CURRICULUM VITAE

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Short Biography

Wawrzyniec L. Dobrucki is currently Associate Professor and Associate Head for Graduate Programs in the Department of Bioengineering with affiliations in the Carle Illinois College of Medicine and the Carle R. Woese Institute for Genomic Biology at the University of Illinois at Urbana-Champaign, and the Medical University of Gdansk in Poland. In addition, he holds a full-time faculty position at the Beckman Institute for Advanced Science and Technology, where he serves as co-chair for the Integrative Imaging theme and directs the Experimental Molecular Imaging Laboratory (EMIL). His expertise is in preclinical molecular imaging, and his professional interests include developing novel targeted multimodal imaging strategies to noninvasively assess tissue microenvironments and various biological processes in vivo, including therapeutic neovascularization, atherosclerosis, neoplastic progression, and cancer response to experimental therapies.

Prof. Dobrucki is also involved in translational bioimaging, utilizing his 20-plus years of experience developing and validating novel SPECT/PET radiotracers and multimodal multifunctional contrast agents. He is a member of the Preclinical Imaging Task Force at the Society of Nuclear Medicine and Molecular Imaging, charged with developing a preclinical imaging curriculum for medical and bioengineering scientists to address problems with standardizing small animal imaging protocols. Prof. Dobrucki is a co-founder of two biomedical startup companies and serves as a scientific consultant for Biobanking and Biomolecular Resources Research Infrastructure Poland.

Prof. Dobrucki received his Ph.D. in chemistry from Ohio University, Athens, in 2003 and an M.Sc. degree in bioengineering from the Technical University of Wroclaw, Poland, and Technical University Hamburg, Germany. Before joining the Department of Bioengineering as tenure-track faculty in 2013, Prof. Dobrucki was an Associate Research Scientist at Yale University School of Medicine and a Senior Research Scientist at Beckman Institute, where he directed the Molecular Imaging Laboratory (MIL) in the Biomedical Imaging Center (BIC).

Qualifications Summary

Ph.D. in chemistry, M.Sc. in biomedical engineering, and postdoctoral training in molecular imaging and nuclear cardiology. Extensive, 20+ years of working knowledge of small animal microSPECT-CT, microPET-CT hybrid, and dedicated microCT imaging systems. Experience with optical imaging, ultrasonography, microPET, microSPECT-CT imaging, and design of implantable biosensors to detect reactive oxygen and nitrogen species in vivo. Currently directing the Experimental Molecular Imaging Laboratory (EMIL) at Beckman Institute. An established track record of research publications. Proven independent researcher and principal investigator on federal, state, and professional societies grants, able to secure external funding and collaborate with academic and industrial partners. Proficiency in multimodal targeted radiotracer synthesis and developing and applying advanced imaging

protocols to study biological processes in animal models of disease. Skills include microsurgery, preparation and quality control of radiotracers, image acquisition, reconstruction and processing, and programming (Python, LabView, MatLab, Mathematica). Administration of computer network consisting of 20+ client workstations (Linux, Windows, macOS). Involved in student supervision and training of medical and academic personnel. Invited speaker at national and international professional meetings. Administrative experience at departmental, college, and university levels.

Areas of Research

The combination of different imaging modalities and technologies for mapping biomolecular and biological processes within a single cell or whole organs has an extraordinary potential for revolutionizing the diagnosis and treatment of pathophysiological disorders and thus mitigating the significant social and economic costs associated with the clinical management of diseases. The focus of Dr. Dobrucki's research is to develop such integrated imaging approaches to noninvasively monitor and track physiologic processes, including cancer progression, peripheral and myocardial angiogenesis, and vascular remodeling using functional and anatomical imaging modalities, including SPECT/PET, optical imaging and X-ray CT. Such imaging strategies will eventually lead to individualized programs for disease prevention through advanced diagnosis, risk stratification, and targeted cell therapies, resulting in more successful and efficient health care.

Keywords

PET, SPECT, X-ray CT, optical, molecular imaging, image analysis, multimodal imaging probes, translational imaging, angiogenesis, arteriogenesis, cancer, inflammation, tissue microenvironment

Education

2003 – 2008	Postdoctoral training	Yale University School of Medicine, New Haven, CT
1998 – 2003	Ph.D. in Chemistry	Ohio University, Athens, OH
1991 – 1997	M.Sc. in Bioengineering	Technical University of Wroclaw, Poland
1994 – 1997	B.S. in Bioengineering	Technical University of Hamburg, Germany

Employment

2021 – present	Health Innovation Professor	Carle-Illinois College of Medicine, University of Illinois at Urbana-Champaign, Urbana, IL
2019 – present	Associate Professor	Grainger College of Engineering, University of Illinois at Urbana-Champaign, Urbana, IL
2019 – present	Associate Professor	Carle-Illinois College of Medicine, University of Illinois at Urbana-Champaign, Urbana, IL
2013 – present	Full-time faculty	Beckman Institute for Advanced Science and Technology, Urbana, IL
2017 – 2019	Assistant Professor	Carle-Illinois College of Medicine, University of Illinois at Urbana-Champaign, Urbana, IL
2013 – 2019	Assistant Professor	Grainger College of Engineering, University of Illinois at Urbana-Champaign, Urbana, IL
2010 – 2013	Senior Research Scientist	Beckman Institute for Advanced Science and Technology, Urbana, IL
2009 – 2010	Associate Research Scientist	Yale University School of Medicine, New Haven, CT
2003 – 2009	Postdoctoral Associate	Yale University School of Medicine, New Haven, CT
2002 – 2003	Visiting Assistant Professor	Ohio University, Athens, OH
2000 – 2002	Graduate Research Assistant	Ohio University, Athens, OH
1998 – 2000	Graduate Research Assistant	Oakland University, Rochester, MI
1997 – 1998	Regional Sales Manager	Stryker Corporation - Endoscopy, Warsaw, Poland

1996 – 1997	Biostatistician	proDERM Institute, Hamburg, Germany
1995 – 1996	Research Associate	University of the Federal Armed Forces (Bundeswehr), Hamburg, Germany

Honors and Awards

2002	John Houk Memorial Research Award, Ohio University, Athens, OH
2002	Ohio University's Outstanding Student Research Award, Ohio University, Athens, OH
2004	Young Investigator Award, American Society of Nuclear Cardiology, Bethesda, MD
2005	Best Regional Abstract, ICNC7, Lisbon, Portugal
2005	Alexander-Hudson Brown-Coxe Fellowship Research Award, Yale University, New Haven, CT
2005	American Heart Association Postdoctoral Fellowship Award
2006	Academy of Molecular Imaging Travel Scholarship, Orlando, FL
2006	American Heart Association Postdoctoral Fellowship Award
2006	Juvenile Diabetes Research Foundation Advanced Postdoctoral Award
2009	Society of Nuclear Medicine Basic Science Research Award
2011	University of Illinois Research Board Award
2012	Siemens Preclinical Image of the Year Award
2015 - 2017	Senator, University of Illinois at Urbana-Champaign Senate
2015 - 2017	Excellent Teachers List, University of Illinois at Urbana-Champaign, Urbana, IL
2019 - 2021	Excellent Teachers List, University of Illinois at Urbana-Champaign, Urbana, IL
2021	Health Innovation Professor, Carle-Illinois College of Medicine, Urbana, IL
2023	Neil and Carol Ruzic Faculty Scholar, Carle-Illinois College of Medicine, Urbana, IL
2023	Excellence in Scholarly Activity Award, Carle-Illinois College of Medicine, Urbana, IL

