Theoretically European, practically overseas

As a Turkish molecular biologist, I read your recent editorial (Jacobs, 2011) with great interest. Although your account of the political, historical and often religious bias against Turkey's membership of the European Union (EU) is well taken, in my opinion, it is equally important to appreciate the increasing intellectual contribution of young Turkish scientists to European biomedical research.

Although it is important to note that European molecular biologists were among the first to integrate Turkish scientists into Europe, these efforts are not yet adequate and should be improved. Only a few members of EMBO and young investigators are from Turkey, although the number of Turkish PhD students and post-docs in Europe has dramatically increased during the past 10 years. This is not a coincidence, but is due to the establishment of modern molecular-biology programmes in Turkey and their ability to attract the top Turkish students. In this context, the average profile of a Turkish molecular-biology graduate in Europe is arguably high, which is reflected by the acceptance of an increasing number of Turkish students into highly competitive international PhD programmes. In this respect, Turkey not only benefits from European research funding, but also actively contributes young and intelligent

individuals to the success of European molecular biology.

On the other hand, undergraduate molecular-biology students in Turkey still face disadvantages compared with their European peers. Every year, many students receive summer studentships from EU countries to improve their scientific vision and technical competence. However, Turkish students need to deal with painful visa-application procedures and they are asked to pay fees as non-EU members. The same difficulties arise when attending scientific conferences, or even when students are invited for a one-day interview for a PhD or post-doc position. Although the EU has improved these procedures for a few countries, a rigid visa-barrier remains for Turkish students. Moreover, Turkish students are not able to apply for many PhD positions, particularly in the UK, because they are considered as coming from 'overseas'. It is therefore important that European scientists, who are sincere about integrating Turkish molecular biologists into Europe, lobby political authorities to remove these barriers for young Turkish scientists.

Contrary to common belief in the European scientific community, a commitment to becoming a member of the EU alone is unlikely to revolutionize Turkish science, and will not dramatically increase

the appreciation of science in Turkish society. As discussed elsewhere (Somel, 2005), Turkey needs intrinsic and long-term political reforms to improve the quality of both scientific research and education. Many of the impediments to the improvement of Turkish science result from old-fashioned hierarchical academic structures and clumsy bureaucracy, as well as a lack of both scientific rigour and transparency in faculty recruitment and promotion. This not only discourages talented young scientists in Turkey, but also is largely responsible for the brain drain of Turkish scientists to other countries. Importantly, various Eastern European members of the EU suffer from similar problems in regard to academic science (Ainsworth, 2009), which supports the view that EU membership itself is not the cure.

CONFLICT OF INTEREST

The author declares that he has no conflict of interest.

REFERENCES

- Ainsworth C (2009) *Nature* **461**: 682–683
Jacobs H (2011) *EMBO Rep* **12**: 379
Somel M (2005) *Nature* **438**: 738

**Ozan Aygün is at the Laboratory of Biochemistry and Molecular Biology, National Cancer Institute, National Institutes of Health, Bethesda, Maryland, USA.
E-mail: ozan.aygun@nih.gov**

EMBO reports (2011) **12**, 623.
doi:10.1038/embor.2011.103