Mission Statement

The 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 -- Utah

www.arcsfoundation.org

Awarded to 2000 James L. Fisher Award for Distinguished Service to Education by the Council fo	r Advancement and Support in Education (CASI
Awarded to 2009 James L. Fisher Award for Distinguished Service to Education by the Council to	Advancement and Support in Education (CASI

Utah ARCS Board 2012-2013

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It is hard to believe that year number three has been as eventful and fulfilling as the first two years have been! But it has! ARCS Foundation Utah has enjoyed nearly four years of a very successful collaboration with Dean Richard Brown and the College of Engineering. Without the solid support of Dean Brown and his able staff, we would not be experiencing the success we now enjoy and ten outstanding ARCS scholars would not have been awarded. We thank all of you for your vision and commitment to the goals we clearly share and for supporting us in ways that could not have been improved upon.

We now have expanded our partnerships to include another outstanding and well-known entity within the University of Utah, the Moran Eye Center. We look forward to a great future and a similarly successful venture and partnership with them. Dr. Randy Olson, CEO of the Moran Eye Center, and his staff were instrumental in assisting Founding ARCS Utah President, Cece Foxley, in preparing material nominating the Moran as a qualified Center for scholar awards at the February 2012 National Meeting. The preparation happened with such speed and precision that, at the next ARCS National Meeting (NAM) in June, we received authority to add the Moran Eye Center and the Department of Ophthalmology. As a result of this very quick turn-around, we are exceptionally proud to add the very prestigious Moran Eye Center and the Department of Ophthalmology to eligibility for ARCS Foundation Utah Scholar Awards. In addition, by adding another discipline with this new affiliation, we look forward to increasing our membership.

We held our Second Annual ARCS Scholar Awards Luncheon on October 3, 2011. At this important event, three outstanding College of Engineering scientists received ARCS awards. They were: Daman Bareiss, Mechanical Engineering; Andrew Fisher, Electrical Engineering; and Shannon Reynolds, Civil & Environmental Engineering. This year, because of our new affiliation with the Moran Eye Center, we look forward to presenting four scholar awards of \$15,000 each to Jennifer Monski, Katherine Lambert, and Megan Campbell from the College of Engineering and Dr. Brian E Zaugg from the Moran Eye Center and the Department of Ophthalmology.

ARCS Foundation Utah held a number of interesting, successful events during the year which are described in detail later in this newsletter. They are: A Guided Architectural Tour of the Natural History Museum of Utah in March, 2012; The Dedication of the James L. Sorenson Molecular Biotechnology Building in April, 2012; the Gould Distinguished Lecture in September, 2012, and The Scholar Awards Luncheon in October, 2012. Four members attended the ARCS Foundation National Annual Meeting in May/June, 2012.

It gives me great pleasure to announce that Margaret Niver McGann, former Vice President, Development, and an attorney with Parsons Behle & Latimer Law Firm, has accepted the position of President Elect of ARCS Foundation Utah. Margaret has been involved from the beginning stages and she and her office staff were instrumental in assisting with the legal work necessary to set up our Chapter. Margaret will assume the Presidency on July 1, 2013, following

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SCIENCE

UTAH CHAPTER Message from the President

Dear Chapter Members and Potential Members,

ARCS Foundation Utah Events



March 2, 2012 -- Dr. Sarah George, Executive Director of the Natural History Museum of Utah, guided us on an Architectural Tour of the Museum. She was accompanied by several of the engineers of the project who treated us to fabulous stories of the engineering and building of this magnificent 163,000 square-foot structure. The museum's centerpiece is a 60 foot tall lobby which connects the two wings of the building and also houses many important events. The numerous displays in the museum were as spectacular as the building itself. This event was well attended by ARCS members and several ARCS scholars with their families. We were honored to host honorary members, Jeanette Herbert, wife of Governor Gary R. Herbert and Dr. Sandy Pershing, wife of University of Utah President, Dr. David W. Pershing.

College of Engineering Dean Richard Brown and his wife, Brenda also attended. We concluded the afternoon with light refreshments in the beautiful lobby overlooking the Salt Lake Valley.



April 19, 2012 -- The dedication of the James L. Sorenson Molecular Biotechnology Building was attended by a number of ARCS members and their guests. The Utah Science Technology and Research Initiative (USTAR) established by the Utah Legislature in 2006 provided initial, significant funding for this magnificent building, which brings together faculty and students from many diverse disciplines within the University. Several of the Sorenson Family Foundations contributed to this multidisciplinary facility, as well. The dedication featured University officials, Dinesh Patel, Chairman, USTAR Governing Authority, A. Scott Anderson, USTAR Governing Authority President, Governor Gary R.

