PELOTONIA FELLOWSHIP PROGRAM

2015 Annual Report

cancer.osu.edu

The James

The Ohio State University
Comprehensive Cancer Center

snapshot from India exchange program

welcome

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** > 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 Avinashilingam University. We would like to welcome Doug Ulman and thank Karl Koon and Justine Boggs at Team Buckeye and the Pelotonia team for all their hard work to support this 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.

sincerely

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

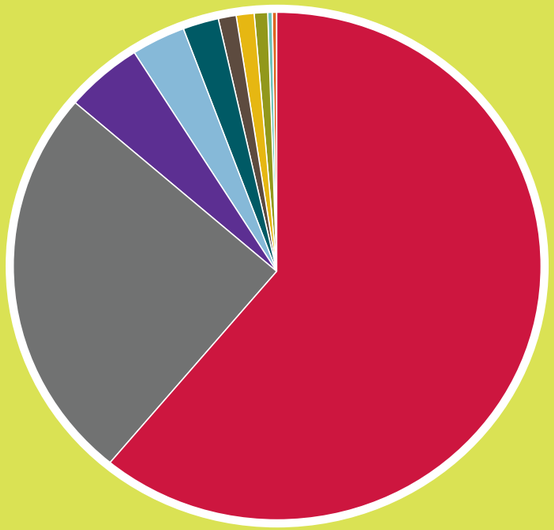
Janice Kiecolt-Glaser, PhD
Director, Institute for Behavioral Medicine Research
Distinguished University Professor
S. Robert Davis Chair of Medicine
Professor of Psychiatry and Psychology
Institute for Behavioral Medicine Research
Ohio State University College of Medicine

The James

THE OHIO STATE UNIVERSITY
COMPREHENSIVE CANCER CENTER

The Pelotonia Fellowship Program is an interdisciplinary program that has funded 182 undergraduate/international, 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.

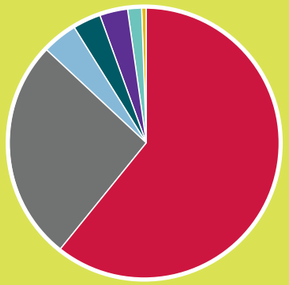
fellows funded



college affiliation (mentors)

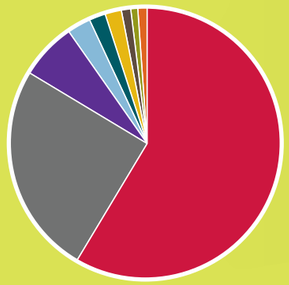
All Fellowships

- 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



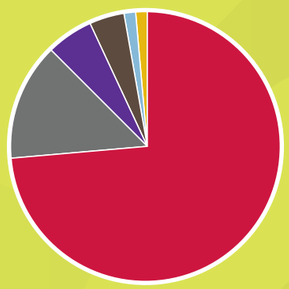
Undergraduate Fellowships

- 112 Medicine
- 48 Arts and Sciences
- 8 Pharmacy
- 6 Education and Human Ecology
- 6 Engineering
- 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

69 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

Where are they now?

Undergraduates
- (38) Currently in Program:

Moved on to:
- (61) 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:
- (39) 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
- (3) Other

Medical Students
- (0) Currently in Program:

Moved on to:
- (3) PhD programs
- (1) Residency/Internship program

Postdoctoral
- (14) Currently in Program:

Moved on to:
- (31) Postdoc – Nationwide Children's Hospital, University of Florida, Washington State University, INRIA Rennes – Bretagne Atlantique Center, Harvard Medical School
- (4) Industry & Biotech – Claritas Genomics Inc., Octapharma Pharmazeutika Produktionsges
- (15) Academics (faculty) – The Ohio State University, Stanford University, University of South Florida, University of Prince Edward Island, Tufts University, Beihang University, West Virginia University
- (2) Other

fellowship highlights

Featured Undergraduate Student

Ronald Siebenaler

Ron received a Pelotonia Undergraduate Fellowship to test novel therapies targeting the effects of two genetic mutations, MLLPTD and FLT3ITD, 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 Research Award and being named a Barry M. Goldwater Excellence in Education Program Scholar. Ron graduated from The Ohio State University Summa Cum Laude, with Honors Research Distinction in Biomedical Science and is now in the Medical Scientist Training Program (MD/PhD) at the University of Michigan Medical School doing genetic cancer research under the guidance of Arul Chinnaiyan MD, PhD.

