

Mary E. Dickinson, Ph.D.
Executive Vice President and Chief Scientific Officer
The Jackson Laboratory

The Jackson Laboratory
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I. GENERAL BIOGRAPHICAL INFORMATION

PERSONAL

Citizenship: USA, Born Hollywood, FL

EDUCATION

1985- 1989 BS in Molecular Biology, Vanderbilt University, Nashville, TN
Undergraduate Research Advisor, Brigid LM Hogan, PhD

1990- 1992 MA in Biological Sciences, Columbia University, New York, NY

1990- 1993 MPhil in Biological Sciences, Columbia University, New York, NY

1990- 1996 PhD in Biological Sciences, Columbia University, New York, NY
*Thesis: "An analysis of the role of cell signaling during development of the
vertebrate spinal cord"* Advisor: Andrew P. McMahon, PhD

1996- 2002 Post-doctoral Fellow, supported by The Damon Runyon-Walter Winchell Foundation
California Institute of Technology, Pasadena, CA; Advisor: Scott E. Fraser, PhD

ACADEMIC APPOINTMENTS

2024—present Executive Vice President and Chief Scientific Officer, The Jackson Laboratory

2024—present Adjunct Professor, Dept. of Molecular Physiology and Biophysics, Baylor College of Medicine

PREVIOUS FACULTY APPOINTMENTS

2002- 2005 Member of the Professional Staff (non-tenure track), California Institute of Technology, Pasadena, CA

2005- 2006 Visiting Assistant Professor, California Institute of Technology, Pasadena, CA

2005- 2008 Assistant Professor, Department of Molecular Physiology and Biophysics

2005- 2008 Adjunct Assistant Professor, Department of Bioengineering, Rice University

2007- 2008 Adjunct Assistant Professor, Department of Medicine, Division of Diabetes, Endocrinology and
Metabolism

2008- 2012 Adjunct Associate Professor, Department of Bioengineering, Rice University

2008- 2012 Associate Professor, Department of Molecular Physiology and Biophysics and Medicine, Division of
Diabetes, Endocrinology and Metabolism

2012- 2024 Professor with Tenure, Baylor College of Medicine
Department of Molecular Physiology and Biophysics,
Department of Human and Molecular Genetics,
Department of Medicine, Division of Diabetes, Endocrinology and Metabolism

2012- 2024 Adjunct Professor, Department of Bioengineering, Rice University

2012-2024 Academic Director, Optical Imaging and Vital Microscopy (OIVM) Core

2012-2020 Cardiovascular Research Institute (CVRI) Executive Committee and Co-Chair, Congenital
Developmental Heart Disease Operational Committee

2014-2024 Appointed as the Kyle and Josephine Morrow Endowed Chair

2024- Present Adjunct Professor, Baylor College of Medicine

OTHER SCIENTIFIC TRAINING

1984	Summer High School Research Apprentice with Kenneth Rand, MD, Department of Pathology, University of Florida Medical Center, Gainesville, FL
1988	Summer Undergraduate Research Apprentice with Linda Siracusa, PhD and Arthur Buchberg, PhD, Mammalian Genetics Laboratory, National Cancer Institute, Frederick, MD
1988- 1990	Undergraduate Thesis and Research Assistant with Brigid L.M. Hogan, PhD, Vanderbilt University, Nashville, TN
1991	Student, Woods Hole Embryology Course, Woods Hole, MA
1996	Student, EMBL Zebrafish Course, Wurzburg, Germany

FORMAL LEADERSHIP TRAINING

2017	Academic Medical Department Leadership Course, George McMillan Fleming Center for Healthcare Management, School of Public Health, University of Texas Health Sciences Center at Houston
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COMMITTEE SERVICE/ADMINISTRATION ASSIGNMENTS AND LEADERSHIP ROLES AT EMPLOYED INSTITUTION

2005-2015	Graduate Education Committee, Molecular Physiology and Biophysics
2005-2006	Chair, Faculty Search Committee, Molecular Physiology and Biophysics
2006	Faculty Search Committee, Center for Molecular Discovery, Biochemistry
2006, 2007	Faculty Search Committee, Molecular Physiology and Biophysics
2006, 2007	Faculty Search Committee, Dept. of Bioengineering, Rice University and Texas Children's Hospital
2008-2010	Baylor College of Medicine Graduate Admissions Committee
2008-Present	Faculty Operating Committee of the Medical Scientist Training Program (MSTP), Baylor/Rice
2008-2012	Graduate Education Committee, Cardiovascular Sciences
2008-2018	Developmental Biology Graduate Program Steering Committee
2009-2017	Baylor College of Medicine Faculty Appointments and Promotions (FAP) Committee
2009-2010	Faculty Search Committee, McNair Scholars in Neuroscience, Baylor College of Medicine
2010-2015	BCM Faculty Input Committee-Basic Sciences, MPB Departmental Representative
2011	Innovation and Transformation Working Group, Strategic Planning Initiative, Baylor College of Medicine
2012	Cardiovascular Sciences Initiative Working Group, Baylor College of Medicine
2012	Cardiovascular Research Strategic Planning Retreat, Baylor College of Medicine
2012- 2024	Cardiovascular Research Institute (CVRI) Executive Committee, Co-chair, Congenital Developmental Heart Disease Operational Committee
2013	Compensation Plan Implementation Workgroup
2015	BCM Faculty Representative Body Development Workgroup
2015	BCM Faculty Performance Assessment and Development forms faculty review committee
2015-2017	Faculty search committee, Dept. of Human and Molecular Genetics, BCM
2015-2018	Member, BCM Faculty Senate, Molecular Physiology and Biophysics Dept. Representative
2015-2017	Inaugural Elected Chair, BCM Faculty Senate
2017- 2019	Ex officio member, Institutional Animal Use and Care Committee (IACUC)
2017- 2019	Associate Dean of Research, BCM
2019-2020	Vice President and Dean of Research, BCM
2020- 2024	Senior Vice President and Dean of Research, BCM
2024- Present	Executive Vice President and Chief Scientific Officer, The Jackson Laboratory

LEADERSHIP ROLES IN THE SCIENTIFIC AND BROADER COMMUNITY

2014-2017	Society for Developmental Biology, Board Member, Southwest Region Rep.
2014-2016	Council member, North American Vessel Biology Organization (NAVBO)
2016	Chair NIH SEP 2016/05 ZRG1 CVRS-E
2019-2022	Chair, NIH Cardiovascular Differentiation and Development (CDD) study section
2019-2020	President-elect, Society for Developmental Biology (SDB)
2020-2021	President, Society for Developmental Biology (SDB)
2021-2022	Past-President, Society for Developmental Biology (SDB)
2025	Co-Chair, Maine Artificial Intelligence Task force

HONORS AND AWARDS

1990- 1995	Fellow of the Faculty Award (tuition, stipend, fees), Columbia University
1991	The Charles A. Huebschman Summer Research Award, Columbia University
1991	The James Howard McGregor Prize, teaching award, Columbia University
1993	Best Abstract (selected to speak), Society for Developmental Biology Annual Meeting
1995	The John S. Newberry Prize, Most promising student of the year, Columbia University
1997- 2000	Damon Runyon-Walter Winchell Postdoctoral Fellowship
2005	Gillson Longenbaugh Foundation Award
2013	Carnegie Institute Capital Science Evening Lecture
2014	Kyle and Josephine Morrow Endowed Chair
2015—present	Fellow of the American Institute of Medical and Biological Engineering (AIMBE)
2015	Gerritsen award, Microcirculatory Society
2016	Suhren Lecture, Dept. of Bioengineering, Tulane University
2016	Wiederhielm Award, Microcirculatory Society
2017	Clark Faculty Service Award, Baylor College of Medicine
2023 – present	Fellow of the Society of Developmental Biology (SDB)
2023	Orbus Picture Prize, International Society for Transgenic Technology (ISTT)
2023--present	Fellow of the American Association for the Advancement of Science (AAAS)

CONSULTING

2001- 2002	Coherent Laser, Santa Clara, CA
2002	Universal Studios, Hollywood, CA
2001-2008	Carl Zeiss Microimaging, Inc., Thornwood, NY and Jena, Germany

ADVISORY BOARDS

2010	Scientific Advisory Panel, Carl Zeiss Microimaging, Thornwood, NY
2006- 2016	Member, External Advisory Committee, Laboratory for Fluorescence Dynamics (NIH PHS 5 P41-RR003155), University of California, Irvine, CA
2017- 2023	Prellis Biologicals, San Francisco, CA
2019 - 2024	Baylor Genetics, Houston, TX
2023 – 2025	Society for Developmental Biology Board of Advisors
2024 – present	Member, NIH ACD Workgroup for IT, Cyberinfrastructure, and Cybersecurity (ITCC)
2025 – Present	University of Houston, Biomedical Engineering Board of Advisors

II. RESEARCH INFORMATION

RESEARCH SUPPORT

Active:

Past:

UM1 HG006348-11 (MPI: **Dickinson**, Heaney) 09/01/22 – 06/30/27
NIH– NHGRI

Consortium for large-scale production and phenotyping of knockout mice (UM1)

Develop a resource of targeted mutations in mice for every protein-coding gene in the mammalian genome that the research community can use to elucidate gene function in human biology and disease

U42 OD026645 (MPI: Heaney, **Dickinson**, Lagor) 09/18/18 – 07/31/23
NIH – NIH Office of the Director \$476,814 total annual direct

BCM-Rice resource for the analysis of somatic gene editing in mice

Our long-term goal is to accelerate the clinical development of somatic genome editing for human disease by defining the benefits and risks of novel Delivery Technologies and Editing Systems.

R01 HL146745 (PI: Mayerich, Co-I: **Dickinson**) 04/01/19 – 03/31/24
NIH – NHLBI

Structural and Molecular Phenotyping of Embryonic Development through Multi-Modal Optical Imaging

Aims describe the development of a combined Lightsheet + Optical Coherence Tomography imaging system that can be used to studies coincident events involving morphogenesis and circulation

R01 HD099026 (**Dickinson**) 08/01/19 – 05/31/24
NIH - NICHHD

Dynamic regulation of embryonic endothelial cell migration in response to hemodynamic force

We will use novel technology and methods to determine how the earliest cells in the blood vessel respond to mechanical signals exerted by blood flow.

U54 OD030165 (MPI: Heaney, Lee, Milosavljevic, Co-I **Dickinson**) 09/15/20 – 08/31/25
NIH - NIH Office of the Director \$21,275 direct (Dickinson)

BCM Center for Precision Medicine Models

The Center will support local, national, and international programs and individual researchers in the development of precision animal models that end the diagnostic odyssey of patients with undiagnosed, rare, and Mendelian diseases and serve as resources for pre-clinical studies investigating personalized medicine approaches to their care.

UM1 HG006348 (MPI: **Dickinson**, Heaney) 09/28/11 – 08/31/22
NIH– NHGRI

Consortium for large-scale production and phenotyping of knockout mice (UM1)

Develop a resource of targeted mutations in mice for every protein-coding gene in the mammalian genome that the research community can use to elucidate gene function in human biology and disease

UM1 HG006348-10S1 (MPI: **Dickinson**, Heaney) 09/11/20-08/31/22
NIH – NHGRI

Genetic modifiers of Alzheimer Risk Administrative Supplement

This supplement to the KOMP project will define the detection limits of the assay signal in time, predisease, and breadth of models detectable, and will examine viable knock-out mice generated in the KOMP project for signal in the blood assay as a simple screen for knock-outs with AD and pre-AD properties.

UM1 HG006348-10S2 (**Dickinson**) 09/14/20-08/31/22
NIH – NHGRI \$152,082 total direct

KOMP2 Administrative Supplement-Using Mouse Essentiality Screen to Identify Disease Genes Causing Severe Human Phenotypes With Early Lethality

This administrative supplement will allow a clinical geneticist to gain experience in phenotyping mouse embryonic lethal lines, under the supervision of Dr. Dickinson's KOMP2 team.

U42 OD026645-02S1 (MPI: Heaney, **Dickinson**, Lagor) 09/09/19 – 09/08/21(NCE)
NIH – NIH Office of the Director
BCM-Rice resource for the analysis of somatic gene editing in mice
This supplement provides funds for SCGE AAV Tropism Supplement: Evaluation Across Multiple Tissues in Mice.

R03 OD030597 (**Worley**) 09/15/20 – 08/31/21
NIH - NIH Office of the Director
Expanding the List of Human Disease Genes Using the Knockout Mouse Phenotyping Program (KOMP2) Data to Reassess Human Clinical Data
This project will assess pediatric patient cohorts with exome sequencing data and no molecular diagnosis for variants of uncertain significance in genes that correspond to KOMP2 mouse mutant lines.

