



Wednesday March 11, 2009  
9:00 to 10:30

Lyon Convention Center  
France

## RESEARCH INSTITUTES FACING 21<sup>ST</sup> CENTURY SCIENTIFIC CHALLENGES

### Moderator

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- **Elizabeth J. Padmore**, Board member, Independent Consultant and Associate Fellow James Martin Institute, UK

### Speakers

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- **André Syrota**, General Director, INSERM, France
- **Alice Dautry**, Director, Pasteur Institute, France
- **Daniel Zajfman**, President, Weizmann Institute, Israel
- **Philippe Kourilsky**, Chairman A\*STAR, Singapore Immunology Network (SIgN)
- **Elias Zerhouni**, former Director, National Institutes of Health (NIH), USA

### Summary

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- André Syrota presents the major trends, research institutions are facing.
  - In terms of science: changes in researchers mobility at all levels, redistribution of world scientific productivity, improvement and homogenization of the global level of research competence, construction of highly sophisticated research infrastructure and increasing importance of interdisciplinary
  - In terms of society: Extreme competition between researchers (race for investment and the maintenance of integrity), hopes for the world economy from advances in the biomedical sciences, increased awareness by the population and the risk of over-regulation of the research environment
- These trends lead to the need of attracting young researchers for a scientific career in life sciences, which can mainly be done by:
  1. Integrate life sciences into the society
  2. Give researchers the environment they need
- Regarding the first point, Alice Dautry stressed, that it must be of main interest to give a human face to science; not just from the topics point of view (e.g. dealing with human health) but also from the individual researchers view (scientists are human beings)
- Philippe Kourilsky showed an example of how a research institute can be directly integrated into a city to foster communication



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## BioVision 2009 session reporting

- Looking at the little ratio of scientists and engineers in parliaments of Europe and America, integration of science into politics is obviously lacking, looking e.g. at China, the situation is different and Philippe Kourilsky in that respect stressed, that Asian societies do much more rely on science
- Regarding the second point, Daniel Zajfman stressed the importance of independency and empowerment for young researchers and he insisted on two key traits of good scientists: curiosity and passion
- He pointed out, that to successfully run a life science research institute, you have to invest in people striving for solutions not in topics or disciplines
- Interdisciplinary is the key to address the scientific and social challenges
- Regarding the responsiveness of publicly funded research, Elias Zerhouni pointed out, that the benefit of basic research is not easy to see and sometimes can take years, but the example of the quick identification of the SARS virus was one situation where the benefit became clear. He insisted on two forces: observation – countries have realized that science and technologies are sources of well being and benefits and second force: convergence within disciplines
- He said also that when exploring the unknown, there are different types of profiles: the pioneers in science (new insights), the explorers (no breakthrough science) and the settlers (continuum). The most important areas to fund in research institution are pioneering as no one else will do it otherwise.

## Quotes

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*"What you can do with what you know is never written on a CV."*  
Daniel Zajfman

*"Disciplines and methods converge, and this convergence is a force which institutions cannot ignore; destroy barriers between disciplines, provide maximum flexibility"*  
Elias Zerhouni

*"I am funding the promises of research"*  
Elias Zerhouni

*"Integrate science into the life of a city!"*  
Philippe Kourilsky

*"The richest countries today are the ones with the most investment in education and the least natural resources; the real treasures are not in the ground but about 1.5m over the ground in the brains of the people."*  
Daniel Zajfman

*"Scientists are considered as criminals."*  
André Syrota

*"We must be present in the public debate about the science of the future and give a human face to science. Science is part of humanity and is made by human individuals."*  
Alice Dautry

*"Science has to be done where the problems are"*  
Alice Dautry