

Cynthia B. Paschal, Ph.D.

Curriculum Vitae

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Education

Ph.D. in Biomedical Engineering

Case Western Reserve University
Cleveland, OH

Dissertation: Three-Dimensional High Resolution Magnetic Resonance Imaging of the Coronary Arteries

M.S. and B.S. in Nuclear Engineering

Massachusetts Institute of Technology
Cambridge, MA

Thesis: Positron Emission Tomography Analysis of the Effects of Auditory Stimulation on the Distribution of ^{11}C -N-Methylchlorphentermine in the Brain

Professional Interests

Providing vision, passion, and pragmatic leadership support for engineering school programs; engineering academic programs including curricula, accreditation, and effective teaching methods; industry – university partnerships; professional development and career placement for engineering students; service learning; development and oversight of international academic activities, including study abroad and faculty research collaborations.

Professional Experience

Senior Associate Dean for Undergraduate Education
2019 - Present

Vanderbilt University
Nashville, TN

Associate Dean of the School of Engineering
2010 - 2018

Vanderbilt University
Nashville, TN

Associate Professor of Biomedical Engineering
Associate Professor of Radiology & Radiological Sciences
2000 - present

Vanderbilt University
Nashville, TN

Director of Undergraduate Studies in Biomedical
Engineering
2004 – 2005; 2007 – 2010

Vanderbilt University
Nashville, TN

Assistant Professor of Biomedical Engineering
Assistant Professor of Radiology & Radiological Sciences
1992 - 2000

Vanderbilt University
Nashville, TN

Research Assistant, Department of Radiology
1988 - 1992

Case Western Reserve
University
Cleveland, OH

Applications Scientist for Magnetic Resonance
1986 - 1988

Siemens Medical Systems, Inc.
Grand Prairie, TX

Teaching Assistant, Dept. of Nuclear Engineering
1985-1986

Massachusetts Institute of
Technology
Cambridge, MA

Professional Activities

Co-Chair-Elect, Undergraduate Experience Committee, American Society for
Engineering Education, 2020 – present

Member, Academic Advisory Council to ABET, 2019 - present

Assistant Editor & Reviewer for the “Journal of Magnetic Resonance Imaging”

Reviewer for the journals “Radiology”, “Journal of Magnetic Resonance Imaging”,
“Magnetic Resonance Imaging”, “Investigative Radiology”, “Annals of Biomedical
Engineering”

NSF review panelist, Jan. 9, 2017

NIH review panelist, National Cancer Institute Academic-Industrial Partnerships, Feb.
10, 2011

NIH review panelist, Biomedical Imaging and Technology (BMIT), May 31-June 1, 2007;
Feb. 1-3, 2009

Co-Organizer, Associate Dean’s Meeting in the American Society for Undergraduate
Education, 2017

Session chair, "Imaging Biophysics and Physiology", Thursday June 28th, 2007 at the
conference "Frontiers of Biomedical Imaging Science", Nashville, TN.

Member, International Society for Magnetic Resonance in Medicine (ISMRM)

Organizer & Co-chair, ISMRM 2000 Coronary Artery Disease Plenary Session

Organizer, ISMRM 2000 Cardiac MR Morning Categorical Course

Organizer & Co-chair, ISMRM 1998 Lung MR Plenary Session

Chair, ISMRM Ad Hoc Committee on Electronic Education, 2000

Member, ISMRM 1998, 1999, & 2000 Scientific Program Committees

Member, ISMRM 1999, 2000, 2001 Workshop Committee

Member, ISMRM Ad Hoc Committee on Electronic Communications, 2000, 2001

Member, ISMRM 2002 Publications Committee

Member, ISMRM 2002 Governance Committee

Member, Biomedical Engineering Society (BMES)

Participant, The Whitaker Foundation Academic Leadership Program, 2004

Organizer, BMES - EMBS 2000 BME Education Minisymposium, “BME Education in the
New Millennium”