R01HL128064 (Hirschi, K, PI, **Dickinson, M** Co-PI MPI) 04/1/2015-02/28/2019
Specification of Hemogenic Endothelium
This project aims to define the molecular events that specify hemogenic endothelium and direct human cells to generate HSCs.

NIH BRP R01 EB016629 (Hirschi, K., PI; **Dickinson, M., Co-I**) 01/15/2014-12/31/2018
Neurovascular Regeneration
This interdisciplinary multi-PI project will test strategies to improve neurovascular regeneration in animal stroke models using specialized biomaterials that mimic the *in vivo* neural stem cell niche environment.

R01 HL120140 (Larina, PI; **Dickinson, Co-I**) 08/01/2013 – 07/31/2018
Biomechanics of early mammalian cardiogenesis

CPRIT MIRA Award (Kurie, J., PI; **Dickinson, M. Project Leader**) 09/1/2012-8/31/2018 NCE
Integrative Analysis of the Tumor Microenvironment -- Project 3 Influence of Tumor Microenvironment on Angiogenesis

R21 OD019764 (Behringer, PI; Dickinson, Co-I) 05/01/2014-04/30/2017 NCE
Light-inducible Cre Transgenic Mouse Models

U54 HG006348 (A Beaudet, R Paylor, MPI; **Dickinson, Co-I**) 08/01/2011 –07/30/2016
Consortium for Broad Based Disease Phenotyping of Knockout Mice

U54 HG006348-S1 (A Beaudet, **Dickinson, Co-PI**) 08/01/2013 –07/30/2016
Consortium for Broad Based Disease Phenotyping of Knockout Mice -- Embryonic Lethal Analysis Supplement.

John S. Dunn Collaborative Research Award (Miller, J and **Dickinson, M**, PIs) 01/05/2014-01/04/2016
High-content Quantitative Imaging and Flow-based Remodeling of in vitro Vascularized Engineering Tissues

U54CA149196-01 (Wong, PI; **Dickinson, Co-I**) 02/01/2010-01/31/2015
Center for Systematic Modeling of Cancer Development

1R01HD064667-01 (Scott, PI; **Dickinson, Co-I**) 03/15/2010-02/28/2015
Retinoid-related genes in diaphragm and cardiac development

R01 HL097520-01A1 (**Dickinson, PI**; West, co-PI) 08/01/2010-04/30/2015
Fabrication, perfusion and imaging of pre-vascularized hydrogel tissue scaffolds

R01 HL095586 (**Dickinson, M, PI**, Larin, K, Co-PI) 09/01/2009 – 05/31/2013
NIH-NHLBI, NICHD, NIBIB
Phenotyping embryonic mammalian heart function using OCT

R21 EY020632 (**Dickinson, M, PI**) 05/1/2010-04/30/2013
Imaging Hyaloid Regression

DOD DAMD W81XWH-07-1-0215 (Davis, E.; Dickinson, M., Co-I) Cellular Therapy to Obtain Rapid Endochondral Bone Formation	02/-1/2007 – 01/31/2011
R01 EB005173 (Hirschi, K, PI; Dickinson, M, Co-I) Tissue engineering of hematopoietic bone	09/01/2005-08/31/2010
P20 EB007076 (Hirschi, K, PI; Dickinson, M, Co-I) NIH/NIBIB (Quantum Grant) Neurovascular Regeneration	09/15/2006-09/14/2010
R01 HL077187 (Dickinson, M, PI) Imaging Fluid Forces in Mouse Cardiovascular Development	09/1/2005-08/31/2009
Molecular and Cellular Targets of Diabetic Embryopathy Diabetes & Endocrinology Research Center (DERC) Pilot and Feasibility Award (PI, Dickinson, ME)	08/01/2008-07/31/2009
Tools for live imaging of Zebrafish Retinal Development IBB support for collaborative research (Lane, ME, Rice University; Dickinson, M, BCM, co-PIs)	10/01/2007 – 9/30/2008
The Gillson Longenbaugh Foundation Grant Funds were provided to improve imaging protocols for imaging vascular remodeling in multiple embryos	07/01/2005-06/01/2006
Assembly Free Technology for a New Class of Miniature Imaging Systems IBB Medical Innovation Pilot Awards (Tkaczyk, T., Rice University; Dickinson, M, BCM, co-PIs)	05/01/2008-04/30/2009

NATIONAL AND INTERNATIONAL SCIENTIFIC PARTICIPATION

JOURNAL EDITORIAL ACTIVITIES

Editorial Board, *Cell Reports*, 2011-present.

Editorial Board, *Developmental Biology*, 2015-present.

Editor, *Mechanisms of Development*, 2013-2019.

Editor, *Gene Expression Patterns*, 2013-2019.

Guest Editor, *Genesis*, Special Issue on Live Imaging, 2010

Guest Editor, *Current Opinions in Genetics and Development*, Special Issue on Imaging Development, 2011

Reviewer for: *American Journal of Physiology*, *Annals of Bioengineering*, *Angiogenesis*, *Biomaterials*, *Cell*, *Circulation*, *Circulation Research*, *Developmental Cell*, *Development*, *Developmental Biology*, *Developmental Dynamics*, *Genes and Development*, *Genesis*, *Genetics*, *Journal of Biomedical Optics*, *Laser Physics*, *Molecular and Cellular Biology*, *Nature*, *Nature Methods*, *Nature Biotechnology*, *Plos One*, *Plos Biology*, *PNAS*, *The Anatomical Record*, *Cell Reports*, *Advanced Materials*, *Cell*, *Tissues and Organs*, *Current Biology*, *Tissue Engineering*.

LOCAL, NATIONAL AND INTERNATIONAL GRANT REVIEW PANELS

1999, 2000	Ad-hoc reviewer, NIH-NCRR, Shared Instrumentation Grants (S10)
2001	Ad-hoc reviewer, Small Business Innovative Research (SBIR) Grants, Imaging Technology
2005, 2006, 2008	Ad-hoc reviewer, NIH-NIBIB, Microscopic Imaging (MI)
2006	Ad-hoc reviewer, NIH-NICHD, Tools for Zebrafish Research
2007	Grant reviewer, Rice Institute of Biosciences and Bioengineering, Hamill Innovations Awards
2007	Grant reviewer, Rice Univ. Department of Bioengineering, Mock Study Section
2007, 2008	Ad-hoc reviewer, NIH-NCI, Innovative Tools for the Molecular Analysis of Cancer, ZCA1-SRLB-Q
2008	Ad-hoc reviewer, American Heart Association, 4B Grant Review Committee
2009	Co-Chair, American Heart Association, West 4B Grant Review Committee

2009	Ad-hoc reviewer, NIH Cell Biology SBIR/STTR, ZRG1 CB-B
2009	Ad-hoc reviewer, NIH Bioengineering Sciences and Technology, ZRG1 BST-Z
2009	Ad-hoc reviewer, NIH/NHLBI Special Emphasis Panel, Blood Stem Cell Niche, ZHL1 CSR-W (M1)
2009	Ad-hoc reviewer, RC1 Challenge Grants, NHLBI
2010	Ad-hoc reviewer, NIH/NASA Biomedical Research on the International Space Station (BioMed-ISS) (UH2/UH3)
2010	Ad-hoc reviewer, NIH/NICHD Developmental Biology subcommittee, CHHD-C
2010	Ad-hoc reviewer, NIH/NIBIB Biomaterials, Delivery Systems and Nanotechnology, IMST-D
2010 (Spring & Fall)	Ad-hoc reviewer, AHA-National, Cardiovascular Development-Basic (CVD2)
2010	Ad-hoc reviewer, NIH Cell Biology and Molecular Imaging, IMST-16
2011 Spring	Co-chair, CVD2, AHA-National, Cardiovascular Development-Basic (CVD2)
2011-2014	Human Frontiers Science Program (HFSP) Proposal Review Committee, Strasbourg, FRANCE
2011	Ad-hoc reviewer, NIH/NIBIB Medical imaging study section (MEDI)
2011	Ad-hoc reviewer, NIH SEP Biophysical and Biomechanical aspects of development
2011 Fall	Ad-hoc reviewer and Co-chair, AHA-National, Cardiovascular Development-Basic (CVD1)
2011- 2015	Member, NIH/NIBIB Medical imaging study section (MEDI)
2012 Spring, Fall	Ad-hoc reviewer and Co-chair, AHA, Cardiovascular Development-Basic (CVD1)
2013	European Biolmaging Independent Evaluation Board
2016	Chair and Ad-hoc NIH reviewer SEP 2016/05 ZRG1 CVRS-E
2017-2021	Member, NIH/NHLBI Cardiovascular Development and Disease (CDD)
2019-2021	Chair, NIH/NHLBI Cardiovascular Development and Disease (CDD)

NIH-SPONSORED WORKSHOPS FOR STRATEGIC PLANNING (White paper workshops)

2005	NIBIB --Bioengineering and Imaging Research Opportunities Workshop (BIROW) III – Cell Trafficking, Bethesda, MD
2011	NICHD – VISION workshop on Development, Bethesda, MD

PROFESSIONAL SOCIETIES

Society for Developmental Biology (current)
 Served as an elected Board Member, Southwest Region, 2014-2017
 SDB Awards Committee, 2014, 2015, 2016
 President-elect, 2019-2020
 President 2020-2021
 Past-President 2021-2022

American Association for the Advancement of Science (current)
 SPIE, The International Society for Optical Engineering
 American Physiological Society
 Professional Member, American Diabetes Association
 Member, North American Vessel Biology Organization (NAVBO)
 Served as an Elected Councilor, 2014-2016

Society for Molecular Imaging
 Nominated for Councilor, 2007

Association for Research in Vision and Ophthalmology (ARVO)
 Biomedical Engineering Society (BMES)

INVITED RESEARCH SEMINARS AND SYMPOSIA

1992	“Wnt1 acts as a mitogen in the mammalian CNS”, Mouse Molecular Genetics Meeting, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
1993	“The role of Wnt1 in the mouse CNS”, Society for Developmental Biology Annual Meeting, Providence, RI
1994	“Wnt genes and cell signaling during CNS development”, Society for Developmental Biology Annual Meeting, Madison, WI
1995	“Dorsalization of the neural tube by the non-neural ectoderm”, 2 nd Annual International Neuroscience Symposium, Saint-Florent, Corsica, FRANCE

- 1995 “Dorsalization of the neural tube by the non-neural ectoderm”, Max Planck Institute for Developmental Biology, Tübingen, GERMANY
- 1995 “Dorsalization of the neural tube by the non-neural ectoderm”, National Institute of Medical Research (NIMR), London, ENGLAND
- 1999 “Multiphoton imaging of mouse and chick development”, Mouse Imaging Workshop, Hospital for Sick Children, Toronto, Ontario, CANADA
- 1999 “Fiber-delivered multiphoton microscopy”, 4th International Weber Symposium on Innovative Fluorescence Methodologies, Kaanapali, Maui, HI
- 1999 “Multiphoton imaging of mouse and chick development”, Two-photon Microscopy Mini-symposia, Microscopy & Microanalysis, Portland, OR
- 2000 “Multiphoton and multispectral imaging of mouse and chick development”, Confocal and Two-photon Microscopy Imaging Workshop, Oregon Primate Center, Beaverton, OR
- 2000 “Multispectral, confocal microscopy”, Session Chair, Fourth Annual Advances in Molecular Labels: Signaling and Detection, Washington, DC
- 2001 “Analysis of Somitogenesis using Multiphoton Laser Scanning Microscopy (MPLSM)”, Session Chair, Photonics West – Bios 2001, Multiphoton Microscopy in Biomedical Sciences, San Jose, CA
- 2001 “Analysis of somite development using a multiphoton, multispectral approach”, Society for Developmental Biology Annual Meeting, Advances in Imaging Technology session, Seattle, WA
- 2001 “Multidimensional imaging of animal development”, Microscopy Society of America Annual Meeting, Imaging Life: From Cells to Whole Animals, Long Beach, CA
- 2001 “Multidimensional imaging of animal development”, Pacific Northwest Microscopy Colloquium, Seattle, WA
- 2001 “Multidimensional imaging of animal development”, Neural Sciences Institute, Oregon Health Sciences University, Portland, OR
- 2002 “Sensitive imaging of spectrally overlapping fluorochromes using the LSM 510 META”, Session Chair, Photonics West – Bios 2002, Multiphoton Microscopy in Biomedical Sciences, San Jose, CA
- 2002 “Multispectral, confocal microscopy”, Photonics West – Bios 2002, Spectral Imaging: Instrumentation, Applications, and Analysis, San Jose, CA
- 2002 “Multispectral imaging of vertebrate development”, Department of Developmental Neurobiology, St. Jude Children’s Research Hospital, Memphis, TN
- 2002 “Multiphoton, multispectral imaging of vertebrate development”, National Institutes of Health, Spectral Detection Workshop, Bethesda, MD
- 2003 “Multidimensional imaging of vertebrate cardiovascular development”, Session Chair, Photonics West – Bios 2003, Multiphoton Microscopy in Biomedical Sciences, San Jose, CA
- 2003 “Multidimensional imaging of vertebrate cardiovascular development”, The Stowers Institute of Medical Research, Kansas City, MO
- 2003 “In vivo imaging and quantification of microvascular blood flow during mammalian development”, Light Microscopy Interest Group Invited Seminar, National Institutes of Health, Bethesda, MD
- 2003 “Multiphoton, multispectral imaging”, New Imaging Modalities Workshop, FASEB Experimental Biology 2003, San Diego, CA
- 2003 “Multidimensional imaging of vertebrate cardiovascular development”, Keynote Speaker, Southeast Multiphoton Excitation Meeting, Emory University, Atlanta, GA
- 2003 “Imaging hemodynamics in mouse embryos”, Mouse Molecular Genetics Meeting, Heidelberg, GERMANY
- 2003 “Multidimensional imaging of vertebrate cardiovascular development”, Department of Molecular Physiology and Biophysics, Baylor College of Medicine, Houston, TX

