

TV CORE

January 2026

Monthly Newsletter



ARGENTINA (TINA) GARCIA

Born in Tijuana, B.C., Tina brings a rich and inspiring life journey to our lab community. After finishing high school, she pursued her passion for cosmetology, and following graduation, she began building what she considers her greatest accomplishment: her family. Tina is a proud mother of two boys, and family remains the most important and fulfilling part of her life.

Outside of work, Tina's world revolves around soccer. With both of her sons playing, her days and weekends are often filled with practices, tournaments, and travel. When there's a rare break from the soccer schedule, she enjoys cooking and baking new recipes for her family, as well as going out to explore new places and experiences together. Tina speaks highly of her experience working in a research lab and values being part of a supportive and collaborative team. Having encouraging coworkers has made her work both enjoyable and meaningful, allowing her to grow professionally while building confidence. Through her time in the lab, Tina has achieved important career milestones, overcome personal fears, and continued to challenge herself in new ways. She is deeply motivated by learning and believes that growth never truly stops, especially when given opportunities to participate, contribute, and expand her skill set.

Outside the lab, Tina enjoys a wide range of movies and television shows, with horror being her all-time favorite. She also has a strong sense of adventure and loves trying new activities, always embracing opportunities to experiment and step outside her comfort zone. This adventurous spirit extends into her role as a parent, where she encourages her children to explore their interests, face fears with confidence, and discover what they truly enjoy in life.

Tina, you are an incredibly important part of our lab and we thank you so much for all the work you put in! It is very difficult to balance our work with the full time job of being a parent, and you are such an inspiration to us all.

PROJECT HIGHLIGHT

Roberta S Dos Reis et al., 2025

The study **Microglial reactivity and nodule formation are associated with Synaptodendritic damage in the brains of people with HIV-1** utilizes Last Gift tissues to study why neurocognitive impairment (NCI) persists in people with HIV (PWH) despite effective antiretroviral therapy (ART) and suppressed systemic viral load. Analyzing postmortem frontal cortex tissue from PWH with and without cognitive impairment, the authors found that symptomatic individuals showed marked microgliosis and the presence of microglial nodules (dense clusters of activated microglia/macrophages) while these nodules were absent in asymptomatic and HIV-negative controls. Importantly, nodule burden and overall microglial activation correlated strongly with cognitive impairment but not with levels of HIV RNA in brain tissue or plasma, indicating that ongoing viral replication alone does not explain neurological decline in the ART era. Instead, increased microglial reactivity was associated with reduced expression of neurogranin, a marker of synaptodendritic integrity, suggesting synaptic and dendritic damage as a key pathological feature.

Further spatial and functional analyses showed that microglial nodules localized predominantly to gray matter and were closely associated with neuronal loss and dendritic depletion. Within these nodules, microglia frequently colocalized with neuronal material, indicating active phagocytosis of synaptic and dendritic elements. Complementary *in vitro* experiments using human iPSC-derived microglia demonstrated that HIV infection intrinsically enhances microglial phagocytic activity, independent of inflammatory signaling alone. Together, these findings support a model in which chronic microglial dysfunction, which is characterized by excessive or maladaptive phagocytosis, drives synaptodendritic injury and cognitive decline in PWH, even in the absence of high-level viral replication. The study highlights microglial activation and aberrant phagocytosis as promising therapeutic targets for HIV-associated neurocognitive impairment in the modern ART era.

"THE DAY I WAS TOLD I WASN'T DOING SCIENCE —AND WHY I'M GRATEFUL FOR IT"

"Given the current level of cruelty we all are being forced to live under, which is beyond any decent person's comprehension, I feel the need to speak up! After being diagnosed in 2011 with HIV, I was introduced to the most amazing group of people. I will continue to gather my strength from the lifesaving work of all the doctors, nurses, researchers, scientists, clinicians, and technicians who dedicate their knowledge and expertise to my community's existence. From Dr. Fauci on down, we are forever grateful and thankful to every one of them. We will continue together on our quest to find the cure for HIV. I'm reminded of the Golden Rule I learned at the age of 7. Do unto others as you would have them do unto you."

— Sharon Worth-Hatlee, women living with HIV and community advocate.

BLACK HISTORY MONTH

Black History Month is a time to honor and celebrate the achievements, resilience, and contributions of Black individuals throughout history while also recognizing the ongoing impact of structural racism on health, education, and opportunity. In public health and biomedical research, Black leaders, scientists, and activists have played a critical role in advancing health equity, advocating for marginalized communities, and shaping responses to HIV/AIDS and other global health challenges.

A few HIV/AIDS Activists, Scientists, & Leaders we would like to bring attention to:

Phill Wilson – Founder of the Black AIDS Institute, a leading organization dedicated to addressing HIV/AIDS in Black communities through policy advocacy, research, and education.

Dr. Helene Gayle – Physician and public health leader who played a major role in HIV/AIDS work at the CDC and later as president and CEO of CARE, focusing on global HIV prevention and health equity.

Dr. Quarraisha Abdool Karim – Epidemiologist and HIV researcher whose work has been foundational in HIV prevention, particularly among women in sub-Saharan Africa.

Marsha P. Johnson – LGBTQ+ activist and early HIV/AIDS advocate whose organizing emphasized care, visibility, and justice for marginalized communities during the height of the epidemic.

SHOUTOUT!

Upcoming birthdays:

Tina: 2/21

Nadia: 2/26



COMING UP

Black History Month, also known as African American History Month, begins on February 1st and lasts throughout the month.

Valentine's Day, celebrated annually on February 14th, is a cultural holiday for romance, love, and friendship. Initially established to honor Saint Valentine, traditions from ancient festivals and poetry to modern exchanges of cards, flowers, and candy, have become a global spectacle for expressing affection.

Presidents' Day falls on Monday, February 16. Officially known as Washington's Birthday, this federal holiday means federal offices, post offices, and our lab will be closed.

CROI 2026 (Conference on Retroviruses and Opportunistic Infections) will be held in Denver, Colorado from February 22-25, focusing on cutting-edge research in HIV, viral infections, and treatment strategies.

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

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

ATC BIOREPOSITORY

The new ATC Cellular Biorepository offers secure liquid nitrogen storage and technician-assisted access for valuable cellular and biospecimen resources, supporting high-quality, reproducible research through standardized handling and reliable specimen integrity.

Pictured: Rita posing with the new biorepository



LUNAR NEW YEAR

Lunar New Year (also called Chinese New Year or the Spring Festival) is a major cultural celebration that marks the beginning of the new year according to the lunar calendar. It's a time for honoring family, welcoming good fortune, and celebrating renewal with traditions such as festive meals, dragon and lion dances, red decorations, and community gatherings. Each year in the Chinese zodiac is associated with one of 12 animals that symbolize different qualities and themes for the year ahead. In 2026, the Lunar New Year, which begins on February 17, 2026, ushers in the Year of the Fire Horse, a rare and dynamic sign associated with independence, energy, and bold action.