

ARCS-Pittsburgh Newsletter

www.arcsfoundation.org/pittsburgh

Summer 2011

Achievement Rewards for College Scientists

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

The Pittsburgh Chapter, chartered in 2003, is one of the newest of 17 chapters. In a very short time, the Chapter has already made a sizable financial commitment to its first two partner universities, Carnegie Mellon University and the University of Pittsburgh. A third partnership with Penn State University is now underway with funding that began in the fall of 2010.



Mildred (Millie) A. Ryan Receives ARCS 2011 Light Award

The ARCS Light Award is a distinctive honor awarded to a Chapter member who has given the highest quality of long-term service to the Chapter. The selected outstanding member is recognized by the Chapter at the Chapter's Annual Meeting and at the ARCS Foundation national Annual Meeting. Only one ARCS Light Award may be designated by the Chapter each year. However, the award need not be given every year.



This year, the Pittsburgh Chapter recognized **Mildred A. Ryan** as the recipient of the **ARCS Light Award** at its Annual Meeting. Millie became a member of the Pittsburgh Chapter in 2004. She has served as Membership Chair and Co-Chair, Nominating Chair and Co-Chair and University Relations Chair. Millie has also served on the Program, Fund Development and Planning and Evaluation Committees.

Scholars Highlight their Research at the Scholar Showcase Event



The new "moveable feast" format for the Scholar Showcase Event March 30, 2011 at the Twentieth Century Club focused on the 12 third-year scholars and their research projects.

A short cocktail reception for the host committee, patrons and donors opened the evening. As guests entered the ballroom for the main event, they received copies of all the student research abstracts. Poster boards of these projects studded the ballroom for the guests to peruse. Circulating wine and hors d'oeuvres allowed guests to interact with each other and the students.



For the final leg of the evening, guests moved into the auditorium, where President Carol Stockman offered a few words, followed by Pittsburgh Chapter's first ARCS Scholar, Elisabeth Gilmore, PhD who gave concluding remarks. A total

of 122 attendees enjoyed the evening, which earned a profit of approximately \$4,000.



Pittsburgh Chapter Board of Directors 2010-2011

Carol Stockman, President

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Arlene Sokolow

Kathy Testoni

Missy Unkovic

Maureen Young

Janet Wood

**Either Ex Officio or appointed
and, therefore, are not elected by
the membership*

Communications Committee

2010-2011

Chair: Debbie Scully

Co-Chair: Ann Fromm-
Cotton

Committee Members

Carol Heppner

Debbi Linhart

*A special thanks to Debbie
Meyers and CMU for
printing and mailing this
newsletter.*

Five Members Leave the Pittsburgh Chapter Board

The ARCS-Pittsburgh Chapter has been the privileged recipient of the many talents of the following women whose Board term ends in June 2011. On behalf of the entire membership, our heartfelt thanks go out to each of you for your endless hours of hard work.

Cynthia Carrow has served in the following capacity-Fund Development Co-Chair 2009-2011.

Caryle Glosser has served in the following capacity-Nominating Committee Co-Chair 2010-2011.

Sue Harter has served in the following capacities-Communications Chair and Co-Chair 2005-2008, President 2008-2010, Past President 2010-2011.

Annie Rivers has served in the following capacity-Membership Co-Chair 2009-2011.

Millie Ryan has served in the following capacities-Membership Chair 2005-2006, Nominating Chair and Co-Chair 2006-2009, University Relations Chair 2009-2011, SAE Co-Chair 2010.

ARCS Scholar Studies Marcellus Shale Water Safety Safe Drinking Water: Tracking the Effects of Marcellus Shale Gas Drilling

ARCS Scholar Jessica Wilson, a doctoral student in Carnegie Mellon's Civil and Environmental Engineering Department, has already seen how her research can have an impact on environmental policy.

Wilson and her advisor, Professor Jeanne VanBriesen, found high levels of bromides in the Monongahela River in July 2010. Sources of bromide in the basin can include treated Marcellus Shale gas-drilling-produced water and wastewater from coal-fired power plants. When this water is processed in drinking water treatment plants, and the bromides interact with the chlorine used to treat the water, they create toxic substances that can pose health risks to the public.



This research, along with other related studies, raised such urgent concern about drinking water safety that the Pennsylvania Department of Environmental Protection (DEP) requested that Marcellus Shale gas drilling companies stop sending waste waters to disposal plants that discharge into surface water. "One of the reasons I am interested in this field was because I know my work can affect the public and help to create a cleaner environment," Wilson said. "But this DEP decision was totally unexpected, and it was great to be able to help and contribute in this way. I am grateful to ARCS for the support that made this research possible."

Wilson and VanBriesen are continuing to monitor river water through this summer. "We will see where the data go. This is just the beginning."

New Members Energize ARCS - Share the Fun!

