

KYOUNG EUN LEE, Ph.D.
Curriculum Vitae

Email: kyoungle@umich.edu
Phone: 734-936-8770 (office)

1220A MSRB III
1150 W. Medical Center Dr.
Ann Arbor, MI 48109

Education and Training

- 07/2018 Postdoctoral Fellow
University of Pennsylvania Perelman School of Medicine, Philadelphia, PA
Advisor: M. Celeste Simon, Ph.D.
- 09/2010 Ph.D., Cellular and Molecular Biology
New York University School of Medicine, New York, NY
Advisor: Dafna Bar-Sagi, Ph.D.
- 02/2003 B.S., Biological Sciences
Korea Advanced Institute of Science and Technology (KAIST), Korea

Academic Appointments

- 09/2018 - Present Assistant Professor, Department of Pharmacology
University of Michigan Medical School, Ann Arbor, MI
- 09/2018 - Present Core Grant Member, Cancer Biology Program
University of Michigan Rogel Cancer Center, Ann Arbor, MI

Honors and Awards

- 2020 DOD Peer Reviewed Cancer Research Program Career Development Award
- 2020 Swim Across America Young Investigator Award, University of Michigan
Rogel Cancer Center
- 2019 Young Investigator Scholarship, AACR-KCA Joint Workshop on Precision
Medicine
- 2017 Postdoctoral Travel Award, University of Pennsylvania
- 2014 Top Poster Award at AACR Special Conference on Pancreatic Cancer
- 2009 NYU Graduate School of Arts and Science Student Conference Award
- 2009 Sackler Institute Travel Grant, NYU School of Medicine
- 2003 - 2005 Korea Science and Engineering Foundation Scholarship for Study Abroad
- 2003 Magna Cum Laude in the Biological Sciences, KAIST, Korea.
- 1999 - 2003 Korean Government Scholarship, Ministry of Science and Technology

Grants

- 2020-2023 Department of Defense Peer Reviewed Cancer Research Program
B cells in pancreatic tumorigenesis
Role: Principal Investigator
- 2020-2021 University of Michigan Rogel Cancer Center
Effects of hypoxia on tumor-stroma crosstalk in pancreatic cancer
Role: Principal Investigator

Presentations

Oral Presentations

- 2020 Rogel Cancer Center Grand Rounds, University of Michigan
- 2019 Cancer Biology Research Seminar, University of Michigan
- 2019 Radiation Oncology Research in Progress Seminar, University of Michigan
- 2019 Rogel Cancer Center Grand Rounds at NCRC, University of Michigan
- 2013-2017 AFCRI-Cancer Biology Seminar Series, University of Pennsylvania (once per year)
- 2013-2017 Regional Pancreatic Cancer Group Meeting, University of Pennsylvania (once per year)

Poster Presentations

- Lee KE, Spata M, Vonderheide RH, Simon MC (2019) Hypoxic adaptation tunes B cell infiltration, tissue repair, and tumorigenesis of the pancreas, Gordon Research Conference: Pancreatic Diseases, Newry, ME
- Lee KE, Spata M, Vonderheide RH, Simon MC (2017) Hypoxic adaptation tunes B cell infiltration, tissue repair, and tumorigenesis of the pancreas, Cell Symposia: Cancer, Inflammation, and Immunity, San Diego, CA
- Lee KE, Spata M, Bayne LJ, Buza EL, Durham AC, Allman D, Vonderheide RH, Simon MC (2016) *Hif1 α* deletion reveals pro-neoplastic function of B cells in pancreatic neoplasia, AACR Pancreatic Cancer, Orlando, FL
- Lee KE, Spata M, Bayne LJ, Buza EL, Durham AC, Allman D, Vonderheide RH, Simon MC (2015) *Hif1 α* deletion reveals pro-neoplastic function of B cells in pancreatic neoplasia, 16th Annual Symposium The Penn/CHOP Center for Digestive, Liver & Pancreatic Medicine, Philadelphia, PA
- Lee KE, Bayne LJ, Spata M, Richman LP, Durham AC, Vonderheide RH, Simon MC (2014) Role of *Hif1 α* in pancreatic tumorigenesis, AACR Pancreatic Cancer, New Orleans, LA
- Lee KE, Bar-Sagi D (2009) Bypass of Premature Senescence in Pancreatic Duct Epithelial Cells by Oncogenic KRas, Mechanisms and Models of Cancer, Salk Institute, San Diego, CA

