



PORTLAND CHAPTER

SCHOLAR AWARDS LUNCHEON DELIGHTS AUDIENCE



President Jean Josephson

A diverse group of 370 people gathered for the 8th annual Scholar Awards Luncheon on November 5th, but keynote speaker Dr. Kent Thornburg of OHSU held everyone's attention with his topic of "Nutrition Therapy: the Next Generation Medicine." Did you know that your maternal grandmother's health affected the egg that your mother produced to produce you? Did you know that a mother's nutrition matters to an early embryo even before it gets to the uterus? Did you know that your birth weight determines your risk of having heart disease? Those were just a few of the points that Dr. Thornburg made as he spoke about the declining quality of the American diet as a primary cause of worsening health in America. Maternal nutrition matters for 100 years across generations, but research now shows that a diet rich in fruits, vegetables, and whole grains can mitigate the effects of generations of nutrient deficiency. Thus, there is hope that we can reverse the present disease trends in Oregon.

The audience at the Portland Art Museum was a blend of ARCS members, scholars, sponsors, key representatives from OHSU and Oregon State University, as well as interested community leaders and potential ARCS members. ARCS Board President Jean Josephson kicked off the luncheon with an explanation of why ARCS is so important. "First, Oregon's research institutions need to attract top graduate students; and second, student scholars need the opportunity to focus on their studies in order to do their best work – relieved from the distraction of financial worries."

The scholar speaker was Colby Mangini, a Ph.D. candidate in the Department of Nuclear Engineering and Radiation Health Physics at Oregon State University. Mangini explained his work at OSU and spoke about his four years as a naval instructor at the naval nuclear power training command in South Carolina. Mangini is the recipient of the Sally and Cecil Drinkward Scholar Award, and Sally Drinkward also spoke at the luncheon about the pleasure, benefits and importance of funding an ARCS Scholar for the Portland Chapter. Since 2005, the Portland Chapter has supported 109 scholars pursuing their Ph.D.s.

The presenting sponsors of the luncheon were Hoffman Construction with Wayne and Julie Drinkward, OHSU, and Oregon State University and the OSU Foundation. Thanks go to all our luncheon sponsors; a combined \$56,500 supported the luncheon and ARCS mission. Because of their support, 100% of the luncheon's donations go directly to the scholar award fund.

Keynote speaker Kent Thornburg is director of the Heart Research Center at OHSU, as well as interim director of the Bob and Charlee Moore Institute for Nutrition and Wellness at OHSU. Bob Moore, of Bob's Red Mill, attended the luncheon and all guests enjoyed the Bob's Red Mill quinoa that was served with the luncheon entrées.

By the way, nine pounds is the optimum birth weight for babies who hope to avoid heart disease and other chronic diseases as adults.

Photos courtesy of Jennifer Smith

Aletha Anderson



ARCS Scholar Speaker Colby Mangini, son Marcus in the background

FROM THE PRESIDENT



Dear Members and Friends,

We have much to celebrate. Our second \$200,000 endowment. One hundred nine Portland scholars. The most profitable Scholar Awards Luncheon to date. University partnerships stronger than ever. Community groups seeking our participation. A growing list of new members and interested women. Strong representation on the National Board. Kudos to our founders, our board, and our loyal members!

As much as we savor our success, however, we are reminded daily of the shortage of emerging scientists in the U.S. The ARCS National Board is focusing increasing attention on our collective potential to impact the future of science education. One approach to demonstrating ARCS Foundation's effectiveness is to document ARCS scholars' outcomes.

What are our scholars doing once they complete ARCS funding? Our chapter is young and computerized, so we can track and keep in touch. (Imagine that task for the 50+ years chapters.) Also, much discussion revolves around membership growth and participation, which reflects an understanding of how women's lives have changed since 1958. The availability of volunteers' hours, skills and funds needed to run the Foundation presents real challenges.

The Portland Chapter flourishes, but our eyes are on the future. Our membership has grown to nearly reach our cap of 120, and the Governance and Membership Committees are designing new membership categories for our consideration. We all acknowledge that every member is an important part of our success: the planners, the workers, the donors, the writers, and the community leaders whose names lend credibility and access. We also know that member support comes in different forms and from different talents, and that not everyone is able or interested in devoting time to the tasks of an all-volunteer organization. Our ability to attract and keep younger members must be considered. Our need for willing leaders is real. And so, a cap of 120 might refer to "active" members, with other members in equally supportive but distinct roles. There are precedents in other chapters for these types of categories, and we'll work to find a design that fits ours.

