

## Guest Editorial

### *“New Insights and Concepts of Biological Sciences Based on Cell and Biomolecule Analysis”*

We are pleased to present a special issue of “*New Insights and Concepts of Biological Sciences Based on Cell and Biomolecule Analysis*” in January 2019. Bioscience is an important research area to understand the life activities and functions of all organisms existing on Earth. Many beautiful and complicated biological phenomena that take place in their cells, which are derived by interactions among macromolecules and low molecular-weight molecules, are impossible to analyze by conventional analytical techniques alone. In order to understand their life activities and functions on the molecular level in cells, researchers in bioanalytical science should focus on various techniques, materials, molecules, and devices in different fields, and try to develop a “New Bioanalytical Science” based on integrative technologies with a highly challenging spirit.

In the present special issue, we fortunately achieved the opportunity to publish two review papers from prominent researchers in this field, Prof. Hamachi (Kyoto Univ.) and Prof. Shiku (Tohoku Univ.). They wrote reviews of chemical modification technologies against intercellular proteins and electrochemical technologies for biosensing against single cells, respectively. In addition to these two review papers, nine original papers and four notes are published in this special issue. In these papers, fluorescent and electrochemical imaging, laser-based analysis, and discrimination analysis for cells are newly proposed. Colloidal material, nucleic acid-based molecules, and small molecules for the analysis of biological molecules were also constructed and their high performance as analytical reagents evaluated. The guest editors are very happy to publish this special issue concerning “New Bioanalytical Science”, and strongly hope that these papers will provide a useful collection of reference materials for many analytical chemists in this field.

Finally, we would like to thank the authors who contributed to this special issue and acknowledge the peer reviewers for their valuable comments and fruitful discussions to improve the submitted papers. We also appreciate the office staff members of JSAC for their kind cooperation in producing this special issue.

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