Greetings, and welcome to the 2015 Pelotonia Fellowship Program Annual Report. It has been a remarkable year and we are excited to share data about program developments, accomplishments and future directions.

The Pelotonia Fellowship Program funds multidisciplinary, cutting-edge cancer research performed by our best undergraduate, graduate, medical and postdoctoral students, regardless of their field of study. These students move us toward our goal of one day living in a cancer-free world while at the same time developing their careers to become independent cancer researchers.

To date, 353 awards have been given to these trainees. Our fellows have made discoveries that are being published in prestigious journals; have received additional research and scholarly awards; have produced data that has culminated in large grant applications; have continued onto successful paths into graduate and medical schools and into postdoctoral, industry and faculty positions.

We are very proud of the diversity and transparency of our program. As you look through this report, you will see projects funded from 51 departments in 10 different colleges at The Ohio State University, Nationwide Children’s Hospital and Cincinnati Children’s Hospital Medical Center. We understand new discoveries occur when people look at problems from different points of view and with broad areas of expertise. Funding talented student researchers in diverse disciplines like Engineering, Physics and Business helps in our fight against cancer and pays tremendous dividends.

To see all of the funded projects, in addition to a list of our committee members, application deadlines, scoring criteria and fellowship guidelines, go to our website: [go.osu.edu/pelotoniafellowships](http://go.osu.edu/pelotoniafellowships) > Research & Education > Pelotonia-Funded Research > Pelotonia Fellowship Program.

A program like this would not be successful if it were not for the hard work of all of our 46 committee members who represent 19 different departments. These colleagues are incredibly dedicated to the success of this program and I want to thank each of them for their hard work and dedication. Special thanks to Natarajan Muthusamy, DVM, PhD, for his work helping develop our international program with Annamalai University. We would like to welcome Doug Uman and thank Karl Keim and Justine Boggis at Team Buckeye and the Pelotonia team for all their hard work to support the cause that we believe so much in. We are also incredibly thankful to the Pelotonia participants (both traditional and virtual riders, volunteers and donors), OSU faculty, departments, colleges, and especially the graduate school and Dr. Scott Herness, interim Vice Provost for Graduate Studies and dean of the graduate school, for supporting and providing matching funds to our program.

Even though this fellowship program has had some amazing accomplishments in a short period of time, moving forward, additional emphasis will be placed on increasing the metrics of incoming postdoctoral trainees; increasing diversity in all programs and increasing the pool of Population Science and Biomedical Informatics applicants. Accomplishment of these goals will help us train the next generation of cancer scientists and help our university become one of the best training institutions in the nation.

Thank you for your support and interest.

Gustavo Leone, PhD
Klotz Chair in Cancer Research
Professor
Director of the Solid Tumor Biology Program
Associate Director of Basic Research
Comprehensive Cancer Center
The Ohio State University

Janice Kiecolt-Glaser, PhD
Director, Institute for Behavioral Medicine Research
Distinguished University Professor
S. Robert Davis Chair of Medicine
Professor of Psychiatry and Psychology
Institute for Behavioral Medicine Research
Ohio State University College of Medicine
The Pelotonia Fellowship Program is an interdisciplinary program that has funded 182 undergraduate internacional, 102 graduate/medical student and 69 postdoctoral awards. Mentors come from 51 departments in 10 different colleges at The Ohio State University, Nationwide Children’s Hospital and Cincinnati Children’s Hospital Medical Center.

fellows funded

college affiliation (mentors)

All Fellowships
- 221 Medicine
- 89 Arts and Sciences
- 17 Engineering
- 12 Pharmacy
- 8 Education and Human Ecology
- 4 Cincinnati Children’s Hospital Medical Center
- 4 Veterinary Medicine
- 3 Dentistry
- 1 Food, Agricultural and Environmental Sciences
- 1 Public Health

Undergraduate Fellowships
- 112 Medicine
- 48 Arts and Sciences
- 8 Pharmacy
- 6 Education and Human Ecology
- 3 Dentistry
- 1 Veterinary Medicine

Graduate/Medical Fellowships
- 61 Medicine
- 26 Arts and Sciences
- 7 Engineering
- 3 Pharmacy
- 2 Education and Human Ecology
- 2 Veterinary Medicine
- 1 Cincinnati Children’s Hospital Medical Center
- 1 Food, Agricultural and Environmental Sciences
- 1 Public Health

Postdoctoral Fellowships
- 53 Medicine
- 10 Arts and Sciences
- 4 Engineering
- 3 Cincinnati Children’s Hospital Medical Center
- 1 Pharmacy
- 1 Veterinary Medicine