As we re-vision ARCS for the 21st century, I wish all of us the creativity, the courage, and the leadership of our National and Portland Chapter founders. I welcome your thoughts.

Happy Holidays to each of you,



Jean A. Josephson

THE SILVER ENDOWMENT



Barbara and Phil Silver

A highlight of the Scholar Awards Luncheon was the announcement of the second Endowed Scholar Award for ARCS Foundation Portland Chapter. Barbara and Phil Silver have generously donated a \$200,000 gift that will establish a permanently endowed scholar award. The award recipient will rotate every three years between OHSU and Oregon State University.

"We believe ARCS is a thoughtful way to invest in the local community and country at the same time. The mission is a straightforward proposition underpinned by an enthusiastic and talented membership.

We see it as a 'good investment' and we are delighted to lend our support for our Oregon ARCS scientists at OHSU and OSU," the Silvers said.

ARCS Portland President Jean Josephson was pleased to announce the award. "Barbara and Phil Silver have been outstanding supporters of ARCS since the moment Barbara was invited to join our Chapter in 2009," she said. The first endowed scholar award was given by Larry and Caron Ogg and announced at the 2011 Scholar Awards Luncheon.

Thank you to Barbara and Phil Silver for their ongoing support of ARCS scholars.

Aletha Anderson

ARCS SUMMER SOCIAL



Anne Weaver and April Sanderson



John Becker and Dianne Rodway



Marcia Director and Leslie Workman



Hosts Janis and Bob Harrison



Carol Van Natta and Lori Slaughter

Janis and Bob Harrison welcomed ARCS members and spouses to the Summer Social in mid-July. The Harrison's garden terrace, with its spectacular view of the city, provided a wonderful setting for conversation, wine and delicious hors d'oeuvres from Elephants Delicatessen. The live acoustic guitar performance providing beautiful background music was an unexpected and special gift from our gracious hosts on the warm summer evening.

ON A SUNNY SEPTEMBER AFTERNOON



ARCS members, scholars, spouses, children and dogs gathered to share our annual Scholar Picnic in Gabriel Park. Second and third-year scholars from OHSU

and OSU had time to connect with members, and everyone had a chance to meet and greet the first-year scholars. The food was plentiful and the atmosphere was relaxed; it was the perfect setting to bring old and new friends together.



WHAT WILL THE WILLAMETTE VALLEY LOOK LIKE 100 YEARS FROM NOW?



Dr. John Bolte launched our program year in September, speaking to over 30 members and guests at the Hoffman Construction Corporation's office. Dr. Bolte is the head of the Biological and Ecological Engineering Department at Oregon State University, and a leader on the Willamette Water Project 2100 with representatives from the University of Oregon and Portland State University.

Dr. Bolte has designed computer models enabling him to simulate a variety of scenarios envisioning what the Willamette River and basin could look like 100 years from now. Rising temperatures, melting snowpack, and shifting rainfall quantities contribute to projections that provoked many questions and interesting discussion. The Willamette is of great interest to scientists in the field and Dr. Bolte's geographic information systems and spatial modeling programs have attracted much attention to the subject.

ARCS alum Shane Tillo, from OHSU Neurosciences Graduate Program, addressed the group and summarized his research on brain complexity. Patty Pedersen introduced Shane enthusiastically, sharing her pleasure in becoming the Montana native's friend as well as his sponsor. It was a wonderful way for members to learn about the relationships that can form through this special connection.



Barbara Wilkinson

Introducing our new members:



After growing up in California, **Sheila Goodwin** met her husband Mike at the University of San Francisco. Sheila and Mike raised three children in the Seattle and Pullman areas before moving to Washington D.C., where Mike worked for Georgetown University and Sheila continued her nursing and hospice affiliations. Sheila established her own company, providing professional geriatric care management and eldercare consulting services in the northern Virginia area. After

ten years on the East Coast, an invitation from OSU brought Sheila and Mike to Oregon. They love living in Corvallis where Mike is president and CEO of the OSU Foundation. Sheila is now retired from active nursing, but is very involved with Foundation events, and serves as chair of Benton Hospice Service Board. Kids and grandkids are scattered among Portland, Chicago and Boston, giving Mike and Sheila travel incentive to keep up with them. The Goodwins have a special interest in helping young scientists; two children and a son-in-law are physicians (the latter also has a Ph.D.), and another daughter has a master's degree in public health.

