

For Immediate Release

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LJI researcher receives Jeffrey Modell Foundation grant to study primary immunodeficiency

La Jolla, CA- Dr. Sonia Sharma, assistant professor in the Division of Cellular Biology and scientific director of La Jolla Institute's Functional Genomics Center, has been awarded a two-year research grant by the Jeffrey Modell Foundation (JMF) to identify specific immune defects in primary immunodeficiency disease. JMF's grant's purpose is to accelerate the understanding of the mechanisms underlying specific defects of the immune system and their impact on overall health outcomes.

"Unraveling the molecular basis of primary immunodeficiency disorders has provided valuable insight into the function of the immune system, which is crucial for developing effective therapies to treat these debilitating diseases," says Dr. Sharma.

XMEN immunodeficiency patients experience persistent infections with a broad spectrum of viruses and bacteria, and are highly susceptible to developing Epstein Barr Virus-induced lymphoma. The recently discovered disease is a rare genetic disorder, which is caused by a faulty magnesium transporter, but how the resulting magnesium deficiency impacts the immune system are not yet fully understood.

Dr. Sharma will use the funds to investigate the role of the resulting magnesium deficiency for the intracellular defense system against viruses, bacteria and cancerous cells. She is particularly interested in establishing a molecular link between XMEN-associated mutations and defects in innate immunity, which is an integral part of the body's defense against viruses. She will also explore whether magnesium supplements in combination with anti-viral therapies, which are clinically used to treat immunodeficiency diseases, may curb viral infection and enhance innate immune responses.

About La Jolla Institute

La Jolla Institute for Allergy and Immunology is dedicated to understanding the intricacies and power of the immune system so that we may apply that knowledge to promote human health and prevent a wide range of diseases. Since its founding in 1988 as an independent, nonprofit research organization, the Institute has made numerous advances leading towards its goal: life without disease®.

About Jeffrey Modell Foundation

Vicki and Fred Modell established the Jeffrey Modell Foundation in 1987, in memory of their son Jeffrey, who died at the age of fifteen from complications of Primary Immunodeficiency—a genetic condition that is chronic, serious, and often fatal.

JMF is a global nonprofit organization dedicated to early diagnosis, meaningful treatments and, ultimately, cures through research, physician education, public awareness, advocacy, patient support, and newborn screening. The purpose of Jeffrey Modell Centers Network (JMCN) is to study the mechanism and presentation of specific defects of the immune system, leading to a better understanding of the conditions and their impact on overall health outcomes.