DAY 2 - Saturday, August 19, 2017

REGISTRATION: **STARTS AT 7:00AM** LOCATION: **Expo Hall**

7:00am – 8:00am Breakfast

Day 2 Morning Theme: HBOT and Pediatric Care

8:00am – 8:45am **Epigenetics of Autism:** Role of Imaging and HBOT — **Edward Fogarty, M.D.**

This lecture will describe the primary detoxification impairments associated with autism. The various developmental toxins from waveforms to metals and organic compounds will be reviewed with references to literature published over the last ten to fifteen years. Sulfation and methylation pathways will be primarily understood as the detoxification pathways with the greatest penetrance into the population. Mitochondrial impairments of electron transport will also be a critical learning point that will dovetail into the mechanisms by which HBOT may help to improve the clinician's armamentarium of approaches to therapy. The imaging of neurovascular dynamics in acute encephalitis will be reviewed with a policy nod to helping emergency medicine professionals work up an acute encephalitis of various etiologies or seizures in a temporally and medico-legally critical fashion for documentation of vaccine injuries specifically. Malondialdehyde and TBARS as global neuroinflammatory stressors in the urine and CSF GFAP biomarkers and their role in acute encephalitis associated with at risk children for autism and seizure disorder with be reviewed in context of MRS of brain glutathione levels.

8:15am - 10:15am **Autism and HBOT:** HBOT-based Multi-mode Therapy of Autism Spectrum improves quality of life and a faster return to mainstream life than possible with classical rehabilitation given alone. — **Arun Mukherjee, MBBS, M.D.**

Autism is caused by genetic, metabolic and pollution-induced pathophysiologies initiating brain inflammation and hypoxia. Classical rehabilitation plus controlling such pathophysiologies, especially brain hypoxia by HBOT, helps speed up recovery time to improve quality of life.

10:15am - 10:45am **Morning Break**

10:45am – 11:30am **Case Assessments of Treating Autistic Children with HBOT**

EXPERT PANEL DISCUSSION
- **Paul Harch, M.D.**
- **Arun Mukherjee, M.D.**
- **Edward Fogarty, M.D.**

11:30am – 12:30pm **Delaying Latency to Hyperbaric Oxygen Induced CNS Oxygen Toxicity Seizures by Combinations of Exogenous Ketone Supplements** — **Csilla Ari D'Agostino, Ph.D.**

Dr. D'Agostino's study explores the effect of exogenous ketone supplements on the latency to and severity of seizures during CNS oxygen toxicity seizures, when Sprague-Dawley rats are exposed to hyperbaric oxygen. Some of the ketogenic supplements in different dosing and in combinations improved latency to seizures and seizure severity.

12:30pm – 1:00pm **Non-CME Sponsored Lecture** — **Speaker - TBC (Non-CME Lecture)**

1:00pm – 2:15pm *Kindly sponsored by* IonCleanse by AMD — **Lunch Break**

DAY 2 - Saturday, August 19, 2017

Expo Hall

1:00pm – 2:15pm Lunch Break

Day 2 Afternoon Theme: Oncology and HBOT

2:15pm – 3:00pm

Dosing of Hyperbaric Oxygen Therapy in Chronic Neurological Injury: Evidence for Cumulative Oxygen Intolerance and Sensitivity

Paul G. Harch, M.D.

Historically, the lung is the sole organ that was thought to register cumulative negative side effects of chronic repetitive oxygen exposure. Prevailing dogma teaches that the brain only manifests acute oxygen sensitivity, yet the extreme forms of oxygen sensitivity in chronic wound conditions often occur during a course of HBOT, not with the first treatment. Using classic definitions, this lecture will review a clinical experience of oxygen sensitivity in chronic brain injured patients and demonstrate that cumulative oxygen sensitivity occurs within a certain dose range.

3:00pm – 3:45pm

HBOT and Sports : Elite Preparation, Recovery and Performance

Malcolm R. Hooper, D.C.

Widely regarded as one of the most experienced and scientifically-based sports medicine hyperbaric oxygen therapy practitioners, Dr. Hooper will be discussing and presenting the scientific underpinnings of hyperbaric oxygen therapy in sports medicine conditions. He will present the rationale that has facilitated HBOT integration into sports conditioning and injury treatment programs, allowing some of the world's most elite athletes to achieve a competitive edge. The applied principles will be shown to be identical to those that are operational in the more traditional applications of HBOT. Dr. Hooper will also present evidence for cytokine-guided HBOT as a novel method for application and dosing of hyperbaric oxygen therapy.

3:45pm – 4:15pm **Afternoon Break**

4:15pm – 4:45pm

Acute Concussion Diagnostics and Treatment: HBOT for Subacute Traumatic Encephalitis Untied with Transcranial Doppler Vascular Lab of the Brain

Daphne Denham, M.D.. and Edward Fogarty, M.D.

Drs. Denham and Fogarty will discuss the treatment of acute concussion via the presentation of a series of cases from Dr. Denham's practice experience. The topics reviewed will include the refinement of protocols in ethical, safe physician directed medical care of the subacute and acute concussion patient as well as a review of imaging and clinical laboratory research regarding acute concussion diagnostics. MRI, Transcranial Doppler Ultrasound, urinary and serum biomarkers of acute concussion will be reviewed as a point of education towards how to better diagnose this common form of mild recurrent encephalitis. In the field review of cases from Dr. Denham brings real world data and workflow experience into this lecture. Many active outpatient centers looking to improve their healing social entrepreneurial outreach into their communities will appreciate the harmonization of "benchtop to desktop to blacktop" approach brought forth by thee two physicians.

4:45pm – 5:15pm

Case Report on HBOT in Chronic Carbon Monoxide Poisoning: Rescuing memories long thought lost forever

Lon Keim, M.D.

Dr. Lon Keim reviews the literature and the lengths to which a father will go to improve the condition of a severely metabolically injured son from carbon monoxide poisoning occurring as a result of attempted suicide. The efforts to which his team of physicians and this family went in order to access a recovery of memory function are truly wonderful parts of this story from Great Plains cowboy culture.

5:15pm – 5:45pm

Non-CME Sponsored Lecture

Speaker - TBC (Non-CME Lecture)

5:45pm – 6:15pm

Assessment of Case Studies, Protocols, and Treatments

EXPERT PANEL DISCUSSION

- **Paul Harch, M.D.**
- **Edward Fogarty, M.D.**
- **Malcolm Hooper, D.C.**

7:00pm – 8:30pm

IHMA/IHMF 2017 THINK TANK

- **Scope of Practise**
- **Introducing the International Hyperbaric Medical Scientific Advisory 2017**
- **IHMA 2017 Training and Certification**
- **IHMA Continuing Professional Development**
- **Forward Thinking**