

## CURRICULUM VITAE

**NAME** Heide L. Ford, PhD

### PROFESSIONAL POSITION/ADDRESS

Professor, with tenure  
Dept. of Pharmacology (primary)  
Depts. of Ob/Gyn and Biochemistry and Molecular Genetics (adjunct)  
University of Colorado Anschutz Medical Campus  
RC1-North, P18-6115  
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### HOME ADDRESS

3173 Elmira St.  
Denver, CO 80238

### EDUCATION

1989 B.S. in Biology with minor in Chemistry  
State University of New York at Geneseo, Geneseo, N.Y.  
1992 M.S. in Biochemistry  
University of Rochester, Rochester, NY  
1995 Ph.D. in Biochemistry  
University of Rochester, Rochester, NY  
1995-2001 Postdoctoral Fellow cell cycle control/cancer research  
Dana-Farber Cancer Institute and Harvard Medical School, Boston, MA

### PROFESSIONAL POSITIONS/ACADEMIC APPOINTMENTS

1989-1995 **Doctoral Student**- University of Rochester, Department of Biochemistry  
Mentor- Sayeeda B. Zain, Ph.D.  
Thesis: Study of the Mts1 Gene: Its Role in Normal Cellular Processes as well as in Metastasis  
1995-2001 **Postdoctoral Fellow**- Dana-Farber Cancer Institute and Harvard Medical School  
Mentor- Arthur B. Pardee, Ph.D.  
2001-2008 **Assistant Professor**- University of Colorado Health School of Medicine  
Department of Obstetrics and Gynecology  
**Assistant Professor (adjunct)** – University of Colorado School of Medicine  
Department of Biochemistry and Molecular Genetics  
2001-present **Faculty Member**- Graduate Program in Biomedical Sciences  
**Faculty Member**- Graduate Program in Molecular Biology  
**Faculty Member**- Graduate Program in Biochemistry and Molecular Genetics  
2002-present **Faculty Member**- Medical Scientist Training Program  
2004-present **Faculty Member**- Graduate Program in Reproductive Sciences  
2005-present **Faculty Member**- Graduate Program in Cancer Biology  
2008-2013 **Associate Professor with Tenure Department of Ob/Gyn**  
University of Colorado Anschutz Medical Campus  
2009-2015 **Program Director, Hormone Related Malignancies** (co-director with Scott Cramer)  
University of Colorado Cancer Center  
2010-2017 **Director, Biomedical Sciences Graduate Program**  
University of Colorado Anschutz Medical Campus  
2013 **Associate Professor with Tenure, Department of Pharmacology**  
Adjunct appointment Ob/Gyn and Biochemistry and Molecular Genetics  
University of Colorado Denver, Anschutz Medical Campus

2014 **Professor with Tenure, Department of Pharmacology**  
Adjunct appointment Ob/Gyn and Biochemistry and Molecular Genetics  
University of Colorado Denver, Anschutz Medical Campus  
2017-present **Associate Director of Basic Research**, University of Colorado Cancer Center

## HONORS AND AWARDS

1989 **Graduated *summa cum laude***  
State University of New York at Geneseo  
1989 **Guy A. Bailey Award for the Most Outstanding Biology Major**  
State University of New York at Geneseo  
1991-1993 **NIH Genetics and Regulation Training Grant Recipient**  
University of Rochester  
1993-1994 **Elon Huntington Hooker Graduate Fellowship**  
University of Rochester  
1994 **Joseph Steiner Foundation Student Award for Excellence**  
Metastasis Research Society  
1996-1998 **NIH Molecular Analysis of Neoplastic Disease Training Grant Recipient**  
Dana-Farber Cancer Institute  
1998-2000 **Individual NRSA Postdoctoral Fellowship Recipient**  
The Study of HSIX1 in Cancer and the Cell Cycle  
2008 **UC Denver New Inventor of the Year Award for Outstanding Achievement**  
University of Colorado School of Medicine  
2010 **Dean's Mentoring Award Recipient**, University of Colorado Denver, Anschutz Medical  
Campus  
2013 **Excellence in Teaching/Mentoring Award**, Dept. of Pharmacology, UC AMC  
2016 **Excellence in Teaching/Mentoring Award**, Dept. of Pharmacology, UC AMC  
2017 **David F. and Margaret Turley Grohne Chair in Basic Cancer Research**  
2018 **Faculty Excellence in Research Award**, Dept. of Pharmacology, UC AMC

## MEMBERSHIPS IN PROFESSIONAL SOCIETIES

1993-2001 American Association for Cancer Research, Associate Member  
1994-1996 Metastasis Research Society  
1994-present American Association for the Advancement of Science  
2001-present American Association for Cancer Research, Active Member  
2001-present Women in Cancer Research (AACR)  
2003-present Women's Health Research Coalition  
2011-present Metastasis Research Society  
2014-present The EMT International Association (TEMTIA)  
2018-present The EMT International Association (TEMTIA) organizing committee member

## SERVICE RESPONSIBILITIES (UCD)

2002 Served on committee to appoint new chair of the Hormone-Related Malignancies Program in the  
Cancer Center  
2003 Dept. of Ob/Gyn Self-Study Program Review- Research Committee  
2003 Served on admissions committee for Molecular Biology Graduate Program  
2004 Co-chair Molecular Biology Graduate Program Admissions Committee  
2004-present Steering Committee PiRS graduate program  
2004-present Committee for faculty selection PiRS graduate program

2005 Served on search committee for the Director of the Molecular Biology Program

2005 Faculty advisor to MSTP students for Annual Keystone MSTP conference

2005-2010 Chair, Molecular Biology Graduate Program Admissions Committee

2005-2010 Steering committee, Molecular Biology graduate program

2006-2008 Pathology faculty search committee

2006-present Oncology K12 Advisory Committee

2006-2017 Molecular Biology Graduate Program Grant Selection Committee

2007-2010 Student Advisor- Program in Reproductive Sciences

2007-present Admissions Committee- Program in Reproductive Sciences

2007 Co-organizer of Inaugural Reproductive Sciences Retreat

2007-2009 Organize PiRS seminar series

2008-2010 Member, Institutional Animal Care and Use Committee (IACUC)

2008-present Graduate School's academic assessment and graduate program review

2009-2012 Member, SIRC (Strategic Initiative Review Committee)

2009-2012 Member, Dean's Advisory Committee (for choosing Dean's Distinguished Lecturers)

2009-2010 Member, committee to select new Dean of Graduate School

2009-2012 Member, Departmental Promotions Committee (Ob/Gyn)

2009-2015 **Program Director, Hormone Related Malignancies** (co-director with Scott Cramer)  
University of Colorado Cancer Center

2010-2015 Member, Consolidated Graduate Council

2010-2017 **Director, Biomedical Sciences Graduate Program**  
University of Colorado Anschutz Medical Campus

2011-2012 Chair, Dean's Advisory Committee

2012 Committee Member to Decide on the New Division of Hematology, Hematologic Malignancies and Stem Cell Transplantation

2012 Search committee member for New Chief of the Basic Reproductive Sciences Division, Ob/Gyn

2012 Search committee member for New Department of Pharmacology Faculty

2012 Chair, Search committee for New Breast Cancer Biologist

2012-2013 Co-chair, Research Task Force for strategic planning at the University of Colorado School of Medicine

2014-present Internal Advisory Board of the Bladder Spore application

2014-2016 Reviewer for Head and Neck Spore Projects

2014-present Department of Pharmacology Student and Postdoctoral Awards Committee

- 2014-2015 Chair, Search committee for Cancer Biologist in the Department of Pharmacology
- 2015-2017 Functional Genomics Shared Resource Internal Advisory Board (IAB)
- 2016-2017 Chair, Search committee for Cancer Biologist in the Department of Pharmacology (in collaboration with University of Colorado Cancer Center)
- 2017-present **Associate Director of Basic Research**, University of Colorado Cancer Center
- 2018-present Member, Vice Chancellor's Advisory Committee
- 2018 Search Committee, Associate Director of Finances, University of Colorado Cancer Center
- 2018 Search Committee, Director of Finances, Dept. of Pharmacology
- 2018-2019 Search Committee, Chair of Biochemistry and Molecular Genetics
- 2018-present Graduate Training Committee (GTC), Department of Pharmacology
- 2019-2020 Chair, Cancer Biology Graduate Program Admissions
- 2019-2020 Chair, Search Committee for AD for Data Sciences, Cancer Center

**PATENTS HELD/PENDING**

1. Methods and Compositions for Diagnosing and Predicting the Behavior of Cancer. U.S. Patent 7,153,700 B1. Issued Dec. 26, 2006.
2. Methods and Compositions for the Diagnosis and Treatment of Cyclin A1-Associated Conditions. U.S. Patent Application, number 11/113,644, filed on 4/25/2005. Issued U.S. Patent 8,076,304 Dec. 13, 2011.
3. Methods for Determining Prognoses and Therapeutic Interventions for Ovarian Carcinomas. Provisional U.S. Patent Application, number 60/869,391, filed 12/11/2006. Issued U.S. Patent 8,283,119 Oct. 9, 2012.
4. Methods for Inhibiting Six1 and Eya Proteins. Provisional U.S. Patent Application, UTEC:014USP1, filed 2/25/08.
5. miRNA inhibition of Six1 expression. Provisional U.S. and International Patent Application, UTEC: 019USP1 and International Patent PCT/US2010/043354, filed Jul 27, 2009 and Jul 27, 2010 respectively.
6. Inhibitors of Eya2. Provisional Patent UTEC: P0026US.PI. Filed Jan. 10, 2011. Issued Patent published June 5, 2014 (US 2014/0155420 A1)

\*Started a small start-up company in 2010 with Rui Zhao called "SixONE Solutions" to facilitate carrying out our drug development work

**REVIEW AND REFEREE WORK**

**JOURNAL REVIEWING/EDITING**

- 2001-present **Ad hoc Reviewer:** Nature Reviews Cancer, Nature Genetics, Journal of Clinical Investigation, Cell Reports, Cancer Research, Proceedings of the National Academy of Sciences, Oncogene, International Journal of Cancer, Cancer, Journal of Cellular Biochemistry, Molecular Biology of the Cell, British Journal of Cancer, Molecular and Cellular Biology, Molecular Cancer Therapeutics, Biological Psychiatry, Molecular Carcinogenesis, Cellular and Molecular Life Sciences, Journal of Cell Science, BMC Cancer, Breast Cancer Research, Nucleic Acids Research, Journal of Molecular Cell Biology, NPJ Breast Cancer (Nature journals), PLoS Biology
- 2007-present **Editorial Board Member:**  
Cancer Research (3-year term, 2012-2015)  
Journal of Mammary Gland Biology and Neoplasia (2007-present)
- 2009-2010 **Guest editor** of special issue of The Journal of Mammary Gland Biology and Neoplasia that focused on “The Epithelial to Mesenchymal Transition in Mammary Development and in Tumorigenesis”
- 2013-present **Senior Editor:** Molecular Cancer Research
- 2015-present **Associate/Senior Editor:** Breast Cancer Research
- 2019-present **Deputy Editor-** Breast Cancer Research

**REGIONAL, NATIONAL, AND INTERNATIONAL CONTRIBUTIONS (STUDY SECTIONS, MEETING SCIENTIFIC REVIEW COMMITTEES, MEETING ORGANIZATION)**

