|  |  |
| --- | --- |
|  |  |
|  |
| 0BBIOGRAPHICAL SKETCHProvide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.Follow this format for each person.  **DO NOT EXCEED FOUR PAGES.** |
|  |
| NAMEHenry, Michael, D. | POSITION TITLEAssociate Professor of Molecular Physiology and Biophysics and Pathology |
| eRA COMMONS USER NAMEMHENRY |
| EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)* |
| INSTITUTION AND LOCATION | DEGREE*(if applicable)* | YEAR(s) | FIELD OF STUDY |
| University of Georgia | B.S. | 1989 | Genetics |
| Massachusetts Institute of Technology | Ph.D. | 1996 | Cell Biology |
| University of Iowa College of Medicine/HHMI | Postdoctoral | 1999 | Development/Cell Biology |
|  |  |  |  |
|  |  |  |  |

**A. Personal Statement**

The long term research goals of my laboratory are to understand the molecular and cellular basis of prostate cancer progression and metastasis in order to develop new methods for the diagnosis and treatment of this disease. Current efforts are focused on the role of a cell-matrix receptor dystroglycan and epithelial-mesenchymal transition in this process. We approach this problem using both cell-based and animal models of disease progression. I have extensive experience in basic mechanisms of cell signaling and cancer biology as well as drug discovery and development both in industry and academic settings. My expertise extends from elucidating basic signaling pathways related to cancer progression to various approaches for therapeutic intervention in these pathways including large molecule-targeted delivery of anticancer agents and discovery of small molecule drugs.

**B. Positions and Honors**

**Professional Positions:**

* 1. Research Technician, Laboratory of Dr. Sidney Kushner, Department of Genetics, University of

 Georgia

* 1. Post-doctoral Fellow, Laboratory of Dr. Kevin Campbell, HHMI/Department of Physiology and

 Biophysics, University of Iowa College of Medicine

1. Scientist, Cell Biology, Millennuim BioTherapeutics Inc., Cambridge, MA

1999-2001 Scientist II, Cancer Biology and Genetics, Millennium Pharmaceuticals Inc. Cambridge, MA

2001-2003 Senior Scientist I, Cancer Pharmacology, Millennium Pharmaceuticals, Inc. Cambridge, MA

2004- Associate Professor, Department of Physiology and Biophysics, University of Iowa

 College of Medicine

1. Associate Professor, Department of Pathology, University of Iowa College of Medicine

2004- Member, Holden Comprehensive Cancer Center, University of Iowa College of Medicine

2004-2009 Member, Genetics Interdisciplinary Program, University of Iowa College of Medicine

2006- Member, Cardiovascular Center, University of Iowa College of Medicine

2006- New Mentor, Medical Scientist Training Program, University of Iowa College of Medicine

2006- Associate Member, University of Iowa Center for Gene Therapy

2009- Associate Professor with tenure, Department of Molecular Physiology and Biophysics, University of Iowa College of Medicine

2009- Program Leader, Cancer Signaling and Experimental Therapeutics, Holden Comprehensive Cancer Center

2011- Deputy Director for Research, Holden Comprehensive Cancer Center

**Honors and Awards**:

* 1. National Science Foundation Research Experience for Undergraduates Fellow

1989 Graduated Magna Cum Laude with Honors in Genetics, University of Georgia

1989 Phi Beta Kappa, University of Georgia

1990-1993 National Science Foundation Pre-Doctoral Fellowship

1995-1997 University of Iowa Cardiovascular Center Post-Doctoral Fellowship

1997 Selected for Albert Einstein COM 4th Annual Mouse Developmental Genetics Course

* 1. National Institutes of Health National Research Service Award

2007-2008 Reviewer NIH Cancer Diagnostic and Treatment SBIR/STTR study section

2007 Reviewer American Heart Association Vascular Wall Biology study group

2007-2010 Reviewer DOD Prostate Cancer Research Program (Pathobiology Study Section)