Jennifer Hooper McCarty, is the marketing and communications lead for the Industrial & Advanced Technology Group of CH2M HILL. Previously, she directed an innovation-focused event management company, has acted as a consultant to the Oregon bioscience industry, and managed technology transfer activities at Oregon Health & Science University. She is currently adjunct faculty in the Center for Entrepreneurship at University of Portland, and serves on the Board of the Raphael House of Portland. In addition, Jennifer is the coauthor of the 2008 book, *What Really Sank the Titanic: New Forensic Discoveries*. Her education includes a doctorate and master's degree in materials science and engineering from Johns Hopkins University and language study at La Sorbonne.



Missy Hall says she is most grateful to Jean Josephson for introducing her to ARCS Foundation Portland. "Jean's husband's parents and my parents were lifelong friends, and it is wonderful to have that long time connection. When I look back at my life, education in one form or another has been a common thread. My career and volunteer activities have all involved some kind of teaching; including Adult Basic Education, skills and support for women returning to higher education, nanny education, stepmother support counseling and education, and most recently, Alexander Technique teacher. I have served on the Janus Youth Programs board and am currently active on three selection committees for educational endowment awards. I have 3 sons, each with a wonderful wife, and 4 grandchildren as of today. I travel frequently in the winter and enjoy working in my garden and hiking in the summer. My particular interests are health, nutrition, and all the latest amazing brain research. I thank you for including me in your organization."



Pamela Gesme Miller returned to Portland State University as the assistant dean for development and external relations, Fariborz Maseeh College of Engineering and Computer Science. She was previously the assistant dean for The Henry Samueli School of Engineering at the University of California, Irvine. While in Irvine, Pamela served on the board of directors for the ARCS Foundation Orange County chapter. In 2004, during her earlier tenure at Portland State University's College of Engineering and Computer Science, Pamela identified the largest individual gift in

PSU's history—\$8 million—from Dr. Fariborz Maseeh. She received her bachelor's degree in business administration with honors from PSU, served as president of the PSU Alumni Association Board of Directors, and was twice selected as alumni commencement speaker. She has served on the board of directors of the Portland Opera Association for the past six years. Pamela is married to Fred B. Miller; in addition to being an attorney, Fred is a professional saxophone player and played in the infamous Stanford band—before they became so rowdy!



Sharon Elorriaga Nugent is a native Portlander who worked in real estate and is a community volunteer. With a life-long passion for learning, Sharon is currently a

member of Urban Tour Group, the Portland Art Museum, the Japanese Garden, the Multnomah Athletic Club, and the Waverley Country Club. She loves to read, play pitch and walk her three chocolate labs. Sharon and her husband Mike are the parents of two boys and two girls.

Frances Page writes: "I'm originally from Michigan where I graduated with a Bachelor of Science in sociology and anthropology from Michigan State University, but have lived in Oregon my adult life. I am a retired trust officer of US National Bank of Oregon. My interest in professional science stems from my daughter, Dr. Cynthia Gregory's, career as a PhD immunologist at the Portland VAMC and OHSU. My specific interest in ARCS Foundation originates from my son-in-law, Dr. Kenton Gregory, who received an ARCS Foundation award when he was a medical student at USC. He now practices medicine as a cardiologist and is the Director of the Center for Regenerative Medicine at OHSU. I know that he is very appreciative of having received ARCS Foundation support as a student."



Diane Polsner is the managing partner of the law firm of Gordon & Polsner, L.L.C. in Portland. She focuses her practice on commercial litigation, and has been included in both Oregon Super Lawyers and US News and World Report Best Lawyers in America. Diane is a frequent speaker and author, and is an active member of many professional law organizations. A graduate of the University of Oregon School of Law, Diane lives in Portland with her husband and two daughters. She is

very active in the community and currently serves on the Legacy Good Samaritan Hospital Foundation Board of Trustees, is the Chair of Friends of the Oregon Episcopal School Library (FOESL), a member of National Charity League (NCL), and a frequent volunteer for the Children's Cancer Association. Diane enjoys needlepoint, photography, and travel.

