

A European centre to respond to threats of bioterrorism and major epidemics

Michel Tibayrenc¹

The recent anthrax attacks in the USA have increased everyone's awareness of the extreme difficulty of handling major health dangers in a coordinated manner. Even without this latest drama, the need for improved coordination is obvious in the light of recent outbreaks such as those of bovine spongiform encephalopathy and foot-and-mouth disease, and the cacophony of the European response to these problems.

The Americans are fortunate enough to have a central agency for dealing with such matters: the Centers for Disease Control and Prevention (CDC), of which the National Center for Infectious Diseases (NCID) is an important part. This is a big federal organization with more than 1500 employees. It combines advanced research, surveillance, control, and training. Each US state has its own health policy and disease surveillance and control system, but the NCID plays an important role in coordinating activities and collecting data. In terms of research, the NCID's work is complemented by that of many other research centres, including the National Institutes of Health (NIH), the US Army laboratories and thousands of university laboratories.

Clearly an organization in Europe analogous to the NCID — a European Centre for Infectious Diseases (ECID) — is sorely needed, and this idea has begun to take shape (1, 2). The principle is to set up a central structure with walls, which, like its American counterpart, would coordinate advanced research, surveillance and professional training. The ECID would not be limited to the European Union, and would include countries such as Switzerland, as well as those of Eastern Europe. It would also have strong links with developing countries, because if we want to control epidemics in Europe, we have

to do it in developing countries too: microorganisms are no respecters of national borders (2). And as far as bioterrorism is concerned uncoordinated health systems offer a strategic advantage for causing havoc.

It is important to underline that the ECID would be only one piece of the European system in this domain. It does not aim to replace national structures such as the Pasteur Institutes in France or the Karolinska Institute in Sweden. Nor would it aim to compete with national control structures such as the Institut de Veille Sanitaire in France. On the contrary, its goal would be to complement and optimize the action of existing structures.

The harsh reality is that the task before us is huge, and so far there is no European system to tackle it. Europe needs a centralized structure even more than the USA, because of the political compartmentalization of this continent. In spite of the excellence of the existing institutions, European work on researching and controlling infectious diseases is a distressing cacophony, like an orchestra with no conductor (3). It has been argued that a central structure would be useless, and that a "virtual CDC" (surveillance networks electronically operated) would be more efficient (4, 5). Actually, the two concepts are complementary. The European Centre would be efficiently completed by electronic networks, outposts and cooperation centres.

It is proposed that as part of their ongoing work the ECID programmes would take advantage of the genomic and post-genomic revolution to develop far-reaching holistic research on the epidemiology of infectious diseases. In doing so it would find ways to reconcile new powerful technologies such as massive sequencing, DNA chips and bioinformatics with valuable but vanishing *savoir-faires* such as classical medical entomology, parasitology and bacteriology. The European dimension of the enterprise would make it possible to work on a scale that is hardly possible within national frameworks.

By analogy, only the successful European Space Agency made it possible to develop the Ariane launchers.

Much discussion has been already generated around the idea of this project (6, 7). It has enabled the ECID scientific board and its steering committee to develop the concept, and our goal now is to relaunch the debate through a series of meetings and articles, to turn the idea into a reality. Preparedness for disease emergencies is such a hot topic now (8) that there is no way to avoid the question and its practical implications. In the end, of course, it is a matter that has to be taken up by politicians and decision-makers. In its present state, the ECID is a private undertaking supported by a group of scientists and health professionals, and not an official project of any national institution. ■

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¹ Editor-in-chief, *Infection, Genetics and Evolution*, and Institut de recherche pour le développement, BP 5045, 34032 Montpellier Cedex 1, France (email: Michel.Tibayrenc@mpl.ird.fr).