

Wanjalla Lab Newsletter

Issue 03 | January 2026

Theme: A journey of a thousand miles begins with one step!

Reflection from Dr. Wanjalla

As we begin this new year, I am inspired by the strength that comes from working together as a team. Our lab has shown resilience in moments of challenge — from early mornings to long evenings— and these experiences have reflected not only our dedication but also our ability to lift one another and keep moving forward.

This quarter, I am looking ahead with hope and optimism. I see a team that is learning, growing, and building new connections — both within our lab and across the broader scientific community. Together, we will continue to ask meaningful questions, support one another's journeys, and contribute to discoveries that matter. I am excited about what we will accomplish together in the year ahead.

Lab Manager Spotlight

We are proud to recognize our laboratory manager, **Xiuqi Zhang**, who has served Vanderbilt University Medical Center for over 20 years. Xiuqi is essential to keeping our lab running and is a dedicated mentor to our junior team members. She leads by example, continually learning new techniques and helping implement them across our projects. Her campus network also benefits us significantly when we need to collaborate with other labs to learn new skills or adopt new protocols. She demonstrates strong initiative and takes great pride in seeing our projects from start to finish. She also manages our animal colonies and performs highly technical procedures for our humanized mouse experiments, including developing a 96-well plate system for urine collection in collaboration with the machine core.

Beyond her technical expertise, Xiuqi brings warmth and care to our team, often supporting all team members through shared meals and moments of connection. We are deeply grateful for her leadership, generosity, and commitment to our lab community.

Research Highlight: Indirect effects of cytomegalovirus infection mechanisms and consequences

Our recent paper, published in *Philosophical Transactions of the Royal Society B*, examines how cytomegalovirus (CMV) infection may affect immune activity within the aorta and blood vessels. In this pilot study of cardiac surgery patients, we found that people with CMV had higher blood immune cell counts, indicating long-term activation, and that immune cells in the aorta showed lower antiviral signaling and higher inflammation-related activity. While preliminary, these findings suggest that CMV may subtly reshape immune responses in blood vessel tissue, with important implications for cardiovascular health and aging.

Postdoc Spotlight: Dr. Ronald McMillan

Over the past year at Vanderbilt University Medical Center and over the past six months in our lab, Dr. Ronald McMillan has embodied perseverance, curiosity, and a deep commitment to scientific growth. His journey reflects



Featured Image: New Year, New Milestones!

both resilience and purpose, as he continues to push himself to learn new methods, embrace mentorship, and expand the reach of his research.

Co-mentored by Dr. Annet Kirabo, Dr. McMillan is building a truly interdisciplinary training path, including his collaboration with Dr. Antentor Hinton to integrate AI-driven approaches into confocal image analysis. His recent acceptance into the AIM-AHEAD program marks a significant step in his development as a scientist and future leader at the intersection of data science, cardiovascular biology, and health equity.

His research explores the role of CX3CR1 in inflammation and cardiovascular disease, and chemerin in salt sensitivity and insulin resistance, extending his prior doctoral work into the context of HIV and cardiometabolic health. Through perseverance, humility, and determination, Dr. McMillan continues to grow — not only as a researcher, but as a collaborative and mission-driven member of our scientific community. We are proud of his progress and look forward to the discoveries ahead.

Kudos Corner

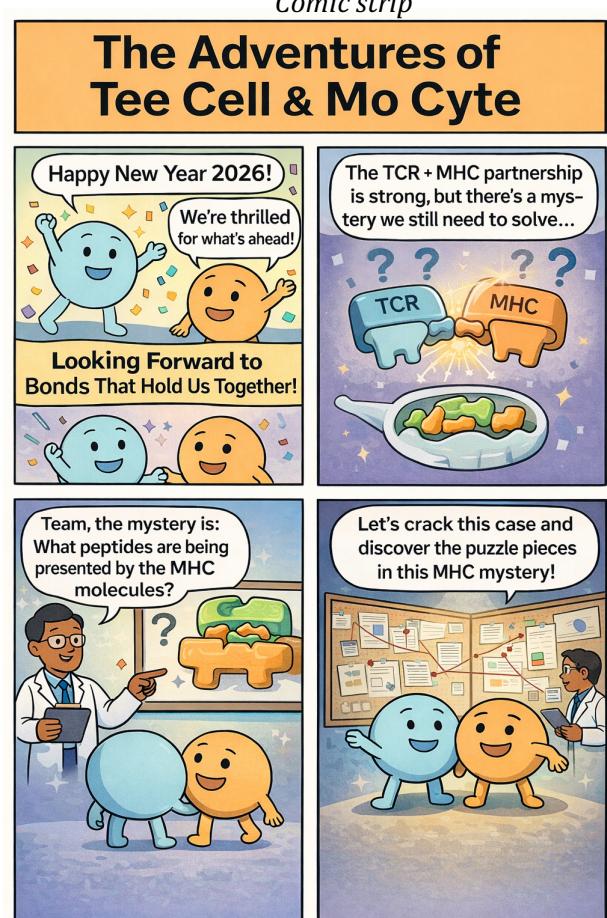
- Dr. Laventa Obare, Dr. Victoria Stephens, Dr. Ronald McMillan, and Solomon Debrezion: CROI abstracts accepted for Poster and CROI travel awards!
- Dr. Ron McMillan accepted for the AIM-AHEAD program!
- Dr. Laventa Obare, Dr. Victoria Stephens, and Dr. Ronald McMillan have AAI abstracts accepted!

