



Taka-Aki Sato, Ph.D.

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 Precision Medicine (PMC)
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Bio

Taka-Aki Sato, Ph.D., Director, R&D Center for Precision Medicine, Member of Center for Artificial Intelligence Research, Tsukuba University; Director, Life Science Research Center, Shimadzu Corporation

He is currently conducting several research laboratories collaborating with National Cancer Center Japan, University of Kyoto, and St Luke's International Hospital, focusing on discovery of new cancer biomarkers by advanced Mass Spectrometry. He is now a Director of R&D Center for Precision Medicine in Tsukuba University, which is currently focusing on the multi-omics analyses including the whole genome sequencing-based approaches for the development and/or progression of human cancers as well as the liquid biopsy.

Description

Integration of comprehensive Omics analysis into Precision Medicine in JAPAN

The Research and Development Center for Precision Medicine (PMC) was established as Japan's first omics analysis center aiming to develop a \$1000 genome sequencing technology. Using state-of-the-art technologies in Whole Genome Sequencing and Advanced Mass Spectrometry supported by Shimadzu Corporation, the Center aims to provide analytic and translational approaches to provide precise diagnosis of cancers and various diseases in a data-driven/evidence-based approach. The Center has been working with the Tsukuba Preventive Medicine Research Center, which offers a comprehensive medical examination utilizing the function of initiative prevention of medical research. In order to promote collaborations with leading domestic and international research institutions, the PMC is also active in cross-border multidisciplinary networking. The Center aims to establish a research infrastructure for the implementation and realization of Precision Medicine, to improve/determine the best course of treatment for each individual. Furthermore, the spin-off biotech company, iLAC Co., Ltd., mainly focuses on integration of Precision Medicine, Humanoid Type of Robotics and Block Chain, contributing to the 4IR (Fourth Industrial Revolution).