- 2001 **Reviewer**  
Department of Defense Congressionally Directed Medical Research Program, Breast Cancer, Pathobiology
- 2002 **Reviewer**  
Department of Defense Congressionally Directed Medical Research Program, Breast Cancer, Pathobiology
- 2002-2003 **Reviewer**  
Susan G. Komen Breast Cancer Foundation
- 2003 **Reviewer**  
Department of Defense Congressionally Directed Medical Research Program, Breast Cancer, Molecular Biology and Genetics 5
- 2004-2005 **Reviewer**  
Susan G. Komen Breast Cancer Foundation
- 2005 **Reviewer**  
Department of Defense Congressionally Directed Medical Research Program, Breast Cancer, Pathobiology 2
- 2007 **Reviewer**  
Department of Defense Congressionally Directed Medical Research Program, Breast Cancer, Molecular Biology- had to decline as my own grant is being reviewed by that study section
- 2007 **Expert Reviewer**  
FWF Austrian Science Foundation
- 2007-2008 **Reviewer**  
Susan G. Komen Foundation, Molecular Biology study section
- 2008 **Expert Reviewer**  
FWF Austrian Science Foundation
- 2008 **Ad hoc Reviewer**  
ZRG1 Oncological Sciences Fellowship Study Section/CSR/NIH (ad hoc)
- 2008 **Reviewer and Member of the Scientific Board**  
Cancer League of Colorado
- 2008/2009 **Reviewer**  
American Cancer Society

2009 spring Cell Cycle and Cell Growth and Development, Differentiation and Cancer  
**BCRP Integration Panel (IP)**- Department of Defense Breast Cancer Research Program

2009 **Ad hoc Reviewer**  
 ZRG1 Oncological Sciences Fellowship Study Section/CSR/NIH

2009 **BCRP Integration Panel (IP)** - Department of Defense Breast Cancer Research Program

2009 **Reviewer and Member of the Scientific Board**  
 Cancer League of Colorado

2010 **Ad hoc Reviewer**  
 Cancer Molecular Pathobiology (CaMP) Study Section NCI/NIH

2010 **Reviewer and Member of the Scientific Board**  
 Cancer League of Colorado

2010 **BCRP Integration Panel (IP)**- Department of Defense Breast Cancer Research Program

2010 **Ad hoc Reviewer**  
 Tumor Progression and Metastasis (TPM) Study Section NCI/NIH

2011 **BCRP Integration Panel (IP)**- Department of Defense Breast Cancer Research Program

2011 **Ad hoc Reviewer**  
 Cancer Molecular Pathobiology (CaMP) Study Section NCI/NIH

2011 **Expert Reviewer**  
 Research Grants Council Hong Kong, China

2012 **Reviewer**  
 American Cancer Society  
 Cell Cycle and Cell Growth and Development, Differentiation and Cancer

2012 **BCRP Integration Panel (IP)** - Department of Defense Breast Cancer Research Program

2012-present **Standing Member**- Tumor Progression and Metastasis (TPM) NCI

2013 **Expert Reviewer**  
 The Saban Research Institute at Children's Hospital Los Angeles  
 Research Career Development Award

2013 **Expert Reviewer**  
 Israel Science Foundation Grants

2013 **Expert Reviewer**  
 Swiss National Science Foundation

2013 **Abstract Reviewer**  
 San Antonio Breast Cancer Symposium meeting (meeting Dec. 2013)

2014 **Co-Chair**, Tumor Progression and Metastasis, NCI

2014 **Site Visit Reviewer** for NCI Intramural PI

2015-present **External Advisory Board Member** Sidney Kimmel Cancer Center, Thomas Jefferson University

2015 **Co-Chair**, Tumor Progression and Metastasis, NCI

2016 **Vice-Chair** (co-with Mike Lewis) for Gordon Conference in Mammary Gland Biology (Il Ciocco, Italy)

2016-2018 **Chair**, Tumor Progression and Metastasis Study Section, NCI

2017 **Chair** (co-with Mike Lewis) Gordon Conference in Mammary Gland Biology (Vermont)

2018 The EMT International Association (TEMTIA) organizing committee

2018 P01 grant reviews on Tumor Progression and Metastasis NCI/NIH

2019 **NCI Intramural Review Panel Member**, Reviewing Laboratory of Cell and Developmental Signaling (LCDS, Dr. Deborah Morrison, Chief) in the NCI Intramural Research Program

2019 **NCI Site Visit Reviewer**, Fred Hutchinson/University of Washington Cancer Consortium CCSG

2019 **Abstract Reviewer**  
 San Antonio Breast Cancer Symposium meeting (meeting Dec. 2019)

2020 **NCI Site Visit Reviewer**, Purdue University Center for Cancer Research

## INVITED LECTURES

- 1994 **Invited speaker**  
 “Mts1 in Invasion and Metastasis”  
 National Cancer Institute-DCBDC-LP Seminar
- 1995 **Invited speaker**  
 “The Mts1 Gene in Metastasis and Motility”  
 Keystone Symposium in Cancer Cell Invasion and Motility
- 1998 **Selected Speaker**  
 “Role of the HSIX1 homeobox gene in the cell cycle and in cancer”  
 Novel Mechanisms for Cell Cycle Control Minisymposium  
 Eighty-ninth Annual Meeting of the American Association of Cancer Research
- 2000 **Invited Speaker**  
 “Role of the HSIX1 Homeobox Gene in Breast Cancer”  
 Susan G. Komen Breast Cancer Foundation, Reaching for the Cure-Making a Difference  
 Mission Conference
- 2001 **Invited Speaker**  
 “HSIX1: A Homeobox Gene Implicated in Cell Cycle Control and Breast Cancer”  
 Gordon Research Conference on Mammary Gland Biology
- 2002 **Invited Speaker**  
 “Downstream targets of HSIX1 and Cyclin D1 in Breast Cancer”  
 Activities to Promote Research Collaborations, NIH-DCB
- 2004 **Invited Speaker**  
 “Six genes, cell cycle regulation, and malignancy”  
 Homeobox Genes and Tissue Remodeling- Focus on the Mammary Gland, NCI Workshop
- Invited Speaker**  
 “Using RNA Interference to Assess the Function of the Six1 Homeobox Gene in  
 Tumorigenesis”  
 Gene Eclipse- Blocking Gene Expression Using Small RNAs Symposium run by the Molecular  
 Biology Program, UCHSC
- 2005 **Invited Speaker**  
 Roundtop Meeting, Houston Texas 2005 “Advances In Cell Cycle and Cancer”  
 “Six1 and its target cyclin A1 in breast tumorigenesis”
- Invited Speaker**  
 Wayne State Dept. of Pathology  
 “The role of Six1 in breast tumorigenesis”
- Invited Speaker**  
 UCHSC Cancer Center and Cell Cycle Symposium- April 2005
- 2006 **Invited Speaker**  
 Advances in Cancer Research, 32cd annual premedica Society, Colorado State University at  
 Fort Collins- Feb. 2006  
 “Homeobox genes in the development of breast cancer”
- Invited Speaker**  
 McGill University, May 2006  
 “The Six1 Homeoprotein Plays A Role in Both The Onset and Progression of Breast  
 Cancer”
- Invited speaker**  
 Symposium in honor of Arthur Pardee  
 American Academy of Sciences, Cambridge, MA- June 2006  
 “Role of the Six1 Homeoprotein in Breast Tumorigenesis and Metastasis- how differential  
 display leads to a lifetime of work!”
- Selected Speaker**  
 25<sup>th</sup> Congress of the International Association for Breast Cancer Research  
 September 15-18, Montreal, Canada  
 “The Six1 Homeoprotein is a transforming oncogene that contributes to multiple stages of breast  
 tumorigenesis”
- Invited speaker**  
 Signal Transduction Modulators in Cancer Therapy Symposium  
 December 7-8, Denver, CO

- 2007 “Six1 as a Modulator of TRAIL response in Ovarian and Breast Cancer”, CME Lecture  
**Invited Speaker**  
 Mayo Clinic Jacksonville, Florida, Sept. 2007
- 2008 “Six1 in EMT and Metastasis”  
**Invited Speaker**  
 Baylor College of Medicine, January 2008  
 “Six1 Regulates EMT and Metastasis”  
**Invited Speaker**  
 Ohio State University, February 2008  
 “Six1 as a Regulator of EMT and Metastasis”  
**Selected Speaker**  
 Cold Spring Harbor Laboratories Meeting on Epithelial-Mesenchymal Transition in Cancer  
 March 17-20, 2008  
 “Six1 as a Regulator of EMT and Metastasis”  
**Invited Speaker**  
 Vanderbilt University, May 2008  
 “The Six1 homeoprotein as a Regulator of EMT and Metastasis”  
**Invited Speaker**  
 OSI Pharmaceuticals, Boulder CO (telecast to Long Island, New York), May 2008  
 “The Six1 homeoprotein as a Regulator of EMT and Metastasis”  
**Invited Speaker**  
 UT Health Science Center at San Antonio, teleconferencing network of Texas, Cytology series  
 August 2008  
 “The Six1 homeoprotein as a Regulator of EMT and Metastasis”  
**Invited Speaker**  
 National Breast Cancer Coalition, Project LEAD, Denver, CO, August 2008  
 “How Developmental Proteins impact Breast Cancer Initiation and Progression”
- 2009 **Co-Chair of AACR 2009 Annual Meeting Mini-symposium**  
**Denver, CO**  
 “Tissue Context Regulates Signaling in Development and Cancer”  
 April 2009  
**Invited Speaker**  
 AACR 2009 Annual Meeting  
 April 2009  
 “The Six1 homeobox gene regulates lymphangiogenesis and metastasis in a mouse model of breast cancer”  
**Invited Speaker**  
 24<sup>th</sup> annual MD/PhD conference, Keystone, CO  
 July 2009  
 Leader of break-out session on grant writing  
**Invited Guest**  
 NCI Translational Science Meeting (meeting by invitation only)  
 Nov. 2009  
 “Targeting the Six1-Eya transcriptional complex for anti-breast cancer therapy”
- 2010 **Invited Speaker**  
 Eppley Cancer Institute, University of Nebraska Medical Center  
 January 6, 2010  
 “Six1 induces TGF- $\beta$  signaling, EMT, and breast cancer metastasis”  
**Invited Speaker**  
 AACR EMT and Cancer Progression and Treatment Special Conference  
 March 2010, Arlington Virginia  
 “Mouse models of Six1-induced Oncogenic EMT”  
**Invited Speaker**  
 Stony Brook Cancer Center and Dept. of Molecular Genetics and Microbiology  
 Symposium on Cancer Stem Cells and Metastasis  
 April 27, 2010  
 “Six1 induces TGF- $\beta$  signaling, EMT and cancer stem cells, and breast cancer metastasis”  
**Invited Speaker**



25<sup>th</sup> annual MD/PhD conference, Keystone, CO

July 2010

Leader of break-out session on grant writing

**Invited Speaker**

Joint AACR/Metastasis Research Society Meeting

Sept. 2010, Philadelphia, Pennsylvania

“The role of developmental molecules and miRs in the induction of cancer stem cells and metastasis”

**Invited Speaker**

Sanofi/Aventis

Sept. 24, 2010, Tucson, Arizona

“The role of developmental molecules and miRs in the induction of cancer stem cells and metastasis”

2011

**Selected Speaker**

The Biology of Cancer: Microenvironment, Metastasis, & Therapeutics

Cold Spring Harbor Laboratories

“Developmental molecules and miRs in the induction of cancer stem cells and metastasis”

April 26-30, 2011

**Invited Speaker**

Gordon Conference on Mammary Gland biology

June 11-17, 2011, Salve Regina, Rhode Island

“EMT and Breast Cancer”

-declined due to Cancer Center Site Visit at UC Anschutz Medical Campus

**Invited Speaker**

Genentech, San Francisco

June 10, 2011

“Targeting the Six1/Eya transcriptional complex for anti-breast cancer drug design”

**Invited Speaker**

26<sup>th</sup> annual MD/PhD conference, Keystone, CO

July 2011

Leader of break-out session on grant writing

**Invited Speaker**

Northwestern University

Defining the role of the Six1/Eya transcriptional complex in breast cancer progression and as a novel drug target”

December, 2011

2012

**Invited Speaker**

Ohio State University

“Defining the role of the Six1/Eya transcriptional complex in breast cancer progression and as a novel drug target”

February, 2012

**Invited Speaker**

26<sup>th</sup> annual MD/PhD conference, Keystone, CO

July 2012

Leader of break-out session on grant writing

**Invited Speaker**

Case Western Reserve University

Title: Developmental Transcription Factors and Cancer Metastasis: New Potential Targets for Therapy?