Teaching

- 2020 Co-director, PHRMACOL 646: Graduate Student Seminar Course, University of Michigan
- 2020 Instructor, PHRMACOL 425: Development of New Medications, University of Michigan
- 2004 Teaching Assistant, Biochemistry Laboratory, Stony Brook University
- 2004 Teaching Assistant, General Chemistry Laboratory, Stony Brook University

Patents

“Inhibition of Oncogenic KRas-induced GM-CSF Production and Function”

Patent Number: 9901079

Issue Date: 02/27/2018

Inventors: Bar-Sagi D, Pylayeva-Gupta Y, Lee KE

Abstract: The present invention is directed to methods of inhibiting tumor growth in a subject. The present invention is further directed to methods of diagnosing cancer in a subject and identifying a suitable course of treatment for the subject based on the diagnosis. The present invention is also directed to an orthotopic animal model of pancreatic cancer.

Publications

1. Li F, Huangyang P, Burrows M, Guo K, Riscal R, Godfrey J, Lee KE, Lin N, Lee P, Blair IA, Keith B, Li B, Simon MC. (2020) FBP1 loss disrupts liver metabolism and promotes tumorigenesis through a hepatic stellate cell senescence secretome. **Nat Cell Biol.** 22:728-739.
2. Lee KE, Spata M, Maduka R, Vonderheide RH, Simon MC. (2018) *Hif1 α* deletion limits tissue regeneration via aberrant B cell accumulation in experimental pancreatitis. **Cell Reports.** 23:3457-3464.
3. Fuming Li*, Lee KE*, Simon MC. (2018) Detection of Hypoxia and HIF in Paraffin-Embedded Tumor Tissues. **Methods Mol Biol.** 1742:277-282. *Equal contribution
4. Lee KE, Spata M, Bayne LJ, Buza EL, Durham AC, Allman D, Vonderheide RH, Simon MC. (2016) *Hif1 α* deletion reveals pro-neoplastic function of B cells in pancreatic neoplasia. **Cancer Discovery** 6:256-269.
 - In the Spotlight. *Cancer Discovery* 6:230-232, 2016.
 - Research Highlight. *Nature Reviews Cancer* 16:67, 2016.
 - Editors' Choice. *Science Signaling* 9:ec77, 2016.
5. Lee KE, Simon MC. (2015) SnapShot: Hypoxia-Inducible Factors. **Cell** 163:1288-1288.e1.
6. Court H, Amoyel M, Hackman M, Lee KE, Xu R, Miller G, Bar-Sagi D, Bach EA, Bergö MO, Philips MR. (2013) Isoprenylcysteine carboxymethyltransferase deficiency exacerbates KRAS-driven pancreatic neoplasia via Notch suppression. **J Clin Invest** 123:4681-4694.
7. Pylayeva-Gupta Y, Lee KE, Bar-Sagi D. (2013) Microdissection and culture of murine pancreatic ductal epithelial cells. **Methods Mol Biol** 980:267-279.
8. Lee KE, Simon MC. (2012) From Stem Cells to Cancer Stem Cells: HIF Takes the Stage. **Curr Opin Cell Biol** 24:232-235.
9. Pylayeva-Gupta Y, Lee KE, Hajdu CH, Miller G, Bar-Sagi D. (2012) Oncogenic Kras-induced GM-CSF production supports the development of pancreatic neoplasia. **Cancer Cell** 21:836-847.
10. Mallen-St.Clair J, Soydaner-Azeloglu R, Lee KE, Taylor LJ, Livanos A, Pylayeva-Gupta Y, Miller G, Margueron R, Reinberg D, Bar-Sagi D. (2012) EZH2 couples pancreatic

regeneration to neoplastic progression. **Genes Dev** 26:439-444.

11. Lee KE, Bar-Sagi D. (2010) Oncogenic KRas suppresses inflammation-associated senescence of pancreatic ductal cells. **Cancer Cell** 18:448-458.
 - Research Highlight In Brief. *Nature Reviews Cancer* 11:5, 2011.
12. Agbunag C, Lee KE, Buontempo S, Bar-Sagi D. (2006) Pancreatic duct epithelial cell isolation and cultivation in two-dimensional and three-dimensional culture systems. **Methods Enzymol** 407:703-710.