

BME Graduate Program Alumni

Name	Degree	Faculty Advisor	Thesis/Dissertation Title
Tomoe Hagio	PhD/November 2016	Maria Altbach	Parametric Mapping and Image Analysis in Breast MRI
Kyle Jones	PhD/November 2016	Marty Pagel	Improving the accuracy and precision of chemical exchange saturation transfer (CEST) MRI contrast measurements
Molly Keenan	PhD/July 2016	Jennifer Barton	Design and Performance of Optical Endoscopes for the Early Detection of Cancer
Kevin Okarski	PhD/April 2016	Linda Powers	Novel Point-of-care Pathogen Detection Device and Cell Culture Bioprocessing Technique
Celine Cohn	PhD/July 2015	Xiaoyi Wu	Engineering cholesterol-based nanostructures for enhanced surface functionalization
Camille Birch	PhD/July 2015	John Konhilas	The Impact of Biological Sex on Crossbridge Cycling Kinetics in Mice Expressing the R403Q Mutation
Darren Haskett	PhD/June 2015	Jonathan Vande Geest	Progressive Alterations in Microstructural Organization and Biomechanical Response in the ApoE Mouse Model of Aneurysm and the Underlying Changes in Biochemistry
Jordan Carbary	PhD/May 2015	Urs Utzinger	Quantum dots targeted to VEGFR2 for molecular imaging of colorectal cancer
Zach Dean	PhD/April 2015	Pak Kin Wong	Collective migration models: dynamic monitoring of RNAs at the single cell level
Dustin Harshman	PhD/April 2015	Jeong-Yeol Yoon	Droplet manipulation and droplet microfluidics for rapid amplification and real-time detection of nucleic acids

Rachel Schafer	PhD/April 2015	Art Gmitro	Mammary Window Chamber Model: A Platform for Multi-Modality Cancer Imaging and Dynamic Oxygenation Assessment
Jessica Crosby (Gamboa)	PhD/November 2014	Marvin Slepian	Expanding the Performance Envelope of the Total Artificial Heart: Physiological Characterization, Development of a Heart Failure Model, and Evaluation Tool for Mechanical Circulatory Support Devices
Gabe Orsinger	PhD/May 2014	Marek Romanowski	Untangling Intercellular Communication Using Optical Manipulation in 3D Models of Tumor Microenvironment
Megan Williams	PhD/May 2014	Jonathan Vande Geest	The Role of Biomechanics in the Idiopathic Onset of Unilateral Vocal Fold Paralysis
Valerie Merkle	PhD/Dec 2013	Xiaoyi Wu	Fabrication, Biocompatibility, and Tissue Engineering Substrate Analysis of Polyvinyl Alcohol-Gelatin Core-Shell Electrospun Nanofibers
Chris Fronczek	PhD/Dec 2013	Jeong-Yeol Yoon	Lab-on-a-Chip Biosensors for the Rapid Detection of Pathogens in Clinical and Field Settings
Christian Gainer	PhD/ May 2013	Marek Romanowski	Synthesis, Characterization, and Biomedical Application of Upconverting Lanthanoid Nanoparticles (Online)
Joe Keyes	PhD/ May 2013	Jonathan Vande Geest	Parametric Evaluation of Mass Transport in Coronary Arteries
Jennifer Watson	PhD/ May 2013	Jennifer Barton	Examination of Diagnostic Features in Multiphoton Microscopy and Optical Coherence Tomography Images of Ovarian Tumorigenesis in a Mouse Model
Eriko Yoshimaru	PhD/ May 2013	Ted Trouard	Magnetic Resonance Imaging Techniques for Rodent Pulmonary Imaging (Online)
Daniel Warren	PhD/ May 2012	Jonathan Vande Geest	Characterizing Polymers for Cardiovascular Devices (Online)
Sarah Leung	PhD / May 2012	Marek Romanowski	Plasmon resonant gold-coated liposomes for spectral, temporal, and spatial control of release (Online)

