

**Current Graduate Students, Postdoctoral Research Fellows, and Former Students Metrics**

**CURRENT STUDENTS**

Name	Undergraduate - Field	Graduate - Field; Career	Advisors	Pubs	Pres/Post	Pats	Awards	Project
Meredith Brenner	BS Physics 2007	PhD Applied Physics Certificate in NanoBiology 2007 -	Jennifer Oglivie, PhD	1	3		11	Pulse-shaping Multi-photon FRET Microscopy.
Ming Fang	BS Chemistry 2008	PhD Chemistry Certificate in NanoBiology 2008 -	Mark Banaszak Holl, PhD	4	5		3	Collagen fibril morphology in healthy and estrogen depleted ovine bone.
Alexander Hrin	BS Engineering Physics 2007 MS Applied Physics 2008	PhD Biophysics Certificate in NanoBiology 2008 -	Raoul Kopelman, PhD	2			2	Detection of DNA through the Asynchronous Rotation Technique.
Paivo Kinnunen	BS Physics 2007	PhD Applied Physics Certificate in NanoBiology 2008 -	Raoul Kopelman, PhD	6				Emerging Microbiological Sensor - Asynchronous Rotation of Magnetic Beads.
Irene Sinn	BS BioEngineering 2008	PhD Bioengineering Certificate in NanoBiology 2008 -	Raoul Kopelman, PhD Mark Burns, PhD				2	Involves magnetic particles and microfluidic devices.
Shelly Leung	BS Biochemistry 2008	PhD Immunology Certificate in NanoBiology 2008 -	James R. Baker Jr., MD	1	3		4	Vaccine adjuvants and the transcriptional regulation of Th17 cell differentiation and immunity
Christopher Sarra	BS Materials Science 2009	PhD MacroMolec Sci & Eng Certificate in NanoBiology 2009 -	Mark Banaszak Holl, PhD					Synthesis and characterization of precisely conjugated dendrimers for application as targeted chemotherapeutic agents.
Rahul Rattan	BE Biotechnology 2006	PhD Biomedical Engineering Certificate in NanoBiology 2007 -	Mark Banaszak Holl, PhD	1	5	1	4	Characterizing impact of dendrimer based drug delivery on mammalian cells; the way these interact with cell membranes and enter cells.
L. Devon Triplett	BS Physics 2007	PhD Applied Physics Certificate in NanoBiology 2007 -	Bradford Orr, PhD Mark Banaszak Holl, PhD	1				Single molecule force microscopy.
Remy Elbez	BS Chemistry 2007 MSE Mechanical Engineering 2008	PhD Applied Physics Certificate in NanoBiology 2007	Raoul Kopelman, PhD					Asynchronous rotation of magnetic particles, with application to diagnostics on bacteria and cancer cells.
Jumei Chen	BE Polymer Materials & Engin BA English; MS Materials Sci & Eng	PhD MacroMolec Sci & Eng Certificate in NanoBiology 2007 -	Mark Banaszak Holl, PhD Brad Orr, PhD Kenichi Kuroda, PhD Anatoli Lopatin, PhD	1	3		2	Using patch clamp techniques to study the interactions between nanoparticles and biological membranes.
Becky Lahti Matz	BS Chemistry 2007	PhD Chemistry 2007 - Certificate in NanoBiology 2010 (completed)	Mark Banaszak Holl, PhD Bradford Orr, PhD James Baker, MD Carol Fierke, PhD Joe Krajcik, PhD	1	9		3	Polyplex Exposure and Protein Expression Inhibit Cell Division
Ajdin Kavara	BS Chemistry 2004	PhD Chemistry 2005 - 2010; Post-doctoral associate in Pat Holland's group at the University of Rochester.	Mark Banaszak Holl, PhD	4	3		1	C-H Activation and Cyclizations using Stannylenes
Asish Misra	BS Chemical Engineering MIT 2008; BS Electrical Engineering and Computer Science, MIT, 2008	MD/PhD Medicine and Biomedical Engineering 2009 -	James R. Baker Jr., MD	3				Macrophages that have been implicated in many disease processes, from synovial inflammation in rheumatoid arthritis to angiogenesis in tumors.
Bernell Williams	BS Biology & Chemistry, Oakwood College, Huntsville AL; MS Biomedical Engineering University of Michigan 2002	PhD Biomedical Engineering 2004-	James R. Baker Jr., MD		4		7	Design, synthesis, characterization and biological testing of small molecule GCP II inhibitor analogs and dendrimer-analog conjugates as targeted cancer therapeutics for prostate cancer
Ming-Hsin Li	BS, Dept. Chemical Engineering, Chung Yuan Christian University, 1999; MS, Dept. Chemical Engineering, National Taiwan University, 2001	PhD Biomedical Engineering 2007 -	James R. Baker Jr., MD Seok Ki Choi, PhD	1	1	1	3	Dendrimer-based nanoconjugate and its biomedical applications.
Erika Cline	BA Biochemistry & Mathematics Knox College 2008	PhD Cellular & Molecular Biology 2008 -	Nils Walter, PhD	3	3	0	7	Developing a Synthetic Mimic of Promoter Searching by RNA polymerase
Mallory van Dongen	BS Chemistry 2009, Niagara University, New York	PhD Chemistry, Materials 2009-	Mark Banaszak Holl, PhD	3	5		9	Controlled multi-valency of dendrimer conjugates for biological applications.
Leshern Karamchand	BS Bio-Medical Sciences, 2002 (University of Natal, South Africa); BS Honours: Medical Biochemistry, 2003 (University of Natal, South Africa)	MS Medical Biochemistry, 2008 (University of KwaZulu-Natal, South Africa); PhD Chemical Biology, 2009 UMich; Certificate in NanoBiology 2010	Raoul Kopelman, PhD	1	3		5	Application of aptamers to medical diagnostics
Dibyadeep Paul	BS Btech Indian Institute of Technology, Kharagpur; MS Mechanical Engineering at Iowa State University	PhD precandidate, Mechanical Engineering Certificate in NanoBiology 2007 - Certificate in NanoBiology 2007 -		3	6		2	Microthermal modulator for 2dimensional gas chromatography; Biomolecular Motor Smart Microarrays: Self-Contained, High-Throughput, Ultrasensitive Multiplexed Biomolecular Sensing
<b>SUBTOTALS CURRENT STUDENTS</b>				<b>36</b>	<b>53</b>	<b>2</b>	<b>65</b>	

