

ARCS

ARCS PITTSBURGH NEWSLETTER SPRING 2024

Message from the Presidents

Linda's husband recently went on a once-in-a-lifetime adventure of trekking to the base camp of Mount Everest. Talk about an ambitious bucket list activity he saved for his 70s! It is a perfect reminder that we should never give up on our dreams.

Our Scholar Showcase on April 4th was a wonderful event (see the article and photos on page 4) and provided all of the attendees the opportunity to get a glimpse of the research accomplished by our third year scholars. We also got a glimpse of what the scholars do when they are not in their labs. Who knew we had a pole dancer?

During the showcase we presented two inaugural Jeanne Berdik Scholar Achievement Awards to **Nicole Auvil** (CMU Mellon College of Science) for her mass spectrometry research and design and **Lauren Narbey** (Pitt School of Nursing) for her improvements in healthcare for pregnant and postpartum women with substance abuse disorders. All of our scholars are doing such incredible work that the universities found it really difficult to nominate just one candidate for their research accomplishments as an ARCS scholar. Congratulations to Nicole and Lauren! Read more on page 2.

One of the great rewards of ARCS membership is getting to know our scholars. It will be sad for us that our amazing group of third year scholars are "graduating" from the ARCS program and we may not see them again. We encourage all of our scholars to stay in touch with us beyond your "ARCS" years and let us know how your research is fulfilling your dreams. We are expecting big things and want you to **Change the World!**

“One of the great rewards of ARCS membership is getting to know our scholars.”

Anne Crawford & Linda Thier

Co-Presidents
ARCS Foundation Pittsburgh



Remembering Jared Cohon

Carnegie Mellon University, Pittsburgh in general, and ARCS Foundation Pittsburgh lost a great friend in the passing of **Jared “Jerry” Cohon**, the eighth president of Carnegie Mellon University, on March 16, 2024. Jerry’s personal support in the founding of ARCS Pittsburgh was indispensable. He backed **John Anderson** and **Jim Garrett**, then dean and associate dean of the CMU School of Engineering, in issuing an invitation to Pittsburgh women in 2002 to take up the challenge of strengthening America’s capacity for innovation in scientific research, which established the foundation for what has become an extremely successful and impactful enterprise at both CMU and Pitt. He not only gave his imprimatur to the fledgling ARCS Pittsburgh movement, but his time as well, by hosting and addressing our very first gathering of prospective members at CMU in March 2003.

“In his words, ‘attracting more young people to the study of science and engineering is an urgent priority, for Carnegie Mellon and for the United States.’”

This successful first event established the core membership for ARCS Pittsburgh and allowed us to pursue both our charter as a chapter and our non-profit status as an organization. He and his wife **Maureen** then graciously opened their home in May 2003 to welcome the new members of this fledgling organization and cement the bond with CMU. In his words, “attracting more young people to the study of science and engineering

is an urgent priority, for Carnegie Mellon and for the United States. Our nation’s economy and security depend on a high level of scientific innovation, and thus on strong graduate programs at Carnegie Mellon and elsewhere. ARCS Foundation’s clear mission helps to meet that challenge . . . and

has never been as crucial as it is today.” ARCS Pittsburgh and its members and scholars will be forever grateful to Jerry Cohon for his support, leadership, and friendship.

Jeanne B. Berdik

Jeanne Berdik Scholar Achievement Awards

The ARCS Pittsburgh board is proud to honor third-year scholars for their research accomplishments. Both universities told us how difficult it was for them to nominate just one out of our pool of very talented and aspiring scholars. **Linda Thier** presented the following awards at the April 4th Scholar Celebration.

Nicole Auvil from CMU’s Mellon College of Science received her award for her research in mass spectrometry. Nicole has developed ultra sharp parabolic needle tips which have been nicknamed “Super Sniffers” for their ability to detect the smallest traces of elements. Her device has been used in many exciting applications already with patents being filed.

Nicole has also been a speaker for the American Society of Mass Spectrometry.

