

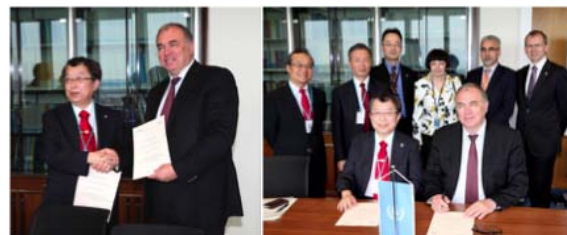
■ News

## Okayama University and IAEA sign a new agreement related to radioactive waste management and environmental remediation

A new agreement signed in Vienna formalized the cooperation between Okayama University and the IAEA in the area of research and higher education in radioactive waste management and environmental remediation. Prof. Kiyoshi Morita, President of the University and Prof. Shinichi Yamamoto, Vice President and Executive Director of the University signed the Arrangements on behalf of Okayama University. Dr. Mikhail Chudakov, Deputy Director General and Head of the Department of Nuclear Energy, signed the Practical Arrangements on the 29<sup>th</sup> of June, 2015 on behalf of the IAEA.

"The IAEA is committed to assisting its Member States in safe and sustainable radioactive waste management. These are very complex issues and require cooperation with internationally recognized institutions, such as Okayama University." said Dr. Chudakov.

"Our goal is to strengthen education and research programmes at our University through this formal agreement," said Prof. Morita. "At the same time, we hope to contribute to capacity building and human resource development around the world." Prof. Shinichi Yamamoto added that the agreement would help disseminate scientific information concerning radioactive waste, which currently has a negative image in the world and especially in Japan, after the Fukushima Daiichi disaster. "However," he said, "looking at the uses and benefits of nuclear technology, we can see its important role also in medicine, engineering and agriculture. Hence, we must solve the difficult problem of safe, economical and effective disposal of radioactive wastes."



The signing ceremony of the Practical Arrangements: Prof. S. Yamamoto, Vice President and Executive Director of Okayama University, Dr. M. Chudakov, Deputy Director General and Head of the Department of Nuclear Energy, IAEA, and the persons concerned.



The discussion of BNCT technologies: Prof. H. Matsui, Okayama University, Dr. M. Venkatesh, Director of Division of Physics and Chemical Sciences, and Dr. A. Meghzifene, Head of Dosimetry and Medical Radiation Physics Section, IAEA.



The headquarter of IAEA

The Practical Arrangements build on already established cooperation between Okayama University and the IAEA over several years. In fact both institutes have organized two symposia: “Nuclear Energy and Radioactive Waste Management” in 2012 and “The Current and a Future of Radiation” in 2015. Okayama University and the IAEA foresee cooperation in research activities, establishment and implementation of educational programmes and courses as well as exchange of experiences and good practices in radioactive waste management and remediation activities. The University will start an international education programme using the e-Learning system developed by the IAEA. Prof. Yasuaki Ichikawa and Prof. Satoshi Nishiyama, Graduate School of Environmental and Life Science, Okayama University, are responsible for the activities of radioactive waste management together with Dr. Irena Mele and Mr. Akira Izumo, Waste Technology Section of the Nuclear Energy Department, the IAEA.

Recently, BNCT is receiving increasing attention as an effective cancer therapy. In this treatment, cancer cells are first dosed with a medical agent that includes a boron isotope (B-10) and then irradiated with neutron radiation, leading to the death of cancer cells by fission (i.e.  $\alpha$ -ray and Li-nucleus ray). To the IAEA’s experts in charge, Dr. Meera Venkatesh, Director of Division of Physics and Chemical Sciences, Department of Nuclear Sciences and Applications, and Dr. Ahmed Meghzifene, Head of Dosimetry and Medical Radiation Physics Section, Prof. Hideki Matsui, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, showed a new agent of B-10, which works very effectively because it is delivered through tumor cell membranes and further into nuclei. Both organizations agreed to continue to exchange information on BNCT technologies. Dr. Meghzifene requested Prof. Matsui to join an international conference on BNCT to be held in 2017.

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