

TV CORE

February 2026

Monthly Newsletter



CHERYL DULLANO

Born and raised in San Diego, Cheryl feels especially grateful to build her career in the same community that shaped her. She earned her Bachelor of Science in Public Health and later completed her MBA in Organizational Leadership at National University. Her path into research began in HIV prevention and ultimately led her to the Last Gift Study, where she now serves as a Clinical Research Coordinator.

In her role, Cheryl supports study participants and their families, helps coordinate rapid autopsy procedures, and ensures that every step of the research process is handled ethically and with care. Her work requires exceptional organization, flexibility, and, above all, heart. Although her role frequently takes her beyond the lab, she consistently feels supported and valued by our team.

In 2024–2025, Cheryl was honored as UC San Diego's Principal Exemplary Staff Employee of the Year: an achievement she views not as an individual accolade, but as a reflection of the collaborative spirit behind the study. For Cheryl, the greatest reward is honoring participants and their families with dignity and respect.

One of the most meaningful lessons she has learned in this role is how to navigate time-sensitive moments while remaining grounded and fully present for families. Balancing scientific rigor with compassion is not something found in a textbook; it is something cultivated over time, and Cheryl is proud of that growth.

Outside of the lab, Cheryl's greatest pride is her family. Her wife, Tara, and their children keep her grounded and centered on what matters most. She starts many mornings at the gym (coffee in hand), enjoys hosting friends and creating welcoming spaces, and finds joy in travel. One particularly meaningful trip was taking her children to the Philippines to share her family's roots and heritage. While there, she even went stand-up paddleboarding, proving that while she may not love being in the water, she certainly loves being on it. She is also part of a bowling league team, keeping her competitive side alive while having fun.

Cheryl joined the lab because she wanted to contribute to work that truly matters. Being part of a team that advances research while building genuine relationships with participants is something she does not take lightly, and we are all grateful for the compassion, leadership, and dedication she brings each day!

PROJECT HIGHLIGHT

PMID: 41634739

So Young Shin et al., 2026

"Epigenetic mechanisms of retroviral regulation: a comparative review" examines how epigenetic and epitranscriptomic mechanisms control retroviral latency, focusing on HIV-1 while drawing comparisons with simpler retroviruses such as Murine Leukemia Virus (MLV). Although antiretroviral therapy suppresses HIV replication, the virus persists in a latent state within reservoirs. The review outlines key mechanisms underlying HIV-1 latency, including DNA methylation at the proviral long terminal repeat (LTR), histone modifications that alter chromatin structure, and regulation by non-coding RNAs. Repressive histone marks such as H3K27me3 and H3K9me3, along with chromatin remodeling complexes (e.g., PRC2/EZH2, G9a, SETDB1), promote transcriptional silencing, while acetylation and activating methylation marks enable reactivation. The authors also highlight emerging evidence that non-CpG methylation may play a larger role in HIV regulation than previously recognized.

By comparing HIV-1 with gammaretroviruses like MLV, particularly those capable of endogenizing into host genomes, the review identifies conserved host defense pathways that silence retroviral DNA, including KRAB zinc finger proteins, TRIM28/KAP1 complexes, and heterochromatin formation in embryonic stem cells. The authors propose a three-layered framework of retroviral regulation: pre-integration silencing, post-integration chromatin-mediated latency, and T cell-mediated immune control. Studying these mechanisms across retroviral families may inform strategies for either reactivating latent HIV ("shock and kill") or achieving durable epigenetic silencing ("block and lock") as potential paths toward a functional cure.

SHOUTOUT!

Meet our new Undergraduate Lab Volunteer,
Kushal Upadhyay!



Hi everyone! My name is Kushal Upadhyay, and I'm a 2nd year undergraduate studying Microbiology & Global Health here at UCSD. In my free time, I love hanging out with friends, cooking, listening to music, traveling, and trying new restaurants and cafés around San Diego. I was born and raised in Louisiana, so I've traded the bayou for the beach. I look forward to continuing to meet and work with everyone!



COMING UP

March 8th - International Women's Day

March 17th - St. Patrick's Day

March is **Women's History Month**, a time to recognize and celebrate the achievements, resilience, and lasting impact of women throughout history. In science especially, women have driven groundbreaking discoveries, challenged barriers, and expanded what is possible in research and innovation. This month, we honor the women in our lab and beyond whose dedication and leadership continue to shape the future of science.

UC San Diego Health
Department of Medicine
4th Annual Research Day
April 29, 2026

**DISCOVERY TO DELIVERY:
REAL-WORLD IMPACT OF TRANSLATIONAL RESEARCH**

Upcoming birthdays:

Sarah LaMere: March 7th

Victor: March 27th

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

"We know silence = death, so as advocates, we are screaming loudly." The recent HHS budget cuts threaten critical support for people aging with disabilities, including HIV, stripping away services that sustain independence and quality of life. For those living with HIV, the loss of research funding doesn't just delay progress—it jeopardizes the hope of a cure and undermines decades of medical advancement, and that's unacceptable."

— **Linda H Scruggs**, Long-Term Survivor and Community Advocate

"These short-sighted actions are beyond cruel—they are barbaric and heartless, and their harmful ramifications could resonate for decades to come."

— **Loreen Willenberg**, Exceptional Elite Controller and Community Advocate

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