Magnetic Resonance Imaging and

John Totenhagen	PhD/ May 2012	Ted Trouard	Spectroscopy of a Mouse Model of Niemann Pick Type C1 Disease (Online)
Phat Tran	PhD/ December 2011	Jeong-Yeol Yoon	Nanoscale Feature Composite: An Ensemble Surface for Enhancing Cardiovascular Implant Endothelialization (Online)
Stephen Moore	PhD/ December 2011	Lars Furenlid	ModPET: Novel Applications of Scintillation Cameras to Preclinical PET (Online)
Tim Melano	PhD/ May 2011	Chuck Higgins	Insect Machine Interfaces (Online)
Lise Johnson	PhD/ May 2010	Andy Fuglevand / Bruce McNaughton	Decoding Electric Fields of the Nervous System: Investigations of Information Storage and Transfer in the Central and Peripheral Nervous System (Online)
John Ashton	PhD/ May 2010	Jonathan VandeGeest	Polymeric Endoaortic Paving (PEAP): Initial Development of a Novel Treatment for Abdominal Aortic Aneurysms (Online)
Xiaomeng Zhang	PhD/ May 2010	Robert Gillies	MRI of Tumor pH and Perfusion (Online)
Kevin Harkins	PhD/ May 2009	Ted Trouard	Biophysical Mechanisms of Diffusion Weighted MRI Assessed through Computational Modeling and Experiments in Bioreactor Cell Cultures (Online)
Jennifer Elster	PhD/ May 2009	Ron Allen	Quantification and Tracking of Transplanted Satellite Cells (Online)
Ed DeHoog	PhD/ December 2008	James Schwiegerling	Novel Fundus Camera Design (Online)
Timothy Troutman	PhD/ August 2008	Jennifer Barton, Marek Romanowski	Plasmon Resonant Nanostructures of Gold for Biomedical Applications (Online)

Renata Ramos	PhD/ May 2008	Dan Stamer	Evaluation of the Effects of Cyclic Ocular Pulse on Conventional Outflow Tissues (Online)
Dominique Jennings	PhD/ May 2008	Robert Gillies	Dynamic Contrast-Enhanced Magnetic Resonance Imaging and Fluorescence Microscopy of Tumor Microvascular Permeability (Online)
Carlos Chang	PhD/ May 2008	Jay Hoying	Development of In Vitro Three-Dimensional Microvascular Tissues (Online)
Alex Tumlinson	PhD/ May 2007	Jennifer Barton	Ultrahigh-Resolution Endoscopic Optical Coherence Tomography for In Vivo Mouse Colonoscopy (Online)
Cody Bliss	PhD/ May 2007	John Szivek	Sensate Scaffolds for Articular Cartilage Repair (Online)
Lida Hariri	PhD/ May 2007	Jennifer Barton	Evaluation of Mouse Models of Colorectal Cancer Using Optical Coherence Tomography and Laser Induced Fluorescence Spectroscopy (Online)
Kristen O'Halloran Cardinal	PhD/ May 2007	Stu Williams	Development and Utilization of a Tissue Engineered Blood Vessel Mimic to Assess the Neointimal Response to Intravascular Stents (Online)
Nathaniel Kirkpatrick	PhD/ December 2006	Urs Utzinger	Functional Biological Spectroscopy and Multiphoton Imaging Using Endogenous Optical Contrast (Online)
Patrick Marcus	PhD/ December 2006	Andrew Fuglevand	Electrotactile Feedback System Using Psychophysical Mapping Functions (Online)
Joelle Sarlls	PhD/ August 2006	Ted Trouard	High-Resolution Diffusion-Weighted Magnetic Resonance Imaging: Development and Application of Novel Radial Fast Spin-Echo Acquisitions (Online)
Kevin Greer	PhD/ December 2005	Jay Hoying	Design and Analysis of Large Scale Gene Expression Experiments and the Application to Angiogenesis and Blood Vessel

