of networks over a lifetime – not a one-time event.
2. K-16 cultural exposure and development of foreign language capabilities – essential precursors.
3. Graduate students and postdoctoral scholars:
 - What are the data and trends?
 - The essential role of flows in both directions
 - Overcoming financial barriers
 - Overcoming visa/legal barriers
 - Enhancing career/professional choices
 - Making the case through better information
4. Young professionals:
 - What are the data and trends?
 - Barriers for travel to scientific meetings
 - Easing the change of status procedures from postdocs to professionals
 - Networking focused on young researchers: frontiers of science
 - Common professional standards
 - Role of industrial research in global integration
5. Recommendations

Andrej UMEK

The strong processes of integration and unification in the EU and in particular in the fields of research and graduate studies, which run under the names of European Research Area and Bologna reforms of universities, are leading to a new and considerably different situation. They on one hand facilitate inter-European cooperation and mobility and decrease for the long term development needed diversity and competitiveness on the other hand. It is in interest of EU to enhance the cooperation and mobility in the area of research and graduate studies with the leading centers of scientific excellence in the World especially with those of the same or similar cultural background, namely US.

US have done is past considerably more to promote cooperation in the area of research and graduate studies e.g. Fulbright program, however their effort has been directed toward particular European countries.

Taking into account the developments in Europe and viewed from both sides of Atlantic, there exists mutual interest to develop stronger scientific cooperation on the US – EU level. For that purpose we have to develop new US - EU cooperation programs in the area of research and graduate studies.

Topic C: Mobility of researchers to access large research infrastructures

James HERRINGTON

This presentation will provide an overview of the global burden of disease, with case examples, a prospective look at future trends in global morbidity and mortality, and a brief description of the National Institutes of Health (NIH) structure and function, with emphasis on the intra- and extra-mural training programs at NIH. Specific to global health, the presentation will describe the NIH Fogarty International Center and our funding of research and research training programs and opportunities. Case examples will be presented of how we invest in the training of both U.S. and foreign pre- and post-doctoral students in global health research. Finally, my presentation will wrap up with the 10 Best Buys in Global Health and ask the question of how can international research institutions, like the NIH, improve our ability to promote brain circulation in the basic biomedical and behavioral sciences to be successful in achieving these 10 Best Buys in Global Health.