

ARCS-PITTSBURGH NEWSLETTER

Autumn 2015

Advancing Science in America ®

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. The Pittsburgh Chapter has the additional focus of increasing the number of doctoral scholars pursuing advanced scientific study and research in the Western Pennsylvania region.

The Pittsburgh Chapter

Chartered in 2003, the Pittsburgh Chapter is one of the newest of 16 nationwide ARCS chapters. In a short time, the Chapter has already pledged more than a million dollars to its three partner universities. Carnegie Mellon University, the University of Pittsburgh, and Penn State University.



A few of the enthusiastic ARCS members (and two ARCS scholars) attending Judith Thomas's Al Fresco luncheon (July 24th) took a tour of Judith's beautiful home and gardens. Pictured left to right: Elizabeth Mertz, Carol Moyer, Peggy Mooney, Momin Malik (scholar), Anna Gommerstadt (scholar), Ruth Garfunkle, Carol Heppner, Linda Thier, Fran Abraham, Judith Thomas, and Annie Rivers



Montage of Member Events

Carol Stockman and Kathy Testoni (and their chef spouses) hosted the ARCS Summer Evening Social at the Stockmans' home in Shadyside. Given the big turnout of members (and guests) and the five scholars who were able to attend and keep members all engaged, it seems an evening summer social will become a new tradition for ARCS Pittsburgh!!

Pictured left to right: Jennifer Martin, Kathy Testoni, Charlotte Beukema, Pam Meadowcroft, and Carol Stockman.



ARCS members enjoyed the trek out to Powdermill Nature Reserve, an environmental research center of the Carnegie Museum of Natural History, located in Rector, PA, where Larry Long, Powdermill's Senior Environmental Educator, entertained members with his terrific lecture about the Reserve, their research, and the indigenous plants on the mini-hike along the new accessible trail. Afterward, Missy Unkovic hosted ARCS members with a beautiful lunch at her serene cabin home nearby. Pictured left to right: Jan Wagner, Marilyn Bruschi, Larry Long, Carol Moyer, Powdermill Master Gardner Martha Oliver, Lourdes Castellanos, Thea Stover, and Judy Clouah.

Thank you to our outgoing President, Missy Unkovic

Missy stepped down from an unprecedented three-year term as ARCS Pittsburgh President; the typical tenure is two years. As an all women, all volunteer organization (even at the national level), ARCS has **no paid staff**. The reason is simple: we want as close to 100% of the contributions we receive to go to our science scholars' awards. It's safe to say that any donation to ARCS has a huge payoff for its mission, since our overhead is so low. ARCS Pittsburgh cumulative donations received (and hence awards to scholars) is closing in on \$1.5 million since our founding in 2003 – only possible because of capable leaders, like Missy.



Missy is no stranger to nonprofit leadership; she has served as chair of numerous organizations and has always left behind stronger, more community-visible programs. She was a math major graduate from CMU, which, as she is quoted to say, "...has made me a problem solver." With Missy's leadership, ARCS Pittsburgh's finance team is the strongest it has ever been, and board members are more connected with each other than ever before, even though so many are new to ARCS. Missy's motto for us all has been, "We do the best we can and that's terrific!" No one felt overworked or underappreciated with Missy as leader.

But what we both admire especially in Missy is her calm, kind, get-work-done

leadership style. She made the role of President look like fun! She easily lingered with members, students, university leaders, and community leaders before, during and after the many ARCS events over these three years, enjoying everyone's input and good company. We've enjoyed the organizational culture that Missy established for us all and will do our best to continue being an organization noted for its professional competence and support of members in achieving our mission: Advancing Science in America[®].

Thank you, Missy!



Letter from the Presidents

IMPACTING OUR COMMUNITY WITH FRIENDS!

In the spirit of "doing things with friends," we are honored to serve as ARCS Pittsburgh new "Co-Presidents." The co-presidents' role is unusual in ARCS; most of the ARCS Foundation, Inc. 16 chapters across the US have one President each. We agreed readily that we have the tenacity, flexibility and camaraderie to chart a new way of leading an ARCS Chapter. We hope our Chapter can serve as a model for the others.

We think the time and relationship-building required of an all-women-volunteer group takes two committed women! We salute all our chapter "sisters" who have lead by themselves (of course with talented boards and members). But we think a dual-leadership will give us time to devote attention to every committee and to get to know members, future members, our university partners, and our talented scholars... as well as to continue full engagement in other activities in our lives.

