



ABOUT Asima Chatterjee



(she/her): chemist who helped develop anti-malarial and anti-epileptic drugs.

Asima Chatterjee (1917-2006), born in what is now Kolkata, India, is celebrated for her significant contributions to organic chemistry and the practice of herbal-based medicine, known as phytomedicine (Asima Chatterjee, 2022). Encouraged by her father's passion for botany and her parents' support for her higher education, Asima's interest in the medicinal properties of plants blossomed into a groundbreaking career that paved the way for the development of treatments for malaria, epilepsy, and chemotherapy (Aranha, 2017). Her extensive and focused research on the chemistry of native Indian plants resulted in nearly 400 publications over her career (Asima Chatterjee, 2019). In 1944, at a time when women pursuing higher education was still unusual, Chatterjee became the first woman to be awarded a Doctor of Science degree by the University of Calcutta. Later, she achieved another historic milestone as the first woman General President of the Indian Science Congress (Woollaston, 2017).

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ABOUT GLADYS WEST



(she/her): mathematician
whose work was influential in
the development of GPS

Born in 1930, Gladys West grew up on a farm in Dinwiddie, Virginia, an area largely populated by sharecroppers (Matthias, 2021; Mohdin, 2020). West attended Virginia State College (now Virginia State University) on a full scholarship and earned bachelor's and master's degrees in mathematics.



She became the fourth Black person employed at the U.S. Naval Proving Ground, where her initial major project was the Naval Ordnance Research Calculator (NORC). This award-winning program was responsible for determining Pluto's movements in relation to Neptune (Matthias, 2021). Following her work on NORC, West was appointed project manager for the data-processing systems of Seasat, the first project to utilize surveillance satellites for examining oceanographic data. Her contributions to Seasat led to the development of GEOSAT, a program used for creating precise models of the Earth's surface by calculating satellite orbits. Thanks to West's pioneering work, it became possible to construct an accurate model of Earth's shape, which is the foundation for the GPS system's ability to calculate precise locations on our planet (Matthias, 2021).

“I felt proud of myself as a woman, knowing that I can do what I can do. But as a black woman, that's another level where you have to prove to a society that hasn't accepted you for what you are. What I did was keep trying to prove that I was as good as you are,” she said. “There is no difference in the work we can do” (Mohdin, 2020).

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ABOUT KATHERINE JOHNSON

(she/her): mathematician who calculated and analyzed flight paths for NASA spacecraft

Katherine Johnson (1918-2020) was raised in White Sulphur Springs, West Virginia (Katherine Johnson | Biography, Education, Accomplishments, & Facts, 2023). She graduated from West Virginia State College (now West Virginia State University) with degrees in mathematics and French. Additionally, she was one of the first three Black students to attend graduate school at West Virginia State College. Johnson's career led her to work for the National

Advisory Committee for Aeronautics (NACA), which was later integrated into NASA. During her time there, she was a vital member of the 'West Computers,' a group of Black women responsible for solving complex mathematical equations for engineers (Katherine Johnson | Biography, Education, Accomplishments, & Facts, 2023). Katherine Johnson is renowned for her contributions to calculating and analyzing the flight paths of spacecraft, including Freedom 7, which marked the first human in space, and Apollo 11, the mission that successfully landed the first three men on the moon. In recognition of her outstanding achievements, Johnson received the Presidential Medal of Freedom in 2015 and was further honored by NASA with a research building dedicated in her name (Katherine Johnson - Mathematician, NASA, & Hidden Figures, n.d.). Her remarkable story was featured in the book 'Hidden Figures: The American Dream and the Untold Story of the Black Women Who Helped Win the Space Race' by Margot Lee Shetterly, which was later adapted into the film 'Hidden Figures' (Katherine Johnson - Mathematician, NASA, & Hidden Figures, n.d.)

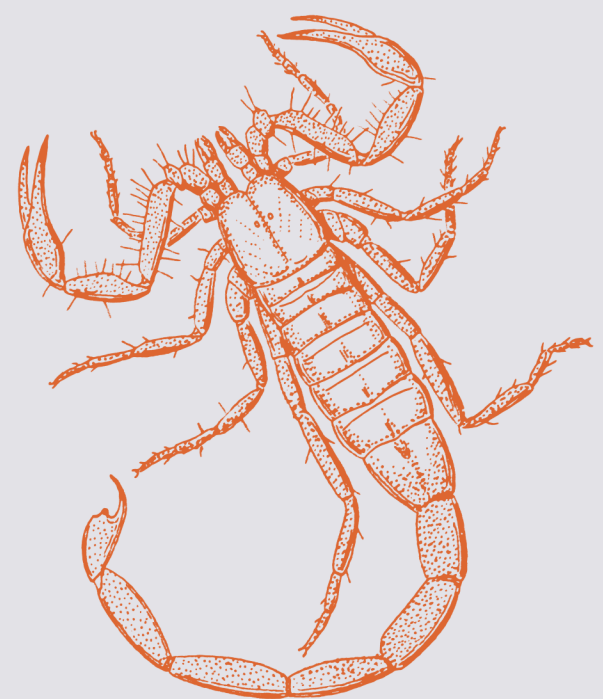
The project was funded by the Inclusive Excellence Grants, Office of DEI, EMU, and thanks to the generosity of Jose Koshy '76 and Jean Koshy-Hertzler '79

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$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



ABOUT LAUREN ESPOSITO



(she/her): queer arachnologist known as the world's only female expert on scorpions.

