

Basin of attraction

A group of medical geneticists from the countries bordering the Mediterranean Sea are seeking support for an enduring cooperative research structure. Their research productivity and ability to collaborate are both proven. The expected value of the proposed organization is high.

People have lived in the Mediterranean region long enough to disagree about almost everything. The region has a long demographic history overlaid with considerable diversity of ethnicity, language and belief. Competition for land, water, trade routes and other resources has repeatedly led to complex and sporadically strained political relationships among neighboring countries. According to a Commentary from the organizers of the Mediterranean Medical Genetics meeting (p 641), the field of human genetics represents a harmonious exception, and the region has much to gain by achieving this field's united aims and by strengthening the existing excellent cross-border relationships between experts.

The main organizational element of the institute the Commentary proposes is the pairwise collaboration between investigators within the region, a structure that sets it apart from most existing research institutions. Partners outside the region would be welcomed into these collaborations, provided the emphasis was on building local capacity. Such a bottom-up approach takes advantage of the funding available to each country, while at the same time requiring only a relatively small central council to achieve agreement on aims such as the provision of genetic tests, operating procedures and priorities for centrally used resources such as benchmark genomes and databases. With this setup, Mediterranean geneticists would be able to utilize EU, US and other initiatives and accept new investment with minimal disruption or duplication of local effort.

This proposal is an achievable and pragmatic way to boost research productivity and improve health outcomes. Geneticists' commitment to helping families living with genetic disorders is

the motive behind this initiative, and the research geneticists perform is rooted in identifying disease-causing mutations, a problem they understand how to solve. The Mediterranean region is the right frame within which similar problems can be addressed and within which results can be returned locally. The proposal is efficient in that it brings together population-rich and resource-rich countries. Beyond these aspects, there may be game-changing benefits to understanding our common genetic history and overcoming common obstacles to health and progress, but ultimately the aim here is practical rather than political.

Why is building distributed capacity in specialized fields important? Why not let genomics continue via pairwise collaborations between clinicians and existing well-funded centers of excellence in the US and Northern Europe? Most clearly, the original motive of solving the locally important burden of disease is lost with distance and the path by which results return to translational genomic medicine lengthens. There are three more arguments that are important to consider. First, the costs of sequencing and genotyping technology have fallen dramatically relative to the costs of clinical characterization of research subjects. Second, the region already has willing scientists in countries with relatively well-resourced genomic studies (for example, Italy, Israel and Turkey). Third, available study populations are key to understanding disease caused by a spectrum of rare to common variants. The region's long endemic history, multiple local and founder populations, and many zones of admixture are local advantages best understood by the researchers closest to the populations. ■