10 YEARS of Pelotonia Fellows

The James
Significant challenges face the next generation of scientists. In addition to funding declines at federal agencies that limit the ability of established investigators to take additional trainees into their laboratories, access to grant and fellowship support that enables young scientists to pursue independent research careers is also limited, especially for international students. As a National Research Council Committee concluded in its 2005 report entitled *Bridges to Independence*, “The funding of postdocs through individual awards and training grants is preferable to funding on PI research awards. Furthermore, if eligibility for postdoctoral training support is expanded to include non-U.S. citizens ... then the size of [those pursuing independent research careers] could double.” Additionally, the National Academies Committee on the Next Generation Initiative through their *Breaking Through* study report similarly recommended in 2018 that the National Institutes of Health should work to “expand awards or create new competitive awards to support postdoctoral researchers’ advancement toward an independent research career” and “promote innovative projects on the part of research institutions and other stakeholders that seek to improve and accelerate transitions into independent careers.”

Created in 2010, the Pelotonia Fellowship Program was designed to bridge these gaps and provide directed investments for training the next generation of cancer researchers. Through a highly competitive process, the Pelotonia Fellowship Committee has selected trainees at all levels (i.e., undergraduate, graduate, medical and postdoctoral) who have the greatest potential to succeed and transition to independent careers as cancer researchers. Containing many of Ohio State’s most accomplished cancer researchers, the committee meets several times each year to review all applications and award the fellowships. Additionally, this peer-review process provides valuable feedback to all applicants to improve their ability to write proposals and enhance their candidacy for external award competitions at all stages of their careers. The Pelotonia Fellowship has become a prestigious award that elevates the stature of each fellow and enables him or her to be more competitive for subsequent research and travel support. It is an investment in the next generation of cancer researchers that provides a bridge to an independent career that may not otherwise be possible without this generous support of the Pelotonia community.
We are funding the next generation of cancer researchers.

The Pelotonia Fellowship Program trains promising and accomplished undergraduate, graduate, medical and postdoctoral students from any discipline who have the potential to become independent cancer researchers. Our multidisciplinary approach helps bring us one step closer to our vision of a cancer-free world.

The Fellowship Program started in 2010 and has awarded 525 student fellowships over the past 10 years. It is funded by an annual allocation of $2 million in Pelotonia revenue. Award recipients so far include 244 undergraduates, 154 graduates, 121 postdoctoral fellows and six medical students. While trainees may not receive support twice within the same category, they are eligible to apply to a next-level category if they meet the criteria of that application. Thus, 12 young scholars have received two awards—either undergraduate and graduate, or graduate and postdoctoral.

We are very proud of the remarkable achievements made in the past 10 years. Many fellows have made discoveries that have been published in prestigious journals and that have led to receiving additional research and scholarly awards. These discoveries often have contributed to large grant applications, led to admissions into graduate and medical schools, and resulted in postdoctoral, industry and faculty positions.

Pelotonia Fellowship Awards by Category • 7/1/2010 - 11/30/2019
Includes committed funds for active awards

<table>
<thead>
<tr>
<th>Program</th>
<th># of Fellows</th>
<th>Pelotonia Award Amount</th>
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<tbody>
<tr>
<td>Undergraduate Fellowship Awards</td>
<td>244</td>
<td>$2,646,879</td>
</tr>
<tr>
<td>Graduate Fellowship Awards</td>
<td>154</td>
<td>$6,482,091</td>
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<tr>
<td>Postdoctoral Fellowship Awards</td>
<td>121</td>
<td>$8,603,088</td>
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<tr>
<td>Professional (Med Student) Fellowship Awards</td>
<td>6</td>
<td>$102,189</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>525</strong></td>
<td><strong>$ 17,834,247</strong></td>
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Pelotonia Fellows have hailed from **43 countries**.

Fellows who were born in the United States originate from **32 of 50 states**.
Approximately 47% of the Pelotonia Fellowships awarded to date have been awarded to undergraduates, 29% have funded graduate students, 1% have supported medical students and 23% have attracted and/or retained postdoctoral fellows, including many international trainees.

Pelotonia Fellows can be found across the university system working for faculty researchers in nine colleges and academic units on the main campus, two branch campuses, Nationwide Children’s Hospital and Cincinnati Children's Hospital Medical Center.
Overall, the majority of Pelotonia Fellows are continuing to pursue their degrees or independent research careers, and over 92% of graduate and postdoctoral fellows are still engaged in cancer research.