Department of Mentors
- 55 Internal Medicine
- 64 Molecular Virology, Immunology and Medical Genetics
- 55 Molecular Genetics
- 25 Molecular and Cellular Biochemistry
- 11 Neurological Surgery
- 9 Behavioral Medicine Research Institute for
- 8 Medicinal Chemistry (Division)
- 8 Surgery
- 7 Pathology
- 7 Physics
- 6 Biomedical Informatics
- 6 Neuroscience
- 6 Pediatrics (Nationwide Children’s Hospital)
- 5 Biomedical Engineering
- 5 Chemistry and Biochemistry
- 5 Obstetrics and Gynecology
- 4 Chemical and Biomolecular Engineering
- 4 Chemistry
- 4 Human Nutrition
- 4 Pharmaceutics (Division)
- 4 Physical Activity and Educational Services (PAES) School
- 4 Radiology
- 4 Veterinary Biosciences
- 3 Biochemistry
- 3 Computer Science and Engineering
- 2 Experimental Hematology and Cancer Biology (Cincinnati Children’s Hospital)
- 2 Materials Science and Engineering
- 2 Mechanical and Aerospace Engineering
- 2 Microbial Infection and Immunity
- 2 Oral Biology (Division)
- 2 Physiology and Cell Biology
- 2 Psychology
- 2 Urology
- 1 Arts Administration, Education and Policy
- 1 Communication (School of)
- 1 Comparative Studies
- 1 Dance
- 1 Economics
- 1 Environmental Health Science
- 1 Food Science and Technology
- 1 History
- 1 Immunobiology (Cincinnati Children’s Hospital)
- 1 Mathematics
- 1 Mechanical Engineering
- 1 Oral Surgery, Pathology and Anesthesiology (Division)
- 1 Pediatrics (Cincinnati Children’s Hospital)
- 1 Physical Medicine and Rehabilitation
- 1 Psychiatry
- 1 Radiation Oncology
- 1 Speech and Hearing Science
- 1 Veterinary Clinical Sciences
fellowship highlights

Where are they now?

Featured Undergraduate Student
Ronald Siebenaler
Ron received a Pelotonia Undergraduate Fellowship to test novel therapies targeting the effects of two genetic mutations, MLPTD and FLTR3TD, found in patients with a blood cell cancer called acute myeloid leukemia (AML). Ron has contributed to five publications in prestigious journals including Blood and Leukemia and has received prestigious awards including the American Society of Hematology Trainee Award and being named a Barry M. Goldwater Scholar.

Featured Graduate Student
Joelle Fenger, DVM, PhD
Dr. Fenger received a Pelotonia Graduate Fellowship to investigate the expression and activation of a small regulatory RNA, miR-9, in osteosarcoma, a common form of bone cancer in children and dogs. Dr. Fenger recently received a prestigious National Institutes of Health (NIH) K01 career development training award to continue her cancer research studying the role of miR-9 in normal and malignant mast cell biology and is currently an assistant professor in the Department of Veterinary Clinical Science in the College of Veterinary Medicine at The Ohio State University and the University of Alabama.

Featured Graduate Student
Shreyas Rao, PhD
Dr. Rao received a Pelotonia Graduate Fellowship to develop a novel, physiologically relevant, hyaluronic acid (HA)-based neural hydrogel biomaterials (artificial brain-like substance) to explore the migration behavior of Glioblastoma multiforme (GBM) in three dimensional environments. Dr. Rao continued his postdoctoral work at Northwestern University and the University of Michigan and is currently an assistant professor continuing his cancer research at the University of Alabama.

Featured Postdoctoral Fellow
Joseph Markowitz, MD, PhD
Dr. Markowitz received a Pelotonia Postdoctoral Fellowship to work on a new method to enhance the patient immune response to pancreatic cancer and study new strategies to overcome the inhibitory effects of very powerful immune suppressor cells known as myeloid-derived suppressor cells (MDSC). Dr. Markowitz has received numerous grants for his cancer research from multiple sponsors including the University of Pennsylvania. The Ohio State University Comprehensive Cancer Center and the National Institutes of Health (NIH). Dr. Markowitz continues his cancer research at the H. Lee Moffitt Cancer Center and the University of Miami and is currently an assistant professor continuing his cancer research at the University of Miami.

Featured Postdoctoral Fellow
Sigurdis Haraldsdottir, MD
Dr. Haraldsdottir received a Pelotonia Postdoctoral Fellowship to investigate the incidence of Lynch syndrome, an inherited syndrome which increases the risk of several cancers including colorectal, uterine, ovarian, stomach and urinary, in the population of Iceland. Dr. Haraldsdottir has 12 first author publications in extremely high impact journals like The lancet and the Journal of Clinical Oncology and is currently continuing her cancer research as an assistant professor at Stanford University in the division of Medical Oncology.