Lauren Narbey from Pitt’s School of Nursing received her award for her passionate research in addressing health inequities faced by pregnant and postpartum moms with substance use disorders. Lauren came to Pitt with a decade of clinical experience caring for women impacted by opioid use. The Jewish Healthcare Foundation just co-awarded a Maternal Care Innovation Grant to Lauren to address midwifery prescribing practices for individuals with opium use disorder. Lauren’s work is referenced in numerous publications and she has made multiple presentations both nationally and internationally.

Magee-Womens Research Institute Tour Recap

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On March 20th, about thirty ARCS Pittsburgh members were treated to a Behind the Science Tour of the Magee-Womens Research Institute. Since 1992, researchers there have been doing groundbreaking work to cure ovarian cancer, end HIV and AIDS, reduce maternal and infant deaths to zero, combat infertility, and develop new treatments for a wide variety of diseases.

Janice Devine, vice president of development at Magee-Women's Institute and Foundation, welcomed us and spoke about the history of our nation's largest research institution dedicated to women's health and reproductive biology. Its partners include Merck, the American Heart Association, the American Cancer Society, and Stanford, Penn State, Johns Hopkins, and Harvard Universities. The researchers collaborate with investigators in twenty countries around the world. They have 380 world-class faculty and staff running 319 active studies, which address 292 different disease states and conditions. Their research is patient-centric and covers patients from ages nine months to ninety years. There are more than 162,000 clinical trial participants. The institute's goal is to solve real-world medical problems and improve lives. They also focus on educating and mentoring PhDs and MDs by connecting junior investigators with senior faculty members at the University of Pittsburgh.

Janice stressed that now is the time to focus on women's health, which is still underfunded in the United States. Less than 2% of research funding goes to women's health studies. She indicated that one in eight women will get breast cancer in their lifetime. Another major health problem for women is endometriosis, which usually takes up to eleven years to diagnose after visits to eight different doctors.

In 2019 HIV/AIDS was still an epidemic affecting 39 million people worldwide, including 1.1 million in the United States. The researchers have found that using a vaginal ring for birth control also helps prevent HIV while costing less than \$1 apiece. The

result has been a 30% decrease in the spread of HIV in the countries, mainly in Africa, where the ring is used.

Dr. Kyle Orwig, a professor in the Department of Obstetrics, Gynecology, and Reproductive Sciences at the School of Medicine, is particularly interested in helping people have families, even those who have infertility due to cancer or a

childhood illness. "Sometimes we talk about 'how many people in the world are really impacted by infertility.' For me, the only person that matters is the one that walks in the door today and desperately wants to have a biological child." He started a fertility preservation program to freeze ovarian tissues for girls and testicular tissues for boys. He is working on ways to repair genetic causes of infertility.

"Chemotherapy and radiation treatments cause infertility in about 30% of cancer patients.

Adults have the option of

freezing their eggs or sperm in advance of the therapy," he said.

Dr. Katrina Knight, assistant professor in the Department of Bioengineering at the University of Pittsburgh, gave an excellent presentation about her work focusing on developing new mesh products for use in pelvic organ prolapse repair. She showed us her design, which is softer and less inflammatory than the meshes currently in use. Pelvic organ prolapse occurs in 50% of women over age 50 and is usually due to maternal birth injuries that happen when a muscle rips or detaches during delivery. Dr. Knight uses computer modeling to simulate a vaginal birth, then studies how to regenerate part of the damaged muscle.

This field trip was made possible through two years of cooperative efforts by our Program Chairs **Anoo Verges** and **Carol Goldberg** and by **Sarah Shorthouse** at the Magee-Women's Research Institute. It is just one of the many perks of membership in ARCS Pittsburgh.

Carol Schaff Heppner



Dr. Katrina Knight showing her mesh design (Photo by Carol Heppner)

Scholar Showcase Recap

The 2024 ARCS Pittsburgh Scholar Showcase took place on April 4th at the Latin American Cultural Center located in Pittsburgh's Schenley Farms Historic District.

