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Preface

The center of community (COC) program proposed by the University of Fukui was selected by the Japanese government, specifically, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in 2013. The COC program aims at gathering various human resources, information, and technology, thereby providing the regional society with a basis for developing human resources, manufacturing (industry promotion/technology management), regional medical care, creating a sustainable society and the environment, developing human resources in the nuclear-power related fields and establishing disaster prevention systems. We have examined and practiced a new style of education for mathematical science and partnership between the university of Fukui and high schools in Fukui prefecture from an international perspective. We have developed teaching materials and mathematical problems rooted in the community. Moreover, we have collaborated with the mathematical innovation enterprise in biomedical engineering and industries, Project Research Center in School of Engineering, University of Fukui to identify and nurture next-generation researchers who shall be responsible for mathematical innovation in biomedical engineering and industries.

In 2014–15, our COC project held workshops to realize mathematical needs specialized in these fields. Workshops entitled "Discovery of Mathematical Needs on Health Promotion," "Investigation of Geometric Methods to Understand/Control Cellular Systems," and "Development of Mathematical Models for Utilizing Medical Big Data Obtained from Wearable Equipments" were jointly conducted by the Society for Science on Form and supported by CoopMath, a project commissioned by the MEXT.

A special issue, titled, "Special Issue: Form on Multiscale Biosystems and Functions," which is a collection of papers presented at workshops as well as newly contributed papers related to the symposium theme, has been published. In particular, it comprises two original papers and four forums. Its contents cover aspects of form, such as stereoscopic vision and displays, bio-signals, design/evaluation for daily health care, neural networks, and a new style partnership for mathematical education. It is our hope that this issue contributes to future advancements in the Society for Science on Form.

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