

## Wanjalla Lab Newsletter

### Issue 05 | Summer 2026

Theme: Curiosity + Teamwork - Building Something Greater Together

#### 💡 Reflection from Dr. Wanjalla

Science is often described as a journey driven by curiosity - but it is also built, step by step, through teamwork. Each discovery we make is not the result of a single approach, but the integration of many: from basic science to population studies, from mouse models to organoids, to human clinical and epidemiologic research. Each method offers a different lens, and together, they allow us to move closer to understanding mechanisms in a meaningful and comprehensive way.

In the same way, every member of our team plays an essential role in advancing our work. Progress depends not only on big ideas but also on consistent, thoughtful contributions that move projects forward. When we embrace this perspective, we begin to see how each effort - no matter how small it may seem - contributes to something much larger.

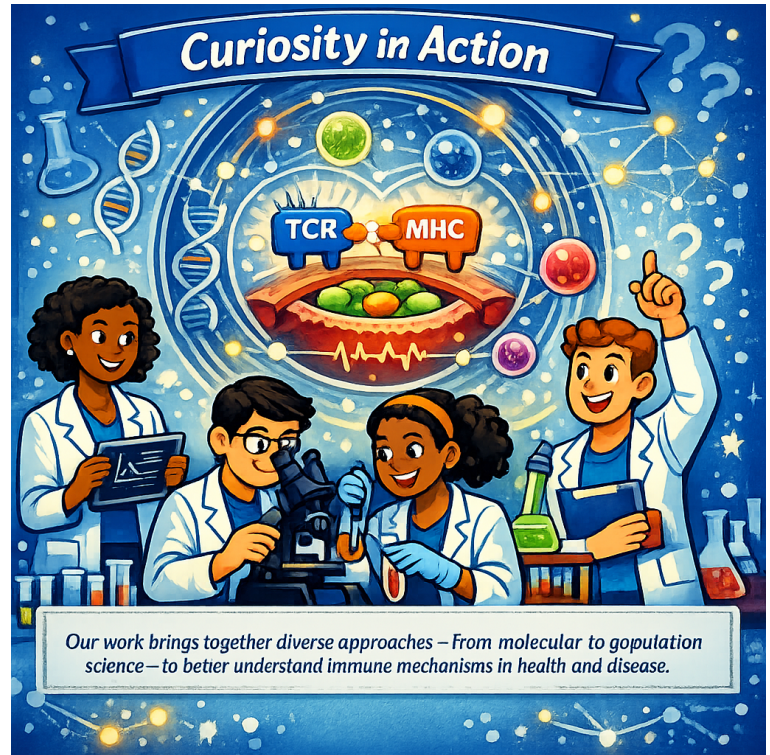
As a lab, we are continuing to grow in our ability to ask questions across disciplines, to collaborate across expertise, and to appreciate the interconnected nature of both science and teamwork. I am proud of how we are learning to value every step of the process and every role within it, and I am excited about what we are building together.

#### 🔬 Research Assistant Spotlight: Kisyua Nthenge

We are proud to highlight **Kisyua Nthenge**, who has been an integral part of our lab for the past two years and has recently been accepted to medical school - an incredible and well-deserved achievement.

Kisyua has contributed across many aspects of our research operations. His work includes coordinating laboratory orders, performing RNA and DNA extractions, conducting ELISAs - including developing and refining new protocols—and managing our mouse colonies. This latter role alone requires significant dedication, from monitoring and weighing mice twice weekly to preparing specialized diets and assisting with tissue processing from the operating room.

Over time, Kisyua has grown into a highly reliable and skilled team member whose contributions are critical to the success of our projects. Beyond his technical abilities, he brings commitment, consistency, and a willingness to learn that embody the values of our lab.



We are incredibly proud of all that he has accomplished and no doubt that he will continue to thrive and make meaningful contributions in medical school and beyond.

### **Research Highlight: Associations Between B-Cell Subsets and Subclinical Coronary Artery Disease in Ugandans With and Without HIV** <https://academic.oup.com/ofid/article/13/3/ofag107/8512205>

In this collaborative study with **Dr. Chris Longenecker (University of Washington)** and **Dr. Tecla Temu (Harvard University)**, we examined how different B-cell subsets are associated with early (subclinical) coronary artery disease in Ugandans with and without HIV.

#### Key findings include:

- Distinct B-cell populations were associated with markers of subclinical coronary artery disease.
- These relationships varied depending on HIV status, suggesting that HIV infection may alter immune pathways linked to cardiovascular risk.
- The study highlights the potential role of adaptive immune regulation, particularly B-cell biology, in shaping cardiovascular disease risk in global populations.

Together, these findings contribute to a growing understanding of how immune dysregulation in HIV may influence cardiometabolic health and underscore the importance of studying diverse populations in cardiovascular research. This manuscript was highlighted by the IDSA when it was published.