University Marshal, Vanderbilt University, 2018-present

Member, VU Bookstore Feedback Committee, 2020

Member, VU University Education Continuity Subcommittee, 2020 – present

Member, VU Business Minor Governing Board, 2017 – present

Member, VU Officer Education Advisory Committee, 2018 - present
Chair, Vanderbilt University Faculty Senate, 2009 – 2010
Past-Chair, Vanderbilt University Faculty Senate, 2010 - 2011
Chair-Elect, Vanderbilt University Faculty Senate, 2008 – 2009
Senator, Vanderbilt University Faculty Senate, 2001 – 2004, 2007 – 2010
Member, VU Faculty Advisory Committee on International Education, 2014 - 2018
Member, VU Task Force on International Education, 2012 – 2013
Chair, VU School of Engineering Senior Design Committee, 2012 – 2016
Chair, VU Biomedical Engineering Curriculum Review Committee, 2012 – 2014
Chair, VU School of Engineering Career Committee, 2010 – present
Faculty advisor, Vanderbilt University student section of Engineering World Health,
2010 - present
Chair, Vanderbilt University School of Engineering Admissions and Scholarship
Committee, 2007 – 2010; member 2000 – 2010
Leader, VU BME Engineering Accreditation Commission ABET accreditation activities,
2001-2010
Member, Vanderbilt University Laboratory Science Immersion Subcommittee, 2015-
2016
Member, Vanderbilt University Environmental Advisory Committee, 2008 - 2012
Member, Vanderbilt University Advisory Council on International Affairs, 2010 - 2014
Member, Vanderbilt University Committee on the Status of Women and Minorities, 2001
- 2004
Member, Vanderbilt University Faculty Senate Committee on Academic Policies and
Services, 2001 – 2004; APS Task Force on the Academic Venture Capital Fund
2003 – 2004
Member, Vanderbilt University Institutional Biosafety Committee, 2001 - 2002
Member, Vanderbilt University Medical School Early Admissions Committee, 2001 -
2003
Member, Vanderbilt University Child Care Advisory Committee, 2002 - 2004
Faculty advisor, Vanderbilt University student section of the Society of Women
Engineers, 1997 - 2002
Member, Vanderbilt University Medical Physics Committee, 1996 - 2005
Member, Vanderbilt University Advisory Committee on the Health Related Professions,
1996 - 2003
Member, Vanderbilt University Radiation Safety Committee, 1995 - 1999
Member, Vanderbilt University Trans-institutional Research Committee, 1998-1999
Member, BME Graduate program committee 1996 (Developed combined graduate
program with Nursing)
Academic Adviser, biomedical engineering undergraduate majors, 1993 – 2012, 2020 -
present
Executive Board Representative, Vanderbilt Women's Faculty Organization, 1993-1998
Secretary, Vanderbilt Women's Faculty Organization 1997-1998

Direct Educational Activities

Instructor of record for these Vanderbilt University courses:

BME 251/3100 Systems Physiology I – required course; engineering analysis of human physiology; incorporated audience response system for student engagement and utilize electronic textbook with dynamic content, F93-F05, F07-F16

BME 258/4400 Foundations of Medical Imaging – elective course; prerequisite for other electives, S99, S01, S03, S04, S07, S08, S09, S13, S15, S17

BME 290x/3890 Special Topics: BME Service Learning in Guatemala – special course I created to develop biomedical engineering students skills to a level in which they could have a positive impact on medical facilities in Guatemala during spring break service learning abroad trips, S09, S10, S12, S14, S16, S18, S20

BME 249 Service Learning and Leadership in Biomedical Engineering – new undergraduate service learning course I developed, S08, F09

BME 240a,b; BME 241a,b – supervised and coordinated undergraduate research and projects courses, F00 – F04, S01-S05, S08, Su 01, Su03 – Su05

BME 252/3101 Systems Physiology II – required course; engineering analysis of human physiology, S94 – S99

BME 318 Magnetic Resonance Imaging - graduate course, S93, F96, F97, S00, S02

BME 395 Special Topics: Imaging with Ionizing Radiation – new graduate course I developed, S05

BME 395 Special Topics: Clinical Translational Imaging – new graduate course I developed, S10

ES 101 Imaging Education – first year engineering seminar, co-instructor, F05

VV1 Vanderbilt Visions – orientation seminar for first year students, F11, F12

Host to VU Center for Teaching classroom visits, fall 2010, spring 2013, fall 2014, fall 2015, fall 2016

