

Summary of Academy of Science Presidents' Meeting (APM) during STS forum 2014

Date: 14:30-16:30, 6 October, 2014

Venue: Room 104 of KICC

Organizer: Science Council of Japan (SCJ)

Participants: Presidents or Representatives from Science Academy or Scientific Organizations in Chinese Taipei, Czech, Germany, India, Iran, South Korea, Latvia, Lithuania, Moldova, Poland, USA, and in Japan. Young Scientists through Young Leader's Program who came from research organizations or universities located in Australia, Brazil, Singapore, UK, USA, and in Japan. In total 22 participants attended.

Co-chair: Professor Michal Kleiber, President of Polish Academy of Sciences

Professor Takashi Onishi, SCJ President

Discussion Theme: How can science academies play a role in enhancing research integrity in cooperation with funding agencies or universities?

Summary of discussion:

At the beginning of the AMP meeting, Professor Onishi, co-chair, explained the contents of distributed documents, introducing how this topic was selected by pole of participants. Professor Kleiber, the other co-chair, expressed his hope that the APM would give the participants an opportunity to share their experiences on how to enhance rules and safeguard the scientific integrity, even if it could turn out to be more difficult than just establishing rules per se.

Dr. John Boright from National Academy of Sciences of USA, representing IAC /IAP, introduced its project on research integrity in the Global Research Enterprises. The first phase of its outcome was a report titled "Responsible Conduct in the Global Research Enterprise" issued in September 2012. The second outcome "Educational guideline" will also be published within this year. He distributed 4 pages proposal to give an idea of phase III project. Dr. Boright told the participants that any comments from them would be most welcome.

Prior to the actual discussion among participants, Mr. Jun Yamada, Deputy Director-General of SCJ Secretariat, made a brief introduction explaining the role of SCJ in the fight against various forms of scientific misconduct, quoting two major recent cases – Novartis Pharma/Valsartan and STAP cell "discovery" – in Japan, as well as additional measures now being considered in the Government bodies. The latest version of "Code of Conduct for Scientists" was distributed.

Then the participants introduced their experiences as to safeguarding research integrity in respective countries/organizations in turn. Information was given by participants from Chinese Taipei, Czech Republic, Germany, Republic of Iran, South Korea, Latvia, Lithuania, Moldova, Poland and USA.

It turned out that virtually every academy had been struggling in order to address research misconduct issues, including but not limited to FFP (fabrication, falsification, and plagiarism). Naturally, the system to deal with scientific misconduct does differ from country to country; this is a reflection of various types of governance, legal rights and independence of scientists. Nevertheless, most countries have revised and updated existing rules.

On the other hand, the actual enforcement/implementation of such rules in a uniform manner will be definitely difficult, as misconduct does continue to evolve at the same pace with science itself thanks to various technological advances (ICT in general, especially digital technology, data duplicating methods). Shifting social morale and changing priorities in government policies are other factors that affect it externally.

Against such background, some practical ways of enforcement were discussed, including stricter education on ethics already at undergraduate level, establishing/upgrading quality review mechanism to evaluate PhD students, introducing proper incentive mechanism beyond mere economic pressure, a shift from quantitative to qualitative indicator for evaluating academic achievements.

Young scientists were invited to make comments, too. One from Global Young Academy stated that science needed three characteristics, i.e. creativity, logics, and objectiveness. Concerns were expressed as to the gap between intentional FFPs and simple error. Many wished science academies to play more aggressive role in dealing with this issue.

In conclusion, most participants agreed that preventive measures should be more desirable and effective than simply tightening investigation methods in order to secure scientific integrity. At the same time, it was noted that the battle against misconduct would require institutional and continuous efforts for many more years to come.