Herbert, and Sorenson family members. After the dedication ceremonies, we all toured the building and marveled at the open design and well-equipped labs throughout this bright and airy structure. We enjoyed refreshments together at the conclusion of our tour.



September 5, 2012 – Miriah Meyer, Ph.D., Assistant Professor, School of Computing, University of Utah, presented the Nineteenth Annual Gould Distinguished Lecture. ARCS members attended this annual event for the third time as a group and were pleased to hear from this distinguished lecturer from our own University. Dr. Meyer's title was "Visualizing Data: Why an (interactive) Picture is Worth 1000 Words." Dr. Meyer explained that her research focuses on the design of visualization systems for helping scientists make sense of huge collections of complex data. She claims that this is now considered to be the major challenge of the day by scientists. Dr. Meyer posed many unique ideas and challenged the audience to think beyond the obvious. Her research was fascinating and new to a number of audience members and resulted in many, many questions from them at the conclusion

of her presentation. ARCS Members left this very interesting lecture to enjoy lunch together and attend an ARCS Board Meeting held in a room close to the William R. & Erlyn J. Gould Auditorium in the J. Willard Marriott Library.

Third Annual ARCS Scholar Awards Luncheon

ARCS Foundation Utah is pleased to hold our Third Annual ARCS Scholar Awards Luncheon on Wednesday, October 10, 2012, in the Warnock Engineering Building on the University of Utah Campus. The College of Engineering, again, will host this prestigious event celebrating our ARCS Scholars from the College of Engineering and from the Moran Eye Center. We continue a tradition of the last several years by honoring the three outstanding scientists who became ARCS 2011 - 2012 Scholars by selecting them to be our luncheon speakers for the 2012 - 2013 ARCS Scholar Awards Luncheon. They are Daman Bareiss, Mechanical Engineering; Andrew Fisher, Electrical Engineering; and Shannon Reynolds, Civil & Environmental Engineering. They will share with us their experiences from their first year as ARCS scholars, their research, and their future plans.



Daman Bariess



Andrew Fisher



Shannon Reynolds

Another group of preeminent young scientists has been selected as the 2012 - 2013 ARCS Scholars. They will be introduced and presented with their awards.

They are, from the College of Engineering: Jennifer Monski Bauer, Bioengineering; Katherine Lambert, Bioengineering; and Megan Campbell Prestgard, Materials Science & Engineering and from the Moran Eye Center: Dr. Brian E Zaugg, Department of Ophthalmology.

2012 – 2013 ARCS Foundation Utah Scholars



Jennifer Monski Bauer

Jennifer Monski Bauer is a Ph.D. student in Bioengineering and received her BS in Biomedical Engineering from the Milwaukee School of Engineering, where she graduated with high honors and was actively involved with the Center for Compact and Efficient Fluid Power. She comes to the University of Utah after completing a summer research program in microfluidics at the University of California at Berkeley's Center for Integrated Nano Mechanical Systems. She has already authored several papers, is a talented and motivated researcher, and is a passionate, well-rounded engineer. She states that she is "determined to use engineering to improve the quality of medicine" and could use her current interests in neural interfacing as well as imaging techniques in the brain to help accomplish her goals. Jennifer is currently doing research in the

Neuronal Dynamics Laboratory and believes that the "University of Utah will facilitate an environment for me to meet my potential as a research engineer." Jennifer began her Ph.D. studies this fall as a new bride, after being married last summer.

the completion of my term as President. Margaret is very well prepared for this office and is extremely dedicated to ARCS Foundation goals. She will be an outstanding third president of ARCS Foundation Utah.

The present chapter officers and board members are:

President	Anne Erickson, Former Academic VP. Salt Lake Community College	
President Elect	Margaret Niver McGann, Attorney with Parsons Behle & Latimer Law Firm	
Past President	Cecelia (Cece) H. Foxley, Former Utah Commissioner of Higher Education	
VP, Finance	Sue Dintelman, CEO, Pleiades Software Development	
VP, Membership	Ruth Novak, Former VP & General Manager, Hercules Utah (now ATK)	
VP, Programs/Events	Robin Rankin Marrouche, Exec. Dir., Kimball Art Center (Maternity Leave)	
VP, Development	Vacant	
VP, Communications/	Klancy deNevers, Former Software Engineer, Automation Manager, Treasurer,	
Treasurer	Scientific Programmer & Author	
VP, Web Master	Christine Klein, Retired from Myriad Pharmaceuticals, Inc.	
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VP, Web Master Alane Boyd, Exec. Director, American Water Works Association		
Content Editor		
Board-Member-at-La	rge Joan Jacobson, Former Boston Chapter President & College Faculty Member	
Board-Member-at-La	rge Judith Miller, Former Los Angeles Chapter President, Former National President	
Board-Member-at-La	rge Laura Springhetti, Nurse Anesthetist, Moran Eve Center & VA Hospital	

I was very pleased and proud to become ARCS Foundation Utah second President and accept the symbolic gavel from Cece Foxley, our founding President, at the Scholar Awards Luncheon last fall. Because of the vision and dedication of others, I now have the privilege of working with two outstanding men who are capable University leaders and strong supporters of ARCS. Dr. Richard Brown, Dean, College of Engineering, and his staff Marilyn Davies and Sarah Bagdoian and Dr. Randall J Olson, CEO, Moran Eye Center, and his staff, Lynn Ward and Jenny Wilson, could not be more supportive and helpful in our joint efforts to implement the ARCS mission to "... advance 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."

