



 **ARCS** ADVANCING
SCIENCE
IN AMERICA®
..... SAN DIEGO CHAPTER

ANNUAL REPORT
2018 - 2020

ACHIEVEMENT REWARDS for COLLEGE SCIENTISTS MISSION

ARCS Foundation advances science and technology in the United States by providing financial awards to academically outstanding U.S. citizens studying to complete degrees in science, engineering and medical research.

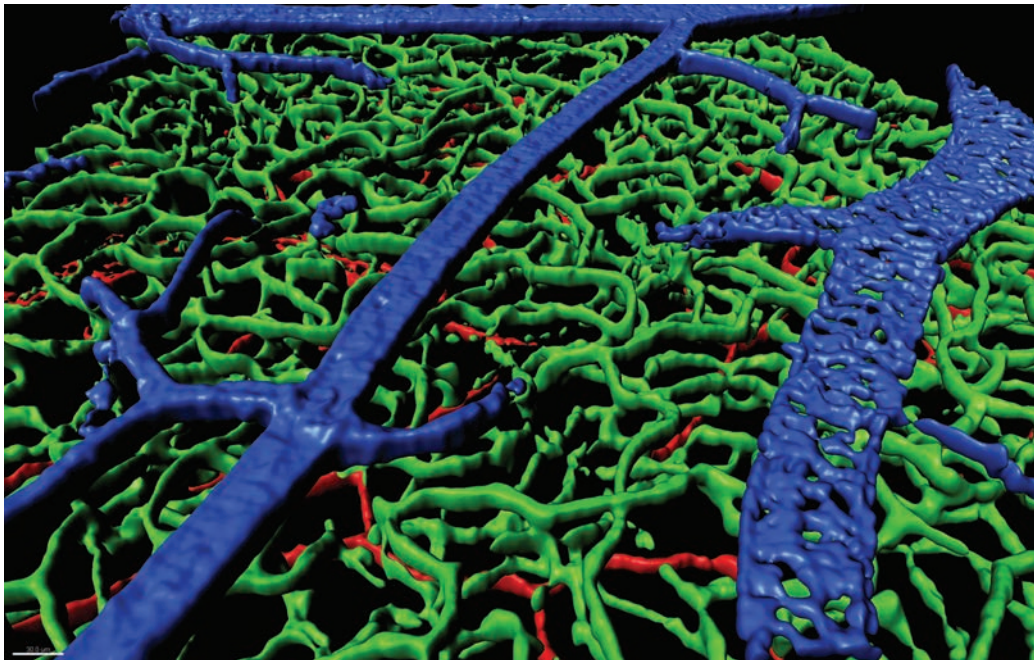


IMAGE: Mutant Retina
From the Lab of: Martin Friedlander, MD, PhD
Lowy Medical Research Institute



MESSAGE FROM THE PRESIDENTS

As we reflect on the ARCS San Diego Chapter's 2018-2019 and 2019-2020 Fiscal Years, we are filled with pride, gratitude and a sense of accomplishment. **This year, we are celebrating our 35th Anniversary. We are also celebrating the fact that we have exceeded \$10.5 million in funding for our Scholars since our inception in 1985.** As we look back, we feel privileged to play a role in helping the Scholars fulfill their great potential.

In 2018-2019, we awarded **\$415,000.00** to 58 Scholars; in 2019-2020, we awarded **\$405,000.00** to 57 Scholars. Our members, especially those who led and served on ARCS Committees, stepped up and we are proud of their dedication. We successfully met our membership goals, raised the funds to support ARCS Scholars, and had lots of fun and learning throughout the year.

Special thanks to our members for their generous support and commitment to our mission, and also to our sponsors, underwriters, foundations, and friends who have joined us in supporting the ARCS mission and our Scholars. Investing in the next generation of scientists, engineers and medical researchers is more important than ever. It is also fascinating to learn about the wide variety of important research our Scholars are conducting. We feel confident that every penny we spend will pay great dividends for future generations.