Lauren Esposito is renowned as the world's foremost female scorpion expert (Schultz, 2015). With a background in evolutionary biology, her research focuses on documenting global arachnid biodiversity and understanding the processes driving biological diversity in ecological systems (Lauren Esposito). As a queer scientist of color, Esposito is dedicated to fostering inclusivity in her field for individuals with marginalized identities.

She is the founder of 500 Queer Scientists, a project aimed at increasing queer visibility in the natural sciences, and the co-founder and director of Islands and Seas, a nonprofit that establishes networks of small field research stations in underserved areas, providing local science education (Beery, 2020). Esposito holds the position of Curator of Arachnology at the California Academy of Sciences in San Francisco (Lauren Esposito).

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ABOUT

Nergis Mavalvala

(she/her): openly gay Pakistani-American astrophysicist

Born in 1968 in Lahore, Pakistan, Nergis Mavalvala moved to the U.S. in 1986 to attend Wellesley College (Chu, 2020). She earned degrees in physics and astronomy, followed by a Ph.D. from MIT in 1997 (Nergis Mavalvala Ph.D. '97 » MIT Physics, n.d.).

Mavalvala's work has made significant contributions to the detection of gravitational waves and the field of quantum measurement science. Her involvement in the Laser Interferometer Gravitational-wave Observatory (LIGO) project was instrumental in the first detection of gravitational waves resulting from colliding black holes (Nergis Mavalvala, n.d.). Additionally, she played a key role in the development of laser-cooling techniques that enable the observation of quantum phenomena in macroscopic objects, as well as the creation of exotic quantum states of light.

In recognition of her groundbreaking contributions, Mavalvala received the MacArthur "genius" award in 2010. She was further honored as the LGBTQ+ scientist of the year in 2014 by the National Organization of Gay and Lesbian Scientists and Technical Professionals (Chu, 2020). In 2017, she was elected to the National Academy of Sciences, and in 2020, she assumed the role of dean of MIT's School of Science (Nergis Mavalvala Ph.D. '97 » MIT Physics, n.d.; Nergis Mavalvala, n.d.)."

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ABOUT

Pinar Sinopoulos-Lloyd



(they/them) eco-philosopher

"Pinar is an award-winning Indigenous multi-species futurist, mentor, consultant, and eco-philosopher.

They are the co-founder of Queer Nature, an organization stewarding an earth-based queer community through ancestral skills, interspecies relations, and rites of passage.

Enchanted by the liminal, Pinar identifies as a future transcestor of Quechua, Turkish, and Chinese lineages. A central prayer that guides them involves envisioning decolonially-informed queer ancestral-futurism, emphasizing multi-species accountability and the remediation of human supremacy in the Chthulucene. Their prismatic writing is nourished by this prayer and rooted in multi-gender, multi-cultural, and multi-racial parallel realities, as a neurodivergent individual. They are in a lifelong apprenticeship to the ecotone of riparian systems.

Their relationship with queerness, hybridity, neurodivergence, Indigeneity, and belonging informs their work in developing Queer Ecopsychology with a somatic and depth approach through a decolonial lens. As a survival skills mentor, one of their core missions is to uplift and amplify the brilliant “survival skills” that BIPOC, LGBTQ2SIA+, and other intersectionally targeted populations already possess within their resilient bodies and stories of survivance.

In 2020, they were honored as the recipient of the Audubon National Society's National Environmental Champion award, as well as the R.I.S.E. Indigenous 2020 Art & Poetry Fellowship. Pinar is the founder of @indigequeers, a founding Council Member of Intersectional Environmentalist, a trans ambassador of Native Womens Wilderness, and a founding member of the Diversify Outdoors coalition. They also serve as adjunct faculty at the WE Immersion at Weaving Earth and facilitate and design multi-day programs at Colorado College and the University of Colorado Boulder alongside their other half, co-visionary partner, and co-founder of Queer Nature, So Sinopoulos-Lloyd."



ABOUT

Rachel Levine



(she/her): openly transgender admiral who was appointed
US Assistant Secretary for Health on March 26, 2021

Rachel Levine was born in 1957 into a Jewish family in Wakefield, Massachusetts (Rachel Levine, n.d.). She holds degrees from Harvard University and Tulane University School of Medicine. After completing her medical education, she furthered her training in Pediatrics and Adolescent Medicine at Mt. Sinai Medical Center in New York City (Admiral Rachel L. Levine, MD, n.d.).

In 2015, Levine was nominated by Pennsylvania Governor Tom Wolf to serve as Pennsylvania's Physician General. In this role, Levine signed an order permitting law enforcement officers to carry naloxone, a medication capable of rapidly reversing the effects of an opioid overdose (Rachel Levine, n.d.; Naloxone DrugFacts, 2022). Subsequently, Levine was appointed Secretary of Health in 2017 and later nominated and confirmed by the Senate in March 2021 to serve as Assistant Secretary for Health, marking her as the first openly transgender individual to hold a Senate-confirmed position (Rachel Levine, n.d.; Admiral Rachel L. Levine, MD, n.d.). In October of the same year, she was sworn in as an Admiral of the U.S. Public Health Service Commissioned Corps, becoming not only the first openly transgender four-star admiral but also the first female four-star admiral (Diamond, 2021).

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