

Aeronautics & Astronautics • Applied Mathematics • Aquatic & Fishery Sciences • Astronomy • Atmospheric Sciences • Biology • Biostatistics • Chemical Engineering • Chemistry • Civil & Environmental Engineering • Computer Science & Engineering • Crop & Soil Sciences • Earth & Space Sciences • Electrical Engineering • Environmental Health • Epidemiology • Forest Resources • Global Animal Health • Industrial Engineering • Materials Science & Engineering • Mathematics • Mechanical Engineering • Medical Scienctes • Biology • Program • Medicinal Chemistry • Molecular & Cellular Biology • Molecular Biosciences • Molecular Plant Sciences • Neurobiology & Behavior Neuroscience • Nursing • Oceanography • Pathobiology • Pharmacy • Physics • Plant Pathology • Public Health Genetics • Quantitative Ecology & Resource Management Statistics • Integrative Physiology and Neuroscience • Veterinary Clinical Sciences • Veterinary Microbiology & Pathology





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Pictured on cover: ARCS Scholar Rossana Colon-Thillet, UW, Molecular and Cellular Biology The Seattle Chapter of ARCS® Foundation, Inc. contributes to the worldwide advancement of science and technology by funding scholar awards for academically outstanding students in the fields of science, engineering, math, technology and medical research at the University of Washington and Washington State University.

To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science.
— Albert Einstein

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Thoughts from the Presidents



"The significance of ARCS Scholar Award support cannot be overstated. For 36 years ARCS funding has allowed UW scholars of exceptional promise to grow as future leaders in cutting-edge science, engineering and medical research that will transform communities and lives. We sincerely thank ARCS members for their continued partnership with our institution and their exceptional generosity to our students."

MICHAEL K. YOUNG — President, University of Washington

"Our nation's future economic success relies on the growth of ideas incubated in our research institutions. We are pleased to have had a small hand in contributing to the achievements of over 1,000 outstanding ARCS Scholars who continue to shape and change our world. As members, friends and community partners you have made a remarkable contribution to our universities by supporting ARCS Scholars who are driving academic and economic advances on the local, national and international level. Thank you for your support!"

DEBORAH MIZRAHI — President, Seattle Chapter ARCS Foundation

"The support of the Seattle Chapter of ARCS Foundation has enabled many talented students at Washington State University to pursue their doctoral degrees unhindered by financial concerns. The broad impact of this valuable support is most evident in the quality of research at WSU and its contributions to solving global problems. We are grateful to ARCS Foundation, Seattle for its continued commitment to and support of some of our most talented doctoral students."

ELSON S. FLOYD, PhD — President, Washington State University



Seattle Chapter: Over 1,000 Scholars Changing Our World

ARCS Foundation supports the power of scientific and technological research to drive positive change in our world. ARCS Foundation National partners with 55 premier U.S. universities to provide financial awards to academically outstanding U.S. citizens pursuing degrees in science, technology, engineering, mathematics (STEM) and medical research. ARCS Foundation, Seattle was founded in 1978 and has supported 1,057 scholars with awards totaling more than \$14.5 million.

In strategic partnership with the UW and WSU, the Seattle Chapter funds graduate students in the STEM disciplines and medical research, this year providing approximately \$700,000 to more than 130 scholars. Thirty-nine of these ARCS Scholar Awards are supported in perpetuity by Named Endowments currently holding over \$8.1 million in assets.

Seattle Chapter Scholar Awards give our universities a critical competitive edge in recruiting top graduate students. These highly capable individuals are catalysts who help build vibrant academic communities where teamwork and creativity flourish. The contributions of ARCS alumni employed in high-profile organizations around the state and country testify to the vitality and value of the ARCS mission.

Our dedicated and hardworking membership is committed to fostering the success of these remarkable individuals, our next generation of scientific leaders and innovators.





Your Gift Turns Passion into Possibilities

ARCS Scholar Awards provide flexible and unrestricted funding that allows students to think less about finances and more about their education and research. By supporting ARCS Foundation you make a difference for a student, for the research and for the university, and you impact our scientific and technological future.

ARCS FOUNDATION, SEATTLE CHAPTER SCHOLAR AWARD

Your gift in any amount goes towards the ARCS mission. Each year the Seattle Chapter's collective funding supports more than 15 individual Seattle Chapter Scholar Awards of \$17,500 each.

