Long-Expected New Start

On behalf of the Japan Society for Organ Preservation and Medical Biology (JSOPMB), I express my sincere appreciation to Professor Paul R. Sanberg (Department of Neurosurgery, College of Medicine, University of South Florida, FL, USA), Executive Editor of *Cell Medicine*, for providing us such an excellent opportunity to publish the data that were presented at the annual meeting of JSOPMB. I also thank Dr. David Eve, Associate Editor of *Cell Medicine*, for editing our papers in detail. I am very sure that the relationship between *Cell Medicine* and JSOPMB has enhanced the motivation of JSOPMB members as well as board members and will continue to do so in the future, while also encouraging young Japanese researchers to newly join this organization.

Cell-based therapy is one of the most important medical fields in JSOPMB because this form of therapy can be useful for a wide range of diseases. Addressing the current problem of severe human donor organ shortage for cell therapies is a big challenge. Research on adult and embryonic stem cells and artificial cell development, in addition to the recent and rapidly evolving invention of induced pluripotent stem (iPS) cells, encourages us to address the problems confronting cell transplantation. Therefore, JSOPMB has now importantly focused on regenerative medicine in collaboration with cell biologists.

One of the extremely important missions of the annual meeting of JSOPMB is to exchange new research outcomes and create new therapeutic concepts. JSOPMB always encourages and motivates young investigators. JSOPMB was started in 1974 for the study of organ preservation and developed widely in the 1990s with the participation of researchers in various fields of medicine, pharmacology, engineering, veterinary medicine, and basic science. Currently, JSOPMB has more than 400 members and is run under the direction of Dr. Takehide Asano, the current President of JSOPMB.

Excellent presentations conducted at the 38th annual meeting of JSOPMB held on November 25–26, 2011, in Miyagi, Japan, under the supervision of Dr. Takashi Kondo (Professor, Department of Thoracic Surgery, Tohoku University, Miyagi, Japan) were selected and given an opportunity to be published in this special issue of *Cell Medicine*. Nine of these presentations are herein published in this special JSOPMB issue.

Teratani and Kobayashi reviewed results from various groups using their transgenic rats for direct visualization of their tissues at the bench level and in cell transplantation research. This included studies on renal and liver injury, parkinsonian models, and nerve injury and islet isolation.

Diabetes continued to be a major focus with two review papers evaluating different aspects of islet transplantation. Kataoka and Noguchi reviewed the relationship between ER stress and the pathogenesis of type 1 and type 2 diabetes and the association between islet transplantation and ER stress. Maruyama et al. reviewed autologous islet transplantation.

Stem cell research was a major topic of interest. There were two papers regarding pancreatic stem cells. One by Noguchi et al. explored the culture conditions for mouse pancreatic stem cells, while the other by Kuise et al. the isolation efficiency of mouse pancreatic stem cells. In addition, Kasahara et al. reported that protein fractions secreted by mesenchymal stem cells (MSCs) were capable of activating preserved islets.

There were three papers regarding hepatocytes. Dosen et al. reported that hepatic ischemic reperfusion injury could be reduced using saline exposed to electron discharge in a rat model. Miyamoto et al. synthesized positively charged magnetic nanoparticles and observed these nanoparticles inside three-dimensional models of HepG2 spheroids, which mimic tissues. Finally, Hsu et al. showed that citrate phosphate dextrose-supplemented Euro-Collins solution improved the recovery of hepatocytes isolated from warm ischemic rat liver.

The theme of this JSOPMB issue is “Long-Expected New Start.” The board members and I are looking forward to seeing further progress in JSOPMB in conjunction with *Cell Medicine*.

Hirofumi Noguchi
Guest Editor-in-Chief, JSOPMB Issue
Department of Surgery
Clinical Research Center
Chiba-East National Hospital
National Hospital Organization
673 Nitona, Chuo-ku, Chiba 260-8712, Japan
Tel: +81-43-261-5171; Fax: +81-43-268-2613
E-mail: n.hirofumi@cehpnet.com or
noguchih2006@yahoo.co.jp