I also have the great privilege of working with a very special group of women leaders who are energetic Board Members for ARCS Foundation Utah. Working with such an unusual team of dedicated women and men, I see a near future when we will reach one of ARCS goals, to close the gap with other countries by producing with escalating speed an ever-increasing number of entrepreneurial American scientists! I am very proud to be a part of this great team! Warm Regards,

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ARCS Foundation National Annual Meeting (NAM)



May 30 – June 2, 2012 – Past President Cece Foxley, President Anne Erickson, Vice President for Membership Ruth Novak, and Board-Member-at-Large Laura Springhetti attended ARCS Foundation National Annual Meetings (NAM) in Denver, Colorado. We particularly enjoyed conference events at the beautiful Colorado Governor's Mansion and the Denver Museum of Nature & Science. Cece Foxley accepted an ARCS Light Award for Sue Dintelman, Vice President for Finance, who was unable to attend. The ARCS Light Award recognizes outstanding leadership and service. Sue earned this well-deserved award for her excellent work in the founding of our chapter and her ongoing commitment to ARCS goals. As I explained in the

President's Message, we received approval at this meeting to include the Moran Eye Center and the Ophthalmology Department, for selection of ARCS Scholars. We are very proud to have received this approval with such enthusiasm from the National organization and to have it happen so quickly.



Katherine Lambert

Katherine Lambert, a Ph.D. student in Bioengineering, received her BS in Biomedical

Engineering from Marquette University. She also completed a semester at Loyola University of Chicago's John Felice Rome Center. Katherine is interested in studying the use of electrical stimulation in the investigation and treatment of neurological disorders. She completed an internship with QinetiQ North America at the NASA Glenn Research Center and worked with a team that was troubleshooting a program used to "interrogate sensors and control regulators of a hydrogen fuel cell designed for space applications." Katherine completed a second internship with GB Healthcare in Salt Lake City which she says, "allowed me to be creative in overcoming problematic issues in experiment design." Katherine helped lead a team to design a calibration device for pulse oximeters to be distributed by Engineering World Health to hospitals in the developing world. It could have been this experience which led Katherine toward one of her goals to "create solutions which may be used to work closely with people from other countries and cultures."

Megan Campbell Prestgard

Megan Campbell Prestgard is a Ph.D. student in Materials Science & Engineering (MSE) and received her BS from the University of Utah in the same field. She was nominated by faculty

for the Outstanding Graduating Student Leader Award and has been a member of the MSE NSF Outreach Team since her freshman year, where she became the team leader in 2011. She was elected to the MSE Undergraduate Student Advisory Committee and was Chair of that committee for 2011 - 2012. Megan was a Presidential Scholar and Robert C. Byrd Honors Scholar for four years and graduated as the Outstanding Graduating Senior from her department. The faculty notes that Megan "has . . . natural leadership qualities." In addition, she is a fine engineer who is interested in studying spintronic materials and devices fabricated from such materials. She recently made a presentation of her research at the Spring 2012 Materials Research Society Conference. Upon completion of her education, Megan plans to "conduct research in the industry of semiconductors and electronic devices." Megan was married last summer, and looks forward to completing her Ph.D. program.

Dr. Brian E Zaugg



Brian E Zaugg received his MD degree from the University of Utah in 2011 and graduated with the honor of Alpha Omega Alpha (AOA). He is presently a resident physician in Ophthalmology. Brian was Valedictorian of his graduating class at Clearfield High School, and attended Utah State University for one year before transferring to the University of Utah. He became interested in medicine and ophthalmology early in his under-graduate studies while talking with an eighty year old patient who had regained his sight after cataract surgery. The man's vision changed overnight, from legally blind to 20/30, and had tears in his eyes as he talked with Brian about the beautiful mountain landscape he observed. This brief encounter focused Brian's career goals on medicine and ophthalmology. Dr. Zaugg has been influenced by many outstanding researchers with whom he has worked at the Moran Eye Center, has already received many awards, and is widely published. Dr. Zaugg stated, "The research invigorates me. I hope to make many contributions to the field before the end of my career."

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