A reminder to our current members that you will be receiving your membership renewal notices in mid to late June. Please review the membership form and return it by July 31, 2011. Your continued support and generosity are greatly appreciated.

As we increase the number of scholars we support, we need to increase our membership. We encourage all our current members to think of women with whom you work, play or volunteer who might be interested in learning about ARCS.

Members who contribute to ARCS enable us to support our young scientists, and word-of-mouth enthusiasm encourages new members best of all. Participation in the ARCS programs and events is a good way to introduce a prospective member to ARCS. Our annual recruitment event, the Tech Tea, is scheduled for October this year. You'll receive more information about this event in the fall.

If you have someone in mind, please submit their name, address and phone number to Annie Rivers at anniesrivers@yahoo.com. If you have any questions, or require additional information, please don't hesitate to contact her.

Wilpen Hall Event June 9, 2011

Some very lucky members were given the unique opportunity to spend the afternoon of June 9th at Wilpen Hall, home of ARCS member Dr. Verna Corey and her husband William Snyder III. The weather was warm and sunny, the house was magnificent, and the gardens were lovely. Iced tea and lemonade along with various tea sandwiches and sweets were served on the gracious stone porch at tables decorated with flowers from the garden. Verna and her staff shared stories of the history of the house and gardens as they led walking tours.

We are so grateful to Verna for her hospitality and generosity. The event raised \$900 for the Scholar Award Fund.



Pencils Out: Upcoming Events You Won't Want To Miss!

Thursday, July 21	Al Fresco lunch at Carol Stockman's Shadyside home - noon
Tuesday, August 23	Al Fresco lunch at Peggy Mooney's Fox Chapel home - noon
Tuesday, September 13	ARCS Donor Appreciation Event hosted by the Chancellor of the University Pittsburgh at the University Club in Oakland
October 2011	Tech Tea
March 28, 2010	Scholar Showcase Event at the Twentieth Century Club

More details regarding each event will be forthcoming by email and post.

Participating University Fun Facts

CARNEGIE MELLON UNIVERSITY

Established: 1900
Type: Private University
President: Jared L. Cohon
Faculty: 1,368
Undergraduates: 5,705
Postgraduates: 5,265
Campus: Urban
Athletics: NCAA Division III
Nickname: Tartans
Mascot: Scottie Dog
Motto: "My heart is in the work."
Andrew Carnegie

UNIVERSITY OF PITTSBURGH

Established: 1787
Type: State-related
Chancellor: Mark Nordenberg
Faculty: 4,686
Undergraduates: 18,031
Postgraduates: 10,297
Campus: Urban
Athletics: NCAA Division I
Nickname: Panthers
Mascot: Roc the Panther
Motto: Truth and Virtue

PENN STATE University Park

Established: 1855
Type: State-related
President: Graham Spanier
Faculty: 8,626
Undergraduate: 38,630
Postgraduates: 6,202
Athletics: NCAA Division I, Big Ten Conference
Nickname: Nittany Lions
Motto: Making Life Better



We bid farewell to the following third-year scholars and wish them continued success as they complete their studies. We look forward to staying in touch with them.

Carnegie Mellon University Third-Year Scholar Alumni



CHASE HETHERINGTON BUTLER

Hans and Leslie Fleischner Award 2008-2011

Mellon College of Science, Chemistry Department;
B.S., Chemistry, Yale University, 2008

Research interest: Art conservation science, inorganic chemistry



MARK DEBLOIS

Pittsburgh Chapter Award 2008-2011

Mellon College of Science, Biological Sciences Department;
B.S., Zoology, and B.A., Psychology, University of Hawaii Manoa, 2007

Research interest: Neuroscience



LINDSEY HINES

The Highmont Foundation Award 2008-2011

Department of Robotics, School of Computer Science.
B.S., Mechanical Engineering and B.S., Mathematics, University of St. Thomas, 2008

Research interest: Dynamics/controls



STEPHEN ONEY

Heitzenroder-Stockman-Woodward Award 2008-2011

School of Computer Science, Human-Computer Interaction Institute;
B.S., Computer Science, MIT, 2007; M.E., Computer Science, MIT, 2008

Research interest: Natural programming



ANDREW RAPE

Carol and Richard Heppner Award 2008-2011

Biomedical Engineering Department;
B.S., Biomedical Engineering, University of Rochester, 2008

Research interest: Cellular mechanics



ROBERT SMITH

Mine Safety Appliance Charitable Foundation Award 2008-2011

Chemical Engineering Department;
B.S., Chemical Engineering, Florida State University, 2008

Research interest: Polymers



JESSICA WILSON

Berdik-Elliott Award 2008-2011

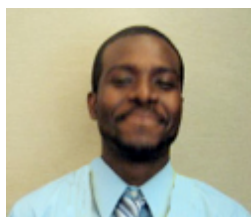
Carnegie Institute of Technology, Civil and Environmental Engineering Department;
B.S., Environmental Science, Russell Sage College, 2005;
M.S., Environmental Engineering, Manhattan College, 2008