December 2012

2013

**Invited Speaker**

West Virginia University

Mary Babb Randolph Cancer Center

Title: “Targeting EMT related Transcription factors to inhibit Metastasis”

March 2013

**Invited Speaker**

26<sup>th</sup> annual MD/PhD conference, Keystone, CO

July 2013

Leader of break-out session on grant writing

**Invited Speaker**

Robert H. Lurie Comprehensive Cancer Center, Northwestern University

Title: Targeting EMT related Transcription factors to inhibit Metastasis

August, 2013

**Invited Speaker**

Moffitt Cancer Center

University of South Florida

Title: Targeting EMT related Transcription factors to inhibit Metastasis

September 2013

**Invited Speaker (outreach for highschool students)**

Colorado-Wyoming Junior Academy of Sciences

Title: Developing novel means of inhibiting breast and other cancers

November 2013

2014

**Invited Speaker**

University Health Network, University of Toronto

Title: Developmental Transcription Factors and Cancer Metastasis: New Potential Targets for Therapy?

January 2014

**Invited Speaker**

Hollings Cancer Center, Medical University of South Carolina

Title: Targeting EMT related Transcription factors to inhibit Metastasis

March 2014

**Invited Speaker**

University of Campinas, Brazil

Title: TBA

March 2014 (rescheduled for 2015)

**Invited Speaker**

University of Oklahoma Health Sciences Center

Title: Developmental Transcription Factors and Cancer Metastasis: New Potential Targets for Therapy?

April 2014

**Invited Speaker**

Tufts University

Title: Developmental Transcription Factors and Cancer Metastasis: New Potential Targets for Therapy?

May 2014

**Invited Speaker**

University of Texas Houston

UT Health, Brown Institute of Molecular Medicine

Title: Targeting EMT related Transcription factors to inhibit Metastasis

June 2014

**Invited Speaker (for workshop)**

26<sup>th</sup> annual MD/PhD conference, Keystone, CO

July 2014

Leader of break-out session on grant writing

**Invited Speaker**

Glaxo Smithkline (GSK) Philadelphia

The Six/Eya Transcriptional Complex: A New Potential Target for Cancer Therapy?

Sept. 2014

**Outreach Speaker** American Cancer Society- Making Strides Against Breast Cancer

Oct. 2014

2015

**Invited Speaker**

Markey Cancer Center, University of Kentucky

Title: Developmental Transcription Factors and Cancer Metastasis: New Potential Targets for Therapy?

Jan. 2015

**Invited Speaker**

Holden Comprehensive Cancer Center University of Iowa Carver College of Medicine  
Title: Developmental Transcription Factors and Cancer Metastasis: New Potential Targets for  
Therapy?

Apr. 2015

**Invited Speaker**

Gordon Conference in Mammary Gland Biology

Mount Snow Resort, Vermont

Title: The Six1/Eya Transcriptional Complex Modulates the Immune and Lymphatic  
Microenvironment to Stimulate Breast Cancer Metastasis

June 7-12 2015

**Invited Speaker**

EMBO Europhosphatase Meeting

Turku, Finland

Title: The many faces of the Eya phosphatase

June 24-29 2015

**Invited Speaker**

University of Alabama at Birmingham

Title: Developmental Transcriptional complexes: New Potential Targets to Inhibit Metastatic  
Progression?

October 12-13, 2015

2016

**Invited Speaker**

Roswell Park Cancer Institute

Title: Developmental Transcriptional Complexes: New Potential Targets to Inhibit Metastatic  
Progression?

January 2016

**Invited Speaker**

Colorado Cancer Caucus

Title: Developing Novel Means to Target Breast and Other Cancers

February 2016

**Invited Speaker**

University of Denver (DU)

Title: EMT Transcription Factors- Potential Druggable Targets to Inhibit Metastasis?

April 2016

**Invited Speaker**

University of Cincinnati College of Medicine

Title: Tumor Heterogeneity, EMT, and Metastasis

May 2016

**Session Chair, Introductory Talk**

Gordon Conference in Mammary Gland Biology

Il Ciocco, Italy

Title: Growth and Inhibitory Signals- Epithelial and Stromal Cues

May-June 2016

**Invited Speaker**

Karmanos Cancer Institute

Wayne State University

Title: Tumor Heterogeneity, EMT, and Metastasis

September 22, 2016

**Invited Speaker**

Department of Pathology

Wayne State University

Title: EMT Transcription Factors- Potential Druggable Targets to Inhibit Metastasis?

September 21, 2016

2017

**Invited Speaker**

Peggy and Charles Stephenson Cancer Center

Oklahoma University Health Sciences Center

Title: Tumor Heterogeneity, EMT, and Metastasis

February 10, 2017

**Invited Speaker**

Advances in Breast Cancer Research Symposium  
Hosted by Archer DX and Susan Komen Colorado  
Title: Identifying Novel Ways to Inhibit Breast Cancer Metastasis  
Denver, CO  
May 11, 2017

**Invited Speaker**

Duke NUS Medical School  
Singapore

Title: Role of the Eya3/PP2A Complex in Mediating Immune Evasion of Breast Cancer  
July 4, 2017

**Invited Speaker**

A\*STAR/ETC

Singapore

Title: Developmental Transcriptional Complexes: New Potential Targets to Inhibit Metastatic Progression?  
July 5, 2017

**Invited Speaker**

Café Scientifique

Brooklyn's Downtown Denver, CO

Title: Cancer Metastasis: Is There a Way to Put the Horse Back in the Barn?  
Aug. 30, 2017

**Selected Speaker**

Cold Spring Harbor Laboratories Microenvironment and Metastasis Meeting

Cold Spring Harbor, Long Island, New York

Title: Role of Eya3 in Mediating Immune Evasion of Breast Cancer

Oct. 11, 2017

**Invited Speaker**

2<sup>nd</sup> Annual Jayne Koskinas Ted Giovanis Foundation Symposium on Metastatic Breast Cancer

Bethesda, MD

Title: EMT, Tumor Heterogeneity and Metastasis

Oct. 25, 2017

**Invited Speaker**

TEMTIA VII meeting (annual meeting for TEMTIA EMT organization)

Houston, Texas

Title: EMT, Tumor Heterogeneity, and Metastasis

Dec. 7-10

**2018**

**Invited Speaker (invited by Cancer Biology Graduate Students)**

Thomas Jefferson University

Philadelphia, PA

Title: Role of the Eya3/PP2A Complex in Mediating Immune Evasion of Breast Cancer

March 12, 2018

**Invited Speaker**

University of Texas Health Sciences Center

Houston, TX

Title: Role of the Eya3/PP2A Complex in Mediating Immune Evasion of Breast Cancer

April 9, 2018

**Invited Speaker**

UT Southwestern

Dallas, TX

Title: Role of the Eya3/PP2A Complex in Mediating Immune Evasion of Breast Cancer

May 8, 2018

**Selected Speaker**

Gordon Conference in Mammary Gland Biology

Il Ciocco, Italy

Title: Role of the Eya3/PP2A Complex in Mediating Immune Evasion of Breast Cancer

May 30, 2018

**Invited Speaker**

2018 Pediatric Cancer Nanocourse, Children's Cancer Therapy Development Institute

Portland, Oregon  
Title: Developmental Complexes as Potential Targets in Pediatric Cancers  
Aug. 22-24

**Invited Speaker**

Saha Institute of Nuclear Physics  
125 Anniversary of Saha, Cancer Biology Symposium  
Kolkata, India

Title: TBA

Sept. 26-28, 2018

Declined invitation to attend NIH P01 meeting

**Invited Speaker**

Karmanos Cancer Institute, Wayne State University  
Detroit, MI

Title: Role of the Eya3/PP2A Complex in Mediating Immune Evasion of Breast Cancer

Oct. 4, 2018

**Invited Speaker**

Drexel University  
Philadelphia, PA

Title: Developing Novel Means to Inhibit Metastasis through Targeting Tumor Heterogeneity and EMT

Oct. 16, 2018

**Invited Speaker- Distinguished Speaker Seminar Series**

University of Southern California

Los Angeles, CA

Title: Developmental Regulators as Key Determinants of Metastatic Progression

Nov. 6, 2018

**Invited Speaker**

San Antonio Breast Cancer Symposium  
San Antonio, Texas

Title: The EMT and Metastasis Controversy: Where things Stand in 2018

Dec. 4, 2018

**Invited Speaker**

University of California, San Diego (UCSD), Department of Pharmacology  
San Diego, CA

Title: Developing Novel Means to Inhibit Metastasis through Targeting Tumor Heterogeneity and EMT

Dec. 13, 2018

**Invited Speaker**

Salk Cancer Day Symposium - Tumor Progression and Metastasis (Postdoc Invited)  
San Diego, CA

Title: EMT, Tumor Cell Crosstalk, and Metastasis

Dec. 14, 2018

2019

**Invited Speaker**

University of South Florida  
Tampa, FL

Title: Developing Novel Means to Inhibit Metastasis through Targeting Tumor Heterogeneity and EMT

Feb. 1, 2019

**Invited Speaker- Distinguished Guest Lecture Series**

University of Tennessee Health Sciences Center  
Memphis, TN

Title: Developing Novel Means to Inhibit Metastasis through Targeting Tumor Heterogeneity and EMT

Feb. 26, 2019

**Invited Speaker**

Emory University  
Winship Cancer Institute  
Atlanta, Georgia

Title: TBA  
May 9, 2019  
**Invited Speaker**  
King Endowed Lectureship Symposium  
Department of Pathology  
University of Colorado Anschutz Medical Campus  
Aurora, CO

Title: TBA  
June 18, 2019  
**Invited Speaker**  
Gordon Research Conference on Hormone-Dependent Cancers  
Sunday River, Newry, ME  
Title: EMT Regulators in Immune Evasion of Breast Cancer  
Aug. 4-9

**Invited Speaker**  
Baylor University, Waco  
Waco, TX  
Title: Developing Novel Means to Inhibit Metastasis through Targeting Tumor Heterogeneity  
Oct. 4, 2019

**Discussion Leader and Meeting Co-Organizer**  
TEMTIA IX (The EMT International Association) Meeting  
Kumamoto, Japan  
Session: Developmental EMT 1  
Nov. 11-14 (session chair Nov. 12)

**2020**

**Invited Speaker**  
American Association of Anatomists at Experimental Biology Meeting  
San Diego, California  
Title: The Importance of Tumor Cell Crosstalk in EMT and Metastasis  
April 4-7, 2020

**Invited Speaker**  
Purdue University  
West Lafayette, Indiana  
Title: TBA  
April 15, 2020

**Invited Speaker**  
American Association for Cancer Research (AACR) Annual Meeting  
San Diego, CA  
Title: Novel Means by Which EMT Promotes Metastasis  
April 24-29, 2020 (talk on the 25<sup>th</sup>)

**Invited Speaker**  
University of Maryland  
Stewart Greenebaum Comprehensive Cancer Center  
Baltimore, MD  
Title: TBA  
May 18, 2020

**Invited Speaker**  
FASEB meeting on protein phosphatases  
Sunriver Resort, Oregon  
Title: Eya Protein Phosphatases in cancer  
July 2020

## **FORMAL TEACHING AND MENTORING**

### **Medical Student Formal Lectures**

**October 2001- BMGN 5000 course.** In this first year medical school biochemistry course, 3 lectures were taught on Gene Expression.

**October 2002- BMGN 5000 course.** Taught three lectures on Gene expression in this first year medical student biochemistry course.

**October 2003- BMGN 5000 course.** Taught three lectures on Gene expression in this first year medical student biochemistry course.

**September 2004- October 2004- BMGN 5000 course.** Taught three lectures on Gene expression and two lectures on molecular biology techniques in this first year medical student biochemistry course.

**October 2005- M2M (molecules to medicine) course.** Taught three lectures on Gene expression in this first year medical student molecules to medicine course.