ARCS FOUNDATION, SEATTLE NAMED SCHOLAR AWARD

\$17,500

Funds one three-year Named Scholar Award. A Donor Named Scholar Award provides opportunity for engaging with and supporting an individual scholar and his/her research for three years.

ARCS FOUNDATION, SEATTLE ENDOWMENT

\$100,000

Funds one Named Endowment in perpetuity. Matching opportunities are available through ARCS Foundation, Seattle Chapter and the generosity of the UW and WSU.

ARCS FOUNDATION, SEATTLE CORPORATE SPONSORSHIP

\$2,500 or more

We are fortunate to have great partnerships with local businesses and organizations. Various sponsorship and recognition opportunities are available.

ARCS FOUNDATION, SEATTLE PLANNED GIVING

Consider the opportunity to share a gift for generations to come. Please contact ARCS Seattle Chapter at information@seattlearcsfoundation.org for details.

To learn more about making a gift, please contact us at:

Seattle Chapter, ARCS Foundation, Inc. Private Mailbox 429 4616 25th Avenue NE Seattle, WA 98105

E-mail: information@seattlearcsfoundation.org Website: www.seattlearcsfoundation.org

ARCS Foundation, Inc. is a non-profit organization incorporated in 1978. Tax ID 91-1042292.



UNIVERSITY OF WASHINGTON

FIRST YEAR SCHOLARS

NAME Christopher Arakawa Jaco Baudin Wesley Beckner Sidney Bell Hannah Bish

Angela Boysen Miriam Calkins Kathleen Champion Rossana Colon-Thillet Makayla Cordoza James Dimond Max Dougherty Rachel Eaton

Kristian Eschenburg Christopher Everson Gregory Findlay Hannah Frizzell Natalie Gasca Daniel Gordon Sean Griffin Kelsey Grinde Jessica Haskins Kira Hicks Lindsay Henderson Aleksander Holynski Jason Klein John Lazar Steven Levitte **Rachelle Lim** Cyndi Lopez Heather Machkovech LomaJohn Pendergraft Jillian Pintye Jesse Resnick **Richard Revia** Jessica Schroeder Jesse Stryker Nile Wilson Tsegaselassie Workalemahu Kathleen & David Eaton with Julie Barbo

DONOR Karyl & Elias Alvord Carol Wright PACCAR Inc. Roche/ARCS Foundation Seattle Chapter ARCS Light in Honor of Lynn Pigott Mowe Kathy & Michael McQuaid with Sally & David Wright Oceanography ARCS Foundation, Seattle Washington Research Foundation ARCS Endowment Applied Mathematics Rosa Ayer ARCS Endowment Joanne & Bruce Montgomery ARCS Endowment ARCS Foundation, Seattle Becky & Jack Benaroya ARCS Endowment John W. & Elaine A. Zevenbergen, Sr. **ARCS Endowment** Washington Research Foundation Althea Stroum ARCS Endowment ARCS Foundation, Seattle Roche/ARCS Foundation Carlyn & George Steiner ARCS Endowment Walker Family ARCS Endowment Althea Stroum ARCS Endowment ARCS Foundation, Seattle Camille & Jim Uhlir ARCS Endowment Harriett & John Morton UW Graduate School Diversity UW Graduate School Diversity **ARCS Foundation, Seattle** ARCS Foundation, Seattle Keith & Mary Kay McCaw Family ARCS Endowment **Oceanus ARCS Endowment UW Graduate School Diversity** Zevenbergen Capital Investments LLC UW Graduate School Diversity Pamela H. & Donald W. Mitchell ARCS Endowment Althea Stroum ARCS Endowment Gerald J. Baldasty- Graduate School Diversity

Lesa Sroufe & Kathy Petrait

Washington Research Foundation

& Mark Maghie

Lee & Mike Brown

FIELD OF STUDY

MD/PhD - Bioengineering MD/PhD - Physiology & Biophysics Chemical Engineering Molecular & Cellular Biology Astronomy

Environmental Health Molecular & Cellular Biology Nursing Science Aquatic & Fishery Sciences MD/PhD - Genome Sciences Chemistry