- 2004 “Imaging hemodynamics during mouse development”, Advanced Techniques in Confocal, Live Cell and Molecular Imaging Workshop, Duke University, Durham, NC
- 2004 “High-speed confocal microscopy”, IGERT Workshop on Fluorescence Microscopy: Advanced Techniques, UC-Berkeley, Berkeley, CA
- 2004 “Imaging at the speed of cells: High-speed confocal microscopy” Session Chair, Photonics West – Bios 2004, Multiphoton Microscopy in Biomedical Sciences, San Jose, CA
- 2004 “Imaging Hemodynamics and Cardiovascular Development in Vertebrate Embryos”, Advanced Confocal Microscopy Workshop, National Institutes of Health, Bethesda, MD
- 2004 “Imaging at the speed of cells: High-speed confocal microscopy”, Focus on Microscopy (FOM) Meeting, Philadelphia, PA
- 2004 “Imaging Hemodynamics and Cardiovascular Development in Vertebrate Embryos”, Department of Cell and Developmental Biology, University of Pennsylvania School of Medicine, Philadelphia, PA
- 2004 “Imaging Hemodynamics and Cardiovascular Development in Vertebrate Embryos”, Pediatrics Society of America Annual Meeting, San Francisco, CA
- 2004 “Multispectral Imaging, Spectral FRET and High Speed Confocal Imaging of Cardiovascular Development”, Advances in Fluorescence and Confocal Microscopy Workshop, BCM, Houston, TX
- 2004 “Imaging at the speed of cells: Hemodynamics and heart motions in vertebrate embryos”, European Light Microscopy Initiative (ELMI) Annual Meeting, Goteburg, SWEDEN
- 2004 “Imaging Hemodynamics and Cardiovascular Development in Vertebrate Embryos”, International Vascular Biology Meeting (IVBM), Imaging Vascular Biology Session, Toronto, CANADA
- 2004 “Multispectral Imaging, Spectral FRET and High Speed Confocal Imaging of Cardiovascular Development”, FRET, FLIM and Spectroscopic Imaging Symposium, San Antonio, TX
- 2004 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Cell Biology, UT-Southwestern Medical Center, Dallas, TX
- 2004 “Multispectral Imaging, Spectral FRET and High Speed Confocal Imaging of Cardiovascular Development”, Photonics in Medicine Conference, Hammamatsu, JAPAN
- 2004 “Multispectral laser scanning microscopy: Dynamic studies in embryos and neurons”, International Congress of Histochemistry and Cytochemistry, San Diego, CA
- 2004 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Bioengineering, University of California – San Diego, San Diego, CA
- 2004 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Heart Failure Society Annual Meeting, Modern Imaging Methods Session, Toronto, CANADA
- 2004 “Dynamic imaging of blood flow and heart motions during vertebrate development”, 3rd Annual Gene Therapy Symposium for Heart, Lung and Blood Diseases, Sonoma, CA
- 2004 “Dynamic imaging of blood flow and heart motions during vertebrate development”, National Institute for Basic Biology, Okazaki, JAPAN
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Session Chair, Photonics West – Bios 2005, Multiphoton Microscopy in Biomedical Sciences, San Jose, CA
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Photonics West – Bios 2005, 3-D and Multidimensional Microscopy: Image Processing and Acquisition XII, San Jose, CA
- 2005 “Moving at the speed of cells: Understanding hemodynamics and vascular remodeling in the developing yolk sac”, Vascular Biology Gordon Conference, Ventura, CA
- 2005 “Quantitative imaging of cardiovascular development”, Biophysical Society Annual Meeting, Long Beach, CA
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Bioengineering and Imaging Research Opportunities Workshop (BIROW) III – Cell Trafficking, Bethesda, MD

- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, New Frontiers in Cellular Imaging Workshop, Berkeley, CA
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, FASEB Experimental Biology 2005, In vivo imaging of development: (Bio) Movie Stars – putting cells in the spotlight, San Diego, CA
- 2005 “Imaging at the speed of cells”, Pediatrics Society Annual Meeting, Imaging Development Session, Washington, DC
- 2005 “Imaging at the speed of cells: Technology for the post-genomic era”, Department of Biomedical Engineering, University of California – Davis, Davis, CA
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Weinstein Cardiovascular Conference, Tucson, AZ
- 2005 “Dynamic imaging of heart development in zebrafish”, Texas Regional Zebrafish Meeting, Houston, TX
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Developmental Genetics, Skirball Institute, NYU Medical School, New York, NY
- 2005 “Imaging at the speed of cells”, MGH/MIT Molecular Imaging Speaker Series, Boston, MA
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Physiology and Biophysics, University of California – Irvine, Irvine, CA
- 2005 “Quantitative imaging of cardiovascular development”, Session Chair and Organizing Committee, International Workshop on Bioimage Data Mining and Informatics, Palo Alto, CA
- 2005 “Imaging at the speed of cells”, International Society for Developmental Biology (ISDB), Emerging Imaging Technologies Session, Sydney, AUSTRALIA
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Biochemistry, Rice University, Houston, TX
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Stowers Institute for Medical Research, New Advances in Imaging Workshop, Kansas City, MO
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Cell Biology, The Scripps Research Institute, La Jolla, CA
- 2005 “Imaging fluid forces and heart motions in vertebrate embryos”, International Imaging Symposium, “From static spots to dynamic proteome visualization and beyond”, Freiburg, GERMANY
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, American Society for Nephrology Annual Meeting, Innovations in Imaging session, Philadelphia, PA
- 2005 “Quantitative imaging of cardiovascular development”, Rice University, Institute of Biosciences and Bioengineering Annual Meeting, Houston, TX
- 2005 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX
- 2006 “Dynamic imaging of blood flow and heart motions during vertebrate development”, MD Anderson Cancer Center Seminar Series, Houston, TX
- 2006 “Imaging at the speed of cells”, Society for Gynecologic Investigation Annual Meeting, Toronto, CANADA
- 2006 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Focus on Microscopy (FOM) Meeting, Perth, AUSTRALIA
- 2006 “Imaging fluid forces and heart motions during vertebrate development”, Biopolis Faculty Seminar Series, SINGAPORE
- 2006 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Division of Bioengineering, National University, SINGAPORE
- 2006 “Multidimensional Imaging”, Advanced Cellular Imaging Symposium: FRET/FRAP, SINGAPORE
- 2006 “Imaging fluid forces and heart motions during vertebrate development”, Molecular Surgery Symposium, Baylor College of Medicine, Houston, TX

- 2006 “Imaging fluid forces and heart motions in vertebrate embryos”, European Light Microscopy Initiative (ELMI) Annual Meeting, Ofir, PORTUGAL
- 2006 “Imaging at the speed of cells”, Microscience 2006, Annual Meeting of the Royal Microscopy Society, London, ENGLAND
- 2006 “Dynamic imaging of blood flow and heart motions during vertebrate development”, World Congress of Biomechanics, Munich, GERMANY
- 2006 “Imaging at the speed of cells”, Toronto Discovery Bioimaging Symposium, Toronto, CANADA
- 2006 “How cells and tissue respond to mechanical force”, Rice/Baylor Collaborative Research Symposium, Houston, TX
- 2007 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Institute of Bioscience and Technology (IBT) Faculty Seminar Series, Texas A&M Health Science Center, Houston, TX
- 2007 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Neonatology Research Grand Rounds, Texas Children’s Hospital, Houston, TX
- 2007 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Women’s Reproductive Health Research Career Development Program, Department of Obstetrics and Gynecology, Baylor College of Medicine, Houston, TX
- 2007 “Dynamic imaging of blood flow and heart motions during vertebrate development”, Department of Pediatrics, Baylor College of Medicine, Houston, TX
- 2007 “4D, High-speed Confocal Imaging Reveals Functional Changes During Cardiac Development in Vertebrate Embryos”, FASEB Experimental Biology 2007, Emerging Technologies for Imaging Embryonic Cardiovascular Structure & Function, Sponsored by AAA, Washington, DC
- 2007 “Understanding Dynamic Events in Vasculogenesis & Remodeling in Mammalian Embryos Using Live Cell Imaging”, FASEB Experimental Biology 2007, Vessel Cell Biology and Development, Sponsored by AAA and NAVBO, Washington, DC
- 2007 “Dynamic, high-resolution imaging of cardiovascular development”, FASEB Experimental Biology 2007, Physiology in Focus, Sponsored by APS, Washington, DC
- 2007 “Dynamic, high-resolution imaging of cardiovascular development”, Weinstein Cardiovascular Conference, Indianapolis, IN
- 2007 “Dynamic, high-resolution imaging of cardiovascular development”, Organizer and Session Chair, Optical Translational Imaging: Nano to Macro, Houston, TX
- 2007 “Understanding the role of hemodynamic forces in vertebrate development”, First Pan-American Congress in Developmental Biology, Society for Developmental Biology, Cancun, MEXICO
- 2007 “Dynamic imaging of the Zebrafish heart”, 5th European Zebrafish Genetics Meeting, Session Chair, Amsterdam, NETHERLANDS
- 2007 “Imaging fluid forces and heart motions in vertebrate development”, Department of Biomedical Engineering, University of California – Irvine, Irvine, CA
- 2007 “Imaging form and function in vertebrate cardiovascular development”, Department of Bioengineering, University of California – San Diego, San Diego, CA
- 2008 “Understanding the role of physical forces in cardiovascular development”, NAVBO Developmental Vascular Biology Workshop III, Asilomar, CA
- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, Department of Cell and Developmental Biology, Cornell Medical School, New York, NY
- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, Department of Developmental and Regenerative Biology, Mt. Sinai Medical School, New York, NY
- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, The Jackson Lab, Bar Harbor, ME
- 2008 “Imaging living systems at speed, advances in confocal imaging of blood flow”, FASEB Experimental Biology 2008, Novel Optical Methods for Studying the Living Circulatory System and Lung, Sponsored by APS, San Diego, CA

- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, Department of Biomedical Engineering, Texas A&M University, College Station, TX
- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, The Developmental Biology Program, Children’s Hospital of Pennsylvania, University of Pennsylvania, Philadelphia, PA
- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, Plenary Speaker, Angiogenesis and Vascular Remodeling in Development and Disease, 7th Symposium in Biomedical Research to honor the Anne and Max Tanenbaum Chairs in Biomedical Research, Toronto, CANADA
- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, Department of Physiology, Columbia College of Physicians and Surgeons, New York, NY
- 2008 “Imaging Form and Function in Embryonic Cardiovascular Development”, Endothelial Phenotypes in Health and Disease, Gordon Conference, University of New England, ME
- 2008 “Imaging Technologies in Tissue Engineering”, 16th annual short course on Advances in Tissue Engineering, Rice University, Houston, TX
- 2009 “Imaging Form and Function in Embryonic Cardiovascular Development”, Carolina Cardiovascular Institute, University of North Carolina, Chapel Hill, Chapel Hill, NC
- 2009 “Imaging Form and Function in Embryonic Cardiovascular Development”, Department of Cell Biology and Physiology, Univ. of Pittsburgh School of Medicine, Pittsburgh, PA
- 2009 “Imaging blood vessels and circulation in development and tissue engineering”, Gulf Coast Consortium Seminar Series, Rice University, Houston, TX
- 2009 “Mechanotransduction in embryonic development”, Vascular Cell Biology Gordon Research Conference, Ventura, CA
- 2009 “Form Follows Flow: Where Biomechanics and Genetics Meet”, Keystone Symposium, Cardiac Disease: Development, Regeneration and Repair, Asheville, NC
- 2009 “Imaging Form and Function in Embryonic Cardiovascular Development” Department of Cell and Developmental Biology, Vanderbilt University School of Medicine, Nashville, TN
- 2009 “Imaging Vessel Remodeling in Development and Tissue Engineering” Department of Molecular Biology, UT-Southwestern Medical Center, Dallas, TX
- 2009 “Fluid-derived Mechanical Forces in Vascular Remodeling During Development.” President’s Symposium on Live Cell Imaging and Intravital Microscopy, Microcirculation Society, FASEB Experimental Biology 2009, New Orleans, LA
- 2009 “Imaging Changes in Vascular Cytoarchitecture in Response to Blood Flow in Embryos” President’s Workshop on Live Cell Imaging and Intravital Microscopy, Microcirculation Society, FASEB Experimental Biology 2009, New Orleans, LA
- 2009 “Contributions of Blood Flow to Cardiovascular Development” NAVBO/AAA Developmental Vascular Biology Symposium, FASEB Experimental Biology 2009, New Orleans, LA
- 2009 “Imaging vessel dynamics in mammalian development and tissue engineering” Society for Developmental Biology Annual Meeting, San Francisco, CA
- 2009 “Vascular Remodeling in Development Revealed by Live Cell Imaging and Hemodynamic Forces”, Keynote Speaker, Fall 2009 Meeting of the Microcirculatory Society, Univ. of Missouri, Columbia, MO
- 2010 “Imaging vessel dynamics in mammalian development and tissue engineering”, Dept. of Nephrology, BCM, Houston, TX
- 2010 “Understanding form and function: Dynamic imaging of cardiovascular development”, Cardiology Grand Rounds, Duke University, Durham, NC
- 2010 “Imaging blood vessel formation, remodeling and regression in developing and engineered vessels”, Carolina Cardiovascular Center, UNC-Chapel Hill, Chapel Hill, NC
- 2010 “Imaging blood vessel formation, remodeling and regression in developing and engineered vessels”, Dept. of Molecular Physiology and Biophysics, BCM, Houston, TX
- 2010 “Dynamic imaging of vessel remodeling from the embryo to engineered vessels”, Institute for Molecular Medicine, UTHSC, Houston, TX

- 2010 “4D Imaging of live mouse embryos with Optical Coherence Tomography”, IMPC Toronto Workshop on mouse phenotyping, Univ. of Toronto, Toronto, Ontario, Canada
- 2010 “Imaging vessels: Understanding the dynamics of endothelial cells in developing animals and engineered tissue constructs”, North American Vascular Biology Organization (NAVBO) Meeting, UCLA, Los Angeles, CA
- 2010 “Imaging regeneration”, Signal Transduction by Engineered Extracellular Matrices Gordon Conference, Univ. of New England, Biddeford, ME
- 2010 “Dynamic imaging of vessel remodeling from the embryo to engineered vessels”, College of Optometry, University of Houston, Houston, TX
- 2010 “Dynamic imaging of heart function and vessel remodeling: From development to tissue engineering”, Harvard Medical School, Boston, MA
- 2010 “Glowing embryos, genes and development—an evening with Nobel Laureates and Friends”, Public seminar given by Alex Joyner, Martie Chalfie, Eric Wieschaus and Mary Dickinson, Carnegie Institution for Science for the National Science and Engineering EXPO, Washington, DC
- 2011 “Environmental Exposures, Nutrition and Development: Imaging Modalities” in the “At the Frontiers of Science and Medicine: Environment, nutrition, and (epi)genomics”, Society for Maternal-Fetal Medicine Annual Meeting, San Francisco, CA
- 2011 “Cellular mechanisms underlying vessel remodeling driven by hemodynamic force”, Frontiers in Cell Migration and Mechanotransduction Annual Conference, NIH, Bethesda, MD
- 2011 “Imaging Dynamic Events in Early Cardiovascular Development”, Society for Developmental Biology Annual Meeting, Chicago, IL
- 2011 “Vital imaging of dynamic cellular events during angiogenesis and vessel remodeling”, Computational and Theoretical Biology Symposium, BioScience Research Collaborative (BRC), Rice University, Houston, TX
- 2012 “Imaging Dynamic Events in Early Cardiovascular Development”, Dept. Cellular, Molecular and Developmental Biology, UCLA, Los Angeles, CA
- 2012 “Vital imaging of heart development and angiogenesis: from developmental biology to tissue engineering”, Dept. of Cell Biology, Duke University, Durham, NC
- 2012 “Advances in OCT for mouse embryo phenotyping”, InfraCoMP Workshop on International Mouse Phenotyping Consortium Embryonic Lethal Screening, University College London, UK
- 2012 “Three-Dimensional Biomimetic Patterning in Hydrogels to Guide Cellular Organization”, 28th Annual Southern Biomedical Engineering Conference, May 4-7, Houston, TX; Session Chair
- 2012 “Optical Imaging of the mouse embryonic cardiovascular system”, Mouse Genetics Meeting, October 2-6, Asilomar, CA
- 2013 “Biological Imaging in the Digital Age: How Cells Became Actors and the Tales They Tell”, Carnegie Evening Lecture, February 21, Carnegie Institution for Science, Washington, DC
- 2013 “Engineering the stem cell niche: Bioimaging and biomimetic designs” Croucher Foundation Advanced Study Institute (ASI): “Stem Cells, Niches, Regeneration & Repair” Symposia, March 4-8, The University of Hong Kong, Hong Kong
- 2013 “Dynamic Imaging of Blood Vessel Remodeling from Development to Tissue Engineering” Croucher Foundation Advanced Study Institute (ASI): “Stem Cells, Niches, Regeneration & Repair” Symposia, March 4-8, The University of Hong Kong, Hong Kong
- 2013 “Insights from Imaging Angiogenesis and Cardiovascular Development” Memorial Sloan Kettering Cancer Center Developmental Biology Program, May 20, New York, NY.
- 2013 “Imaging cardiovascular development and angiogenesis”, Dept. of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX
- 2013 “Imaging dynamic events in eye morphogenesis”, Cullen Eye Institute, Baylor College of Medicine, Houston, TX
- 2013 “Imaging dynamic events in angiogenesis and vessel remodeling”, Vascular Matrix Biology and Bioengineering Workshop IV, North American Vascular Biology Organization (NAVBO) Annual Meeting, Cape Cod, MA

- 2013 “Imaging Angiogenesis and Cardiovascular Development”, Department of Cell, Developmental and integrative Biology, University of Alabama, Birmingham, AL
- 2014 “Imaging vessel remodeling and scaling at the micro-scale during development”, Visualizing and Modeling Cellular and Sub-cellular Phenomena, Mathematical Biosciences Institute, Columbus, OH
- 2014 “Imaging vessel remodeling at the micro-scale during development: implications for tissue engineering and understanding congenital disease”, Winter Conference of the European Society for Molecular Imaging – ESMI on “IMAGING the DEVELOPMENT”, Les Houches, France
- 2014 “High resolution: In vivo optical imaging”, Cell Press Webinar, <http://www.cell.com/webinars>
- 2014 “Quantitative imaging reveals mechanisms underlying vessel remodeling: implications for animal development and tissue engineering”, Department of Bioengineering, University of California, San Diego
- 2014 “Dynamic Imaging of Cell Migration During Angiogenesis and Vessel Remodeling”, Society for Developmental Biology, Western regional meeting, Aurora, CO
- 2014 “Quantitative imaging reveals mechanisms underlying vessel remodeling: implications for animal development and tissue engineering”, Division of Cardiovascular Medicine, Yale University, New Haven, CT
- 2014 “Quantitative imaging reveals mechanisms underlying vessel remodeling: implications for animal development and tissue engineering”, Cardiovascular Research Institute, Baylor College of Medicine, Houston, TX
- 2014 “Lessons learned from imaging mouse embryos”, The Jackson Laboratory, Bar Harbor, ME
- 2014 “Understanding vessel formation and remodeling: what embryos can tell us about tissue engineering”, Dept. of Regenerative Medicine and Cell Biology, Medical University of South Carolina, Charleston, SC
- 2014 “Mechanical forces control cardiovascular development”, Society for Developmental Biology Annual Meeting, Seattle, WA
- 2014 “Understanding dynamic events in cardiovascular development: Insights from imaging”, Children’s Hospital Seattle, Seattle, WA
- 2014 “Imaging the interpretative dances of cells” at Visualizing Form and Function: Tales from the Technweenies Symposium, University of Southern California, Los Angeles, CA
- 2014 “Lessons learned from imaging mouse embryos: Insights into congenital disease”, Keynote Address, American Physician Scientist Association (APSA), 2014 South Regional Meeting, Houston, TX
- 2014 “Imaging cardiovascular development: Insights into congenital disease”, Keynote Address, University of Houston Annual Graduate Student Symposium, Houston, TX
- 2014 “Imaging Mammalian Heart and Vessel Development: Insights into Vascular Remodeling and Congenital Heart Disease”, Virginia Tech Carilion Research Institute, Roanoke, VA
- 2015 “Systematic analysis of structural and functional defects in embryonic lethal mouse mutants”, Optical Methods in Developmental Biology III, SPIE BIOS Photonics West, San Francisco, CA
- 2015 “Imaging cardiovascular development: Insights into congenital disease”, Invited Speaker, Bio-Optics: Design and Application Conference (BODA), Vancouver, BC
- 2015 “Imaging cardiovascular development: Insights into congenital disease”, Invited Speaker, American Association of Anatomists (AAA) and FASEB, Experimental Biology Meeting, Cardiovascular Biology Mini-meeting, Boston, MA
- 2015 “Imaging CV development: understanding congenital disease and how to engineer new tissues”, University of Texas—Austin, Austin, TX
- 2015 “Cardiovascular defects in BCM Knockout Mouse Project (KOMP) mice”, CVRI seminar, BCM, Houston, TX
- 2015 “Understanding vessel development and remodeling: Insight from imaging dynamic events and physical forces”, Department of Biomedical Engineering, University of Houston, Houston, TX
- 2015 “Imaging mammalian embryos: Insights into genetic control of cardiovascular development”, University of Virginia, Charlottesville, VA