Research interest: Environmental biotechnology



University of Pittsburgh Third-Year Scholar Alumni

University of Pittsburgh School of Medicine,
Interdisciplinary Biomedical Graduate Program



PRINCE AWUAH

Pittsburgh Chapter Award 2008-2011

BA, University of Maryland Eastern Shore, 2008

Research interest: Biochemistry and molecular genetics



KRISTEN BALOGH LESLIE

Pittsburgh Chapter Award 2008-2011

BA, Baldwin-Wallace College, 2008

Research interest: Pharmacology and breast cancer



NYDIARIS HERNANDEZ-SANTOS

Gookin Family Foundation Award 2008-2011

BA, University of Puerto Rico, 2008

Research interest: Immunology



MICHELLE MESSMER

Pittsburgh Chapter Award 2008-2011

BA, SUNY-Buffalo, 2008

Research interest: Antigens that serve as markers for various forms of cancer in the context of immunology



BARTHOLOMEW ROLAND

Granito- M. Ryan Award 2008-2011

BA, Central Michigan University, 2008

Research interest: Cellular and molecular basis of neural development and neurodegenerative diseases, as exemplified by Huntingtons, Alzheimers and Parkinsons disease

Your "Hot Tickets" Can Help Our Scholars See the 'Burgh

One of the goals of ARCS for our scholars is to help them see what Pittsburgh has to offer, and to encourage them to live in our wonderful city as they continue their careers. Most students cannot afford our major league sporting events or cultural events. Now we have a way to let them take advantage of our own unused event tickets.

If you can't use your ticket(s), email Kathy Dee and she will send out an email blast to the scholars that certain "Hot Tickets" are available. If a scholar can use them, he or she will contact you directly and arrange to get them. With enough advance notice, you can mail them to the scholar. On short notice, you and the scholar can arrange to meet, or you can arrange for the scholar to pick them up. Once a scholar has claimed a ticket(s), please email Kathy Dee so she can let the others know the ticket(s) has been promised.

Contact Information: Kathy Dee email KathyDee28@aol.com or phone 412-243-5333.

Please include:

- ◆ Your phone number
- ◆ The name of the "Hot Ticket" event and date



Message from the Chapter President

Dear Members,

I've recently returned from the 2011 National Annual Meeting (NAM). Given that I know that many of you shared my concerns about the proposed governance changes, I'd like to begin by providing you with an update. While I traveled to Amelia Island with some trepidation about the National Board meeting (which takes place on the final morning), the NAM ended up being a great meeting and a very positive experience. It's impossible to attend this meeting, or any of the programs at the local or national level, without being reminded of the importance of the ARCS Foundation's mission. It also demonstrated that, while we may have differences from time to time, compromise is always possible when we all want the best for the Organization. Before the National Board meeting, a compromise was reached and the more dramatic of the proposed governance changes were tabled. A sub-committee has been formed to re-examine the issues at stake. I think that this is a good outcome for the organization as a whole and I thank you for caring enough about our Chapter and the entire ARCS Foundation to be willing to take an interest in this issue. I can discuss this issue in greater depth with any of you who are interested.

While at the NAM, I was both proud and pleased to see Jeanne Berdik take office as the incoming President of the National organization. Jeanne is going to be a fabulous President and I look forward to working with her for the remainder of my term as President of the Pittsburgh Chapter. Another of the highlights of the National Annual Meeting is always the ARCS Light Luncheon, recognizing a key volunteer from each Chapter. Millie Ryan is our Chapter's ARCS Light Award recipient this year. I was so glad that Millie and her husband Gary were able to travel to Amelia Island so that she could accept her award in person. We're all very proud of Millie and grateful for the many hours she has donated to furthering the ARCS Foundation's mission.

One bright point in what seemed to be a very long and gray winter were the opportunities ARCS members had to get together. In January and February, the Planning and Evaluation Committee held a series of planning luncheons attended by over 40 members. I attended a number of the luncheons myself and can't express how much I enjoyed talking with all of you and how many good ideas came out of that process. A copy of the report developed by Planning and Evaluation has been circulated via e-mail. Over the next several months, we'll begin implementing some of the suggestions that came out of the planning luncheons.

We also had our first Scholar Showcase in March and it was fantastic. Our Second Scholar Showcase has already been scheduled for March 28, 2012. I hope that now that you know how much fun our Scholar Showcase is, many more of you will try to encourage friends to attend the event next year. It's a wonderful opportunity to show off the importance of the mission of ARCS Foundation through our scholars' fascinating research.