Professional Affiliations

2000	American Physiological Society, Member
2007	Society of Nuclear Medicine and Molecular Imaging, Member
2007	The New York Academy of Sciences, Member
2010	World Molecular Imaging Society (WMIS), Member
2010	American Heart Association (AHA), Full Member
2013	UIC Cancer Center, Member
2013	Biomedical Engineering Society (BMES), Full Member
2014	Cancer Center at Illinois (CCIL), Member

Teaching and Instruction

2010 – present	BIOE-120 Introduction to Bioengineering (invited lecturer)
2010 – present	BIOE-436 Senior Design (faculty sponsor)
2011 – 2021	BIOE-507 Advanced Bioinstrumentation (invited lecturer)
2011 – 2017	NPRE-435 Principles of Imaging with Ionizing Radiation (laboratory)
2013 – 2021	BIOE-414 Biomedical Instrumentation (course director and lecturer)
2013 – present	BIOE-498 Preclinical Molecular Imaging (course director and lecturer)
2016 – 2021	BIOE-571 Biological Measurement I (section lecturer)
2016 – 2021	BIOE-572 Biological Measurement II (section lecturer)
2018 – 2021	BIOE-572 Biological Measurement II (online course, section lecturer)
2018 – present	BSE-631 Cardiovascular Module (engineering co-director)
2020 – 2022	BIOE-575 M.Eng. Capstone Project (faculty sponsor)
2021 – 2023	CIMED Capstone Project (faculty sponsor, co-mentor)
2021 – present	BIOE-598 Principles of Bioinstrumentation Design (course director)

Service and Leadership

Department of Bioengineering

2013 - present	Qualifying Exam Committee, Member
2014 - 2021	Graduate Admissions Committee, Member
2015 - 2017	Graduate Admissions Committee, Chair
2014 - 2018	Executive Committee, Elected Member
2014 - 2017	Faculty Search Committee, Member
2015 - 2016	Everitt Remodeling Committee, Member
2015 - 2019	Diversity Advocate
2017 - 2021	Internal Advisory Committee, Member
2019 - 2021	Professional Master's in Engineering (M.Eng) Program, Director
2019 - present	Administration Team, Member
2021 - present	Graduate Admissions Committee, Chair
2021 - present	Associate Head for Graduate Programs

Beckman Institute for Advanced Science and Technology

2011 - present	Nuclear Imaging Steering Committee, Member
2011 - present	Focus Group for Nuclear Imaging, Member
2012 - present	Pilot Award Selection Committee, Member
2013 - 2020	Graduate Fellowships Committee, Member
2013	Imaging at Illinois Conference, Session chair
2016	1st IVIS Optical-Nuclear Imaging Workshop, co-organizer
2017 - present	Center for Optical Molecular Imaging, Steering Committee, Member
2017 - 2019	Program Advisory Committee, Member
2019 - present	Integrative Imaging Theme, co-Chair
2019 - present	Beckman Institute Executive Committee, Member

Grainger College of Engineering

2013 - 2018	IT Governance Committee, Member
2015 - 2016	GCoE Growth Task Force, Graduate Education and Research, Member
2018	Ad-hoc Committee of Executive Committee of the Grainger College of Engineering
2019 - present	GCoE Fellowship Board, Member

Carle-Illinois College of Medicine

2017 - 2018	Medical Sciences Building - Carle Illinois College of Medicine Renovation Committee
2017 - 2021	Admissions Committee, Member
2017 - 2019	Competencies Subcommittee, Chair
2017 - present	Cardiovascular Module, Engineering co-Director
2019 - present	Department of Biomedical and Translational Sciences Executive Committee, Member
2021 - present	Health Innovation Professor
2021 - present	Health Innovation Research Day, Planning and Program Committee, co-chair
2022 - present	Engineering and Innovation Committee, Member

UIUC Campus

2011 - present	Radiation and Laser Safety Committee, Member
2015 - 2017	University of Illinois Senate, Elected Senator
2016 - 2018	The Graduate Image of Research Selection Committee, Member

2016 - 2019 Admissions Committee, University of Illinois Senate, Member
2022 Search Committee for Radiation Safety Director, Member

Other Professional Services

Entrepreneurial Activities

2017 - present ImagoSura, Inc., scientific consultant
2017 - 2019 PhantomCor, Inc., VP for Research and co-owner

Biobanking and Biomolecular Research Resources

2017 - present Biobanking and Biomolecular Resources Research Infrastructure Poland, Consultant
2017 - present Central Bank of Frozen Tissues and Genetic Specimens, Medical University of Gdansk

Society of Nuclear Medicine and Molecular Imaging (SNMMI)

2012 - present Center for Molecular Imaging Innovation and Translation (CMIIT), Member
2012 - present CMIIT's Preclinical Task Force, Member
2012 - present SNMMI Central Chapter, Member
2013 - present Abstract reviewer

World Molecular Imaging Congress (WMIC)

2013 – present Abstract reviewer

American Heart Association (AHA)

2010 - present Regular member
2017 - present PVD Panel, member

Biomedical Engineering Society (BMES)

2015 - present Abstract reviewer
2015 - 2019 Session chair (Multimodal Imaging session)

Americal Physiological Society (APS)

2013 - present Abstract reviewer
2013 Session chair and co-organizer (Imaging of angiogenesis session)

Advisory and Grant Selection Panels

2011 - present Foundation for Polish Science
2012 - present Ministry of Science and Higher Education, Poland
2017 - present The Chancellery of the President of the Republic of Poland, scientific consultant

Editorial Board Activities

2010 - present Associate Editorial Board, American Journal of Nuclear Medicine and Molecular Imaging
2014 - 2016 Associate Editor, IEEE Transactions in Medical Imaging (IEEE-TMI)
2018 - present Advisory Board, European Journal of Translational and Clinical Medicine
2019 - present Associate Editorial Board, Angiogenesis

Peer-review Activities

Journal of Nuclear Medicine, American Journal of Physiology, IEEE Photonics, Journal of Applied Physiology, Cancer Biotherapy & Radiopharmaceuticals, IEEE Transactions in Medical Imaging, Molecular Imaging and

Biology, Molecular Pharmaceutics, Biomaterials, Future Medicinal Chemistry, Medical Physics, Angiogenesis, ACS Nano, Theranostics, European Journal of Nuclear Medicine and Molecular Imaging

Publications

ORCID Profile: orcid.org/0000-0002-6807-217X
Google Scholar Profile: scholar.google.com/citations?user=G7pJdK4AAAAJ

All years: Total citations: 5989. H-index: 41. I10-index: 79.
Since 2017: Total citations: 2755. H-index: 29. I10-index: 54.

