Greetings, and welcome to the 2014 Pelotonia Fellowship Program Annual Report. It's been a remarkable year and we're excited to share data about program developments, accomplishments and future directions.

Cancer is a complicated disease and if we are to reach our goal of one day living in a cancer-free world, we need to develop cures by taking a multidisciplinary approach. The Pelotonia Fellowship Program funds cutting-edge cancer research performed by our best undergraduate, graduate, medical and postdoctoral students, regardless of their field of study. These students move the field of cancer research forward by making new discoveries while at the same time trainees develop their careers to become independent cancer researchers.

To date, 292 awards have been given to these trainees. Completion of their projects is moving us toward the goal of one day living in a cancer-free world. Our fellows have made discoveries that are being published in prestigious journals; have led to receiving additional research and scholarly awards; have culminated in large grant applications; have led them to a successful path into graduate and medical schools and into postdoctoral, industry and faculty positions.

We’re very proud of the diversity and transparency of our program. If you look at the data in this report, you will see projects funded from 48 departments in 10 different colleges at The Ohio State University and Cincinnati Children’s Hospital Medical Center. We understand that new discoveries occur when people look at problems from different points of view and with broad areas of expertise. We believe that funding talented student researchers in diverse disciplines like Engineering, Physics and Business to help in our fight against cancer will pay tremendous dividends.

To see all of the funded projects, including the name of each awardee, their mentor, the title of their project and a simplified project description, go to our website: go.osu.edu/pelotoniafellowships > Researchers and Physicians > Education > Pelotonia Fellowship Program. On this site, you can also view a list of our committee members, application deadlines, application scoring criteria and fellowship guidelines.

A program like this would not be successful if it weren’t for the hard work of all of our 43 committee members who represent 19 different departments. These colleagues are incredibly dedicated to the success of this program and we want to thank each of them for their hard work and dedication. Special thanks to Amanda Simcox, PhD, for her work helping develop our undergraduate and international programs and Denis Guttridge, PhD, for helping develop our graduate program. We are also thankful to the Pelotonia participants (both traditional and virtual riders, volunteers and donors), OSU faculty, departments, colleges and especially the graduate school and Dean Osmer and Dr. Scott Herness for supporting and providing matching funds to this 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 with a focus on undergraduate students; extending the medical student program to the colleges of Veterinary Medicine (DVMs), Pharmacy (PharmD), Optometry (ODs) and Dentistry (DDSs); and increasing the pool of Population Science and Biomedical Informatics applicants. Accomplishment of these goals will help us train the next generation of scientists that will tackle the most difficult health-related tasks that still lie ahead and will help our university in becoming 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

http://go.osu.edu/pelotoniafellowships
The Pelotonia Fellowship Program is an interdisciplinary program that has funded 150 undergraduate/international, 81 graduate/medical student and 61 postdoctoral awards. Mentors come from 48 departments in 10 different colleges at The Ohio State University and Cincinnati Children’s Hospital Medical Center.

**fellows funded**

**All Fellowships**
- **182** Medicine
- **72** Arts and Sciences
- **13** Engineering
- **11** 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**
- **85** Medicine
- **39** Arts and Sciences
- **5** Pharmacy
- **4** Education and Human Ecology
- **2** Dentistry
- **1** Veterinary Medicine

**Graduate/Medical Fellowships**
- **46** Medicine
- **21** Arts and Sciences
- **6** 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**
- **48** Medicine
- **7** Arts and Sciences
- **4** Engineering
- **3** Cincinnati Children’s Hospital Medical Center
- **1** Pharmacy
- **1** Veterinary Medicine

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

Shauna received an undergraduate fellowship to investigate the effects of Elotuzumab on multiple myeloma. Shauna has published two manuscripts including one first author in Cancer Immunol Immunother. Shauna is now a third-year medical student at The Ohio State University College of Medicine and recently received a prestigious Roessler Research Scholarship.

(Mentor: Don Benson, MD, PhD)

Meera Govindaraghavan, PhD

Dr. Govindaraghavan received a graduate fellowship to study the relationship between mitotic protein phosphorylation and methylation as a basis for development of novel chemotherapies. Dr. Govindaraghavan is currently a postdoctoral fellow at National Cancer Institute (NCI). He has published four manuscripts including three first author in prestigious journals including Cancer Cell and PloS Genetics.

(Mentor: Stephen Osmani, PhD)

James Phelan, PhD

Dr. Phelan received a graduate fellowship to study how leukemia cells are destroyed when Gfi1 is eliminated. Dr. Phelan is currently a postdoctoral fellow at National Cancer Institute (NCI). He has published six manuscripts including three first author in prestigious journals including Cancer Cell and PloS Genetics.

