



### Christian BRÉCHOT, président de l'Institut Pasteur

Coming back to a point Bertrand made which is very important, we have a number of drugs which are used for various diseases and have been neglected for various reasons, but turn out to be extremely effective in other diseases, including some we have discussed today. This is a challenge which should also be taken globally. For example, you have things like to so-called Drugs for Neglected Diseases initiative, which has been very useful, and the example you gave which led to a Nobel Prize for the treatment of malaria is a good one.

When we speak of governance, there will be a need for a context or format for the industrial partners to get more incentives from various mechanisms to go this way and to share these types of products. We should not think that the innovation of the future will always rely on new molecules and new discoveries; it is also smart use of ancient discoveries, including obviously plants and traditional medicine and a lot of areas.

# Bertrand BADRÉ, directeur général et directeur financier du Groupe de la Banque mondiale

One of the key points is to find ways to bring public and private together. It is not just about finance; finance is important, of course, but it is also about protecting the legal framework that makes this happen appropriately. It is not the normal way if you want to accelerate things, but you need to find a way to do it in an emergency. Focusing efforts on some neglected disease, you have to propose some kind of protection, so that the industry says that, while it might not make as much money, at least it will not lose money. Therefore, it is not more of the same; we really have to address these issues and address them together, and this is really part of this governance framework. How do we organise this together and try to break the silos?

Being a newcomer to this, I was struck by the fact that there are so many parallel tracks which try to connect formally at different levels, but it is not that effective. This is where we have to engage together, and with health in particular, you have health specialists and non-health specialists, and they need to work together but they do not speak the same language. I was at a meeting of the Institute of Medicine in Washington, and I was surrounded by all these doctors and asked them where the money was. They said it was not just about money. That was tough for them and for me.

We need to do more and more of this and to have a realistic approach to the questions which are on the table now. Being serious about the SDGs means we have to find a way forward, and to do that we need to put together a framework for public-private cooperation on these issues.

#### Louise FRESCO, présidente de l'université de Wageningen, Pays-Bas

The interesting thing with taking the financial approach is that you can actually bring people together that way, because my major problem is that health, agriculture and trade do not talk together. You could get them on one platform in a way that we cannot from this sector alone.

#### Bertrand BADRÉ, directeur général et directeur financier du Groupe de la Banque mondiale

This is one of the tricks of this pandemic facility. The idea is not to raise money for the World Bank and to put some sugar or milk in our coffee. The idea is that, by putting money on the table, you provide an incentive for everybody to talk. Let us discuss how we use this money if it is there. That is really the name of the game, so you need to put around the table the World Bank, various agencies, NGOs, and the private sector. One of the key aspects of Ebola is that we were not really ready. Everybody was doing their own things in their own silos.



#### Sean CLEARY, président, Strategic Concepts (Pty) Ltd.

The way in which you have sketched the issue is profoundly helpful, both from a perspective of global governance and from that of the fundamental threats and challenges that we face in this area. However, I want to take what you have said, and particularly what Louise has said, to logical conclusion so that I can ask a question behind it. What you have described in classic terms is a complex adaptive system where the complex system that is human society is coevolving with an ecosystem of which it is a part. We all know that, in terms of complex systems, the high degree of interdependence between an enormous number of variables, the non-Gaussian distribution of outcomes, multiple meta-stable states, and non-linear evolution within the totality of that scheme, makes any form of conceptualisation extraordinarily difficult.

Additionally, if one then has the co-evolution within the ecosystem itself, conceptually we have no means of addressing this in intellectual terms. Whereas you recommended a certain quasi-linear solution to the problem in terms of better communication between three sets of ministries on a transnational scale, the problem you have described is in one sense utterly intimidating. That said, you collectively have a pretty clear understanding, from three different positions, though two of them are very similar, of what first steps ought to be going forward. However, we will grow the population to something like 9.5 billion by 2050 and will be something like 67% urbanised at that point in time, and the potential obviously increases exponentially within that particular framework.

What are the first steps, the four or five things, on which we should be concentrating today to strip out the intimidating character of the complex adaptive systems you have described?

#### Louise FRESCO, présidente de l'université de Wageningen, Pays-Bas

I certainly do not want to leave you with the idea that it is all so complex that we cannot do anything, but you are right that our co-evolutionary patterns may flare up and evolve, sometimes in rapid ways and sometimes in very slow ways. However, we should also refrain from generalising too much. The proof of the pudding is in the eating, in the details of some specific diseases, and a couple of things are really urgent from my perspective.

One is antibacterial resistance. Antibiotics in the food chain will increase rapidly because urbanisation is driving the consumption of animal proteins, fish, meat, poultry and so on, and that has led nearly everywhere to an explosion of the use of antibiotics. Preventative use of antibiotics most of the time is not necessary. We have new techniques to reduce to close to zero such use of antibiotics, but it requires sophistication and investment in new production systems. However, if I had to tackle one thing, that would be the first I would look at.

Regarding the pathogenic side, although Ebola scares everybody, avian influenza or influenza in general is probably a far greater threat for which we need surveillance systems. Here we need better production systems, and an integrated veterinary and medical approach. Regarding avian influenza, we need surveillance systems and rapid reaction forces, involving particularly the NGOs there who have done a tremendous job, for example Birdlife International, in monitoring the birds.