Peer-reviewed Manuscripts

1. Malinski T**, Dobrucki** LW, Brovkovych V. The role of nitric oxide in ischemia of the brain and heart. Shock. 1999;12: 40.
2. Frenzel T, Krüll A, Schmidt R, **Dobrucki** W, Malys B, Box W. Ein Computerlernprogramm für die Strahlentherapie. Z Med Phys. 1999;9: 56–59.
3. Brovkovych V, **Dobrucki** LW, Brovkovych S, Dobrucki I, Do Nascimento CA, Burewicz A, et al. Nitric oxide release from normal and dysfunctional endothelium. J Physiol Pharmacol. 1999;50: 575–586.
4. Kidd GA, **Dobrucki** LW, Brovkovych V, Bohr DF, Malinski T. Nitric oxide deficiency contributes to large cerebral infarct size. Hypertension. 2000;35: 1111–1118.
5. **Dobrucki** LW, Kalinowski L, Uracz W, Malinski T. The protective role of nitric oxide in the brain ischemia. J Physiol Pharmacol. 2000;51: 695–703.
6. Brovkovych V, **Dobrucki** LW, Brovkovych S, Dobrucki I, Kalinowski L, Kiechle F, et al. Nitric oxide measurements during endotoxemia. Clin Chem. 2001;47: 1068–1074.
7. **Dobrucki** LW, Kalinowski L, Dobrucki IT, Malinski T. Statin-stimulated nitric oxide release from endothelium. Med Sci Monit. 2001;7: 622–627.
8. Kalinowski L, **Dobrucki** LW, Malinski T. Nitric oxide as a second messenger in parathyroid hormone-related protein signaling. J Endocrinol. 2001;170: 433–440.
9. **Dobrucki** LW, Cabrera CL, Bohr DF, Malinski T. Central hypotensive action of clonidine requires nitric oxide. Circulation. 2001;104: 1884–1886.
10. Kalinowski L, **Dobrucki** LW, Brovkovych V, Malinski T. Increased nitric oxide bioavailability in endothelial cells contributes to the pleiotropic effect of cerivastatin. Circulation. 2002;105: 933–938.
11. Wiemer G, **Dobrucki** LW, Louka FR, Malinski T, Heitsch H. AVE 0991, a nonpeptide mimic of the effects of angiotensin-(1-7) on the endothelium. Hypertension. 2002;40: 847–852.
12. Kalinowski L, **Dobrucki** LW, Szczepanska-Konkel M, Jankowski M, Martyniec L, Angielski S, et al. Third-generation beta-blockers stimulate nitric oxide release from endothelial cells through ATP efflux: a novel mechanism for antihypertensive action. Circulation. 2003;107: 2747–2752.
13. Linz W, Itter G, **Dobrucki** LW, Malinski T, Wiemer G. Ramipril improves nitric oxide availability in hypertensive rats with failing hearts after myocardial infarction. J Renin Angiotensin Aldosterone Syst. 2003;4: 180–185.
14. Nanobashvili J, Neumayer C, Fuegl A, Punz A, Blumer R, Mittlböck M, **Dobrucki** LW, et al. Combined L-arginine and antioxidative vitamin treatment mollifies ischemia-reperfusion injury of skeletal muscle. J Vasc Surg. 2004;39: 868–877.
15. **Dobrucki** LW, Sinusas AJ. Cardiovascular molecular imaging. Semin Nucl Med. 2005;35: 73–81.
16. **Dobrucki** LW, Sinusas AJ. Molecular imaging - A new approach to nuclear cardiology. Q J Nucl Med Mol Imaging. 2005;49: 106–115.

17. Hua J, **Dobrucki** LW, Sadeghi MM, Zhang J, Bourke BN, Cavaliere P, et al. Noninvasive imaging of angiogenesis with a 99mTc-labeled peptide targeted at alphavbeta3 integrin after murine hindlimb ischemia. Circulation. 2005;111: 3255–3260.
18. Li S, **Dobrucki** LW, Sinusas AJ, Liu Y-H. A new method for SPECT quantification of targeted radiotracers uptake in the myocardium. Med Image Comput Comput Assist Interv. 2005;8: 684–691.
19. Jackowski M, Papademetris X, **Dobrucki** LW, Sinusas AJ, Staib LH. Characterizing vascular connectivity from microCT images. Med Image Comput Comput Assist Interv. 2005;8: 701–708.
20. **Dobrucki** LW, Sinusas AJ. Molecular cardiovascular imaging. Curr Cardiol Rep. 2005;7: 130–135.
21. **Dobrucki** LW, Sinusas AJ. Molecular imaging. A new approach to nuclear cardiology. Q J Nucl Med Mol Imaging. 2005;49: 106–115.
22. Su H, Spinale FG, **Dobrucki** LW, Song J, Hua J, Sweterlitsch S, et al. Noninvasive targeted imaging of matrix metalloproteinase activation in a murine model of postinfarction remodeling. Circulation. 2005;112: 3157–3167.
23. Lindsey ML, Escobar GP, **Dobrucki** LW, Goshorn DK, Bouges S, Mingoia JT, et al. Matrix metalloproteinase-9 gene deletion facilitates angiogenesis after myocardial infarction. Am J Physiol Heart Circ Physiol. 2006;290: H232-9.
24. Goyal A, Wang Y, Su H, **Dobrucki** LW, Brennan M, Fong P, et al. Development of a model system for preliminary evaluation of tissue-engineered vascular conduits. J Pediatr Surg. 2006;41: 787–791.
25. Luo D, Luo Y, He Y, Zhang H, Zhang R, Li X, **Dobrucki** LW, et al. Differential Functions of Tumor Necrosis Factor Receptor 1 and 2 Signaling in Ischemia-Mediated Arteriogenesis and Angiogenesis. Am J Pathol. 2006;169: 1886–1898.
26. **Dobrucki** LW, Sinusas AJ. Imaging angiogenesis. Curr Opin Biotechnol. 2007;18: 90–96.
27. Kalinowski L, **Dobrucki** LW, Meoli DF, Dione DP, Sadeghi MM, Madri JA, et al. Targeted imaging of hypoxia-induced integrin activation in myocardium early after infarction. J Appl Physiol. 2008;104: 1504–1512.
28. Zhang J, Nie L, Razavian M, Ahmed M, **Dobrucki** LW, Asadi A, et al. Molecular Imaging of Activated Matrix Metalloproteinases in Vascular Remodeling. Circulation. 2008;118: 1953–1960.
29. **Dobrucki** LW, Dione DP, Kalinowski L, Dione D, Mendizabal M, Yu J, et al. Serial noninvasive targeted imaging of peripheral angiogenesis: validation and application of a semiautomated quantitative approach. J Nucl Med. 2009;50: 1356–1363.
30. Suh JW, Scheinost D, Dione DP, **Dobrucki** LW, Sinusas AJ, Papademetris X. A non-rigid registration method for serial microCT mouse hindlimb images. Med Image Comput Comput Assist Interv. 2009;12: 688–695.
31. Qian X, Brennan MP, Dione DP, **Dobrucki** WL, Jackowski MP, Breuer CK, et al. A non-parametric vessel detection method for complex vascular structures. Med Image Anal. 2009;13: 49–61.
32. **Dobrucki** LW, Meoli DF, Hu J, Sadeghi MM, Sinusas AJ. Regional hypoxia correlates with the uptake of a radiolabeled targeted marker of angiogenesis in rat model of myocardial hypertrophy and ischemic injury. J Physiol Pharmacol. 2009;60 Suppl 4: 117–123.
33. **Dobrucki** LW, Marsh BJ, Kalinowski L. Elucidating structure-function relationships from molecule-to-cell-to-tissue: from research modalities to clinical realities. J Physiol Pharmacol. 2009;60 Suppl 4: 83–93.
34. **Dobrucki** LW, de Muinck ED, Lindner JR, Sinusas AJ. Approaches to Multimodality Imaging of Angiogenesis. J Nucl Med. 2010. doi:jnumed.110.074963 [pii] 10.2967/jnumed.110.074963
35. **Dobrucki** LW, Tsutsumi Y, Kalinowski L, Dean J, Gavin M, Sen S, et al. Analysis of angiogenesis induced by local IGF-1 expression after myocardial infarction using microSPECT-CT imaging. J Mol Cell Cardiol. 2010;48: 1071–1079.
36. **Dobrucki** LW, Sinusas AJ. PET and SPECT in cardiovascular molecular imaging. Nat Rev Cardiol. 2010;7: 38–47.

