Optical Coherence Tomography: German-Japanese Research Alliance hosted Medical Imaging Conference

The Conference was hosted by the Fraunhofer Institute for Production Technology IPT and Tokyo Women’s Medical University on November 8, 2018 in Tokyo. Around 100 attendees listened and discussed insights into the latest developments in OCT research. Leading clinical experts and representatives of international companies and universities provided valuable input in the form of lectures and presentations. The Fraunhofer IPT and TWMU took this opportunity to strengthen their strategic research collaboration. Both partners signed an official Cooperation Agreement to kick off the establishment of the research alliance and the joint research facility in Tokyo.

Medical imaging is currently undergoing a period of dynamic change: Calls from medical experts for improved imaging modalities in the areas of diagnostics and therapy have led to increasingly urgent demands for appropriate technical support. The growing importance of intraoperative imaging and the simultaneous expansion of minimally invasive procedures demand intelligent solutions. “Optical Coherence Tomography (OCT) is a technology that can make valuable contributions to daily clinical practice and has the potential to shorten surgical workflow significantly” declared Niels König, Project Coordinator of OCTmapp. The Japanese expressed the view that “combining and exploiting the high level of technology in both countries with the high level clinical environment at the TWMU will open up a whole new field of medical device development. We welcome approaches from additional researchers/developers wishing to join our OCTmapp” said Professor Ken Masamune, TWMU.

The “Medical Imaging - New Perspectives and the Role of OCT” Conference addressed clinical experts, engineering experts, business developers, funding authorities and academics, challenging clinical needs and requirements as well as the technical approaches to a new imaging modality. The focus of the conference was on OCT technology, which improves the clinical workflow of medical professionals and reduces the burden on patients. One of the key applications is cancer diagnosis and therapy.

The focus of the conference was on clinical trends and examples of applications as well as on approaches to technical development. Representatives from EIZO, SANTEC, Systems Engineering and TATSUTA, all of which are international companies, well-known clinicians, speakers from research institutes and universities from Japan and Germany presented the latest updates on OCT research in the medical field.

The conference was supported by the German Federal Ministry of Education and Research, the Embassy of the Federal Republic of Germany Tokyo and the Japan Agency for Medical Research and Development (AMED). Fraunhofer and TWMU/ABMES organized the conference with the support of NRW Japan K.K. as part of the project OCTmapp. The Fraunhofer IPT has acquired a wide range of in-depth expertise over the past few decades and provides technical leadership within Fraunhofer in the field of optical metrology and especially in OCT. The Institute for Advanced Biomedical Engineering and Science (ABMES) in Japan, is a central research unit of the Tokyo Women’s Medical University (TWMU) which is one of the most renowned medical institutions in Japan with worldwide reputation and visibility. The Fraunhofer Center for International Management and Knowledge Economy (IMW) contributes the
required socio-economic competencies for commercialization issues. The objective of the OCTmapp project is to establish a research presence in Tokyo focusing on OCT for new clinical applications. OCTmapp is sponsored by the German Federal Ministry of Education and Research. A cooperation agreement has been signed in order to formalize and strengthen the cooperation between the TWMU and Fraunhofer IPT for the joint research alliance and facility. Speaking publicly about the project, Maximilian Steiert, Director of International and Political Affairs of Fraunhofer Association said: “We regard the OCTmapp project as an important element of a successful Fraunhofer internationalization strategy”.

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The Fraunhofer IPT and the Tokyo Women’s Medical University TWMU found research alliance OCTmapp to further develop the OCT technology together with partners.
Photo: TWMU