Interview with AndrÃ© Syrota, Director â?? General, INSERM â?? l'Institut National de la SantÃ© et de la Recherche MÃ©dicale

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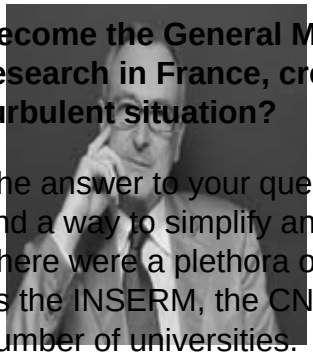

at the CEA (Nuclear Energy Center), you just accepted an offer to become the General Manager of INSERM at the very moment a political reform is reorganizing research in France, creating many tensions. Why did you accept this position given this turbulent situation?

The answer to your question is quite simple. I was not only asked to manage INSERM, but also to find a way to simplify and better coordinate research on life sciences and healthcare in France. There were a plethora of research organisations in France involved in life sciences and health such, as the INSERM, the CNRS, the Pasteur Institue, the INRIA, the CEA, the INRA etc, in addition to a number of universities.

There were also many structures open to private funding, as well as different thematic networks for advanced research, and the newly created Poles de CompetitivitÃ©s â?? some of which are directly involved in life sciences.

Such a complex system was unique in the world. So our idea was to better coordinate their efforts and to create structures that could also have access to private funding. We have also modified the funding system with the ANR (National Research Agency), and our evaluation system.

How do you judge the quality of research in France?

Life science research in France was generally (and unfairly) considered very average. But we saw signs of its excellence, and indications that it was actually suffering from poor communication rather than from poor quality.

National research is rated globally through the Â« impact ratio Â». The world average of this ratio is 1, and yes, France ranks below the average. However, what is killing our ranking are scientific publications from research in universities often released in Â« minor Â» publications. But if you ranked our research institutes (INSERM, CEA, INRA etc) we would be far above the average. If we simply limited the number of publications emanating from universities we would make a great jump in the rankings.

A second fact proving the excellence of life-science research in France is the results of the Junior Grants by the European Research Council (ERC). ERC grants are considered the most selective in Europe. For the second consecutive year, 14 researchers willing to work in France were awarded a grant, so France is leading the pack for life-science and healthcare.

Another good example is the results of a 2008 study by the UKâ??s government where France ranked second after the USA for excellence in research. This proved to us that the potential was

there, and that given better organisation and a better approach there was still plenty of promise.

So what are the main priorities for restoring the image and the efficiency of the French research system and its position in life-science or healthcare?

In 2008, we asked for an audit and evaluation of the INSERM by an independant comittee. It was chaired by Elias Zerhouni, then GM of the NIH. Harold Varmus, former director of the NIH and Nobel Prize, and Patrick Aebischer, director of Lausanne Polytechnique School, were other members of this commitee. The comittee never questioned the quality of research in France. We concluded that with the same level of funding, but better coordination between the different players, we could greatly improve and facilitate research.

The Zerhouni Report made 4 main recommendations : First to shift research operations to proximity organisations â?? namely the universities. The second recommendation was the creation of a unique institute for life,-sciences which would act as a funding agency and not as an operator. Third, to increase revenues for researchers. And the fourth recommendation stipulated that all these transformations would need a period of transition, that this would not happen overnight and would require time.

Therefore I called for much stronger coordination, and it resulted with the creation in April 2009 of the AVIESAN (the life-science and health national alliance). This is an extremely flexible entity which includes and coordinates the researchers of 9 partners : INSERM, CNRS, CEA, INRAA, INRIA, IRD, Institut Pasteur, University President Association, and Union of CHU (public hospitals) presidents. As president of INSERM, I am now heading the Alliance.

One of the great interests of the Alliance is its flexibility, and that really improves cooperation between institutions. For example, 24 hours after the outbreak of the H1N1 influenza strain in Mexico, we had managed to organize a meeting with all the experts in this domain, including both researchers and manufacturers.

