TV CORE

November 2025 *Monthly Newsletter*

DR. ELIZABETH (LIZZY) HASTIE

Originally from Cincinnati, Ohio, Lizzy's path to infectious diseases has been anything but ordinary. She began undergrad in New York City before transferring to the University of Colorado Boulder, where she majored in Physics and worked as an autopsy assistant for the Boulder County Forensic Pathologist. She ultimately assisted in more than 100 autopsies! After graduating, she embarked on a 6-month camping trip across the U.S. and Canada with her now-husband, Ethan, spending most nights in national parks and monuments. Her most unforgettable adventure from that time: a 21-day rafting trip down the Grand Canyon.

Lizzy went on to attend medical school at Emory University, then came to UCSD for Internal Medicine residency, chief residency, and Infectious Diseases fellowship, which she officially completed this past June. She is especially proud to have learned High Resolution Anoscopy (HRA) in her final fellowship year which is an in-demand skill that not only expanded her clinical practice at the Owen Clinic but also opened new research opportunities in anal cancer screening.

Despite having never set foot in a research lab before joining us in July 2023 ("let alone used a pipet!" she says), Lizzy is deeply grateful for the support and mentorship she has received. Her work now focuses on genitourinary tract tissues and innate immunity, particularly natural killer cells and plasmacytoid dendritic cells. She is also passionate about improving research representation for transgender women living with HIV, who face disproportionate impacts but remain underrepresented in clinical and cure studies. Clinically, she spends eight weeks a year on the Hillcrest infectious disease consult service and is in the Owen Clinic twice weekly: Mondays for HIV primary care and Tuesdays performing HRA.

Outside of work, Lizzy loves spending time with Ethan and their dog, Taika (Pictured!). Together they enjoy run club, hiking, beach days, and exploring San Diego's vegan restaurants. A devoted Halloween enthusiast and horror-movie superfan, Lizzy will watch anything scary that hits theatres, though her all-time favorites include Hereditary, The Descent, and One Cut of the Dead. Recently, she's also gotten very into crocheting.

We're lucky to have Lizzy as part of both the lab and the Owen Clinic community, and we're excited to see where her clinical and research passions take her next! Everyone please congratulate her on her most recent grant as PI through the California HIV/AIDS Research Program!

PROJECT HIGHLIGHT

PMID: 41162327
Mattia Trunfio et al., 2025

The study **HIV Reservoir Dynamics and Bacteriome Composition Along the Gut Axis** examines how the gut bacteriome influences HIV persistence along different regions of the gastrointestinal tract. Using 113 rapid-autopsy tissue samples from 24 people with HIV on suppressive ART, the researchers quantified HIV reservoir size (HIV DNA), transcriptional activity (msTat/Rev RNA), and bacterial composition across the duodenum, jejunum, ileum, colon, and rectum.

HIV DNA was highest in the small intestine, especially the jejunum, and lowest in the colon and rectum. Transcriptional activity was relatively elevated in the duodenum and ileum, suggesting that HIV latency and activation differ by gut compartment. Microbiome analyses showed that the small intestine had lower richness and was dominated by Proteobacteria, while the large intestine had higher diversity with more Firmicutes and Bacteroidetes.

Microbial richness and specific bacterial taxa were strongly and regionally associated with HIV reservoir features. In the small bowel, higher richness correlated with higher HIV transcription; in the large bowel, it correlated with lower transcription. Functional groups such as short-chain fatty acid producers, mucin degraders, and bile acid–modifying bacteria also showed opposite associations depending on gut location (often linked to reduced HIV reservoir measures in the colon/rectum but increased activity in the small intestine.)

Overall, the study provides the first full gut-segment map of bacteriome–HIV reservoir interactions, showing that microbiome effects on HIV persistence vary sharply along the GI tract. These findings suggest future microbiome-based HIV cure strategies must be tailored to specific gut regions rather than treating the gastrointestinal tract as uniform.

QUOTE FROM "THE COST OF SILENCE: A CALL TO PROTECT THE FUTURE OF HIV RESEARCH AND CARE"

"At age 62 and now entering my 41st year living with HIV, I never thought I would have to fight like this again. It pains me to see what will happen AGAIN to people—the loss of life and increase in new infections along with resistant strains developing from lack of medicine adherence. It will affect all of us. How can anyone not see this? My eyes are no different than anyone else. I just have the lived experience of HIV, and I feel the pain of my brothers and sisters wherever they may be in this world as we share this dreadful disease.