# Christian BRÉCHOT, président de l'Institut Pasteur

Because you were asking for concrete steps, I would add that there is the question of preparedness, which clearly has become a key word. We have said that preparedness should be embraced in the context of combining the expertise of finance, health research and agriculture, and this is the main point. I will give a very concrete example. You want to prevent rabies. I am the president of the Institut Pasteur where the vaccine against rabies was invented. However, the best thing to do is to vaccinate the dogs. The countries where you really control rabies are the countries where you have extensive vaccination.

We are preparing global funding for vaccines. The Ebola vaccines where there from 2009, but as you said, what is new is the capacity to bring them where they are needed. However, if we were to have existing stocks, and the question of avian flu is obviously key, we need to combine the issues of animal and human infection, which is not being done now. We are hearing about initiatives to create a stock of human vaccines but not for the animals. This is what we need to advocate.



#### Peter JANKOWITSCH, membre du Directoire du Centre Franco-Autrichien pour le Rapprochement en Europe

I am not sure the extent to which your discussion touched on the role of the WHO, as we were discussing governance. We will be discussing a major international climate conference. I wonder if there has ever been an enterprise of that size, namely a world health conference in the same sense as the World Climate Conference, to address many of the issues which you are discussing here such as finance and preparedness. Are you satisfied with the role of the WHO? Do you think it could be extended? What else could be done to advance health issues?

# Christian BRÉCHOT, président de l'Institut Pasteur

This is a very sensitive question, and because Bernard will have to leave, I will ask him to address it. It is a very easy question.

## Bertrand BADRÉ, directeur général et directeur financier du Groupe de la Banque mondiale

It is not an easy question, as organisations are very suspicious of each other and there are turf wars and so on. It is very important to echo what you said, and this might be part of this kind of conversation. We have been tempted, at the global level over the past 15 years, to have a vertical approach to certain problems, such as targeting AIDS or malaria, and it has certain benefits, which I do not want to ignore, but to the detriment of having a more holistic perspective on what needs to be done on preparedness, governance, etc. That is where we should focus our efforts. When you are too vertical, and that was one of the problems identified on the ground in West Africa, you miss the connecting points between the vertical silos.

Therefore, we need this comprehensive approach on health. Finance can help but it is not the solution. It is always the same principle – if you have good policies you will find good money, not the other way around, even if money can incentivise people to find good policies. There was a report on the role of the WHO after the Ebola crisis which had a number of recommendations, and they are working on this. Some were financial, some were organisational, surveillance and so on, so we have to work in that direction, but I would welcome this more holistic approach on health, so that it is less fragmented than has been the case in the last 15 years.

## Christian BRÉCHOT, président de l'Institut Pasteur

This is a key question. We have to understand that we have had a mix of difficulties in the WHO case, and we should keep a very open mind. The major difficulty for the WHO in terms of the Ebola crisis is what has happened at the regional level, the incapacity of those people who were acting there to report and convey information to central headquarters. We should not abandon everything in terms of the WHO concept, on the other hand, because we are working with a lot of WHO collaborative centres worldwide, and they have been and will continue to be extremely useful.

Therefore, the take-home message for me, following what Bertrand has said, is that they are working on a new organisational scheme and we have to work on this with them. We have to introduce much more in terms of external stakeholders in the WHO governance, but in my view we have to keep what has been useful in the past. We have to help it evolve, not destroy it.

# Louise FRESCO, présidente de l'université de Wageningen, Pays-Bas

Can I add something? As the World Climate Organisation, a UN body, could not deal with the climate issue, we had to create an Intergovernmental Panel on Climate Change and a series of treaties. We have never focused on health in the same way.

Therefore, we do not have a global health treaty, we do not have an intergovernmental body and we do not have this series of assessments of the global issues as we had with climate. Therefore, the WHO, the WTO and all the others can do something, but we cannot expect them to have an overall approach. It may be time for a global health treaty, and I would like to make a call to move towards a treaty that would tackle all these issues in an integrated fashion, so that we will ave the intergovernmental power to proceed.



# Shameem AHSAN, ambassadeur du Bangladesh auprès de la Confédération suisse et représentant permanent auprès de l'Office des Nations unies et des autres organisations internationales à Genève

My main question concerned the Institut Pasteur's connection to different parts of the world, and this integration was very important, but there is an omission. I do not see the Middle East and South Asia being connected very well. I can name one institution in Bangladesh, the ICDDRB, which could have been a very good partner for the Institut. Secondly, Mr Badré referred to universal health coverage, and again, in Bangladesh there are more than 16,000 community clinics operating, and this has been accepted by the WHO as a very good innovation in bringing universal health coverage to many people.

Thirdly, I appreciate Louise Fresco's expose, and my observation there would be to encourage more integration at the local, regional, national and global level. Finally, there is an absence of a global health architecture in terms of a treaty, which is a very good point.

## Christian BRÉCHOT, président de l'Institut Pasteur

Thank you very much for your comments. Bangladesh is very important for us in terms of scope.