Our Scholars are innovative, accomplished and highly productive. Unlike other organizations we may support as individuals, ARCS gives us the

opportunity to interact directly with the recipients of our support – the Scholars.

Over the past two years we have recruited 18 very accomplished and dedicated chapter members with backgrounds in the health sciences, the arts, entrepreneurship, and administration. We value our colleagues, who devote their time, treasure, and talents to promote scientific development. We recognize how important it is to our country's economic growth, our global reach and leadership, and the health and safety of the world. In this unprecedented time of the coronavirus pandemic it is even more important to continue to support our Scholars who are changing the world!

We hope you find this two-year consolidated Annual Report helpful and informative. Thank you for your continued support.



HELGA MOORE,
President 2018-2019



HOLLY HEATON,
President 2019-2020

WHO WE ARE: THE HISTORY of ARCS

October 4, 1957 was a game-changer. On that date, Russia launched Sputnik, a 183-pound satellite, roughly the size of a beachball, into space. This surprise launch forced the US to rethink its place as the technological leader of the world and ushered in the Space Age and the Cold War. The Russian action touched all areas of America, including politics, patriotism, science, military and education. In response, the US undertook an unprecedented push to educate Americans in science and math. As part of that initiative, a group of women in Los Angeles saw the opportunity to make a difference by creating a partnership between science and society. Their goal was to re-establish and re-energize the technological superiority of the United States. They started the first ARCS chapter in September 1958. In 1985, four San Diego women followed their lead and established ARCS Foundation San Diego. We are committed to scientific advancement in STEM areas: science, technology, engineering and math. For 35 years, we have been operating as a not-for-profit organization administered entirely by women who volunteer their time and talent to support tomorrow's leaders.