Publications

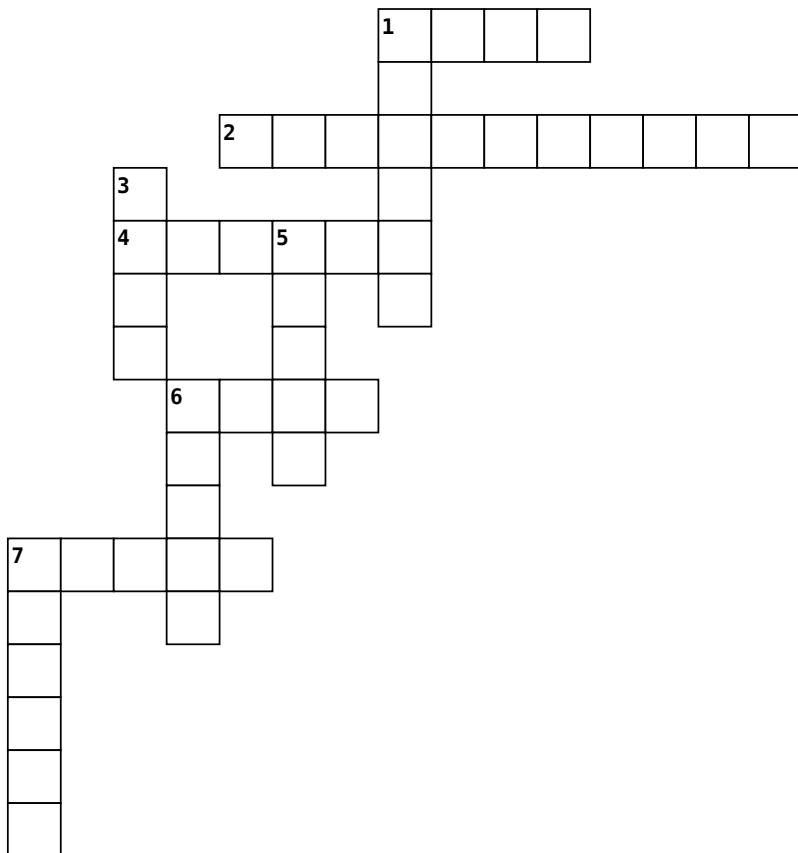
1. Labeb C, Obare LM, Sheng Q, Zhang X, Gangula R, Nthenge K, Bailin SS, Mashayekhi M, Stephens VR, Stolze L, Priest S, Malone JC, Oakes JM, Gabriel CL, Phillips EJ, Kalams SA, Mallal SA, Gianella S, Koethe JR, Su YR, Absi T, Wanjalla CN. **Mapping CMV-related immune signatures in blood, aorta, and perivascular mediastinal adipose tissue.** Philos Trans R Soc Lond B Biol Sci. 2025 Nov 6;380(1938):20240401. doi: 10.1098/rstb. 2024.0401. Epub 2025 Nov 6. PMID: 41194668

Upcoming Deadlines

- BWF-PDEP: October 15, 2025 – January 20, 2026
- IAS Abstract: Nov 2025 – Jan 2026
- **FOCIS AHA Scientific Sessions 2026 – Chicago, IL (Nov 6–9, 2026)** [Scientific Sessions+2professional.heart.org+2](https://www.ahajournals.org/ScientificSessions)
 - **Abstract submission opens: April 2026** (exact opening day and final deadline not yet posted; 2025 abstract deadline was **Aug 4, 2025**, for reference).
 - **Session idea/proposal deadline: Jan 6, 2026** (this is for program ideas, not abstracts).



Chemokines and Chemokine Receptors


Across

1. Chemokine receptor involved in monocyte recruitment to atherosclerotic plaques
2. Ligand for CX3CR1 that exists in both soluble and membrane-bound forms on endothelium
4. Chemokine receptor expressed on cytotoxic and senescent-like T cells, linked to vascular inflammation
6. A chemokine that binds CCR2 and is associated with vascular inflammation and plaque instability
7. Receptor involved in neutrophil and monocyte migration during vascular injury

Down

1. The chemokine axis is studied in metabolic and vascular inflammation, including in HIV-associated CVD
3. Receptor involved in the retention of T cells in lymphoid tissues but altered under chronic inflammation
5. Chemokine is commonly associated with angiogenesis and endothelial activation in CVD
6. Chemokine receptor is enriched on effector memory T cells and implicated in plaque localization
7. A chemokine induced by interferon- γ that helps direct Th1 cell trafficking