Mentor and host to Future Faculty Fellow Gajendiran Mahadevan, fall 2005

Honors and Honor Societies

The Ellen Gregg Ingalls Award for Excellence in Classroom Teaching, Vanderbilt University, 2015

Vanderbilt University School of Engineering Edward J. White Engineering Faculty Award for Excellence in Service, 2012

Vanderbilt University School of Engineering Award for Excellence in Teaching, 2004

Tau Beta Pi Vanderbilt Engineering Teacher of the Year, 1993-1994

Editor's Recognition Award for Distinction in Reviewing, *Radiology* 1994, 1995

Biomedical Engineering Research Day, Award for Most Instructive Presentation for Students, Advanced Category, 1991

Alpha Nu Sigma Honorary Society of the American Nuclear Society

Sigma Xi Honorary Scientific Research Fraternity

Institute of Nuclear Power Operations scholarship, 1984

George Washington University Engineering Medal for Math and Science, 1981

Virginia Society of Professional Engineers scholarship, 1981

Research Grants

(P.I. unless otherwise noted)

TN Board of Architectural and Engineering Examiners, “2020 Architectural and Engineering Grant (Vanderbilt),” Cynthia B. Paschal, Ph.D. (PI), \$32,393, Project dates: 2/15/2020 – 9/30/2020.

100K Strong in the Americas Innovation Fund, “Working together towards a better understanding, a better environment and an inclusive solution: Student Exchange Program in Environmental Studies and Sustainability”, Luis Ernesto Nuñez Gonzalez (PI), \$63,033, Project dates: 12/30/2019 – 12/31/2021. CBP’s role: proposal co-author with Prof. Nuñez Gonzalez and lead contact from Vanderbilt on this joint project with Universidad del Valle de Guatemala.

TN Board of Architectural and Engineering Examiners, “2019 Architectural and Engineering Grant (Vanderbilt),” Cynthia B. Paschal, Ph.D. (PI), \$27,361, Project dates: 2/15/2019 – 6/30/2019.

Accenture, "Innovation Garage," John Geer, Ph.D. (PI), \$300,000, Project Dates 8/1/2016 – 7/31/2017. CBP's role: Investigator and initial point of contact.

Procter & Gamble, “Expanding Engagement in the Design Experience,” Cynthia B. Paschal, Ph.D. (PI), \$8,274, Project Dates: 2/1/2015 – 1/31/2016.

Vanderbilt University General Clinical Research Center, “Magnetic Resonance Imaging of Pulmonary Arterial Hypertension”, Cynthia B. Paschal, Ph.D. (P.I.), \$6,400, 8/1/06 – 1/31/08, supported by the Vanderbilt GCRC grant M01 RR 00095 NCR/NIH.

National Science Foundation, “Biomedical Imaging Education: Safe, Inexpensive Hands-on Learning”, Cynthia B. Paschal, Ph.D., P.I., Stacy S. Klein, Ph.D., co-P.I., \$300,000, 7% academic year effort, 33% summer effort, 1/1/04 – 12/31/07.

National Science Foundation, “MRI Quantitation of Regional Pulmonary Perfusion”, Cynthia B. Paschal, Ph.D., P.I., \$203,813, 18.5% calendar year effort, 2/1/00 - 1/31/03.

Vanderbilt University Central Intramural Discovery Grants Program, “Correction of Geometric Distortions in Echo Planar Imaging”, Cynthia B. Paschal, Ph.D., P.I., \$65,617, CBP’s role: PI, 0% effort, 2/1/2001-12/31/2003.

National Science Foundation, “Vanderbilt-Northwestern-Texas-Harvard/MIT Engineering Research Ctr for Bioeng. Educational Technologies”, Thomas R. Harris, M.D., Ph.D., P.I., \$20,186,420, CBP’s role: Investigator; director of imaging domain project; site visit presenter and participant, 10% of academic year and 33% of summer, 9/1/99-8/31/07.

National Institutes of Health “Pathophysiology of the pulmonary microcirculation”, 5T32 HL07123-28, Gordon R. Bernard, M.D., P.I., \$2,503,046, CBP’s role: preceptor, <5% effort, 7/1/2000 - 6/30/2005.