Earlier in June, ARCS member Verna Corey offered us a very special opportunity to have tea and tour the gardens of historic Wilpen Hall. There is an article about the delightful afternoon we spent at Wilpen Hall in this newsletter. Finally, continuing our practice over the last two summers, we will have two "ARCS al fresco" luncheons this summer. The first will be on July 23 at my home in Shadyside. The second will be on August 23 at Peggy Mooney's home in Fox Chapel. This will be the second "al fresco" Peggy has hosted and we are very grateful for her continuing generosity.

Thank you for your ongoing support of ARCS Pittsburgh. Our continuing success is entirely thanks to your generosity.

Carol Stockman, President

ARCS Foundation and Pittsburgh Donors

CORPORATION and FOUNDATION DONORS OF FULL SCHOLAR AWARDS

The BNY Mellon Charitable
The Fine Foundation
The Gookin Family Foundation
Thomas W. and Carol K. Henderson Family Fund of the Pittsburgh Foundation (II)
The Highmont Foundation
The MSA Charitable Foundation
PPG Industries Foundation (II)
Westinghouse Electric Foundation (II)

INDIVIDUAL DONORS OF FULL SCHOLAR AWARDS

G. Patricia Beckman*
Roy and Susie Dorrance
Leslie and Hans Fleischner (II)
Carol and Richard Heppner
John T. Ryan III and Catharine M. Ryan in honor of their daughter, Maureen Emily Ryan*

DONORS OF ONE-HALF AWARDS

Jeanne and Dick Berdik (III) *
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Bettyanne and James C. Huntington, Jr.
Margaret P. Joy *
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Mary Anne and John Paul
Millie and Gary Ryan *
Carol and Paul Stockman *
Kathleen M. and Louis Testoni *

DONORS OF ONE-THIRD AWARDS

Mary Lou Bennett *
Charlotte and Henry Beukema *
Cynthia Carrow and James Kyper *
Mimi Barash Coppersmith *
Barbara and David Heitzenroder *
Susan T. B. Kendall *
Carol and James McCague
Barbara R. Palmer
Margaret V. Ragni, MD and Frederick L. Porkolab, MD *
Elizabeth T. Wainwright (II) *
Sara and Tom Woodward

Roman numerals indicate multiple awards

* Indicates a contribution in addition to the Named Award

ARCS Foundation appreciates the generosity of those who have contributed to support our Scholars!

ARCS Welcomes Our First-Year Scholars for Fall 2011

Carnegie Mellon University Scholars

Rachel Jackson is joining the PhD program in Mechanical Engineering. She is completing her B.S. in Mechanical Engineering from Rice University. She received an NSF Graduate Research Fellowship and is going to be working in the areas of controls with applications to biomedical engineering and robotics.

Amy Scarborough has accepted our offer of admission and support to join the Engineering and Public Policy (EPP) PhD program. She is completing her undergraduate major in Bio-informatics at Pitt with minors in Chemistry and Studio Art. She is going to pursue doctoral research in Air Pollution Studies and Policy, Water quality and Public health and risk-based regulatory policy.

David Bamman has been admitted to Carnegie Mellon's Language Technologies Institute. He has a Masters from Brigham Young University and an undergraduate degree from the University of Wisconsin at Madison. His interests are in language technologies for classical Latin and Greek for digital libraries.

Samantha Finkelstein is joining the Human Computer Interaction Institute. She has an undergraduate degree from the University of North Carolina, Charlotte and is interested in pursuing virtual reality and psychology.

Shawn Burton is currently a graduate student at the University of Pittsburgh studying neuroscience. His undergraduate work was in biomedical engineering and microbiology and he will join the Department of Biological Sciences. Shawn has already been active in the Center for the Neural Basis of Cognition and received an IGERT training fellowship, among several other recognitions of his excellence.

University of Pittsburgh Scholars

R. Matt Miller graduated from Case Western Reserve University (CWRU) with a joint BS/MS degree in biomedical engineering. He is planning to undertake research in bone biomechanics under the direction of Dr. Rich Debski at the University of Pittsburgh.

Denver Faulk graduated with honors from Carnegie Mellon University with a BS in Chemical and Biomedical Engineering. Denver is planning to begin his graduate research in the tissue engineering area under the mentorship of Dr. Stephen Badylak.

Adam Large is a graduate of the University of Chicago and is entering the Center for Neuroscience PhD program. Adam is interested in computational and cognitive neuroscience.

Austin Nuschke is a graduate of Penn State University and has broad interests in stem cells, cancer and infectious diseases.

Pennsylvania State University Scholar

Christopher Thawley has a BS in Biology from Davidson College, North Carolina and an MS in Biology from the University of Alabama. He is interested in biological invasions and how species (especially amphibians and reptiles) cope with these invasions; as these species are often the "canaries in the coal mine" as indicators of ecosystems under stress. He has won numerous awards, including a National Merit Scholarship.