Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

summary operating characteristic curve (SROC) analyses,[8–11,14] which accounts for variation in thresholds. We used the SROC method to summarise the joint distribution of sensitivity and specificity estimates. We are aware of more advanced approaches to synthesising diagnostic accuracy measures, such as the bivariate SROC method[15] and the hierarchical regression analysis.[16] These methods are, however, complicated and not easily incorporated in diagnostic reviews at the present.

Jayanthi and colleagues present interesting data from India, comparing the sensitivity of PCR tests based on IS6110 and *MPB64* target sequences. Their assessment[17] of a PCR test based on IS6110 had a sensitivity of zero in our meta-analysis, and they had attributed this to the fact that in their region, a sizeable proportion of *Mycobacterium tuberculosis* isolates had either a single copy or no copies of the IS6110 target sequence.[18] It is interesting that their study on an alternative PCR test based on *MPB64* target sequence showed a much higher sensitivity in a direct head-to-head comparison against PCR with IS6110. Their data support our finding that NAA test accuracy may vary depending on setting (since *M tuberculosis* strains may vary across geographic regions) and type of target sequence used. More research is needed to understand the effect of target sequence on NAA test accuracy.

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The European Commission pocket CDC: *encore un effort*!

I read with great interest your Leading Edge editorial on "a European CDC".[1] You emphasise the surprising lack of reactions to the European Union Health Commissioner David Byrne's proposal to create a European Centre for Disease Prevention and Control (ECDC). Here are my reactions, as the initiator of the European Centre for Infectious Diseases (ECID) project.[2,3]

The ECID proposal was vehemently countered by supporters of the "virtual CDC" (connecting and coordinating existing national centres through electronic communication[4,5]). Until recently, this latter option was the official choice of European decision-makers, to the point that the ECID concept (a centralised structure with walls) seemed to be politically dead.[5] However, minds have changed after the bioterrorism and severe acute respiratory syndrome (SARS) episodes.[6,7] The ECDC is aiming in the right direction, in the sense that it will be a centre with walls. However, it is too timid a project to fulfil its mission. Planned staff will be 70 in 2007, which is totally inadequate: the National Center for Infectious Diseases (NCID) at the US Centers for Disease Control and Prevention (CDC) employs more than 1500, and even the French Institut National de Veille Sanitaire (INVS) is staffed by 250. The ECDC could be worse than nothing if it becomes an excuse for European decision makers to take no further action.

Whereas the ECDC will consist of a small administration only, the ECID would be much larger, with a proposed staff of 500 and three complementary missions: advanced research, surveillance/control, and professional training. There are several outstanding reasons for having research at the European centre. First, surveillance and training activities will be based on the most recent scientific advances. Conversely, surveillance activities keep researchers in constant contact with the practical problems of the field. Second, critical size. Not only is the overall European investment effort in infectious diseases research far lower than the US one, it is also poorly coordinated and jeopardised by rivalries between nations. Only by combining our efforts can we match the US investment. For this vital field, we must reproduce what was done successfully for space research (European Space Agency, ESA) and particle physics (European Centre for Particle Physics, CERN). If we do not, European research in infectious diseases will remain

backward-looking. Third, a research-oriented European centre will provide the opportunity to launch activities that national centres do not—or no longer—undertake (subsidiarity principle)—eg, trail-blazing, multidisciplinary projects, joining, for example, biologists and specialists in human sciences; and vanishing, although indispensable, specialties such as medical entomology or basic microbiology/parasitology, which are disregarded by young scientists because they do not generate high impact factors. Lastly, a large structure with an extensive research activity will be far more attractive to young talents than a simple, tiny administration. In my opinion, visible, solid structures such as the CERN or the ECID will be incomparably more efficient and cost-effective than any network in structuring a European research area.

The ECID project also distinguishes itself from the ECDC in its willingness to open the gates to eastern Europe (including the former USSR), Turkey, and developing countries.[2,3] Opening up to eastern Europe will reap a number of benefits. First, these countries are a vast reservoir of skills, which today are threatened by economic difficulties. The ECID project would make it possible to support these scientific and medical communities, and, in turn, these countries could help staff the centre with their experts. Second, they are our close neighbours and have considerable problems with transmissible diseases, especially in Ukraine and Russia. Geographic proximity dictates solidarity. The same argument can be made for collaborating with developing countries. Massive migrations will be undoubtedly one of the major historical features of this century. If we want to control the infectious peril here, we must do it there. As demonstrated by the SARS episode, microbes are *sans frontières*.[3]

The difference for Europe between a large, ambitious European CDC and a simple, tiny administration could be tens of thousands of casualties. I cannot demonstrate with equations that the ECID is indispensable—its creation is a matter of vision. However, the recent SARS episode shows clearly that danger comes from unexpected fronts. The ECDC could be enough to handle the small warning coughs of mad cow disease or SARS. To face major disasters, however, it will not. The motto here should be "down with compartmentalisation and conventional science". Let us work together in a single location through daily interaction between scientists and public health professionals, biologists and specialists in human science. If we do not, microbes will always be more adaptable than we can ever be alone.

I understand that making budgetary decisions is a tough job. Even if Byrne's proposal is the only one that will come to fruition in the short term, I propose that research and training activities be a second step, probably with a different political-administrative status, either as a multinational agency like the ESA and CERN, as proposed by me [3] and others,[8] or even as a private foundation like the Pasteur Institute. What is crucial is to have both parts land in the same place, even if not at the same time, and work together. If we content ourselves with only a small administration, I am afraid that we will be fighting yesterday's battles, like the French army in 1940. As everybody knows, the fate of that army was tragic.

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