**Irene C. Blat**

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**500 Main Street 76-431 September 2012**

**Cambridge, MA 02142** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#### EDUCATION

***Massachusetts Institute of Technology, Cambridge, MA***

PhD candidate in Biology (with focus on Cancer Biology) September 2007 - December 2012 (expected graduation date)

##### Duke University, Durham, NC

B.S. in Biology with Pharmacology Concentration May 2005. Minor: Chemistry. Certificate: Health Policy.

#### RESEARCH EXPERIENCE

***Koch Institute for Integrative Cancer Research, Tyler Jacks, PhD, Cambridge, MA***

*Graduate Student June 2008 to Present*

*“The role of the miRNA-200s in tumor progression and metastasis”*

Examine the role of miRNA regulation of genes important in mediating tumor invasion and migration in a mouse model for human lung adenocarcinoma.

***The Broad Institute of MIT and Harvard, Todd Golub, MD, Cambridge, MA***

*Research Technician June 2005 to June 2007*

*“The Connectivity Map: Using gene-expression signatures to connect small molecules, genes, and diseases”*

Investigate the connections between genetic signatures, disease states, and perturbagens via cell culture assays, high throughput RNA isolations, and *in vitro* transcription.

##### Duke University Pharmacology, Anthony Means, PhD, Durham, NC

## Undergraduate Independent Study August 2004 to May 2005

*“The activation role of the Map Lineage Kinase-3(MLK3) in cell migration”*

A study of the role of MAP3K, MLK3, as a signaling network node that mediates cell migration.

###### Massachusetts Institute of Technology Department of Biology, Tania Baker, PhD, Cambridge, MA

###### Howard Hughes Medical Institute Exceptional Research Opportunities (EXROP) Fellow June 2004 to August 2004

*“The molecular interactions of MuB”*

A biochemical analysis of the molecular interactions between MuB and MuA, MuB, and DNA.

**PUBLICATIONS**

**Blat IC**, Chen TA, Bronson R, Bhutktar A, Lu J, Golub T, Winslow M, and Jacks T. “Loss of the miR-200s in a metastatic model of lung adenocarcinoma promotes Eps8 mediated cell migration and invasion.” In preparation

Itzkovitz S, **Blat IC**, Jacks T, Clevers H, and van Oudenaarden A. “Optimality in the development of intestinal crypts.” *Cell*. 2012 148(3): 608-619.

Itzkovitz S, Lyubimova A, **Blat IC**, Maynard M, van Es J, Lees J, Jacks T, Clevers H, van Oudenaarden A. “Single-molecule transcript counting of stem-cell markers in the mouse intestine.” *Nature Cell Biology*. 2011 14(1): 106-14.

Swenson-Fields KI, Sandquist JC, Rossol-Allison J, **Blat IC**, Wennerberg K, Burridge K, Means AR. “MLK3 limits activated Galphaq signaling to Rho by binding to p63RhoGEF.” *Molecular Cell*. 2008 32(1): 43-56.

Lamb J, Crawford ED, Peck D, Modell JW, **Blat IC**, Wrobel MJ, Lerner J, Brunet JP, Subramanian A, Ross KN, Reich M, Hieronymus H, Wei G, Armstrong SA, Haggarty SJ, Clemons PA, Wei R, Carr SA, Lander ES, Golub TR. “The Connectivity Map: using gene-expression signatures to connect small molecules, genes, and disease.” *Science.* 2006 (313): 1929-35.

**POSTER PRESENTATIONS**

**Blat IC**, Winslow M, and Jacks T. "Loss of the MiR-200s in a Metastatic Model of Lung Adenocarcinoma Promotes Eps8 Mediated Cell Migration and Invasion" 22nd Biennial EACR Congress; 2012 July 7-10; Barcelona, Spain.

**Blat IC,** Winslow M, and Jacks T. “The microRNA-200 family regulates cell migration and metastasis in lung adenocarcinoma.” Proceedings of the AACR-NCI-EORTC International Conference: Molecular Targets and Cancer Therapeutics; 2011 Nov 12-16; San Francisco, CA.

**Blat IC,** Winslow M, and Jacks T. “The microRNA-200 family regulates cell migration and metastasis in lung adenocarcinoma.” *Nature* Conferences: Frontiers in Tumor Progression; 2010 October 24-27; Madrid, Spain.

**TEACHING AND MENTORING EXPERIENCE**

***Massachusetts Institute of Technology, Cambridge, MA***

*ODGE Graduate Community Fellow: Diversity Fellow September 2010 to May 2012*

***Massachusetts Institute of Technology, Cambridge, MA***

*MIT Undergraduate Research Opportunities Program (UROP) Mentor June 2011 to May 2012*

***Massachusetts Institute of Technology, Cambridge, MA***

*MIT Summer Research Program (MSRP) Assistant June 2011 to August 2011*

***Massachusetts Institute of Technology, Cambridge, MA***

*Teaching Assistant 7.20 Human Physiology February 2009 to May 2009*

***Massachusetts Institute of Technology, Cambridge, MA***

*MIT Summer Research Program (MSRP) Undergraduate Mentor June 2010 to August 2010*

***Massachusetts Institute of Technology, Cambridge, MA***

*Seminar XL Facilitator 7.01 Introductory Biology February 2009 to May 2009*

***Massachusetts Institute of Technology, Cambridge, MA***

*Teaching Assistant 7.16 Experimental Molecular Biology: Biotechnology II February 2009 to May 2009*

**HONORS and AWARDS**

***Howard Hughes Medical Institute***

*Gilliam Fellowship for Advanced Studies September 2007 to Present*

***Howard Hughes Medical Institute***

*Exceptional Research Opportunities Fellowship May 2004 to August 2004*

***Duke University School of the Environment***

*Lawrence Blanchard Scholarship tuition scholarship May 2003 to June 2003*

***Duke University***

*R.A. Mayer Tuition Scholarship August 2002 to May 2005*

***Duke University***

*ADVANCE program participant August 2001 to May 2002*

***Scholarship America***

*Professional Services Industry, INC June 2001 to May 2002*

**REFERENCES**

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