Kathy will serve as our National Liaison (attending the four national meetings at her own expense). Pam will serve as the organizer of our local work, which means including all of our 130 members. We are in contact frequently by email, text, phone, and in person. We're comfortable with the blurriness of our roles. We live close-by and enjoy attending our frequent committee meetings together. We are committed to having fun in our leadership and actualizing fun for all of our members and our special scholars.

We plan to let our National ARCS Foundation know how our experience evolves. We think the ARCS mission of "Advancing Science in America" requires focusing on relationships, and our leadership will model that.



-Pam Meadowcroft & Kathy Testoni

"Having Fun with ARCS Pittsburgh Members!" Kathy Testoni, Missy Unkovic, Pam Meadowcroft



Farewell to Our Third-Year Scholars

We wish them continued success as they complete their studies and look forward to staying in touch with them and watching their careers progress.

CARNEGIE MELLON UNIVERSITY Scholar Alumni:



Peter Chapman The Kirwin-Leckey Award School of Computer Science Computer Science Department Research Interest: Computer science and security

UNIVERSITY OF PITTSBURGH Scholar Alumni:

Courtney Andersen

The Woodard-Ryan Award School of Medicine, Interdisciplinary Biomedical Graduate Program Molecular Pharmacology **Research Interest: Cancer** pharmacology and Nuclear receptor signaling



Thomas Jackson Pittsburgh Chapter Award School of Engineering Department of Electrical and Computer Molecular Engineering

Whitney Lane

The Jeanne Berdik Founder Award School of Medicine, Interdisciplinary Biomedical Graduate Program, Virology and Microbiology Research Interest: Pharmacology and Breast Cancer



The Heppner-Testoni-Young Award Department of Civil and Environmental Engineering Research Interest: Drinking water treatment Brain computer interfaces

PENN STATE UNIVERSITY Scholar Alumna:



Pittsburgh Chapter Award Ecology Program Research Interest: Climate change and plant root ecology

Nick Pavlovsky

The Abraham-Martin-Ragni Award Department of Bioengineering Research interest: Neuroprosthetics and

Brooke Sullivan

The Fine Foundation Award School of Medicine, Interdisciplinary Biomedical Graduate Program Research Interest: Genetics and Viral-medicated gene therapy



Hot Tickets

Scholars love getting "free" tickets to symphony, theater, and sporting events that ARCS members can't use. One scholar was so excited about getting Steelers tickets that he volunteered to sweep snow from the member's sidewalks for a year. If you can't use your tickets to any sports or cultural event, please email Kathy Dee at kathydee28@aol.com or telephone her at 412-243-5333. Include your telephone number and the event name and date. Kathy will facilitate the exchange of your tickets with the scholar.

The lucky recipient(s) will thank you.



Scholar Profile: Laura Radville in the Arctic

By Ann Fromm

"I go to the Arctic every summer now to study the effects of climate change," says Laura Radville, third-year ARCS scholar at Penn State, "and to see how climate change affects the timing of plant growth."

SCIENCE

AP

Originally from Boston, near where her parents and younger brother still live, Laura majored in art and biology as an undergrad at Holy Cross University, and earned a Masters in Science at the University of Rhode Island. She published a portion of her thesis in the prestigious journals Ecology, and Journal of Chemical Ecology and Biological Invasions. For the last three years, she has done her Penn State fieldwork in the Arctic.

"I escape the heat for three months," she says. "It's snowy when I first get there. By end of June and July, it's spring, with temperatures perfect for me in the high 50s, low 60s. You can see climate change happening faster in the Arctic."

Laura studies the roots of plants, mostly small plants such as dwarf willow, dwarf birch and various grasses. "Other researchers study soil and plants above ground," Laura says, "so I focus on what happens under the ground."

Laura and others camp in the tundra not far from the town of Kangerlussuaq, which it takes an hour to reach from camp. They must hike to a road, then drive a dirt road into town. The tundra, made up of low-lying tufts of grass, with no trees anywhere, supports many ridges carved by retreating glaciers. "Every day at



camp," Laura says, "we see pieces of the Inland Glacier break off. At night, we hear it, like thunder, as chunks of glacier fall off and boom."

Laura photographs the roots she studies, measures the root growth and enters data into her computer program about how the roots have changed over the years. It takes time to gather the data, and more time to sort through it. She calls her boyfriend, Jason Wittenbach, "incredibly supportive" for understanding her need to do such timeconsuming work so far away. Also a scientist, Jason earned a PhD in Physics at Penn State and now studies neuroscience in Virginia.