2008 Reviewer (Ad Hoc) NIH Drug Discovery and Molecular Pharmacology study section

2009 Reviewer (Ad Hoc) NIH Tumor Progression and Metastasis study section

2010-2014 Charter Member, NIH Tumor Progression and Metastasis study section

2012-2014 Chair, NIH Tumor Progression and Metastasis study section

2010 Outstanding Educator award from the Carver College of Medicine

**C. Peer Reviewed Publications**

 *(Out of* ***47*** *Publications total; including all publications in last 3 years)*

1. UHenry, M.D.U and Campbell, K.P. A Role for Dystroglycan in Basement Membrane Assembly.

 *Cell* 95:859-870, 1998.

2. UHenry, M.DU., Cohen, M.B., and Campbell, K.P. Reduced Expression of Dystroglycan in Breast and Prostate Cancer. *Hum. Pathology,*32:791-795, 2001.

3. UHenry, M.D.U Wen, S., Silva, M.D., Chandra, S., Milton, M., Worland, P.J. A PSMA-targeted

monoclonal antibody- chemotherapeutic conjugate designed for the treatment of prostate cancer. *Cancer Res.,*64:7995-8001, 2004.

4. UHenry, M.D.U Silva, M.D., Wen, S. Siebert E., Solin, E. Chandra, S. Worland, P.J. Spiculated

 periosteal response induced by intraosseous injection of 22Rv1 prostate cancer cells resembles subset

 of bone metastases in prostate cancer patients. *Prostate,*65:347-354, 2005.

5. Drake, J.M., Gabriel, C L. and UHenry, M.D.U Assessing tumor growth and distribution in a model of prostate cancer metastasis using bioluminescence imaging. *Clin. Exp. Metastasis*, 22:674-684, 2005.

6. Svensson, R.U., Barnes, J.M., Rokhlin, O., Cohen, M.B. and UHenry, M.D.U Chemotherapeutic Agents Upregulate the CMV Promoter via p38 MAPK: Implications for Bioluminescence Imaging of Tumor Response to Therapy. *Cancer Research,* 67:10445-54,2007*.*

7. Svensson, R.U., Shey, M.R., Ballas, Z.K., Dorkin, J.R., Goldberg, M., Akinc, A., Langer, R., Anderson, D.G., Bumcrot, D. and UHenry, M.D. U Assessing siRNA pharmacodynamics in a luciferase-expressing mouse. *Molecular Therapy,* 16:1995-2001, 2008*.*

8. Weydert, C.J., Esser, A.K., Mejia, R.A., Drake, J.M., Barnes, J.M., UHenry, M.D.U Endothelin-1 inhibits prostate cancer growth in vivo through vasoconstriction of tumor-feeding arterioles. *Cancer Biol. and Ther.*, 8:62-71, 2009.

9. Beltran-Valero de Bernabe, D., Inamori, K., Moriguchi, T., Weydert, C.J., Harper, H. A., Willer, T., UHenry, U UM. D.U, Campbell, K.P. Loss of alpha-dystroglycan laminin-binding in epithelium derived cancers is caused by silencing of LARGE. *J. Biol. Chem.,* 284:11279-11284, 2009.

10. Drake, J.M., Strohbehn, G.S., Bair, T.B., Moreland, J.G., UHenry, M.D.U ZEB1 enhances transendothelial migration and represses the epithelial phenotype of prostate cancer cells. *Mol. Biol. Cell*, 20:2207-2217, 2009.

11. Esser, A.K., Cohen, M.B. and Henry, M.D. Dystroglycan is not required for maintenance of the luminal epithelial basement membrane or cell polarity in the mouse prostate. *Prostate,* 70:777-787, 2010.

12. Drake, J.M., Danke, J.R. and Henry, M.D. Bone-Specific Growth Inhibition of Prostate Cancer Metastasis by Atrasentan. *Cancer Biol. and Ther.,* 9:607-614, 2010*.***Commentary: pp. 615-617**.