Bioengineering Aeronautics & Astronautics MD/PhD - Genome Sciences Bioengineering Biostatistics **Computer Science & Engineering** Mathematics Biostatistics Atmospheric Sciences Physics/GO-MAP Pharmacy/GO-MAP Computer Science & Engineering/GO-MAP MD/PhD - Genome Sciences MD/PhD - Genome Sciences MD/PhD - Molecular & Cellular Biology Oceanography Civil & Environmental Engineering/GO-MAP MD/PhD - Genome Sciences Environmental & Forest Sciences/GO-MAP Nursing Science MD/PhD - Neurobiology & Behavior Materials Science & Engineering /GO-MAP Computer Science & Engineering Physics/GO-MAP Bioengineering/GO-MAP Epidemiology/GO-MAP

SECOND YEAR SCHOLARS

NAME

Trevor Avant

Sylvia Badon Gabby Barsh

William Chen

Erin dela Cruz

Samuel Entwisle

Dennis Goulet

Rochelle Kelly

Sophia Masi

Tim Mesikepp

Ana Ordonez

Pavel Panchekha

Andre Perkins

Anna Plantinga

Travis Scholl

Aaron Seo

April Shen

Eric Teeman Olivia Telford

Connie Tzou

Michael Tillotson

William "BJ" Valente

Natalie Vandeven

Edward Wang

Cassandra Simonich

Melissa Steele-Ogus

Bethany Kondiles

Krithika Manohar

Jacob Ortega-Gingrich

Laura Kehrl

Jacqueline Garrick

Mike Doud

Ken Chen

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Washington Research Foundation Gabriel Dorfsman-Hopkins Candice Rosenberg Peterson ARCS Endowment Zevenbergen Capital Investments LLC Tina & Karl Neiders with Susan & William Potts Jim & Nancy Woods Eve & Chap Alvord Virginia M. Dickenson Memorial ARCS Endowment Emer Dooley & Rob Short Marlene & John Durbin Vicki & Gary Glant ARCS Endowment Ginger & Barry Ackerley Foundation **ARCS** Foundation, Seattle Chisholm Foundation ARCS Endowment **ARCS Foundation, Seattle** Washington Research Foundation Nancy Mee & Dennis Evans Gladys Harrington ARCS Endowment in Honor of Eve Alvord In Honor of Eve Alvord Barbo Family Julie Tall ARCS Endowment Christensen O'Connor Johnson Kindness MAC Consortium ARCS Endowment Vicki & Thomas Griffin Washington Research Foundation Mary Dunnam Fairway Fund ARCS Endowment ARCS Foundation, Seattle Hussey Family Jean B. Viereck John W. & Elaine A. Zevenbergen, Sr. **ARCS Endowment**

FIELD OF STUDY

Aeronautics & Astronautics

Epidemiology MD/PhD - Molecular & Cellular Biology/GO-MAP MD/PhD - Pathology Quantitative Ecology & Resource Management MD/PhD - Molecular & Cellular Biology Mathematics/GO-MAP MD/PhD - Genome Sciences Molecular & Cellular Biology Environmental Health (Toxicology) Pharmacv Earth & Space Sciences Biology/GO-MAP Neurobiology & Behavior Applied Mathematics MD/PhD - Chemistry/GO-MAP Mathematics Atmospheric Sciences/GO-MAP Applied Mathematics/GO-MAP Computer Science & Engineering Atmospheric Sciences/GO-MAP Biostatistics

Mathematics MD/PhD - Molecular & Cellular Biology Computer Science & Engineering MD/PhD - Molecular & Cellular Biology Biology Materials Science & Engineering Astronomy Aquatic & Fishery Sciences Environmental Health MD/PhD - Pathology MD/PhD - Pathology **Electrical Engineering**

Because of the prestigious nature of the ARCS Scholar Award and the generous funding offered, we are able to compete with our peer institutions to draw the top applicants in their fields to UW.