81% of the 525 awardees are still in academia

4% of the 244 undergraduate awardees are still pursuing post-baccalaureate degrees

92% of the 275 graduate and postgraduate awardees are still in cancer research

Pelotonia Fellows are continuing to progress in their careers, and a current snapshot of those fellows who are funded during their undergraduate and medical careers demonstrates that 14% are still in progress toward finishing their degrees while another 71% of fellows have remained on an academic track and are pursuing graduate and professional degrees.

Higher Education Breakdown:
- 4% Masters
- 42% Medical
- 6% Dental
- 12% PhD
- 7% PhD/MD

Of the 154 graduate fellowships that have been awarded to date, just over one-third of fellows are still pursuing their PhDs, and the majority of the remaining two-thirds of fellows have remained in research careers by becoming postdoctoral fellows, industry researchers or faculty members pursuing independent research programs.

While many of the 121 Pelotonia Postdoctoral Fellows remain in training in the laboratories of their mentors, 11% of fellows have moved into careers in pharmaceutical research and 37% are faculty members leading their own research teams in academia.
On Oct. 28, 2019, Ohio State and the Pelotonia community welcomed back eight past fellows to speak at the Pelotonia Fellowship Symposium. Five of those invited back were Pelotonia postdoctoral fellows who have gone on to independent academic research careers across a diverse set of disciplines; three of these five are also still at The Ohio State University and are members of Ohio State’s Comprehensive Cancer Center. Similarly, the two Pelotonia graduate fellows invited to speak also hold faculty positions and are still performing cancer research in veterinary medicine and quality of life/anxiety outcomes for cancer patients. One Pelotonia undergraduate fellow rounded out our speaker panels for this event; she earned both an undergraduate and graduate degree at Ohio State before continuing to work as a cancer researcher during her postdoctoral fellowship at Beaumont Health, as well as in her current industry position. All eight of the returning fellows shared what the Pelotonia Fellowship has meant to their careers, as well as how the experience of riding in Pelotonia and becoming part of the Pelotonia community have made a profound impact on their choice to remain in cancer research.
Ann-Kathrin (A-K) Eisfeld, MD  
Clinical Instructor and Fellow in Hematology/Oncology – The Ohio State University

MD – University of Leipzig, Germany  
Postdoctoral Fellowship – The Ohio State University

Postdoctoral Pelotonia Fellowship 2011  
Mentors: Albert de la Chapelle, MD, PhD, and Clara D. Bloomfield, MD

Born and raised near Hamburg, Germany, Ann-Kathrin Eisfeld attended medical school at the University of Leipzig. She was already fascinated by hematology during her first year of medical school, especially acute myeloid leukemia (AML), and started her research on the effects of iron overload in patients undergoing stem cell transplantation. After graduation, she immediately started her residency/fellowship training with a focus on stem cell transplantation. However, with novel therapies and prognostic biomarkers emerging in the field of AML, Dr. Eisfeld decided to pursue additional basic research training to better understand the underlying biology of the disease and translate this knowledge into personalized patient care. She was given the opportunity to start a postdoctoral fellowship under the mentorship of not one but two distinguished experts in the fields of AML and cancer genetics: Clara D. Bloomfield and Albert de la Chapelle. Under their supervision, she was trained in both translational research and molecular biology and cancer genetics. Her discoveries include the prognostic significance and underlying signaling pathway of miR-3151, an intronic microRNA that is located in the genomic locus of the BAAALC gene, and also the identification and molecular characterization of novel isoforms of the NRAS gene. Furthermore, her own research group identified and characterized a novel intronic microRNA—miR-3662—in an important hematopoietic quantitative trait locus.

Fascinated by translational research and the opportunities at The James, Dr. Eisfeld decided to stay in the United States with the goal to become a physician scientist in AML and cancer genomics. She passed her USMLEs and was accepted to the Physician Scientist Training Program at Ohio State. Dr. Eisfeld continues to pursue her collaborative research and has molecularly characterized one of the largest cohorts of adult AML patients. She and her colleagues also have described novel oncogenes and clinical associations in several patient subsets. In addition, she continues to work with her own research group, most recently with a special focus on AML with extramedullary disease and also neuroendocrine tumors. She will complete her fellowship training in the summer of 2020.

“The Pelotonia fellowship enabled me to pursue exactly the career path that was meant for me. Without it, I would have not stayed in the United States and repeated my training to become a physician scientist. I love taking care of patients, and I love research. I hope that both combined will make a difference in patients with AML.”  

