Third Annual O'Donnell Brain Institute Symposium: Neuroimmunology of CNS Disorders

Wednesday, March 27 - Thursday, March 28, 2024

UT Southwestern Medical Center • T. Boone Pickens Biomedical Auditorium (NG3.112) 6001 Forest Park Road • Dallas, TX 75235

Register now to attend! cme.utsouthwestern.edu/rp2403c

PURPOSE AND CONTENT

Neuroimmunology has been one of the most dynamic biomedical disciplines over the past two decades, and now encompasses disorders that were previously considered to be exclusively neurodegenerative. New categories of autoimmune disorders have been established and characterized, and new potentially pathogenic biological pathways are being established for traditional neuroimmunological disorders. This symposium will feature expert speakers presenting didactic lectures, case studies, and interactive Q&A discussions addressing current advances and challenges in neuroimmunology.

EDUCATIONAL OBJECTIVES

At the conclusion of this course, participants will be able to:

- Identify and analyze key pathogenic events initiating and perpetuating inflammation in human autoimmune disorders of the central nervous system
- Recognize key features of central nervous system autoimmunity
- Discuss novel clinical and paraclinical surrogate disease markers of autoimmune disorders of the brain and spinal cord
- Utilize neurological therapeutics targeting the immune system for providing high-quality care/tailored treatment approaches
- Apply strategies linking advances in basic neuroimmunology to psychiatric disease relevance and management

TARGET AUDIENCE

This symposium aims to update the community (physicians and researchers specializing in neurology, neurological surgery, immunology, physical medicine & rehabilitation, pediatrics, and psychiatry) on new discoveries and novel treatments as they relate to neuroimmunology of CNS disorders.

SPONSORS

Peter O'Donnell Jr. Brain Institute and the Office of Continuing Education

ACCREDITATION AND DESIGNATION STATEMENT

UT Southwestern Medical Center is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

UT Southwestern Medical Center designates this live educational activity for a maximum of 15.25 AMA PRA Category1 Credit TM . Physicians should only claim credit commensurate with the extent of their participation in the activity.

UT Southwestern Medical Center certifies that non-physicians will receive an attendance certificate stating they participated in the activity that was designated for 15.25 AMA PRA Category 1 Credit $^{\text{TM}}$.

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Agenda – Wednesday, March 27

TIME	TOPIC	SPEAKER
8:15 a.m. 8:30 a.m.	Welcome, opening remarks	William Dauer, M.D.
Session 1:	Multiple sclerosis – Pathogenesis and genetics	
8:30 a.m. 9:00 a.m.	The latest updates on MS pathogenesis	Olaf Stüve, M.D., Ph.D.
9:00 a.m. 9:30 a.m.	Radiologically isolated syndrome	Darin Okuda, M.D.
9:30 a.m. 10:00 a.m.	Childhood MS – differentiating it from other CNS autoimmune disorders	Benjamin Greenberg, M.D.
10:00 a.m. 10:30 a.m.	Genetics of MS	Philip De Jager, M.D., Ph.D.
10:30 a.m. 10:45 a.m.	Coffee break	
10:45 a.m. 11:15 a.m.	Genetic ancestry effects vs. social determinants of health in the MS population	Lilyana Amezcua, M.D.
11:15 a.m. 11:45 a.m.	Sex steroid hormones in MS: From bench to bedside	Rhonda Voskuhl, M.D.
11:45 a.m. 12:15 p.m.	Panel discussion	
12:15 a.m. 1:15 p.m.	Lunch	
Session 2:	Epstein-Barr virus and MS	
1:15 a.m. 1:45 p.m.	EBV and other environmental factors in MS pathogenesis	Alberto Ascherio, M.D., Dr.P.H.
1:45 p.m. 2:15 p.m.	Antibodies to EBV and CNS autoantigens	Tobias Lanz, M.D.
2:15 p.m. 2:45 p.m.	Coffee break	
2:45 p.m. 3:15 p.m.	Innate immune response in the brain to viral pathogens	John Beckham, M.D.
3:15 p.m. 3:45 p.m.	mRNA EBV vaccine to prevent MS	Steven Jacobson, Ph.D.
3:45 p.m. 4:15 p.m.	Coffee break	
	Young investigator presentations	
4:15 p.m. 4:35 p.m.	"Neuron-immune interactions in chemotherapy-induced peripheral neuropathy," Grace Ji-eun Shin, Ph.D., Assistant Professor, Department of Neurology, The Ohio State University	
4:35 p.m. 4:55 p.m.	"The role of neuroinflammation in tauopathies," Barbara Stopschinski, M.D., Instructor, Department of Neurology, UT Southwestern	
4:55 p.m. 5:15 p.m.	"Heterogeneity of Myeloid Cells in Central Nervous System Autoimmunity," Victor Salinas, M.D., Assistant Professor, Department of Neurology, UT Southwestern	
5:15 p.m. 5:35 p.m.	"Aging biomarkers in pediatric multiple sclerosis," Ashley Fair, Research Associate, UC San Diego	
5:35 p.m.	Reception	

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Agenda – Thursday, March 28

TIME	TOPIC	SPEAKER
Session 3:	Cellular mediators of CNS inflammation	
8:30 a.m. 9:00 a.m.	Microglia and other myeloid cells	John Lukens, Ph.D.
9:00 a.m. 9:30 a.m.	Astrocytes in inflammation	Francisco Quintana, Ph.D.
9:30 a.m. 10:00 a.m.	Neuroprotective innate immunity	Benjamin Segal, M.D.
10:00 a.m. 10:30 a.m.	The role of antibodies in CNS inflammatory disorders	Jeffrey L. Bennett, M.D., Ph.D.
10:30 a.m. 11:00 a.m.	Coffee break	
11:00 a.m. 11:30 a.m.	Panel discussion	
11:30 a.m. 12:30 p.m.	Lunch	
Session 4:	The heterogeneity of multiple sclerosis	
12:30 p.m. 1:00 p.m.	MS across the lifespan: Age and sex effects	Jennifer Graves, M.D., Ph.D., M.A.S
1:00 p.m. 1:30 p.m.	Novel methodologies to interrogate pathological features of CNS autoimmune disorders	David Pitt, M.D.
1:30 p.m. 2:00 p.m.	Biological underpinnings of imaging markers in MS	Daniel Reich, M.D., Ph.D.
2:00 p.m. 2:30 p.m.	Panel discussion	
2:30 p.m. 3:00 p.m.	Coffee break	
Session 5:	Biological barriers in neuroinflammation	
3:00 p.m. 3:30 p.m.	The blood-brain barrier in CNS autoimmunity	Alexandre Prat, M.D., Ph.D.
3:30 p.m. 4:00 p.m.	The meninges in immune regulation	Jonathan Kipnis, Ph.D.
4:00 p.m. 4:30 p.m.	Visualization of CNS immune responses in the brain	Dorian McGavern, Ph.D.
4:30 p.m. 5:00 p.m.	Panel discussion	
Symposium concludes		