This event brought more than sixty ARCS members, guests, and scholars together. Everyone sampled hors d'oeuvres and beverages from Latin America while learning about the amazing research our scholars are conducting. There was even a signature cocktail designed in honor of our scholars named the "New Scholar!" Phrases repeated over and over during the night included "Wow," "Amazing," "Very cool," and "Look at this!"

Members, guests, and scholars then participated in our first Speed Dating with a Scholar event, designed by **Anne Crawford**. The third year scholars were seated at high-top tables along the perimeter of the room. They used their laptops to showcase their research and the impact the ARCS award has had on their research. Every five minutes Anne rang the bell and guests heard her famous phrase, "move to the right!" Everyone loved being able to talk

directly to the third year scholars and ask questions about their research. Afterwards, we all moved to the auditorium for a brief history of ARCS, the

presentation of awards, and to listen to the scholars share one interesting fact about themselves. What remarkable and talented scholars we have in Pittsburgh!

Many thanks to the Scholar Showcase Committee members: **Anne Crawford** (co-chair), **Ellen Pishko** (co-chair), and **Sarah Stallings** (co-chair).

A huge thank you to the Pittsburgh Scholar Showcase Host Committee Members:

Summa Cum Laude Level:

Linda Burke, Anne Crawford, Natalie Hoffman, Becky McGough, JoAnn Patross, Kathy Testoni, Linda Thier, Beth Wainwright, and Paula Zawadski

Magna Cum Laude Level: **Jeanne Berdik,**

Charlotte Beukema, Cynthia Carrow, Betsy Cwenar, Bev Elliott, Anne Houck, Angela Maher, Jennifer Martin, Pam Meadowcroft, Rosemary Mendel, Peggy Mooney, and Ellen Pishko

Cum Laude Level: **Carol Goldberg and**

JoAnn Peters



Front row, left to right – Alexa Vulgamott, Lauren Narby, Georgia Rae Atkins, Kellie Spahr, Michael Feffer Back row, left to right – Linda Thier, Nicole Auvil, Katherine Johnson, Allison Wang, Usamma Amjad, Candace Williams, Anne Crawford, Alice Cline
(Photo by Sarah Stallings)

Linda Thier, Lauren Narby, Anne Crawford, Nicole Auvil
(Photo by Ellen Pishko)



It Just Keeps Getting Better

It Just Keeps Getting Better! We are exceedingly grateful to all of our ARCS Pittsburgh members who have contributed so generously in support of strengthening America's capacity for scientific research and innovation. Your support of more than **two hundred** chapter, named, and endowed awards in the past twenty years has been outstanding, and we applaud your past and continued generosity.

We have been particularly gratified by the response to the endowed award movement and your understanding of and commitment to the long-term sustainability of our mission. We hope that more of you will be interested in creating a permanent legacy by endowing an ARCS award that would continue to support scholars forever.

To make this option even more attractive—**HERE'S A NEW IDEA!** It occurred to us that some of you may have a particular interest in supporting a specific area of research in addition to your overall commitment to the ARCS mission. So, we've been working with our colleagues at Pitt to identify

some possible areas that might be of special interest to you as donors—areas such as women's cancer, dementia diseases, or juvenile diabetes—through the centers where the research might take place such as UPMC Hillman Cancer Center, UPMC Magee-Womens Hospital, McGowan Institute for Regenerative

Medicine, University of Pittsburgh Brain Institute, Aging Institute, or UPMC Children's Hospital of Pittsburgh.

As you know, we currently have **twelve** endowed scholar awards—**seven** at CMU and **five** at Pitt. We are committed to growing this number. If the

idea of a research-focused award has any appeal to you, please let us know and we can discuss the possibilities. We are excited to work with you to advance scientific innovation in America.

ARCS Pittsburgh Development/ Endowment Committee

Jeanne B. Berdik, Chair

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ARCS Sparks

ARCS National recently created a new award to recognize the non-monetary contributions of our members. The ARCS Sparks award honors an ARCS member who exhibits small everyday acts of kindness, displays of leadership, or commitment to ARCS foundation within the chapter or at the national level. **Linda Thier** and **Anne Crawford** awarded **Ellen Pishko** an ARCS Sparks award for her accomplished party planning for the Scholar Appreciation event! It was a great evening, to which Ellen added many special details. Thank you Ellen and **Sarah Stallings**, who were key to the event committee.