**October 2006- M2M course.** Taught three lectures on Gene expression in this first year medical student molecules to medicine course.

**October 2007- M2M course.** Taught three lectures on Gene expression in this first year medical student molecules to medicine course.

**October 2008- M2M course.** Taught three lectures on Gene expression in this first year medical student molecules to medicine course.

**October 2009- M2M course.** Taught three lectures on Gene expression in this first year medical student molecules to medicine course.

**October 2010- M2M course.** Taught three lectures on Gene expression in this first year medical student molecules to medicine course.

**October 2011-2016- M2M course.** Taught three lectures on Gene expression in this first year medical student molecules to medicine course.

### **Graduate Student Lectures/Teaching**

**September 2001- IDPT 7800.** Taught one lecture on Molecular Biology Mechanisms in this course for first year graduate students from all programs at the Medical School.

**October 2001- Minicourse in Mammary Development, Function, and Neoplasia.**  
Taught one lecture on Genes in Mammary Neoplasia.

**January 2002- MB7081- Molecular Biology Advanced Studies.** Team taught (with Lori Sussel and Trevor Williams) in journal club format for 8 lectures related to Transcriptional and Translational Regulation.

**January 2002- Mechanisms and Models of Disease Course.** One lecture on cyclin D1 and erbB2 in mammary gland development and in tumorigenesis.

**September 2002- IDPT 7801.** Taught two lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**September 2002- Neuroscience 7605-7606.** Taught two lectures on Molecular Biology Techniques in this neuroscience course for first year graduate students in Neuroscience.

**January 2003- Molecular Biology 7801/7802.** A formal journal club course in which I gave an introductory lecture, followed by 8 classes for evaluating the literature. Topic “Molecular Development”

**January 2003- Mechanisms and Models of Disease Course.** One lecture on developmental genes in tumorigenesis.

**September 2003- IDPT 7801.** Taught two lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**March 2004- Molecular Biology 7801/7802.** A formal journal club course in which there is an introductory lecture, followed by 10 classes for evaluating the literature. Topic “Molecular Biology of Gene Expression”

**September 2004- IDPT 7801.** Taught two lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**February 2005- Molecular Biology 7801/7802.** A formal journal club course in which there is an introductory lecture, followed by 9 classes for evaluating the literature. Topic “Transcription factors in Development and Disease”

**February 2005- Reproductive Sciences Course 7801.** Taught one lecture on the Hallmarks of Cancer.

**September 2005- IDPT 7801.** Taught two lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**March 2006- Cancer Biology.** Taught one lecture on the molecular mechanisms of breast cancer, focusing on her2/neu and cyclin D1.

**September 2006- IDPT 7801.** Taught two lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**April 2007. Cancer Biology.** Taught one lecture on the molecular mechanisms of breast cancer.

**September 2007. IDPT 7801.** Taught four lectures (on request of students was asked to increase my lecture time by 2 hours) on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**April 2008. Cancer Biology.** Taught one lecture on the molecular mechanisms of breast cancer.

**April 2008-May 2008. Advanced Topics in Molecular Biology.** Teaching on the microenvironment in cancer (co-teaching with James DeGregori). Teach one didactic lecture followed by seven 1.5 hour paper discussions.

**September 2008- Biomedical Sciences Core Course.** Taught two lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**February 2009- Cancer Biology.** Taught one lecture on the molecular mechanisms of breast cancer, focusing on the epithelial to mesenchymal transition.

**September 2009- Biomedical Sciences Core Course.** Taught two lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**Fall 2009- BSP journal club.** Led BSP journal club along with James DeGregori; related to cancer microenvironments (5 consecutive journal clubs).

**February 2010- Cancer Biology Course.** Taught one lecture on EMT and Metastasis.

**September 2010- Biomedical Sciences Core Course.** Taught three lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**January 2011- Advanced Topics in Molecular Biology.** Teaching introductory lecture on how to write a grant, with a focus on the Specific Aims page.

**February 2011- Cancer Biology.** Taught one lecture on the molecular mechanisms of breast cancer.

**February/March 2011- Advanced Topics in Molecular Biology.** Teaching on the microenvironment in cancer (co-teaching with James DeGregori). Teach one didactic lecture followed by six 1.5 hour paper discussions and a 1.5 hour mock study section.

**September 2011- Biomedical Sciences Core Course.** Taught three lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**January 2012- Advanced Topics in Molecular Biology.** Taught introductory lecture on how to write a grant, with a focus on the Specific Aims page.

**March 2012- Tissue-Based Theory of Carcinogenesis & The Microenvironment.** Taught one lecture on the role of TGF- $\beta$  signaling in the microenvironment. The lecture was followed by a one-hour paper discussion led by a student and moderated by me.

**April 2012- Cancer Biology.** Taught one lecture on the molecular mechanisms of breast cancer.

**August 2012- Frontiers in Pharmacology Lecture.** One lecture on novel means of developing anti-cancer drugs that target transcription factors.

**September 2012- Biomedical Sciences Core Course.** Taught three lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**December 2012- MSTP lecture.** “How to write a research paper”.

**January 2013- Advanced Topics in Molecular Biology.** Taught introductory lecture on how to write a grant, with a focus on the Specific Aims page.

**March 2013- MSTP lecture.** “How to write a grant”.

**April 2013- Cancer Biology.** One lecture on EMT in cancer.

**August 2013- Frontiers in Pharmacology.** One lecture on novel drug development approaches targeting transcription factors.

**September 2013- Biomedical Sciences Core Course.** Taught three lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**December 2013- MSTP lecture.** “How to write a research paper”.

**January 2014- Advanced Topics in Molecular Biology.** Taught introductory lecture on how to write a grant, with a focus on the Specific Aims page.

**March 2014- MSTP lecture.** “How to write a grant”.

**April 2014, 2015- Cancer Biology.** One lecture on EMT in cancer.

**August 2014- Frontiers in Pharmacology.** One lecture on novel drug development approaches targeting transcription factors.

**September 2014- Biomedical Sciences Core Course.** Taught three lectures on Molecular Biology Techniques in this interdepartmental course for all first year graduate students.

**December 2014- MSTP lecture.** “How to write a research paper”.

**January 2015- Advanced Topics in Molecular Biology.** Taught introductory lecture on how to write a grant, with a focus on the Specific Aims page.



**February 2015-** Lecture on Grant Writing in Graduate School Grant Writing Course (run by Pharmacology).

**April 2015- MSTP Lecture** “How to Write a Research Grant”

**April 2015- Postdoc seminar series** lecture “How to Write a Research Grant- With a Focus on the Approach”

**September 2015- Frontiers in Pharmacology.** Targeting EMT related Transcription Factors to Inhibit Metastasis

**September 2015- Grant Writing Lecture- Focus on Approach.** Graduate School Grant Writing Course

**April 2016-2019- Cancer Biology.** Taught two lectures on EMT in cancer, first didactic, second journal club related

**April 2016-2019-** Lecture on Grant Writing in Advanced Topics in Molecular Biology

**April 2016- MSTP Lecture** “How to Write a Research Grant”

**September 2016-2019- Frontiers in Pharmacology.** One lecture on targeting EMT transcription factors for anti-metastasis therapies.

**September 2016-2019-** Lecture on Grant Writing in Graduate School Grant Writing Course (run by Pharmacology).

### **Course Developer/Director**

**March 2005-May 2005-** Co-Director for Reproductive Development Course (which I developed along with Brian Parr), also lectured within course.

**January-May 2006- Molecular Biology 7800- Advanced Topics.** Co-directed course AND taught one section in which there was an introductory lecture followed by 8 paper discussion classes.

**January- May 2007- MB 7800.** Co-Directed Molecular Biology Advanced Topics Course.

### **Running Seminar Series/Journal Clubs/Symposia**

**Fall/Spring 2001-2002** Ran “Genes in Drosophila and Mammary Gland Development” Journal Club (met monthly).

**Summer-Fall 2002** Co-running “AVID” journal club (developmental biology)

**Fall 2007** Co-organizer of Inaugural Reproductive Sciences Retreat

**Fall/Spring 2007** Organize Program in Reproductive Sciences seminar series

**Fall-Spring 2013-present** Faculty mentor Cancer Biology Journal Club (Oct-May)

### **Mentoring of Graduate/Medical Students/Undergraduate/Highschool Students**

#### **PAST:**

##### **A. High School Students:**

1. Christine Choi and Kyle Wislinsky- Monarch High School (worked as team 2011-2012)

Won 1<sup>st</sup> place in Biotechnology Design

Colorado Technology Student Association State Conference

“The role of Eya3 in Ewing's sarcoma progression” (mentored by graduate student Tyler Robin)

2. Nicolette Laird- Monarch High School (2011-2012)

Won one of 3 top overall awards in the Colorado Technology Student Association State Conference with immediate entrance into Nationals (by-passed regionals)

“Six1 is overexpressed in Breast Cancer and has the worst prognostic outcome in Luminal B subtypes” (mentored by graduate student Anna Smith)

3. Barbryuna Lewis 2-month internship (2012), Through STaRS program, University of Colorado AMC, Aurora, CO

##### **B. Undergraduate Students:**

1. Laura Harmacek- Cancer center summer program, summers of 2004-2005

Currently graduate student at University of Colorado

2. Layne Madden- SKILL program, University of Colorado School of Medicine and Denver Public Schools (summer of 2010). Currently in medical School at University of South Carolina. Received Rich Scholarship.
3. Seth Perry- Cancer Center summer fellow 2014
4. Sadie Doran- GATES program summer fellow 2016
5. Katherine Johnson- GATES program summer fellow 2017
6. Thai Uyen Dinh- Cancer Center summer fellow 2018

### **C. Graduate Students:**

1. Kelly Reichenberger- Masters Student
  - a. Became high school science teacher in Texas
  - b. Is currently PhD candidate in Texas
2. Kimberly Christensen- PhD student (awarded PhD in 2007)
  - a. recipient of NSF pre-doctoral fellowship award
  - b. recipient of Victor and Earleen Bolie Molecular Biology Travel Scholarship
  - c. recipient of AACR Future Leaders, New Directions award in 2007 (invited speaker at the AACR annual meeting 2007)
  - d. Taught one year of science and math at highschool in Steamboat prior to beginning postdoc
  - e. Postdoctoral fellow with Timothy Donohue, University of Wisconsin at Madison
  - f. Instructor, University of Wisconsin at Madison
3. Erica McCoy- PhD student (awarded PhD in 2008)
  - a. Recipient of Department of Defense (DOD) Breast Cancer Pre-doctoral Award
  - b. Recipient of Victor and Earleen Bolie Molecular Biology Travel Scholarship Fund
  - c. Recipient of C. Werner and Kitty Hirs Research Award for PhD Student Travel
  - d. Recipient of Keystone Symposia Travel Scholarship for Signaling Pathways in Cancer and Development Meeting
  - e. Invited to give oral presentation at the Gordon Conference for Mammary Gland Biology
  - f. Invited to give oral presentation at the Department of Defense Era of Hope Breast Cancer Meeting
  - g. Best Graduate Thesis award 2009
  - h. AAAS Science Policy fellow first, now ORISE fellow (for EPA)
4. Aaron Patrick- PhD student (awarded PhD in 2008)
  - a. Recipient of DOD Breast Cancer pre-doctoral award
  - b. Postdoctoral fellowship with Rui Zhao in crystallography (in collaboration with my group) at The University of Colorado
  - c. Scientist, Johnson & Johnson, Pennsylvania
5. Douglas Micalizzi- MD/PhD student (awarded PhD 2009)
  - a. Recipient of DOD Breast Cancer pre-doctoral award
  - b. Recipient of AACR EMT and Cancer Progression and Treatment travel award
  - c. Recipient of NIH Student Research Festival travel award
  - d. Best Graduate Thesis award 2010
  - e. Residency at Harvard Medical School (Mass General Hospital)
  - f. Fellowship with Dan Haber in Medical Oncology (Dana-Farber Cancer Institute, Harvard Medical School)
6. Susan Farabaugh- PhD student (awarded PhD in 2010)
  - a. Recipient of DOD Breast Cancer pre-doctoral award
  - b. Recipient of NIH Student Research Festival travel award
  - c. Currently a postdoctoral fellow with Adrian Lee at The University of Pittsburgh, Magee Women's Cancer Center
7. Tyler Robin- MD/PhD student (awarded PhD in 2012)
  - a. Recipient of Cancer League of Colorado grant (ends fall 2010)
  - b. Recipient of NRSA predoctoral fellowship (2012-2014)
  - c. Resident in Radiation Oncology, Prelim year in Chicago, then at University of Colorado
  - d. Assistant Professor, Department of Radiation Oncology, University of Colorado
8. Anna Smith-Gaurnieri- Molecular Biology (awarded PhD late 2012)
  - a. Recipient of DOD Breast Cancer pre-doctoral award (2010-2013)