CURRENT FELLOWS								
Name	Undergraduate	Graduate - Field	Advisors	Pubs	Pres/Post	Pats	Awards	Project
Sascha Goonewardena, MD	Univ. of Michigan BS Biology 1999; MD 2003; Cardiology Resident Univ. of Chicago 2003-2006; Postdoctoral Research Fellow 2006-2007 Univ. of Chicago	Cardiology Fellow Univ. of Michigan 2006 - MNIMBS Fellow 2009 -	James R. Baker Jr., MD	17	22		5	Mechanisms of atherosclerosis using PAMAM dendrimer technology.
<b>SUBTOTALS CURRENT FELLOWS</b>				<b>17</b>	<b>22</b>	<b>0</b>	<b>5</b>	
FORMER STUDENTS								
Name	Currently	Graduate - Field	Advisor	Pubs	Pres/Post	Pats	Awards	Project
Mahesh Shenai, MD, MSE	PGY-6 Resident Neurosurgery, Univ. of Alabama-Birmingham	UM Howard Hughes Fellow 2002-2003; MD, University of Michigan 2005; Univ. of Alabama at Birmingham: Neurosurgery 2010	James R. Baker Jr., MD	7				Neural prosthetics, brain-computer interface, functional neurosurgery.
Almut Mecke, PhD	F. Hoffmann-La Roche Ltd. Basel, Switzerland	PhD Physics 2004 Fellow from 2004-2006	Bradford Orr, PhD, Mark Banaszak Holl, PhD James R. Baker, MD	12				Targeted cancer therapeutics.
Frank Zhong, PhD	Optical Engineer Pacific BioSciences, Inc., Menlo Park, CA	PhD Applied Physics 2005	Theodore Norris, PhD	6		3		Transformative single-molecule, real-time (SMRT) DNA sequencing technology.
Seungpyo Hong, PhD	Assistant Professor, Departments of Biopharmaceutical Sciences and Bioengineering, University of Illinois at Chicago	PhD Macromolec Sci & Engin 2006 Postdoc Prof. Robert Langer's lab at MIT	Mark Banaszak Holl, PhD James R. Baker Jr., MD	27	52	7		Interaction of Synthetic Polymers with Cell Membranes: Cell Penetration of Polycationic Polymers and Multivalent Effects of Targeted Nanodevices.
Youngseon Choi, PhD	Postdoc, Department of Chemistry, University of Florida, Gainesville, FL; Scientist, Nano-Bio Chemistry Group Institut Pasteur, Seoul, S. Korea	PhD Biomedical Engineering 2005	James R. Baker Jr., MD Shuichi Takayama, PhD Mark Banaszak Holl, PhD Bradford G. Orr, PhD Jolanta F. Kukowska-Latalo, PhD	22	12			NANOSTRUCTURED supramolecular Arrays based on DENDRIMERS USING DNA: design, synthesis and biological evaluation.
Jessica Blunt, PhD	Postdoc Van Andel Institute. She is now working in the field of intellectual property	PhD Chemistry 2006	Mark Banaszak Holl, PhD James R. Baker Jr., MD, Brad Orr, PhD	6				Investigation of Cellular Response During Apoptosis and Exposure to nanoparticles
Pascale Leroueil, PhD	Staff scientist MNIMBS	PhD Chemistry 2008	Mark Banaszak Holl, PhD Bradford Orr, PhD, James R. Baker Jr., MD	16				Investigation of Nanoparticles with Real and Model Cell Membranes.
Kevin Landmark, PhD	Postdoc under P. Andrew Tator, Chemistry Department, Univ of Minnesota: copper-free click chemistry to create multivalent protein nanostructures for immunological applications. Associate Professor of Physics Augsburg College	PhD Applied Physics 2009	Bradford Orr, PhD Mark Banaszak Holl, PhD James R. Baker, MD Roy Clarke, PhD	7	2			Dendrimer-Coated Iron Oxide Nanoparticles as Targeted MRI Contrast Agents.
Christopher Kelly, PhD	Post-doctoral fellow in the laboratories of Barbara Baird and Harold Craighead at Cornell University	PhD Applied Physics 2009	Bradford Orr, PhD Mark Banaszak Holl, PhD	11				The Biophysics of nanoparticles interacting with the plasma membrane.
Paul E. Makidon, DVM, PhD	Research Investigator, Dept. of Internal Medicine & MNIMBS and Clinical Instructor in Unit for Animal Medicine	PhD Biomedical Engineering 2009 Certificate in NanoBiology	James R. Baker Jr., MD Victor DiRita, Ph.D. Joseph Bull, Ph.D. John Lipuma, M.D.	7	17	4		Oil-in-Water Nanoemulsions as Mucosal Vaccine Adjuvants: Characterization, Mechanism, Formulation, and Development of a Nanoemulsion-Based Burkholderia Cenocepacia Vaccine.
Song Ge, PhD	Looking for a job	PhD Physics 2009	Bradford Orr, PhD James R. Baker, MD Mark Banaszak Holl, PhD Luming Duan, PhD Cagliyan Kurdak, PhD	5		1		Development of a SQUID (Superconducting Quantum Interference Device) Detection System of Magnetic Nanoparticles for Cancer Imaging.
Yunbo Guo	Research fellow Prof. Xudong Fan, Biomedical Engineering, University of Michigan, BS Mechanical Engineering 2002, MS Optical Engineering 2005	PhD Electrical Engineering (Optics) Certificate in NanoBiology 2005 - 2010	Theodore Norris, PhD James R. Baker Jr., MD	19	15	3	15	Development and biomedical application of a novel label-free photonic crystal sensor.
Daniel McNerny	BS Chem Engn/Biomed Engn 2005	PhD Chemical Engineering Certificate in NanoBiology 2005 2010; Postdoctoral Fellow under A. John Hart Mechanical Engineering, University of Michigan	James R. Baker Jr., MD Mark Banaszak Holl, PhD	7	4	1		Design of Poly(amidoamine) Dendron Synthetic Avidity Agents Utilizing Initiation Site Coupling.
Douglas Mullen, PhD	Dick Sarns Innovation Fellow, University of Michigan Medical Innovation Center BSE Mechanical Engineering 2005	PhD Macromolecular Science and Engineering Sci & Eng Certificate in NanoBiology 2005 2010	Mark Banaszak Holl, PhD James R. Baker Jr., MD	14	9	2		Design Challenges in Nanoparticle-based Platforms: Implications for Targeted Drug Delivery Systems
Eric Tkaczyk	University of Tartu Medical School, Tartu, Estonia Associate Professor, Department of Physiology 7/2010 -	MD/PhD 2005 - 2010	Gary Luker, MD Jennifer Ogilvie, PhD Duncan Steel, PhD	13	23			Femtosecond Laser Pulse Optimization for Multiphoton Cytometry and Control of Fluorescence.
Blake Erickson	BS Creat Stud - Physics 2006 BA Creat Stud -Literature 2006; École Polytechnique Fédérale de Lausanne: Laboratory for Bio- and Nano-Instrumentation (June 2010 - )	PhD Biophysics Certificate in NanoBiology 2007 -2010	Mark Banaszak Holl, PhD Bradford Orr, PhD James Baker, MD Zhan Chen, PhD A. Ramamoorthy, PhD	8	1			Functional Imaging and Mechanics of Nanoscale Biological Systems.
<b>SUBTOTALS FORMER STUDENTS</b>				<b>168</b>	<b>135</b>	<b>21</b>	<b>93</b>	