> — Robert Winglee, Chair and Professor, Earth & Space Sciences, University of Washington





THIRD YEAR SCHOLARS

NAME Kate Bayliss Mark Brunson Owen Coyle Sarah Dewey Benjamin Drum Aaron Garcia Kristen Garofali Julieta Gruszko Siva Kasinathan

Ken Laszlo Elena Latorre-Esteves Rosie Leung Leander Love-Anderegg Marita Mann Natalie Miller Susana Orozco Austin Phillips

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 MD/PhD - Molecular & Cellular Biol Materials Science & Engineering Oceanography

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 Oceanography

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 MD/PhD - Physiology & Biophysics

 Graduate School Diversity
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 Physics

 Micki & Robert Flowers ARCS Endowment
 MD/PhD - Molecular & Cellular Biol

ARCS Foundation, Seattle Micki & Robert Flowers ARCS Endowment ARCS Foundation, Seattle Susan Adkins & Sandy Carlson Alta & Stan Barer Carlyn & George Steiner ARCS Endowment Ruth & William P. Gerberding ARCS Endowment ARCS Foundation, Seattle Margery S. Friedlander ARCS Endowment

Washington Research Foundation Catherine & David Skinner Zevenbergen Capital Investments LLC Camille & Jim Uhlir ARCS Endowment Washington Research Foundation Dorothy Lewis Simpson ARCS Endowment Lisa & Mike Losh Cori & John Kirkpatrick Walker Family ARCS Endowment Barbo Family Rosa Ayer ARCS Endowment Jana & Jeff Foushée Pengra Capital Management, Inc.

FIELD OF STUDY

MD/PhD – Molecular & Cellular Biology Materials Science & Engineering Oceanography Physics MD/PhD - Molecular & Cellular Biology/ GO-MAP Chemistry Molecular & Cellular Biology/GO-MAP Applied Mathematics Biology Astronomy Pharmacv MD/PhD - Pathology Molecular & Cellular Biology/GO-MAP Quantitative Ecology & Resource Management Chemical Engineering Biology Epidemiology MD/PhD - Molecular & Cellular Biology Applied Mathematics Aquatic & Fishery Sciences MD/PhD – Molecular & Cellular Biology Mathematics Neurobiology & Behavior Nursing Science MD/PhD – Genome Sciences **Computer Science & Engineering**

UNIVERSITY OF WASHINGTON SCHOLAR AWARD SUPPORT AREAS

The Seattle Chapter of ARCS Foundation, Inc. currently supports UW students in the following departments and schools:

COLLEGE OF ARTS & SCIENCES

Applied Mathematics Astronomy Biology Chemistry Mathematics Physics Statistics

COLLEGE OF ENGINEERING

Aeronautics & Astronautics Bioengineering (jointly with the School of Medicine) Chemical Engineering Civil & Environmental Engineering Computer Science & Engineering Electrical Engineering Industrial Engineering Materials Science & Engineering Mechanical Engineering

COLLEGE OF THE ENVIRONMENT

Aquatic & Fishery Sciences Atmospheric Sciences Earth & Space Sciences Environmental & Forest Sciences Oceanography

GRADUATE SCHOOL (INTERDISCIPLINARY)

Molecular & Cellular Biology Neurobiology & Behavior Pathobiology Quantitative Ecology & Resource Management (QERM)

SCHOOL OF DENTISTRY

Oral Health Sciences

SCHOOL OF MEDICINE

Bioengineering (jointly with the College of Engineering) Medical Scientist Training Program (MSTP)

SCHOOL OF NURSING

Nursing Science

SCHOOL OF PHARMACY

Medicinal Chemistry Pharmaceutics Pharmacy

SCHOOL OF PUBLIC HEALTH

Biostatistics Environmental Health Epidemiology Institute for Public Health Genetics





UNIVERSITY OF WASHINGTON Graduate Program in Bioengineering An ARCS Foundation-Supported Program

Since its founding in the 1960s, the UW Department of Bioengineering has operated as a joint enterprise of the UW College of Engineering and the top-ranked UW School of Medicine. Highly regarded for its long history of innovation in medical technologies, UW Bioengineering's graduate program consistently places among the top 10 in the nation. Faculty honors include seven National Science Foundation Faculty Early Career Development Awards, six members of the National Academy of Engineering, two National Institutes of Health's Director's New Innovator Awards and two Sloan Research Fellowships.

UW Bioengineering brings together top students, scientists, engineers and physicians to develop creative and cost-effective approaches to improving health care. The department's location next door to UW Medical Center and in the heart of Seattle's global health arena and vibrant biotechnology corridor — gives faculty and students unique opportunities for robust collaborations on realworld healthcare solutions.

UW Bioengineering graduate students are improving lives through innovations that provide better access to health care, revolutionary diagnostic tests, more responsive prosthetics, improved medical implants, biomedical imaging and targeted drug delivery.