- b. Recipient MRS-AACR Joint Conference on Metastasis and the Tumor Microenvironment Travel Award
  - c. Selected speaker DOD Era of Hope Meeting, August 2011
  - d. Postdoctoral Fellow, Joaquin Espinosa, HHMI University of Colorado Boulder
  - e. Research Scientist, Array BioPharma, Boulder Colorado
9. Chu-An Wang- Biochemistry (awarded PhD late 2012)
- a. Recipient of DOD Breast Cancer pre-doctoral award (2010-2013)
  - b. Finishing up papers as postdoctoral fellow in my laboratory before moving to postdoc
  - c. Recipient of AACR-Aflac, Inc. Scholar-in-Training Award, AACR Special Conference on Advances in Breast Cancer 2013
  - d. Recipient of Cancer League of Colorado Fellowship (while finishing up as postdoc in my laboratory)
  - e. Chosen for platform presentation, AACR Special Conference on Advances in Breast Cancer 2013
  - f. Faculty position in Taiwan, National Cheng Kung University
10. David Drasin- Molecular Biology (awarded PhD 2014)
- a. Recipient of Travel Award to Non-Coding RNAs and Cancer, Miami, FL (2012)
  - b. Recipient of NRSA predoctoral fellowship
  - c. Recipient of AACR-Aflac, Inc. Scholar-in-Training Award, AACR Special Conference on Advances in Breast Cancer 2013
  - d. Postdoctoral fellow with Valerie Weaver at UCSF
  - e. Senior Associate with Blueprint Research Group, San Francisco, CA
  - f. Senior Manager at Amgen, Los Angeles, CA
11. Christina Garlington Towers- Molecular Biology (awarded PhD Feb. 2016)
- a. Recipient of T32 Fellowship in Molecular Biology 2010-2011
  - b. Recipient of Sachs Foundation Minority Graduate Fellowship 2010-2014
  - c. Recipient of R01 Diversity Supplement Graduate Fellowship 2011- 2015
  - d. Recipient of UNCF/Merck graduate science research fellowship 2012-2014
  - e. Best poster at UNCF/MERCK Fellows Day, Philadelphia, PA
  - e. Recipient of Paul Fiedler/Department of Pharmacology Travel Award 2014
  - f. Best Graduate Student Award 2015, Department of Pharmacology
  - g. Best Graduate Dissertation Award 2016, University of Colorado Graduate School
  - h. Postdoctoral Fellow with Andrew Thorburn (working on autophagy in cancer), University of Colorado School of Medicine.
12. Deepika Neelakantan- Molecular Biology 2010-2016 (awarded PhD in June 2016)
- a. Poster Award Women's Health Research Day University of Colorado 2014
  - b. Bolie Travel Award to attend meeting 2014
  - c. Winner of best research talk by a graduate student, Dept. of Pharmacology Sept. 2015
  - d. Recipient of AACR Scholar in Training Award supported by Susan G. Komen for AACR Advances in Breast Cancer Research meeting held in Bellevue, Washington Oct. 2015
  - e. Postdoctoral Fellow at University of Oklahoma Health Sciences Center with Sukyong Woo
  - f. IIT Research Program Coordinator at The clinical trials office Stephenson Cancer Center
13. Rebecca Vartuli- Molecular Biology (awarded PhD Aug 2017)
- a. Recipient of T32 Molecular Biology Training grant 2013-2014
  - b. Recipient of F31 NRSA predoctoral fellowship 2014-2016
  - c. Selected talk at Gordon Research Seminar in Mammary Gland biology II Ciocco, Italy 2016
  - d. Senior Research Associate, Gates Biomanufacturing Facility, Denver, CO

**D. Postdoctoral Fellows:**

- 1. Ricardo Coletta, Ph.D.
  - a. Recipient of Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior (CAPES) fellowship, from Brazil
  - b. Recipient of Thorkildsen Postdoctoral Research fellowship
  - c. Recipient of Cancer League of Colorado postdoctoral fellowship
  - d. Recipient of a University of Colorado Cancer Center postdoctoral fellowship
  - e. Professor at The University of Campinas Dental School in Sao Paulo, Brazil
- 2. Lisa Reaves, M.D.

- a. Recipient of Cancer League of Colorado Fellowship
  - b. Pediatric oncologist in Colorado Springs as part of the University of Colorado outreach clinics
3. Ritsuko Iwanaga, Ph.D.
    - a. Recipient of Cancer League of Colorado Grant
    - b. Selected Speaker AACR annual meeting 2009 (Denver, CO)
    - c. Recipient of Thorkildsen postdoctoral research fellowship (2010-2011)
    - d. Instructor in Pediatrics, Hematology/Oncology Division, University of Colorado School of Medicine (current)
  4. Lina Dimberg, Ph.D.
    - a. Recipient of Swedish Medical Research Council Postdoctoral Fellowship
    - b. Recipient of DOD Breast Cancer Postdoctoral Award (2010-2013)
    - c. Scientific Writer at Terumo BCT
    - d. Medical Scientific Liaison at Helsinn
  5. Aaron Patrick, Ph.D.
    - a. Joint postdoctoral fellow between myself and Rui Zhao
    - b. Recipient of T32 pediatric heme/onc fellowship 2011-2013
    - c. Scientist at Johnson & Johnson, Pennsylvania
  6. Chu-An Wang Ph.D.
    - a. Recipient of DOD Breast Cancer pre-doctoral award (2010-2013)
    - b. Finished up papers as postdoctoral fellow in my laboratory before moving to faculty position in Taiwan
    - c. Recipient of AACR-Aflac, Inc. Scholar-in-Training Award, AACR Special Conference on Advances in Breast Cancer 2013
    - d. Recipient of Cancer League of Colorado Fellowship (while finishing up as postdoc in my laboratory)
    - e. Chosen for platform presentation, AACR Special Conference on Advances in Breast Cancer 2013
    - f. Junior faculty, National Cheng Kung University, Taiwan
  7. Jenean O'Brien, Ph.D. (joined July 2011)
    - a. Recipient of NRSA postdoctoral fellowship
    - b. Assistant Professor University of Wisconsin Superior
  8. Michelle Guney, Ph.D. (joined August 2011)
    - a. Recipient of Cancer League of Colorado postdoctoral fellowship
    - b. Recipient of American Cancer Society postdoctoral fellowship
    - c. Best poster award for postdoctoral fellows, Pharmacology Retreat 2016
    - d. Instructor, Barbara Davis Diabetes Center, University of Colorado (current)

#### **E. Visiting Scientist (on sabbatical in my lab, from Connecticut College)**

1. Martha Grossel, Ph.D. (June 2012-July 2013 and again Summer 2016)- had NIH grant for sabbatical. Returned for short sabbatical summer 2016 and I serve as a mentor on her current R15 grant.

#### **CURRENT**

##### **A. Graduate Students:**

1. Michael Oliphant- Integrated Physiology Program 2013-2019
  - a. Top Poster Award at The Student Research Forum, University of Colorado 2014
  - b. Poster Prize at the 7th Annual Women's Health Research Day- Center for Women's Health Research, University of Colorado 2014
  - c. NRSA Award, F31CA210622, "Six2 mediates late-stage metastasis through reversible/irreversible regulation of downstream target genes", 2016-2020
  - d. Selected speaker Gordon Research Seminar in Mammary Gland Biology, Vermont 2017
  - e. Received Carl Storm Underrepresented Minority (CSURM) Fellowship to attend Gordon Research Conference in Mammary Gland Biology, Vermont 2017
  - f. 2017 Outstanding Mentor Award, Denver Public Schools CareerConnect STEM Program

- g. Recipient of F99-K00 award for pre and postdoc funding from the NIH (F99CA223023-01)-awarded fall 2017
  - h. Recipient of 2018 AACR Minority Scholar in Cancer Research Award (to attend annual AACR meeting 2018 and give a talk on his work)
  - i. 2018 Top Poster in Cancer Research Award, New England Science Symposium, Harvard Medical School, Harvard University 2018 New England Science Symposium, Harvard Medical School, Harvard University, Invitee
  - j. Poster award 33<sup>rd</sup> Annual Student Research Forum, University of Colorado 2018
  - k. Postdoctoral Fellow with Senthil Muthuswamy and Joan Brugge, Harvard Medical School (present)
2. Hengbo Zhou- Cancer Biology 2015-present
- a. Front Range Cancer Challenge Grant Recipient, 2016-2018
  - b. Recipient of F99-K00 award for pre and postdoc funding from the NIH (1F99CA234940-01), awarded fall of 2018
  - c. Recipient of Cancer Biology Outstanding Research Award 2018
  - d. Recipient of Department of Pharmacology Student Award for Outstanding Achievement, 2018
  - e. Selected talk Experimental Biology Meeting. San Diego, 2020
  - e. Postdoctoral fellow with Timothy Padera (MGH/Harvard Medical School) and Matthew Vander Heiden (MIT/Koch Institute)
3. Jessica Hsu- Pharmacology Program 2015-present
- a. Pharmacology T32 Training Grant 2015-2017
  - b. Colorado Clinical Translational Science Initiative Training Grant 2017-2018
  - c. Invited to St. Jude Postdoctoral Recruitment fair 2020
4. Deguang Kong- Visiting Graduate Student from China
5. Connor Hughes- MSTP joined summer of 2018
- a. Pharmacology T32 Training Grant 2019-present
6. Art Wolin- Mol Bio student joined summer 2019
7. Stephen (Connor) Purdy- Cancer Bio Student joined summer 2019
- a. Cancer Biology T32 Training Grant 2019-present

## **B. Postdoctoral Fellows:**

1. Melanie Vincent, Ph.D. (joined March 2014)
- a. Recipient of T32 pediatric heme/onc fellowship 2015-2016
  - b. Recipient of Cancer League of Colorado Postdoctoral Fellowship 2016-2017
  - c. Recipient of Alex's Lemonade Stand Postdoctoral Fellowship 2016-2019
2. Anthony Mangan, Ph.D. (joined summer 2019)
- a. Recipient of Cancer Biology T32 Training grant slot

## **MENTORING OF FACULTY**

2005-2007 K12 mentor for Kian Behbakht

2007-2012 WHRH research committee Monique Spillman, MD/PhD

2009-2011 WHRH research committee for Irina Dimitrova

January 2009-2011- New Faculty Workshop on How to Become a Successful Scientist

2011-present WHRH research committee for Crystal Adams

2014-present Member of Traci Lyons, Assistant Professor, Department of Medicine Faculty Mentoring Committee

2015- "How to Climb the Academic Ladder" presented in New Faculty Workshop

2016-2018 Mentoring committee for Heidi Wilson, Assistant Professor, Ob/Gyn

2017-present SOM Faculty Mentor for Matthew Sikora, Assistant Professor, Department of Pathology

2017-present SOM Faculty Mentoring Committee for Philip Owens, Assistant Professor, Department of Pathology

2017 Post-tenure review committee for Steven Anderson, Department of Pathology

2017-present Scholarship oversight committee Masanori Hayashi, Pediatric Hemo-Onc Division, Dept. of Pediatrics

2019- Faculty Mentoring Committee For Ryan Layer, Assistant Professor of Computer Science, BioFrontiers Institute, Boulder, CO

## **ROTATION STUDENTS:**

**June-August 2001-** Mentored visiting medical student (Damian Micomonaco, from Queens University in Canada) in laboratory

**November-February 2001-2002-** Mentored rotating Biomedical Sciences Program Graduate Student, Kelly Jansky (Reichenberger).