National Institutes of Health “Medical Scientist Training Program”, 5T32 GM09347-24, David H. Robertson, Ph.D., P.I., \$2,761,620, CBP’s role: preceptor, <5% effort, 7/1/1999 - 6/30/2004.

Glaxo-Wellcome, Inc., “High Resolution, In Vivo X-ray Microscopy for Longitudinal Drug Studies”, Frank E. Carroll, M.D., P.I., \$139,432, CBP’s role: co-investigator, 10% calendar year effort, 11/1/99 - 10/31/00.

Office of Naval Research, “Prototype Development of a Compact, Pulsed, Hard X-ray Source for Medical Imaging and Research in Biological and Materials Sciences”, Frank E. Carroll, M.D., P.I., \$2,000,000, CBP’s role: Investigator, 10% calendar year effort, 7/1/99 to 6/30/01.

Office of Naval Research, “FEL Monochromatic X-rays - Center for Medical and Materials Research with FEL”, Frank E. Carroll, M.D., P.I., \$1,512,000, CBP’s role: Investigator, 10% calendar year effort, 5/1/94-7/1/99.

National Science Foundation, REU (Research Experience for Undergraduates) for Technology-Guided Therapy, P.I. Robert L. Galloway, Jr., Ph.D., \$50,000 annual direct, CBP’s role: Co-Principal Investigator, 0% effort, 4/1/99 - 3/31/04.

National Science Foundation, Fractal Analysis of Pulmonary Magnetic Resonance Angiograms (BES-9806883), \$53,884, 12.5% effort, 4/15/98-1/15/99.

Nycomed, Inc., Three Dimensional Pulmonary MR Angiography, \$6515 in materials, % effort not specified, 9/1/97 – 12/31/98.

Vanderbilt University Research Council, Differentiation of Lung Pathologies with Magnetic Resonance Imaging, \$9,844, 10% academic year effort, 7/1/97 - 6/30/98 and \$1,000, no % effort specified, 7/1/98-6/30/99.

American Heart Association - Tennessee Affiliate, Three Dimensional Magnetic Resonance Imaging of the Coronary Arteries with Respiratory Motion Correction, \$96,490, 40% calendar year effort (20% AY, 100% summer), 7/1/95 – 12/31/97.

Vanderbilt University Research Council, Non-Invasive Measurement of Regional Pulmonary Blood Flow and Pulmonary Edema, \$9,730, 10% academic year effort, 7/1/95 - 6/30/96.

Radiological Society of North America Seed Grant, Non-Standard RF Pulses and Pulse applications for MR of the Pulmonary Vasculature, \$19,090, 10% academic year effort, 7/1/94 - 8/31/95.

Vanderbilt University Research Council, Magnetic Resonance Angiography of Rabbit Pulmonary Vasculature with Detection and Characterization of Thromboemboli, \$12,195, 40% academic year effort, 7/1/93 - 6/30/94.

NIH National Research Service Award GM08452-0, Training in Quantitative and Integrative Physiology, PI: Robert J. Roselli, Ph.D., \$430,888, role: preceptor (< 5%), 7/1/98-6/30/02.

Publications

Papers

* Indicates student working under my direction or co-direction. All papers in peer-reviewed, archival journals unless otherwise noted.

1. Klein-Gardner SS, Brophy SP, Aston MJ*, **Paschal CB**. Biomedical imaging education: Safe, inexpensive hands-on learning. *International Journal of Engineering Education* 26(5):1061-1071, 2010.
2. Cobb, JG*, **Paschal CB**. Improved In Vivo Measurement of Myocardial Transverse Relaxation with 3T Magnetic Resonance Imaging. *Journal of Magnetic Resonance Imaging* 30(3):684-9, 2009 Sept.
3. DJ Anderson*, JM Dendy, **CB Paschal**. Simulation Study of Susceptibility Gradients Leading to Focal Myocardial Signal Loss. *Journal of Magnetic Resonance Imaging*. 28(6):1402-8, 2008 Dec.
4. Jevsevar K*, Aston M*, Price S*, **Paschal CB**, Klein SS. Designing Magnetic Resonance Imaging Curriculum for Undergraduates: Safe, Hands-On and Inexpensive Instruction. Conference paper for the Annual Meeting of the American Society for Engineering Education, Pittsburgh, PA, June 22-25, 2008.
5. Nichols MB*. **Paschal CB**. Measurement of longitudinal (T1) relaxation in the human lung at 3.0 Tesla with tissue-based and regional gradient analyses. *Journal of Magnetic Resonance Imaging*. 27(1):224-8, 2008 Jan.
6. Stacy S. Klein, **Cynthia B. Paschal**. Teaching X-Ray Imaging in the High School Physics Classroom: Safe, Inexpensive, and Hands-On Instruction. Conference paper for NSF-Engineering Education Awardees conference, "Building Connections within the Engineering Education Research Community" Sept. 26-28, 2007, Arlington, VA.
7. **Cynthia B. Paschal**, Kathy R. Nightingale, Kristina M. Ropella. Undergraduate Biomedical Imaging Education. *Annals of Biomedical Engineering*, 34(2): 232-238, February 2006