37. Razavian M, Zhang J, Nie L, Tavakoli S, Razavian N, **Dobrucki** LW, et al. Molecular Imaging of Matrix Metalloproteinase Activation to Predict Murine Aneurysm Expansion In Vivo. J Nucl Med. 2010;51: 1107–1115.
38. Spinale FG, Mukherjee R, Zavadzkas JA, Koval CN, Bouges S, Stroud RE, **Dobrucki** LW, et al. Cardiac restricted overexpression of membrane type-1 matrix metalloproteinase causes adverse myocardial remodeling following myocardial infarction. J Biol Chem. 2010;285: 30316–30327.
39. Tavakoli S, Razavian M, Zhang J, Nie L, Marfatia R, **Dobrucki** LW, et al. Matrix metalloproteinase activation predicts amelioration of remodeling after dietary modification in injured arteries. Arterioscler Thromb Vasc Biol. 2011;31: 102–109.
40. Suh JW, Scheinost D, Dione DP, **Dobrucki** LW, Sinusas AJ, Papademetris X. A non-rigid registration method for serial lower extremity hybrid SPECT/CT imaging. Med Image Anal. 2011;15: 96–111.
41. Liu Y-H, Sahul Z, Weyman CA, Dione DP, **Dobrucki** WL, Mekkaoui C, et al. Accuracy and Reproducibility of Absolute Quantification of Myocardial Focal Tracer Uptake from Molecularly Targeted SPECT/CT: A Canine Validation. J Nucl Med. 2011;52: 453–460.
42. Sahul ZH, Mukherjee R, Song J, McAteer J, Stroud RE, Dione DP, **Dobrucki** LW, et al. Targeted imaging of the spatial and temporal variation of matrix metalloproteinase activity in a porcine model of postinfarct remodeling: relationship to myocardial dysfunction. Circ Cardiovasc Imaging. 2011;4: 381–391.
43. Hibino N, Villalona G, Pietris N, Duncan DR, Schoffner A, Roh JD, **Dobrucki** LW, et al. Tissue-engineered vascular grafts form neovessels that arise from regeneration of the adjacent blood vessel. The FASEB Journal. 2011;25: 2731–2739.
44. Criscione JM, **Dobrucki** LW, Zhuang ZW, Papademetris X, Simons M, Sinusas AJ, et al. Development and application of a multimodal contrast agent for SPECT/CT hybrid imaging. Bioconjug Chem. 2011;22: 1784–1792.
45. Razavian M, Tavakoli S, Zhang J, Nie L, **Dobrucki** LW, Sinusas AJ, et al. Atherosclerosis Plaque Heterogeneity and Response to Therapy Detected by In Vivo Molecular Imaging of Matrix Metalloproteinase Activation. J Nucl Med. 2011;52: 1795–1802.
46. **Dobrucki** LW, Kalinowski L. Molecular Imaging of Left Ventricular Remodeling. Curr Cardiovasc Imaging Rep. 2012;5: 188–197.
47. **Dobrucki** I, Schuelke MR, Lapi S, Dobrucki LW. Novel 64Cu-labeled targeted agent provides favorable biodistribution, high purity, and stability for PET imaging of angiogenesis. J Nucl Med. 2012;53: 28.
48. Hedhli N, **Dobrucki** LW, Kalinowski A, Zhuang ZW, Wu X, Russell RR 3rd, et al. Endothelial-derived neuregulin is an important mediator of ischaemia-induced angiogenesis and arteriogenesis. Cardiovasc Res. 2012;93: 516–524.
49. Domagala TB, Szeffler A, **Dobrucki** LW, Dropinski J, Polanski S, Leszczynska-Wiloch M, et al. Nitric oxide production and endothelium-dependent vasorelaxation ameliorated by N1-methylnicotinamide in human blood vessels. Hypertension. 2012;59: 825–832.
50. Tang L, Yang X, **Dobrucki** LW, Chaudhury I, Yin Q, Yao C, et al. Aptamer-Functionalized, Ultra-Small, Monodisperse Silica Nanoconjugates for Targeted Dual-Modal Imaging of Lymph Nodes with Metastatic Tumors. Angewandte Chemie - International Edition. 2012;51: 12721–12726.
51. Yin Q, Tong R, Xu Y, Baek K, **Dobrucki** LW, Fan TM, et al. Drug-initiated ring-opening polymerization of O-carboxyanhydrides for the preparation of anticancer drug-poly(O-carboxyanhydride) nanoconjugates. Biomacromolecules. 2013;14: 920–929.
52. Yin Q, Yap FY, Yin L, Ma L, Zhou Q, **Dobrucki** LW, et al. Poly(iohexol) nanoparticles as contrast agents for in vivo X-ray computed tomography imaging. J Am Chem Soc. 2013;135: 13620–13623.
53. Xing H, Tang L, Yang X, Hwang K, Wang W, Yin Q, **Dobrucki** LW, et al. Selective delivery of an anticancer drug with aptamer-functionalized liposomes to breast cancer cells in vitro and in vivo. J Mater Chem B Mater Biol Med. 2013;1: 5288–5297.

54. Li S, Sinusas AJ, **Dobrucki** LW, Liu Y-H. New approach to quantification of molecularly targeted radiotracer uptake from hybrid cardiac SPECT/CT: methodology and validation. J Nucl Med. 2013;54: 2175–2181.
55. Mehra VC, Jackson E, Zhang XM, Jiang X-C, **Dobrucki** LW, Yu J, et al. Ceramide-activated phosphatase mediates fatty acid-induced endothelial VEGF resistance and impaired angiogenesis. Am J Pathol. 2014;184: 1562–1576.
56. Tang L, Yang X, Yin Q, Cai K, Wang H, Chaudhury I, **Dobrucki** LW, et al. Investigating the optimal size of anticancer nanomedicine. Proc Natl Acad Sci U S A. 2014;111: 15344–15349.
57. Hedhli J, Schuh S, Czerwinski A, Huntsman H, Dobrucka I, Slania S, **Dobrucki** LW, et al. Molecular imaging of stem cells induced angiogenesis at the onset of microvascular complications in type-1 diabetes. J Nucl Med. 2015;56: 590.
58. Li J, **Dobrucki** LW, Marjanovic M, Chaney EJ, Suslick KS, Boppart SA. Enhancement and wavelength-shifted emission of Cerenkov luminescence using multifunctional microspheres. Phys Med Biol. 2015;60: 727–739.
59. Tang L, Yin Q, Xu Y, Zhou Q, Cai K, Yen J, **Dobrucki** LW, et al. Bioorthogonal oxime ligation mediated in vivo cancer targeting. Chem Sci. 2015;6: 2182–2186.
60. **Dobrucki** LW, Pan D, Smith AM. Multiscale Imaging of Nanoparticle Drug Delivery. Curr Drug Targets. 2015;16: 560–570.
61. Mu Z, **Dobrucki** LW, Liu Y-H. SPECT Imaging of 2-D and 3-D Distributed Sources with Near-Field Coded Aperture Collimation: Computer Simulation and Real Data Validation. J Med Biol Eng. 2016;36: 32–43.
62. Wang H, Tang L, Liu Y, Dobrucka IT, **Dobrucki** LW, Yin L, et al. *In Vivo* Targeting of Metabolically Labeled Cancers with Ultra-Small Silica Nanoconjugates. Theranostics. 2016;6: 1467–1476.
63. Ma L, Liu T-W, Wallig MA, Dobrucki IT, **Dobrucki** LW, Nelson ER, et al. Efficient Targeting of Adipose Tissue Macrophages in Obesity with Polysaccharide Nanocarriers. ACS Nano. 2016;10: 6952–6962.
64. Yin Q, Tang L, Cai K, Tong R, Sternberg R, Yang X, **Dobrucki** LW, et al. Pamidronate functionalized nanoconjugates for targeted therapy of focal skeletal malignant osteolysis. Proceedings of the National Academy of Sciences. 2016;113: E4601–E4609.
65. Wang H, Wang R, Cai K, He H, Liu Y, Yen J, **Dobrucki** LW, et al. Selective in vivo metabolic cell-labeling-mediated cancer targeting. Nat Chem Biol. 2017;13: 415–424.
66. Huntsman H, Merritt J, Pincu Y, Cobert A, De Lisio M, Dvoretskiy S, **Dobrucki** LW, et al. Preconditioned Mesenchymal Stem Cells Improve Muscle Function and Neuroplasticity in Aged Mice. Exp Geron. 2017.
67. Hedhli J, Konopka CJ, Schuh S, Bouvin H, Cole JA, Huntsman HD, **Dobrucki** LW, et al. Multimodal Assessment of Mesenchymal Stem Cell Therapy for Diabetic Vascular Complications. Theranostics. 2017;7: 3876–3888.
68. Knox HJ, Hedhli J, Kim TW, Khalili K, **Dobrucki** LW, Chan J. A bioreducible N-oxide-based probe for photoacoustic imaging of hypoxia. Nat Commun. 2017;8. doi:10.1038/s41467-017-01951-0
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PET and Cerenkov Luminescence Imaging of Cancer" presented at the University of Illinois Cancer Research Forum, March 6, 2012