(Mentor-Michael Caligiuri, MD)

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.

(Mentors-William Kisseberth, DVM, PhD & Cheryl London, DVM, PhD)

Featured Graduate Student

Shreyas Rao, PhD

Dr. Rao received a Pelotonia Graduate Fellowship to develop 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 in the Department of Chemical and Biological Engineering.

(Mentor-Jessica Winter, PhD)

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 a 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 Research Institute as an assistant professor in the Morsani College of Medicine at the University of South Florida.

(Mentor-William Carson, MD)

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 ureteral, 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.

(Mentor-Richard M. Goldberg, MD)

first author fellowship publications

(from a list of 696)

Graduate/Undergraduate

1. **Austin CL**, et al. TGF-α ligands can substitute for the neuregulin Vein in Drosophila development. *Development* (2014).
2. **Reyes RK**, et al. Regulation of Glucose Metabolism in Hepatocarcinogenesis by MicroRNAs. *Gene Expression* (2014).
3. **Chuang HC**, et al. AMPK As A Potential Anticancer Target - Friend or Foe?. *Curr Pharm Des* (2014).
4. **Hutzen B**, et al. Treatment of medulloblastoma with oncolytic measles viruses expressing the angiogenesis inhibitors endostatin and angiostatin. *BMC Cancer* (2014).
5. **Jones SM**, et al. Health care worry is associated with worse outcomes in Multiple Sclerosis. *Rehabilitation Psychology* (2014).
6. **Wu SM**, et al. Individual counseling is the preferred therapy for depression among cancer patients. *Journal of Psychosocial Oncology* (2014).
7. **Govindaraghavan M**, et al. The Set1/COMPASS Histone H3 Methyltransferase Helps Regulate Mitosis with the CDK1 and NIMA Mitotic Kinases in Aspergillus nidulans. *Genetics* (2014).
8. **Chen C**, et al. Quantitative Models for accelerated protein dissociation from nucleosomal DNA. *Nucleic Acids Res* (2014).
9. **Hankey W**, et al. APC (Adenomatous Polyposis Coli) Tumor Suppressor. *Online Reference Module in Biomedical Sciences* (2014).
10. **Pringle D**, et al. Mice harboring thyroid specific deletion of Prkar1a and Pten develop metastatic follicular thyroid carcinoma which recapitulates signaling in human cancers. *Journal of Clinical Endocrinology and Metabolism* (2014).
11. **Shah KH**, et al. Protein kinases are associated with multiple, distinct cytoplasmic granules in quiescent yeast cells. *Genetics* (2014).
12. **Fenger JM**, et al. Dog models of naturally occurring cancer, in animal models in research and development of cancer therapy – Predictability of clinical efficacy. *Wiley-VCH* (2014).
13. **Xu C***, **Maxwell BA***, et al. Conformational Dynamics of Thermus aquaticus DNA Polymerase I during Catalysis. *J Mol Biol* (2014). (*Co-first authors)
14. **Nelson MT**, et al. Preferential, Enhanced Breast Cancer Cell Migration on Biomimetic Electrospun Nanofiber 'Cell Highways'. *BMC Cancer* (2014).
15. **Wei K**, et al. Systematic investigation of the benchtop surface wrinkling process by corona discharge. *RSC Adv* (2014).
16. **Wu J**, et al. Healing for destruction: tRNA intron degradation in yeast is a two-step cytoplasmic process catalyzed by tRNA ligase Rlg1 and 5'-to-3' exonuclease Xrn1. *Genes Dev* (2014).
17. **Bai Y**, et al. Regional impact of climate on Japanese encephalitis in areas located near the Three Gorges Dam. *PLoS ONE* (2014).
18. **Wahi K**, et al. The many roles of Notch signaling during vertebrate somitogenesis. *Sem Cell Dev Bio* (2014).
19. **Wu J**, et al. Genome-wide identification of MAPKK and MAPKKK gene families in tomato and transcriptional profiling analysis during development and stress response. *PloS one* (2014).
20. **Ahn-Jarvis JH**, et al. Isoflavone pharmacokinetics and metabolism after consumption of a standardized soy and soy-almond bread in men with asymptomatic prostate cancer. *Cancer Prevention Research* (2015).
21. **Josyula S**, et al. Obstetric Referrals from a Rural Clinic to a Community Hospital in Honduras. *Midwifery* (2015).
22. **Briercheck EL**, et al. PTEN is a negative regulator of natural killer cell cytolytic function. *Journal of Immunology* (2015).
23. **Dhungel N**, et al. Parkinson's disease genes VPS35 and EIF4G1 interact genetically and converge on α-synuclein. *Neuron* (2015).