8. D.A.Yoder*, Y. Zhao, **C.B. Paschal**, and J.M. Fitzpatrick. MRI simulator with object-specific field map calculation. *Magnetic Resonance Imaging*, April 2004; Vol. 22, no. 3, pp. 315-328. <http://authors.elsevier.com/sd/article/S0730725X04000189>.
9. **C.B. Paschal**, H.D. Morris. K-Space in the Clinic. *Journal of Magnetic Resonance Imaging*, February 2004; 19 (2): 145-159. (*This was the #1 downloaded paper in 2004 for this journal with 987 downloads of the full paper and 696 downloads of the abstract.*)
10. **C.B. Paschal**. The Need for Effective Biomedical Imaging Education: Challenges of and Resources for Education to Meet the Growing Demand for Trained Biomedical Imaging Engineers. *IEEE Engineering in Medicine and Biology Magazine*, 2003; Vol. 22, no. 4, pp. 88-91.
11. **C.B. Paschal**. Formative Assessment in Physiology Teaching Using A Wireless Communication System. *Advances in Physiology Education*, December 2002; 26(4): 299-308.
12. J.D. Nguyen*, **C.B. Paschal**. Development Of Online Ultrasound Instructional Module And Comparison To Traditional Teaching Methods. *Journal of Engineering Education*, 2002; 91(3):275-283.
13. G.P. Amorino, H. Lee, G.E. Holburn, **C.B. Paschal**, S.K. Hercules, Y. Shyr, R.P. Steffen, H.Choy. Enhancement of Tumor Oxygenation and Radiation Response by the Allosteric Effector of Hemoglobin, RSR13. *Radiation Research*, 2001; 156:294-300.
14. S.S. Halliburton*, **C.B. Paschal**, J.D. Rothpletz, J.E. Loyd. Estimation and Visualization of Regional and Global Pulmonary Perfusion with 3D Magnetic Resonance Angiography. *Journal of Magnetic Resonance Imaging*, 2001; 14(6):734-40.
15. S.S. Halliburton*, **C.B. Paschal**, J. Rothpletz, J.E. Loyd. Evaluation of Radiofrequency Pulses and Contrast Agent Doses for use in 3D Pulmonary MR Angiography. *Journal of Magnetic Resonance Imaging*, 1999; 10:929-938.
16. A. Priatna*, **C.B. Paschal**, R.G. Shiavi. Evaluation of Linear Diaphragm-Chest Expansion Models for Magnetic Resonance Imaging Motion Artifact Correction, *Computers in Biology and Medicine*, 1999; 29(2):111-127.
17. J.L. Friedli*, **C.B. Paschal**, J.E. Loyd, S. S. Halliburton*, Quantitative 3D VUSE Pulmonary MRA. *Magnetic Resonance Imaging*, 1999; 17(3):363-370.
18. J.D. Stefansic* and **C.B. Paschal**, Effects of Acceleration, Jerk, and Field Inhomogeneities on Vessel Positions in Magnetic Resonance Angiography. *Magnetic Resonance in Medicine*, 1998; 40(2):261-271.