In the 2013 fiscal year, UW Bioengineering reported more inventions than any other UW department. Twenty-eight startup companies exist today as a result of faculty and student research. UW Bioengineering became an ARCS Foundation-supported department last year and admitted its first ARCS Scholars this spring.

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uw scholar Leander Love-Anderegg

DEPARTMENT Biology DONORS Susan Adkins and Sandy Carlson



Third-year ARCS Scholar Leander Love-Anderegg spent a lot of time outdoors during his childhood in rural Colorado. As a college student he became interested in ecology. Returning home, he discovered that many of the forests near his hometown were dying of drought. "I came to realize that climate change is happening *now*," he says. "As I was reading about it in class, trees near my community were dying. I couldn't just sit back and think about it academically. I wanted to do something."

As a result Leander is pursuing his PhD in UW's Department of Biology, where he's studying trees geographically to understand how climate, especially water and temperature limitations, sets the boundaries for where trees exist. The results of his research could aid in guiding forest management and conservation over the next century, helping ensure the best possible outcomes for our nation's forests throughout a period of accelerating climate change.

"Funding from the Seattle Chapter gives me more flexibility in my research," Leander says. "It's allowed me to completely design my own program from the ground up and given me a tremendous amount of academic freedom. Every time I apply for a grant, I appreciate ARCS Foundation more."

uw scholar Irene Zhang

DEPARTMENT Computer Science and Engineering DONOR Pengra Capital Management, Inc.



"As a professional investor, my research focuses on industrial innovation, and ARCS Foundation caught my interest as a driver of economic growth," says ARCS donor Molly Pengra, general partner of Cohassett Capital Partners, LP. "The Federal Reserve and the government can't do much to create economic growth — it's driven from the bottom up by innovation."

Innovation is part of Irene Zhang's daily life. A PhD student in UW's Department of Computer Science and Engineering, she's working in the systems and networking group to develop software that can serve as the foundation for a vast array of applications. "It currently takes entire teams of people years to build applications like Facebook or Twitter," she says. "People are wasting energy solving the same problems over and over. I want to build flexible, adaptable software that already contains solutions to these problems, to make building something like Twitter possible within a much shorter time frame."

This is exactly the kind of innovation Molly likes to support. "When you choose to fund scientific research and technological innovation through the university, you're not just teaching a person to fish; you're putting more fish into the sea. It's this expansion of resources through scientific innovation that improves quality of life on all fronts."

wsu scholar Craigen Nes

DEPARTMENT Veterinary Microbiology and Pathology DONORS Lynn & Mikal Thomsen



"I came home from my first ARCS luncheon and said, 'We have to help these students; they're amazing,'" says ARCS donor Lynn Thomsen. She and her husband Mikal have been involved with ARCS since 2005 and currently support four ARCS Scholars — including Craigen Nes, a second-year PhD student in the Department of Veterinary Microbiology and Pathology at WSU.

Craigen studies a bacteria that infects fleas, rodents and humans. When transmitted to humans, it becomes bubonic plague, a disease that many are surprised to discover still exists. While treatable, it's still a potent threat, particularly in developing countries. Craigen is using molecular techniques to understand how transmission works, with the hope of someday eliminating the disease.

Craigen was accepted at several prestigious schools, but, as he says, "The funding wasn't there." WSU and ARCS Foundation were able to provide the perfect combination of faculty, facilities and support to simplify his decision.

"We're fortunate in this state to have two fantastic research universities," says Mikal Thomsen. "Through ARCS Foundation, Seattle we can help recruit the best and the brightest to Washington — young people with the potential to stay in our state, benefit our economy and ultimately change our world. It's important to us to help these students stay the course and go on to great things."

9

WASHINGTON STATE UNIVERSITY

FIRST YEAR SCHOLARS

NAME

Liam Broughton-Neiswanger Piryanka Bushana Gregory Collinge Seanna Hewitt Jeffrey Hoyt Nicholas Jaegers Erika Kruse Alisha Massa Jessica McCrea Brigid Meints Robert Orpet Anne Pollard Brittney Wager Laura Williams DONOR ARCS Foundation, Seattle ARCS Foundation, Seattle ARCS Foundation, Seattle ARCS Foundation, Seattle Washington Research Foundation ARCS Foundation, Seattle ARCS Foundation, Seattle ARCS Foundation, Seattle Roche/ARCS Foundation ARCS Foundation, Seattle Debbi & John Wilson with Jenny & Scott Wyatt ARCS Foundation, Seattle Lynn and Mikal Thomsen

