



Dr. Stephen Back

Professor of Pediatrics, Neurology and Anesthesiology-Critical Care Medicine, Oregon Health and Science University

Dr. Stephen Back is Professor of Pediatrics, Neurology and Anesthesiology-Critical Care Medicine at Oregon Health and Science University-Doernbecher Children's Hospital. He is Director of the Division of Pediatric Neuroscience and holds the Clyde and Elda Munson Professorship in Pediatric Research. Dr. Back received his Ph.D. in Pharmacology in 1989 and his M.D. in 1990 from the University of California, Irvine. Dr. Back completed residency training in Pediatrics at the University of California, Irvine and in Pediatric Neurology at Boston Children's Hospital-Harvard Medical School. At Harvard, he completed a research fellowship in the laboratory of Dr. Joseph Volpe and a clinical fellowship in cerebral palsy supported by the United Cerebral Palsy Foundation. The current research interests of Dr. Back's lab include both neurodevelopmental questions and studies to define the mechanisms of cerebral white matter injury related to vascular cognitive impairment in the aging human brain. Dr. Back has published more than 75 original articles. He is a recipient of a Young Investigator Award from the Child Neurology Society, a Bugher Award from the American Heart Association and a Javits Merit Award from NINDS. His research has been supported by grants from NINDS, NIA, the March of Dimes, and the American Heart Association.

Vascular Dementia and Cerebral White Matter Injury: Emerging Insights from a Neurodevelopmental Perspective

October 17, 2024 (Thursday)

11:00 AM - 12:00 PM PDT



Room 102, Michael Smith
Laboratories, 2185 East Mall



Zoom Meeting ID: 639 2163 4607
Passcode: 193257

Summary: Age-related cognitive decline has widely been attributed to neuronal degeneration in the setting of progressive gray matter injury in disorders including Alzheimer's disease. However, growing evidence supports a central role for white matter injury in cognitive dysfunction associated with both normative and pathological aging. This presentation will explore how studies of neonatal white matter injury have led to unexpected insights into cellular and molecular mechanisms that contribute to cerebral white matter injury in vascular dementia. It will focus on two highly susceptible populations of glia, oligodendrocyte lineage cells and microglia, which are both iron enriched cell types. We will examine data from human autopsy studies that supports an emerging role for a novel form of iron-dependent cell death, ferroptosis, that appears to be of central importance in white matter degeneration.

[Click here to register for the seminar.](#)

