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**FOR IMMEDIATE RELEASE**

**Cecilia Lindestam Arlehamn wins WHAM Edge Award funding to study sex-based differences in Alzheimer's and Parkinson's diseases**

*Some neurological diseases show up more in men versus women. Researchers need to know why.*

LA JOLLA, CA—La Jolla Institute for Immunology (LJI) Research Assistant Professor [Cecilia Lindestam Arlehamn, Ph.D.](#), has been granted more than \$25,000 through a Women's Health Access Matters ([WHAM](#)) Edge Award to support new research into Parkinson's and Alzheimer's disease. Lindestam Arlehamn aims to shed light on how sex-based immune system differences may affect the development and progression of these neurodegenerative diseases in men versus women.

"This research could really validate whether sex-based differences are a fundamental variable in these diseases," says Lindestam Arlehamn. "That finding could lead to better therapies and diagnostics."

WHAM is a non-profit organization working to increase awareness of and accelerate funding for women's health research. Together with the RAND Corporation and research partners, including LJI, WHAM shares crucial data on sex-based healthcare gaps with key funders and policymakers. WHAM Founder and CEO Carolee Lee is a member of the LJI Board of Directors.



*LJI Research Assistant Professor Cecilia Lindestam Arlehamn*

As a leader in immune system research, LJI has harnessed new technologies and brought together a diverse group of scientists to launch the Institute's initiative for [Sex-Based Differences in the Immune System](#).

"Our goal is to unravel how sex-based immune system differences influence our responses to infectious diseases, autoimmune diseases, heart disease, cancer and more," says LJI President and CEO Erica Ollmann Saphire, Ph.D. "This research is fueled by the growing body of evidence gathered

by WHAM and the research community showing that men and women experience disease in dramatically different ways."

Lindestam Arlehamn's work is important for understanding the basic mechanisms that cause Parkinson's and Alzheimer's disease. Her research may also provide critical clues to why certain neurological diseases and autoimmune diseases strike men and women at different rates.

"We know that Alzheimer's disease primarily affects females and Parkinson's primarily affects males," says Lindestam Arlehamn. "We want to see if this difference directly translates to certain immune responses."

Lindestam Arlehamn's new project will build on her previous Parkinson's research with LJI Professor [Alessandro Sette, Dr.Biol.Sci.](#) The researchers [previously found](#) specific immune responses in Parkinson's disease, specifically at the disease onset. "This research provided evidence that there is an autoimmune component to Parkinson's disease," says Lindestam Arlehamn.

Lindestam Arlehamn's laboratory is especially interested in how T cells, the "warriors" of the immune system, may drive Parkinson's and Alzheimer's disease. T cells are critical for fighting infections and cancers, but they can sometimes accidentally turn on the body, harming a person's healthy tissues and causing autoimmune diseases.

Lindestam Arlehamn's new project will focus on how T cell responses in patients with neurodegenerative diseases may differ between men and women. Her team will analyze immune responses in samples from Parkinson's and Alzheimer's patients, sent to her from collaborators across the United States. She plans to work closely with the [LJI Bioinformatics Core](#) to analyze male vs. female gene signatures. She'll also collaborate with the [LJI Flow Cytometry Core](#) for sample analysis and [Clinical Studies Core](#) for additional study volunteer recruitment and blood processing.

The project will be a team effort, and a personal one for Lindestam Arlehamn. "I have a personal connection to the research—my dad has Parkinson's," says Lindestam Arlehamn. "The WHAM Edge Award will bolster my understanding of this disease as I look for a solution."

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### **About La Jolla Institute**

La Jolla Institute for 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 toward its goal: life without disease. [Visit lji.org](http://lji.org) for more information.

### **About WHAM (Women's Health Access Matters)**

WHAM works to increase awareness of and funding for women's health research by accelerating scientific discovery in women's health in four primary disease verticals – autoimmune disease, brain health, heart health and cancer. WHAM commissioned the RAND Corporation to conduct a data driven study, The WHAM Report, which quantifies the economic opportunity for investing in women's health, looking across diseases that impact women differently and differentially. Learn more at [www.thewhamreport.org](http://www.thewhamreport.org) and [www.whamnow.org](http://www.whamnow.org).