19. S.D. Caruthers*, **C.B. Paschal**, N.A. Pou, R.J. Roselli, T.R. Harris, Regional Measurements of Pulmonary Edema using Magnetic Resonance Imaging. *Journal of Applied Physiology*, 1998; 84(6):2143-2153.
20. S.D. Caruthers*, **C.B. Paschal**, N.A. Pou, T.R. Harris, Relative Quantification of Pulmonary Edema with Non-contrast Enhanced MRI. *J. Magnetic Resonance Imaging*, 1997; 7:544-550.
21. J.L. Friedli* and **C.B. Paschal**, Evaluation of Variable-Angle Uniform Signal Excitation, Tilted Optimized Nonsaturating Excitation, and Flat Radiofrequency Pulses in Free-Breathing Non-Contrast Enhanced Pulmonary MR Angiography. *Radiology*, 1997; 202: 863-867.
22. S.S. Halliburton* and **C.B. Paschal**, Atherosclerotic Plaque Components in Human Aortas Contrasted by Ex Vivo Imaging Using Fast Spin-Echo Magnetic Resonance Imaging and Spiral Computed Tomography. *Investigative Radiology*, 1996; 31(11): 724-728.
23. S. Schreiner*, B.M. Dawant, **C.B. Paschal**, R.L. Galloway, The Importance of Ray Pathlengths when Measuring Objects in Maximum Intensity Projection Images. *IEEE Transactions on Medical Imaging*, 1996; 15(4):568-578.
24. S. Schreiner*, **C.B. Paschal**, R.L. Galloway, Comparison of Projection Algorithms Used for the Construction of Maximum Intensity Projection Images. *Journal of Computer Assisted Tomography*, 1996; 20(1):56-67.
25. A. Priatna* and **C.B. Paschal**, Variable-Angle Uniform Signal Excitation (VUSE) for Three-Dimensional Time-of-Flight MR Angiography. *Journal of Magnetic Resonance Imaging* 1995; 5(4):421-427.
26. M.B.M. Hofman, **C.B. Paschal**, D. Li, E.M. Haacke, A.C. van Rossum, M. Sprenger, MRI of Coronary Arteries: 2D Breath-Hold versus 3D Respiratory-Gated Acquisition. *J. Computer Assist. Tomography* 1995; 19(1):56-62.
27. **C.B. Paschal**, E.M. Haacke, L.P. Adler, Three-dimensional MR Imaging of the Coronary Arteries: Preliminary Clinical Experience. *Journal of Magnetic Resonance Imaging* 1993; 3: 491-500.
28. Debiao Li, **Cynthia B. Paschal**, E. Mark Haacke, Lee P. Adler, Coronary Arteries: Three-Dimensional MR Imaging with Fat Saturation and Magnetization Transfer Contrast. *Radiology*, 1993; 187: 401-406.
29. **C.B. Paschal**, E.M. Haacke, L.P. Adler, D.A. Finelli, Magnetic Resonance Coronary Artery Imaging. *CardioVascular and Interventional Radiology*, 1992; 15(1):23-31.

30. R.D. White, **C.B. Paschal**, M.E. Clampitt, T.A. Spraggins, G.W. Lenz, ECG-Independent, 'Wireless' Cardiovascular Cine MR Imaging. *Journal of Magnetic Resonance Imaging*, 1991; 1(3):347-355.
31. R.D. White, **C.B. Paschal**, J.A. Tkach, M.J. Carvlin, Functional Cardiovascular Evaluation by MRI. *Topics in MRI*, Vol. 2, No. 2, Cardiovascular Systems, pp. 31 - 48; ed. E.A. Zerhouni, Aspen Publications, March 1990.
32. E.M. Haacke, T.J. Masaryk, P.A. Wielopolski, F.R. Zypman, J.A. Tkach, S. Amatur, J. Mitchell, M. Clampitt, **C. Paschal**, Optimizing Blood Vessel Contrast in Fast Three-Dimensional MRI. *Magnetic Resonance in Medicine*, 1990; 14(2):202-221.

Abstracts and Conference Papers

* Indicates student working under my direction or co-direction. Italics indicate presenter.