FACTS AT A GLANCE

118 CURRENT MEMBERS

1985 CHAPTER STARTED WITH 4 FOUNDERS

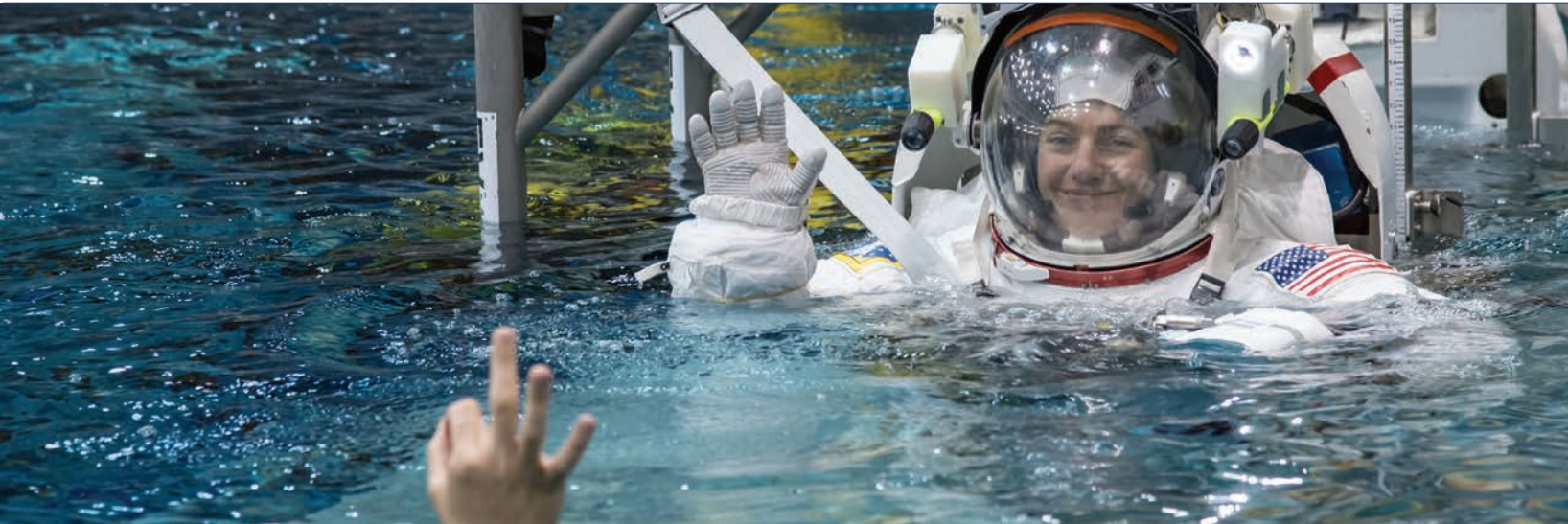
\$10,927,500 FUNDED SINCE 1985

58 SCHOLARS AWARDED **\$415,000** IN 2018-2019

57 SCHOLARS AWARDED **\$405,000** IN 2019-2020

98% GRADUATION RATE

OUR ALUMNI-CHANGING THE WORLD!



"Without gravity, things are a lot more entertaining," says Dr. Jessica Meir, the US astronaut who made history as a member of the first all-women team of space-walkers. Jessica received her PhD from UCSD Scripps Institute of Oceanography, one of our four academic partners. Jessica just returned from six months on the International Space Station and will be considered for a NASA mission to the moon.

Thousands of ARCS Alumni go on to make outstanding contributions to advance science and keep America competitive.

"If you can't see it, you can't be it" a quote by Sally Ride about the importance of encouraging young girls to embrace the study of science and reach for the stars.



She became the first American woman in space in 1983, and flew twice on the orbiter Challenger. She was the president and CEO of Sally Ride Science, a company she co-founded in 2001 that creates engaging science programs and publications for students to help build STEM literacy. Sally was our Scientist of the Year in 1990.

ARCS CIRCLE of GRATITUDE



Joan Evangelou has been passionate about ARCS ever since becoming a Charter Member in 1985. She believes strongly in our mission and in the dedication and potential of the brilliant young scientists we support. She never dreamed, however, that this passion would touch her in a very personal and meaningful way. According to Ecclesiastes, "Bread cast on the water will find its way after many days."

Joan was diagnosed with ovarian cancer in 2015, and underwent surgery and chemotherapy, under the care of fine physicians at UCSD Moores Cancer Center. With the prospect of more chemo she explored other options. Joan was referred to a medical oncologist at Moores who specializes in precision medicine, a relatively new specialty, which creates personalized combinations of targeted therapies directly made for each patient's unique cancer situation. This is where the story comes full circle! When the doctor entered the room for the first meeting, Joan thought she looked somewhat familiar. The new physician said, "Are you by any chance a member of ARCS?" She was surprised to be recognized by the specialist. As it turned out her name was Dr. Mina Nikanjam and she had been an ARCS Scholar at UCSD from 2009-2011, during the time Joan was serving as co-president of the San Diego chapter. She shared how grateful she was for our ARCS Scholar award that enabled her to pursue her medical and research education and launch her career.



Dr. Nikanjam was an Assistant Professor of Oncology at UCSD. In August 2020 she joined Genentech as a medical director. She will be part of a team designing and running cutting-edge cancer clinical trials. This experience is giving Joan hope and new options. The bread our membership has cast on the waters for over three decades is giving new hope to one of its own. This gives new meaning to the "Circle of Life."

OUR SCHOLARS ... TOMORROW'S LEADERS



ARCS SCHOLARS REPRESENTING UC SAN DIEGO, SAN DIEGO STATE UNIVERSITY, SCRIPPS RESEARCH AND THE UNIVERSITY OF SAN DIEGO (OCTOBER 4, 2018)

We are so proud of our Scholars. We continue to be amazed by their hard work and dedication. We partner with UC San Diego, San Diego State University, Scripps Research and the University of San Diego in funding our Scholars. These partner universities, who choose our Scholars, are approved by the ARCS National Board on the basis of excellence in basic science, engineering, math and medical research.