### **Postdoc Spotlight: Dr. Naome Mwesigwa**




We are excited to welcome Dr. Naome Mwesigwa to the Wanjalla Lab. Though she has only recently joined, she has already made remarkable contributions.

Dr. Mwesigwa is a medical doctor by training and previously spent two years working with Dr. Cindya Cibao in the Division of Clinical Pharmacology. She was awarded an American Heart Association (AHA) Postdoctoral Fellowship on her first submission, a testament to both the strength of her ideas and her scientific potential. She is currently funded on a competitive T32 program.

Since joining our team, she has taken a leadership role on complex projects, including advancing a major review currently in revision and co-first authoring a manuscript with Solomon Debrezion. She is also leading efforts within our R01 project to understand the role of CD3<sup>+</sup>CD14<sup>+</sup> immune cell complexes in cardiometabolic disease among people with and without HIV.

Dr. Mwesigwa brings intellectual depth, initiative, and a collaborative spirit to our lab. We are thrilled to have her on the team and look forward to her continued success.

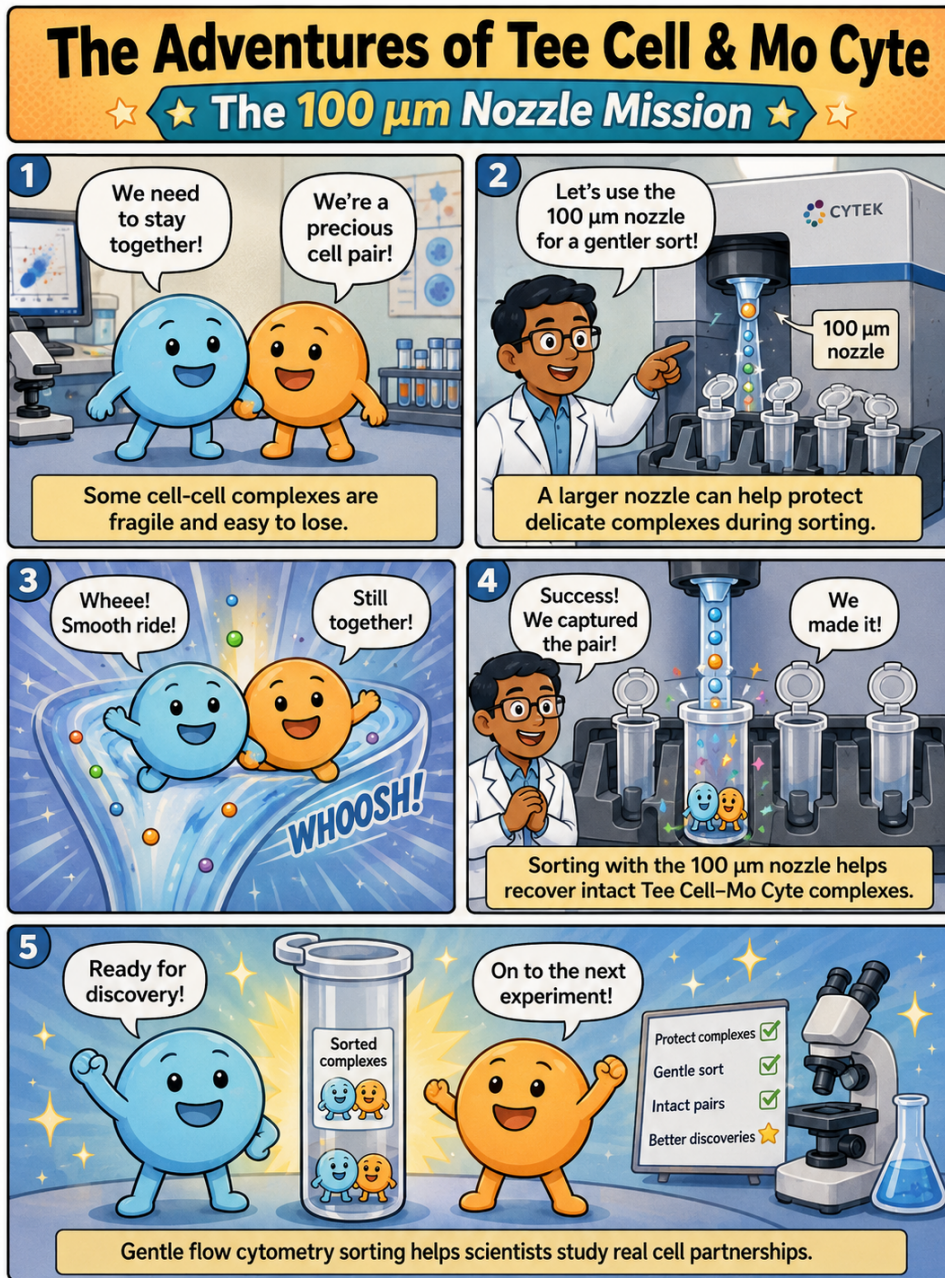
### **Kudos Corner**

-  **CROI Conference Highlights**  
The lab presented multiple posters at CROI. Posters by **Dr. Victoria Stephens** and **Dr. Laventa Obare** were selected for a poster walk and received **Gold Star recognition**.
-  **AAI Abstract Acceptances**  
Congratulations to **Dr. Laventa Obare, Dr. Victoria Stephens, and Dr. Ronald McMillan** on having abstracts accepted for AAI!
-  **Invited Talk: Dr. Victoria Stephens** delivered an invited virtual presentation to **Dr. Peter Hunt's research group** on **May 18, 2026**.

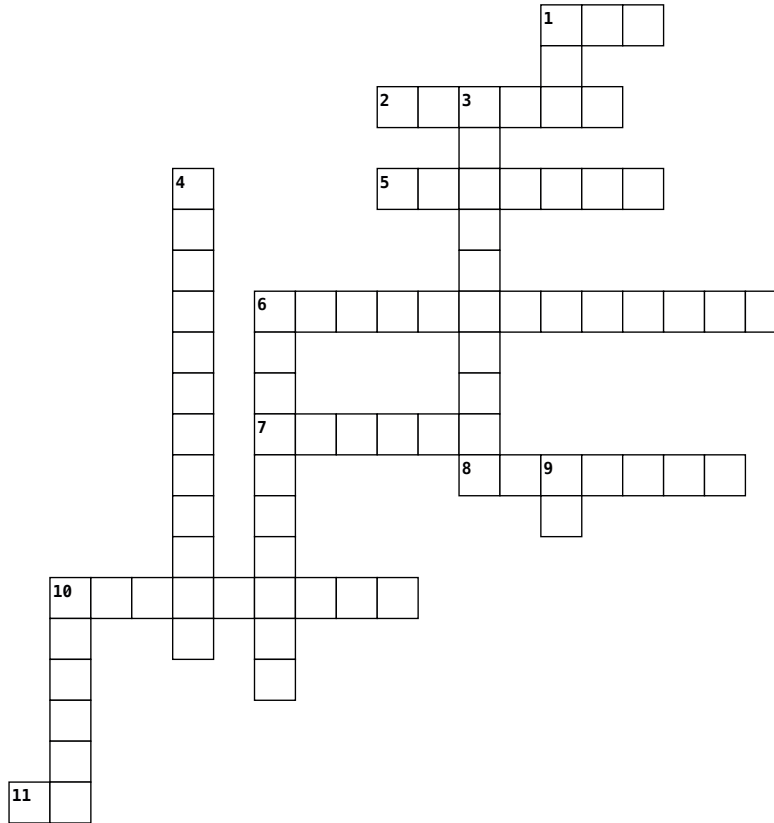
17 Upcoming Deadlines

