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## BIOGRAPHICAL SKETCH

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NAME <b>Melissa Hirose Wong</b>		POSITION TITLE Associate Professor, Vice Chair	
eRA COMMONS USER NAME (credential, e.g., agency login) wongme			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Colorado, Boulder, CO	B.A.	1987	Molecular, Cellular, Developmental Biology
Bowman Gray School of Medicine/Wake Forest University, Winston-Salem, NC	Ph.D.	1994	Molecular Cellular Pathobiology
Washington University School of Medicine	Post-Doc	1995-1998	Molecular Biology and Pharmacology

### A. Personal Statement

The research focus of the Wong laboratory revolves around understanding the regulatory mechanisms that control epithelial stem cell homeostasis and expansion in developmental and disease contexts, including inflammatory bowel disease, colorectal cancer, pancreatic cancer, breast cancer and head and neck squamous cell carcinoma. We have particular interest in how the intestinal stem cell niche is regulated during homeostasis and in response to injury.

### B. Positions and Honors

#### Positions and Employment

1998-2001	Instructor, Molecular Biology and Pharmacology, Washington University School of Medicine
2001-2008	Assistant Professor, Dept of Dermatology and Cell & Developmental Biology, School of Medicine, Oregon Health & Science University, Portland, OR
2008-present	Associate Professor, Depts of Cell, Developmental & Biology and Dermatology School of Medicine, Oregon Health & Science University, Portland, OR
2013-present	Vice Chair, Department of Cell, Developmental & Cancer Biology School of Medicine, Oregon Health & Science University, Portland, OR

#### Honors and Other Professional Activities:

1989-1990	Dean's Fellowship
1992-1995	National Research Service Predoctoral Award, NIDDK
2001-present	Knight Cancer Institute, OHSU member, Program leader (2013-)
2003-2010	Developmental Biology Society
2003-present	American Gastroenterology Association
2003-present	International Society for Stem Cell Research
2004-present	Oregon Stem Cell Institute, adjunct member
2006-2007	Ad hoc reviewer: NIH/NCI SEP ACA1 RTRB-A
2007-2013	NIH/NCI MONC
2008	Reviewer: NIH/NCI P01 Cancer Stem Cells
2009-present	NIH/NIDDK Intestinal Stem Cell Consortium Steering Committee

### C. Selected Peer-reviewed Publications

- \*Hermiston ML, \***Wong, MH**, and JI Gordon. (1995) Forced expression of E-cadherin in the mouse intestinal epithelium slows cell migration and provides evidence for nonautonomous regulation of cell fate in a self-renewing system. *Genes Dev.* 10:985-996. (\*equal contribution)
- Wong MH**, Rubinfeld, B and Gordon JI (1998) Effects of Forced Expression of an NH<sub>2</sub>-terminal Truncated  $\beta$ -Catenin on Mouse Intestinal Epithelial Homeostasis. *J. Cell Biol.* 141:765-777.
- Wong MH**, Saam JR, Stappenbeck TS, Rexer CH, and Gordon JI. (2000) Genetic mosaic analysis based on Cre recombinase and navigated laser capture microdissection. *Proc. Natl. Acad. Sci. USA*, 97: 12601-12606.
- Hooper, LV, **Wong, MH**, Thelin, A, Falk, PG, and Gordon, JI. (2001) Molecular analysis of commensal host-microbial relationships in the intestine. *Science*, 291:881-884.
- Wong, MH**, Huelsken, J, Birchmeier, W, and Gordon JI. (2002) Selection of multipotent stem cells during morphogenesis of small intestinal crypts of Lieberkuhn is perturbed by stimulation of Lef-1/ $\beta$ -catenin signaling. *J. Biol. Chem.* 277:15843-15850.
- Bailey, AS, Jiang, S, Afentoulis, M, Baumann, CI, Schroeder, DA, Olson, SB, **Wong, MH**, and Fleming, WH. (2004) Transplanted adult hematopoietic stem cells differentiate into functional endothelial cells. *Blood*. 103:13-19.
- Rizvi AZ, Swain JS, Bailey AS, Davies PS, Decker AD, Willenbring H, Grompe M, Fleming WH, and **Wong MH**. (2006) Bone marrow-derived cells fuse with normal and transformed intestinal progenitor cells, *Proc. Natl. Acad. Sci. USA*, 103:6321-5. [PMCID: PMC1535365]
- Bailey AS, Willenbring, H, Jiang S, Anderson DA, Schroeder DA, **Wong MH**, Grompe M and Fleming WH. Myeloid lineage progenitors give rise to vascular endothelial cells. (2006) *Proc. Natl. Acad. Sci. USA*, 103:13156-61. [PMCID: PMC1559769]
- Davies PS, Dismuke, AD, Powell AE, Carroll KH, and **Wong MH**. Wnt signaling expression pattern in the mouse intestine during homeostasis. (2008) *BMC Gastroenterol*, 8:57. [PMCID: PMC journal in process]
- Davies PS, Powell AE, and **Wong MH**. (2009) Inflammation and proliferation act together to mediate intestinal cell fusion. *PLOS One*, 4:e6530. [PMCID: PMC2716548]
- Levin TG, Powell AE, Davies PS, Silk AD, Dismuke AD, Anderson EC, Swain JR, and **Wong MH**. (2010) Characterization of the intestinal cancer stem cell marker CD166 in the human and mouse gastrointestinal tract. *Gastroenterology*, 139:2072-2082. [PMCID: PMC2997177]
- Powell AE, Davies PS, Anderson EA, Silk AD, Pelz C, Impey S and **Wong MH**. (2011) Fusion between Intestinal epithelial cells and Macrophages in a cancer context results in nuclear reprogramming. *Cancer Research*, 71:1497-1505. [PMCID: PMC3079548]
- Hessman CJ, Bubbers EJ, Billingsley KG, Herzig DO and **Wong MH**. (2011) Loss of expression of the cancer stem cell marker aldehyde dehydrogenase1 correlates with advanced stage colorectal cancer. *American Journal of Surgery. Am J of Surg.* 203:649-53. [PMCID: in progress]
- Clayburgh DR, Gross ND, Proby C, Koide J, and **Wong MH**. (2013) Resistance to Epidermal Growth Factor Receptor Inhibition in Cutaneous Squamous Cell Carcinoma of the Head and Neck through upregulation of insulin-like growth factor 1 receptor signaling: Potential for dual inhibition as a therapeutic modality. *Head and Neck*. 35:86-93. [PMCID: in progress]
- Silk AD, Gast CE, Davies PS, Fakhari FD, Vanderbeek GE, Mori M, and **Wong MH**. (2013) Fusion between hematopoietic and epithelial cells in adult human intestine. *PLoS One*, 8:e55572. [PMCID: in progress]