Dianne Rodway writes:

"Born in a small prairie town in Alberta, my family moved to Portland so my sister could attend Tucker Maxon Oral School. As an adult, I taught hearing impaired children to speak at this same specialized school. My teaching was prior to and during the early development of cochlear implant technology. In 1992, I left teaching for residential real estate, developing one of the first real estate internet websites and one of Portland's first real estate teams. I work with my husband, John Becker and our other team members. I also served on the board of directors of Habitat for Humanity/Portland. During the time I was president we successfully merged two affiliates, now known as Habitat for Humanity Portland/Metro East. We are now on track to build 30 homes a year. When not helping people achieve real estate goals, I enjoy dragon boat paddling, cooking and cookbooks, reading for several book clubs, activities around town, and relaxing at Black Butte Ranch."



Gretchen Sturm writes: Born in the Pacific Northwest, I have lived in the Portland area for over thirty years. I completed my studies at University of Portland with a focus on business and French, two areas that helped shape my life and career interests. I started my career in the telecommunications industry, moved to real estate and now work in banking and trust services at Washington Trust Bank. I enjoy many outdoor activities such as skiing and windsurfing, and also enjoy traveling to destinations where I can explore my adventurous side. I spend most of my free time with my husband Jeff and two young sons, Charlie (8) and George (4). I am delighted to be an ARCS member, as I believe science education is crucial in order to maintain a competitive and innovative society.



Please also welcome:

**Missy Bechen
Jane Gray
Hilary Gripekoven**

We look forward to featuring them in a future newsletter.

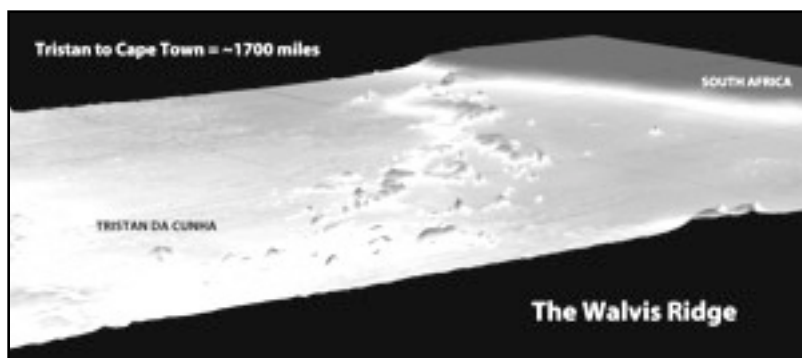


Anne Weaver is CEO and managing partner of Elephants Delicatessen, a locally owned specialty foods and catering company that has served as a pioneer in the Pacific Northwest's gourmet food industry since 1979. Anne runs Elephants with her husband, Executive Chef Scott Weaver. They have two children, and the family enjoys skiing, cooking together, golf and travel. Anne is passionate about equity and social justice, partnering her company with local organizations in support of these causes. Anne is a Portland native and lifelong member of Trinity Church. She also supports the local ALS chapter, having lost her brother and father to Lou Gehrig's disease. Anne's work in promoting translational research to find a cure for ALS and all neurodegenerative diseases sparked an enduring interest in the sciences. Caron Ogg introduced her to ARCS and she is excited to join this group of women promoting scientific research in America.

AT SEA WITH AN ARCS SCHOLAR*

*how to travel 130 million years in 7 weeks

"It's estimated that about 80% of volcanic activity occurs underwater, but the seafloor is hard to access so submarine volcanism is not well understood. My lab group at OSU works to understand the processes that control the distribution, size and shape of underwater volcanoes, known as seamounts. My current research looks at both the formation of individual seamount structures and the age progressions along seamount chains.



Seamounts located in the middle of tectonic plates do not have a clear source of magma. They are thought to form due to the buoyant rise of a hot plume of material from deep in the earth's mantle. As a tectonic plate moves over this hotspot, volcanoes grow and form a chain with a linear age progression that matches the speed and direction in which the plate is moving.

It now seems that this simple hotspot model cannot explain all seamount chains. In fact there are many seamount chains on the seafloor that have been barely studied at all. One of these chains is the Walvis Ridge, which stretches about 3000 km from the coast of Namibia out to Gough Island and the island of Tristan da Cunha. This chain is very sparsely-sampled and we recently conducted a seven week research cruise to the area to map and dredge rocks from many of the seamounts on the young end of the chain.