34. Kalinowski L, Siekierzycka A, Stepnowska M, Szeffler A, Dobrucki IT, Wojciechowski J, Rogowski J, **Dobrucki** LW. "Direct Evidence for eNOS-mediated Endothelial Dysfunction in Atherosclerotic Lesions of Human Arteries" European Atherosclerosis Society Congress 2013
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36. Li J, **Dobrucki** LW, Marjanovic M, Chaney EJ, Boppart SA "Multimodal Microspheres for Targeted PET and Cerenkov Luminescence-Excited Fluorescence Imaging of Angiogenesis" SPIE 2013
37. Stepnowska M, Siekierzycka A, Dobrucki IT, Wojciechowski J, Szeffler A, Rogowski J, **Dobrucki** LW, Kalinowski L "Endothelial Dysfunction in Atherosclerotic Lesions of Human Arteries is associated with eNOS Uncoupling" ESC Congress 2013
38. Siekierzycka A, Stepnowska M, **Dobrucki** LW, Wojciechowski J, Wozniak M, Rogowski J, Dobrucki IT, Kalinowski L "Endothelial Dysfunction in Arteries from Patients with Induced Hyperhomocysteinemia Is Associated with eNOS-mediated Nitrooxidative Stress" ESC Congress 2013
39. Wozniak M, Dobrucki IT, Szeffler A, Stepnowska M, Siekierzycka A, Schuelke MR, Oleksiewicz A, Grossin N, Boulanger E, Schmidt AM, Kalinowski L, **Dobrucki** LW "PET imaging of receptor for advanced glycation end-products in a murine model of hindlimb ischemia" European Molecular Imaging Meeting 2013
40. Dobrucki IT, Czerwinski A, Schuelke MR, Wozniak M, Valenzuela F, Sowinski P, Kalinowski L, **Dobrucki** LW "Synthesis, Characterization, and Biological Evaluation of Novel Dimeric cRGD Peptide for PET Imaging of alpha-v-beta-3 Integrin Expression" American Peptide Society Meeting 2013
41. Dobrucki IT, Schuelke MR, Valenzuela F, Czerwinski A, **Dobrucki** LW. "Evaluation of novel dimeric-cRGD peptide for targeted PET-CT imaging of peripheral angiogenesis in diabetic mice" J Nucl Med 2013
42. Schuelke MR, Dobrucki IT, Caffarini JG, **Dobrucki** LW "Targeted PET-CT Imaging and Quantification of Myocardial Angiogenesis Demonstrates Altered Alpha-V Integrin Activation in Type-1 Diabetes Mellitus" ASNC 2013
43. Oleksiewicz A, Dobrucki IT, Schuelke MR, **Dobrucki** LW "Comparison of Various Image Analysis Techniques to Quantify Peripheral Angiogenesis with Hybrid PET-CT Imaging" ASNC 2013
44. Slania SL, Dobrucki IT, Czerwinski A, Valenzuela F, **Dobrucki** LW "Initial Evaluation of Novel Dimeric-cRGD Peptide for Multimodal Imaging of Angiogenesis" BMES Annual Meeting 2013, Seattle, WA
45. Szeffler A, Dobrucki IT, Wozniak M, Schuelke M, Kalinowski L, **Dobrucki** LW "Molecular Targeted Imaging of Receptor for Advanced Glycation End-products (RAGE)" 1st American Heart Association Symposium 2013, Loyola University, Chicago
46. Szeffler A, Stawarz A, Slania S, Kalinowski L, **Dobrucki** LW, Dobrucka IT "In vitro and in vivo evaluation of doxorubicin-based anti-cancer treatment in combination with the herbal medicine black cohosh" Experimental Biology 2014, San Diego, CA
47. Szeffler A, Dobrucka IT, Schuh S, Wozniak M, Hedhli J, Slania S, Kalinowski L, **Dobrucki** LW "Synthesis, characterization, and biological evaluation of novel multimodal dendrimer-based probe for targeted imaging of receptor for advanced glycation end-products" SNMMI Annual Meeting 2014 (selected for YIA seminar, oral presentation), St. Louis, MO
48. Kalinowski L, Ploska A, Siekierzycka A, **Dobrucki** LW, Wojciechowski J, Wozniak M, Rogowski J, Dobrucki IT "Association between NADPH Oxidase Activity and NO Bioavailability in Human Blood Arteries of Hyperhomocysteinemic Patients" Experimental Biology 2015, Boston, MA