Because Kangerlussuaq is isolated, Laura appreciates the chance to see other researchers in her field at other times. Last year, thanks to her ARCS award money, she was able to visit Copenhagen, where similar work on climate change is being done. "Copenhagen is an expensive city," Laura said. "I was so grateful to be able to meet researchers there, see the city, and make connections for my work."

From her early interest in art, Laura still paints watercolors and plans to learn pottery at Penn State this semester. She also runs. She hopes to earn her PhD in only four years instead of five.

It's an ambitious plan for a busy scientist, so dedicated that she said last spring, "I'm eager to get back to my favorite roots. I can recognize them now."



Summer research in the Arctic! Kangerlussuaq – a small town in western Greenland

ARCS Light Award—Janet Wood

By Ann Fromm

Congratulations to Janet Wood, awardee of the 2015 ARCS Light Award for outstanding volunteer service and dedication to ARCS for more than eight years. A Cornell University graduate with an MBA from the University of Pittsburgh Business School, Janet has been a quiet and effective presence with ARCS for the last eight years. She served on the Program Committee with Charlotte Beukema and then chaired it herself for two years. She co-chaired the Nominating Committee for two years with Carol Heppner, and recently co-chaired Fund Development with Kathy Testoni. Above all, Janet has sponsored an ARCS scholar, with two other members, for the last three years.

Janet had served in the non-profit world even before she learned about ARCS. President of the Board of the former Jane Holmes Residence for

the elderly, she has also been active with the Shadyside Presbyterian Church. Mission trips to the "Holy Land," between the Jordan River and the Mediterranean Sea, and to China have highlighted her church service.

Currently living in Pittsburgh's East End, Janet is married to Ed Wood, a former attorney. They have three daughters scattered on both coasts, as well as two energetic young grandsons. Janet and Ed travel frequently to see family and friends, domestically as well as abroad. Yet Janet remains prompt, responsive and generous with her time toward ARCS. She richly deserves this year's Light Award.

Scholar Thank You Notes

Dear Ms. Wagner and Ms. Gookin,

Thank you so much for your support of the ARCS Foundation. Over the past two years, the ARCS Scholarship has been invaluable to me. Last summer, I spent a few months working with some of the top computer scientists in my area in Germany. This work led to a paper that I will present in a few months at a conference in Portland, Oregon. Unfortunately, because this work is not directly related to my advisor's research, he cannot use his grants to pay for my travel. Although I have applied for special travel grants, the ARCS Scholarship ensures I will be able to travel even if these other funding sources do not come through. This is just one example of how your support helps students like me.

-anonymous

Dear Mrs. Cohon,

Thank you so much for your support in my academic achievement as an ARCS scholar. The financial assistance truly affects the quality of graduate student's life, and I have greatly enjoyed the freedom it provides both in my research and in my personal life. In addition, the community created by the ARCS Foundation has been incredibly supportive and has connected me with fellow researchers and friends. I am greatly enjoying my first year in graduate school, and ARCS is a significant reason for that. Thank you again.

-anonymous







ARCS Foundation and Pittsburgh Donors 2014 – 2015

CORPORATION, FOUNDATION AND FULL SCHOLAR AWARDS DONORS

The Jeanne Berdik Founder Award The Jared L. and Maureen B. Cohon Founder Award The Fine Foundation Lockheed Martin PPG Industries The Roche Foundation, with Mary Ann Templeton's support

ARCS Pittsburgh - NAMED AWARD DONORS

FULL SCHOLAR AWARDS

Alicia M Avery and Virgil D Gligor Roy and Susie Dorrance Leslie and Hans Fleischner John and Catharine M. Ryan in honor of Jeanne Berdik

HALF AWARDS

Jeanne and Dick Berdik Linda Beerbower Burke and Timothy F. Burke, Jr. Cristy Gookin Susan M. and R. Michael Harter Susan and Chris Pappas Carol and Paul Stockman Missy and John Unkovic Lise Woodard and John Reilly, MD

ONE-THIRD AWARDS

Francine Abraham Karen Auclair Mary Lou Bennett Charlotte and Henry Beukema Sue and Mark Breedlove Mimi Barash Coppersmith Ann Fromm Kate Freed and Jack Brice Carol and Richard Heppner Sarah and Craig Jones Jennifer and James Martin Pamela Meadowcroft and James G Holland Barbara R. Palmer Margaret V. Ragni, MD and Frederick L. Porkolab, MD Millie and Gary Ryan Thea and Dick Stover Kathleen M. and Louis Testoni Elizabeth T. Wainwright Janet Wood Maureen Young

ARCS Foundation greatly appreciates the generosity of these donors toward our scholars.