24. **Liu H**, et al. Redeployment of Myc and E2f1-3 drives Rb-deficient cell cycles. *Nature Cell Biology* (2015).
25. **Riley MF**, et al. Mdm2 overexpression and p73 loss exacerbate genomic instability and dampen apoptosis, resulting in B-cell lymphoma. *Oncogene* (2015).
26. **Jones SMW**, et al. Psychometric investigation of benefit finding in a sample of long-term cancer survivors using the Medical Expenditure Panel Survey. *European Journal of Oncology Nursing* (2015).
27. **Jones SMW**, et al. The relationship of perceived risk and biases in perceived risk to fracture prevention behavior in older women. *Annals of Behavioral Medicine* (2015).
28. **Jones, SMW**, et al. Medical comorbidity and psychotropic medication fills in older adults with breast or prostate cancer. *Supportive Care in Cancer* (2015).
29. **Jones SMW**, et al. Depression and quality of life before and after breast cancer diagnosis in older women from the Women's Health Initiative. *Journal of Cancer Survivorship* (2015).
30. **Jones SMW**, et al. A psychometric examination of multimorbidity and mental health in older adults. *Aging and Mental Health* (2015).
31. **Jones SMW**, et al. The relationship of age, function and psychological distress in people with Multiple Sclerosis. *Psychology, Health and Medicine* (2015).
32. **Jones SMW**, et al. A differential item function analysis of somatic symptoms of depression in people with cancer. *Journal of Affective Disorders* (2015).
33. **Kliewer KL**, et al. Short-term food restriction with controlled refeeding promotes gorging behavior, enhances fat deposition, and reduces insulin sensitivity in mice. *J Nutr Biochem* (2015).
34. **Kliewer KL**, et al. Adipose tissue lipolysis and energy metabolism in early cachexia in mice. *Cancer Biol Ther* (2015).
35. **Hsu EC**, et al. Function of Integrin-Linked Kinase in Modulating the Stemness of IL-6-Abundant Breast Cancer Cells by Regulating γ-Secretase-Mediated Notch1 Activation in Caveolae. *Neoplasia* (2015).
36. **Comiskey DF Jr***, **Jacob AG***, et al. Splicing factor SRSF1 negatively regulates alternative splicing of MDM2 under damage. *Nucleic Acids Res* (2015). (*Both co-first authors are Pelotonia Graduate Fellows)
37. **Liu HW**, et al. The chromatin scaffold protein SAFB1 localizes SUMO-1 to the promoters of ribosomal protein genes to facilitate transcription initiation and splicing. *Nucleic Acids Res* (2015).
38. **Liu TM**, et al. Hypermorphic mutations of phospholipases C-γ2 acquired in ibrutinib resistant CLL confers BTK independency upon BCR activation. *Blood* (2015).
39. **Liu TM**, et al. OSU-T315: a novel targeted therapeutic that antagonizes AKT membrane localization and activation of chronic lymphocytic leukemia. *Blood* (2015).
40. **Long Y**, et al. In vitro substrate specificities of 3'-5' polymerases correlate with biological outcomes of tRNA 5'-editing reactions. *FEBS Lett* (2015).
41. **Arango D**, et al. Dietary apigenin reduces LPS-induced expression of mir-155 restoring immune balance during inflammation. *Mol Nutr Food Res* (2015).
42. **Gerber MM**, et al. Allele-specific imbalance mapping at human orthologs of mouse susceptibility to colon cancer (Scc) loci. *International Journal of Cancer* (2015).
43. **Zhao H**, et al. miR-29b defines the pro-/anti-proliferative effects of S100A7 in breast cancer. *Molecular Cancer* (2015).
44. **Bai Y**, et al. Macrophage recruitment in obese adipose tissue. *Obes Rev* (2015).
45. **Bai Y**, et al. Effects of climate and rodent factors on hemorrhagic fever with renal syndrome in Chongqing, China, 1997-2008. *PLoS ONE* (2015).
46. **Derry HM**, et al. Sex differences in depression: Does inflammation play a role?. *Current Psychiatry Reports* (2015).
47. **Derry HM**, et al. Yoga and self-reported cognitive problems in breast cancer survivors: a randomized controlled trial. *Psycho-oncology* (2015).
48. **Do P**, et al. Mass Cytometry: a High-Throughput Platform to Visualize the Heterogeneity of Acute Myeloid Leukemia. *Cancer Discovery* (2015).
49. **Scoville SD**, et al. Rapid Column-Free Enrichment of Mononuclear Cells from Solid Tissues. *Sci Rep* (2015).
50. **Wu J**, et al. Genome-wide screen uncovers novel pathways for tRNA processing and nuclear-cytoplasmic dynamics. *Genes & Development* (2015).