49. Hedhli J, Schuh S, Czerwinski S, Huntsman HD, Dobrucki IT, Slania S, Boppart M, **Dobrucki** LW "Molecular imaging of stem cell induced angiogenesis at the onset of microvascular complications in type-1 diabetes" SNMMI Annual Meeting 2015 (oral presentation), Baltimore, MD, J Nucl Med 2015; 56 (Suppl 3): 590
50. Konopka CJ, Hedhli J, LaHood L, Patel A, Dobrucki IT, Munirathinam G, Kajdacsy-Balla A, **Dobrucki** LW "Synthesis, Characterization and In Vivo Evaluation of RAGE Targeted Nanoparticles for Molecular Imaging of Prostate Cancer" BMES 2015 (oral presentation), Tampa, FL
51. Mizzoni C, Konopka C, LaHood L, Patel A, Lee I, Ploska A, Hedhli J, Dobrucki IT, Kalinowski L, **Dobrucki** LW "PET-Optical Imaging of Receptor for Advanced Glycation End-Products (RAGE) in Androgen-Sensitive Prostate Cancer" BMES 2015 (oral presentation), Tampa, FL
52. Dobrucki IT, Schuh S, Szeffler A, Hedhli J, Helferich WG, Kalinowski L, **Dobrucki** LW "PET-CT Imaging Of Tumor Angiogenesis And Metabolism For Evaluation Of Complementary And Alternative Medicine (CAM) Treatment Of Breast Cancer" WMIC Annual Meeting 2015, Honolulu, HI
53. Ploska A, Hedhli J, Konopka C, LaHood L, Dobrucki IT, Kalinowski L, **Dobrucki** LW "Serial molecular imaging of the receptor for advanced glycation end-products with multimodal nanoparticle-based targeted probe in preclinical models of hindlimb ischemia" SNMMI 2016, San Diego, CA
54. Konopka C, Patel AD, Dobrucka IT, Munirathinam G, **Dobrucki** LW "Quantitative evaluation of RAGE targeted strategy for the molecular imaging of prostate cancer" WMIC 2016 Annual Meeting (oral presentation), New York, NY
55. Bouvin H, Hedhli J, Dobrucka IT, **Dobrucki** LW "Evaluation of adipose-derived mesenchymal stem cell therapy on peripheral neovascularization in diabetic mice" (oral presentation) BMES 2016
56. Shahid H, Au J, Cornwell N, Goel V, Hadley P, Hasnain A, Haynie J, Hwang B, Lew J, Saadah B, Yang T, Yeh H, Sutton B, **Dobrucki** LW "Dynamic Myocardial Phantom for the Calibration of Multimodal Imaging Protocols and Modeling Methods" BMES 2016
57. Rendeiro C, Konopka C, Snyder A, Pinardo H, Bhattacharya TK, Rodriques-Mateos A, Moulton C, **Dobrucki** LW, Rhodes JS "Modulation of cerebral blood perfusion by cocoa flavanols in aged mice: acute and chronic effects" FASEB J 2017; 31 (Suppl 1): lb419
58. Lenczowski E, Konopka C, Dobrucki IT, **Dobrucki** LW "Psoriasis: It's All the RAGE" Layola University, St. Alberts Day 2017 (oral presentation), Chicago, IL
59. Hedhli J, Konopka C, Ploska A, Schuh S, Kalinowski L, Dobrucka I, **Dobrucki** LW "Molecular imaging of tumor microenvironment to study synergistic effects of therapy with doxorubicin and CAMs" J Nucl Med 2017; 58 (Suppl 1): 1021
60. Kim M, Hedhli J, **Dobrucki** LW, Abbey K, Insana MF "Optimal Filtering for Improved Perfusion Sensitivity" IEEE International Ultrasonics Symposium 2017, Article number 8092680
61. Huynh T, Hedhli J, Konopka C, Lee J, Kilian K, **Dobrucki** LW "Cellular Topological Growth Limits Affect Melanoma Phenotype" BMES 2017, Phoenix, AZ
62. Konopka C, Hedhli J, Lee J, Huynh T, Dobrucki IT, Kilian K, **Dobrucki** LW "A non-invasive analysis of the tumor microenvironment in a novel stem-like cancer cell xenograft model" BMES 2017 (oral presentation), Phoenix, AZ
63. Shahid H, Au J, Goel V, Hadley P, Hasnain A, Hwang B, Kizerwetter M, Lew J, Saadah B, Soares C, Sunny L, Yang T, Yeh H, **Dobrucki** LW "Myocardial phantom for dynamic multimodal imaging calibration and modeling methods" BMES 2017 (oral presentation), Phoenix, AZ
64. Hedhli J, Konopka C, Schuh S, Bouvin H, Huynh T, Cole J, Huntsman H, Kilian K, Dobrucki IT, Boppart M, **Dobrucki** LW "Mesenchymal stem cell therapy for diabetic vascular complications exerts multifaceted effects on ischemic tissue microenvironment" AHA Scientific Sessions 2017, Anaheim, CA (2017 Jay D. Coffman Early Career Investigator Award)

65. Wozniak M, Konopka C, Hedhli J, Ploska A, Siekierzycka A, Dobrucki IT, Kalinowski L, **Dobrucki** LW "Synthesis, Characterization and Biological Evaluation of Multimodal Dendrimer-based Probe for Targeted Imaging of Receptor for Advanced Glycation End-products" Europe Biobank Week 2018 Conference, Antwerp, Belgium (poster presentation)
66. Hedhli J, Kim M, Knox H, Huynh T, Dobrucki IT, Chan J, Sinusas AJ, Insana MF, **Dobrucki** LW "A Multimodal Noninvasive Imaging Strategy to Quantitatively Assess Functional Recovery in Preclinical Model of Peripheral Arterial Disease" BMES Annual Meeting 2018, Atlanta, GA (oral presentation, travel award)
67. Konopka C, Snyder A, Nguyen Q, Dobrucka IT, Rhodes J, **Dobrucki** LW"Evaluation Of A User-Friendly Method for Regional Analysis Of Cerebral Blood Perfusion Using SPECT-CT" BMES Annual Meeting 2018, Atlanta, GA (oral presentation)
68. Wallon, R. C., Adoni, N., and **Dobrucki**, L. W. "Using an engineering lens and a clinical lens to view cardiovascular imaging: A comparison of instructor and student perspectives on an integrated lecture series". Poster to be presented at the annual meeting of the Association of American Medical Colleges Central Group on Educational Affairs 2019, Grand Rapids, MI.
69. Blair, S., Garcia, M., Konopka, C., **Dobrucki**, L.W., Gruev, V. "A 27-band snapshot hyperspectral imaging system for label-free tumor detection during image-guided surgery" Progress in Biomedical Optics and Imaging - Proceedings of SPIE 2019, Volume 10890, 2019, Article number 108900G
70. Konopka, C., Paton, A.M., Skokowska, A., Rowles, J.L., Erdman, J.W., Dobrucki, I.T., **Dobrucki**, L.W. "Examining the role of dietary advanced glycation end products in prostate cancer using molecular imaging" (oral presentation), Nutrition 2019, June 8-11, 2019
71. Applegate, C.C., Hedhli, J., Miller, R.J., **Dobrucki**, L.W., O'Brian, W.D., Erdman, J.W. "Impact of dietary tomato on prostate carcinogenesis and progression in overweight/obese TRAMP mice" Nutrition 2019, June 8-11, 2019
72. Davila, G., Gholizadeh, M.A., **Dobrucki**, L.W., Dobrucki, I.T., Druhan, J.L. "Imaging the effects of CO2 injection on fluid transport properties in sandstone using Positron Emission Tomography". Goldschmidt 2019 conference, Barcelona, August 18-23, 2019
73. Insana, M., Zhu, Y., Kim, M., **Dobrucki**, L.W. "Advances in pulsed Doppler methods for peripheral perfusion imaging". 2019 IEEE International Ultrasonics Symposium (IUS) October 6-9, 2019, Glasgow, Scotland
74. Medina, D., Hedhli, J., Huynh, T., Dobrucki, I.T., **Dobrucki**, L.W. "Multimodal image vizualization for diagnostic purposes" BMES 2019, Philadelphia, PA
75. Breen, E., Konopka, C., **Dobrucki**, L.W. "Effects of Dietary Advanced Glycation End Products on Prostate Cancer Progression" BMES 2019, Philadelphia, PA
76. Blair, S., Garcia, M., Konopka, C., **Dobrucki**, L.W., Gruev, V. "A 27-band snapshot hyperspectral imaging system for label-free tumor detection during image-guided surgery". Paper presented at the Progress in Biomedical Optics and Imaging - Proceedings of SPIE (2019), 10890 doi:10.1117/12.2508944
77. Radulska, A., Pelikant-Malecka, I., Gocek, E., **Dobrucki**, L.W., Kozera, L., Kalinowski, L. "The methylargininesin human serum: effects of age, gender, total cholesterol and C-reactive protein" Europe Biobank Week 2019, Lubeck, Germany, October 8-11, 2019
78. Szymanowski, J., **Dobrucki**, L.W., Skokowski, J., Kalinowski, L. "Architecture approach to the Polish Biobank Network central IT tools" urope Biobank Week 2019, Lubeck, Germany, October 8-11, 2019
79. Wozniak, M., **Dobrucki**, L.W., Kalinowski, L. "Evaluation of Novel Platform for the Digitization of Image Data (PDID) as a tool for examining the role of dietary advanced glycation end products in prostate cancer" Europe Biobank Week 2019, Lubeck, Germany, October 8-11, 2019

