

Crystal Botkin

Department of Clinical Health Sciences

Doisy College of Health Sciences

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July 2023

EDUCATION

- 2018 Doctor of Philosophy in Higher Education Administration
Saint Louis University
St. Louis, MO

- 2010 Master of Public Health (MPH)
Saint Louis University
St. Louis, MO

- 2000 Bachelor of Science in Nuclear Medicine Technology
Saint Louis University
St. Louis, MO

LICENSURE AND CERTIFICATION

- 2019 Certified Positron Emission Tomography (PET) Technologist
Nuclear Medicine Technology Certification Board
Certification # S-81019 (Recertification)

- 2012 Certified Positron Emission Tomography (PET) Technologist
Nuclear Medicine Technology Certification Board
Certification # S-81019 (Recertification)

- 2005 Certified Positron Emission Tomography (PET) Technologist
Nuclear Medicine Technology Certification Board
Initial Certification # S-81019

- 2000 Certified Nuclear Medicine Technologist (CNMT)
Nuclear Medicine Technology Certification Board
Certification # 022330

ACADEMIC APPOINTMENTS*Saint Louis University*

2023-Present Professor
Nuclear Medicine Technology Program
Doisy College of Health Sciences
Saint Louis University
St. Louis, MO

2019-2023 Associate Professor
Nuclear Medicine Technology Program
Doisy College of Health Sciences
Saint Louis University
St. Louis, MO

2011-2019 Assistant Professor
Nuclear Medicine Technology Program
Doisy College of Health Sciences
Saint Louis University
St. Louis, MO

2006-2011 Instructor
Nuclear Medicine Technology Program
Doisy College of Health Sciences
Saint Louis University
St. Louis, MO

University of Arkansas for Medical Sciences

2012- 2016 Adjunct Assistant Professor
Nuclear Medicine Advanced Associate Graduate Program
College of Health-Related Professions
University of Arkansas for Medical Sciences
Little Rock, AR

2009-2012 Adjunct Instructor
Nuclear Medicine Advanced Associate Graduate Program
College of Health-Related Professions
University of Arkansas for Medical Sciences
Little Rock, AR

ADMINISTRATIVE APPOINTMENTS

2022-Present	Interim Academic Chair Department of Clinical Health Sciences Doisy College of Health Sciences Saint Louis University St. Louis, MO
2020-2022	Vice Chair Department of Clinical Health Sciences Doisy College of Health Sciences Saint Louis University St. Louis, MO
2017-Present	Program Director Nuclear Medicine Technology Program Doisy College of Health Sciences Saint Louis University St. Louis, MO
2006-2020	Clinical Coordinator Nuclear Medicine Technology Program Doisy College of Health Sciences Saint Louis University St. Louis, MO

PROFESSIONAL EXPERIENCE

2003-2006	Staff Technologist PET Imaging Saint Louis University Hospital St. Louis, MO
2000- 2003	Staff Technologist Nuclear Medicine Department Memorial Hospital of Carbondale Carbondale, IL

PROFESSIONAL ORGANIZATION MEMBERSHIPS

2003- Present	Greater St. Louis Association of Nuclear Medicine, Member
2000-present	Society of Nuclear Medicine and Molecular Imaging (SNMMI)
2000-present	Missouri Valley Chapter Society of Nuclear Medicine and Molecular Imaging, Member

PROFESSIONAL ORGANIZATION SERVICE**National**

2021-2022	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) NMT Curriculum Guide Review Committee, <i>Appointed</i> Co-Chair
2020-2021	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) NMT Curriculum Guide Review Sub-Committee, <i>Appointed</i> Co-Chair
2020	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Advanced Practice Task Force, <i>Appointed</i> Member
2019-2023	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Executive Board, <i>Elected Speaker of the NCOR</i>
2019-2022	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Bylaws Committee, <i>Appointed</i> Member
2019-2022	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Professional Development Committee, <i>Appointed</i> Member
2019	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Executive Board, <i>Elected Speaker Elect of the NCOR</i>
2017-2022	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Scope of Practice Committee, <i>Appointed</i> Member
2017-2019	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Executive Board, <i>Elected Member-at-Large</i>
2016-2017	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Executive Board, <i>Elected Secretary</i>
2016-2017	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Bylaws Committee, <i>Appointed</i> Chair
2016-2020	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Scope of Practice Task Force, <i>Appointed</i> Member
2015-2021	Alpha Eta National Honor Society, <i>Elected</i> Executive Board Member
2015-2021	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Membership Committee, <i>Appointed</i> Member
2014-2016	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Educators Committee, <i>Appointed</i> Co-Chair
2013-2016	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS), <i>Elected Delegate-at-Large</i>