SECOND YEAR SCHOLARS

NAME Korey Brownstein

Zack Frederick Andrea Garfinkel Kathy Helling Aileen Helsel Jessica Higginbotham Tessa Lecuyer Adan Medina Paul Mihalyov Craig Nes Drew Neyens Elena Skornyakov Nicole Tautges Andrea & Eric Thoreson with Katherine Janeway & H. S. Wright III Sally Behnke Seattle Chapter ARCS Light in Honor of Micki Flowers ARCS Foundation, Seattle ARCS Foundation, Seattle Blaze Barrier ARCS Foundation, Seattle Blaze Barrier Eve & Foundation, Seattle Lynn & Mikal Thomsen Eve & Chap Alvord Jeannie Nordstrom in Memory of Pepper Payne Catherine Mee

THIRD YEAR SCHOLARS

NAME

Christian Aguilar Jake Elder Cory Gall Rebecca Holcomb Kendra Gregory Jernigan Shao Yeh Lu Aaron Mahoney Katie McKeever Nicholas Mueth Gabrielle Pastenkos Yvonne Thompson Darin Weed

DONOR

ARCS Foundation, Seattle Aven Foundation, ARCS Endowment ARCS Foundation, Seattle ARCS Foundation, Seattle Lynn & Mikal Thomsen ARCS Endowment Lynn & Mikal Thomsen Eve & Chap Alvord ARCS Foundation, Seattle Jacque & Rick Doane in Honor of Henry Stevens Family ARCS Foundation, Seattle

FIELD OF STUDY

Veterinary Microbiology and Pathology Integrative Physiology and Neuroscience Chemical Engineering Molecular Plant Sciences Integrative Physiology and Neuroscience Chemical Engineering Molecular Plant Sciences Veterinary Microbiology and Pathology Global Animal Health Crop and Soil Sciences Entomology Crop and Soil Sciences Molecular Plant Sciences Weterinary Microbiology and Pathology

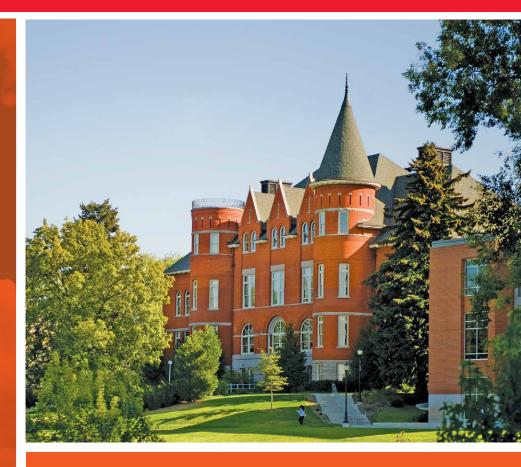
FIELD OF STUDY

Molecular Plant Sciences

Plant Pathology Plant Pathology Chemical Engineering & Bioengineering Molecular Biosciences Veterinary Science Chemical Engineering & Bioengineering Molecular Plant Sciences Veterinary Science Veterinary Science Veterinary Science Veterinary Science Veterinary Science Soli Sciences

FIELD OF STUDY

Plant Pathology Veterinary Science Wolecular Plant Science Crop and Soil Sciences Veterinary Science/GAH Molecular Plant Science Plant Pathology Molecular Plant Science Veterinary Science Veterinary Sciences Veterinary Science



I wouldn't have successfully recruited the top student we were drafting without the ARCS Scholar Award. Most schools don't have that type of counteroffer if a student is considering them.

 Michael Neff, Director, Molecular Plant Sciences Graduate Program and Associate Professor of Crop Biotechnology, Crop & Soil Sciences, Washington State University





WASHINGTON STATE UNIVERSITY SCHOLAR AWARD SUPPORT AREAS

The Seattle Chapter of ARCS Foundation, Inc. currently supports WSU students in the following departments and schools:

COLLEGE OF AGRICULTURE, HUMAN AND NATURAL RESOURCE SCIENCES

Crop & Soil Sciences Entomology Molecular Plant Sciences Plant Pathology

COLLEGE OF ARCHITECTURE AND ENGINEERING

Chemical Engineering and Bioengineering

COLLEGE OF VETERINARY MEDICINE

Global Animal Health (GAH) Molecular Biosciences Integrative Physiology & Neuroscience Veterinary Clinical Sciences Veterinary Microbiology & Pathology



WASHINGTON STATE UNIVERSITY Department of Entomology An ARCS Foundation-Supported Program

WSU's Department of Entomology conducts top-level research to help solve important problems associated with insects and arthropods in natural and managed ecosystems. One of the oldest departments at WSU, it has a reputation for training students who go on to successful careers in academics and industry.