Anyone can nominate an ARCS member for a Sparks Award. Please send all nominations to Linda or Anne.

Auvil Earns Award

Congratulations to ARCS scholar **Nicole Auvil**! She recently placed third in Carnegie Mellon University's Three Minute Thesis competition. Read more about it at <https://www.library.cmu.edu/about/news/2024-03/3mt-championship>.

Save the Date!

Chapter All-Members Meeting

June 20th, 5:30 pm to 7:30 pm
Expect an email invitation soon!

ARCS Benefit Dinner

August 13th, 6:00 pm to 8:00 pm
Casbah, 229 S. Highland Avenue

More details coming soon!

Chicago All ARCS Conference

It's not too late to register for the All ARCS Conference taking place June 5–9 in at the beautiful Riverwalk Hotel in Chicago. We will have nationally renowned speakers including **Dr. Judith Giordan**, managing director with ecosVC; past-president of the American Chemical Society; and co-founder of Chemical Angel, who will discuss the future of STEM leadership. **Kristian Hammond, PhD**, professor of computer science at Northwestern University and director of its master of science in artificial intelligence (AI) program will speak about AI. **Janet Foutty**, former Deloitte chair and consulting CEO and co-author of *Arrive and Thrive* will speak about leadership in a constantly evolving market. **Cassa Hanon**, facilitator and coach at Stanford University's LEAD program, will lead a

workshop entitled "Leadership to Empower the Future." It's certainly an impressive lineup of speakers!

Your registration will include some interesting area tours, including architectural highlights by boat. Also included is a **gala dinner** at the prestigious Union League Club celebrating ARCS Foundation's **65th anniversary**.

All of the ARCS Light recipients will also be honored at the conference. Come and show your support for **JoAnn Patross** our Pittsburgh chapter 2024 awardee.

Spouses and guests are welcome. Many members and guests from Pittsburgh are already registered so you will be among old friends and will enjoy meeting members from across the country. For more information about the conference click on <https://www.arcsfoundation.org/civicrm/event/info?id=2380>.

2024 Pittsburgh ARCS Light Award

For **JoAnn Patross**, becoming the treasurer for ARCS was a perfect fit for her retirement plans to stay active in non-profits and enjoy family. After earning her BS in hotel administration and MBA in accounting and finance from Cornell, JoAnn practiced her finance and accounting skills at Mellon Bank, later BNY Mellon.

Mellon hired her to be part of the management training program, which allowed her to rotate around various positions including being a teller at the East Liberty Branch. JoAnn settled in credit policy, and later moved to middle market lending, corporate compliance (starting the anti-money laundering program), and private wealth management. At Mellon, she was involved in the Women's Forum and learned the value of mentors and role models.

JoAnn is married and has three grown daughters, three stepchildren, and now nine grandchildren. She was a co-leader of a Girl Scout troop for ten years, and is an elder and trustee of Shadyside Presbyterian Church. Raising children while working taught her the need to be organized

and considerate of how others view women in the business world.

Since she first came to Pittsburgh after college, JoAnn has been a close friend of **Linda Burke**.



JoAnn Patross (Photo courtesy of JoAnn Patross)

Upon JoAnn's retirement, Linda encouraged her to join ARCS and immediately found her a fit as assistant treasurer. JoAnn has co-sponsored a named award scholar and partnered with three other ARCS members to endow an award to foster sustainability in honor of Linda Burke and her late husband Tim Burke. After two years as the assistant, JoAnn took on the treasurer role. She has also participated on the nominating and twentieth anniversary planning committees.

JoAnn is happy to be using her basic accounting and organizational skills to be able to help others understand how ARCS operates from a financial perspective—she views as an added plus working with the capable and interesting women that ARCS attracts to improve life for everyone through scientific research.