Donations of Appreciated Stock

As you well know, the many successes of our ARCS scholars are the direct result of the generous contributions of our chapter members. Some members have inquired about whether it would be possible to donate appreciated stock from their investment portfolios. This is, indeed, another great way to support the ARCS Foundation. We'd call it a "win-win." ARCS Pittsburgh chapter board member Linda Burke has outlined below how your contributions of appreciated stock can be a great benefit to you and ARCS alike:

ARCS members generally contribute their annual donations in cash. We want you to know that ARCS can also accept contributions of publicly traded stock. Since ARCS is an organization approved and administered as a Charitable Organization under Internal Revenue Code Section 501(c)(3), donors may give appreciated stock to ARCS with favorable tax consequences.

If you have held the stock for more than one year, you may take a charitable contribution for the market value of the stock, and neither you nor ARCS has to pay capital gains taxes when the stock is sold. (Market value of publicly traded stock is the average of its high and low trading prices on the day of the donation.) This combination of deduction with no capital gains tax can result in a bigger deduction (thus more tax savings) for you and a bigger gift to ARCS than if you sell the stock and donate the net proceeds. This result is illustrated in the chart below:

Contributions of Appreciated Stock	Donate Stock: Contribute securities directly to charity	Donate Cash: Sell securities and donate proceeds
Current fair market value of securities	\$50,000	\$50,000
Capital gains and Medicare surtax paid ² (23.8%)	\$0	\$7,140
Charitable Contribution/Charitable Deduction ³	\$50,000	\$42,860
Value of Charitable Deduction Less Capital Gain Taxes Paid ² (Assumes donor is in the 39.6% federal income tax bracket)	\$19,800	\$9,833

From Fidelity

In general, the amount of your deduction is limited to 30% of your adjusted gross income, but you can carry forward amounts above that for up to five years. Limitations may apply if your adjusted gross income exceeds \$258,250 for single taxpayer or \$309,900 for joint filers. This limitation could reduce deductions by 3% in certain situations where deductions are itemized. Thus, in the example above the deduction would be decreased by \$1,500, but still results in substantial tax savings. As with any non-cash contribution, consulting with your tax advisor is recommended.

The transfer of stock as a gift is appreciated anytime. You may do so now or when you pay your annual dues. Should you decide to transfer stock as a gift to ARCS Pittsburgh, please use the Donor Letter of Securities Transfer Form which contains all of the instructions that your broker will require. The link to the online form can be found on the ARCS Pittsburgh website.

	Academic	CMU	Pitt	PSU	TOTAL
	Year				
	2004-2005	5,000			5,000
	2005-2006	25,000			25,000
	2006-2007	45,000			45,000
7	2007-2008	70,000			70,000
	2008-2009	90,000	25,000		115,000
	2009-2010	92,500	50,000		142,500
	2010-2011	85,000	60,000	15,000	160,000
	2011-2012	75,000	55,000	20,000	150,000
	2012-2013	75,000	60,000	25,000	160,000
	2013-2014	70,000	60,000	15,000	145,000
	2014-2015	72,500	65,000	25,000	162,500
	2015-2016	75,000	65,000	20,000	160,000
	TOTALS	\$780,000	\$440,000	\$120,000	\$1,340,000

Thank You to Susan Kendall

Chart of Grant Totals

Made to Universities

Long-time ARCS Pittsburgh chapter member, Susan Kendall, passed away this spring on April 24th peacefully in her home at the age of 74. Susan graduated from Middlebury College in Vermont with a degree in Math and worked as a researcher in the Space Science department of General Electric. We are immeasurably grateful for her many generous contributions over the years, including a final bequest of \$10,000.





Bring Your Friends to ARCS!

Our primary focus for 2015-2016 will be MEMBERSHIP! ARCS Pittsburgh members join ARCS through word-of-mouth. But they stay for many reasons. Our recent annual all-members planning event was at the Schenley Café – a wonderful venue for our lively discussions (and it will be there again this next spring, so stay tuned!) At these evening planning sessions and at the many events we host throughout the year, we hear that members stay committed to ARCS because of:

- The inspirational and exciting research of our young scholars
- The uniquely varied educational programs (a field trip to ALCOSAN and the following one to Powdermill Nature Preserve!)
- Having & making friends, and learning from the women in the organization
- The varied volunteer opportunities (helping on one event, serving on a standing committee, or serving on the board of directors)

We also heard recently from members that our organization is becoming known as the most supportive all-women's volunteer organization in the region.