Another criticism of research in France is that many complain that they never know where they should direct their requests, that they get sent from one institution to another. Our solution is that all requests should be directed to the AVIESAN.

A second important measure that we took was the incorporation of a permanent coordination comitee in charge of implementation of valorisation programs and partnership follow ups. All the members of the Alliance are represented in this comitee and it relies on the Â« PÃ´les de CompetitivitÃ©s Â» (competiveness clusters).

We also completed the mapping of the laboritories into networks based on their main thematic domains, and finally we put in place a one-stop-shop to promote French research and the prospects for strategic partnerships.

I would also like to stress that manufacturers will set up their own common structures that will include all aspects of life-sciences and healthcare in order to interact directly with the AVIESAN. This is critical, as this sector is of strategic importance for France, as life-science and pharmaceuticals are the second-largest source of investment in R&D in France, while France is the largest producer of drugs in Europe selss 7 billion Euros worth of drugs in worldwide.

Arenâ??t you afraid that, as many say, by involving the manufacturers in the process â?? in the public research program â?? researchers might lose their academic freedom , especially in fundamental research, and instead be forced to focus on fields that could have an immediate commercial application?

This new interaction between the industry and the Alliance shall in no way affect the freedom of researchers and scientists. Everyone agrees that we need fundamental research and that it is an absolute necessity. Manufacturers know this fact very well. Actually, manufacturers are very interested in this new system, as it should give them access to real-time knowledge of any major breakthrough in fundamental research. Industrialists know and acknowldege that Franceâ??s research is extremely competent at all levels. And I am confident that it will lead us to more innovation.

Arenâ??t you just copying the NIH?

Our system will remain different from that of the US. For example, some researchers will remain state employees, which is not the case with the NIH. This can create a critical advantage, as thanks to this security, researchers can embark on riskier projects without fearing for their job.

One of Franceâ??s main problem in the field of biotechnology is the lack of technological platforms that can be used both for research programs and also for clinical or industrial production. Such platforms are nonexistant in France, but are already active in the USA, Germany, the UK, and Ireland. How can there be any kind of collaboration between companies and different agencies in that context?

One of the recommendation formulated by the CSIS (Strategic Council for Healthcare Industries) is the development of bioproduction. Therefore, there wil be a huge effort to develop this in the coming years.

But, we are also interested by genic therapies, and I would like to stretch out the recent success in the treatment of two children affected by adrenoleucodystrophia by an Inserm team. We also have great laboratories involved in cell therapies.

Research and education is one of Franceâ??s most difficult sectors to reform, with reforms often facing strong corporative resistance. What were the greatest challenges ?

I was actually surprised by how easy the process went. Regrouping those ten laboritories was acttually much easier and faster than I ever expected. And now we also host universities and hospitals within the Alliance. We have just signed an agreement with the Mediteranean University of Marseille for the unique management of laboritories. This is the first of its kind in France. The situation is actually accelerating.

Given the involvement of several players, there must frequently be disagreements between the partners on how to follow up on these projects -whether at patenting or marketing levels- and a lot are simply abandoned. How does the creation of the AVIESAN tackle these problems?

It is true that signing contracts is often complicated. But there have never been as many changes in research in the past as there are now, and we are taking important steps to clarify and make these processes much easier. Research partners now have the legal obligation to rapidly nominate a single agent to repesent them, who will be the single interlocutor and the only authority authorised to negotiate with manufacturers.

Does France have the means for its ambitions?

I sincerely believe that having had the quality of research we have had in the past, despite huge organisational problems and drawback,s shows our potential. What we are able to achieve today is to have people working together. This is something new in France.
A second step is to ensure that some of our best researchers who have emigrated come back to

France. I have been meeting many who told me they were ready to make the jump. They are only waiting to get similar working and financial conditions to the ones they get in their host country. This is one of the thing I hope we can achieve through the Â« Grand Emprunt Â»

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