Faculty members in Entomology continue to make fundamental contributions in agriculture, genetics, medicine, veterinary science, ecology and evolutionary biology. For many years Entomology faculty and students have worked closely with commodity groups and farmers to provide pest management solutions in tree fruits, wine grapes, vegetables, cereals, legumes and other crops. Entomologists at WSU also conduct research to support pollinators and other beneficial insects and to address insect-vectored diseases of agricultural, medical and veterinary concern.

The department takes pride in offering one of the most comprehensive entomology curricula in the country, attracting a growing number of PhD students. The department is honored to partner with ARCS Foundation, Seattle to help train the next generation of entomologists.

wsu scholar Cole Mueth

DEPARTMENT Molecular Plant Sciences DONOR ARCS Foundation, Seattle



"Wheat rust is an expensive problem for U.S. farmers and consumers," says third-year ARCS Scholar Nicholas "Cole" Mueth. "But in developing countries, it's life-threatening and has the potential to become pandemic."

As a student in WSU's Molecular Plant Sciences PhD program, Cole studies wheat stripe rust, a fungal pathogen of cereal crops that poses a major threat to global food security. A recent outbreak spread from Africa through the Middle East and into Central Asia, causing severe harvest losses in areas where food supplies are already unstable.

"We've struggled with wheat rust since the birth of civilization," Cole comments. "Now the tools to breed varieties with long-lasting resistance to the disease are finally becoming available."

Cole uses genetics and biochemistry techniques to understand the complex interactions between plants and pathogens. By determining the mechanisms behind resistance and susceptibility, he hopes to discover new methods for pathogen control.

Cole feels that WSU was the ideal choice for his research. "Other schools offered me higher stipends, but WSU was the best fit," says Cole. "The research facilities and faculty are top-notch, and I wanted to make my school decision based on the science, not the money." He concludes, "ARCS funding bridged the gap for me and definitely played a role in my decision to come to WSU."

In Their Own Words

UW SCHOLAR Megsie Siple



DEPARTMENT Aquatic and Fishery Sciences DONOR Lisa and Mike Losh

Thanks to the ARCS Scholar Award, this year I traveled to Quebec City for the annual meeting of the American Fisheries Society, where I presented my research to the international fisheries research community. Trips like these foster important academic relationships and are essential for developing a productive research project.

WSU SCHOLAR Paul Mihalyov

UW SCHOLAR Theo Sottero



DEPARTMENT Molecular Plant Sciences DONOR ARCS Foundation, Seattle

The ARCS Scholar Award attracted me to WSU over other schools around the country. Working here on crop disease management, I have become attached to agriculture in the Palouse and envision myself making a career improving crop production in the state of Washington.

WSU SCHOLAR Gabrielle Pastenkos



DEPARTMENT Veterinary Science DONOR Jacque and Rick Doane in Honor of Henry

Because the ARCS Scholar Award alleviates many of the financial sacrifices of graduate school, I was able to choose my dream graduate program at an institution known for exceptional veterinary diagnostic services, applying my DVM degree to infectious disease research.



DEPARTMENT MD/PhD – Molecular & Cellular Biology DONOR Cori and John Kirkpatrick

ARCS has become an integral part of my graduate experience. I treasure the support my donors have given to both my career and my personal development. I've had the opportunity to communicate my research to community leaders and see our shared excitement over its potential impact.

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Where Are They Now?

Ingrid Swanson Pultz, PhD

UW ARCS SCHOLAR 2005-08 DONOR Lisa and Mike Losh



Celiac disease, an inflammatory disease caused by the ingestion of gluten, is a serious health problem. It affects approximately 2.4 million people and generates \$15–\$35 billion in health costs each year in the United States alone. But a promising new treatment is on the horizon, thanks to former ARCS Scholar Dr. Ingrid Swanson Pultz. She's working on the design of a new enzyme, KumaMax, which is meant to break down gluten in the stomach before it reaches the intestines and causes an inflammatory immune response.