**June-July 2002-** Mentor for Critical Enquiry Elective of Damian Micomonaco, Medical Student from Queen's University.

**June-August 2002-** Mentored rotating Biomedical Sciences graduate student, Mariya Rzazsustak

**July 2002-until completion of Ph.D. –** thesis advisor for Kelly Jansky Reichenberger, who obtained her Masters in Biochemistry in my laboratory (left graduate school to have a child and become a teacher).

**September-November 2002-** mentored rotating Biomedical Sciences Graduate Student, Elizabeth Westmark

**November 2002-February 2003-** Mentored rotating Molecular Biology Student, Anya Sydlaske

**March 2003-May 2003-** mentored two rotating graduate students, one from the Biomedical Sciences Program and one from the Molecular Biology Program, Joshua Chuck Harrell and Aaron Patrick

**June 2003-August 2003-** Mentored one rotating MSTP (MD-PhD) student, Douglas Micalizzi.

**July 2003- December 2008-** Thesis Advisor for Aaron Patrick, a BSP student who obtained his Ph.D. in Molecular Biology through my laboratory.

**September 2003-November 2003-** Mentored two rotating Molecular Biology Students, Todd Gangelhoff and Hua Gao

**March 2004-June 2004-** Mentored rotating Biomedical Sciences Program Student, Erica McCoy.

**June 2004-August 2004-** Mentored summer undergraduate cancer center fellow- Joshua Sasine

**July 2004 until completion of PhD-** Thesis Advisor for Erica McCoy, a BSP student who obtained her Ph.D. in Molecular Biology through my laboratory and for Kimberly Christensen, a Molecular Biology student who obtained her PhD in my laboratory.

**July 2004- Sept. 2004-** Mentored one rotating MSTP (MD-PhD) student, Brice McConnell.

**Sept. 2004-Nov. 2004-** Mentored one rotating BSP (Frank Conrad) and one rotating Mol Bio (Christina Pyrgaki) student

**Dec. 2004-Feb. 2005-** Mentored one rotating BSP student (Rebecca Kay)

**March 2005-May 2005-** Mentored rotating graduate student for the Biochemistry Program, Susan Farabaugh

**July 2005-completion of PhD-** Thesis Advisor for Douglas Micalizzi, an MSTP (MD/PhD) student who obtained his Ph.D. in Molecular Biology through my laboratory and for Susan Farabaugh, a Biochemistry and Molecular Genetics student who is obtaining her PhD in my laboratory.

**June 2005-August 2005-** Mentored summer cancer center undergraduate fellow- Laura Harmacek

**June 2006-August 2006-** Mentored undergraduate fellow- Laura Harmacek

**Spring 2007-** Mentored one rotating Molecular Biology Student, Matias Casas

**June 2007-August 2007-** Mentored summer cancer center undergraduate fellow- Sierra McNamara

**Fall 2007-** Mentored one rotating BSP student, Patrick Hutchins

**Winter 2007-** Mentored two rotating BSP students, Anna Smith and Molly Taylor

**Spring 2008-** Mentored one rotating Biochemistry student- Chu-An Wang  
**Summer 2008-completion of PhD-** Mentor for Anna Smith, who is obtaining her PhD in my laboratory through Molecular Biology, and Chu-An Wang, who is obtaining her PhD in my laboratory through Biochemistry and Molecular Genetics.  
**Summer 2008-** Mentored two MSTP students, Tyler Robin and Jennifer Ikle  
**Winter 2008-2009-** Mentored one rotating BSP student, David Drasin  
**Spring 2009-** Mentored one rotating Mol Bio student, Laura Harmacek  
**Fall 2009-completion of PhD-** Mentor for Tyler Robin, MSTP student who will be obtaining his PhD through Mol Bio.  
**Winter 2009-2010-** Mentored two rotating BSP students, Christina Garlington and Rebecca Vartuli  
**Spring 2010-** Mentored one PiRS rotating student, Rebecca Green  
**Winter 2010-2011-** Mentored one Mol Bio rotating student, Michael Holliday  
**Spring 2011-** Mentored one BSP rotating student, Deepika Neelakantan  
**Winter 2012-** Mentored one Cancer Biology Student, Nuria Padilla-Just  
**Winter/Spring 2013-** Mentored one Cancer Biology Student (Catherine Pham) and one BSP student (Anthony Mangan)  
**Winter 2013-2014-** Mentored two rotation students. One from Pharmacology (Andrew Goodspeed) the other from Reproductive Sciences (Michael Oliphant)  
**Spring 2014-** Mentored two rotation students from BSP (Jenn Rabe and Sascha Strait)  
**Fall 2014-** Mentored one pharmacology rotation student, Andrew Riching  
**Winter 2014-** Mentored one Biomedical Sciences and one Molecular Biology graduate student (Hengbo Zhou and Erik Linklater)  
**Spring 2015-** Mentored one Pharmacology Student (Jessica Hsu) and one Molecular Biology Student (Eric Jaffe).  
**Summer 2015- to completion of PhD.** Mentor for Jessica Hsu (Pharmacology) and Hengbo Zhou (Cancer Biology) as PhD students in my lab.  
**Summer 2017-** Rotation student from MSTP, Connor Hughes  
**Fall 2017-** Rotation student from Pharmacology, Evelyn Bourdeaux  
**Winter 2017-2018-** Rotation student from Pharmacology, Madison Furnish  
**Spring 2018-** Rotation student from Cancer Biology, Lucas Harrell  
**Fall of 2018-** Rotation student from Cancer Biology, Stephen (Connor) Purdy  
**Winter 2018/2019-** Two rotation students from Pharmacology, Dillon Boulton and Emily Wagner  
**Spring 2019-** One Biomedical Sciences Rotation Student, Arthur Wolin

### Committees (thesis and other)

#### **International Thesis committees:**

**2009- External thesis examiner-** for a thesis exam from Chantal Cadieux, Phd Student at McGill University. “Deciphering the oncogenic role of CUX1 through the study of mouse models” Dept. of Biochemistry, McGill University, Canada

#### **Internal Thesis Committees**

#### **Past Thesis Committees:**

##### **Graduated/Past:**

1. Radhika Ghatge (chair of her committee, Mol Bio)
2. Sarah Roemer (Mol Bio)
3. Traci Lyons (Mol Bio)
4. Christine Bankers (Mol Bio)
5. Michelle Doyle (Mol Bio)
6. Andriy Marusyk (chair of his committee) (Mol Bio)
7. Hui Yang (Mol Bio)
8. Kim Decker (chair of her committee) (Mol Bio)
9. Joanna Poczubutt (chair of her committee) (Mol Bio)
10. Tanya Russell (Mol Bio)
11. Ryan Cameron (Mol Bio)

12. David Truong (Mol Bio)
13. Amber Marean (chair of her committee), then went off committee
14. Jason Prescott (Mol Bio/MSTP)
15. Agne Taraseviciute (CDB/MSTP)
16. Chuck Harrell (chair of his committee) (PiRS)
17. Ganna Bilousova (Biochemistry)
18. Frank Conrad (Immunology)
19. Jenean O'Brien (Cancer Biology)
20. Melanie Hippert (PiRS)
21. Sunshine Daddario (Mol Bio)
22. Brice McConnell (Mol Bio/MSTP)
23. Molly Taylor (Pharmacology)
24. Jenny Parvani (Cancer Biology)
25. Kristen Rumer (PiRS/MSTP)
26. Tressa Allington (Pharmacology)
27. Candice Wike (Biochemistry)
28. Justine Migdall (Mol Bio/MSTP)- chair of her committee
29. Justin Holt (Mol Bio/MSTP)- chair of his committee
30. Jill Neiman (Pharm/MSTP)
31. Matias Casas (Mol Bio)
32. Matthew Pawlus (Mol Bio)
33. Tara Dobsen (Biochemistry and Molecular Genetics)
34. Aaron Krueger (Structural Biology)
35. Brittany Allen (CSD)
36. Courtney Von Bergen (Pharmacology, Chair, left with Masters)
37. Justine Masselli (Pharmacology- left with Masters)
38. Juliette Peterson (Mol Bio)
39. Laura Harmacek (Mol Bio)
40. Jaime Fornetti (PiRS)
41. Courtney Betts (CSD, Chair)
42. Erica Goddard (CSD, Chair)
43. Melanie Blevins (Biochemistry and Molecular Genetics)
44. Adrienne Stefanski (PiRS committee, Chair)
45. Courtney Fleenor (Immunology)
46. Wallace Liu (Structural Biology & Biochemistry)
47. Lindsey Ulkus (Wakeforest- surrogate committee)
48. Alex Sufit (Cancer Biology, Chair)
49. Hamid Gari (Cancer Biology)
50. Heather Ray (Cell, Stem, and Developmental Biology)
51. Rick Heinz (Cancer Biology)
52. Xi Chen (Cancer Biology)
53. Abitha Jacob (Mol Bio)
54. Marybeth Sechler (Cancer Bio)
55. Hannah Scarborough (Mol Bio/MSTP)
56. Thomas Rogers (Cancer Bio)
57. Biniam Adane (Chair, Mol Bio)
58. Catherine Pham (Cancer Bio)
59. Jason Williams (Cell, Stem, and Developmental Biology)
60. Vishantie Dostal (Structural Biology & Biochemistry)
61. Andrew Goodspeed (Pharmacology)

**Current Mol Bio Thesis Committees:**

1. Jenn Rabe (Chair)
2. Eric Jaffe
3. Amanda Richer (Chair)
4. Emily Duncan
5. Roberto Castro-Gutierrez
6. Rachel Hill



### **Current Cancer Biology Thesis Committees**

1. Divya Ganapathi Sankaran
2. Olivia McGinn
3. Amber Johnson
4. Anagha Inguva (MSTP, getting PhD through Cancer Biology)

### **Current Pharmacology Thesis Committees**

1. Alexander (Sascha) Strait
2. Bob Jones (MSTP, getting PhD through Pharmacology)
3. Phil Tatman (MSTP, getting PhD through Pharmacology)
4. Logan Tyler
5. Evelyn Bordeaux (Chair)

### **Current Additional thesis committees (from various programs):**

1. Eric Peterman (Cell, Stem, and Developmental Biology)
2. Faye Camp (Immunology, MSTP)

### **Graduate Training Council Mentor**

1. Alexandra Huffman

**Major committee mentor:** Sarah Martin, Hannah Edlin, Andrew Goodspeed, Sascha Strait-Pharmacology

### **Past/Current Postdoctoral fellow mentoring committees:**

1. Leah Rider- postdoctoral fellow in the laboratory of Scott Cramer
2. Emily Knouf- postdoctoral fellow in the laboratory of Aaron Johnson
3. Jessica Christenson- postdoctoral fellow in the laboratory of Jennifer Richer
4. Michael Gordon- postdoctoral fellow in the laboratory of Jennifer Richer
5. Jenette Joseph- postdoctoral fellow in the laboratory of Scott Cramer

## **GRANTS OBTAINED AS PI**

### **ACTIVE FUNDING- Heide L. Ford, PI**

Feb 2017- Jan 2022 **5P30CA046934 (NCI)**

“University of Colorado Cancer Center Support Grant”

PI: Theodorescu

12.5% Salary Support for Associate Director of Basic Research Position

Aug 2017- July 2022 **1R01 CA221282-01 (NCI)**

*“Role of Eya3 in Regulating the Immune Microenvironment to Promote Breast Tumor Progression”*

PIs: Ford and Zhao (Ford 30% effort)

Total Direct Costs: \$406,700 per year

July 2017- June 2019 **Colorado Cancer Translational Research Accelerator (CCTRA)**

*“In vivo Assessment of Novel Six1/Eya Inhibitors as Anti-Breast Metastasis Agents”*

PI: Ford, co-I: Zhao

Total Direct Costs: \$100,000

Aug 2018- July 2022 **R01 NS108396**

*“Examining the EYA2/MYC axis in Group 3 Medulloblastoma”*

PI: Ford (Ford 20% effort)

Total Direct Costs: \$231,842 year 1, \$285,000 all subsequent years (direct costs)

Dec 2018- Dec 2023 **R01 CA224867**

*“Deciphering Mechanisms by which Tumor Cells Collaborate to Mediate Metastasis”*

PIs: Ford (25% effort) and Lewis (Baylor College of Medicine)

Total Direct Costs: \$503,501 year one, then ~\$490,000 per year

July 2019- June 2021 **SPARK Grant**

*“Targeting the Six1-Eya Complex to Inhibit Metastasis”*

PIs: Heide L. Ford and Rui Zhao

Total Direct Costs: \$100,000 over two years.