Our Scholars are all PhD candidates and are conducting research and making new discoveries that will lead to advances in global health and wellness, understanding and treatment of disease, national security, ecological improvements, space exploration and many other STEM areas. ARCS alumni have developed new therapies, secured patents in technology fields, started innovative companies, explored space and become leaders in academia and science.

We are proud to volunteer our time to promote scientific advancement in our country and provide unrestricted funds to tomorrow's leaders. 100% of our contributions go directly to our Scholars, not to administration or infrastructure. ARCS is one of the largest contributors to basic science education of any private membership organization in the United States.

SCHOLAR SELECTION

Scholars must be US citizens and meet ARCS-established academic criteria with a minimum 3.5 GPA, while pursuing undergraduate and graduate degrees in a wide range of scientific subjects. These Scholars are specializing in astronomy, biochemistry, botany, cell and molecular biology, chemistry, computer science, ecology, engineering, genetics, marine biology, mathematics, medical research, oceanography, physics and more.



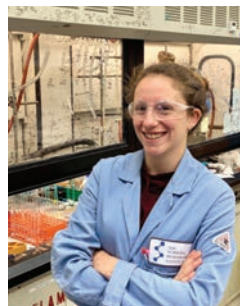
JOI LAGRACE WEEKS

SDSU/UC SAN DIEGO

College of Sciences

Concentration: Cell and Molecular Biology

Specialization: Cancer Biology



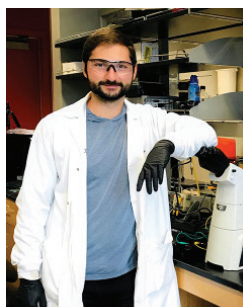
LISA MARIE BARTON

SCRIPPS RESEARCH

Skaggs Graduate School of Chemical and Biological Sciences

Concentration: Chemistry

Specialization: Organic Chemistry



EMIL MARIO KARSHALEV

UCSD

Jacobs School of Engineering

Concentration: Materials Science and Engineering

Specialization: Micro/Nano-Robotics



BROOKE HALEY RAKES

USD

Hahn School of Nursing and Health Science

Concentration: Nursing

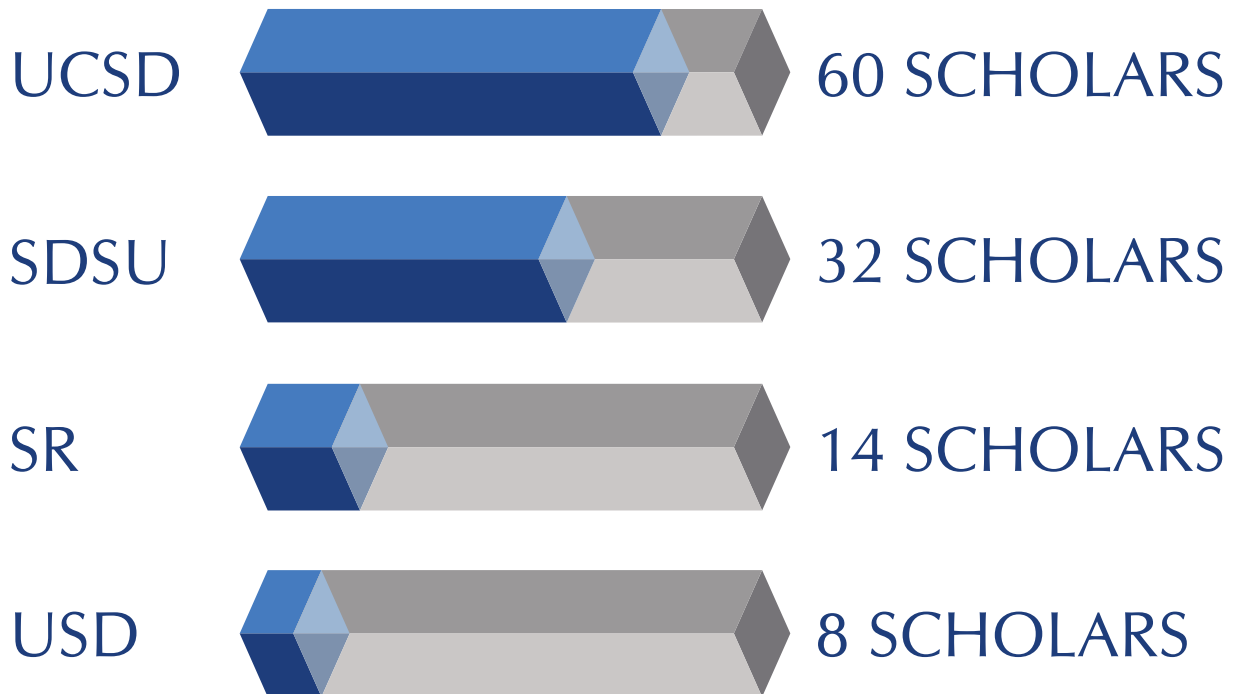
Specialization: Neonatal Nursing



ALLOCATION of ARCS SCHOLAR AWARDS

The amount of funding available for ARCS Scholar Awards is calculated each year by using a distribution formula based on the percentage of eligible Scholars enrolled at each ARCS-approved recipient university.

The **2018-2020 academic year awards** were allocated as follows:



ACHIEVEMENT REWARDS FOR COLLEGE SCIENTISTS

