AutismOne 2016 Conference

Bringing the Pieces Together!

MAY 25 - 29, 2016
LOEWS CHICAGO O'HARE HOTEL

See preview on page 56!

www.AutismOne.org

Theoharis C. Theoharides, BA, MS, MPhil, PhD, MD, FAAAAI , is the Director of Molecular Immunopharmacology and Drug Discovery, as well as a Professor of Pharmacology, Biochemistry and Internal Medicine at Tufts University and Tufts Medical Center, Boston, MA. He received all his degrees from Yale University from where he was awarded the "Dean's Research Award" and the "Winternitz Price in Pathology."

Dr. Theoharides proposed the novel concept that mast cells play a critical role in brain inflammation and autism, which he named "Brain Immunity Storms". He has been awarded 17 patents and 23 trademarks.

Dr. Theoharides' Introduction for his 2014 Honorary Degree with the Hellenic American University, New Hampshire:

"Dr. Theoharides is a pioneer. What if someone told you that there is a single type of cell in the body that affects almost all modern diseases, from ADHD to autism, cancer to Alzheimer's, arthritis to Parkinson's, and more? What if this cell which has been associated by most doctors only with allergies has been found to be the master regulator of the immune system and recent research is providing its effect on this long list of modern diseases? Dr. Theoharides is a leading researcher in mast cells master regulators of the immune system, directing immune system response and controlling inflammation. Dysfunction of mast cell has been found to be the source of many auto-immune diseases and conditions. His research is providing paths to new diagnostic tests and innovative treatments.

Dr. Theoharides' research interests spans several areas of inquiry, a characteristic, one would say, of the restless mind that characterizes all great thinkers and scientists. He has made important contributions in the field of science searching for cures for diseases that seem untreatable. He is well known for his work and his findings are often quoted by his peers. It is his fellow scientists that have accorded him the greatest recognition. With over 19,000 citations to his 360 papers and 3 books he is in the top 1% most cited authors in pharmacological journals. He was inducted into the Alpha Omega Alpha National Medical Honor Society and the Rare Diseases Hall of Fame.

Dr. Theoharides has spent his academic and research life abroad. He calls Boston home. He trained in internal medicine at the New England Medical Center, which awarded him the Oliver Smith Award "recognizing excellence, compassion and service." Today, Dr. Theoharides is Professor of Pharmacology and Internal Medicine, as well as Director of Molecular Immunopharmacology and Drug Discovery at Tufts University School of Medicine, Boston. He is "Archon" of the Ecumenical Patriarchate of Constantinople. He was asked to serve as Associate Provost for Research at our University.

Thursday May 26th 9:30 – 10:00 AM CME badges only
Immune Activation and Mast Cells

Autism spectrum disorders (ASD) remain without effective treatment due to the lack of distinct pathogenesis and objective biomarkers. In addition to the typical symptoms of ASD, many children have allergic problems, including food intolerance, and the risk for developing autism was ten higher in children with mastocytosis than the general population. We first published that most ASD children have high serum levels of two brain peptides secreted under stress, corticotropin-releasing hormone (CRH) and neurotensin (NT), which synergistically trigger mast cells, responsible for allergies. Mast cells then release inflammatory molecules (IL-6, IL-17, TNF), found to be high in the brains of children with ASD, and trigger the brain "defenders" microglia to become pro-inflammatory and proliferate "damaging and choking off" neuronal circuits. Aluminum further stimulates both mast cells and microglia, which release MCP-1, a chemoattractant for mast cells, found to be high in amniotic fluid of children who later developed autism. The flavonoid luteolin inhibits human mast cells and microglia. It also inhibited the maternal activation (MIA) mouse model of autism and significantly improved communication and sociability, along with reduction of high serum levels of IL-6 and TNF, in a subgroup of children with ASD. The novel related flavonoid methoxyluteolin is a better inhibitor of both mast cells and microglia, is absorbed better and is tolerated by those with phenol intolerance and methylation defects and is covered by patents US 8,268,365 (09/18/12); US 9,050,275 (06/09/15); US 9,176,146 (11/03/15) awarded to TCT.

Friday May 27th 8:15 – 8:30 AM CME badges only
Put Out Brain Fires to Treat Austim

Autism spectrum disorders (ASD) remain without effective treatment due to the lack of distinct pathogenesis and objective biomarkers. In addition to the typical symptoms of ASD, many children have allergic problems, including food intolerance, and high anxiety associated. We first published that most ASD children have high serum levels of two brain peptides secreted under stress, corticotropin-releasing hormone (CRH) and neurotensin (NT), which trigger mast cells, responsible for allergies. Mast cells then release inflammatory molecules (IL-6 and TNF), found to be high in the brains of children with ASD, and trigger the brain "defenders" microglia to become pro-inflammatory and proliferate "damaging and choking off" neuronal circuits. Aluminum further stimulates both mast cells and microglia, which release MCP-1, a chemoattractant for mast cells, found to be high in amniotic fluid of children who later developed autism. Luteolin inhibits human mast cells and microglia, as well as the maternal activation (MIA) mouse model of autism. Moreover, luteolin significantly improved communication and sociability, along with reduction of high serum levels of IL-6 and TNF, in a subgroup of children with ASD. The novel related flavonoid methoxyluteolin is a better inhibitor of both mast cells and microglia, is absorbed better and is tolerated by those with phenol intolerance and methylation defects. A methoxyluteolin intranasal formulation for direct brain delivery is under development covered by patents US 8,268,365 (09/18/12); US 9,050,275 (06/09/15); US 9,176,146 (11/03/15) awarded to TCT.

Saturday, May 28th 10:45 – 11:45 AM – Bio
An Autism Subgroup with Brain Inflammation is Treatable

Autism spectrum disorders (ASD) remain without effective treatment due to the lack of distinct pathogenesis and objective biomarkers. In addition to the typical symptoms of ASD, many children have allergic problems, including food intolerance and high anxiety associated with reduced cognition and inability to concentrate, commonly referred to as "brain fog." We first published that most ASD children have high serum levels of two brain peptides secreted under stress, corticotropin-releasing hormone (CRH) and neurotensin (NT), which trigger mast cells, responsible for allergies. Mast cells then release inflammatory molecules (IL-6 and TNF), found to be high in the brains of children with ASD, that trigger the brain "defenders" microglia to proliferate and "choke off" neuronal circuits. Aluminum further stimulates both mast cells and microglia. In an independent published clinical study, when ASD children were administered an oral liposomal formulation of the natural antioxidant and anti-inflammatory flavonoid luteolin (NeuroProtek®) they had significant improvement in communication and sociability, but not irritability. This formulation reduced the high serum levels of IL-6 and TNF in a subgroup of those children, who were also the ones that most improved at the end of the study. Luteolin has already been formulated together with the antibacterial berberine (BrainGain®) especially for use in PANDAS children. Moreover, the novel related flavonoid methoxyluteolin inhibits both mast cells and microglia, is absorbed better and is tolerated by those with phenol intolerance and methylation defects. A methoxyluteolin skin lotion (GentleDerm®) will be available soon and an intranasal formulation for direct brain delivery is under development covered by patents US 8,268,365 (09/18/12); US 9,050,275 (06/09/15); US 9,176,146 (11/03/15) awarded to TCT.