## **CURRENT GRADUATE STUDENT/POSTDOCTORAL FELLOWSHIP FUNDING IN LABORATORY (Heide L. Ford, Mentor)**

- 2016- 2019 **Alex’s Lemonade Stand Postdoctoral Fellowship** to Melanie Vincent, PhD  
Heide L. Ford, Mentor  
\$150,000 total
- 2016- 2019 **1F31CA210622, NRSA** to Michael Oliphant  
Heide L. Ford, Mentor  
\$124,308  
-relinquished in 2017 to take F99 award
- 2017-2019 **1F99CA223023**, to Michael Oliphant  
Heide L. Ford, Mentor  
\$34,404 for first two pre-doctoral years (postdoctoral years will be done elsewhere)
- 2018-2020 **F99 CA234940**, to Hengbo Zhou  
Heide L. Ford, Mentor  
\$34,404 for first two pre-doctoral years (postdoctoral years will be done elsewhere)

## **PAST FUNDING**

- 2001-2002 **Susan G. Komen Breast Cancer Foundation Grant** “The Study of HSIX1 in Breast Cancer and the Cell Cycle” Principle investigator (PI)- Heide L. Ford
- 2001-2002 **American Cancer Society/University of Colorado Cancer Center Seed Grant** “Examining the Role of the HSIX1 Homeobox Gene in normal mammary gland development and tumorigenesis using inducible, mammary gland specific HSIX1 transgenic mice” PI- Heide L. Ford
- 2001-2002 **Avon Foundation Seed Grant** “Identification of HSIX1 Targets Important in Cell Cycle Control and Breast Cancer”. PI- Heide L. Ford
- 2002-2007 **1 R01 CA095277 (NCI)** “HSIX1 in Cell Cycle Control and Tumorigenesis”. PI- Heide L. Ford  
Interim funds granted in 2007 to hold grant over until 2008
- 2005-2006 **Cancer League of Colorado** “Structure-Function Analysis of the Six1-Transcriptional complex in Breast Cancer. Co-PIs Rui Zhao and Heide L. Ford
- 2005-2007 **Susan G. Komen Breast Cancer Foundation Grant (#BCTR0504466)** “The role of Six1, and its target cyclin A1, in breast cancer” PI- Heide L. Ford
- 2005-2007 **V Foundation for Cancer Research**  
“Structural analyses of Six1 transcriptional complexes for anti-cancer drug design”, Rui Zhao

(PI) and Heide L. Ford (co-PI)  
Direct costs to H.L. Ford: \$50,000

- 2005-2010 **PO1-HD38129-06 PPG**  
“Functional Development of the Mammary Gland”. Margaret Neville (PI), Heide L. Ford, 8% effort (director, animal core)  
Direct costs to H.L. Ford: 6% salary support
- 2007-2008 **University of Colorado Cancer Center Seed Grant**  
“TGF- $\beta$  signaling as a mechanism of Six1-induced metastasis” PI- Heide L. Ford  
Total direct costs: \$20,000
- 2007-2008 **Cancer League of Colorado Research Grant**  
“Lymphangiogenesis as a Mechanism of Six1-induced Metastasis” PI-Heide L. Ford  
Total direct costs: \$30,000
- 2007-2008 **Adelson Foundation Grant**  
“Targeted Mass Spectrometry Analysis to Determine Ovarian Cancer Prognosis and Optimization of Treatment Strategies; Six1 as a Prognostic Marker in Ovarian Cancer”, Andrew Thorburn (PI), Kian Behbakht (co-PI), Christine Wu (co-I), and Heide L. Ford (co-I, 4% effort)  
Direct costs to H.L. Ford: \$34,515
- 2007-2009 **Susan G. Komen Breast Cancer Foundation Grant (#BCTR0707562)**  
“The Role of Six1, and its target T $\beta$ R-I, in mediating breast cancer metastasis to the bone”  
PI-Heide L. Ford, 10% effort  
Total direct costs: \$240,000
- 2007-2009 **Kimmel Foundation Award**  
Structural analysis of the Six1 transcriptional complex, Rui Zhao (PI), Heide L. Ford (co-I)  
Direct costs to H.L. Ford: \$35,000 yr 1, \$62,500 yr 2 to Ford
- 2007-2010 **DOD Ovarian Cancer Initiative**  
“Modulators of response to TRAIL therapy in ovarian cancer”, Kian Behbakht (PI), Heide L. Ford (Co-I), 10% effort  
Direct costs to H.L. Ford: 10% salary support
- 2007-2010 **NIH R01 CA129359**  
“Integrin-mediated Regulation of TGF- $\beta$  Signaling and Tumorigenesis.”  
PI William Schiemann, Heide L. Ford (co-I), 3% effort  
Direct costs to H.L. Ford: 3% salary support
- 2007-2011 **American Cancer Society (#RSG-07-183-01-DDC)**  
“The role of Six1 in EMT and Tumor Progression” PI- Heide L. Ford, 12% effort  
Total direct costs: \$600,000
- 2007-2012 **2R01-CA095277 -(Ford)**  
Role of Six1 in EMT and Tumor Progression  
\$168,429 direct/yr
- 2009- 2011 **#BC084105 Department of Defense**  
Breast Cancer Program Synergistic DOD award  
“Structural and Functional Analyses of the Six1 Transcriptional Complex for Anti-Breast Cancer Drug Design”  
PIs: Heide L. Ford and Rui Zhao (each for 10% effort)  
\$500,000 direct costs total (\$250,000 direct to Ford)
- 2009- 2011 **State of Colorado Proof of Concept grant**  
“Development of Small Molecule Inhibitors against the Six1-Eya Complex to Inhibit

Tumorigenesis and Metastasis”  
State of Colorado and the University of Colorado Tech Transfer office  
PIs: Ford and Zhao  
\$185,000 direct (\$92,500 direct to Ford)

- 2008-2012 **1R01CA124545 (NCI)**  
“TRAIL Receptor Signaling in Human Tumors”  
Multiple PI R01, PIs: Heide L. Ford (10% effort), Andrew Thorburn (10% effort), and Kian Behbakht (10% effort)  
Total direct costs (years 1-4): \$1,349,026 (split between the three labs)
- 2010-2012 **1R03MH090869-01 (NIH)**  
“Identifying inhibitors of the Eya phosphatase activity using high throughput screening”  
PIs: Ford and Zhao  
\$50,000 direct costs
- 2011-2013 **Breast Cancer Research Foundation-American Association for Cancer Research**  
“Targeting the Six1/Eya Complex for Anti-Breast Cancer Metastasis Therapies”  
PIs: Ford PI, Zhao Co-I  
\$90,500/yr
- 2011-2013 **State of Colorado Proof of Concept grant- BDEG**  
“Development of Small Molecule Inhibitors against the Six1-Eya Interaction”  
State of Colorado and the University of Colorado Tech Transfer office  
PIs: Ford and Zhao  
\$175,000 direct
- 2011-2013 **1R03DA033174-01 (NIH)**  
“Identify inhibitors of the Six1/Eya interaction using high throughput screening”  
PIs: Ford and Zhao  
\$50,000 direct costs
- 2012-2014 **State of Colorado Proof of Concept grant- BDEG**  
“Validation and Development of a Six1 biomarker test for cancer treatment”  
State of Colorado and the University of Colorado Tech Transfer office  
PIs: Thorburn, Behbakht, Camidge, and Ford  
\$125,000 direct
- 2013-2014 **Metavivor Foundation**  
“Understanding the Role of miR106b-25 in Breast Cancer Associated Metastasis: A Potential new Metastasis Therapy?”  
PI: Ford  
\$50,000 direct costs
- 2013-2014 **Cancer League of Colorado**  
“Novel allosteric inhibitors of Eya2 phosphatase”  
PIs: Reigan, Ford, and Zhao  
\$60,000 direct costs
- 2013-2014 **STTR Grant R41CA180347 and matching BDEG grant**  
“The anti-tumorigenic and anti-metastasis potential of Eya phosphatase inhibitors”  
PIs: Ford, Zhao, and Orndorff  
\$295,000 STTR/ \$50,000 match BDEG
- 2013-2014 **Pharmacology Pilot Grant**  
“Designing targeted ovarian cancer therapies through inhibition of transcription factor complexes”  
PIs: Ford/Zhao/Behbakht

\$50,000 direct costs

2013-2015 **Golfers Against Cancer (GAC) Grant**

*“The role of six1a/b and microRNA-30a in rhabdomyosarcoma (RMS) initiation and progression”*

PIs: Artinger and Ford

\$50,000 direct costs

2014-2015 **Cancer League of Colorado**

*“Developing Stapled Peptides for Breast Cancer Therapy”*

PIs: Ford and Zhao

\$60,000 direct costs

2011- 2016 **1R01CA157790-01 (NCI)**

*“The Six1/Eya Transcriptional complex as a mediator of lymphangiogenesis and lymphatic metastasis”*

NIH/NCI

PI: Ford

\$1,035,000 direct

2014-2016 **Department of Defense Ovarian Cancer Pilot Funding OC130324**

*“Targeting the Six1/Eya complex for Ovarian Cancer Therapy”*

PIs: Zhao (Ford- Co-I, Behbakht- collaborator)

\$112,500 direct costs per year

2014- 2016 **Alex’s Lemonade Stand Innovation Award**

*“Targeting the Six1/Eya complex to inhibit Pediatric Sarcomas”*

PI: Ford (co-I, Zhao)

\$125,000 direct costs per year

Dec 2014- Nov 2016 **1R21CA185752 (NCI)**

*“Developing novel anti-breast cancer therapies through targeting the Six1/Eya transcriptional complex”*

PI: Ford and Zhao

\$125,000 year 1/\$150,000 year 2

Oct 2015- Oct 2016 **Golfers Against Cancer (GAC) Pilot Grant**

*“Identifying the Role of the Six1/Eya Transcriptional Complex in Myc-driven Group3 Medulloblastoma”*

PI: Ford and Vibhakar

\$50,000 in direct costs

July 2016-June 2018 **R21CA201809 (NCI)**

*“Using Zebrafish to study the role of six1 a/b and microRNA-20a in rhabdomyosarcoma (RMS) initiation and progression”*

PIs: Ford and Artinger

Total Direct Costs: \$125,000 year 1, \$150,000 year 2

July 2017- June 2018 **Cancer League of Colorado**

*“Role of Six2 in mediating late stage metastasis”*

PI: Ford

Total Direct Costs: \$30,000

Jan 2013- Dec 2017 **3R01-CA095277 (NCI)** (grant was in 15<sup>th</sup> year)