- 2016 “Imaging the dynamics of vessel remodeling and regression”, Suhren Award Lecture, Tulane University, New Orleans, LA
- 2016 “Analysis of Embryonic Lethal Mutations in Mice using 3D imaging”, 13th Annual Transgenic Technology Conference, Prague, Czech Republic
- 2016 “Imaging vessel dynamics”, Texas A&M, Medical Physiology Dept. Seminar, Temple, TX
- 2016 “Multimodal imaging for primary and secondary phenotyping of mouse mutants” Janelia Farms Conference, Imaging mouse development. Ashburn, VA
- 2016 “3D image analysis of embryonic lethal mutations: An IMPC/KOMP2 resource”, Genetics Society of America Annual meeting. Orlando, FL
- 2016 “Dynamic responses to mechanical forces during cardiovascular development” Society for Developmental Biology Annual Meeting, Boston, MA
- 2017 “Dynamic responses to mechanical forces during cardiovascular development”, Vascular Cell Biology Gordon Conference, Ventura, CA
- 2017 “Imaging embryonic lethal mutations: Insights into required genes for mouse development and models of congenital disease”, Department of Pharmacology, Baylor College of Medicine, Houston, TX
- 2017 “High-throughput identification of essential genes for cardiovascular development: Insights into human disease”, Cardiovascular Research Institute (CVRI) Symposium, Baylor College of Medicine, Houston, TX
- 2017 “Advanced 3D and Live Imaging Reveals Phenotypic Consequences of Disruptions in Mechanical and Genetic Mechanisms Underlying Embryonic Cardiovascular Development”, Microscopy and Microanalysis Annual Meeting, St Louis, MO
- 2017 “Functional analysis of genes essential for life”, Institute for Laboratory Animal Research Roundtable on Science and Welfare in Laboratory Animal Use, the National Academy of Sciences, Washington, DC
- 2018 “Essential genes and embryonic phenotypes”, Manipulating the Mouse Embryo: Yesterday, Today, Tomorrow Symposium. Duke University Medical Center, Durham, NC
- 2018 “Defining and imaging the roles of essential genes in cardiovascular development”, Vascular Biology Seminar Series, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA
- 2018 “Imaging the ignorome: Screening for genes that are essential for survival”, Morgridge Institute, University of Wisconsin, Madison, WI
- 2018 “Imaging the development of maternal-fetal vascular connections and the role of essential genes”, Gordon Research Conference – Endothelial Cell Phenotypes, Il Ciocco, Barga, Italy.
- 2018 “Imaging as a tool to understand the roles of essential mammalian genes”, EMBO Workshop, Imaging Mouse Development, Heidelberg, Germany
- 2018 “Imaging the phenotypes of essential genes”—Keynote Address, 11th International Conference on Ultrasonic Biomedical Microscanning, Interlaken Inn, Lakeville, CT
- 2018 “Imaging the phenotypes of essential genes”, Infrafrontier 2018: Epigenetics & Epigenetic Inheritance Symposium, Munich, Germany
- 2018 “Imaging essential genes in the knockout mouse project: Insights into congenital disease –Keynote Address, NIH Developmental Biology Workshop, National Institutes of Health, Bethesda, MD
- 2021 “Our Finest Hour”: academic health centers rapidly transform research, education, and patient care to meet the challenges of the pandemic.”, AAHC Annual Meeting, Virtual
- 2021 “Plumbing the embryo: Genetic and mechanical mechanisms needed for early blood flow”, Keynote Address, Vascular Biology 2021, North American Vascular Biology Organization (NAVBO), Virtual
- 2023 “Understanding Gene Essentiality using Mammalian Models”, Orbus Pictus Award Lecture, International Society of Transgenic Technology, Houston, TX
- 2024 “Essential genes”, McKusick Short Course, The Jackson Laboratory, Bar Harbor, ME

2024 “Alumni Journey and the Science Along the Way”, Keynote address, Program in Developmental Biology Annual Retreat, Vanderbilt University, Nashville, TN (offsite in Alabama)

CONFERENCE ORGANIZATION

2005 Organizing Committee, Intl Workshop on Bioimage Data Mining and Informatics, Palo Alto, CA

2007 Meeting Organizer (Co-organized with Rebecca Richards-Kortum), Optical Translational Imaging: Nano to Macro Workshop, Rice University (supported by NIBIB R13 EB007485-01 and funds from BCM, Rice and MDACC)

2008 Organizing Committee, Southwest Regional Developmental Biology Meeting, Houston, TX

2010 Organizing Committee, Southwest Regional Developmental Biology Meeting, Austin, TX

2011 Scientific Organization Committee, Tissue Engineering and Regenerative Medicine International Society (TERMIS) 2011, Scaffolds in Tissue Engineering: Bridging Matrix Biology and Biomaterials Science, Dec 11-14, Houston, TX

2011 Scientific Organization Committee, Saratov Fall Meeting (SFM) 2011, Microscopic and Low-Coherence Methods in Biomedical and Non-Biomedical Applications IV, Sep 27-30, 2011 Saratov, Russia

2012-2015 Scientific Organization Committee, Optical Methods in Developmental Biology, SPIE BIOS Photonics West

2014 National Scientific Organization Committee, Society for Developmental Biology Meeting, July 17-21, Seattle, WA with Martin Chalfie, Robb Krumlauf, Mark Martindale and Dominique Bergman

2017 Scientific Advisory Committee, International Society for Developmental Biology Congress, June 19-24, Singapore

2021 Program Committee Chair, 80th Annual Society for Developmental Biology Meeting, July 12-16, 2021 Virtual

PUBLICATIONS

My Bibliography in NCBI can be found at:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/mary.dickinson.1/bibliography/40758568/public/?sort=date&direction=descending>

IN PEER-REVIEWED JOURNALS:

1. Rand KH, Houck HJ, **Dickinson M**. False positive indirect fluorescent antibody (IFA) tests for antibody to herpes simplex virus 1 Comparison of four commercially available methods. *Am J Clin Pathol*. 1986 Dec;86(6):765-8. PubMed PMID: 3024480.
2. Fet V, **Dickinson ME**, Hogan BL. Localization of the mouse gene for secreted phosphoprotein 1 (Spp-1) (2ar, osteopontin, bone sialoprotein 1, 44-kDa bone phosphoprotein, tumor-secreted phosphoprotein) to chromosome 5, closely linked to Ric (Rickettsia resistance). *Genomics*. 1989 Aug;5(2):375-7. PubMed PMID: 2571582.
3. **Dickinson ME**, Kobrin MS, Silan CM, Kingsley DM, Justice MJ, Miller DA, Ceci JD, Lock LF, Lee A, Buchberg AM, Siracusa LD, Lyons KM, Derynck R, Hogan BLM, Copeland NG and Jenkins NA Chromosomal localization of seven members of the murine TGF-beta superfamily suggests close linkage to several morphogenetic mutant loci. *Genomics*. 1990 Mar;6(3):505-20. PubMed PMID: 1970330.
4. Woychik RP, Generoso WM, Russell LB, Cain KT, Cacheiro NL, Bultman SJ, Selby PB, **Dickinson ME**, Hogan BL, Rutledge JC. Molecular and genetic characterization of a radiation-induced structural rearrangement in mouse chromosome 2 causing mutations at the limb deformity and agouti loci. *Proc Natl Acad Sci U S A*. 1990 Apr;87(7):2588-92. PubMed PMID: 2320577; PubMed Central PMCID: PMC53735.
5. van der Meer-de Jong R, **Dickinson ME**, Woychik RP, Stubbs L, Hetherington C, et al. Location of the gene involving the small eye mutation on mouse chromosome 2 suggests homology with human aniridia 2 (AN2). *Genomics*. 1990 Jun;7(2):270-5. PubMed PMID: 2347591.
6. Pelton RW, **Dickinson ME**, Moses HL, Hogan BL. In situ hybridization analysis of TGF beta 3 RNA expression during mouse development: comparative studies with TGF beta 1 and beta 2. *Development*. 1990 Oct;110(2):609-20. PubMed PMID: 1723948.
7. **Dickinson ME**, McMahon AP. The role of Wnt genes in vertebrate development. *Curr Opin Genet Dev*. 1992 Aug;2(4):562-6. PubMed PMID: 1388080.

8. **Dickinson ME**, Krumlauf R, McMahon AP. Evidence for a mitogenic effect of Wnt-1 in the developing mammalian central nervous system. *Development*. 1994 Jun;120(6):1453-71. PubMed PMID: 8050356.
9. Schrick JJ, **Dickinson ME**, Hogan BL, Selby PB, Woychik RP. Molecular and phenotypic characterization of a new mouse insertional mutation that causes a defect in the distal vertebrae of the spine. *Genetics*. 1995 Jul;140(3):1061-7. PubMed PMID: 7672577; PubMed Central PMCID: PMC1206661.
10. **Dickinson ME**, Selleck MA, McMahon AP, Bronner-Fraser M. Dorsalization of the neural tube by the non-neural ectoderm. *Development*. 1995 Jul;121(7):2099-106. PubMed PMID: 7635055.
11. Serbedzija GN, **Dickinson M**, McMahon AP. Cell death in the CNS of the Wnt-1 mutant mouse. *J Neurobiol*. 1996 Nov;31(3):275-82. PubMed PMID: 8910786.
12. **Jacobs RE**, Ahrens ET, Dickinson ME, Laidlaw D. Towards a microMRI atlas of mouse development. *Comput Med Imaging Graph*. 1999 Jan-Feb;23(1):15-24. PubMed PMID: 10091864.
13. Longmuir KJ*, Haynes SM*, **Dickinson ME***, Murphy JC, Willson RC, et al. Optimization of a peptide/non-cationic lipid gene delivery system for effective microinjection into chicken embryo in vivo. *Mol Ther*. 2001 Jul;4(1):66-74. PubMed PMID: 11472108. *denotes equal contribution.
14. **Dickinson ME**, Bearman G, Tille S, Lansford R, Fraser SE. Multi-spectral imaging and linear unmixing add a whole new dimension to laser scanning fluorescence microscopy. *Biotechniques*. 2001 Dec;31(6):1272, 1274-6, 1278. PubMed PMID: 11768655.
15. **Dickinson ME**, Murray BA, Haynes SM, Waters CW, Longmuir KJ. Using electroporation and lipid-mediated transfection of GFP-expressing plasmids to label embryonic avian cells for vital confocal and two-photon microscopy. *Differentiation*. 2002 Jun;70(4-5):172-80. PubMed PMID: 12147137.
16. Jones EA, Crotty D, Kulesa PM, Waters CW, Baron MH, Fraser SE, **Dickinson ME**. Dynamic in vivo imaging of postimplantation mammalian embryos using whole embryo culture. *Genesis*. 2002 Dec;34(4):228-35. PubMed PMID: 12434332.
17. **Dickinson ME**, Simbuerger E, Zimmermann B, Waters CW, Fraser SE. Multiphoton excitation spectra in biological samples. *J Biomed Opt*. 2003 Jul;8(3):329-38. PubMed PMID: 12880336.
18. Hadjantonakis AK, **Dickinson ME**, Fraser SE, Papaioannou VE. Technicolour transgenics: imaging tools for functional genomics in the mouse. *Nat Rev Genet*. 2003 Aug;4(8):613-25. PubMed PMID: 12897773.
19. Nashmi R, **Dickinson ME**, McKinney S, Jareb M, Labarca C, et al. Assembly of alpha4beta2 nicotinic acetylcholine receptors assessed with functional fluorescently labeled subunits: effects of localization, trafficking, and nicotine-induced upregulation in clonal mammalian cells and in cultured midbrain neurons. *J Neurosci*. 2003 Dec 17;23(37):11554-67. PubMed PMID: 14684858.
20. Jones EA, Baron MH, Fraser SE, **Dickinson ME**. Measuring hemodynamic changes during mammalian development. *Am J Physiol Heart Circ Physiol*. 2004 Oct;287(4):H1561-9. PubMed PMID: 15155254.
21. Jones EA, Baron MH, Fraser SE, **Dickinson ME**. Dynamic in vivo imaging of mammalian hematovascular development using whole embryo culture. *Methods Mol Med*. 2005;105:381-94. PubMed PMID: 15492409.
22. Fraser ST, Hadjantonakis AK, Sahr KE, Willey S, Kelly OG, Jones EA, **Dickinson ME**. Using a histone yellow fluorescent protein fusion for tagging and tracking endothelial cells in ES cells and mice. *Genesis*. 2005 Jul;42(3):162-71. PubMed PMID: 15986455; NIHMSID: NIHMS10562; PubMed Central PMCID: PMC1850986.
23. Liebling M, Forouhar AS, Gharib M, Fraser SE, **Dickinson ME**. Four-dimensional cardiac imaging in living embryos via postacquisition synchronization of nongated slice sequences. *J Biomed Opt*. 2005 Sep-Oct;10(5):054001. PubMed PMID: 16292961.
24. Wang J, Hamblet NS, Mark S, **Dickinson ME**, Brinkman BC, Segil N, Fraser SE, Chen P, Wallingford JB, Wynshaw-Boris A. Dishevelled genes mediate a conserved mammalian PCP pathway to regulate convergent extension during neurulation. *Development*. 2006 May;133(9):1767-78. PubMed PMID: 16571627; NIHMSID: NIHMS592922; PubMed Central PMCID: PMC4158842.
25. Forouhar AS, Liebling M, Hickerson A, Nasiraei-Moghaddam A, Tsai HJ, Hove JR, Fraser SE, **Dickinson ME**, Gharib M. The embryonic vertebrate heart tube is a dynamic suction pump. *Science*. 2006 May 5;312(5774):751-3. PubMed PMID: 16675702.

