

Wednesday, 6 June, 2018

Noon-5:00 pm Registration- please check in at the Hearst Social Hall for your room (rooms guaranteed by 4 pm)

Meeting registration- in Chapel- please go there to get your program, nametag and poster board number if applicable

6:00- 9:00pm Welcome reception, dinner at the Barbecue Area & Fire Pit

Thursday, 7 June, 2018, AM session in Chapel

7:30-8:30 am Breakfast in Crocker Dining Hall and poster set up in Triton/Nautilus

8:30 – 9:00 Opening remarks and Dick Traystman dedication

9:00-12:00: Topic 1: Neurovascular coupling in brain development and disease

9:00-9:30 Pierre Gressens MD PhD Perinatal neuroinflammation and brain plasticity: cognitive and behavioral consequences

9:30-10:00 Eric Huang MD PhD UCSF– Neurovascular development in the human germinal matrix”

10-10:15 Break

10:15-10:45 Lina Chalak MD A Novel Wavelet Neurovascular Bundle for Detection of Injury in Neonatal Encephalopathy

10:45-11:15 Fernando Gonzalez MD - Angiogenesis and neurogenesis after neonatal stroke

11:15-12:00 Orals

Faustino et al Genetic ablation of CCR2-CX3CR1 signaling attenuates neurovascular leakage and acute injury in a novel mouse model of childhood focal stroke

Petersen et al Fibrinogen activates bmp signaling in oligodendrocyte progenitor cells and inhibits remyelination after vascular damage

Robinson et al Extended Combined Neonatal Treatment with Erythropoietin plus Melatonin Prevents Post-hemorrhagic Hydrocephalus of Prematurity in Rats

12:00-1:30 Lunch in Crocker Dining Hall

1:30 -4:30PM Topic 2: Metabolomics and biomarkers in developmental brain injury

1:30-2:00 Duan Xu PhD Hyperpolarized C13 metabolomics in the developing brain –

2:00-2:30 Sandra Juul MD PhD Plasma metabolites following hypoxic-ischemic encephalopathy in a nonhuman primate model

2:30-3:00 Geraldine Boylan PhD – EEG - an important physiological biomarker of newborn brain function

3:00-3:15 Break

3:15-4:30 Orals

Wood et al Characterization of Early Pathology and Motor Development in a Novel Ferret Model of Encephalopathy of Prematurity

Wisnowski et al Validating MRS lipids as biomarkers of brain injury in a non-human primate model of neonatal hypoxic-ischemic encephalopathy

Shi et al Role of Tetrahydrobiopterin in Fetal Brain Injury That Causes Hypertonia after Antenatal Hypoxia-Ischemia

Konig et al Magnesium induces preconditioning of the neonatal brain in rodent brain injury models

6:00 – 7:00 pm Dinner in Crocker Dining Hall

7:00-10:00pm after dinner poster-session in Nautilus/Triton

Friday, 8 June, 2018, AM session- Chapel

7:30-8:15am Breakfast in Crocker Dining Hall

8:15-9:00 Keynote lecture 2: Scott J Dixon PhD Ferroptosis

9:00-12:00 Topic 3: Organelles and therapies

9:00-9:30 Frances Northington MD ER and other Organelle Dysfunction in neurons following HI

9:30-10:00 V El-Ghouzzi, PhD Golgiopathies

10-10:15 Break

10:15-12:00 Orals

Pathipati et al Ferroptotic and necroptotic mechanisms of cell death and their modulation with erythropoietin treatment in neonatal stroke

Rocha-Ferreira et al Exendin-4 provides neuroprotection and enhances therapeutic hypothermia in a model of hypoxic-ischemic encephalopathy

deThieje et al D-JNKi rescues myelination in a neonatal rat model of diffuse white matter injury

Yellowhair et al CXCR2 Blockade Mitigates Neural Cell Injury Following Preclinical Chorioamnionitis

Nemeth et al Dendrimer N-Acetyl-Cysteine to enhance glial restricted precursor transplantation and recovery following neonatal white matter injury in mice

Zafer et al Sex differences seen in TrkB agonist therapy-mediated recovery of object recognition and location memories is estrogen receptor α dependent following neonatal hypoxic ischemic encephalopathy

12:00-1:30 Lunch in Crocker Dining Hall

1:30-3:30 Topic 4: Stem cells for Cerebral Palsy

1:30-2:00 Iona Novak PhD Sydney Australia Clinical trials with stem cells

2:00-2:30 Jan Brunstrom- Hernandez MD – Insights from being a patient with CP and taking care of patients

2:30-3:15 Orals

Kitase et al Stem cell therapy with Stem cells from human exfoliated deciduous teeth for hypoxic-ischemic encephalopathy in neonatal rats.

Vaes et al Using mesenchymal stem cells to boost myelination in the injured preterm brain

Paton et al Optimising perinatal stem cell therapy- Comparative analysis of umbilical cord blood cells vs mesenchymal stromal cells for preterm brain injury

3:15-3:30 break

3:30-5 Poster Session in Nautilus/Triton

6:00-11:00 pm Cocktails then Dinner, after dinner party with dancing in Seascope

Saturday, 9 June, 2018 in Chapel

7:30-8:30 Breakfast in Crocker Dining Hall

8:30-9:15 Maturation effects of brain injury

Back et al Transient Hypoxemia Triggers Hyper-Maturation of Preterm Fetal Ovine CA1 Hippocampal Neurons

Lizama et al Microglial dysmaturation and developmental neuromotor dysfunction result from impaired aVb8-TGFb signaling.

Chavez-Valdez et al Neonatal Hypoxia-Ischemia interrupts maturation of hippocampal GABAergic interneurons

Topic 5: Industry – Academia Relations

9:15-9:45 Jim Koenig PhD the NIH perspective

9:45-10:15 Sujatha Kannan MD PhD – incubators and industry

10:15-10:45 Emin Maltepe MD PhD – SBIR applications

Discussion

Meeting wrap-up and discussion of Hershey 2020

12:00 Adjourn and lunch in Crocker Dining Hall