*“Role of Six1 and the miR106b 25 cluster in EMT and Tumor Progression”*

PI- Heide L. Ford, 20% effort

Total direct costs: \$851,009

**PAST STUDENT/POSTDOCTORAL FELLOWSHIPS**

- 2002-2004 **Brazilian Fellowship Award, Thorkildsen Award, ACS/IRG award, Cancer League of Colorado award (consecutive years and combined)**  
Ricardo Coletta, P.I., Heide L. Ford, mentor  
Full salary coverage for both years as well as reagent money
- 2004-2007 **National Science Foundation**  
To H.L. Ford's graduate student, Kimberly Christensen  
fellow ID# is 2004016155  
\$120,000 total direct costs
- 2006-2008 **Department of Defense Breast Cancer Predoctoral Award (BC051438)**  
Aaron Patrick, P.I., Heide L. Ford, mentor  
\$90,000 total direct costs
- 2006-2009 **Department of Defense Breast Cancer Predoctoral Award (BC051358)**  
Erica McCoy, P.I., Heide L. Ford, mentor  
\$90,000 total direct costs
- 2006-2009 **Department of Defense Breast Cancer Predoctoral Award (BC061430)**  
Douglas Micalizzi, P.I., Heide L. Ford, mentor  
\$90,000 total direct costs
- 2008-2009 **Cancer League of Colorado Postdoctoral Award**  
Ritsuko Iwanaga, P.I., Heide L. Ford, mentor  
\$30,000 for 1 year
- 2009-2010 **Swedish Medical Research Council Postdoctoral Award**  
Lina Dimberg, P.I., Heide L. Ford, mentor  
Full salary and benefit coverage
- 2008-2011 **Department of Defense Breast Cancer Predoctoral Award (BC073439)**  
Susan Farabaugh, P.I., Heide L. Ford, mentor  
\$90,000 total direct costs
- 2009-2011 **Cancer League of Colorado Postdoctoral Award**  
Lisa Reaves, P.I., Heide L. Ford, mentor  
\$30,000 total direct costs  
transferred to Tyler Robin (MSTP student April 2010)
- 2010-2011 **Thorkildsen Research Award**  
Ritsuko Iwanaga  
\$30,000 direct costs
- 2010-2013 **Department of Defense Predoctoral Award**  
Anna Smith, P.I., Heide L. Ford, Mentor  
\$90,000 total direct costs
- 2010-2013 **Department of Defense Predoctoral Award**  
Chu-An Wang, P.I., Heide L. Ford, Mentor  
\$90,000 total direct costs
- 2011-2013 **Pediatric Hematology/Oncology Postdoctoral Fellowship 2T32082086-11A1**  
Aaron Patrick, Heide L. Ford, Mentor  
Covers full NIH salary and benefits and comes with option to fund through 2013
- 2010-2014 **Department of Defense Postdoctoral Award**  
Lina Dimberg, P.I., Heide L. Ford, Mentor  
\$300,000 total direct costs (in NCE)

- 2011-2013 **NRSA MD/PhD predoctoral fellowship award**  
Tyler Robin, P.I., Heide L. Ford, Mentor  
\$40,000
- 2012-2013 **Cancer League of Colorado Postdoctoral fellowship**  
Michelle Guney, P.I., Heide L. Ford, Mentor  
\$30,000
- 2012-2014 **UNCF-MERCK Foundation Predoctoral Fellowship**  
Christina Garlington, P.I., Heide L. Ford, Mentor  
\$40,000 per year
- 2013-2014 **Cancer League of Colorado Postdoctoral fellowship**  
Chu-An Wang, P.I., Heide L. Ford, Mentor  
\$30,000
- 2012-2014 **NRSA predoctoral fellowship award**  
David Drasin P.I., Heide L. Ford, Mentor  
\$70,000 (returned when he graduated)
- 2013-2016 **NRSA Postdoctoral fellowship**  
Jenean O'Brien, P.I., Heide L. Ford, Mentor  
\$156,570 total costs
- 2015- 2016 **Pediatric Hematology/Oncology Postdoctoral Fellowship 2T32082086**  
Melanie Vincent, PhD, Heide L. Ford, Mentor  
Full salary coverage
- 2014-2016 **American Cancer Society Postdoctoral Fellowship**  
Michelle Guney, PI, Heide L. Ford, Mentor  
\$112,000 total
- 2014-2017 **NRSA Predoctoral Fellowship**  
Rebecca Vartuli, PI, Heide L. Ford, Mentor  
\$90,000 total
- 2015-2017 **Pharmacology T32 Training Grant**  
Jessica Hsu, graduate student, Heide L. Ford, Mentor  
Covers most of the graduate student salary
- 2016- 2017 **Cancer League of Colorado Postdoctoral Fellowship**  
Melanie Vincent, PhD, Heide L. Ford, Mentor  
To cover supplies as well as salary coverage not obtained through ALSF  
\$30,000
- 2016-2018 **Front Range Cancer Challenge Grant to Hengbo Zhou (PhD candidate)**  
Ford, Mentor  
\$50,000

**PUBLICATIONS (Peer Reviewed Primary Research Articles, Peer Reviewed Reviews, and Book Chapters):**

1. Tulchinsky, E., **Ford, H.L.**, Kramerov, D., Reshetnyak, E., Grigorian, M., Zain, S., Lukanidin, E. (1992) Transcriptional Analysis of the Mts1 Gene with Specific Reference to 5' Flanking Sequences. *Proc. Natl. Acad. Sci. USA* **89**: 9146-9150.

2. Tulchinsky, E., Kramerov, D., **Ford, H.L.**, Reshetnyak, E., Lukanidin, E., Zain, S. (1993) Characterization of a Positive Regulatory Element in the Mts1 Gene. *Oncogene* **8**: 79-86.
3. **Ford, H.L.** and Zain, S. (1995) Interaction of Metastasis Associated Mts1 Protein with Nonmuscle Myosin. *Oncogene* **10**: 1597-1605.
4. **Ford, H.L.**, Salim, M., Chakravarty, R., Aluiddin, V., and Zain, S. (1995) Expression of Mts1, a Metastasis Associated Gene, Increases Motility but not Invasion of a Nonmetastatic Mouse Mammary Adenocarcinoma Cell Line. *Oncogene* **11**: 2067-2975.
5. **Ford, H.L.**, Silver, D.L., Kachar, B., Sellers, J.R., Zain, S. (1997) Effect of Mts1 on the Structure and Activity of Nonmuscle Myosin. *Biochemistry* **36**: 16321-16327.
6. **Ford, H.L.**, Kabingu, E.N., Mutter, G.L., Bump, E., and Pardee, A.B. (1998) Abrogation of the G2 Cell Cycle Checkpoint Associated with Overexpression of HSIX1: A Possible Mechanism of Breast Carcinogenesis. *Proc. Natl. Acad. Sci. USA* **95**: 12608-12613.
7. **Ford, H.L.** and Pardee, A.B. (1998) The S-phase: Beginning, Middle, and End: A Perspective. *J. of Cellular Biochem. Supplements* **30/31**, 1-7.
8. **Ford, H.L.** (1998) Homeobox genes: A Link Between Development, Cell Cycle, and Cancer? *Cell Biol. Int.* **22**, 397-400.
9. **Ford, H.L.** and Pardee, A.B. (1999) Cancer and the Cell Cycle. *J. of Cellular Biochem.* **75** (S32), 166-172.
10. Pardee, A.B., **Ford, H.L.**, and Sager, R. (2000) *Expression Genetics and Early Cancer Detection*. In: Current Options for the Human Genome Project (ed. Grisolia, S.), Edita Fundacion BBV Documenta, Bilbao, pp. 151-162.
11. Guan, R.L., **Ford, H.L.**, Fu, Y., Li, Y., Shaw, L.M., Pardee, A.B. (2000) Drg-1 as a Differentiation-Related, Putative Metastatic Suppressor Gene in Human Colon Cancer. *Cancer Research.* **60**, 749-755.
12. **Ford, H.L.**, Landesman-Bollag, E., Dacwag, C.S., Stukenberg, P.T., Pardee, A.B., Seldin, D. (2000) Cell Cycle Regulated Phosphorylation of the Human SIX1 Homeodomain Protein. *J. Biol. Chem.* **275**, 22245-22254.
13. Geng, Y., Yu, Q., Whoriskey, W., Dick, F., Tsai, K., **Ford, H.L.**, Biswas, D.K., Amati, B., Jacks, T., Richardson, A., Dyson, N., and Sicinski, P. (2001) Expression of cyclins E1 and E2 during mouse development and in oncogenesis. *Proc. Natl. Acad. Sci. USA* **98**: 13138-13143.
14. Pardee, A.B., **Ford, H.L.**, Biswas, D.K., Martin, K.J., and Sager, R. (2001) Expression Genetics of Hormone Dependent Human Tumors. In: Hormonal Carcinogenesis III (eds. Li, J.J., Daling, J.R., and Li, S.A.), Springer-Verlag, New York, pp. 37-43.
15. **Ford, H.L.** and Pardee, A.B. (2002) *Cell Cycle Checkpoints* In: Encyclopedia for Molecular Medicine (ed. Biderman, A.), John Wiley & Sons, Inc., New York, pp. 720-722.
16. **Ford, H.L.**, Biswas, D.K., Martin, K.J., and Pardee, A.B. (2003) *Discovery of Expressed Genes by Differential Display and Their Applications*. In: Perspectives in Gene Expression. Eaton Publishing /Biotechniques Press, One Research Drive, Suite 400A, Westboro, MA 01581-6-070.
17. Wang, C., Perera, T.V., **Ford, H.L.**, and Dascher, C.C. (2003). Characterization of a divergent non-classical MHC class I in sharks. *Immunogenetics* **55**: 57-61.
18. Lamb, J., Ramaswamy, S., **Ford, H.L.**, Contreras, B., Martinez, R.V., Kittrell, F.S., Zahnow, C.A., Patterson, N., Golub, T.R., and Ewen, M. E. (2003) A mechanism of cyclin D1 action encoded in the patterns of gene expression in human cancer. *Cell* **114**: 323-334.



19. Coletta, R.D., Christensen, K., Lamb, J., Micomonaco, D., Huang, L., Wolf, D., Muller-Tidow, C., Golub, T.R., and **Ford, H.L.** (2004). The Six1 homeoprotein stimulates tumorigenesis by reactivation of the cyclin A1. *Proc. Natl. Acad. Sci. USA* **101**: 6478-6483.
20. Coletta, R.D., Jedlicka, P., Gutierrez-Hartmann A., **Ford, H.L.** (2004). Transcriptional Control of the Cell Cycle in Mammary Gland Development and Tumorigenesis. *Journal of Mammary Gland Biology and Neoplasia* **9**, 39-54.
21. **Ford, H.L.**, Sclafani, R.A., and Degregori, J. (2004). "Cell Cycle Regulatory Cascades" in *Cell Cycle and Growth Control: Biomolecular Regulation and Cancer*. Wiley & Sons, Inc., Hoboken, New Jersey, pp. 95-128.
22. Reichenberger, K.J., Coletta, R.D., Schulte, A.P., Varella-Garcia, M. and **Ford, H.L.** (2005). Gene Amplification is a mechanism of Six1 overexpression in breast cancer. *Cancer Research* **65**: 2668-2675.
23. **Ford H.L.**, Patrick A.N., Varella-Garcia M. SIX1 (sine oculis homeobox homolog 1) (mammalian). Atlas Genet Cytogenet Oncol Haematol. November 2005.
24. Miller, M.M., Wang, C., Parisini, E., Coletta, R., Goto, R.M., Lee, S.Y., Barral, D.C., Townes, M., Roura-Mir, C., **Ford, H.L.**, Brenner, M.B., Dascher, C.C. (2005). Characterization of Two Novel Avian MHC-like Genes Reveals an Ancient Origin of the CD1 Family. *Proc. Natl. Acad. Sci.* **102**: 8674-8679.
25. Behbakht, K., Qamar, L., Aldridge, C.S., Coletta, R.D., Davidson, S., Thorburn, A., and **Ford, H.L.** (2007). Six1 overexpression in ovarian carcinoma causes resistance to TRAIL-mediated apoptosis and is associated with poor survival. *Cancer Research* **67**: 3036-3042.
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