Postdoctoral

1. **Ogawa D**, et al. Extracellular vesicles modulate the glioblastoma microenvironment via a tumor suppression signaling network directed by miR-1. *Cancer Res* (2014).
2. **Rocci A**, et al. The potential of miRNAs as biomarkers for multiple myeloma. *Expert Rev Mol Diagn* (2014).
3. **Jaremka LM**, et al. Omega-3 supplementation and loneliness-related cognitive problems: Secondary analyses of a randomized controlled trial. *Psychosomatic Medicine* (2014).
4. **Jaremka LM**, et al. Interpersonal stressors predict ghrelin and leptin levels in women. *Psychoneuroendocrinology* (2014).
5. **DeFraia C**, et al. Analysis of retrotransposon activity in plants. *Methods in Molecular Biology* (2014).
6. **Wang Y**, et al. Quantitative characterization of cell behaviors through cell cycle progression via automated cell tracking. *PLoS One* (2014).
7. **Wang Y**, et al. Real time drift measurement for colloidal probe atomic force microscope: a visual sensing approach. *AIP Advances* (2014).
8. **Yeh YY**, et al. Up-regulation of CDK9 kinase activity and Mcl-1 stability contribute to the acquired resistance to cyclin-dependent kinase inhibitors in leukemia. *Oncotarget* (2014).
9. **Wani NA**, et al. C-X-C motif chemokine 12/C-X-C chemokine receptor type 7 signaling regulates breast cancer growth and metastasis by modulating the tumor microenvironment. *Breast Cancer Res* (2014).
10. **Chlon T,** et al. High-Risk Human Papillomavirus E6 Protein Promotes Reprogramming of Fanconi Anemia Patient Cells through Repression of p53 but Does Not Allow for Sustained Growth of Induced Pluripotent Stem Cells. *Journal of Virology* (2014).
11. **Hughes T**, et al. The transcription factor AHR prevents the differentiation of a stage 3 innate lymphoid cell subset to natural killer cells. *Cell Reports* (2014).
12. **Talbot JC**, et al. A streamlined CRISPR pipeline to reliably generate zebrafish frameshifting alleles. *Zebrafish* (2014).
13. **Sizemore GM**, et al. GABA(A) Receptor pi (GABRP) Stimulates Basal-like Breast Cancer Cell Migration Through Activation of Extracellular Regulated Kinase 1/2 (ERK1/2). *The Journal of Biological Chemistry* (2014).
14. **Markowitz J**, et al. Quality of life issues and treatment in pancreas cancer. *J Cancer Biol Res* (2014).
15. **Cantara WA**, et al. Progress and outlook in structural biology of large viral RNAs. *Virus Res* (2014).
16. **El-Gamal D**, et al. PKC-β as a therapeutic target in CLL: PKC inhibitor AEB071 demonstrates preclinical activity in CLL. *Blood* (2014).
17. **El-Gamal D**, et al. The urea decomposition product cyanate promotes endothelial dysfunction. *Kidney Int* (2014).
18. **Londhe P**, et al. Inflammation induced loss of skeletal muscle. *Bone* (2014).
19. **Coffman VC**, et al. Counting Molecules Within Cells. *Colloquium Series on Quantitative Cell Biology* (2014).
20. **Coffman VC**, et al. Every laboratory with a fluorescence microscope should consider counting molecules. *Mol Bio. Cell* (2014).
21. **Damodaran S,** et al. Focal Takotsubo Cardiomyopathy with High Dose Interleukin-2 Therapy for Malignant Melanoma. *Journal of the National Comprehensive Cancer Network* (2014).
22. **Haraldsdottir S**, et al. Colon and Endometrial Cancers with Mismatch Repair Deficiency can Arise from Somatic, Rather Than Germline, Mutations. *Gastroenterology* (2014).
23. **Haraldsdottir S**, et al. Colorectal cancer – review. *The Icelandic Medical Journal* (2014).
24. **Caserta E***, **Egriboz O***, **Martin C***, et al. Non-catalytic PTEN missense mutation predisposes to organ-selective cancer development in vivo. *Genes and Development* (2015). (*Co-first authors are Pelotonia Postdoctoral Fellows)
25. **Pécot T**, et al. Background fluorescence estimation and vesicle segmentation in live cell imaging with conditional random fields. *IEEE Transactions on Image Processing* (2015).
26. **Bid HK**, et al. Re: bacillus calmette-guérin strain differences have an impact on clinical outcome in bladder cancer immunotherapy. *Eur Urol* (2015).
27. **Patel AV**, et al. Fatty acid synthase is a metabolic oncogene targetable in malignant peripheral nerve sheath tumors. *NeuroOncology* (2015).
28. **Singh AK**, et al. Regulation of TAK1 activation by epigallocatechin-3-gallate in RA synovial fibroblasts: Suppression of K63-linked autoubiquitination of TRAF6. *Arthritis Rheumatol* (2015).
