Preface

Hypoxic-ischemic and other injury to the neonatal brain continues to be a major cause of mortality and morbidity in infants and children and a tremendous public health problem. The prevention of cerebral dysfunction in these children is of great importance. Beginning in 1997, the Hershey Conference on Developmental Brain Injury has consistently brought together international leaders in this field as well as esteemed scientists from outside but related fields, with the goal of finding new and better modes of intervention and neuroprotection.

This special issue of *Developmental Neuroscience* represents the Proceedings of the 11th Hershey Conference on Developmental Brain Injury, held at the Asilomar Conference Center in Asilomar, CA, USA, on the 5–8 June 2018. The conference was entitled “From ‘Metabolic’ to Translation – Molecular Insights That Inform Therapies”. The organizers were Drs. Susan Vannucci, Donna Ferriero, Henrik Hagberg, Pierre Gressens and Steven Levison. As in previous years, this conference was an international meeting with approximately 115 participants. Thirty-two participants from 8 countries, including the USA, presented plenary talks, with 66 additional poster presentations. The conference brought together clinicians, basic scientists, fellows, and graduate students in a relaxed setting to share their discoveries and thoughts, with the goal of understanding the mechanisms that lead to perinatal brain injury and specific emphasis on metabolism, organelles, brain development and potential treatment strategies. Financial support was gratefully received from the NIH (NINDS 1 R13 NS106726–01), the Cerebral Palsy Alliance Research Foundation, and Karger

Publishers. The organizers are most grateful to Dr. Jim Koenig at the NIH for his guidance, advocacy and participation at this conference. The 12th Conference on Developmental Brain Injury has been scheduled for the spring of June 2020 in Gothenberg, Sweden. Drs. Henrik Hagberg and Carina Mallard have offered to organize this next meeting.

A general call for articles for this special issue was announced at the 2018 conference, and this resulted in many submissions. After rigorous peer review, 18 articles were selected for publication, and an additional 2 regular submissions that were thematically related are included in this volume. Several papers in this issue report on the diverse mechanisms that contribute to developmental brain injuries including ferroptosis, endoplasmic reticulum and Golgi stress, inflammation and oxidative stress. Other studies have either defined or refined the animal models used to study developmental brain injuries. New developments in identifying biomarkers for brain injury as well as progress in testing neuroprotective therapies are included.

This special issue will be of interest to both clinicians and basic scientists who are interested in the developing nervous system, its vulnerability to injury and the short and long-term consequences for neurologic development. We hope the reader will find these articles both as stimulating and exciting as we have as editors.

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