13. Drake, J.M., Barnes J.M., Madsen J.M., Domann F.E., Stipp C.S. and Henry, M.D. ZEB1 coordinately regulates laminin-332 and 4 integrin expression altering the invasive phenotype of prostate cancer cells. *J. Biol. Chem.*, 285:33940-8, 2010 **Reviewed by Faculty of 1000 Biology**

14. Haverkamp J.M., Charbonneau B., MyerholtzD. K., CohenM.B., Snyder P.D.,SvenssonR.U., HenryM.D., WangH.-H., and RatliffT.L. Characterization of an inducible mouse model of abacterial prostatitis. *Prostate*, 2010 Jan 12. [Epub ahead of print].

15. [Tang X](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Tang%20X%22%5BAuthor%5D)., [Sun Z](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Sun%20Z%22%5BAuthor%5D)., [Runne C](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Runne%20C%22%5BAuthor%5D)., [Madsen J](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Madsen%20J%22%5BAuthor%5D)., [Domann F](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Domann%20F%22%5BAuthor%5D)., [Henry M](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Henry%20M%22%5BAuthor%5D)., [Lin F](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Lin%20F%22%5BAuthor%5D)., and [Chen S](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Chen%20S%22%5BAuthor%5D). A critical role of G in tumorigenesis and metastasis of breast cancer. *J. Biol. Chem.*, 286:13244-54, 2011.

16. Nelson, E.S., Folkmann, A.W., Henry, M.D., DeMali, K.A. Vinculin activators target Integrins from within the cell to increase melanoma sensitivity to chemotherapy. *Mol.Cancer Res.* 2011 Apr 19. [Epub ahead of print].

17. Svensson, R.U., Haverkamp, J.M., Thedens, D.R., Cohen, M.B., Ratliff, T.L., and Henry, M.D. Slow disease progression in a C57BL/6 *Pten* deficient mouse model of prostate cancer. *Am. J. Pathol.,* 179(1):502-12, 2011.

18. Yong, T., Sun, A., Henry, M.D., Meyers, S., and Davis, J.N. Down Regulation of CSL Inhibits Cell Proliferation in Prostate and Breast Cancer Cells. *J. Cell. Biochem.* 2011 Apr 25. doi: 10.1002/jcb.23157. [Epub ahead of print].

19. Muniz, V.P, Barnes, J.M., Paliwal, S., Xhang, X., Tang, X, Chen, S., Zamba, K.D., Cullen, J.J., Myerholz, D.K., Meyers, S., Davis, J.N., Grossman, S.R., Henry, M.D. and Quelle, D. E. The ARF tumor suppressor inhibits tumor cell colonization independent of p53 in a novel mouse model of pancreatic ductal adenocarcinoma metastasis. *Mol. Cancer Res.*, 9(7):867-77, 2011.

20. Nauseef, J.T. and Henry, M.D. Epithelial-to-mesenchymal transition in prostate cancer: Paradigm or puzzle? *Nature Reviews Urology* 8(8):428-39, 2011.

21. Barnes, J.M. and Henry, M.D. Cellular and Molecular Biology of Cancer Cell Extravasation. *In* Signaling

 pathways and molecular mediators in metastasis. Springer. In Press 2011.

22. Norian L.A., Kresowik T.P., Rosevear H.M., James B.R., Rosean T.R., Lightfoot A.J., Kucaba T.A.,

 Schwarz C., Weydert C.J., Henry M.D., Griffith T.S. [Eradication of metastatic renal cell carcinoma after](http://www.ncbi.nlm.nih.gov/pubmed/22312440)

 [adenovirus-encoded TNF-related apoptosis-inducing ligand (TRAIL)/CpG immunotherapy.](http://www.ncbi.nlm.nih.gov/pubmed/22312440) [PLoS One.](http://www.ncbi.nlm.nih.gov/pubmed/22312440)

 7(2):e31085. Epub 2012.