Undergraduates
- (68) Currently in Program
- Moved on to:
  - (5) Medicine – University of Cincinnati, University of Toledo, University of Michigan, Cleveland Clinic Lerner College of Medicine, Wright State University, Duke University, Columbia University
  - (30) Graduate – Yale University, Johns Hopkins, Massachusetts Institute of Technology, University of North Carolina, University of Michigan, Northwestern University, Rice University, University of Chicago
  - (25) Science related positions – OncoSec Medical Inc., Battelle Memorial Institute, NexTech Materials, Cincinnati Children’s Hospital Medical Center, Nationwide Children’s Hospital, Teach for America
  - (7) Other

Graduates
- (44) Currently in Program
- Moved on to:
  - (5) Postdoc – National Cancer Institute, Harvard Medical School, Dana-Farber Cancer Institute, University of Michigan, Fred Hutchinson Cancer Research Center, Stanford University, University of Texas MD Anderson Cancer Center, St. Jude Children’s Research Hospital
  - (8) Industry & Biotech – Genentech, Novartis, One Medical Group
  - (5) Academics (faculty) – The Ohio State University, University of Alabama, Birla Institute of Technology and Science
  - (5) Other

Medical Students
- (5) Currently in Program
- Moved on to:
  - (3) MD programs
  - (1) Residency/Internship program

Postdoctoral
- (96) Currently in Program
- Moved on to:
  - (25) Postdoc – Nationwide Children’s Hospital, University of Florida, Washington State University, IMRA Rennes – Bioviva Atlanticus Center, Harvard Medical School
  - (14) Industry & Biotech – Clarius Genomics Inc., Octapharma Pharmazeutika Produktionsges
  - (5) Academics (faculty) – The Ohio State University, Stanford University, University of South Florida, University of Prince Edward Island, Tufts University, Baylor University, West Virginia University
  - (2) Other

* (Mentor-Jessica Winter, PhD)
* (Mentor-Richard M. Goldberg, MD)
* (Mentor-William Carson, MD)
* (Mentor-Michael Caliguri, MD)
* (Mentor-William Kisseberth, DVM, PhD & Cheryl London, DVM, PhD)
The Pelotonia Fellowship Committee is chaired by Gustavo Leone, PhD, and co-chaired by Jan Kiecolt-Glaser, PhD. The committee is made up of some of The Ohio State University’s most well-known cancer researchers. This committee meets several times per year to review all applications and make all major program decisions. They represent departments as diverse as Molecular Genetics and Internal Medicine to Psychology and Human Nutrition. Deborah Parris, PhD, moderates our postdoctoral reviews, assuring the reviews are fair, rigorous and unbiased. Committee members are listed below:

Committee Members

- Sharon Ameche, PhD: College of Arts and Sciences, Department of Molecular Genetics
- Barbara Anderson, PhD: College of Arts and Sciences, Department of Psychology
- Irina Artsimovich, PhD: College of Arts and Sciences, Department of Microbiology
- Charles Bell, PhD: College of Medicine, Department of Biological Chemistry and Pharmacology
- Martha Bociek, PhD: College of Education and Human Ecology, Department of Human Nutrition
- Theodore Brasky, PhD: College of Medicine, Department of Internal Medicine
- Bill Carson, MD: College of Medicine, Department of Surgery
- Helen Chamberlin, PhD: College of Arts and Sciences, Department of Molecular Genetics
- David Cohn, MD: College of Medicine, Department of Obstetrics and Gynecology
- Susan Cormack, PhD: College of Arts and Sciences, Department of Molecular Genetics
- Peter Embi, MD: College of Medicine, Department of Biomedical Informatics
- Harold Fisk, PhD: College of Arts and Sciences, Department of Molecular Genetics
- Ramesh Ganju, PhD: College of Medicine, Department of Pathology
- Ramiro Garzon, MD: College of Medicine, Department of Internal Medicine
- Samir Ghadiri, PhD: College of Engineering, Department of Biomedical Engineering
- Lee Grinnell, MD: Cincinnati Children’s Hospital, Department of Immunology
- Joanna Groden, PhD: College of Medicine, Department of Molecular Virology, Immunology and Medical Genetics
- Erich Grotevost, PhD: College of Arts and Sciences, Department of Molecular Genetics
- Dena Guttidge, PhD: College of Medicine, Department of Molecular Virology, Immunology and Medical Genetics
- Tsamisin Hsi, PhD: College of Medicine, Department of Biomedical Chemistry and Pharmacology
- Kay Huebner, PhD: College of Medicine, Department of Molecular Virology, Immunology and Medical Genetics
- Mira Katz, PhD: College of Public Health, Department of Health Behavior and Health Promotion
- Balveen Kaur, PhD: College of Medicine, Department of Neurological Surgery
- Janice Kiecolt-Glaser, PhD: College of Medicine, Institute for Behavioral Medicine Research
- Gustavo Leone, PhD: College of Medicine, Department of Molecular Genetics
- Immunology and Medical Genetics
- Greg Lesinski, PhD: College of Medicine, Department of Internal Medicine
- Thomas Ludwig, PhD: College of Medicine, Department of Biological Chemistry and Pharmacology
- Natarajan Muthusamy, DVM, PhD: College of Medicine, Department of Internal Medicine
- Michelle Obon, PhD: College of Medicine, Department of Internal Medicine
- Michael Ostrowski, PhD: College of Medicine, Department of Molecular Virology, Immunology and Medical Genetics
- Greg Otterson, MD: College of Medicine, Department of Internal Medicine
- Deborah Parris, PhD: College of Medicine, Department of Molecular Virology, Immunology and Medical Genetics
- Jeffrey Parvin, MD, PhD: College of Medicine, Department of Biomedical Informatics
- Electre Paskett, PhD: College of Medicine, Department of Internal Medicine
- Matt Rindler, MD: College of Medicine, Department of Internal Medicine
- Sameek Roychowdhury, MD, PhD: College of Medicine, Department of Internal Medicine
- Thomas Schoenberg, MD: College of Medicine, Department of Biological Chemistry and Pharmacology
- Amanda Simcox, PhD: College of Arts and Sciences, Department of Molecular Genetics
- Keith Sittik, PhD: College of Arts and Sciences, Department of Molecular Genetics
- Adrian Suarez, MD: College of Medicine, Department of Pathology
- Vish Subramaniam, PhD: College of Engineering, Department of Mechanical and Aerospace Engineering
- Amanda Toland, PhD: College of Medicine, Department of Molecular Virology, Immunology and Medical Genetics
- Mary Ellen Wewers, PhD: College of Public Health, Department of Health Behavior and Health Promotion
- Robin Wharton, PhD: College of Arts and Sciences, Department of Molecular Genetics
- Jessica Winter, PhD: College of Engineering, Department of Chemical and Biomolecular Engineering
- Jian-Qiu Wu, PhD: College of Arts and Sciences, Department of Molecular Genetics

