Marina N. Sharifi

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Education

6/2008 – present
University of Chicago Medical Scientist Training Program; Chicago, IL.
Ph.D. in Cancer Biology (March 2014); Advisor: Kay Macleod, PhD.
Dissertation committee: Ernst Lengyel, MD, PhD (Chair), Geoffrey Greene, PhD, and Suzanne Conzen, MD.

8/2002 – 12/2006
University of California Berkeley; Berkeley, CA.
B.A. in Molecular and Cellular Biology, emphasis in Genetics, Genomics, and Development, with Honors.
B.A. in German, with Highest Honors.
Highest distinction in general scholarship (summa cum laude).

Research Experience

7/2010 – 6/2014
Doctoral Research: University of Chicago, Committee on Cancer Biology.
Advisor: Kay Macleod, PhD.

- Investigated whether autophagy is required for metastasis *in vivo* in two mouse models of metastatic breast cancer.
- Identified a novel function for autophagy in focal adhesion turnover and tumor cell motility through regulation of the focal adhesion protein paxillin.

12/2006 – 6/2008
Staff Research Associate: University of California, Berkeley, Department of Plant and Molecular Biology.
Principal Investigator: Krishna Niyogi, PhD.

- Identified and cloned nuclear genes required for the function of the chloroplast-encoded LIPOR complex, which is required for light-independent chlorophyll biosynthesis in the photosynthetic model organism *Chlamydomonas reinhardtii*.

10/2005 – 12/2006
Undergraduate Honors Thesis Research: University of California, Berkeley, Department of Plant and Molecular Biology.
Advisors: Krishna Niyogi, PhD, Sharon Amacher, PhD.

- Screened a library of *Chlamydomonas reinhardtii* insertional mutants for defects in carotenoid and chlorophyll biosynthesis.

- Identified genetic loci disrupted in seven carotenoid/chlorophyll deficient mutants and biochemically characterized the biosynthetic defects in these mutants to identify genes required for pigment biosynthesis in *C. reinhardtii.*

5/2004 – 8/2004 Summer Undergraduate Research Internship: University of California, Los Angeles, Center For Embedded Networked Sensing (CENS).
Advisor: Phillip Rundel, PhD.

5/2003 – 8/2003 Undergraduate Research Assistant: University of California, Los Angeles, Department of Ecology and Evolutionary Biology.
Advisor: Phillip Rundel, PhD.

Publications

Kuo, W., **Sharifi, M. N.**, Lingen, M., Karrison, T., Nagilla, M., Macleod, K. F. and Cohen, Ezra (2014). p62/SQSTM1 Accumulation in Squamous Cell Carcinoma Of Head And Neck Predicts Sensitivity to Phosphatidylinositol 3-Kinase Pathway Inhibitors. PLoS One. 2014 Mar 5;9(3):e90171.

Tran, P. T., **Sharifi, M. N.**, Poddar, S., Dent, R. M., and Niyogi, K.K. (2012). Intragenic enhancers and suppressors of phytoene desaturase mutations in Chlamydomonas reinhardtii. PLoS One. 2012;7(8):e42196.

Manuscripts in preparation

Sharifi, M. N., Collier, C., Drake, L., Chen, C., Zamora, M., Mui, S., and Macleod, K. F.: Autophagy is required for focal adhesion disassembly, tumor cell motility and metastasis. (Under review)

Presentations

Sharifi, M. N., Collier, C., Drake, L., Chen, H., Zamora, M., Mui, S., and Macleod, K. F. Autophagy is required for focal adhesion turnover, tumor cell motility, and metastasis. Poster presentation at the American Association for Cancer Research Annual Meeting San Diego, CA, April 2014 (AACR Scholar-in-Training award recipient).

Sharifi, M. N., Collier, C., Drake, L., Chen, H., Zamora, M., Mui, S., and Macleod, K. F. Autophagy is required for focal adhesion turnover, tumor cell motility, and metastasis. Oral presentation at the Cancer Biology Training Consortium Annual Meeting, Wilmington, NC, October 2013.

Sharifi, M. N., Collier, C., Drake, L., Chen, H., Mui, S., and Macleod, K. F. Autophagy is required for metastasis in the 4T1 mouse model of breast cancer. Poster presentation at the Keystone Symposium on Tumor Metabolism, Keystone, CO, February 2013.

Sharifi, M. N., Collier, C., Drake, L., Chen, H., Mui, S., and Macleod, K. F. Loss of autophagy limits metastasis in the 4T1 mouse model of breast cancer. Poster presentation at the Joint Meeting of the American Physician Scientist Association/American Society for Clinical Investigation, Chicago, IL, April 2012.

Sharifi, M. N., Collier, C., Chen, H., Mui, S., and Macleod, K. F. Loss of autophagy limits metastasis in the 4T1 mouse model of breast cancer. Oral presentation at the University of Chicago Biomedical Sciences Cluster Retreat, Fontana, WI, May 2011.

Sharifi, M. N., Collier, C., Chen, H., Mui, S., and Macleod, K. F. Loss of autophagy limits metastasis in the 4T1 mouse model of breast cancer. Poster presentation at the Keystone Symposium on Autophagy, Whistler, B.C., March 2011.

Awards and Honors

2014	AACR-Aflac, Inc. Scholar-in-Training Award.
2014	Dissertation Award, University of Chicago Committee on Cancer Biology.
2012 – 2013	Elaine Ehrman Award, University of Chicago Cancer Center Research Foundation.
2007	Spencer W. Brown Award for distinction in undergraduate genetics research, Department of Molecular and Cellular Biology, UC Berkeley.
2007	Departmental Citation, Department of German, UC Berkeley.
2006	Summer Undergraduate Research Fellowship, UC Berkeley.
2002 – 2006	Regents' and Chancellor's Scholar, UC Berkeley.

Professional Associations

American Association of Cancer Research
American Society of Clinical Oncology
American Physician Scientists Association
American Medical Association

Teaching Experience

Autumn 2012	Teaching Assistant Training Course, University of Chicago.
Winter 2012	Teaching Assistant, Molecular Mechanisms of Cancer Biology, University of Chicago.