STS *forum* – Science and Technology in Society *forum*

Monday October 5, 2009

203-F3 PROPOSALS FROM YOUNG SCIENTISTS (14.20h-16.20h)

With the support of the Japan Society for the Promotion of Science (JSPS) and in collaboration with the New York Academy of Sciences (NYAS).

Chair:
Kurokawa, Kiyoshi, Professor, National Graduate Institute for Policy Studies; Chairman, Health Policy Institute, Japan, JAPAN

Speakers:
- 8 STS forum 2009 Future Leaders

Under the leadership of eight outstanding international young scientists and in the presence of two Nobel laureates, this session worked in groups that sought to address four key issues facing young scientists today: empowering young scientists to succeed; establishing improved networks for young scientists; envisioning the next frontiers in science and technology and engaging the social responsibilities of science and technology.

Several suggestions on the question of how to empower young scientists were put forward. Good mentors were seen as crucial, and not only from the academic field. Industry could also provide valuable mentors but either way, the important thing is that they should be passionate about the work of the young scientist as well as flexible, since he or she would need to make calls on their time. Funding was the second important issue which affects many aspects of the life of a young scientist, and it came up repeatedly. These days, many grants are awarded on a competitive basis and young scientists are up against older, more experienced and better known figures. Special funds targeted specifically at young scientists should be set up.

By way of introduction, the first group also raised the issue of mobility of young scientists and the dilemma they face in terms of contributing to “brain drain” or “brain gain.” In some countries, funding for study abroad is tied to an obligation to return home after. This was not seen as a good idea and participants felt young scientists should be allowed to study what they want where they want. Without being coercive, some countries have taken initiative to attract their young scientists back home by providing the equipment and facilities they need to continue their work. A related issue that could deter young scientists from the developing countries from returning to their home country is access to cutting-edge technology. Here too, nations need to provide high tech-facilities, and that includes access to the Internet which is still very expensive in some places.

Networking and how this can benefit young scientists was the focus of another group’s work, although this too was an over-arching concern. It is particularly important and valuable in multi-disciplinary fields. Young scientists need to be able to network communicate and exchange with scientists who from different countries, languages and generations on a worldwide scale. What is needed is funding. Japan, the U.S. and the E.U. do provide some support, but on the other hand scientists come under greater pressure to publish more. Young scientists, who often have other jobs, need more time and cannot necessarily step up their output. Young scientists would benefit from special budgets to allow them to engage in networking independently. Start-up funds, however, are very difficult to come by, in particular to built the infrastructure they need for their networks.

In terms of moving towards the new frontiers in science and technology, the most important challenge is how to make inter-disciplinary science work. The same problem comes up in other environments, such as industry, and often it simply boils down to the people involved. It cannot be solved from a top-down approach. The key is to set a common target around which people can coalesce. Another question was what kind of science and scientific workforce are needed in the developing world, and how can these be sustained? One of the answers was to relocate knowledge, not people.

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On the subject of engaging the social responsibilities of science and technology, the role of scientists is clear in terms of their work as educators in universities or research institutions. Helping the new generation learn is a “pillar” of social responsibility. Intrinsically, scientists are also role models in that they uphold ethics and integrity. Another role for young scientists is in helping policy makers come to decisions. A suggestion was that young scientists could create a network or association in order to come together, join forces and develop a “manifesto” or global priority list on, for example, the efficient use of resources.

The STS *forum* was seen as an excellent umbrella under which such a “club” could be created. The *forum* is also an exceptional opportunity for young scientists to inter-act with their seniors. The young participants in this session felt an invaluable opportunity to gather energy, inspiration and homework to take back with them. In conclusion, this session wished to see a two or three-fold increase in the number of young scientists at the *forum*. The creation of an association or academy of their own should be encouraged so they can speak with a common voice. “It will be heard,” concluded a senior participant.

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