

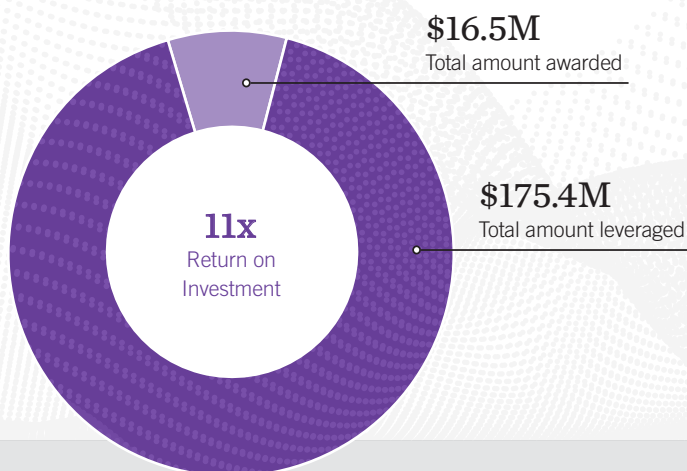
# Innovation & Collaboration Grants

Salk's Innovation and Collaboration Grants are a unique, philanthropically funded grant program launched through the vision and generosity of Joan and Irwin Jacobs. These internal awards empower our faculty to pursue high-risk, high-reward ideas that don't quite fit the mold of traditional federal grants.

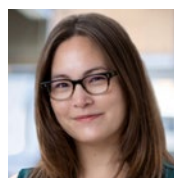
What the Jacobses understood is that all breakthroughs start somewhere. Now also supported by donors Sarah and Jay Flatley, Richard Heyman and Anne Daigle, and the NOMIS Foundation, these early-stage grants have the potential to birth new fields of science and inspire life-changing advances.

Since 2006, more than \$16 million in seed funding has enabled Salk researchers to secure more than \$175 million in follow-up federal, foundation, and industry grants—a remarkable 11-fold return on investment.

Each year, a panel of experts reviews the applications and selects the most original ideas with the greatest potential impact. The following are a selection of Salk's recently awarded Innovation and Collaboration Grants.



## INNOVATION GRANTS



**Faculty:** Dannielle Engle, PhD

**Project:** The 2020 grant enabled Engle to investigate how the sugar molecule CA19-9 makes pancreatic cancer so aggressive. Her findings have revealed promising strategies for blocking the sugar's interactions to prevent the progression and spread of pancreatic cancer.

**Leveraging ratio:** 15-fold  
Total grants earned since: \$1.5M



**Faculty:** Sreekanth Chalasani, PhD

**Project:** The 2015 grant enabled Chalasani to pioneer a groundbreaking technology that uses ultrasound to remotely activate specific neurons in the brain. Sonogenetics is now a promising tool for the precise, noninvasive treatment of a broad spectrum of neurological conditions, including Parkinson's disease.

**Leveraging ratio:** 56-fold  
Total grants earned since: \$8.0M



**Faculty:** Tony Hunter, PhD

**Project:** With this 2011 grant, Hunter was able to develop the first robust tool to detect and study histidine phosphorylation, an understudied protein modification linked to cancer progression. The technology has since opened a new area of cancer research and continues to inform today's therapeutic strategies.

**Leveraging ratio:** 111-fold  
Total grants earned since: \$10.0M

## COLLABORATION GRANTS



**Faculty:** Axel Nimmerjahn, PhD; Christian Metallo, PhD; and Rusty Gage, PhD

**Project:** The 2023 collaborative grant is enabling this team to develop the first atlas of human microglia phenotypes in the brain. This critical resource will help scientists decode the role of each cellular subtype in inflammation, aging, and neurodegeneration.