SAN DIEGO CHAPTER CUMULATIVE 1985-2020

TOTAL AWARDS GRANTED 1,488

TOTAL FUNDING \$10,927,000



759
AWARDS

UC San Diego



461
AWARDS


SAN DIEGO STATE
UNIVERSITY



186
AWARDS

 **Scripps
Research**



82
AWARDS


University
of San Diego

BENEFITS of ARCS MEMBERSHIP

ARCS members have the opportunity to actively engage with Scholars and academic partners at presentations, lab and site-visits, and social events. Members also enjoy learning about cutting-edge technologies and establishing relationships with Scholars.

SCRIPPS RESEARCH | Presentation by Dr. Danielle Grotjahn, Scripps Research fellow and former ARCS Scholar, on her research, followed by visits to three Scripps Research labs.



SCRIPPS RESEARCH

ILLUMINA | ARCS members were able to tour the Illumina facility with three scientists and former ARCS Scholars: from left to right: Ludovic Vincent, Russell Chan and Lukasz Szpankowski.



ILLUMINA

MAKE-A-WISH FOUNDATION | ARCS members met a “wish child,” who shared her story; namely, her diagnosis, her treatment, and her “wish.” Research has shown that when patients have something positive to look forward to they do better and are discharged faster.



MAKE-A-WISH FOUNDATION

SAN DIEGO STATE UNIVERSITY | Presentation by Dr. Jeff Roberts, Dean of the College of Sciences and former ARCS Scholar, followed by visits to several SDSU labs, accompanied by former ARCS Scholars.



SAN DIEGO STATE

“THE PERFECT PREDATOR” | Presentation by Drs. Steffanie Strathdee (ARCS member) and Tom Patterson about their amazing story of her race to save her husband from a lethal, antibiotic-resistant superbug.



THE PERFECT PREDATOR



2018-2019 DONOR HONOR ROLL

JULY 1, 2018 – JUNE 30, 2019
GIFTS RECEIVED FOR AWARDS TO BE MADE IN THE ACADEMIC
YEAR 2019 – 2020


\$50,000 AND ABOVE

Reuben H. Fleet Foundation Fund 


\$30,000

Beyster Family Foundation Fund IV 
Hervey Family Non-endowment Fund 

\$10,000-\$15,000

Gilead Sciences, Inc.
The Donald C. and Elizabeth M. Dickenson
Foundation
The Ellen Browning Scripps Foundation
Lambert Foundation for Education
at Union Bank 
Legler Benbough Foundation
UC San Diego

\$7,500 - \$9,999

Carlos and Sharon Arbelaez
Kenneth and Marjorie Blanchard
Mr. & Mrs. Blaine Briggs
Dorothy Georgens
The Elwyn Heller Foundation of San Diego 
Northern Trust
Timken-Sturgis Foundation

