Pediatric RESEARCH

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COMMENT

Early career investigator highlight biocommentary

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I was born and raised in Osaka, Japan, and received my medical degree from Kobe University in 2004. I completed my internship at Hyogo Prefectural Awaji Hospital, my pediatric residency at Kakogawa Municipal Hospital, and my fellowship in Neonatal-Perinatal Medicine at Kobe University Hospital and Kobe Children's Hospital.

In parallel with my clinical training, I also received basic research training with a focus on the pathophysiology of neonatal diseases, first as a Postgraduate student at Kobe University mentored by Prof. Masafumi Matsuo, and then as a Postdoctoral scholar in the Department of Pediatrics at Stanford University School of Medicine mentored by Dr. Ronald J. Wong, and Prof. David K. Stevenson.

Throughout my Postgraduate training, I have been engaged in a wide range of clinical research projects, including two main projects: the "*Contribution of Genetic Polymorphisms of Vascular Endothelial Growth Factor to Bronchopulmonary Dysplasia*"[1] and the "*Regulation of Renin–Angiotensin Systems in the Monochorionic Twin Pregnancies Complicated by Twin-to-Twin Transfusion Syndromes*".[2] During my fellowship at Stanford, my research focus was to understand the function of heme oxygenase (HO), the rate-limiting enzyme in bilirubin production, and its contribution to neonatal diseases, specifically neonatal hyperbilirubinemia[3] and sepsis,[4] using animal models. I currently serve as an Associate Professor of Pediatrics at Kobe University Graduate School of Medicine as well as Chief of Neonatology at Kobe University Hospital.

In our recent paper published in *Pediatric Research*, we report that the bilirubin/albumin (B/A) ratio significantly correlates with unbound bilirubin levels in preterm infants <35 weeks of gestation.[5] This topic was based on my basic and clinical research experience on neonatal hyperbilirubinemia at Kobe University and Stanford University School of Medicine.

Throughout my career, I have been guided and trained by many mentors to date. Prof. Masafumi Matsuo, a Pediatrician who proposed exon skipping therapy for Duchenne muscular dystrophy,[6] introduced me to genetic-based pediatric research. He showed me the rigors of performing human research studies.

Dr. Ronald J. Wong, a Senior Research Scientist, who is also a co-author of all of my papers published in *Pediatric Research*,[3–5] trained me in basic research and laboratory management. He also taught me to think scientifically and independently and with confidence—not afraid of making mistakes, but seeing them as answers to a problem.

Prof. Ichiro Morioka and Prof. Kazumoto Iijima, Physician Scientists with expertise in clinical research, provided valuable support in setting up my research laboratory after my return to Japan.

Dr. Mariko Ashina and Dr. Shinya Abe, who are my very first graduate students, have helped me pursue my research goals and given me a new inspiration.

My advice to those interested in research is to take the task in front of you seriously, even if it is not of direct interest to you. In the field of research, regardless of clinical or basic science, experiences that you thought is not necessary may eventually be useful.

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ADDITIONAL INFORMATION

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