80. Dvoretskiy, S., Wu, Y-F., Garcia, G., Konopka, C., **Dobrucki**, L.W., Boppart, M.D. ”The Impact of Mechanical Strain and Immobilization on the Capacity for Skeletal Muscle-Resident CD146+ Pericytes to Secrete Extracellular Vesicles” ACSM Annual Meeting, San Francisco, CA, May 26-30, 2020
81. Shaheb, R., Misiewicz, P.A., Godwin, R.J., Dickin, E., White, D.R., Mooney, S., Dobrucki, I., **Dobrucki**, L.W., Grift, T.E. ”A Quantification of Soil Porosity Using X-ray Computed Tomography of a Drummer silty clay loam soil” ASABE Annual International Meeting, Omaha, NE, July 12-15, 2020

Invited Talks

1. **Dobrucki** LW ”Current state-of-the-art imaging techniques to assess therapeutic angiogenesis in the cardiovascular system” presented as planary opening lecture at XXI Congress of Polish Pharmaceutical Society on September 12, 2010, Gdansk, Poland
2. **Dobrucki** LW ”The basics of PET, SPECT, and CT and the Siemens Inveon system” presented at the Focus Group for Nuclear Imaging meeting in Beckman Institute, Urbana, IL on March 16, 2011
3. **Dobrucki** LW ”Molecular Nuclear Targeted Imaging of Ischemia-induced Angiogenesis. A journey from a single cell to the human body” presented at the Department of Bioengineering, UIUC on March 17, 2011
4. **Dobrucki** LW”The basics of PET, SPECT, and CT. The structure and function at hight resolution and sensitivity” presented at the Department of Bioengineering, UIUC on April 13, 2011
5. **Dobrucki** LW ”Imaging Cardiovascular System with Multimodal Probes and Targeted Agents” presented at the UIUC Biophotonics School in Beckman Institute on May 31, 2011
6. **Dobrucki** LW ”Overview of Molecular Imaging Laboratory (MIL) at Beckman Institute” presented in Beckman Institute, Urbana, IL, October 4, 2011
7. **Dobrucki** LW ”PET-SPECT-CT Imaging with Targeted Agents” Bioengineering Career Talk presented at the University of Illinois on October 12, 2011
8. **Dobrucki** LW ”Molecular Nuclear Targeted Imaging of Ischemia-Induced Angiogenesis” presented at the Medical University of Gdansk, Poland, November 13, 2011
9. **Dobrucki** LW ”Medical Imaging Modalities” presented at the Medical University of Gdansk, Poland on November 14, 2011
10. Tang L, Yang X, Xing H, Yin Q, Chaudhury IM, Hwang K,WangW, Yasui N, **Dobrucki** LW, Katzenellenbogen JA, Helferich WG, Fan TM, Lu Y, Cheng J. ”Development of Anticancer Nanomedicine” presented at the Cancer Community at Illinois Symposium, April 5, 2012
11. **Dobrucki** LW ”Radiolabelled Imaging of Angiogenesis” presented at the 3rd Multimodality Cardiovascular Molecular Imaging Symposium at NIH, Bethesda, MD, April 20, 2012
12. Dobrucka IT, Schuelke M, Lapi S, **Dobrucki** LW ”Novel Cu-64-labeled Targeted Agent Provides Favorable Biodistribution, High-purity, and Stability for PET Imaging of Angiogenesis” presented at the Society of Nuclear Medicine Annual Meeting, June 10, 2012
13. **Dobrucki** LW ”Development and application of a multimodal contrast agent for SPECT/CT hybrid imaging” presented at the Imaging at Illinois, University of Illinois, Urbana, IL, June 1, 2012
14. **Dobrucki** LW ”Medical Imaging Modalities” Bioengineering Career Talk presented at the University of Illinois on October 16, 2012
15. **Dobrucki** LW ”Targeted Molecular Imaging. A new tool to diagnose vascular complications in diabetes” presented at the Medical University of Gdansk on November 5, 2012
16. **Dobrucki** LW ”Seeing is believing: current molecular imaging strategies in medical diagnosis and treatment” Carrer Talk presented at the Medical University of Gdansk, Poland on November 6, 2012
17. **Dobrucki** LW ”An overview of nuclear molecular imaging. Structure and function at high resolution and sensitivity” presented at the Division of Nutritional Sciences, UIUC on February 20, 2013

18. **Dobrucki** LW"Monitoring Disease Progression and the Efficacy of Therapeutic Interventions" presented during Faculty Enrichment in Life Science at Hudson County Community College, April 6, 2013
19. **Dobrucki** LW "Radiotracer Based Imaging of Angiogenesis" presented during the Experimental Biology 2013 in Boston, MA on April 21, 2013
20. **Dobrucki** LW "Evaluation of novel dimeric-cRGD peptide for targeted PET-CT imaging of peripheral angiogenesis in diabetic mice" presented during the Society of Nuclear Medicine and Molecular Imaging annual meeting in Vancouver, CA on June 10, 2013
21. **Dobrucki** LW "Imaging Applications in Cardiology" presented during PRIMA IV workshop on "Preclinical Imaging" in Savannah, GA on September 26, 2013
22. **Dobrucki** LW "Development of multimodal multifunctional probes for image-guided surgery" presented at HCESC-JUMP Symposium on Septemeber 10, 2014
23. **Dobrucki** LW "Targeted Molecular Imaging of Peripheral and Myocardial Angiogenesis with Multimodal Probes" UIC Angiogenesis Symposium, Chicago, IL on September 19, 2014
24. **Dobrucki** LW "Multimodal Molecular Imaging with Nanoparticles" presented at BioNanotechnology Seminar (IGERT UIUC) on November 12, 2014
25. **Dobrucki** LW "Targeted Imaging of Cellular Receptors. New Tool in Medical Diagnostics" presented during Gdansk 2014 Symposium Series, Gdansk, Poland on December 1, 2014
26. **Dobrucki** LW "Radiotracer-based imaging of angiogenesis. A New Tool in Medical Diagnostics" Department of Bioengineering, Ohio State University, Columbus, OH on February 26, 2015
27. **Dobrucki** LW "RAGE Imaging in prostate cancer" University of Illinois Cancer Center Research Forum, Chicago, IL on October 25, 2015
28. **Dobrucki** LW "PET-Optical Imaging of RAGE with Molecularly Targeted Nanoparticles" University of Illinois at Urbana-Champaign on January 27, 2016
29. **Dobrucki** LW "Nanoparticles As Contrast Agents for in Vivo X-ray Computed Tomography Imaging" iOptics Seminar Series, February 19, 2016
30. **Dobrucki** LW "Multimodal Multiscale Targeted Imaging of Molecular Signatures" University of Illinois at Chicago, Rockford, IL on February 24, 2016
31. Shahid H, **Dobrucki** LW "Dynamic Myocardial Phantom for Calibration of Multimodal Imaging and Modeling Methods" JUMP ARCHES Symposium on September 8, 2016
32. **Dobrucki** LW "Multimodal Cardiac Phantom for Imaging-based Modeling, Simulation, and Standardization" JUMP ARCHES Symposium on September 8, 2016
33. Rendeiro C, Rhodes J, **Dobrucki** LW "Cocoa flavanols and the aging brain" CNLM Investigators Meeting, May 10, 2016
34. **Dobrucki** LW "Multiscale Imaging with Molecularly Targeted Multimodal Agents" Carle HVI Symposium, October 19, 2016
35. **Dobrucki** LW "Multimodal Imaging Approaches for Quantitative Assessment of Tissue Microenvironments" University of Illinois at Chicago, Rockford, IL on October 18, 2017
36. **Dobrucki** LW "Multimodal Imaging Approaches for Quantitative Assessment of Tissue Microenvironments" SNMMI Annual Meeting CMIIT Emerging Technologies Session, June 12, 2017
37. **Dobrucki** LW "Multimodal Imaging Approaches for Quantitative Assessment of Tissue Microenvironments" University of Nebraska-Lincoln December 8, 2017
38. **Dobrucki** LW "Molecular Imaging in Quantitative Evaluations of Biological Specimens" II National Polish Biobank Conference, BBMRI.pl October 11, 2018 (keynote lecture)
39. **Dobrucki** LW "Multimodal Imaging Approaches for Quantitative Assessment of Tissue Microenvironments" Beckman Institute Director's Seminar April 5, 2018