I always thought that compassion is what made America great. That doesn't seem to be the focus anymore. I will pull myself up by my bootstraps and do what is necessary, just as I have done for most of my life."

— **Mark C. E. Wagner,** Long-Term Survivor, Community Scientist and Advocate

IMPORTANCE OF AIDS AWARENESS

World AIDS Day plays a crucial role in public health by raising awareness of HIV, honoring those who have been lost, and reaffirming support for people living with HIV today. It serves as an annual reminder that HIV/AIDS is still a global issue, one that disproportionately affects marginalized communities and requires ongoing education, prevention, research, and destigmatization. Government recognition helps amplify public-health messaging, encourages testing and access to treatment, and keeps attention on scientific advances such as PrEP, PEP, and U=U. When leaders acknowledge this day, it signals that the health and dignity of affected communities matter and that the country remains committed to ending the epidemic. When the US government, for the first time in 37 years, chooses not to recognize World AIDS Day, it weakens that momentum. The absence of acknowledgement can reduce public awareness, minimize media coverage, and unintentionally reinforce stigma by making HIV seem like a lower-priority issue. It can also send harmful messages to LGBTQIA+ individuals, communities of color, and others disproportionately impacted by HIV that their experiences are less valued. With recent budget cuts and grant cancellations sharply reducing funding for many prevention and surveillance programs, serious concerns about the future of HIV research and public health efforts have been raised. Overall, not recognizing this day risks erasing history, diminishing hard-won progress, and slowing public understanding at a time when education and awareness are still urgently needed.

In Sara's words, "Even as funding is cut, programs are threatened, and the communities most affected continue to be marginalized, we will not stop fighting. We honor the millions whose lives and legacies brought us to this moment — and we recommit to the work ahead with even more determination. Because our fight is not over. Because people's lives, dignity, and futures are not negotiable."

No matter the obstacles, we will continue pushing forward — united, resilient, and unwavering in our commitment to end the HIV epidemic and protect every community that has carried this fight.

The Last Gift documentary will screen at the Beach Break Film Festival on Saturday, Dec 28. Secure a ticket here:

SHOWING LINK

SFAR
SAN DIEGO | CENTER FOR AIDS RESEARCH

COMING UP THIS DECEMBER

World AIDS Day was first recognized in 1988 to raise awareness about HIV and honor lives affected by HIV. World AIDS Day serves as an important reminder to remain committed to preventing new HIV infections and providing essential services to all people living with HIV globally.

Hanukkah in 2025 begins at sundown on Sunday, December 14 and ends at sundown on Monday, December 22. The eight-day Jewish festival commemorates the rededication of the Second Temple in Jerusalem and is celebrated with the lighting of the menorah, eating traditional foods, and playing games.

Las Posadas is a Latin-American celebration from December 16th to 24th that reenacts Joseph and Mary's search for lodging on their journey to Bethlehem. The tradition involves people dressed up, singing a call-and-response song to ask for shelter at different homes. The group is welcomed inside with festive foods and drinks, ending the celebration with carols and breaking a star-shaped piñata.

Christmas celebrates the birth of Jesus Christ on December 25th, which Christians believe is a time of joy and hope because it signifies God coming to Earth to provide a path to salvation from sin. Beyond its religious significance, Christmas has evolved into a major cultural and commercial holiday celebrated with secular customs like exchanging gifts, decorating trees, and spending time with family.

Kwanzaa is an annual celebration of African American and Pan-African culture, unity, and heritage, observed from December 26 to January 1.
The holiday focuses on seven principles, with a principle highlighted and a candle lit each night. Celebrations include activities like songs, storytelling, and the daily candle lighting and discussion. Kwanzaa concludes with a feast on December 31. It is a cultural, not religious, holiday and is open to people of all faiths.

AND NEW YEARS EVE ON THE 31ST!

AS A REMINDER, THE LAB WILL BE CLOSED:
12/24/2025 - 1/4/2026

SHOUTOUT!

Upcoming birthdays:
Elizabeth (12/3)
Cheryl (12/17)

Elizabeth will soon be rejoining us in the lab!