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Breton research sets up in Japan with the creation of an international research laboratory

Antoine Petit, the President and CEO of the CNRS, David Alis, the President of l'Université de Rennes 1, and Teruo Fujii, the President of the University of Tokyo, will make the creation of a new international research laboratory official on 4 October 2022 in Tokyo. The new laboratory, named Dynacom (CNRS/Université de Rennes 1/ The University of Tokyo), will explore diverse properties of materials, including magnetism, conductivity, ferroelectricity, and photonics. It is the second International Research Laboratory connected to the Breton laboratory.[1]

Dynacom (for Dynamical Control of Materials) is an International Research Laboratory (IRL)[2] between the CNRS, the University of Tokyo, and l'Université de Rennes 1 and will be based on the University of Tokyo' Hongo Campus in Tokyo, Japan. The laboratory grew out of longstanding collaboration that began in 1996 between the Japanese teams from Tokyo and French teams from the Institute of Physics of Rennes (IPR, CNRS/Université de Rennes 1), including Eric Collet, an academic at l'Université de Rennes 1 and the IPR, and now the deputy director of the IRL. With joint research, the exchange of students and professors, and study trips over the last 26 years, scientists have used the full range of international collaboration tools offered by the CNRS, l'Université de Rennes 1, and the University of Tokyo, including the creation of the IM-LED International Research Project (IRP) in 2016.[3] A new stage began today with the creation of an IRL, which highlights this emblematic and strategic collaboration. Also involved in the Dynacom laboratory will be Tokyo Institute of Technology, Tohoku University, and Kyoto University in Japan, along with Nantes Université[4] in France.

Dynacom's research activities focus on the development of new functionalities for technological materials. The goal is to drive materials in out-of-equilibrium conditions by using light and/or electrical fields to control various physical properties such as ferroelectricity, magnetism, conductivity, and optical properties, with photonic applications. Different ways of acting on materials will be developed, based on the control of electrons, phonons, and elastic deformations, with a multi-scale approach ranging from molecules to materials.

This international cooperation enjoys the expertise of partners in advanced materials synthesis, as well as the development of cutting-edge methods to characterize and control their physical properties on ultrafast time scales. The Dynacom IRL will become part of the newly created International Research Centre (IRC)[5] between the CNRS and the University of Tokyo, which will also be inaugurated on Tuesday, 4 October 2022 in Japan.

left: presentation of Dynacom by Eric Collet, co-director, and Shin'ichi Ohkoshi, director
right: signing of the new IRC by Antoine Petit, President and CEO of the CNRS and Teruo Fujii, the President of the University of Tokyo
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Notes

[1] The Evolutionary Biology and Ecology of Algae laboratory (CNRS/Sorbonne Université/ Pontifica Universidad catolica de Chile/Universidad Austral de Chile)1 based in Chile, in connection with the Roscoff Biological Station (CNRS/Sorbonne Université). The Rennes Institute of Chemical Sciences (CNRS/Université de Rennes 1) is also a “mirror site” for the Laboratory for Innovative Key Materials and Structures (CNRS/NIMS/Saint-Gobain) based in Japan.

[2] IRLs involve international research establishments in which research activities are conducted jointly in shared scientific areas. They structure, in a given location, the significant and enduring presence of scientists from a limited number of French and foreign research institutions.

[3] International Associated Laboratories, today referred to as International Research Projects, are collaborative research projects between one or more CNRS laboratories, and one or two foreign laboratories. They consolidate existing collaboration through scientific exchange by organizing working meetings and seminars, developing shared research activity including fieldwork, and by supervising students.

[4] With the Jean Rouxel Institute of Materials in Nantes (CNRS/ Nantes Université).

[5] See the press release: https://www.cnrs.fr/en/cnrs-and-university-tokyo-launch-new-international-research-centre

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