EMBO reports

interview

A voice for European life scientists

An interview with Kai Simons, President of the European Life Science Organisation and Director of the Max Planck Institute for Molecular Cell Biology and Genetics in Dresden

EMBO Reports (ER): Are you satisfied with the first ELSO meeting in Geneva?

Kai Simons (KS): Yes, we are. We had done a lot of work to get the people there, and if they hadn't been happy with the meeting, then it would not have served any purpose. It was really amazing that the overall response was enthusiastic, and this was not just among the young people, but also among the senior scientists. And some of the seniors had been very sceptical about the whole thing, asking, 'Why do we need a big meeting for Europe? We have many good small meetings and these people are invited anyway.' But it became clear that the first ELSO meeting was attractive for all participants. All the young people mixing with their seniors, as well as the breadth of a programme that covered many aspects of biology and molecular life sciences, was very stimulating.

ER: The ELSO statement says that the idea is to create a larger conference for Europe comparable to the ASCB (American Society of Cell Biology).

KS: The whole idea of the meeting—and this was what came across in Geneva—is that if the number of participants is large enough, the poster sessions can cover different areas exciting enough for all the people to attend them. To do that, you need a certain size. Another point is that the speakers at the plenary symposia have a large audience. It makes a big difference if there are 500 or 3000 people. With a bigger audience, the speaker does a better job and it's also more exciting to listen. So, if you think about what is happening in biology today, we need this broad scope.

ER: But isn't the idea to send out a signal to the public and to the politicians too?

Russ Hodge

KS: Here comes the question of science policy. We have put forward, as the first issue, our collaboration with ELSF (European Life Science Foundation). We also have a career development committee looking into the plight of young investigators in Europe including gender problems—the low number of women in leading positions. Therefore, we are going to put this on our agenda and we will use the strength of a grassroots organisation to lobby for issues that we feel are important to us.

ER: But there are a lot of organisations in Europe. There is ELSO, there's ENA, there's EPSO—just to name a few—and they all have their own agendas. I have the feeling that for a European politician it can be difficult to find out who has the mandate to represent a certain group. Don't you see that there should be some larger coordinating organisation for lobbying?

KS: If you look at how lobbying for life sciences has been done in the United States, the forerunner was the American Society of Cell Biology. And there has been a coordinating forum, but it has been mostly run by the ASCB people. I don't think that more activity in Europe from a number of organisations is a problem as long as they have a forum where they can come together. ELSF is that forum. We all know each other, and together we consider how to address problems. One issue that we have singled out is the lack of young investigatorship awards supporting assistant researchers in establishing their own independent careers. EMBL has that in its programme, the Max Planck Society and most scientific organisations have this idea in their programmes, but more money has to come from Brussels to establish it. And we have to make that message loud and clear at different levels of decision making. If we have a coherent agenda, that's not a problem. But if a fight breaks out and one organisation says, 'This is the most important thing and what you are saying is wrong,' then we have no chance to lobby.

ER: So how does it look so far? Will the European scientists come together and speak unanimously?

KS: Well, if you take the issue that we put highest on the agenda, the young investigatorship awards, I think the message is

loud and clear. Everyone is saying the same thing.

ER: This particular problem is the same for all European countries, although the UK is a bit better off in that regard. But do you think that, given the cultural, social and political diversity of Europe, European research institutions or organisations will also be unanimous on other issues?

KS: This is the agenda that we have ahead of us. If you look back, there has been no single voice speaking for European scientific organisations. There was no organisation to coordinate efforts. So now, there is really a big change for European scientists. The characteristic of the European scene has been a lack of activity. If we now have too much activity and too many divergent opinions, well that's a different problem. But we have just started, so I think that will not be the issue yet.

'We will use the strength of a grassroots organisation to lobby for issues that we feel are important to us'

ER: There is this wide diversity in the European science landscape, since every country has its own research agenda. And there's the European Union too. So how do you know which person to address?

KS: The European organisations are lobbying particularly for European science policy made in Brussels. And by doing that and getting it right, we are also lobbying for the national efforts. This will not take just one or two years. It will take some time before we have found the right ways and means to do it. And if we all stick together, and coordinate and discuss the issues, we will have a chance of having our voice heard.

ER: In this regard, how do you consider commissioner Busquin's paper about a European Research identity?

KS: I see Busquin's efforts as promising, because he is actually listening to the scientists. This is a big, big change. Now comes the question, will this be reflected in the sixth Framework Programme or not? If it is reflected, then we will all be extremely happy. Regarding the European research area, I think the coordination is fine, but I also think we should not go too far in trying to set up too much bureaucracy. The question is, 'Do we have enough innovative research and do we allow those with creative ideas to do their work—both Europe-wide and nationally?' When it comes to infrastructures like databases for genomics and electronic publishing, then, of course, much more coordination is necessary on a European level. But if you consider basic research, it cannot, by definition, be coordinated.

ER: The NIH has set up a highly successful system and they streamlined the whole process, as they decide what looks promising and then pour money into it. I know that the freedom of basic research is absolute, but why should we have ten groups in Europe working on the same problem?

KS: But that is not the case with the NIH. If you look at NIH and at the overlaps between grants, they are enormous. They are not trying to say, if there are ten groups working on this area, let's take five away and put them somewhere else. They say, if ten groups get through the study sections, they get the money. But I do see the problem that a piling up of people in one area is not beneficial for the general effort, because it causes a lot of repetition and unnecessary work. It's very difficult to arrange this from above. For example, in medical research, if the project has some applications, streamlining of research efforts can be easily done, but this is not the case when you take the fundamental basic work that drives innovation. It is very difficult to predict where things will come from. I think it is really important to spread out our efforts, and also try to look for talent.