(Mentor: H. Leighton Grimes, PhD)

Ann-Kathrin Eisfeld, MD

Dr. Eisfeld received a postdoctoral fellowship to study how inherited genomic changes in the BAALC region might predispose Acute Myeloid Leukemia patients to fail their treatment. Dr. Eisfeld is currently a visiting scholar at OSU and is transitioning to an academic position as a physician-scientist. She has 16 manuscripts including six first author in prestigious journals including Proceedings of the National Academy of Sciences of the United States of America.

(Mentors: Clara Bloomfield, MD and Albert de la Chapelle, MD, PhD)

Mumtaz Yaseen Balkhi, PhD

Dr. Balkhi received a postdoctoral fellowship to study the regulation of NF-κB activity and function in sarcomas by a microRNA - RNA binding protein network. Dr. Balkhi is currently an assistant professor of medicine at Tufts University School of Medicine. He has 16 manuscripts including eight first author in prestigious journals including Blood and a featured cover story in Science Signaling.

(Mentor: Denis Guttridge, PhD)

Where are they now?

Undergraduates

• (42) Currently in program
  Moved on to:
  • (25) Medicine – University of Cincinnati, University of Toledo, University of Michigan/Wright State University, Duke University
  • (17) Graduate – Johns Hopkins University, Massachusetts Institute of Technology, University of Michigan, Northwestern University, Rice University, University of Chicago, Yale University
  • (8) Science related positions – Chemical Engineer at NexTech Materials, Genetic Counselor at Cincinnati Children’s Hospital Medical Center, Research Assistant at Nationwide Children’s Hospital, Teach for America
  • (3) Other

Graduates

• (56) Currently in program
  Moved on to:
  • (23) Pediatric – National Cancer Institute, Harvard Medical School, Stanford University, University of Texas MD Anderson Cancer Center
  • (15) Industry & Biotech – Genentech, Associate Scientist, Associate Editor at The American Ceramic Society
  • (4) Academics (Faculty) – Assistant Professor - Institute of Technology and Science, Pune, India
  • (2) Other

Medical Students

• (5) Currently in program
  Moved on to:
  • (1) MD programs
  • (1) Residency/Internship program

Postdoctoral

• (38) Currently in program
  Moved on to:
  • (8) Postdoc – Nationwide Children’s Hospital, INRIA Rennes – Bretagne Atlantique Center, Harvard Medical School
  • (3) Industry & Biotech
  • (2) Academics (Faculty) – Medical University of South Carolina, University of Prince Edward Island, Tufts University, Belhara University
  • (2) Other

Featured Undergraduate Student

Shauna Collins

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(Mentor: Don Benson, MD, PhD)

Featured Graduate Student

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(Mentor: H. Leighton Grimes, PhD)

Featured Postdoctoral Fellow

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(Mentor: Denis Guttridge, PhD)

