

## Wanjalla Lab Newsletter

Issue 01 | July 2025

Theme: Finding Passion Through Discovery and Mentorship

### Reflection from Dr. Wanjalla

This month, we are reminded of why we do what we do - whether in the clinic or at the bench - as we see patients navigate chronic illness while training and mentoring our talented summer students. This experience has renewed my purpose: to ask meaningful questions, to stay curious, and to build a future generation of scientists.

### Summer Students Spotlight

We are proud to highlight our two amazing summer students:

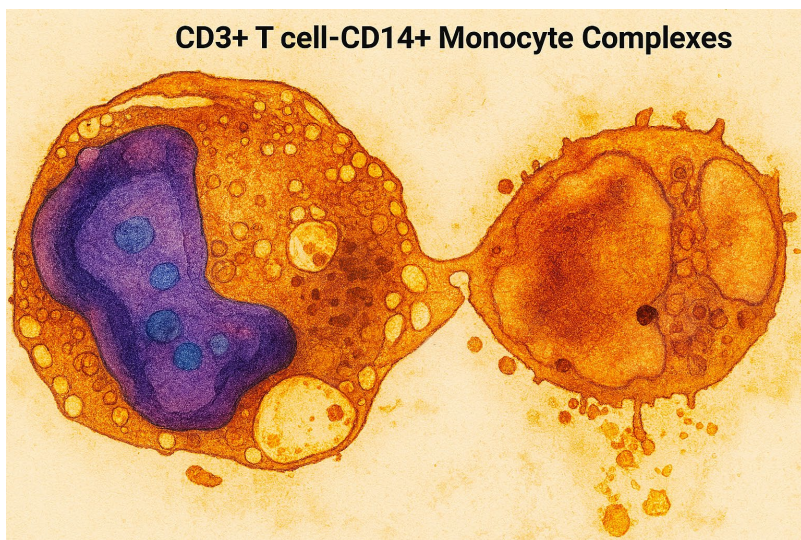
- Solomon Debrezion just completed his first year at Washington University in St. Louis as a Danforth Scholar. He graduated as the salutatorian from MLK Jr. Magnet High School and the SSMV program at Vanderbilt. He's majoring in Molecular Biology and Biochemistry.
- Risabh Kumar is a senior at Ravenwood High School in Williamson County, Tennessee, USA. He is assisting with single-cell analysis and image annotation. We're grateful for their hard work and energy this summer!



Featured Image: Celebrating Team Science

### Research Highlight: CD3+ T cell-CD14+ Monocyte Complexes

Our recent paper, led by Dr. Laventa Obare and team, characterizes a population of CD3+ T cell-CD14+ monocyte complexes that are increased in people living with HIV (PLWH) and those with glucose intolerance. These complexes form immune synapses, harbor more HIV, and are metabolically active. While cross-sectional, this study lays the groundwork for future longitudinal work using the CNICS cohort to understand complex-driven inflammation.



 About CNICS: The CFAR Network of Integrated Clinical Systems (CNICS) provides rich, longitudinal data and biospecimens from PLWH across multiple clinical sites. Learn more at <https://sites.uab.edu/cnics/>

### Postdoc Spotlight: Dr. Victoria Stephens

Dr. Victoria Stephens was recently awarded the Burroughs Wellcome Fund PDEP Fellowship for her work on TFAM in CD4+ T cell metabolism. She also received the AHA Minority Supplement and is passionate about maternal and fetal health. She will soon begin placental research in women with HIV, co-mentored by Dr. Jennifer Gaddy.

## Welcome, Dr. Ron McMillan!

We are excited to welcome Dr. Ronald McMillan to the lab! His research has spanned microbiome engineering, sodium-fructose metabolism, and hypertension. He will lead studies examining CX3CR1 in inflammation using our HIV models. Dr. McMillan recently completed his PhD at the University of Delaware.

## Kudos Corner

- Drs. Laventa Obare and Victoria Stephens: CROI and IAS travel awards
- Victoria: NIH Loan Repayment Program (LRP), AHA Minority Supplement, BWF-PDEP
- Solomon Debrezion: Completed first year at WashU as a Danforth Scholar
- Laventa: Invited talk at IAS 2025 in Rwanda

## Publications

1. Obare LM, Stephens VR, Wanjalla CN. Understanding residual risk of cardiovascular disease in people with HIV. *Curr Opin HIV AIDS*. 2025 Jul 1;20(4):319-330. doi: 10.1097/COH.0000000000000953. Epub 2025 May 16. PMID: 40397567.
2. Stephens VR, Ameli S, Major AS, Wanjalla CN. Mouse Models of HIV-Associated Atherosclerosis. *Int J Mol Sci*. 2025 Apr 5;26(7):3417. doi: 10.3390/ijms26073417. PMID: 40244289; PMCID: PMC11989901.
3. Obare LM, Simmons J, Oakes J, Zhang X, Nochowicz C, Priest S, Bailin SS, Warren CM, Mashayekhi M, Beasley HK, Shao J, Meenderink LM, Sheng Q, Stolze J, Gangula R, Absi T, Ru Su Y, Neikirk K, Chopra A, Gabriel CL, Temu T, Pakala S, Wilfong EM, Gianella S, Phillips EJ, Harrison DG, Hinton A, Kalams SA, Kirabo A, Mallal SA, Koethe JR, Wanjalla CN. CD3+ T-cell: CD14+ monocyte complexes are dynamic and increased with HIV and glucose intolerance. *J Immunol*. 2025 Mar 1;214(3):516-531. doi: 10.1093/jimmun/vkae054. PMID: 40073149; PMCID: PMC11952877.

## Upcoming Deadlines

- AHA Abstract Deadline: August 4, 2025
- BWF-PDEP: October 15, 2025 – January 20, 2026
- CROI Abstract + Scholarship: October 15, 2025
- AAI Abstract: Sept 3 – Oct 15, 2025
- IAS Abstract: Nov 2025 – Jan 2026

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