<b>FORMER FELLOWS</b>								
<b>Elliott E. Hill, Ph.D.</b>	BS, Univ. of Michigan 1974; DDS Univ. of Michigan 1978; PhD University of Michigan 2004;	Research Fellow, Internal Medicine-Allergy and Center for Biologic Nanotechnology, University of Michigan, 2004-2006; Assistant Professor, Biological and Materials Sciences, University of Michigan 2007-	James R. Baker Jr., MD	12	1			8
<b>Chunyan Chen, PhD</b>		University of Michigan, Department of Chemistry 2005-2005	James R. Baker Jr., MD					Dendrimers for biomedical applications Packaging Engineer, Intel Corporation, Phoenix, AZ
<b>Lisa Prevetie, PhD</b>	BS Chemistry & Mathematics 2001, Univ. of Cincinnati, Cincinnati, OH	PhD Chemistry 2008 Univ of Cincinnati, OH; Fellowship, University of Michigan Chemistry & MNIMBS 2008-2010; Assistant Professor, Biological and Materials Sciences, University of Michigan 2007-2010; Assistant Professor Department of Chemistry; University of St. Thomas, St. Paul, MN.	Mark Banaszak Holl, PhD; A. Ramamoorthy, H. Al-Hashimi	13	26			12
<b>Whitney A. Dunlap, MD MS</b>	B.A. in History, University of Florida 2000; M.S. in Biomedical Science 2001; M.D., Eastern Virginia Medical School 2005	Internship/Residency Pediatrics, Brown University 2008; Fellow, Allergy and Clinical Immunology and MNIMBS University of Michigan 2008 -2010; Nemours Children's Clinic, Jacksonville, FL 2010-	James R. Baker Jr., MD		4			5
<b>Joseph Wallace, PhD</b>	BS Aerospace Engineering 2002	PhD Chemical Engineering 2007; Postdoc Nanoscale Morphology and Mechanics of Type I Collagen, Department of Chemistry, University of Michigan 2007-2010; Assistant Professor, Department of	David H Kohn, PhD	20	23	1		8
<b>SUBTOTAL FORMER FELLOWS</b>				<b>33</b>	<b>53</b>	<b>1</b>		<b>25</b>
				<b>Pubs</b>	<b>Pres/Post</b>	<b>Pats</b>		<b>Awards</b>
<b>Grand Totals Metrics of Current Students, Fellows and Former Students</b>				<b>254</b>	<b>263</b>	<b>24</b>		<b>188</b>