			Maturation (Online)
Samantha Powis	PhD/ December 2005	Stu Williams	Chlorine Dioxide for the Prevention of Biomaterial-Associated Infections (Online)
Mark Schwartz	PhD/ December 2005	Jay Hoying/ Stu Williams	Molecular and Cellular Dynamics of the Healing Responses Associated with Implanted Expanded Polytetrafluoroethylene (Online)
Cynthia Smith	PhD/ December 2005	Stu Williams	A Direct-Write Three Dimensional Bioassembly Tool for Regenerative Medicine (Online)
Paul Rigby	PhD/ December 2004	Bruce Simon	Characterization of Arteries and Tissue Engineered Vascular Grafts Using Experimental and Finite Element Models (Online)
Jonathan Alberding	PhD/ August 2004	Ann Baldwin	Nonsteady Pressure Affects Large Arteries and Endothelium (Online)
Kirk Gossage	PhD/ May 2004	Jennifer Barton	Optical Coherence Tomography and Texture Analysis: Non-Invasive Monitoring of Tissue Responses to Glaucoma Implants (Online)
Gabriel Gruionu	PhD/ May 2004	Jay Hoying/ Timothy Secomb	Structural Adaptation of Arcade Arteries to Changes in Blood Flow (Online)
Brooke McGuire	PhD/ December 2003	Timothy Secomb	Mathematical Modeling of Oxygen Transport in Skeletal Muscle Under Conditions of High Oxygen Demand (Online)
Philemon Mikail	MS / May 2016	Zain Khalpey	Translational Predictive Model for Heart Failure Recovery in LVAD patients receiving Stem Cell Therapy
Kyle Hadinger	MS / May 2016	Terry Matsunaga	Phase-Change Contrast Agents for Targeting and Delivery
Kaitlin Harpel	MS / May 2016	Terry Matsunaga	Imaging of targeted lipid microbubbles using third harmonic

Ehab Tamimi	MS / August 2015	Jonathan Vande Geest	
Catalina Ardila	MS / August 2015	Jonathan Vande Geest	
Kenny Furdella	MS / August 2015	Jonathan Vande Geest	
Tigran Nahapetian	MS / August 2015	Jeong-Yeol Yoon	Characterization and Optimization of the Smartphone Response to Paper Microfluidic Biosensor Assay Under UV Light Source
Jordan Bontrager	MS / August 2015	Marty Pagel	Characterization and Applications for a Polymerized DiaCEST Contrast Agent
Katrina DeCook	MS / April 2015	Marvin Slepian	System and Method for Comparison and Training of Mechanical Circulatory Support Devices
Jake Cena	MS / December 2014	Andrew Fuglevand	Evaluation of cross-talk in electromyographic Signals
Ariana Lamanda	MS / August 2014	Pak Kin Wong	Alternating Current Electrokinetic Manipulation and Concentration of Free Circulating DNA from Blood Samples
Joseph Kobes	MS / May 2014	Marty Pagel	PLGA Nanoparticles that Improve Drug Delivery to Pancreatic Cancer
Jacalyn Ouellette	MS / May 2013	John Szivek	An Updated Telemetry System Using Silicone Encased Transmitters for Reliable Powering <i>in vivo</i>
Meghan McGovern	MS / May 2013	Julia Indik	Real-Time Amplitude Spectral Area Analysis for the Optimization of Resuscitation in a Swine Model
Chris Love	MS / December 2012	Jeong-Yeol Yoon / John Szivek	Closure of Loop-Mediated Isothermal Amplification Chamber on Lab-on-chip Using Thermal-responsive Valve
Gihan Joshua	MS / August 2012	Marek Romanowski	Synthesis of Upconverting Nanoparticles for Temperature Sensing Applications

Nicole Ashpole	MS / May 2012	Dan Stamer	Shear Stress Effects on Schlemm's Canal Cells
Erin Chavez	MS / May 2012	Heddwen Brooks	Novel Computer Threshold Analysis for Quantification of Fibrosis and Inflammation in Renal and Cardiac Disease Models
Susan LeGendre-McGhee	MS / May 2012	Jennifer Barton	Evaluating Chemopreventive and Chemotherapeutic Agent Effectiveness in a Mouse Model of Sporadic Colorectal Cancer Using Optical Coherence Tomography
Xenia Kachur	MS / December 2011	Ara Arabyan	A Novel Pathology Device for the Improvement of Intraoperative Breast Cancer Tissue Gross Examination
Christopher Stemple	MS / December 2011	Jeong-Yeol Yoon	Rapid Detection of Malaria Antigens in Human Whole Blood Using a Handheld Lab-on-Chip Device
Amanda Eskinazi	MS / May 2011	Jonathan Vande Geest	Toward a Classification System for the Shape, Location, and Orientation of Hill-Sachs Lesions
Chandra Khatri	MS / May 2011	Robert Snyder	Modifying Aqueous Humor Dynamics for the Treatment of Glaucoma
Vincent Wong	MS / May 2011	Terry Matsunaga	Formulation of Perfluorocarbon-filled Droplets for Ultrasound-Mediated Applications
Darren Haskett	MS / May 2011	Jonathan Vande Geest	Towards a Method for Biomechanical Determination of Aneurysm Progression in Mouse Models
Joe Del Rossi	MS / May 2011	Xiaoyi Wu	Coaxial Electrospray to Produce Cerasome Nanoparticles for Drug Delivery
Zach Dean	MS / May 2011	Urs Utzinger	Electrolyte Solutions to Improve the Performance of Electroactive Polymers used in Infusion Pumps

