Summary of the Mid Term Report by Swiss Federal Institute of Technology Zurich on the Japanese-Swiss Science and Technology Cooperation Programme http://www.global.ethz.ch/stc/japan

Goals

The Swiss Federal Institute of Technology Zurich (ETH) is acting as a coordinator for the Japanese-Swiss Science and Technology Cooperation Programme on the Swiss side, representing all Swiss universities and universities of applied sciences. On the Japanese side, the programme is coordinated by the Japan Science and Technology Agency (JST). The JST is an independent public body of the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Based on a Memorandum of Understanding signed on 7 March 2008, the two partners have agreed to establish a scheme for joint funding of Japanese-Swiss research cooperation projects. They also chose "Molecular Medical Research" as the field for which the funding will be applied. This specific area is currently undergoing remarkable development and is considered important by JST, ETH and other Swiss Universities in order to achieve steady growth and sustainability in the long run. The aim of the programme is to strengthen the cooperation between Japanese and Swiss scientists to achieve world-class results, leading towards new innovative technologies.

An important aspect of cooperation is the exchange of researchers at all levels. Mutual benefits are expected from the joint use of infrastructure and the exchange of expertise. Swiss and Japanese researchers can thus jointly apply for grant funding of eligible research cooperation projects. A total of CHF 150,000 has been allocated to the Swiss Principal Researcher on the Swiss side and a corresponding amount has been allocated to the Japanese Principal Researcher on the Japanese side. The funding is released in 3 instalments of CHF 50,000 over a 3-year period.

Achievements

Calls for proposals

A first call for proposals was launched in September 2008 and announced to all Swiss universities and universities of applied sciences conducting medical research or research in related fields as well as to research institutes affiliated with Swiss universities such as the SIAF in Davos or the Friedrich Miescher Institute in Basel. The call for proposals resulted in 30 joint proposals from Swiss and Japanese scientists that were submitted to both the JST and ETH Zurich. The proposals were then examined by expert committees and peer reviewers in both countries individually, and results were subsequently discussed in a joint committee meeting. The committees selected 4 proposals for support. In Switzerland the successful proposals came from EPFL, the University Children's Hospital in Basel, the University of Basel and ETH Zurich. After submission of first year scientific reports, all four projects have now gone into their second year of funding.

The second call for proposals was launched in September 2009 and drew 26 proposals from 12 different Swiss institutions. The proposals were again examined independently in Japan and Switzerland, and the two committees finally agreed to support 5 projects. The projects selected in response to the second call for proposals are located in Switzerland at EPFL, the University of Zurich, the University of Fribourg, the University of Geneva and the Friedrich Miescher Institute in Basel.

Joint workshops

To enhance exchanges between Japanese and Swiss scientists directly, the JST and ETH Zurich organised two joint workshops. The scientific organisers of the first workshop held in Zurich in September 2008 – Wilhelm Krek, professor of Cell Biology at ETH, and Yusuke Nakamura, professor at the University of Tokyo – invited 20 scientists from Japan and Switzerland to present their work in molecular medical research and meet their colleagues from the respective partner country to make

first contacts. Presentations were organised in 5 sessions including Translational Research, Pharmacogenomics, Proteomics, Bioinformatics and Whole Genome Association studies. The lively discussions after the talks and in between sessions showed that there was considerable interest on both, the Japanese and Swiss sides. Moreover, this initial encounter led to subsequent cooperation initiatives.

The second workshop of the programme was held in Tokyo in September 2009. Prof. Takehiko Sasazuki from the International Medical Center of Japan and Prof. Georg Holländer from the Basel University Children's Hospital invited ten scientists each to give speeches in the same fields as in the first workshop. The second workshop showed a strong focus and expertise in genome research in Japan. Talks ranged from genotyping-based methods for the development of personalised medicine against rheumatoid arthritis to the development of cancer diagnostics. Strengths on the Swiss side were concentrated on computational and systems biology. Researchers thus believe that there is a high potential for joint research in the area of genome-based personalised medicine. Participating scientists from Switzerland appreciated the good mix of the delegation including established and young researchers. The event also offered participants the opportunity to establish initial personal contacts that may lead to new cooperation initiatives. The workshop was an exciting and unique opportunity to get to know the research of Japanese colleagues. Both the Swiss and Japanese delegations agreed that they would like to continue holding joint workshops and suggested that, in the future, the talks should be opened to interested PhD students and postdoctoral students from the host country so that they may also benefit from the event and establish initial contacts as part of future Japanese-Swiss cooperation initiatives.

Outlook

Since the agreement on funds between SER and MEXT in Japan allowed for two joint calls for proposals, there will be no call for proposals in 2010. There is an interest in continuing the programme from both sides though, provided a new agreement on mutual funding can be reached. Due to the high interest from researchers this programme has potential beyond the funding period 2008-2011. Cooperation initiatives between researchers have been established and will continue. As the workshop has shown, cooperation in the field of medical research is very active and would benefit from continued funding. However, there is also potential in other areas. One should also consider funding instruments to enhance the exchange of young researchers such as PhD students and postdoctoral students, since both countries offer great opportunities for education, but still the number of Japanese students in Switzerland is low.

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