– A-K Eisfeld, MD

PUBLICATIONS RELATED TO THE FELLOWSHIP AWARD:


Salene M. W. Jones, PhD
Assistant Member – Fred Hutchinson Cancer Research Center

BS in Psychology – University of Washington
MS and PhD – The Ohio State University
Postdoctoral Fellowship in Women’s Health and Aging – Kaiser Permanente Washington Health Research Institute

Pelotonia Graduate Fellowship 2010
Mentor: Barbara Andersen, PhD

“My Pelotonia fellowship allowed me to pursue research that my patients were telling me was important to them. I’ve carried that spirit of patient-centered research with me ever since.” – Salene M. W. Jones, PhD

Salene M. W. Jones, PhD, is an assistant member at Fred Hutchinson Cancer Research Center and a clinical psychologist whose research focuses on quality of life and anxiety. She obtained her bachelor’s degree in psychology at the University of Washington in 2003, then earned a master’s degree and a PhD in 2009 and 2013, respectively, at The Ohio State University. She conducted a postdoctoral fellowship at the Women’s Health and Aging, Kaiser Permanente Washington Health Research Institute. She is particularly interested in psychometrics, which is the development of valid and reliable questionnaires for patient-reported outcomes to assess pain, depression, anxiety and other facets of quality of life. Her current research focuses on developing patient-reported outcomes that are tailored to each patient. Dr. Jones also examines the association of financial worry and anxiety with outcomes in people with cancer, and the effects of financial worry and anxiety on health behaviors such as cancer screening. Her current research includes studies of the relationship of health anxiety and fear of cancer to health care use and cancer prevention.

PUBLICICATION RELATED TO THE PELOTONIA AWARD:

Daniel L. Kiss, PhD
Assistant Professor of Cardiovascular Sciences – Houston Methodist Research Institute
Associate Research Member – Houston Methodist Cancer Center

BS and MS – Cleveland State University
PhD – Case Western Reserve University
Postdoctoral Fellowship – The Ohio State University

Postdoctoral Pelotonia Fellowship 2010
Mentor: Daniel Schoenberg, PhD

“Cancer picked a fight with my loved ones, so I picked a fight with cancer.”
– Daniel L. Kiss, PhD

Daniel L. Kiss, PhD, is an assistant professor in the Department of Cardiovascular Sciences at the Houston Methodist Research Institute and is affiliated with the Houston Methodist Cancer Center and Weill Cornell Medical College.

Dr. Kiss completed both a bachelor’s and a master’s degree in biology at Cleveland State University. He began his interest in RNA molecular biology as a graduate student at Case Western Reserve University, where he studied a key RNA surveillance and turnover pathway. After earning his PhD at Case Western, he continued his RNA molecular biology training when he came to The Ohio State University as a Pelotonia Postdoctoral Fellow in Dr. Daniel Schoenberg’s lab in 2011. His research at Ohio State centered on two cancer-focused projects. First, his work sought to better understand how the FHIT tumor-suppressor gene functioned inside cells. Second, his work sought to understand the regulation and downstream implications of cytoplasmic mRNA capping, a newly described gene regulatory pathway with broad implications in cancer biology.

Dr. Kiss remained at Ohio State until he started his own lab at the Houston Methodist Research Institute in 2018. His independent laboratory continues his years-long focus on understanding fundamental RNA biology mechanisms and their contributions to human disease. His lab has also begun to design and test novel cancer-focused RNA therapeutics in collaboration with the Cancer Prevention and Research Institute of Texas (CPRIT) Core for RNA Therapeutics and Research.

PUBLICATIONS RELATED TO THE PELOTONIA AWARD:


Christopher Koivisto, DVM, PhD
Research Assistant Professor – Medical University of South Carolina

DVM – North Carolina State University
PhD and Residency – The Ohio State University

Pelotonia Graduate Fellowship 2015
Mentor: Gustavo Leone, PhD

“Pelotonia offered a direct connection between my research and the central Ohio community. I will never forget the hundreds of signs along the route held by survivors and family members, or the genuine thankfulness and hopefulness held by their expressions when talking with them. Science is full of rejection and hardship, but these memories of Pelotonia are what keep me going today.”

Christopher Koivisto, DVM, PhD

Christopher Koivisto, DVM, PhD, is a veterinarian with advanced training in pathology and comparative medicine. He became interested in cancer research while working as a technician, where he performed audits of animal studies used for toxicity and carcinogenicity testing. That experience motivated him to pursue veterinary education and subsequent residency and graduate training. He earned his DVM from North Carolina State University and completed a residency/PhD program at The Ohio State University. Dr. Koivisto’s research interests employ genomics and mouse models to dissect the pathogenesis of cancer initiation and progression. His primary efforts focus on uterine cancer, where he identifies genomic alterations in human tumors and models them in mice to identify novel approaches for prevention or treatment of cancer.