\$5,000 - \$7,499

Lakeside Foundation/Laura Mateo
NuVasive, Inc.
Michael and Laurie Roeder
San Diego State University
Scripps Research
Drs. Larry & Mara Ybarrondo

\$2,500 - \$4,999

Paul Bechtner Foundation
Bowden Family Foundation
Farrell Family Foundation
General Atomics

Hologic
Peggy Hanley & Hamp Atkinson
Robin Luby
Helga S. Moore
Larry and Marti Showley

\$1,000 - \$2,499


Barbara Doren
Dowling & Yahnke
Toby Eisenberg
Doris and Peter Ellsworth
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Sally and Parker Finch
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Dr. Gail K. Naughton
Patricia Brander Stewart
Jean P. Thompson
Elizabeth (BJ) Williams
Britt Zeller


\$500-\$999

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Mary Beal Angel
Nancy Lee Bildsoe
Kristin Boyd
June Chocheles
Ruth Covell
Nancy Eastman
Joan Evangelou
Dr. Cindy Goodman
Marge and Paul Hebert

Kayda Johnson
Jean Claude Kyrillos
Deborah and Fred Mandabach
VADM and Mrs. William McCauley
Marti and Frank Panarisi
Edwina Riblet
Tanya Schierling
Richard and Bobbie Vandervoort
Gayle Wilson
Cindy Wollaeger

UP TO \$499

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Jim and Connie Adelman
Kathe Albrecht
Susie Antoniadis
ASMG
Ingrid Benirschke-Perkins
Sanford Bernstein
Bridgett Besinger
Robert Black
Liisa Bozinovic
Elizabeth Brayshay
Alice Brown
Joy Brown
William Browning
Barbara Bry
Mr and Mrs Jose Cetale
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Rachel Collins
Andrea Correnti
Diane Cox
David & Shirley Deemer
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Eileen Dose
Margaret Dudas
Karen Fontana
Joy Frye
Sandra Harris
Nancy Herrington
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Jennifer Lyle
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William McKenzie
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Anita Snyder
Barbara Lange Starkey
Karen & Don Tartre
Sally Thomas
Gwynn Thomas
Yolanda Walther-Meade
Robin Waples
Pattie Wellborn
Jane Wetzol
Trish Worley



= The San Diego Foundation



= Union Bank

The amounts above include donations to the ARCS Foundation Scholar Awards Fund, Endowment Fund and Memorial Funds as of June 30, 2019.

See an error or omission? Please send an email to: sandiego@arcsfoundation.org

2019-2020 DONOR HONOR ROLL

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2020 – 2021


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Kurt Benirschke Family Trust

Karen and Robert Bowden

Peggy Hanley & Hamp Atkinson

Lakeside Foundation/Laura Mateo

Michael and Laurie Roeder

San Diego State University

Drs. Larry & Mara Ybarrondo

University of San Diego

\$2,500 - \$4,999

Paul Bechtner Foundation

Hologic Charitable Trust

Robin Luby

Helga S. Moore

Larry and Marti Showley

\$1,000 - \$2,499

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Dowling & Yahnke

Doris and Peter Ellsworth

Becki and Ed Etes

Sally and Parker Finch

Sheila Fallon Friedlander

Holly Heaton

Peter Ho

Dr. and Mrs. E. Woodrow Hunt

Kayda Johnson

Sonya Johnson

Patricia Judd

Barbara and Dr. William McColl

Jane K. Smith

Patricia Brander Stewart

Jean Thompson

Dick and Bobbie Vandervoort

Elizabeth (BJ) Williams

Britt Zeller

\$500 - \$999

Kristin Boyd

June Chocheles

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Catherina and Michael Madani
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Marti and Frank Panarisi
Janet Roemer
Nancy Rudolph
Marla Shepard
Gwynn Thomas
Gayle Wilson