1. Robinson WH, **Paschal CB**. URM Success: Addressing Structural Barriers and Bias. Associate Dean's meeting within the American Society for Engineering Education 126th Annual Conference and Exposition, Tampa FL, June 2019.
2. **Paschal CB**. Supporting International Students. Associate Dean's meeting within the American Society for Engineering Education 124th Annual Conference and Exposition, Columbus OH, June 2017.
3. **Paschal CB**, Rowe CR, Crist IS. Strategies for Successfully Increasing Engineering Study Abroad Participation. American Society for Engineering Education 124th Annual Conference and Exposition, Columbus OH, June 2017.
4. **Paschal CB**. Accuracy in Student Placement Data. American Society for Engineering Education 121st Annual Conference and Exposition, Indianapolis, IN, June 2014.
5. Christopher J. Rowe, **Cynthia B. Paschal**, Kenneth F. Galloway. Expanding Overseas Study Opportunities for Undergraduate Engineering Students. 2012 ASEE Southeastern Section Conference, Starkville MS, April 2012. (accepted but presenter unable to attend meeting)
6. **Paschal CB**. Impact of International Service Learning on Engineering Students. Biomedical Engineering Society Annual Meeting, Austin TX, Oct. 2010.
7. Gibson ME*, **Paschal CB**. Laser Printer Output of X-Ray Images for the Developing World. Biomedical Engineering Society Annual Meeting, Pittsburgh PA, October 2009.
8. **Paschal CB**. International BME Service Learning: Applying Knowledge, Practicing Skills, and Expanding Horizons in Guatemala. Biomedical Engineering Society Annual Meeting, Pittsburgh PA, October 2009.

9. Cobb JG*, Zeng H, **Paschal CB**. Optimization of T2 and T2* Measurement in Myocardium at 3.0 T. International Society for Magnetic Resonance in Medicine annual meeting in Toronto, CA, May 2008.
10. Paul J. Hilt*, **Cynthia B. Paschal**, Friedrich G. Schuening, Michail M. Zaboikin, Srinivas N. Kumar. Relaxivity of SPIO-Labeled Canine Marrow Mononuclear Hematopoietic Cells for Cardiac MRI. Biomedical Engineering Society annual meeting, Los Angeles, CA, Sept. 2007.
11. Jared Cobb*, **Cynthia Paschal**, Huai ren Zeng. Examining Myocardial Tissue Properties with 3T MRI. Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM 15th annual mtg) and the European Society for Magnetic Resonance in Medicine and Biology, Scientific Meeting and Exhibition, Berlin, Germany, May 2007.
12. Douglas Anderson*, Jeffrey Dendy, **Cynthia Paschal**. Source of the Myocardial "Bite" Artifact in High Field Cardiac MRI. Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM 15th annual mtg) and the European Society for Magnetic Resonance in Medicine and Biology, Scientific Meeting and Exhibition, Berlin, Germany, May 2007.
13. Jason Moore*, Michael Nichols*, **Cynthia Paschal**. The Distribution of Pulmonary Perfusion as Measured by FAIR MRI. Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM 15th annual mtg) and the European Society for Magnetic Resonance in Medicine and Biology, Scientific Meeting and Exhibition, Berlin, Germany, May 2007.
14. Jeffrey M. Dendy, MD, **Cynthia B. Paschal PhD**, John Gore, PhD. Examination of the Effects of Myocardial Hypertrophy On Myocardial Microvascular Volume and Blood Oxygenation. International Society for Magnetic Resonance in Medicine, Fourteenth Scientific Meeting and Exhibition, Seattle, WA, May 2006.
15. Christopher D. Garay*, Patrick Gonzales*, Aubrey McKelvey*, Alex Nguyen*, Stacy S. Klein, **Cynthia B. Paschal**. Teaching Medical Imaging in the High School Physics Classroom: Safe, Hands-On and Inexpensive Curriculum. Conference paper presented at the American Society of Engineering Education annual conference and exposition, 2006.
16. Ning Xu*, Yong Li, **Cynthia B. Paschal**, J. Christopher Gatenby, Victoria L. Morgan, David R. Pickens, Benoit M. Dawant, J. Michael Fitzpatrick, "Simulation of Susceptibility-Induced Distortions in fMRI", Conference paper presented in Proc. Medical Imaging 2006, San Diego, CA, Feb 2006.
17. C.D. Garay*, A.A. Hunt*, S.M. Schleicher*, S.P. Brophy, S.S. Klein, **C.B. Paschal**. Teaching X-Ray Imaging in the High School Physics Classroom: Safe, Inexpensive and

Hands-On Curriculum. Presented at the American Society of Engineering Education annual conference and exposition, Portland, Oregon, June 12-15, 2005.