**Leveraging ratio:** 13-fold  
Total grants earned since: \$4.2M



**Faculty:** Ronald Evans, PhD; Susan Kaech, PhD; and Ye Zheng, PhD

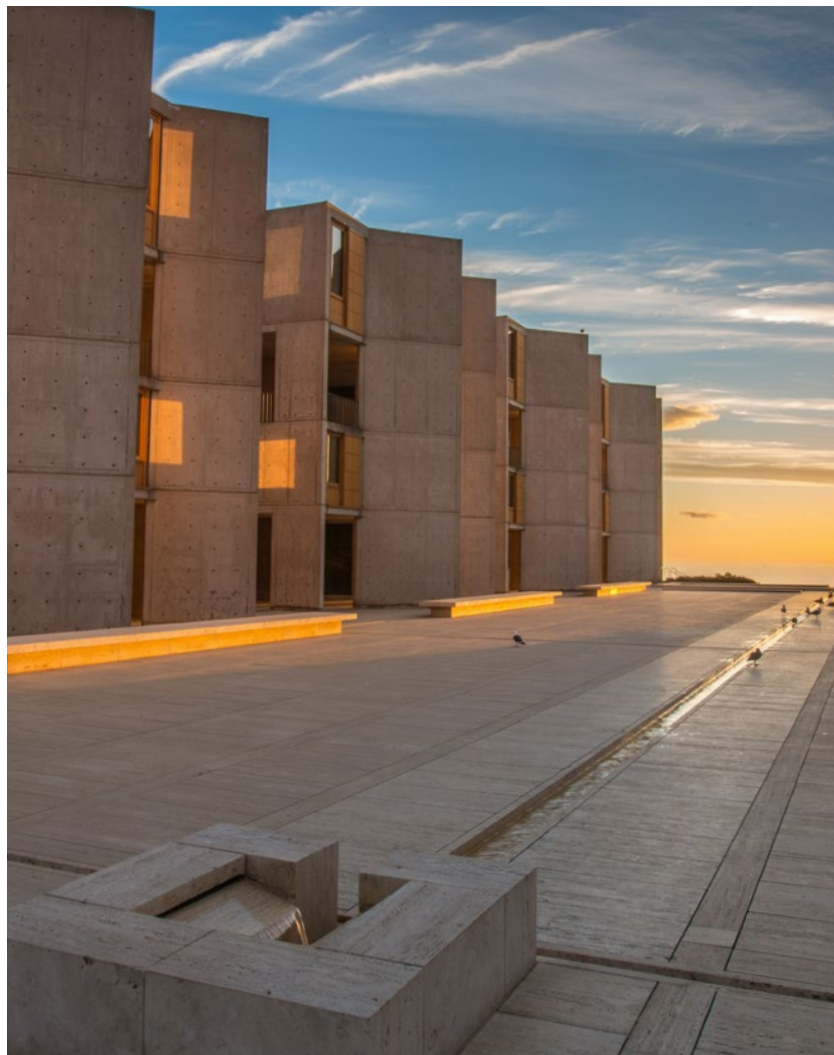
**Project:** The 2019 grant allowed this interdisciplinary team to explore whether a healthy diet and exercise reduces inflammation and makes tumor cells more sensitive to the immune system. Their findings are currently being used to improve the effectiveness of cancer immunotherapies.

**Leveraging ratio:** 12-fold  
Total grants earned since: \$3.3M



**Faculty:** Janelle Ayres, PhD; Joseph Noel, PhD; and Christian Metallo, PhD

**Project:** The 2022 grant allowed this interdisciplinary team to explore whether asymptomatic and symptomatic individuals emit different chemical signals that influence how others respond to infection. Their findings could help diagnose and treat the community spread of infectious diseases.



## FUNDING THE FUTURE

Contributions to Salk's Innovation and Collaboration Grants allow our scientists to pursue groundbreaking ideas. In a period of unstable federal funding, these privately funded awards provide the necessary stability, flexibility, and momentum to make the breakthroughs our society and health depend on.

To learn how you can support these and other initiatives at Salk, please visit [salk.edu/support-us](https://salk.edu/support-us) or contact **Dacia Samilo** at **(858) 453-4100 x2068** or [dsamilo@salk.edu](mailto:dsamilo@salk.edu).