In addition, Dr. Koivisto works with multiple Hollings Cancer Center investigators to interpret alterations that occur within their animal models and help design further experiments necessary for building upon and validating initial observations. This multidisciplinary approach is essential for translational science, where scientific discoveries are turned into clinical applications.

PUBLICATIONS RELATED TO THE PELOTONIA AWARD:


EIGHT PROFILES OF PAST FELLOWS

Nancy Engelmann Moran, PhD
Assistant Professor, USDA/ARS Children’s Nutrition Research Center, Department of Pediatrics, Baylor College of Medicine

BS in Molecular and Cellular Biology – University of Illinois
PhD in Nutritional Sciences – University of Illinois
Postdoctoral Fellowship in Medical Oncology – The Ohio State University

Postdoctoral Pelotonia Fellowship 2010
Mentor: Steven K. Clinton, MD, PhD

“I learned to communicate and collaborate across disciplines, and I came to understand the need for translational science and its impact on policy.”

– Nancy Engelmann Moran, PhD

Nancy Engelmann Moran, PhD, is an assistant professor at the USDA/ARS Children’s Nutrition Research Center, Baylor College of Medicine. She earned her bachelor’s degree from the University of Illinois-Urbana/Champaign in Molecular and Cellular Biology (2005), her doctoral degree from the University of Illinois in Nutritional Sciences (2010) and completed her postdoctoral training at The Ohio State University in the Comprehensive Cancer Center (2016) with medical oncologist Steven K. Clinton, MD, PhD. She is an assistant professor of pediatric nutrition at the Baylor College of Medicine and USDA/Agricultural Research Service’s Children’s Nutrition Research Center. Her translational research principally addresses the absorption and metabolism of dietary bioactive compounds in humans and model systems for the benefits of cancer prevention and infant and maternal health.

PUBLICATIONS RELATED TO THE PELOTONIA AWARD:


Parvathi Ranganathan, PhD
Assistant Professor of Hematology – The Ohio State University

BS and MS – Stella Maris College, University of Madras, India
PhD – University of Arizona
Postdoctoral Fellowship – The Ohio State University

Postdoctoral Pelotonia Fellowship 2011
Mentor: Ramiro Garzon, MD

“My Pelotonia Fellowship showed me how fantastic it feels to see the translation of your research into helping and curing patients.”

– Parvathi Ranganathan, PhD

Parvathi Ranganathan, PhD, is an assistant professor at The Ohio State University College of Medicine. Her passion to pursue a career in immunology is sparked by her fascination for T lymphocytes, a diverse subset of cells that displays multifunctional properties and is one of the most powerful weapons in the human immune system. This led her to the University of Arizona for her PhD training, which focused on investigating the role of autoantibodies to the T-cell receptor in autoimmune diseases such as rheumatoid arthritis. She obtained her PhD in 2010. During her postdoctoral training (2010-2017) with Ramiro Garzon, MD, her research efforts were focused on investigating the immunomodulatory role of microRNAs in “allo-immune” disease-aGVHD, as well as developing novel therapeutic strategies in acute myeloid leukemia; these studies resulted in a Leukemia and Lymphoma Society Special Fellow award.

“EIGHT PROFILES OF PAST FELLOWS”

PUBLICATIONS RELATED TO THE PELOTONIA AWARD:


Carlee Schaefer, PhD  
**Medical Science Liaison** – Hologic, a women’s health diagnostic company specializing in cervical cancer screening and infectious disease testing

**BS in Molecular Genetics** – The Ohio State University  
**PhD in BSGP** – The Ohio State University  
**Postdoctoral Fellowship** – Beaumont Health System

Pelotonia Undergraduate Fellowship 2010  
Mentor: Deborah Parris, PhD

“*Pelotonia provided me with the opportunity to start my scientific career. Without it, I may not have pursued my advanced degree.*”  
– Carlee Schaefer, PhD

Carlee Schaefer, PhD, conducted postdoctoral research at Beaumont Hospital near Detroit, Michigan. She studied joint conditions and worked to develop autologous stem cell therapy to treat and prevent post-traumatic osteoarthritis. She is originally from Dayton, Ohio. She received her bachelor’s degree in molecular genetics from Ohio State in 2012 and her PhD from Ohio State in 2018 in the biomedical sciences graduate program. Her passion for research started as an undergraduate working in Dr. Deborah Parris’ lab, where she studied herpes simplex virus and examined how viral proteins interact with host DNA replication machinery. In graduate school, she joined Scott Harper’s lab at Nationwide Children’s Hospital, where she developed animal models and helped develop gene therapy strategies to treat muscular dystrophy. After graduating, Dr. Schaefer worked as a clinical research coordinator with Kevin Flanigan’s group at Nationwide Children’s Hospital to learn more about clinical trial operations and experience more patient interaction.

