

Masakatsu Shibasaki · Masamitsu Iino  
Hiroyuki Osada *Editors*

# Chemiomolecular Science

At the Frontier of Chemistry  
and Biology

The Uehara Memorial Foundation Symposium-2011

 Springer

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# Preface

To understand biological functions at the molecular level and create new pharmaceuticals that can contribute to improving human health, the integration of both chemical and biological approaches is indispensable. Chemical biology, taking advantage of the creativity of chemistry to explore biology, is currently a very important stream in life science. Here we propose “chembiomolecular science” as a further advancement in the field of life science through the integration of chemical biology with molecular-level biological studies. Chembiomolecular science will facilitate the elucidation of new biological mechanisms as potential drug targets and will enhance the creation of new drug leads. This new field will promote world-class life science research in Japan to the international scientific community.

In 2009, the Uehara Memorial Foundation announced a 3-year research program focused on chembiomolecular science. To date, 20 research groups in Japan have been funded under this program. The aim of the symposium was to bring together leading scientists in the field of chembiomolecular science to discuss their latest research. The main topics to be addressed in the symposium were:

1. Chembiomolecular chemistry
2. Chembiomolecular biology
3. Chembiomolecular medicinal chemistry

The explicit aims of this symposium were to contribute to understanding the fundamentals of life science based on chemical and biological approaches, and the development of novel strategies for discovering new drug leads.

We are very pleased to be able to publish the proceedings of this exciting symposium.

Tokyo, Japan

Masakatsu Shibasaki



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