29. **Kiss, DL**, et al. Uncapped 5' ends of mRNAs targeted by cytoplasmic capping map to the vicinity of downstream CAGE tags. *FEBS Lett* (2015).
30. **Ranganathan P**, et al. Decitabine priming enhances the antileukemic effects of exportin 1 (XPO1) selective inhibitor selinexor in acute myeloid leukemia. *Blood* (2015).
31. **Jaremka LM**, et al. Novel links between troubled marriages and appetite regulation: Marital distress, ghrelin, and diet quality. *Clinical Psychological Science* (2015).
32. **Jaremka LM**, et al. Loneliness predicts postprandial ghrelin and hunger in women. *Hormones and Behavior* (2015).
33. **Ahirwar DK**, et al. Non-contact method for directing electrotaxis. *Sci Rep* (2015).
34. **Wang Y,** et al. Automatic morphological characterization of nanobubbles with a novel image segmentation method and its application in the study of nanobubble coalescence. *Beilstein Journal of Nanotechnology* (2015).
35. **Wang Y**, et al. Segmentation of the Clustered Cells with Optimized Boundary Detection in Negative Phase Contrast Images. *PLoS One* (2015).
36. **Yeh YY**, et al, Characterization of CLL exosomes reveals a distinct microRNA signature and enhanced secretion by activation of BCR signaling. *Blood* (2015).
37. **Dorrance AM**, et al. Targeting leukemia stem cells in vivo with antagomiR-126 nanoparticles in acute myeloid leukemia. *Leukemia* (2015).
38. **Balkhi MY**, et al. T cell exhaustion and Interleukin 2 downregulation. *Cytokine* (2015).
39. **Wani NA**, et al. RAGE mediates S100A7-induced breast cancer growth and metastasis by modulating the tumor microenvironment. *Cancer Res* (2015).
40. **Kovinich N**, et al. Abiotic stresses induce different localizations of anthocyanins in Arabidopsis. *Plant Signaling & Behavior* (2015).
41. **Shirley LA**, et al. Transarterial chemoembolization is ineffective for neuroendocrine tumors metastatic to the caudate lobe: a single institution review. *World J Surg Oncol* (2015).
42. **Markowitz J**, et al. Patients with pancreatic adenocarcinoma exhibit elevated levels of myeloid-derived suppressor cells upon progression of disease. *Cancer Immunol Immunother* (2015).
43. **Adams GN,** et al. Colon cancer growth and dissemination relies upon thrombin, stromal PAR-1 and fibrinogen. *Cancer Res* (2015).
44. **Araujo LH**, et al. Genomic characterization of non-small cell lung cancer in African Americans by massively parallel sequencing. *J Clin Oncol* (2015).
45. **Araujo LH**, et al. Somatic Mutation Spectrum of Non-Small-Cell Lung Cancer in African Americans: A Pooled Analysis. *J Thorac Oncol* (2015).
46. **Samorodnitsky E**, et al. Evaluation of Whole Exome DNA sequencing strategies. *Hum Mutat* (2015).
47. **Samorodnitsky E**, et al. Comparison of custom capture for targeted next generation DNA sequencing. *J Mol Diagn* (2015).
48. **Walker CJ,** et al. Patterns of CTCF and ZFHX3 Mutation and Associated Outcomes in Endometrial Cancer. *J Natl Cancer Inst* (2015).
49. **Wang H**, et al. Multi-layered polymeric nanoparticles for pH-responsive and sequenced release of theranostic agents. *Chemical Communications* (2015).
50. **Damodaran S**, et al. Cancer Driver Log (CanDL): Catalogue of Potentially Actionable Cancer Mutations. *The Journal of Molecular Diagnostics* (2015).
51. **Damodaran S**, et al. Clinical Tumor Sequencing: Opportunities and Challenges for Precision Cancer Medicine. *ASCO Educational Book* (2015).
52. **Srivastava AK**, et al. Enhanced expression of DNA polymerase eta contributes to cisplatin resistance of ovarian cancer stem cells. *Proc Natl Acad Sci* (2015).
53. **Srivastava AK**, et al. Targeting translesion synthesis to facilitate the eradication of ovarian cancer stem cells by platinum-based therapy. *Molecular & Cellular Oncology* (2015).
54. **Hildreth BE**, et al. Deletion of the NLS and C-terminus of PTHrP decreases osteogenesis and chondrogenesis but increases adipogenesis and myogenesis in murine bone marrow stromal cells. *Journal of Tissue Engineering* (2015).
55. **Hildreth BE**, et al. Engraftment and bone mass are enhanced by PTHrP 1-34 in ectopically transplanted vertebrae (vossicle model) and can be non-invasively monitored with bioluminescence and fluorescence imaging. *Transgenic Research* (2015).