The main reason members leave is due to the lack of time they have for taking advantage of these many benefits. We are trying different ways in the coming year to engage ALL of our members despite the busy schedules we all have.

For example, our traditional two Al Fresco lunches in the summer were changed to one luncheon and one evening social event. At these summer events, we had more scholars for casual discussions than ever before. We will be reaching out to you all to see if there are ways we can better engage you, since those of us who do become engaged find the organization to be rewarding, educational, and FUN!

We know that if you attend an event, get to know one scholar, and/or volunteer on a committee, you will reap the benefits of your membership each year!



ARCS board members Carol Heppner & Beth Wainwright

Online Membership Renewal

Pittsburgh Chapter Board of Directors

Debra Alward Communications

Charlotte Beukema Treasurer

Linda Burke Parliamentarian & Membership

Leslie Dunn Scholar Relations

Barbara Granito Planning

Carol Heppner Assistant Treasurer

Angie Maher Director of Finance

> Jennifer Martin Program

Pam Meadowcroft Co-President

> Annie Rivers Nominating

Karen Slevin University Relations

> Kathy Testoni Co-President

Missy Unkovic Fund Development

Beth Wainwright Donor Relations

Jeanette Wholey Secretary

"Renewing online was really easy, even for someone who considered herself Internet-challenged," says Membership Co-Chair, Arlene Sokolow.

Yearly membership can be renewed online at <u>www.arcsfoundation.org/pittsburgh</u> under the Membership Payment & Renewal tab. Dues can be paid by online via credit card or by donations of appreciated stock by filling out the form provided. You may also send a credit card payment or a check made payable to "ARCS Foundation – Pittsburgh Chapter" through the mail to the following address: **Treasurer, ARCS Foundation - Pittsburgh Chapter**

P.O. Box 9117

Pittsburgh, PA 15224

-Pam Meadowcroft & Kathy Testoni



ARCS Pittsburgh is MORE IMPORTANT THAN EVER!!

The ARCS Foundation began as a reaction to the US lagging behind in science during the Sputnik era. Once again, we are entering a phase in which the stature of US innovations based on scientific research is challenged as other countries invest far greater funds than we do. We hear, we are once again going to be left behind...

National news outlets this year (*Wall Street Journal, New York Times*, various science journals) let us know that young scientists cannot find funding for their research, and since corporate careers are easier to get into, new scientists are opting out of scientific research altogether. Innovation comes from research scientists – just think of the original hard science research that eventually enabled us all to carry around a cell phone that has "more computing power than the Voyager spacecraft that left the solar system two years ago¹." But with less and less funding available for research, even in traditionally research-oriented corporations, breakthrough innovations are less likely. Our own local highly-ranked research centers are struggling to adjust to cuts in research dollars.

ARCS Pittsburgh has an important role to play: assuring that our community understands the importance of basic science research and finds it worthy of our philanthropy. Our members are a band of science enthusiasts or, at least, very curious about scientific research. Our scholars tell us that the awards and special relationships they have with our members inspire them to go forward in research careers. The ARCS mission, Advancing Science in America[®], is important more than ever. And our members are helping to do just that.

-Pam Meadowcroft & Kathy Testoni

¹ American innovation lies on a weak foundation, Eduardo Porter, Economic Scene, *The New York Times*, May 19, 2015

Save the Dates/Upcoming Events

DONOR APPRECIATION RECEPTION- An evening to meet the scholars! September 22, 2015 6-8pm The University Club 123 University Place Pittsburgh, PA 15260 Open to Spouses and Significant Others Our featured speaker will be Dr. Alberta Sbragia, University of Pittsburgh, Vice Provost for Graduate Studies

ARCS ALL MEMBERS CONFERENCE

September 30-October 3, 2015

The InterContinental Chicago Magnificent Mile, Chicago, Illinois

Event registration ends September 19, 2015. The conference will be extra special with a look ahead for this growing national organization; inspirational speakers over dinner at the Adler Planetarium and the tour of the University of Chicago Fossil Lab; and entertaining events that only Chicago could provide: Devil in the White City Bus Tour, Chicago Architecture River Cruise, and Second City Performance. To register, go to <u>www.arcsfoundation.org</u>.



The rest of the 2015 Fall Events are in the works. Watch your email for these programs.