#### Independent Funding Obtained by Current and Former Students and Postdocs

<b>Eric R. Tkaczyk</b> , as MD/PhD student was awarded: Civilian Research & Development Foundation Grant ESE1-2900-TR-07 2/08 – 2/10; Wrote funded proposal for collaboration between the University of Tartu and University of Michigan: Controlling molecular dynamics of fluorescent biopolymers by shaped femtosecond pulses; Principal Investigators: Dr. Koit Muring (UT) and Professor Theodore B. Norris (UM) Co-investigators: Veera Krasnenko, Eric R. Tkaczyk
<b>Joseph Wallace, PhD</b> , as Postdoctoral Research Fellow was awarded: 1F32DE018840-01 A1 09/01/2008-09/01-2010: Title: Investigating Ultrastructural Collagen Changes in Osteogenesis Imperfecta: Role: Principal Investigator
<b>Seungpyo Hong, PhD</b> , former MNIMBS student, has independent funding: Sept. 2009 - Aug. 2012 Role: PI: National Science Foundation, Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET), Bioengineering: Grant No: CBET-0931472: "Biomimetic Multifunctional Device for Quantification and Analysis of Circulating Tumor Cells (CTCs)" Total Budget: \$312,500; Jun. 2010 - May 2013 Role: co-PI: Susan G. Komen Foundation, Susan G. Komen for the Cure Research Funds - Investigator Initiated Research: Grant No: KG100713: "Topical Transdermal Therapy for Breast Cancer Prevention using Dendrimer Nanoparticles." Total Budget: \$600,000; Jan. 2010 - Dec. 2010 Role: PI: Vahiteich Research Fund, University of Illinois College of Pharmacy: "A Biomimetic Multivalent Dendron-based Novel Nanocarrier for Cancer Targeting." Total Budget: \$50,000; Apr. 2010 - Mar. 2011: Role: PI: Amore-Pacific Co., Ltd.: "Enhanced Transdermal Delivery Systems for Cosmetic Compounds." Total Budget: \$50,000; Jul. 2009 - Jun. 2010 Role: Co-PI: National Cancer Institute (NCI), National Institutes of Health (NIH): Contract No: NO1-CN-43306, Work Assignment 22: "Fourteen Day Oral Range Finding Studies. Toxicity studies in Rats". Total Budget: \$435,797
Eric R. Tkaczyk, MD, PhD has been awarded both a Fulbright Fellowship and a Whitaker Scholarship. After graduating with the M.D. and Ph.D. (Electrical Engineering) degrees in May 2010, he started to use these awards in Estonia to develop a portable and affordable cataract assessment technology.