Shimadzu lays focus on diagnostic aid technology for depression using blood tests

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Together with Kyushu University and HMT, bringing the testing model to society

Japan-based Shimadzu Corporation is participating in the project "Creating a System for Maintaining the Mental Health of Working People—Preventing Depression and Supporting Return to Work—" being undertaken by Kyushu University and Human Metabolome Technologies Inc. (HMT).

Kyushu University Hospital Mood Disorders and Pathological Social Withdrawal Outpatients Section (Faculty of Medical Sciences, Department of Neuropsychiatry, Kyushu University, Led by Associate Professor Takahiro Kato) is developing methods of treating pathological social withdrawal and mental disorders based on biological, psychological, and social understanding. In 2016, a method for diagnosing the severity of depression using metabolite biomarkers in the blood was established jointly with the Clinical Laboratories of Kyushu University Hospital. In 2020, in joint research with the research group of Associate Professor Kato and others, Shimadzu Corporation developed a method of aiding diagnosis of depression.

At present, both are developing a highly accurate stress screening model that is a combination of grouping in accordance with stress susceptibility of the patient obtained from a medical interview, and biomarkers in the blood obtained from a high-performance liquid chromatograph mass spectrometer (LC-MS) system.

Shimadzu plans to establish a testing service package and construct a testing model for employee medical checkups and health screening, with the aim of making organization management consultation combined with testing available to the public.

Image caption- Photo: Associate Professor Takahiro Kato (left), and Assistant Professor Daiki Setoyama of Clinical Laboratories at Kyushu University Hospital, and the High-Performance LC-MS Used in the Research