26. Lucitti JL, **Dickinson ME**. Moving toward the light: using new technology to answer old questions. *Pediatr Res*. 2006 Jul;60(1):1-5. PubMed PMID: 16690954; NIHMSID: NIHMS10561; PubMed Central PMCID: PMC1850985.
27. **Dickinson ME**. Multimodal imaging of mouse development: tools for the postgenomic era. *Dev Dyn*. 2006 Sep;235(9):2386-400. PubMed PMID: 16871621.
28. Liebling M, Forouhar AS, Wolleschensky R, Zimmermann B, Ankerhold R, Fraser SE, Gharib M, **Dickinson ME**. Rapid three-dimensional imaging and analysis of the beating embryonic heart reveals functional changes during development. *Dev Dyn*. 2006 Nov;235(11):2940-8. PubMed PMID: 16921497.
29. Lucitti JL, Jones EA, Huang C, Chen J, Fraser SE, **Dickinson ME**. Vascular remodeling of the mouse yolk sac requires hemodynamic force. *Development*. 2007 Sep;134(18):3317-26. PubMed PMID: 17720695; NIHMSID: NIHMS593429; PubMed Central PMCID: PMC4260474.
30. Haeberle H, Bryan LA, Vadakkan TJ, **Dickinson ME**, Lumpkin EA. Swelling-activated Ca²⁺ channels trigger Ca²⁺ signals in Merkel cells. *PLoS One*. 2008 Mar 12;3(3):e1750. PubMed PMID: 18454189; PubMed Central PMCID: PMC2365925.
31. Goldie LC, Lucitti JL, **Dickinson ME**, Hirschi KK. Cell signaling directing the formation and function of hemogenic endothelium during murine embryogenesis. *Blood*. 2008 Oct 15;112(8):3194-204. PubMed PMID: 18684862; PubMed Central PMCID: PMC2569173.
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33. Larin KV, Larina IV, Liebling M, **Dickinson ME**. Live Imaging of Early Developmental Processes in Mammalian Embryos with Optical Coherence Tomography. *J Innov Opt Health Sci*. 2009 Jan 1;2(3):253-259. PubMed PMID: 20582330; NIHMSID: NIHMS203889; PubMed Central PMCID: PMC2891056.
34. Larina IV, Shen W, Kelly OG, Hadjantonakis AK, Baron MH, **Dickinson ME**. A membrane associated mCherry fluorescent reporter line for studying vascular remodeling and cardiac function during murine embryonic development. *Anat Rec (Hoboken)*. 2009 Mar;292(3):333-41. PubMed PMID: 19248165; NIHMSID: NIHMS195403; PubMed Central PMCID: PMC2901876.
35. Larina IV, Ivers S, Syed S, **Dickinson ME**, Larin KV. Hemodynamic measurements from individual blood cells in early mammalian embryos with Doppler swept source OCT. *Opt Lett*. 2009 Apr 1;34(7):986-8. PubMed PMID: 19340193; NIHMSID: NIHMS199019; PubMed Central PMCID: PMC2874199.
36. Nel-Themaat L, Vadakkan TJ, Wang Y, **Dickinson ME**, Akiyama H, Behringer RR. Morphometric analysis of testis cord formation in Sox9-EGFP mice. *Dev Dyn*. 2009 May;238(5):1100-10. PubMed PMID: 19384968; NIHMSID: NIHMS180588; PubMed Central PMCID: PMC2838451.
37. Poché RA, Larina IV, Scott ML, Saik JE, West JL, **Dickinson ME**. The Flk1-myr::mCherry mouse as a useful reporter to characterize multiple aspects of ocular blood vessel development and disease. *Dev Dyn*. 2009 Sep;238(9):2318-26. PubMed PMID: 19253403; NIHMSID: NIHMS90807; PubMed Central PMCID: PMC2901875.
38. Larina IV, Furushima K, **Dickinson ME**, Behringer RR, Larin KV. Live imaging of rat embryos with Doppler swept-source optical coherence tomography. *J Biomed Opt*. 2009 Sep-Oct;14(5):050506. PubMed PMID: 19895102; PubMed Central PMCID: PMC2774971.
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41. Udan RS, **Dickinson ME**. Imaging mouse embryonic development. *Methods Enzymol*. 2010;476:329-49. PubMed PMID: 20691875.

42. Jang CW, Gao L, **Dickinson ME**, Behringer RR. Bmp4-directed nuclear cyan fluorescent protein provides a tool for live imaging and reveals cellular resolution of Bmp4 expression patterns during embryogenesis. *Int J Dev Biol*. 2010;54(5):931-8. PubMed PMID: 20336610.
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153. Hanna AD, Chang T, Ho KS, Yee RSZ, Walker WC, Agha N, Hsu CW, Jung SY, **Dickinson ME**, Samee MAH, Ward CS, Lee CS, Rodney GG, Hamilton SL. Mechanisms underlying dilated cardiomyopathy associated with FKBP12 deficiency. *J Gen Physiol*. 2025 Jan 6;157(1):e202413583. doi: 10.1085/jgp.202413583. Epub 2024 Dec 11. PMID: 39661086
154. Aceves-Ewing NM, Lanza DG, Marcogliese PC, Lu D, Hsu CW, Gonzalez M, Christiansen AE, Rasmussen TL, Ho AJ, Gaspero A, Seavitt J, **Dickinson ME**, Yuan B, Shayota BJ, Pachter S, Hu X, Day-Salvatore DL, Mackay L, Kanca O, Wangler MF, Potocki L, Rosenfeld JA, Lewis RA, Chao HT, Lee B, Lee S; Undiagnosed Diseases Network; Baylor College of Medicine Center for Precision Medicine Models; Yamamoto S, Bellen HJ, Burrage LC, Heaney JD. Uncovering Phenotypic Expansion in AXIN2-Related Disorders through Precision Animal Modeling. *medRxiv [Preprint]*. 2024 Dec 8:2024.12.05.24318524. doi: 10.1101/2024.12.05.24318524. PMID: 3967748
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156. Kanwal F, Amos CI, Sippel KH, Neuhauser C, Harrison A, Dickinson ME, Minard C, Beech BM. A Survey Study of Roadblocks in Translational Science. *Clin Transl Sci*. 2025 Jul;18(7):e70259. doi: 10.1111/cts.70259. PMID: 40578368

IN NON-PEER REVIEW JOURNALS:

1. Lee, S.M., **Dickinson, M.E.**, Parr, B.A., Vainio, S. and McMahon, A.P. (1995) Molecular genetic analysis of Wnt signals in mouse development. *Sem. in Devel. Biol.* **6**, 267-274.

2. **Dickinson, M.E.**, Longmuir, K.J. and Fraser, S.E. (2001) "Analysis of Somitogenesis using Multiphoton Laser Scanning Microscopy (MPLSM)", in *Multiphoton Microscopy in the Biomedical Sciences*, Ammasi Periasamy, Peter T. So, Editors, *Proceedings of the International Society for Optical Engineering (SPIE): Progress in Biomedical Optics and Imaging*, **4262**:18-26.
3. **Dickinson, M.E.**, Waters, C.W., Wolleschensky, R., Bearman, G., Tille, S. and Fraser, S.E (2002) "Sensitive imaging of spectrally overlapping fluorochromes using the LSM 510 META", in *Multiphoton Microscopy in the Biomedical Sciences*, Ammasi Periasamy, Peter T. So, Editors, *Proceedings of the International Society for Optical Engineering (SPIE): Progress in Biomedical Optics and Imaging*, **4620**, 123-136.
4. Liebling, M., Vermot, J., Forouhar, A., Gharib, M., **Dickinson, M.** and Fraser, S. "Nonuniform temporal alignment of slice sequences for four-dimensional imaging of cyclically deforming embryonic structures," in 3rd IEEE International Symposium on Biomedical Imaging: Nano to Macro, 2006 (2006), pp. 1156–1159.
5. Larina, I.V., Wang, Y., Chien, S., Lane, M.E. and **Dickinson, M.E.** (2007) "On the way to subcellular imaging of mechanotransduction in the developing vasculature" in *Optical Technologies in Biophysics and Medicine*, Valery V. Tuchin, Editors, *Proceedings of the International Society for Optical Engineering (SPIE)* **6535**:653504-1 - 6.
6. **Dickinson, M.E.** (2008) Bringing to light form and function in animal development, *GIT Imaging and Microscopy*, Special issue, *Advanced Live Cell Imaging*, 48-52.
7. Syed, S.H., Kasiraj, A., Larina, I.V., **Dickinson, M.E.** and Larin, K.V. (2010) Imaging of mouse embryonic eye development using optical coherence tomography, *Proceedings of the International Society for Optical Engineering (SPIE)*, **7550**: 75501A; doi:10.1117/12.842332
8. Syed, S.H., **Dickinson, M.E.**, Larin, K.V., and Larina, I.V. (2011) In utero imaging of mouse embryonic development with optical coherence tomography. *Proceedings of the International Society for Optical Engineering (SPIE)*, **7889**: 78890A
9. Syed, S.H., Larina, I.V., **Dickinson, M.E.**, and Larin, K.V. (2011) In utero mouse embryonic imaging with OCT for ophthalmologic research. *Proceedings of the International Society for Optical Engineering (SPIE)*, **7885**:**788508**.
10. Larin, K.V., Larina, I.V. and **Dickinson, M.E.** (2011) Live imaging of mammalian embryonic development. 9 May 2011, SPIE Newsroom. DOI: 10.1117/2.1201103.003581
11. Larin, K.V, **Dickinson, M.** and Larina, I. (2011) Label-free in utero imaging of mouse embryos. 27 December 2011, SPIE Newsroom. DOI: 10.1117/2.1201112.004006.
12. Larina, I.V., Syed, S.H., **Dickinson, M.E.**, and Larin, K.V. (2012) Prenatal imaging of distal limb abnormalities using OCT in mice. *Proceedings of the International Society for Optical Engineering (SPIE)*, **8213**:**82130B**
13. Larin, K. V., Syed, S.H., Coughlin, A.J., Wang, S., West, J.L., **Dickinson, M.E.**, and Larina, I. (2013) OCT guided microinjections for mouse embryonic research. Submitted, *Proceedings of the International Society for Optical Engineering (SPIE)*.
14. Zhu, Y., Li, F., Vadakkan, T.J., Zhang, M., Landua, J., Wei, W., Ma, J., **Dickinson, M.E.**, Rosen, J.M., Lewis, M.T., Zhan, M. and Wong, S.T.C. (2013) Three-dimensional vasculature reconstruction of tumour microenvironment via local clustering and classification. *Interface Focus June 25, 2013 3 4 20130023*.

BOOKS, BOOK CHAPTERS

1. **Dickinson, M.E.** (1995) An analysis of the role of cell signaling during development of the vertebrate spinal cord. Ph.D. Thesis: New York, NY: Columbia University.
2. Marder, S.R., Perry, J.W., Brédas, J.L., McCord-Maughon, D., **Dickinson, M.E.**, Fraser, S.E., Beljonne, D., and Kogej, T. (1999) Design and applications of two-photon absorbing organic chromophores. In, *Conjugated Polymers, Oligomers and Dendrimers: From Polyacetylene to DNA*, J.L. Brédas, ed. Francqui Symposium Library, vol. 4, 395-424 DeBoeck & Larcier:Brussels.
3. **Dickinson, M.E.** and Fraser, S.E. (2001) Multi-Photon Laser Scanning Microscopy and Dynamic Imaging in Embryos. In, *Methods in Cellular Imaging*, A. Periasamy, ed. Oxford, UK: Oxford University Press.
4. Wolleschensky, R., **Dickinson, M.E.** and Fraser, S.E. (2002) Group velocity Dispersion and Fiber Delivery in Multiphoton Laser Scanning Microscopy. In, *CONFOCAL AND TWO-PHOTON MICROSCOPY: Foundations, Applications and Advances*. Alberto Diaspro, ed. New York: Wiley-Liss Inc.

