

Curriculum Vitae

YUXUAN (PHOENIX) MIAO

Contact Information

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Education

2009-2015 Ph.D., Immunology, Duke University School of Medicine, Durham, NC
2004-2008 B.S., Biotechnology, Beijing Institute of Technology, Beijing, China.

Positions

2020-Present Assistant Professor, Ben May Department of Cancer Research,
University of Chicago, Chicago, IL
2015-2020 Jane Coffin Childs Postdoctoral Fellow, Laboratory of Mammalian Cell Biology and
Development. (PI: Elaine Fuchs), Rockefeller University, New York, NY
2009-2015 Graduate Research Assistant, Laboratory of Epithelial Immunity
(PI: Soman Abraham), Duke University, Durham, NC
2007-2009 Research Technician, The State Key Laboratory of Plant Genomics, Beijing, China
2005-2007 Research Technician, Beijing Institute of Technology

Honors and Awards

2019 NCI K99/R00 Pathway to Independence Award
2019 Robertson Therapeutic Development Foundation Proof-of-Concept Award
2016 Jane Coffin Childs Fellowship
2015 Mitchell Meritorious Research Award
2009 Duke Chancellor Award
2005 Beijing Institute of Technology University Scholarship

Publications

Primary author publications

Miao Y, Yang H, Levorse, J, Yuan S, Polak L, Sribour M, Singh B, Rosenblum M, Fuchs E. Adaptive Immune Resistance Emerges from Tumor-Initiating Stem Cells. (2019) *Cell* 177 (5) 1172-1186 (Selected as “Top10 publication in cancer search in 2019” by European Association of Cancer Research)

Miao Y*, Bist P*, Wu J*, Li Q, Abraham SN. Collaboration between two distinct Rab small GTPase trafficking circuits to mediate bacterial clearance from the bladder epithelium. (2017) *Cell Host Microbe* 22(3) 330-342.

Miao Y, Wu J, Abraham SN. Ubiquitination of TRAF3 Orchestrates Expulsion of Intracellular Bacteria by Exocyst Complex. (2016) *Immunity* 45(1) 94-105.

Miao Y, Li G, Zhang X, Xu H, Abraham SN. A TRP channel senses lysosome neutralization by pathogens to trigger their expulsion. (2015) *Cell* 161(6) 1306-1319.

Cited 142 times. Preview in **Cell**, Featured in **Science**, **Science Signaling**, **Nature Review Urology**. Highlighted in *F1000*, *Science Daily*, *Medical Daily* and various news and media outlets.

Abraham SN, **Miao Y**, Nature of Immune Responses during Urinary Tract Infections. (2015) **Nature Review Immunology** 15(10):655-63.

Miao Y, Abraham SN. Kidney α -intercalated cells and lipocalin 2: defending the urinary tract. **J Clin Invest**. 2014 Jul 1;124(7):2844-6.

Miao Y, Abraham SN. Peeing pentraxins. **Immunity**. 2014 Apr 17; 40(4): 460-2.

Li Q*, **Miao Y***, Yi T, Zhou J, Lu Z, Feng Y. SPM43.1 contributes to acid-resistance of non-sytoplasmata-forming cells in *Pantoea agglomerans* YS19. **Curr Microbiol**. 2012 Mar; 64(3):214-21.

Miao Y, Zhou J, Chen C, Shen D, Song W, Feng Y. In vitro adsorption revealing an apparent strong interaction between endophyte *Pantoea agglomerans* YS19 and host rice. **Curr Microbiol**. 2008 Dec; 57(6):547-51.

Other Co-author publications

Wu, J., Hayes, B.W., Phoenix, C. Macias G, **Miao Y** et al. A highly polarized TH2 bladder response to infection promotes epithelial repair at the expense of preventing new infections. **Nature Immunology** 21, 671–683 (2020)

Adam, R.C., Yang, H., Ge, Y. Infarinato N., Gur-Cohen S., **Miao Y.**, et al. NFI transcription factors provide chromatin access to maintain stem cell identity while preventing unintended lineage fate choices. **Nature Cell Biology** 22, 640–650 (2020)

Ge Y, **Miao Y**, Cohen S, Gomez N, Yang H, Nikolova M, Polak L, Yang H, Verma A, Elemento O, Krueger J, Fuchs E. Functional stem cell aging dictated by skin tissue microenvironment (2020) **PNAS** 117 (10) 5339-5350.

Gur-Cohen S, Yang H, Baksh S, **Miao Y**, Levorse J, Kataru R, Liu X, Racelis J, Mehrara B, Fuchs E. Stem cell-driven lymphatic remodeling coordinates tissue regeneration (2019) **Science** 366 (6470) 1218-1225.

Lay K, Yuan S, Gur-Cohen S, **Miao Y**, Han T, Naik S, Pasolli HA, Larsen SB, Fuchs E. "Stem cells repurpose proliferation to contain a breach in their niche barrier (2018) **eLife** DOI: 10.7554/eLife.41661.

Choi HW*, Bowen SE*, **Miao Y**, Chan CY, Miao EA, Abrink M, Moeser AJ, Abraham SN. Loss of Bladder Epithelium Induced by Cytolytic Mast Cell Granules. (2016) **Immunity** 45(6) 1258-1269.

Conference Presentation

- 2019 Frontiers in Cancer Immunotherapy, NY
- 2019 Adult Stem Cells and Regenerative Medicine, NY
- 2018 Immunochemistry & Immunobiology, Gordon Research Conferences, VT
- 2015 Innate Immunity & Determinants of Microbial Pathogenesis, Keystone Conference, CA
- 2015 A*Star Genome Institute "BUG" Meeting, Singapore
- 2015 Organelle Channels & Transporters, Gordon Research Conferences, MA

Funding Support

2019-2023 NCI K99/R00 Pathway to Independence Award (\$1,114,416 role: PI)
2018-2019 Robertson Therapeutic Development Foundation Proof-of-Concept Grant
(\$50,000 role: PI)
2016-2019 Jane Coffin Childs Postdoctoral Fellowship (\$160,500 role: PI)

Students Mentored

2018-2020 Cynthia Truong, HHMI Medical Student Fellow
2019 Won Jun Kim, Tri-I MD/PhD rotation students
2018 Stephanie Azzopardi, Tri-I MD/PhD rotation students
2017 Nicole Infarinato, Rockefeller University Graduate Student
2015 Jianxuan Wu, Duke University Immunology Graduate Student
2014 Dillon Isaac, Duke University Summer Research Opportunity for Minority Student
2014 Josh Latner, Duke University Undergraduate Research Associate
2011 Malini Veerappan, Duke University Undergraduate Research Associate