Preface

The International Symposium on Nanobio-Interfaces Related to Molecular Mobility was successfully held in the Takeda Hall of The University of Tokyo on Nov. 9-10th, 2009. This symposium aimed at bringing together multidisciplinary research in the areas of biomaterials and their interfaces with biological systems. In particular, this symposium was organized as to analyze the effect of the molecular mobility of biomaterials at their interfaces on the modulation of a variety of biological functions. Also, this symposium was designed to promote the Core Research for Evolutional Science and Technology (CREST) project entitled "Design of Multi-Dimensional Biological Interfaces through Manipulating Molecular Mobility" (project leader: Nobuhiko YUI) launched from 2007 for a period of 5.5 years. On the occasion of the third fiscal year of the CREST project, we hope that this international symposium was encouraging and challenging for the future of the design of biomaterials, and helpful not only to our CREST project but also to all the participants' research to move on to their next phase.

In order to achieve ideal interfaces between implantable medical devices and living bodies, in the CREST project we address the issue of manipulating the molecular mobility of materials via intermolecular forces at nanometer scales and design interfaces that are biologically multi-dimensional. Finally, we believe that our approach enables to design biological interfaces, at which biomedical functions can be performed permanently in living bodies.

This proceeding is a comprehension of 9 invited lectures, 4 CREST reports, and selected 12 excellent posters in this Symposium. We believe that this can be a good guide book to readers` future researches in the field of biomaterials science.

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