5. Jones, E.A.V., Crotty, D., Baron, M.H., Fraser, S.E. and **Dickinson, M.E.** (2004) Dynamic In Vivo Imaging of Mammalian Hemato-Vascular Development Using Whole Embryo Culture. In, *Developmental Regulation of Hematopoiesis: Methods and Protocols*, ed. Baron, M.H., Methods in Molecular Medicine series. New York: Humana Press.
6. **Dickinson, M.E.** Multiphoton, Multispectral Laser Scanning Microscopy. (2005) In, *Live Cell Imaging: A Laboratory Manual*. Eds., Goldman, R.D. and Spector, D.S., New York: Cold Spring Harbor Laboratory Press. Pp. 281-301.
7. Jones, E.A.V., Hadjantonakis, A-K., and **Dickinson, M.E.** (2005) Imaging Mouse Embryonic Development. In, *Imaging in Neuroscience and Development: A Laboratory Manual.*, Ed. Yuste, R. New York: Cold Spring Harbor Laboratory Press. Pp. 159-169.
8. Nashmi, R., Fraser, S.E., Lester, H.A and **Dickinson, M.E.** (2005) FRET Measurements using Multispectral Imaging. In, *Protein Molecular Imaging: FRET Microscopy*. Eds. Periasamy, A. and Day, R.N., Oxford, UK: Oxford University Press.
9. **Dickinson, M.E.** Multiphoton, Multispectral Laser Scanning Microscopy. (2006) In, *Basic Methods in Microscopy Protocols and Concepts from Cells: A Laboratory Manual*. Eds., Spector, D.S. and Goldman, R.D., New York: Cold Spring Harbor Laboratory Press. Pp. 83-102.
10. Larina, I.V. and **Dickinson, M.E.** (2008) Multiphoton imaging in animal development, In, *Handbook of Biological Nonlinear Optical Microscopy*. Eds. So, P.T. and Masters, B. Oxford, UK: Oxford University Press.
11. Garcia, M.D., Udan, R.S., Hadjantonakis, A-K., and **Dickinson, M.E.** (2010) Live Imaging of Mouse Embryos. In, *Imaging in Developmental Biology: A Laboratory Manual*, Ed. Yuste, R. New York: Cold Spring Harbor Laboratory Press.
12. Larina, I.V., Garcia, M.D., Vadakkan, T., Larin, K.V. and **Dickinson, M.E.** (2010) Imaging Mouse Embryonic Cardiac Function. In, *Imaging in Developmental Biology: A Laboratory Manual*, Ed. Yuste, R. New York: Cold Spring Harbor Laboratory Press.
13. Larina, I.V., **Dickinson, M.E.** and Larin, K.V. "Advanced Optical Imaging of Early Mammalian Embryonic Development" in the "Handbook of Photonics for Biomedical Science" edited by Valery Tuchin, Taylor & Francis Group, 2010.
15. Larina, I.V., **Dickinson, M.E.** and Larin, K.V. "Fluorescence and OCT imaging of microcirculation in early mammalian embryos" in the "Microcirculation Imaging" edited by Martin Leahy, Wiley-VCH, 2011.

PATENTS

- "Method for Detection of Fluorescent Light" B. Zimmermann, E. Simbuerger and M. Dickinson, Jan 27, 2003 [DE] 103 03 404; Europe (EP 1441218B1), the United States (US7119898) and Japan (JP 2004233351 A)
- "Methods for Spatial and Temporal Fluorescence Imaging" M. Dickinson, A. Forouhar, M. Gharib, S. Fraser and M. Liebling, US 7372984 B2.
- "Four-dimensional imaging of periodically moving objects via post-acquisition synchronization of nongated slice-sequences" May 13, 2008, US7372984
- "Sequential Turning Acquisition Reconstruction (STAR) method for four-dimensional imaging of cyclically moving structures" M. Liebling, I. Larina, K. Larin, M. Dickinson, Disclosure filed March 2010.
- "Image-guided 3D laser scanning photolithography" M. Dickinson, J. West, J. Culver, J. Hoffman, Z. Iwinski, Disclosure filed March 2011.

III. TEACHING INFORMATION

COMMUNITY-RELATED TEACHING ACTIVITIES (OUTSIDE BAYLOR COLLEGE OF MEDICINE (BCM))

- | | |
|------------|---|
| 1993 | Guest Lecturer, "Vertebrate Nervous System Development", Graduate Developmental Biology Course, George Washington University |
| 1995 | "Practical Chick Embryology", Undergraduate Vertebrate Embryology Lab, Harvard University |
| 1995 | Teaching Assistant for Drs. John Saunders and Marianne Bronner-Fraser -- Embryology Course Marine Biological Laboratory, Woods Hole |
| 1997, 1999 | Graduate Developmental Neurobiology, Caltech |
| 1997 | "Patterning the CNS", Developmental Neurobiology, San Francisco State University |
| 1998 | Biology for engineering graduate students, Caltech |
| 1998 | Fluorescence in biological systems, Caltech (Course I developed) |
| 1998 | Undergraduate Developmental Biology, Caltech |
| 2000-2004 | Principles of Modern Microscopy, Caltech |

2004	Summer Neurobiology Course, Marine Biology Laboratory, Woods Hole, MA
2004, 2005	Workshop on FRET Microscopy, University of Virginia
2008-11, 16	“Advances in Tissue Engineering”, Rice University
2009, 2010	Cold Spring Harbor Molecular Embryology of the Mouse Course, Cold Spring Harbor, NY
2010	Gulf Coast Consortium Workshop on Research Mentor Training, Houston, TX
2010	Presentation at the National Science and Engineering EXPO, “Glowing embryos, genes and development— an evening with Nobel Laureates and Friends”, Public seminar given by Alex Joyner, Marty Chalfie, Eric Wieschaus and Mary Dickinson, Carnegie Institution for Science
2011	Society for Maternal-Fetal Medicine, CME course “At the Frontiers of Science and Medicine: Environment, nutrition, and (epi)genomics”, Annual Meeting, San Francisco, CA
2013	Carnegie Foundation Evening Lecture, included an hour session with students from Thomas Jefferson High School to discuss “Life as a Scientist”
2024	Lecturer, Human and Mammalian Genetics and Genomics: The McKusick Short Course, The Jackson Laboratory

TEACHING RELATED ACTIVITIES AT BAYLOR COLLEGE OF MEDICINE (BCM)
COURSES TAUGHT AND/ OR COORDINATED

Department of Molecular Physiology and Biophysics

2005-2009	Human Physiology, GS-PY-430; 1.5hr/yr
2006-2015	Co-Director and instructor, Proposal Writing Skills for Graduate Students, GS-PY-413; 12hr/yr
2006, 2007	Animal Models of Human Disease, GS-TB-401; 1.5hr/yr
2009	Graduate student seminar coordinator, 30 hr/yr
2010-2014	Cardiovascular Physiology, GS-CS-411; 3hr/yr
Other Programs:	
2006	Cardiovascular Sciences Course, GS-CS-463; 4hr/yr
2006	Medical Case Studies, GS-TB-406; 3hr/yr
2006-2007, 2016-18	Classical Developmental Biology, GS-TB-402; 1 hr/yr
2008-2015	Course Co-Director and Instructor -- Classical Developmental Biology, GS-TB-402; 10 hr/yr
2007-2010	Topics in Developmental Biology, GS-TB-425; 2hr/yr
2009, 2010	Development, GS-TB-506; 4hr/yr
2009-2011	Stem Cells and Regenerative Medicine, GS-CB-464; 2hr/yr
2013, 2016	Molecular and Developmental Biology of Vision Research, 444-404; 2hr/yr
2015	Cell Physiology, GS-PY-415 4hr/yr

CURRICULUM DEVELOPMENT

2006	Developed curriculum for a new course for our Molecular Physiology and Biophysics, “Proposal Writing Skills for Graduate Students” together with Steen Pedersen
2009-present	Co-director, T32HL007676 Molecular Physiology of the Cardiovascular System. Developed curriculum for training grant participants

RESEARCH FELLOW TRAINING

Strong commitment to promoting diversity and to mentoring women and minorities. Mentorship participation in 4 diversity-related, federally-funded programs (Summer Medical and Research Training (SMART) Program R25HL108853-03; NSF *CHOOSE DEVELOPMENT!* NSF 1239422 Program; BCM SMART PREP program; REACH IRACDA program K12 GM084897 06. Under represented minorities are indicated by an asterisk below.

PAST

Tara Rasmussen, PhD 2015-present, (PhD 2008, UT Austin; BS 2001, BS Microbiology, Chemistry Minor, University of Illinois at Urbana-Champaign), Instructor

Awards and Funding:

2014 PCBC Fellows Only Favorite Presentation, September 2014;
Cardiovascular Retreat Postdoc Poster Award, August 2012; Keystone Symposia Scholarship, January 2012;
LHI Retreat Oral Poster Competition Finalist, June 2010;
LHI Symposium 1st Place Basic Science Poster Award, October 2009;
Lois Sager-Foxhall Memorial Scholarship, August 2005;
Howard Hughes Undergraduate Fellowship; 1999-2000
Present Position: Instructor, Baylor College of Medicine

Nanbing (Jade) Li, PhD, 2015-present, (PhD 2015, Washington University, Zebrafish development St Louis; BS, *sum cum laude*, U of Texas, Pan-American Biology, Chemistry), Instructor

Awards and Funding:

2018-2020 AHA Post-doctoral fellowship AHA 18POST34000016

2016 T32HL007676 (Hamilton, PI)

Best Poster Award 2017 CVRI Symposium

Present Position: Senior Scientist, Baylor College of Medicine

Olivia Kelly, PhD*, 2004-2005, Senior Post-doctoral Fellow, Caltech and BCM,

2005-2006 T32HL007676 (Hamilton, PI)

Present position: *Vice President, Islet Cell Therapy Research at Sigilon Therapeutics, Inc.*

Michael Liebling, PhD, 2003-2006, Post-doctoral Fellow, Caltech, *Present position: Senior Researcher, Idiap Research Institute | Adjunct Associate Professor, Univ. of California, Santa Barbara.*

Jennifer Lucitti, PhD, 2005-2008, Post-doctoral Fellow, BCM, *Present position: Senior Post-doctoral Fellow, UNC-Chapel Hill.*

Irina Larina, PhD 2005-2009 (PhD 2005, UT-Medical Branch, Galveston, Biomedical Engineering)

Post-doctoral Fellow -- 4-d imaging of the developing cardiovascular system with Optical Coherence Tomography

Awards and Funding:

Finalist for 2009 Burroughs Wellcome Career Award

Best Poster Award – Post-doc, Mol. Physiology and Biophysics Retreat 2009

2006-2008 AHA Postdoctoral Fellow (Larina, PI)

2008-2009 T32HL007676 (Hamilton, PI)

Present position: Associate Professor with tenure, Mol. Physiology and Biophysics, Baylor College of Medicine

Aya Wada, PhD, 2005-2011 (PhD 2003, Vanderbilt University, Cell Biology), Post-doctoral Fellow; Transgenic approaches to understanding heart and vessel formation

Present position: Research Associate, Genome Institute of Singapore.

Tegy Vadakkan, PhD 2006-2012 (PhD 2006, University of Houston, Computational Physics)

Post-doctoral Fellow -- Physical and mathematical models of vascular and stem cell networks

Leader: Imaging sub-group for U54CA149196-01

Present position: Research Technologist, Children's Hospital Boston, Harvard Medical School

Ross A. Poché, PhD 2007-2013, (PhD 2007, Baylor College of Medicine, Developmental Biology)

Post-doctoral Fellow -- Imaging cell fate, migration, division and regeneration in the eye

Awards and Funding:

Best Oral Presentation-Post-doc, Mol. Physiology and Biophysics Retreat 2009

Best Post-doctoral poster award, Society for Developmental Biology Regional meeting, 2010 (travel award to national meeting)

2007-2008 T32 EY07102 (Mardon, PI)

2008-2009 T32 HD055200 (Bellen, PI)

2009-2011 NRSA F32 EY019436 (Poché, PI)

2011-2013 Knight's Templar Eye Foundation Career Development Award (Poché, PI)

Present position: Associate Professor with tenure, Department of Molecular Physiology and Biophysics, BCM

Ryan S. Udan, PhD* 2007-2014, (PhD 2007, Baylor College of Medicine, Developmental Biology)

Post-doctoral Fellow -- Hemodynamic force regulation of endothelial cell signaling

Awards and Funding:

2008-2010 T32HL007676 (Hamilton, PI)

2010-2013 NIH REACH IRACDA Fellow K12 GM084897 (Awarded IRACDA funding, declined when AHA was funded)

2010-2011 Awarded NIH NRSA 1F32HL099079-01 (Udan, PI) declined to accept AHA

2010-2012 AHA postdoctoral fellow (10POST4280097) (Udan, PI)

Invited Talk, Weinstein Cardiovascular Conference, 2009

Co-organizer of the 2nd Annual REACH IRACDA Symposium, 2011

Present position: Associate Professor with tenure, Missouri State University

Chinwe Asomugha, MS, PhD* 2012-2016, (PhD, 2011, University of Alabama at Birmingham, Vision Sciences; MS Western Michigan University, Biological Sciences)

Awards and Funding:

2012-2013 T32HL007676 (Hamilton, PI)

2011 Outstanding Student in the Department of Vision Sciences, 2010 Faculty of Optometry & Vision Sciences scholarship, 2010 Paul S. Worrell Vision Sciences scholarship

GRADUATE STUDENT TRAINING

PAST

Elizabeth Jones, 2001-2005, funded by AHA fellowship, PhD 2005, Caltech (BS, University of Waterloo, 1999); PhD Thesis Title: Blood flow and the mammalian embryo. *Present position: Assistant Professor, KU Leuven.*