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:

fellowship committee

Committee Members

Sharon Amacher, PhD, College of Arts and Sciences, Department of Molecular Genetics
Barbara Andersen, 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 Biological Chemistry and Pharmacology
Martha Belury, 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 Cole, 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
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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 Carbone, MD, PhD, Translational Therapeutics Research Program Co-Leader

Denis Guttridge, 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 RAS Initiative

Brenda Schulman, PhD
HHMI Investigator
Joseph Simone Endowed Chair in Basic Research
St. Jude Children's Research Hospital

Philip Tsichlis, MD
Jane F. Desforges MD Professor of Hematology and Oncology
Tufts University School of Medicine
Executive Director, Molecular Oncology Research Institute
Tufts Medical Center

2014 **Carlos Arteaga, MD**
Vanderbilt-Ingram Cancer Center

David Beach, PhD, FRS
Blizard Institute

Guillermina (Gigi) Lozano, PhD
U.T. MD Anderson Cancer Center

2013 **Stephen Elledge, PhD**
Harvard Medical School

Michele Pagano, MD, PhD
New York University School of Medicine

Jon Aster, MD, PhD
Harvard Medical School

2012 **Charles J. Sherr, MD, PhD**
St. Jude Children's Research Hospital Faculty

Martine F. Roussel, PhD
St. Jude Children's Research Hospital Faculty

David E. Fisher, MD, PhD
Harvard Medical School

2011 **Ross Levine, MD**
Memorial Sloan-Kettering Cancer Center

John H. J. Petrini, PhD
Memorial Sloan-Kettering Cancer Center

Judith Campisi, PhD
Buck Institute for Age Research

Symposia 2015 (November 19th)

Brenda Schulman, PhD
"Twists and Turns in Ubiquitin Transfer Cascades"

Frank McCormick, PhD, FRS, DSc (Hon)
"New Approaches to Targeting K-Ras"

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