

Preface

New challenge of mass spectrometry technique



The 31st Annual Meeting of the Japanese Society for Biomedical Mass Spectrometry (JSBMS) was held on September 28 and 29, 2006, at Nagoya Congress Center, Nagoya, Japan.

This meeting is the 30th anniversary of JSBMS. Mass spectrometry technique made remarkable progress in the last 30 years with the epoch-making development of matrix-assisted laser desorption ionization time-of-flight mass spectrometry (MALDI-TOF-MS) and electrospray ionization mass spectrometry (ESI-MS). By the development of these ionization methods, mass spectrometry has made the analysis of proteins possible, and is now challenging new research targets. Therefore, the title of “New challenge of mass spectrometry technique” was given to the 31st Annual Meeting of JSBMS.

A plenary lecture was presented by Professor Catherine Fenselau of University of Maryland under the title of “Organelle proteomics and new methods”. Her lecture was chaired by Professor Koichi Tanaka, a Nobel Prize winner. Another plenary lecture was given by Professor Robert J. Cotter of Johns Hopkins School of Medicine, under the title of “Tandem TOF mass spectrometry and the curved field reflectron”. We are very much honored that these scientists of worldwide fame have attended our meeting.

A symposium was focused on the application of mass spectrometry to proteome analysis. Ten invited lectures from

the basic to clinical application of mass spectrometry to proteome analysis were presented. These include mass imaging/mass microscopy, drug discovery research, glycation of interferon drugs, *O*-glycoproteomics, amyloidogenic protein, and the diagnosis of cancer, kidney disease, liver disease and cardiovascular disease.

Another symposium was focused on the application of mass spectrometry to metabolome analysis. Six invited lectures were given for the application of mass spectrometry to metabolome analysis. These include the metabolome analysis of plants, lipids, liver disease and congenital metabolic disorders, and the development of capillary electrophoresis mass spectrometry and interactive metabolic maps.

The Matsumoto Isamu Award lectures were presented by Professors Osamu Suzuki and Yoshinao Wada under the topics of ultra-sensitive detection of drugs or poisons by mass spectrometry, and mass spectrometry of proteins with biomedical implications, respectively.

The topics of free communications include analysis of drugs and poisons for pharmaceutical and forensic science, diagnosis of metabolic disorders, and proteome analysis for the study of diseases.

This special issue is published as the proceedings of the 31st Annual Meeting of JSBMS. We would like to thank all the contributors to this issue.

There were 51 presentations and 178 attendants at the 31st Annual Meeting of JSBMS. We also would like to thank all the speakers, participants, and staff members for the successful organization.

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