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
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.
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
"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.
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.”
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

EMIL MARIO KARSHALEV  
UCSD  
Jacobs School of Engineering  
Concentration: Materials Science and Engineering  
Specialization: Micro/Nano-Robotics

LISA MARIE BARTON  
SCRIPPS RESEARCH  
Skaggs Graduate School of Chemical and Biological Sciences  
Concentration: Chemistry  
Specialization: Organic Chemistry

BROOKE HALEY RAKES  
USD  
Hahn School of Nursing and Health Science  
Concentration: Nursing  
Specialization: Neonatal Nursing
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:

- **UCSD**: 60 Scholars
- **SDSU**: 32 Scholars
- **SR**: 14 Scholars
- **USD**: 8 Scholars
ACHIEVEMENT REWARDS FOR COLLEGE SCIENTISTS
SAN DIEGO CHAPTER CUMULATIVE 1985-2020

TOTAL AWARDS GRANTED  1,488
TOTAL FUNDING    $10,927,000

$5,837,500
759 AWARDS

$3,384,500
461 AWARDS

$1,130,000
186 AWARDS

$575,000
82 AWARDS

UC San Diego
San Diego State University
Scripps Research
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.

**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.

**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.

**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.

**“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.
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
Beyster Family Foundation Fund IV
Hervey Family Non-endowment Fund

$30,000

$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

$10,000-$15,000
The Elwyn Heller Foundation of San Diego
Northern Trust
Timken-Sturgis Foundation

$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
Becki and Ed Etess
Sally and Parker Finch
Dr. David and Mary Fitz
Holly Heaton
Peter Ho
Dr. and Mrs. E. Woodrow Hunt
John L-Estrange
Catherina Maldani
Barbara and Dr. William McColl
Dr. Gail K. Naughton
Patricia Brander Stewart
Jean P. Thompson
Elizabeth (BJ) Williams
Britt Zeller

$500-$999
Barbara Arledge
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
Dianne Agarwal
Jim and Connie Adelman
Kathe Albrecht
Susie Antoniades
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
Perry Anne Colapinto
Rachel Collins
Andrea Correnti
Diane Cox
David & Shirley Deemer
Suzanne Dixon
Kimberly Doren
Eileen Dose
Margaret Dudas
Karen Fontana
Joy Frye
Sandra Harris
Nancy Herrington
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Barry Levine
Karen Ludwig
Jennifer Lyle
Lynne Martin
William McKenzie
Anne Middleton
Kimberly Miller
Ellen Moxham
Priscilla Moxley
Mary and Dan Mulvihill
Ann Orwig
Mary Lou and Harry Quick
Janet Roemer
Mary Sadler
Carolyn Sharp
Mrs. John F. Shaw
Marla Shepard
Harriett and Alan Schumacher
Jane K. Smith
Anita Snyder
Barbara Lange Starkey
Karen & Don Tartre
Sally Thomas
Gwynn Thomas
Yolanda Walther-Meade
Robin Waples
Pattie Wellborn
Jane Wetzel
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

## JULY 1, 2019 – JULY 10, 2020
GIFTS RECEIVED FOR AWARDS TO BE MADE IN THE ACADEMIC YEAR 2020 – 2021

### $50,000 AND ABOVE
- Reuben H. Fleet Foundation Fund
- Beyster Family Foundation Fund IV
- Gilead Sciences, Inc.
- Hervey Family Non-endowment Fund
- Scripps Research

### $30,000-$35,000
- The Donald C. and Elizabeth M. Dickenson Foundation
- The Ellen Browning Scripps Foundation
- Toby Eisenberg
- Lambert Foundation for Education at Union Bank
- Legler Benbough Foundation

### $10,000-$15,000
- Carlos and Sharon Arbelaez
- Ingrid Benirschke-Perkins
- Kenneth and Marjorie Blanchard
- Mr. & Mrs. Blaine Briggs
- Dorothy Georgens
- The Elwyn Heller Foundation of San Diego
- Timken-Sturgis Foundation

### $7,500 - $9,999
- 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 Ybarondo
- University of San Diego

### $5,000 - $7,499
- Paul Bechtner Foundation
- Hologic Charitable Trust
- Robin Luby
- Helga S. Moore
- Larry and Marti Showley

### $1,000 - $2,499
- Barbara Doren
- Dowling & Yahnke
- Doris and Peter Ellsworth
- Becki and Ed Etess
- 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
- Margaret Dudas
- Joan Evangelou
- Julia Falk
- Joy S. Frye
- Dr. Cindy Goodman
Marjorie Hebert
Linda Johnson
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Dr. and Mrs. Richard A. Lerner
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Gloria Powell McColl
Catherine and Michael Madani
Dan and Mary Mulvihill
Marti and Frank Panarisi
Janet Roemer
Nancy Rudolph
Marla Shepard
Gwynn Thomas
Gayle Wilson

UP TO $499
Jim and Connie Adelman
Kathe Hicks Albrecht
Susie Antoniades
Nancy Lee Bildsoe
Alice Brown
Barbara Bry
Fiona Case
Perry Anne Colapinto
Rachel Collins
Andrea Correnti
Darlene Davies
Suzanne Dixon
Kimberly Doren 🌸
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Nancy Herrington
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Ann Hill

Sandra Honnen
Janet Hubka
Lois Kenneally
Joy Kirsch
Candace Kohl
Teena Leroux
Karen Ludwig
Jennifer Lyle
Deborah and Fred Mandabach
Kimberly Miller 🌸
Ellen Moxham
Priscilla Moxley
Mary Lou and Harry Quick
Paulette Roberts
Ann Siemens
Carolyn Sharp
Mrs. John F. Shaw
Barbara Lange Starkey
Tamia Strachan
Karen & Don Tartre
Karin Vandervoort
Yolanda Walther-Meade
Pattie Wellborn
Cynthia Wollaeger

IN-KIND
San Diego Air & Space Museum

= The San Diego Foundation
= Union Bank

The amounts above indicate donations to the ARCS Foundation Scholar Awards Fund, Endowment Fund and Memorial Funds.

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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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