KumaMax began as an undergraduate student project for the 2011 International Genetically Engineered Machine (iGEM) competition. Ingrid founded UW's iGEM team while pursuing her PhD in microbiology and served as advisor to the group for several years.

Now a translational investigator for the UW Institute for Protein Design, Ingrid appreciates the extra flexibility created by the funding she received as an ARCS Scholar. "Graduate school is a labor of love, not money," she says. "The extra cushion I enjoyed as an ARCS Scholar made a big difference in my life. It allowed me to have my own living space so I could think without distraction, made it possible for me to purchase an electric bike so I could get to work faster, and so much more."

CORPORATE DONOR UW Medicine

UW Medicine is proud to support ARCS Foundation, Seattle and the great impact it has on advancing science in Washington State and around the world.

UW Medicine benefits directly from the organization's important work. As the only school of medicine in a five-state region, preparing both the clinical and scientific workforce is part of UW Medicine's mission — with the ultimate goal of improving the health of the public. ARCS merit-based Scholar Awards to PhD and MD/PhD candidates help ensure that UW Medicine continues to develop toplevel scientists who tackle some of the world's most pressing health issues, such as vaccine development. An ARCS Scholar Award often directly influences a post-grad's choice of where to conduct his or her research. And many times after completing their doctorates, these talented, knowledgeable people elect to stay in Seattle and continue to contribute, both to the body of science and to the local community and economy.

UW Medicine consists of eight entities: Harborview Medical Center, Northwest Hospital & Medical Center, Valley Medical Center, UW Medical Center, UW Neighborhood Clinics, UW Physicians, UW School of Medicine and Airlift Northwest.



ARCS LIGHT AWARD



ARCS LIGHT RECIPIENTS

Susan Adkins **Bylieu Badgley** Marjorie Bathum Lolly Baugh Maxine Blumenthal **Betty Bottler** Barbara Cable Sandra Carlson Marlene Durbin Micki Flowers **Bobbie Fowler** Margery Friedlander Ruth Gerberding Vicki Glant Barbara Goesling Vicki Griffin Patty Hall **Betty Hedreen** Janet McNae Lynn Mowe Cathy Mullins Susan Potts Jeannette Rockefeller Candice Rosenberg Dottie Simpson Kayla Skinner Althea Stroum Linda Suzman **Ginny Thomas** Camille Uhlir Jill Watkins **Carol Wright** Anne Zubko

ARCS Foundation, Seattle is pleased to present Lynn Mowe with the 2014 ARCS Light Award. Given to members who have made significant contributions to the chapter, the award found its way to a worthy recipient in this former Chapter Chair of Programs, Finance, and Membership and current Advisor-at-Large.

Lynn received her undergraduate degree in economics from Stanford University and her MBA from the University of Washington. She later earned her CPA from Deloitte and utilized her financial and accounting skills in leadership positions at various nonprofit institutions. Lynn is currently President of the Seattle Public Library Foundation and has been a University of Washington Foundation Board member for more than 10 years. She was the Campaign Co-Chair and Advisor for the UW School of Social Work, Chair of the UW Dinner Series and also Chair of the Fundraising Committee for three years for the National Public Radio Foundation Board.

"Working with talented ARCS women to support top graduate students in science has been the highlight of my community involvement. Getting to know these outstanding students is rewarding, informative and most of all, fun. I feel very confident about our future with these exceptional young scholars leading the way."

The Seattle Chapter is grateful for Lynn's confident leadership, insight and vision, and we are most appreciative of her warmth and humor.

INDIVIDUAL GIFTS

The Seattle Chapter of ARCS Foundation thanks its many donors who made individual gifts between July 1, 2013 and June 30, 2014 (excluding contributions of Named Scholar Awards and Named Endowments, listed on the following page).

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\$2.500 - \$4.999 Bank of America

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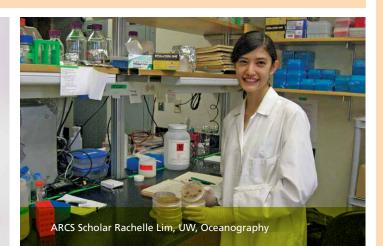
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