Mia McCorkel	MS / May 2011	Scott Boitano	Sub-Cytotoxic Nanoparticle Exposure to Airway Epithelial Cells Causes Alterations in Cellular Signaling
Deepa Patel	MS / May 2011	Timothy Secomb	Maximal Oxygen Consumption Rates in One-Leg and Two-Leg Exercise: A Theoretical Model
Tulika Balagopal	MS / May 2011	Christopher Choi	Quantitative Microbial Risk Assessment Using AZRED Water Quality Models
Joshua Nedrud	MS / May 2011	Henk Granzier	The Functional Role of the N2B Region within the Elastic Sarcomeric Protein Titin
Fahd Chaudhry	MS / May 2011	Julia Indik	A Novel Resuscitation Algorithm Using Waveform Analysis and End-tidal Carbon Dioxide Pressure in Ventricular Fibrillation
Dan Allen	MS / December 2010	Julia Indik	Predictive Variables of After-Shock During Resuscitation in a Swine Model
Gabriel Orsinger	MS / December 2010	Robert Snyder	A Penetration and Safety Assay for Generic Ophthalmic Drugs
Omid Mahdavi	MS / December 2008	Mark Riley	A Brief Look at Protein Structural Changes as a Measure of Cell Damage
Bill Brands	MS / December 2007	Urs Utzinger	Optical Studies of Collagen Crosslinking, Angiogenesis and Matrix Metalloproteinases
Brandi Tellis	MS / December 2006	John Szivek	Utilizing micro computed tomography data to produce implantable scaffolds for orthopedic tissue engineering.
Greg Dion	MS / December 2005	Jay Hoying	Bacteria-Based Molecular Assay Detection System (B-MAD)

Tara Burke	MS / August 2005	Ann Baldwin	Does Nitric Oxide from S-Nitrosohemoglobin Reduce Hemoglobin-Induced Microvascular Damage?
Anora Burwell	MS / August 2005	Ann Baldwin	Cardiovascular and Behavioral Effects of Sound and Ultrasound in Rats
Jamie Dibble	MS / August 2005	Molly Brewer	Matrix Metalloproteinase Expression in the Development of Ovarian Cancer
Lindsay Goeller	MS / August 2005	Mark Riley	Detecting Viruses in Drinking Water with Raman Spectroscopy and Surface Enhanced Raman Spectroscopy
Elizabeth Kanter Bartz	MS / August 2005	Jennifer Barton	Dual Modality Imaging of a Novel Rat Model for Ovarian Carcinogenesis
Maurice Jabbour	MS / May 2005	Hugh Barnaby/ Jay Hoying	Integrating Biological Materials with Microelectronic Devices for the Development of Effective and Low Cost Biosensors
Sarah Swaim	MS / May 2004	Robert Gillies	Perfusion Imaging of Angiogenic Response Drug Therapy in Murine Carcinoma
Mansooreh Tanooryran	MS / August 2003	Paul Calvert	Adhesion of Myoblasts to RGD-aliginate
Heather Seifert	MS / December 2001	Andrew Fuglevand	Prediction of Finger Position from EMG Population Vectors using Bayesâ Rule
Lin Lin	MS / August 2001	Olivia Liu Sheng	Incremental Data Mining for Active and Adaptive Knowledge Base for Patient Image Retrieval

Kristi Hansen

MS / August 2000

Jennifer Barton

Recruitment of Tendon Crimp with Applied Tensile Strain

Adam Budoff

MS / May 2000

Jay Hoying

Transcription Profiling of Angiogenesis Using DNA Microarrays

Nicholas Cordaro

MS / May 2000

John Szivek

Accelerated Bone Bonding to Calcium Phosphate Ceramic Coated Strain Gauges: An Experimental and Computational Study