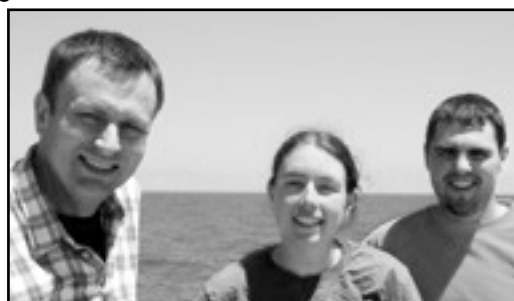
Back in the lab we use the radioactive decay of argon isotopes in mineral and rock grains to determine the age of each seamount. Once we have ages from each seamount we can decide if a linear age progression is present in the chain, and whether any of the seamounts do not fit the hotspot model. Some of the seamounts may actually have formed due to shallower magmatic processes, and we are hoping to identify these and study their formation in more detail. We will also be using geographic information system (GIS) methods to measure the height, perimeter, steepness and roughness of the seamounts from bathymetric maps. Relatively little is known about the Walvis Ridge so we are very excited about working with such a rich data set over the next few years."

*Susan Schnur, second-year ARCS scholar
College of Earth, Ocean and Atmospheric Sciences
Oregon State University*

Please visit our website to read more about our trip to the Walvis Ridge:

<http://earthref.org/ERESE/projects/MV1203/main.htm>

CEOAS professor Robert Duncan writes: "Susan also has a continuing interest in the interaction between magma and seawater during underwater volcanic activity. The ARCS scholar award provides support for her to pursue this second research direction without having to worry about additional funding."



*Advisor Anthony Koppers, Susan Schnur, and Daniel Heaton
Susan is the recipient of the Pacific Scholar Award
given by Elisabeth and Peter Lyon*



"SAVOR EDUCATION" with **Beaver Classic** cheese

ARCS members were lucky enough to enjoy a visit from Dr. Lisbeth Goddik of Oregon State University last year. Not only did the OSU scientist explain the art and science of making artisan cheeses, she brought delicious samples. This year, under Dr. Goddik's guidance, students at the OSU Department of Food Science and Technology have developed their own artisan cheese from the university's dairy herd. "SAVOR EDUCATION" is the tagline of **Beaver Classic** cheese, and the delicious addition to the roster of Oregon artisan cheeses will be sold at home games and online at: <http://oregonstate.edu/main/cheese>

MAKING A DIFFERENCE IN AN OHSU LAB

"I am currently studying *Leishmania donovani*, a human parasite that causes leishmaniasis, a deadly infection affecting 12 million people each year. The current therapeutic treatments have adverse side effects and are difficult to administer; there is no vaccine available. Part of my work at OHSU in Dr. Buddy Ullman's laboratory focuses on understanding how *Leishmania* deals with and adapts to the stresses it normally encounters in its lifecycle. These stresses include nutrient scarcity, and changes in pH or temperature. This project aims to identify proteins and metabolic pathways required for parasite survival, with the goal of using these proteins as targets for drug development.

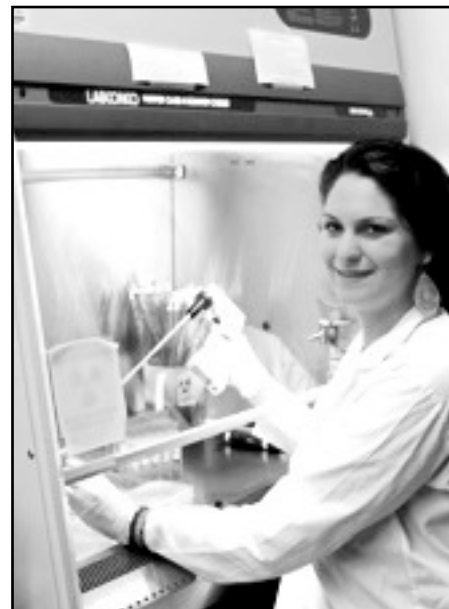
I'm particularly interested in how the parasite senses changes in its environment, specifically changes in nutrient availability. The parasite obtains its nutrients from its human or insect host, so interfering with the parasite's nutrient sensing and nutrient acquisition may be a useful strategy to treat leishmaniasis. *Leishmania* are single-celled organisms that import nutrients across their cell membrane by using specialized proteins called transporters. When the amounts of a specific nutrient are low, the number of transporters increased to help the parasite take in as much of the nutrient as possible. One problem I have been addressing is how the parasite knows how much nutrient is available; does it detect changes outside of the cell or inside the cell? So far, my research has shown the majority of nutrient availability sensing occurs inside the cell. By delineating the nutrient sensing mechanisms, my research may contribute to the development of new treatment against leishmaniasis."