Dr. Schaefer is working as a medical liaison for Hologic, where she educates diagnostic lab personnel and health care providers about current research for diagnostics and testing guidelines. These include infectious disease testing and cervical cancer screening.

**PUBLICATION RELATED TO THE PELOTONIA AWARD (IN WHICH DR. SCHAEFER WAS ACKNOWLEDGED):**  
Gina Sizemore, PhD
Assistant Professor of Radiation Oncology – The Ohio State University

BA in Biology – Washington and Jefferson College
PhD in Pharmacology – Case Western Reserve University
Postdoctoral Fellowships – Case Western Reserve University and The Ohio State University

Postdoctoral Pelotonia Fellowship 2013
DOD Breast Cancer Research Fellow
Mentor: Michael Ostrowski, PhD

“... without Pelotonia. Without that time and independence [in my fellowship], I wouldn’t have been able to secure additional funding to start my own research program.”

– Gina Sizemore, PhD

Gina Sizemore, PhD, is an assistant professor in the Department of Radiation Oncology at The Ohio State University College of Medicine, and she is a member of the Cancer Biology Program at The Ohio State University Comprehensive Cancer Center. Dr. Sizemore earned her BA in biology at Washington and Jefferson College in 2003 and then spent two years as a research assistant for Dr. Dennis Slamon at the University of California, Los Angeles. She matriculated in 2005 at Case Western Reserve University, where she earned her PhD in pharmacology in 2011 under the guidance of Dr. Ruth Keri. After serving as a postdoctoral scholar there for over a year, Dr. Sizemore moved to Ohio State to gain expertise in the tumor microenvironment (TME) in the lab of Dr. Michael Ostrowski. During this fellowship from 2013-17, she was both a Pelotonia and Department of Defense Breast Cancer Research Program Postdoctoral Fellow. She then transitioned to the faculty in the Department of Radiation Oncology in 2017. Dr. Sizemore has received numerous awards and fellowships over her career, including a Doctoral Excellence Award in Pharmacology at the Case Western Reserve University School of Medicine, a METAvivor Young Investigator Award, and the Herbert and Maxine Block Lectureship Junior Faculty Award. She has authored or co-authored articles in such prestigious journals as Nature Communications, Genes and Development, Molecular Cancer Research, Oncogene and The Journal of Biological Chemistry.

Publications Related to the Pelotonia Award:


Over the past 10 years, the 513 Pelotonia Fellows, representing 525 total fellowships, and their mentors have made significant impacts in cancer research, and an astonishing 92% of graduate and postdoctoral fellows funded by this initiative are still cancer researchers. The Pelotonia Fellowship Program has also attracted a diverse group of young scientists from 43 countries around the globe and from 32 of 50 states in the United States. It is a multidisciplinary program that has provided support to principal investigators who are mentors across nine colleges, two branch campuses and two sister hospitals, with the greatest numbers of fellows studying in the colleges of Medicine, Arts and Sciences, and Engineering. The Pelotonia Fellows have also published in prestigious journals with their mentors extensively, and many of these papers have high impact factor ratings that arise from the number of times the articles in that journal have been cited by other researchers in their own subsequent publications. Over three quarters of the funded fellows are still pursuing their training or are training the next generation of scientists in academic environments, and 73% of those supported at the undergraduate level are still pursuing post-baccalaureate degrees.

Yet, one of the most important aspects of the Pelotonia Fellowship Program that is widely shared by these young scientists is the impact of the Pelotonia community on their work, as well as in their involvement with The Ride. This element of their experience is difficult to quantify. Anecdotally, our young cancer researchers have shared myriad stories about how Pelotonia not only supports their work and professional development but also gives them an opportunity to honor the loved ones they have lost to cancer, as well as a way to give back and support those who are living through a cancer diagnosis. Their involvement with the Pelotonia Fellowship Program has changed their career trajectories and enveloped them in a greater community focused on the goal to end cancer. The transcendent nature of The Ride itself, as well as the experiences of fundraising and training to ride a bicycle long distances, has also given the Pelotonia Fellows another dimension of support that they will remember for the rest of their lives.

In conclusion

The James