- **Burroughs Wellcome Fund – Investigators in the Pathogenesis of Infectious Disease (IPID)**
  - Letter of Intent Deadline: **July 16, 2026**
- Additional program timeline:
  - Invitation to Full Proposal: **October 2, 2026**
  - Notice of Award: **May 31, 2027**
  - Award Start Date: **July 1, 2027**

Comic strip



# B cells in atherosclerosis



**Across**

**Down**

<https://crosswordlabs.com/view/b-cells-in-atherosclerosis>

1/2

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| <ul style="list-style-type: none"> <li><b>1.</b> Antibody class often associated with inflammation in plaques</li> <li><b>2.</b> cells Differentiated B cells that secrete large amounts of antibodies</li> <li><b>5.</b> Target recognized by B cell receptors and antibodies</li> <li><b>6.</b> Process of plaque development influenced by immune cells</li> <li><b>7.</b> complexes Interactions between immune cells studied in cardiometabolic disease</li> <li><b>8.</b> Distinct populations of B cells with opposing roles in disease</li> <li><b>10.</b> Immune signals released by B cells that shape inflammation</li> <li><b>11.</b> cells Innate-like B cell subset that produces natural IgM and is often protective</li> </ul> | <ul style="list-style-type: none"> <li><b>1.</b> Antibody linked to protection by targeting oxidation-specific epitopes</li> <li><b>3.</b> Molecules produced by B cells that bind antigens in atherosclerosis</li> <li><b>4.</b> Process by which B cells activate T cells and modulate immunity</li> <li><b>6.</b> Step required for B cells to produce antibodies and cytokines</li> <li><b>9.</b> cells Conventional B cells associated with pro-inflammatory responses</li> <li><b>10.</b> Chemokine receptor linked to immune cell trafficking and inflammation</li> </ul> |
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