

# Dr. Susana López Charretón

## Mexico's Most Renowned Virologist

By: Blanca Torres

Dr. López-Charretón was born in 1957 in the city of Mexico. She obtained her bachelor's degree, master's degree, and Ph.D. from UNAM, graduating in 1980, 1983, and 1986, respectively. Dr. Susana López-Charretón is a professor at the Institute of Biotechnology, UNAM, in Cuernavaca, Mexico, and has dedicated over four decades to unraveling the complexities of rotavirus infection and its consequences. There she oversees a lab where she works with other talented students. During her early career, she developed a deep interest in virology, emphasizing the mechanisms of viral entry into the human body, viral replication, and the ensuing immune response. Her passion for investigating infectious diseases, coupled with her exceptional research skills, paved the way for her groundbreaking contributions to the field of rotavirus infection. Her outstanding achievements in the area were widely recognized, leading to prestigious accolades such as the Loreal UNESCO Award for Women in Science, Latin America in 2012.

Dr. Susana López-Charretón's primary research focus is rotavirus, a leading cause of severe gastroenteritis in infants and young children. This disease has contributed to high mortality rates in children worldwide. Dr. López-Charretón's extensive research has significantly advanced our understanding of viral entry, replication, transmission, and immune response mechanisms associated with rotavirus. Her groundbreaking work has not only led to the development of new diagnostic tests, the isolation of novel strains, and the creation of innovative vaccines but has also shed light on the devastating impact of rotavirus-related deaths in children worldwide. Dr. López-Charretón has received various awards and recognitions throughout her career.

Dr. López-Charretón's work is inspirational due to its impact. Her studies have led to the development of new diagnostic tests that facilitate early detection and improved patient care. Additionally, her work on isolating novel rotavirus strains has contributed to a deeper understanding of the virus's genetic diversity and evolution, aiding vaccine development efforts. Dr. Lopez-Charretón's work has also had a major impact on Global health. Rotavirus-related deaths in children have been a major concern for global health agencies. Dr. López-Charretón's research played a pivotal role in highlighting the severity of rotavirus infections, specifically identifying how they cause the deaths of approximately 600,000 children annually. Her findings have spurred global initiatives to improve access to vaccines and enhance nutritional support for children in underdeveloped regions, ensuring they receive a fair start in life. Throughout her career, Dr. López-Charretón has published over 130 papers in international journals. Her expertise and reputation in the field have been recognized by her involvement with the Journal

of Virology editorial board for nine years. This role allowed her to contribute to the dissemination of crucial research findings and the advancement of virology, focusing on rotaviruses.