Liang Gao, 2007-2009, M.S. (2009) Rice Bioengineering, (BS, 2006, Fudan University School of Life Sciences); Master of Science Thesis Title: Nanoshells *in vivo* Imaging Using Two-Photon Excitation Microscopy; *Present position: Sr. Product Manager - Technical, Key for Business (KfB) at Amazon.*

Daniel Gould, 2009- 2011, PhD, Department of Bioengineering, Rice University and BCM/Rice MSTP program (B.S., 2006, University of California-Los Angeles)

PhD Thesis Title: Tailoring vessel morphology *in vivo*

Awards and Funding:

Invited to present a short talk, Biomedical Engineering Society Annual Meeting, Austin, TX, 2010

2010-2012 AHA pre-doctoral fellow (10PRE41900219) (Gould, PI)

Highlighted Young Investigator, AHA 2011

Awarded MD degree, BCM, 2013

Present position: Residency program in surgery, USC

James Culver, 2007-2012, PhD, Molecular Physiology and Biophysics, (BS, 2006, MIT)

The physiology of capillary flow in stem cell environments

Awards and Funding:

Departmental Nominee, Deborah K. Martin Achievement Award in Biomedical Sciences, Baylor College of Medicine, 2010

Invited Talk, Society for Developmental Biology: Southwest Regional Meeting, 2010

Best Poster Presentation, Gordon Research Conference: Signal Transduction by Engineered Extracellular Matrices, 2010

Invited Talk, Biomedical Engineering Society Annual Meeting, Hartford, CT, 2011

2008-2012 T32HL007676 (Hamilton, PI)

2013 Gerritsen award, Microcirculatory Society

Post-doctoral Scholar: University of California, San Francisco, 2012-2015

Present position: Member of Technical Staff - Application Scientist, Transcriptic, Menlo Park, CA

Monica Garcia*, 2007-2013, PhD, Molecular Physiology and Biophysics (BS, 2004, Rice University)

The role of Foxo1 in vessel remodeling

Awards and Funding:

Best Graduate Student Oral Presentation, Mol. Physiology and Biophysics Departmental Retreat 2009

Departmental Nominee, Deborah K. Martin Achievement Award in Biomedical Sciences, Baylor College of Medicine, 2009

John R. Kelsey, Jr. Student Speaker Award, BCM Graduate Student Research Symposium, 2009

BCM Graduate Student Research Symposium, 3rd Place, Best Poster Competition, 2011

Society for Developmental Biology Travel Award to attend 2011 National meeting (Imaging in Developmental Biology Satellite Symposium)

2010-2012 NRSA F31HL099654 (Garcia, PI)

Present Position: Lead Reviewer/Biomedical Engineer in the Office of Device Evaluation, Food and Drug Administration, Silver Spring, MD

Chih-Wei (Logan) Hsu, 2010-2014, PhD, Cell and Molecular Biology Program, BCM (BS, 2001 Tatung University, Taiwan, Bioengineering; MS, 2003 National Chiao Tung University, Taiwan, Biochemical Engineering; MS, 2005 Univ. of Texas, Austin, Science and Technology Commercialization)

Pro-angiogenic biomaterials for tissue repair and regeneration

Awards and Funding:

Invited Talk, Biomedical Engineering Society Annual Meeting, Hartford, CT, 2011

Mary E. Dickinson, PhD

Invited Talk, Biomedical Engineering Society Annual Meeting, Atlanta, GA, 2012
2012-2014 AHA Pre-doctoral Fellowship 12PRE12030410 (Hsu, PI; Dickinson, mentor)
Best Oral Presentation, Integrative Molecular and Biomedical Sciences Program Annual Retreat, 2014
Present Position: Assistant Professor, Molecular Physiology and Biophysics, BCM

Victor Piazza*, 2012-2016, PhD, Molecular Physiology and Biophysics, BCM (BS, 2008 University of Wisconsin); Molecular mechanisms of vasculogenesis and angiogenesis.
2012-2015 T32HL007676 (Hamilton, PI)
Present Position: Technical Sales

Nejla Yosef*, 2013-2019, PhD, Molecular Physiology and Biophysics, BCM (BS, 1999 University of Gezira, Sudan; MS, 2005 Wagenin University, The Netherlands); Vessel-immune cell interactions.
2015- third place poster award – BCM Graduate Student Symposium
2016- second place poster award – BCM Graduate Student Symposium
Present Position: Post-doctoral Fellow, MD Anderson Cancer Center

Sydney Gibson*, 2013 - 2019, PhD, Bioengineering, Rice University (BS, 2013 University of Pittsburgh, Pittsburgh PA); Remodeling of vessels in tissue engineered scaffolds

Awards and Funding:

**National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc. (GEM) Fellow, 2013
National Science Foundation Graduate Research Fellow, 2013**

Audience Choice Award, 90 Second Thesis Competition, Rice University, 2015
Grand Prize, 90 Second Thesis Competition, Rice University, 2015
Audience Choice Award, SCREECH: Engineering Lightning Talk Competition, Rice University, 2015
Grand Prize, SCREECH: Engineering Lightning Talk Competition, Rice University, 2015
Travel Award, Emerging Researchers National Conference in STEM, AAAS and NSF, 2016
First Place Graduate Oral Presentation, Emerging Researchers National Conference in STEM, AAAS and NSF, 2016
Present Position: Incoming Consultant at ClearView Healthcare Partners, Boston, MA

Tiffany Rolle*, 2017 – 2020, PhD, Human and Molecular Genetics, BCM (BS, 2012 Virginia Commonwealth University); Characterization of glycogen storage disease XV mouse model

Awards and Funding:

2014-2015 T32 GM08307 (Shaulsky, PI)
2019-2020 T32HL007676 (Hamilton, PI)
Present Position: Post-doctoral Fellow, NHGRI/ ASHG science education and engagement fellowship, Bethesda, MD

Henry Le, 2015-2021, PhD, Molecular Physiology and Biophysics, BCM (BS, 2013, University of Texas, Physics *cum laude*)
Mechanical and genetic mechanisms of umbilical vessel development

Awards and Funding:

2017 October Oral Presenter at NAVBO conference, Monterey, CA.
2017 January Oral Presenter at SPIE-BIOS conference, San Francisco, CA
2019-2020 T32HL007676 (Hamilton, PI)

Mentor for Summer Medical and Research Training (SMART) Students

2007 Shanique Roberson*, 2008 Jennifer Wang, 2009 Bryant Harris*, 2010 Lawrence Lin, 2011 Gabriel Ochoa*, 2012 Gisele Calderon (Fulbright Award 2013), 2013 Ester Mutongi*, 2014 Chris Sylvester, 2016 Owen Hirschi

Mentor for NSF CHOOSE Development! Program (Supported through the Society of Developmental Biology)

NSF grant IOS-1239422 2013 Jennifer Lidgard

Mentor for BCM SMART PREP program 2013 Larry Scott, Jr.*

GRADUATE STUDENT COMMITTEE SERVICE

GRADUATED

Jenni Greeson – Raphael Lab, Rice Bioengineering, PhD, 2007

Junling Jia – Zhang Lab, Molecular Physiology and Biophysics, PhD, 2008

Banafsheh Mirnik – Schroit Lab, GSAS, University of Texas, MD Anderson, PhD, 2009

Gabriel Gonzalez – Behringer Lab, GSAS, University of Texas, MD Anderson, MS, 2009
Khodadad Namiranian – Bryan Lab, Cardiovascular Sciences, PhD, 2009
Chuan-wei Jang – Behringer Lab, Developmental Biology, BCM, PhD, 2009
Shannon Griswold – Behringer Lab, Developmental Biology Program, BMC, PhD, 2009
Michael Lopez – Boriek Lab, Structural and Computational Biology and Molecular Biophysics, PhD, 2010
Tiffany Sills – Hirschi Lab, Interdepartmental Program in Cell and Molecular Biology, PhD, 2010
Adriana Visbal – Rosen Lab, Developmental Biology, BCM, PhD, 2010
John Armstrong – Hirschi Lab, Interdepartmental Program in Cell and Molecular Biology, PhD, 2010
Chris Durst – Grande-Allan Lab, Rice Bioengineering, PhD 2011
Cheng-Chiu Huang – Behringer Lab, Developmental Biology Program, BCM, PhD, 2011
Zhubo Wei – Zhang Lab, Molecular Physiology and Biophysics, BCM, PhD, 2011
Jenny Saik, West Lab, Rice Bioengineering, PhD, 2011
Elizabeth Salisbury, Davis Lab, TBMM program, BCM, PhD, 2011
Suleyman Coskun - Hirschi Lab, Interdepartmental Program in Cell and Molecular Biology, BCM, PhD, 2011
Josh Goldberg - Hirschi Lab, Interdepartmental Program in Cell and Molecular Biology, BCM, PhD, 2011
Philippe York – Zhang Lab, Molecular Physiology and Biophysics, BCM, PhD, 2012
Kathrina Marcelo - Hirschi Lab, Interdepartmental Program in Cell and Molecular Biology, BCM, PhD, 2012
Sarah Shahmoradian - Chiu Lab, Molecular Physiology and Biophysics, BCM, PhD, 2013
Fernanda Ruiz - Perreira Lab, Interdepartmental Program in Cell and Molecular Biology, BCM, PhD, 2013
Caressa Lietman, Lee Lab, Molecular Genetics, BCM, PhD, 2014
Brandi Carofino, Justice Lab, TBMM program, BCM, PhD, 2014
Renee Edlund, Groves Lab, Developmental Biology Program, BCM, PhD, 2014
Wei Wei, Lewis Lab, Interdepartmental Program in Cell and Molecular Biology, BCM, PhD, 2014
Lauren Figard, Sokac Lab, Interdepartmental Program in Cell and Molecular Biology, BCM, PhD 2015
Josh Oakes, Hamilton Lab, Molecular Physiology and Biophysics, BCM, 2015
Sean Cullen, Goodell Lab, Developmental Biology and MSTP program, BCM 2015
Avinash Dharmadhikari, Stankiewicz Lab, TBMM, BCM 2015
John Leach, Martin Lab, Molecular Physiology and Biophysics, BCM 2017
Shuo-Ting Yen, Behringer Lab, Developmental Biology Program, BCM 2017
Zer Vue, Behringer Lab, Developmental Biology Program, BCM 2017
Mark Tanner, TBMM, Beeton Lab, BCM 2017
Mengyu Wang, Golding Lab, SCBMB Program, BCM 2018
Diane Yang, Borowiak Lab, MCB, BCM 2018
Tanner Monroe, Rodney and Martin Labs, Molecular Physiology and Biophysics, BCM 2019
Chih-Hsu Lin, Lichtarge Lab, SCBMB, BCM 2020
Manuel Cantu Gutierrez, Wythe Lab, Developmental Biology, BCM 2022

POST-DOCTORAL-TO-FACULTY MENTORING (In addition to Dickinson Lab trainees)

Proposed K award mentoring committees

Jacqui Tabler, UT Austin (Wallingford Lab) K99/R00 co-mentor (2015)
Elizabeth Salisbury, PhD, A. Davis co-mentor, Center for Cell and Gene Therapy, BCM K99/R00 (2014)
Reza Bekheirnia, MD, Asst Professor, Dept. Mol. and Human Genetics, BCM, A. Beaudet/D. Lamb mentors K08 (2014)
Y Ren, PhD, J. Richards, co-mentor, Dept. of Cell and Molecular Biology, BCM, co-mentor K99/R00 (2015)
Duman, Joseph, co-mentor, Dept. of Neuroscience, BCM, 2015-17

GRADUATE PROGRAM AND CENTER MEMBERSHIPS

2005- 2019	Member, Program in Developmental Biology
2005- 2019	Member, Interdepartmental Program in Cell and Molecular Biology
2005- 2024	Member, Stem Cell and Regenerative Medicine Center
2005- 2019	Member, Structural and Computational Biology and Molecular Biophysics Program
2006- 2024	Member, the Graduate School of Biomedical Sciences, University of Texas Health Science Center at Houston
2006- 2024	Member, Translational Biology and Molecular Medicine Program
2006- 2019	Member, Cardiovascular Sciences Program
2006- 2019	Member, Diabetes and Endocrinology Research Center
2008- 2024	Member, Keck Nanobiology Training Program

2008-2024	Member, The Dan L. Duncan Comprehensive Cancer Center
2009- 2024	Member, Cullen Eye Institute
2012- 2024	Member, Cardiovascular Research Institute
2016- 2024	Member, Genetics Graduate Program
2018- 2024	Member, Development, Disease Models and Therapeutics Graduate Program