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ER: In biology, the borderline between basic and applied research starts to dissolve. You are working on a hormone receptor that doesn't look very interesting now, but three years later it could become a major medical application.

KS: It is true that the boundaries between what is basic and what is applied are sometimes very fluid. But it is obvious that researchers without commercial goals have a different culture from those with commercial goals. What has been important for the US research effort is the fact that basic research is carried out with public funding. The results become intellectual property that is taken over by the commercial sector, and hopefully it will be something that is of benefit to mankind. The methods are the same, but still our goals are different if we work in academia or if we work in a commercial company. What has been a problem in Europe is that this transfer of technology into intellectual property has not been developed in the life sciences to the same degree that it has in the USA. There is still a misconception about how the whole process works. And basic research leads to prosperity, because that's where the innovation comes from.

ER: Ten years ago no company on earth would ever have thought about investing in genomics research, but now it has become a field that draws a lot of investments from the financial markets. So do you want to have scientists and representatives from the biotech industry participate in ELSO?

KS: I think ELSO mainly represents the academic research community. I don't think we want to be too big. If you consider numbers, we were 2000 in Geneva. Maybe 3000–4000 would be ideal. Now, if you increase it to 8000 or 10,000, then you start worrying whether this is too big.

'Basic research cannot, by definition, be coordinated'

I think the biotech companies should have their own agenda. However, ELSO welcomes participation from biotech companies. They can send people to our meetings to learn what's going on. Nevertheless, we are a community. That was what we felt at ELSO 2000 in Geneva.

ER: But would that be sufficient to provide the interplay between basic and applied research?

KS: I don't think we are really responsible for that. That is not our agenda. We want to have a forum where we meet. We want to have activities where we try to help our grassroots members, and eventually we will think about public understanding of science, but we cannot do everything at once. We will move step by step.

ER: Do you see public understanding of science as a large problem in Europe?

KS: I see it as an enormous problem, in Europe and all over the world.

ER: Again, the USA has found ways to solve this problem. Every research institute has its own PR department and they do a good job of bringing science to the public. So there is far less concern in the USA about research.

KS: That's true. They have a much better public relations effort, and the information served to the public is more digestible than it is in Europe. We have a lot to learn from them. On the other hand, the issues are still clear. Since we know that biotechnology will change our society much more than we could ever dream of today, we need a continuous dialogue with the public and we have to learn how to maintain that dialogue on a rational and sensible level. If we don't do our homework, we will not be able to discuss these issues properly. And, of course, one of the biggest problems is telling the public that we do not always know the consequences of what we do. We have to think about our actions and find out what could happen and how to proceed safely. I think this is one of the most difficult messages to put across to the public, because they will think we have something to hide.

'The public is suspicious, because we said atomic energy would be a gift from God, and that hasn't been the case. We are always promising too much'

ER: But this is also the result of years of neglect of dialogue with the public.

KS: I guess so. They are suspicious, because we said atomic energy would be a gift from God, and that hasn't been the case. It's the same with other fields as well. We are always promising too much, for instance, in the war against cancer. Science is developing really quickly, but not as quickly as our promises imply.

ER: Do you foresee a change in public perception in the next few years?

KS: No, I don't. I really see a problem here.

ER: I remember the days when people were against everything that had to do with gene technology. Now they have narrowed their attacks to plant genetics.

KS: You're right. I think one of the sad things is exactly this: in the Asilomar agreement, a moratorium was decided upon, that we should advance carefully because we don't know where we're going. But today if you asked most of the senior scientists who made that decision if it were the correct one, they would say no. We spend lots of time trying to convince the public that we don't know what the outcome of research will be. And the public says, 'If you don't know why you do it, don't tell the public.' I think that is sad, because it is important to think about and discuss potential consequences. But the public doesn't want to hear that message from scientists. That is sad because how else can we proceed? Who knows beforehand what the future has to offer? I think the most important message is that when we look at the future—maybe not yours and mine but that of our children's children—the resources we have on this planet will be exhausted to the degree that there will be competition for them. Consider oil today: it is not a real problem yet, but we can see it coming. We have to come up with new resources. Where are they going to come from? Mostly from scientific research. It is very important to realise that if we want to maintain a global population of this size or somewhat larger, we have no other choice. And therefore, it's not a question of not doing research. We have to do it, and the dialogue is an immensely important part of shaping the future.

'We have to come up with new resources. Where are they going to come from? Mostly from scientific research'

ER: Do you have any ideas about how scientists could get involved in this dialogue?

KS: I think we should bring science journalists together with scientists and hold European-wide courses. We want them to discuss together with scientists. I think the more organisations start doing it, the better the public understanding of science will be.

HB: Even if it is not coordinated?

KS: It doesn't matter. We will learn how to communicate by practising. I don't see any problem of competition between organisations. I hope the competition will increase.

HB: You are now leaving EMBL and going to Dresden as Director of the new Max Planck Institute. Are you looking forward to your new position?

KS: Sure. It's a big challenge. I've been at EMBL since 1975 and it has been very exciting to help build it up. Dresden is in central Europe. Before 1989, Europe was either East or West. Now Central Europe is back on the map, however, there is little activity in our area of research in this region. Therefore, we want to put together a world-class institute and in Dresden we have a very good group with Joe Howard, Wieland Huttner, Tony Hyman and Mariano Zerial as the other Directors, and with about 20 additional independent research groups. We will have the same structure that we have found to work so excellently here at EMBL. We are trying to build up an environment for the molecular life sciences, including bridges to engineering and biotechnology, that we call Biopolis Dresden. The challenge is whether it will be possible to create a world-class institute in a short period of time in a city that has little to offer today in biology. Of course, the city has a lot to offer in other respects.

ER: Dr Simons, thank you for the interview.

The interview was conducted by Holger Breithaupt.

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