Jessica adds: "I just returned from an exciting week-long intensive parasitology course in Sao Paulo, Brazil. It was ten hours of class each day and gave me formal parasitology training. The course covered some major parasites, including *Leishmania*, and it provided a strong foundation in the biology of related parasites. Fifty international students were accepted for the course, and parasitology experts from the United States, Brazil, and Scotland gave the lectures."

*Jessica Martin, third-year ARCS scholar
Molecular and Cellular Biosciences
OHSU*

Here is a link to a website with more information about the course:

<http://www.icb.usp.br/mblcourses/parasitology.html>



*Jessica Martin is the recipient of the
Anderson/Josephson/Voboril Scholar Award*

CARE Foundation Grants Award in Memory of Harold Schnitzer

An ARCS scholar award to benefit a graduate student in the School of Medicine at OHSU has been donated by Arlene Schnitzer and Jordan Schnitzer to honor the memory and exceptional generosity to OHSU by their husband and father, Harold Schnitzer. The trustees of the Harold and Arlene Schnitzer CARE Foundation "are thrilled to be part of [ARCS] funding stream that provides valuable financial assistance to young researchers and scholars," notes V.P./Executive Director Barbara Hall. The award begins in 2013.

Thanks go to ARCS member Shelley Voboril and her husband, Joe, for their assistance in introducing the Harold Schnitzer family to ARCS' mission. The Schnitzers attended and assisted with underwriting previous Scholar Awards Luncheons.

ESCO Foundation Scholar Award

All it takes is inviting the right people to hear our story. A board member from the Swigert Foundation (recently renamed the ESCO Foundation) attended last year's Scholar Awards Luncheon and went away inspired. In March, five months after the luncheon, ARCS received an invitation to apply for funding. It was apparent the approach to the proposal needed to be written from a holistic viewpoint rather than funding only one scholar. A committee including Marcia Director, Sharon Hewitt, Jeanie Josephson, Stefanie Narhi, Caron Ogg, Barbara Silver, and Lori Slaughter met to strategically discuss answers for the application. All of our hard work paid off, as in August we received notice that the ESCO Foundation accepted our proposal to fund a scholar award for \$18,000 at Oregon State University in the College of Engineering. The scholar award will begin fall of 2013. Now our work continues as we try to engage the foundation in a scholar donor relationship.

Caron Ogg

ACHIEVEMENT REWARDS FOR COLLEGE SCIENTISTS FOUNDATION, INC.

MARK YOUR CALENDAR NOW FOR OUR 2013 PROGRAMS

- Jan. 9 – Macular Degeneration** Dr. Michael Klein,
OHSU Center for Health and Healing (CHH), Room 3070
9:30 a.m. social, 10:00 a.m. program
- Feb. 5 – Sleep Disorders and Circadian Rhythms** Dr. Steven Shea,
OHSU Center for Health and Healing (CHH), Room 3070
9:30 a.m. social, 10:00 a.m. program
- Mar. 5 – Hidden Stresses and Your Health** Dr. David Clarke,
OHSU Doernbecher Hospital, Vey Auditorium
6:30 p.m. social, followed by program
Spouses and guests are welcome
- Apr. 10 – A story of fermentation and the yeast that launched
a thousand industries**
Oregon State University day trip, 8:30 a.m. departure
Annual OSU visit and tour; learn about wine, beer and
cheese-making research
- May 8 – Annual Meeting** 11:30 a.m.
- May 14 – Celebrate the Scholars**



Officers and Directors

2012–2013

President: **Jean Josephson**

Past President Ex-Officio: **Caron Ogg**

Treasurer: **Barbara Sage**

Secretary: **Shelley Voboril**

VP Communications: **Jamie Anderson**

VP Fund Development: **Elisabeth Lyon**

VP Governance: **Nancy Fischer**

VP Member Relations: **Liz Perkins**

VP Scholar Relations: **Barbara Silver**

VP University Relations: **Joan Foley**

Member-at-Large: **Aletha Anderson**

Member-at-Large: **Barbara Giesy**

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.



ARCS® Foundation—Portland

P.O. Box 2063

Portland, OR 97208-2063

www.arcsfoundation.org/portland