fellowship highlights
fellowship publications

Undergraduates

Graduates


The Pelotonia Fellowship Committee is chaired by Gustavo Leone, PhD, and co-chaired by Jon Kiecok-Glaser, PhD. The committee is made up of some of Ohio State’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
Sharon Amacher, PhD, College of Arts and Sciences, Department of Molecular Genetics
Barbara Aromando, PhD, College of Arts and Sciences, Department of Psychology
Irina Artsimovitch, PhD, College of Arts and Sciences, Department of Microbiology
Charles Bell, PhD, College of Medicine, Department of Molecular and Cellular Biochemistry
Martha Belury, PhD, College of Education and Human Ecology, Department of Human Nutrition
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 Cole, PhD, College of Arts and Sciences, Department of Molecular Genetics
Peter Emr, 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 Ghadially, PhD, College of Engineering, Department of Biomedical Engineering
Lee Grimes, PhD, Cincinnati Children’s Hospital, Department of Immunology
Joanna Groden, PhD, College of Medicine, Department of Molecular Virology, Immunology & Medical Genetics
Enrich Groteveld, PhD, College of Arts and Sciences, Department of Molecular Genetics
Denis Guttridge, PhD, College of Medicine, Department of Molecular Virology, Immunology & Medical Genetics
Taemwin Hui, PhD, College of Medicine, Department of Molecular and Cellular Biochemistry
Peter Houghton, PhD, Nationwide Children’s Hospital, Center for Childhood Cancer
Kay Huebner, PhD, College of Medicine, Department of Molecular Virology, Immunology & Medical Genetics
Mira Katz, PhD, College of Public Health, Department of Health Behavior and Health Promotion
Beverly Keur, PhD, College of Medicine, Department of Neurological Surgery
Janice Kiecok-Glaser, PhD, College of Medicine, Institute for Behavioral Medicine Research
Gustavo Leone, PhD, College of Medicine, Department of Molecular Virology, Immunology & Medical Genetics
Greg Lesinski, PhD, College of Medicine, Department of Internal Medicine
Thomas Ludwig, PhD, College of Medicine, Department of Molecular and Cellular Biochemistry
Guido Marcocci, MD, College of Medicine, Department of Internal Medicine
Natantian Muthusamy, DVM, PhD, College of Medicine, Department of Internal Medicine
Michael Ostrowski, PhD, College of Medicine, Department of Molecular and Cellular Biochemistry
Greg Otherson, MD, College of Medicine, Department of Internal Medicine
Deborah Parris, PhD, Professor Emeritus, College of Medicine, Department of Molecular Virology, Immunology & Medical Genetics
Jeffrey Parvin, MD, PhD, College of Medicine, Department of Biomedical Informatics
Samwek Roychowdhury, MD, PhD, College of Medicine, Department of Internal Medicine
Amanda Simcox, PhD, College of Arts and Sciences, Department of Molecular Genetics
Keith Slotkin, PhD, College of Arts and Sciences, Department of Molecular Genetics
Vishwanath Subramaniam, PhD, College of Engineering, Department of Mechanical and Aerospace Engineering
Amanda Tonolli, PhD, College of Medicine, Department of Molecular Virology, Immunology & Medical Genetics
Miguel Villalona, MD, College of Medicine, Department of Internal Medicine
Mary Ellen Wickers, 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 & Biomedical 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 & Medical Genetics

Internal Advisors
Electa Pickets, PhD, Cancer Control Research Program Leader
John Byrd, MD, Leukemia Research Program Leader
Michael Grever, MD, Leukemia Research Program Leader
Michael Ostrowski, PhD, Molecular Biology and Cancer Genetics Research Program Leader
Steven Clinton, MD, PhD, Molecular Carcinogenesis and Chemoprevention Research Program Leader
David Carbone, MD, PhD, Translational Therapeutics Research Program Leader
Denis Guttridge, PhD, Translational Therapeutics Research Program Leader
Michael A. Caligiuri, MD, Director, The Ohio State University Comprehensive Cancer Center CEO, James Cancer Hospital and Solove Research Institute
Peter Shioda, 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: Symposium Speakers

2014
Carlos Arteaga, MD, Professor of Medicine & Cancer Biology
Director Breast Cancer Program
Vanderbilt-Ingram Cancer Center
David Beech, PhD, FRS
Professor of Stem Cell Research
Blizard Institute
Guillermo (Gigi) Lozano, PhD
Chair and Professor
Department of Genetics
University of Texas MD Anderson Cancer Center

2013
Stephen Eidelberg, PhD
Department of Genetics
Harvard Medical School
Michèle Pagano, MD, PhD
New York University School of Medicine
Investigator, Howard Hughes Medical Institute
Jan Aster, MD, PhD
Department of Pathology
Brigham and Women’s Hospital
Harvard Medical School

2012
Charles J. Sherr, MD, PhD
St. Jude Children’s Research Hospital Faculty Chair, Tumor Cell Biology
Investigator, Howard Hughes Medical Institute
Martine F. Roussel, PhD
St. Jude Children’s Research Hospital Faculty
Endowed Chair in Molecular Oncogenesis
The University of Tennessee Memphis
David E. Fisher, MD, PhD
Chief, Department of Dermatology
Massachusetts General Hospital
Harvard Medical School
Ross Levine, MD
Geoffrey B. Emma Junor Faculty Chair
Memorial Sloan-Kettering Cancer Center
John H. J. Petrikin, PhD
Paul A. Marks Chair of Molecular Cell Biology
Head, Laboratory of Chromosome Biology
Memorial Sloan-Kettering Cancer Center
Judith Campisi, PhD
Professor, Buck Institute for Age Research
Sr Scientist, Lawrence Berkeley National Laboratory

Symposia 2014 (October 1st)

Carlos Arteaga, MD “Gene Therapy in Breast Cancer: Role in Tumor Progression and as a Therapeutic Target”

Guillermo (Gigi) Lozano, PhD “Dissecting the p53 Pathway in Vivo”

David Beech, PhD, FRS "The Cell Cycle and Cancer: Back to the Future"