Senior Program Moderator

Deborah Parris, PhD: Professor Emeritus, College of Medicine, Department of Molecular Virology, Immunology and Medical Genetics

Internal Advisors

Electra Paskett, PhD: Cancer Control Research Program Co-Leader
Mary Ellen Wewers, PhD: Cancer Control Research Program Co-Leader
John Byrd, MD: Leukemia Research Program Co-Leader
Michael Grever, MD: Leukemia Research Program Co-Leader
Michael Ostrowski, PhD: Molecular Biology and Cancer Genetics Research Program Co-Leader
Matt Ringel, MD: Molecular Biology and Cancer Genetics Research Program Co-Leader
Steven Clinton, MD, PhD: Molecular Carcinogenesis and Chemoprevention Research Program Leader
David Carlson, MD, PhD: Translational Therapeutics Research Program Co-Leader
Denis Guttidge, PhD: Translational Therapeutics Research Program Co-Leader
Michael A. Caligiuri, MD: Director, The Ohio State University Comprehensive Cancer Center CEO, James Cancer Hospital and Solove Research Institute
Peter Shields, MD: Deputy Director, The Ohio State University Comprehensive Cancer Center - James Cancer Hospital and Solove Research Institute
Richard Goldberg, MD: Physician-in-Chief, The Ohio State University Comprehensive Cancer Center - James Cancer Hospital and Solove Research Institute

External Advisors: Symposia Speakers

2015
Frank McCormick, PhD, FRS, DSc (Hon)
David A. Wood Distinguished Professor of Tumor Biology and Cancer Research Professor Emeritus, Helen Diller Family Comprehensive Cancer Care Center - University of California, San Francisco Co-Leader, National FAS Initiative
Brenda Schulman, PhD
HHMI Investigator
Joseph Simon Endowed Chair in Basic Research St. Jude Children’s Research Hospital
Philip Taichman, MD
Jane F. Desforges MD Professor of Hematology and Oncology
Tufts University School of Medicine Executive Director, Molecular Oncology Research Institute Tufts Medical Center
John H. J. Petrini, PhD
Helen Diller Family Comprehensive Cancer Care Center - Memorial Sloan-Kettering Cancer Center
Judith Campisi, PhD
David Beach, PhD, FRS
Guillermia (Gigi) Lozano, PhD

Symposia 2015 (November 19th)

Twists and Turns in Targeting K-Ras
Frank McCormick, PhD, FRS, DSc (Hon) "Twists and Turns in Targeting K-Ras"

Signaling, Epigenetics and RNA metabolism
Philip Taichman, MD
"Signaling, Epigenetics and RNA metabolism"