UP TO \$499

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Alice Brown
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Fiona Case
Perry Anne Colapinto
Rachel Collins
Andrea Correnti
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Tamia Strachan
Karen & Don Tartre
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Yolanda Walther-Meade
Pattie Wellborn
Cynthia Wollaeger

IN-KIND

San Diego Air & Space Museum



= The San Diego Foundation



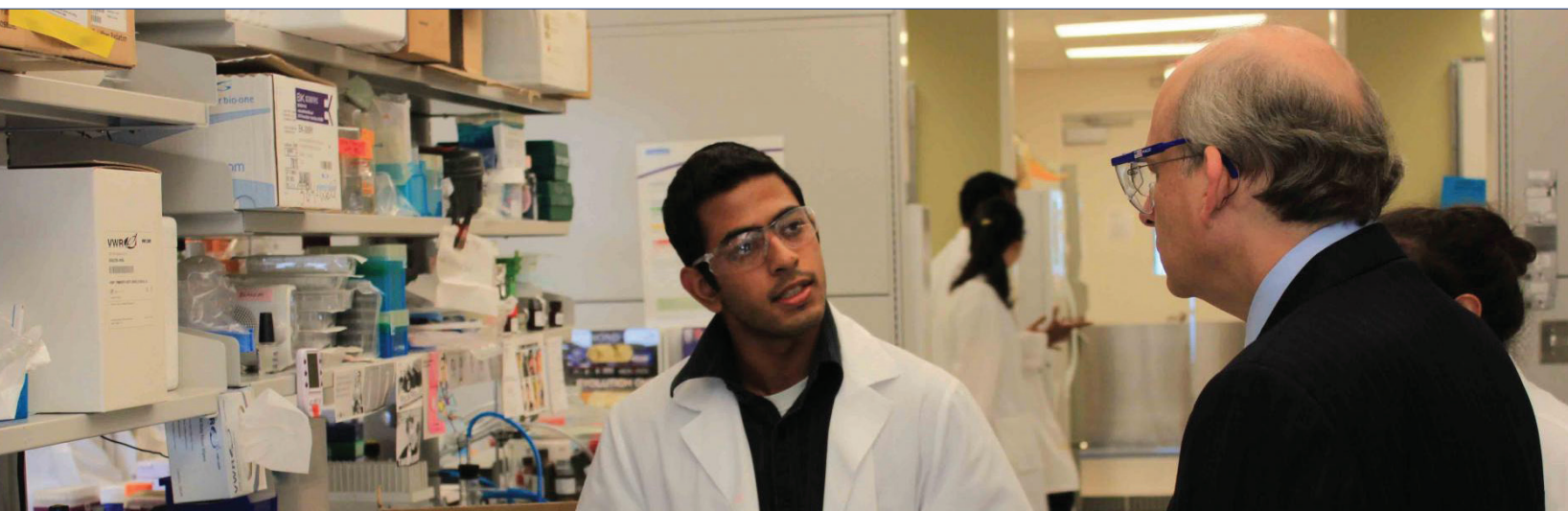
= Union Bank

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INVESTING IN AMERICA'S FUTURE



Join us to support ARCS Scholars and invest in the future of science, technology, research and innovation in America. The Scholar Award Fund is supported by ARCS members, foundations, academic institutions, businesses, and individuals in the community.

Give online at san-diego.arcsfoundation.org

Donations by check may be mailed to:

ARCS Foundation, Inc. – San Diego Chapter
Attn: Christine Diaz, 207 West D Street, Encinitas, CA 92024

All gifts are tax-deductible and greatly appreciated by our members, the Scholars and their academic institutions.

100% OF EVERY DONATION GOES TOWARDS SCHOLAR AWARDS

To make a donation of stock, create an endowment, include ARCS in your Estate plans, or request additional information, please contact:

Holly Heaton, President | hheaton02@gmail.com
Kathe Albrecht, VP Fund Development | kalbrec@gmail.com

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san-diego.arcsfoundation.org