

S&T Highlights from Japan

September 2009

NSF Tokyo Regional Office

1. **[25 Percent Emission Cut by 2020]**
2. **[Budget Requests Reviewed]**
3. **[New Budget Policy]**
4. **[New Telescope in Hawaii]**
5. **[Successful HTV Launch]**
6. **[Lasker Award for Dr. Shinya Yamanaka]**
7. **[International Prize for Biology-2009]**
8. **[New Funding Opportunities and Awards from MEXT (Ministry of Education, Science and Technology), JSPS (Japan Society for the Promotion of Science), JST (Japan Science and Technology Agency), and NEDO (New Energy and Industrial Technology Development Organization)]**

1. **[25 Percent Emission Cut by 2020]** Japan's Prime Minister Yukio Hatoyama announced on September 7 his government's new target of 25 percent reduction in greenhouse gas emissions by 2020. This decrease from the base-year 1990 applies to all Japanese greenhouse gas emissions; it does not include CO₂-traded with other countries. The target will become the focal point for international discussions prior to the expiration of the Kyoto Protocol in 2013. A detailed action plan has not been announced. (Summary translation of an article in Nihon Keizai Newspaper – 9/7/09)

2. **[Budget Requests Reviewed]** Japanese ministries and agencies submitted their budget requests for JFY2010 (April 2010-March 2011) to the previous administration at the end of August 31, 2009. However, prior to the change of government leadership on September 16, 2009, the newly elected government announced that all requests would be reviewed. Some of the requests can be subject to revision, postponement, or cancellation. The 46 large-scale special funds established in the Economic Stimulus Package-2009, in particular, will be reviewed. Among them is the \$2.7 billion R&D program supporting Japanese cutting-edge R&D for a 5-year period (JFY2009-2013). 565 applications had already been accepted and CSTP (Council for S&T Policy) announced the final selection of 30 applications on September 4. The new administration has expressed concern about the hastily conducted review process. The future of this program is not clear. (Summary compilation of articles on Nihon Keizai Newspaper – 9/3, 9/4, and 9/5: see below for

follow-up news)

3. [New Budget Policy] The Japanese Government will announce new budget guidelines for implementation in JFY2010 (April 2010-March 2011) and beyond. The new government will allow funds remaining unused at the end of a fiscal year to be carried forward to the next fiscal year, in contrast to the previous practice of having to spend the annual budget by the end of each fiscal year. In addition, the new approach will abolish the budget ceiling dictated annually to ministries and agencies by the Ministry of Finance. The budget ceiling will be replaced by government-wide priority programs to be determined by the National Strategy Bureau (tentative translation; official English name will be made public later). The National Strategy Bureau, reporting to the Prime Minister, was recently established to coordinate and monitor cross-ministry budgets. Every ministry and agency is required to submit a revised budget request by October 15 in accordance with the new guidelines. (Summary translation of articles in Nihon Keizai Newspaper – 9/21/09 & 9/29/09)

4. [New Telescope in Hawaii] A mammoth optical telescope, 30-meter diameter, will be erected on Mauna Kea, Hawaii, as the main component of an international project, TMT (Thirty Meter Telescope), led by U.S. and Canadian universities with Japan as a participant. The National Astronomical Observatory of Japan represents the Japanese participation. The telescope is capable of observing very dark celestial bodies such as planets outside the solar system. The construction will commence in 2011, and is expected to complete in 2018 at a total cost of ¥100 billion (~\$1 billion). (Summary translation of an article in Asahi Newspaper – 9/7/09)

5. [Successful HTV Launch] HTV (H-II Transport Vehicle), a large unmanned spacecraft, was successfully launched on September 11 by JAXA (Japan Aerospace Exploration Agency) and docked perfectly with the ISS (International Space Station) on September 17. Its mission was to deliver water, food, clothing, research materials, and necessary replacement equipment to ISS. This is a big leap forward for Japanese space technology. Japan has relied on the U.S. Space Shuttle until now for transporting both materials and astronauts. JAXA is now concentrating on developing a vehicle that can return from the ISS to Earth, unlike the HTV which will burn up in the earth's atmosphere. (Summary translation of articles in Nihon Keizai Newspaper – 9/11 & 9/14)

6. [Lasker Award for Dr. Shinya Yamanaka] One of the two 2009 Albert Lasker Basic Medical Research Awards was presented to Dr. Shinya Yamanaka, Professor at Kyoto

University, who produced iPS (induced pluripotent stem) cells for the first time in the world. Established in 1946, the Lasker Award is a prestigious U.S. medical award and nicknamed the American Nobel Prize. He is the 6th Japanese recipient of the award. Dr. Yamanaka attended the ceremony held in New York on October 2, 2009. (Summary translation of an article in Nihon Keizai Newspaper – 9/15/09)

7. [International Prize for Biology-2009] Dr. Winslow Russell Briggs, Director Emeritus, Department of Plant Biology at the Carnegie Institution for Science, is the winner of the 25th International Prize for Biology. He will receive the award at a ceremony in Tokyo on November 30, 2009 in the presence of the Emperor and the Empress, Dr. Briggs received the award for his life-long dedication to plant biology. Instituted in 1985 to commemorate the 60-year reign of Emperor Showa and his longtime devotion to biological research, the prize has been awarded each year to an individual who has made an outstanding contribution to the advancement of basic research in a field of biology. The prize comprises a medal, an award of ¥10 million (~\$100,000), and an Imperial gift from the Emperor. (Summary translation of JSPS (Japan Society for the Promotion of Science) Press Release – 9/15/09)

8. [New Funding Opportunities and Awards from MEXT (Ministry of Education, Science and Technology), JSPS (Japan Society for the Promotion of Science), JST (Japan Science and Technology Agency), and NEDO (New Energy and Industrial Technology Development Organization)]

- JSPS has announced a new NSF-JSPS cooperative program in Chemistry; details are available at http://www.jsps.go.jp/j-bottom/02_a_sinsei.html The U.S. PIs submit proposals for cooperative research with Japanese collaborators to NSF's Int'l Chemistry Cooperation (ICC): http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13628&org-CHE&from=home The counterpart Japanese PIs submit proposals for cooperative research to JSPS. The U.S. and Japanese proposals should have the identical content.

- JST has issued a solicitation for the Science and Technology Research Partnership for Sustainable Development program. JST promotes this program in collaboration with JICA (Japan International Cooperation Agency) to address global-scale problems in cooperation with developing countries. JST provides research awards of ¥10-50 million (~\$100,000-500,000) per project per year for 3-5 years to the Japanese researchers. JICA offers expenses for travel and subsistence to Japanese researchers for going to developing

countries and to the researchers in developing countries for coming to Japan; and will cover the costs of equipment or any other items necessary to promote cooperative research in developing countries.