18. D.J. Anderson*, J.M. Dendy, **C.B. Paschal**. Effect of Capillary Orientation and Oxygenation on Myocardial Signal. International Society for Magnetic Resonance in Medicine, Thirteenth Scientific Meeting and Exhibition, Miami Beach, Florida, May 2005.
19. J.M. Dendy, **C.B. Paschal**, J.C. Gore. Mapping Myocardial Microvascular Volume and Blood Oxygenation Using Iron Oxide Nanoparticles and Adenosine. International Society for Magnetic Resonance in Medicine, Thirteenth Scientific Meeting and Exhibition, Miami Beach, Florida, May 2005.
20. **Cynthia B. Paschal**, Kathy R. Nightingale, Kristina M. Ropella. Undergraduate Biomedical Imaging Education. An invited white paper presented at the Whitaker Foundation Biomedical Engineering Educational Summit, Lansdowne, VA, March 3-6, 2005.
21. **C.B. Paschal**, S.P. Brophy, S.S. Klein. A Comparison of Active Lecture vs. Hands-on Learning of Magnification and Penumbra in X-ray Imaging. Biomedical Engineering Society annual meeting, Philadelphia, PA, October 2004.
22. D.A. Yoder*, J.M. Fitzpatrick, **C.B. Paschal**, J.C. Gatenby. Exact Correction of Distortions Due to Static Field Inhomogeneities in Spin Echo Echo Planar Imaging. International Society for Magnetic Resonance in Medicine, Twelfth Scientific Meeting and Exhibition, Kyoto, Japan, May 2004.
23. D.A. Yoder*, J.M. Fitzpatrick, **C.B. Paschal**, J.C. Gatenby, Y. Zhao. New Method for Correction of Distortion Caused by Static-Field Inhomogeneity in Gradient-Echo EPI. International Society for Magnetic Resonance in Medicine, Twelfth Scientific Meeting and Exhibition, Kyoto, Japan, May 2004.
24. Huairan Zeng, J. Christopher Gatenby, **Cynthia B. Paschal**, John C. Gore. A New Method To Correct Distortions In Echo Planar Imaging. International Society for Magnetic Resonance in Medicine, Twelfth Scientific Meeting and Exhibition. #2179. Kyoto, Japan, May 2004.
25. N. Xu*, D.A. Yoder, J.M. Fitzpatrick, and **C.B. Paschal**. Compensating for MR Distortion Caused by Marker Susceptibility in MR Images. Proceedings of the SPIE, Medical Imaging, February 14-19, 2004 San Diego, CA
26. R. Shevin*, R.J. Zambon*, S.S. Klein, **C.B. Paschal**. Safe Alternatives For Hands On Learning Of X-Ray Imaging Principles (conference paper). Proceedings of the Annual Conference and Exposition of the American Society for Engineering Education, Session 2209, pp. 133-140. Nashville, TN, June 2003.

27. **C.B. Paschal**, Effective "Homework-Free" BME Physiology Instruction. Engineering in Medicine and Biology Society - Biomedical Engineering Society, Joint Meeting, Houston, TX, Oct. 2002.
28. Z. Cao*, **C.B. Paschal**, M.E. Rawls*, B.D.W. Chow*. Measurement of Regional Pulmonary Perfusion with MRI. International Society for Magnetic Resonance in Medicine, Tenth Scientific Meeting and Exhibition, Honolulu, HI, May 2002.
29. D.A. Yoder*, E. Changchien, **C.B. Paschal**, J.M. Fitzpatrick. MRI simulator with static field inhomogeneity, Proceedings of the SPIE, Medical Imaging, 4684:592-603, 2002.
30. J.D. Nguyen*, **C.B. Paschal**, D. Cordray. Development of Online Ultrasound Instructional Module and Comparison to Traditional Teaching Methods. Biomedical Engineering Society, Annual Fall Meeting, Durham, NC, Oct. 2001.
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