

EVALUATING THE HUMAN VASCULATURE FOR VCID

Friday, July 14, 2023 | 1-5 p.m.
Hilton (Ballroom AB) — Amsterdam, Netherlands
All times are in Central European Time
In-person attendance only

Overview

There is enormous growth and recognition that damage to the brain vasculature contributes to cognitive impairment and dementia. This vascular dysfunction is especially prominent in the brain's smallest vessels, the capillaries. For example, small vessel disease of the brain has been linked to dementia, and many studies have reported blood-brain barrier breakdown in normal aging and early Alzheimer's Disease. It is thought that vascular contributions to cognitive impairment and dementia (VCID) is due to vascular and genetic risk factors, biological insults (e.g., metabolic disease, infection, immune response, etc.), lifestyle choices, and environmental confounds that challenge and ultimately negatively impact brain functions.

This workshop provides attendees an introduction to the anatomy of the neurovasculature and what is known about VCID. Next, there will be opportunities for immersive, hands-on training on how to zonate vascular cells after single-cell RNA sequencing, model brain microflow, clear whole organs, label and image vasculature, and perform the latest VCID-related neuroimaging protocols and analyses. At the end of the workshop, there will be a panel discussion and interactive electronic form to identify methodological gaps in the VCID field and potential ways to address them.

Organizing Committee

- Oliver Bracko, University of Miami, United States
- Fanny Elahi, Icahn School of Medicine, United States
- Amy Nelson, University of South Alabama, United States

Target Audience

Attendees will understand the most up-to-date neuroimaging methodologies to investigate VCID and how to analyze results. Participants from any career stage are encouraged to join, including undergraduate students, graduate students, post-doctoral researchers, and assistant professors engaged in clinical practice, research, or teaching.

Learning Objectives

- Learn about brain vascular anatomy and VCID.
- Learn methods to assess VCID.
- Discuss potential new methodologies to advance the VCID field.

Registration

Pre-conferences are offered for in-person attendance only. Preconferences require a separate registration fee in addition to AAIC full conference registration, or they may be purchased as stand-alone events.

Agenda

Time	Session Details	Speakers and Moderators
1-1:05 p.m.	Welcome	Oliver Bracko, Ph.D. Amy R. Nelson, Ph.D. Fanny Elahi, M.D., Ph.D.
1:05-1:50 p.m.	VCID Introduction/Overview and VCID Biomarkers	Moderator: Fanny Elahi, M.D., Ph.D. Speaker: Roderick Corriveau, Ph.D.
1:50-2:35 p.m.	Zonation of Vascular Cell Types After scRNAseq	Moderator: Amy R. Nelson, Ph.D. Speaker: Michael Vanlandewijck, Ph.D.
2:35-2:50 p.m.	Break	
2:50-3:35 p.m.	Brain Microflow Modeling for VCID	Moderator: Oliver Bracko, Ph.D. Speaker: Sylvie Lorthois, Ph.D.
3:35-4:20 p.m.	Neuroimaging Methodologies to Assess VCID	Moderator: Fanny Elahi, M.D., Ph.D. Speaker: Michael Stringer, Ph.D.
4:20-4:30 p.m.	Break	
4:30-5 p.m.	Panel Discussion: Methodological Gaps in VCID	All moderators and speakers