Current Funding

1. R01HL148664 (Insana and Dobrucki) 04/01/2019 – 06/30/2024 Role: PI (MPI)
   Ultrasonic perfusion imaging of peripheral vascular disease
   The major goal is to develop a multimodal multidimensional imaging strategy to evaluate neovascularization and functional recovery in peripheral arterial disease at the onset of diabetes.
2. R01CA234025 (Nelson) 03/01/2019 – 03/31/2024 Role: co-I
   Impact of cholesterol and its metabolites on breast cancer progression
   The major goal is to determine the impact of cholesterol and its metabolite, 27- hydroxycholesterol, on breast tumor progression and metastasis.
3. R01DK131782 (Smith & Gallagher) 04/01/2022 – 03/31/2027 Role: co-I
   Nanomedicine-Based Targeting of Inflammatory Macrophages in Diabetic Wound Repair
   The major goal is to develop a nanomedicine strategy to selectively deliver therapeutic agents to macrophages locally in wounds to inhibit their inflammatory phenotype and promote repair while avoiding effects on structural cells in wounds as well as distant tissues.
4. RF1AG083937-01 (Mirica) 09/01/2023 – 08/31/2026 Role: co-I
   Blood-Brain Barrier Permeable Multimodal Imaging Agents for Neurodegenerative Diseases
   The major goal is to employ a fundamental chemical approach to generate novel blood-brain barrier permeable multifunctional and dual PET/MRI imaging agents and evaluate in vivo their ability as diagnostic agents for AD and ADRD.
5. R01CA288207-01 (Smith & Nelson) 12/1/2023 – 11/30/2027 Role: co-I
   Translational Combinations of Nanocarriers and Blockers for Metastatic Breast Cancer
   The goal of this project is to develop carrier/blocker combinations that deliver immunostimulatory drugs to myeloid cells in tumors as an adjuvant for ICB therapy of metastatic breast cancer.

Current and Past Trainees

Past Undergraduate Trainees

Camille McAllister	Graduate student enrolled in Public Health at UCLA
Trang Trach	Project Director at Brigham and Women's Hospital
Marie-Stella Essilfie	Local Operations Director of REACH Ghana
Jason Soares	STEM teacher at East Haven High School, CT
Jason Criscione	CTO and Co-Founder at PixarBio Corporation
Matthew Schuelke	MD/PhD student at Mayo Clinic, Rochester, MN
Wolfgang Rubrecht	Engineering Leadership Development Program at Siemens
Anna Oleksiewicz	Associate Electrical Engineer at Continental
Andrew Stawarz	PhD student at Northwestern University
Christine Promisel	Undergraduate BioE student at UIUC
Joseph Caffarini	PhD student at Northwestern University
Stephanie Slania	PhD student at John Hopkins University
Jadin Elliott	Senior at Mahomet-Seymour High School, Mahomet, IL
Davy Ea	MS student in mechanical engineering, University of Lille, France
Leo Fabre	MS student in mechanical engineering, University of Lille, France
Quyen Nguyen	Recent graduate, Chemical Engineering at UIUC

Sarah Schuh	MD student at SIU, Springfield, IL
Aditi Warhekar	Recent graduate, Bioengineering at UIUC
Nirali Shah	Recent graduate, NPRE at UIUC
Luke LaHood	Recent graduate, Bioengineering at UIUC
Aashay Patel	OSF Peoria, IL
Megan Walusiak	Undergraduate BioE student at UIUC
Akshaya Thananjeyan	Undergraduate ChemE student at UIUC
Yifu Mao	M.Eng. recent graduate at UIUC
Linsun Sunny	M.Eng. recent graduate at UIUC
Congnyu Che	PhD student at UIUC, Urbana, IL
Aleksandra Skokowska	Undergraduate student, Chemistry, Medical University of Gdansk, Poland
Emily Condic	Undergraduate student, undeclared engineering, UIUC
Eric Michael	MS graduate student, ETH Zurich, Switzerland
Than Huynh	Medical Student at University of Wisconsin Madison
Antonios Skondras	Medical Student at Rush Medical College
Stanley Fayn	Center for Cancer Research, NIH National Cancer Institute
Haran Anand	Medical Student at University of Missouri-Kansas City School of Medicine
Jadin Elliott	Graduate student at University of Delaware

Current Undergraduate Trainees

Yamenah Ambreen	Undergraduate student, University of Illinois at Urbana-Champaign
Karl Baumgartel	Undergraduate student, University of Illinois at Urbana-Champaign
Nicolas Dovalovsky	Undergraduate student, University of Illinois at Urbana-Champaign

Past Graduate Trainees

Jamila Hedhli	Brown-Beckman postdoctoral fellow
Christian Konopka	MD/PhD student in BioE at UIUC
Denise Medina Almora	Regulatory Affairs Specialist at Cook Medical
Angelo Miskalis	PhD student in BioE at UIUC
Yicheng Zhang	M.Eng. student in BioE at UIUC

Current Graduate Trainees

Leopold Pinot	MS student in BioE at UIUC
Michael Nelappana	Ph.D. student in BioE at UIUC
Goodluck Okoro	Ph.D. student in BioE at UIUC

Current Postdoctoral Fellows

Agata Ploska	Visiting Scholar, Medical University of Gdansk, Poland
Jamila Hedhli	Brown-Beckman postdoctoral fellow
Marcin Wozniak	Carle-Beckman postdoctoral fellow
Catherine Applegate	Beckman postdoctoral fellow
Anna Siekierzycka	Postdoctoral Fellow

References

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