2013-2015	Society of Nuclear Medicine and Molecular Imaging (SNMMI) Advanced Associate Council, <i>Immediate Past President</i>
2013-2014	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Educators Forum Sub-Committee, <i>Appointed Chair</i>
2013-2014	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Entry Level Sub-Committee, <i>Appointed Member</i>
2011-2013	Society of Nuclear Medicine (SNM) Committee on Nominations <i>Appointed Member</i>
2011-2013	Society of Nuclear Medicine (SNM) Committee on Councils and Centers, <i>Appointed Member</i>
2011-2013	Society of Nuclear Medicine (SNM) House of Delegates, <i>Elected Council Delegate</i>
2011-2013	Society of Nuclear Medicine (SNM) Advanced Associate Council, <i>Elected President</i>
2010-2011	Society of Nuclear Medicine (SNM) Advanced Associate Council, <i>Elected Vice President</i>
2008-2011	Society of Nuclear Medicine (SNMTS) Advanced Practice Task Force, <i>Appointed Member</i>
2007-2023	Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS) Educators Committee, <i>Appointed Member</i>

Regional

2019-2021	Missouri Valley Chapter-SNMMI- Past-President of Technologist Section
2017-2019	Missouri Valley Chapter-SNMMI- <i>Elected</i> President of Technologist Section
2015-2017	Missouri Valley Chapter-SNMMI- <i>Elected</i> President Elect of Technologist Section
2007-2009	Missouri Valley Chapter-SNM, <i>Elected</i> Secretary/Treasurer

Local

2018-2023	Greater St. Louis Association of Nuclear Medicine, <i>Elected</i> Secretary/Treasurer
2007-2009	Greater St. Louis Chapter-SNM, <i>Elected</i> Secretary/Treasurer

SERVICE

University

2022	SLU Task Force on Faculty Activity Reporting, <i>Appointed</i> Member
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2020-2022 SLU Faculty Senate Professional Relations Committee
 2019-2022 Saint Louis University Pre-Health Committee on Evaluations
 2013 Mid-Year Commencement Marshall-at-Large
 2012-2015 DCHS Faculty Senator, *Elected* for 3-year term
 2006-2020 Clinical Education Compliance Committee, Annually *Appointed* Member

College

2022-2023 DCHS Dean's Coordinating Council, *Appointed* Member
 2022-2023 Doisy College Education Committee (DCEC)
 2022-2023 DCHS Workload Committee, *Appointed* Member
 2019-2020 DCHS Affiliations Committee, *Appointed Chair*
 2016-2022 DCHS Awards Committee, *Appointed* member
 2015-2023 DCHS Assessment Advisory Council, *Appointed* Member
 2012-2015 DCHS Education Council, Annually *Appointed* Member
 2011-2016 DCHS Marketing and Recruitment Committee, Annually *Appointed* Member
 2011-2012 DCHS Affiliations Committee, *Appointed Chair*
 2011-2012 DCHS Graduate Education Council, Annually *Appointed* Member
 2011-2012 DCHS Undergraduate Education Council, Annually *Appointed* Member
 2009-2022 DCHS Alpha Eta, *Elected* President
 2008-2009 DCHS Alpha Eta, *Elected* Member
 2006-2019 DCHS Affiliations Committee, Annually *Appointed* Member
 2006-2011 DCHS Curriculum Committee, Annually *Appointed* Member
 2006-2008 SLU Alumni Board, *Appointed* Faculty Liaison
 2005-2007 SLU Alumni Board, *Elected* Secretary/Treasurer
 2004-2005 SLU Alumni Board, *Elected* Treasurer
 2003-2004 SLU Alumni Board, Member

Department

2023 CHS Academic Program Coordinator Search Committee Chair
 2022 CHS Administrator Level III Search Committee
 2022 CHS Student Services Associate Search Committee Chair
 2021 JRCNMT Re-Accreditation of NMT Program
 2021 CHS Student Services Associate Search Committee
 2020 HSCI Faculty and Program Director Search Committee
 2020 Administrative Lead for Innovative Leadership in Health Care Practice Minor
 2020-Present Department of Clinical Health Sciences Vice Chair
 2017-present Program Director, Nuclear Medicine Technology Program
 2016 MIT Faculty Search Committee Chair

2014-Present	American Red Cross First Aid/CPR/AED Instructor
2012-2013	JRCNMT Re-Accreditation of NMT Program
2012	MIT Faculty Search Committee Chair
2009-2010	JRCNMT Mid-Cycle Review for NMT Program
2007-present	Research Coordinator/Mentor for Junior and Senior NMT students
2006-2021	Clinical Coordinator, Nuclear Medicine Technology Program
2005	JRCNMT Re-Accreditation of NMT Program

Community

2022-present	Good News Community Church Volunteer Coordinator
2021-present	Good News Community Church Worship Team
2020-2022	Boy Scout Troop 405 Merit Badge Counselor
2020-present	Cub Scout Pack 405 Administrator
2019-2022	Good News Community Church SHIFT Youth Ministry Leader
2020-2021	Boy Scout Troop 405 Advancement Director
2018-2020	Cub Scout Pack 405 Fundraising Chair
2015	Angel's Arms-Day of service in home of local foster parents
2014-present	American Red Cross First Aid/CPR/AED Instructor
2013	St. Patrick's Center-Household items collection and drop off
2013	St. Vincent's Home for Children, Wine Tasting Fundraiser
2012	St. Vincent's Home for Children, Art Supply Drive
2010	Bi-State Pet Food Pantry
2009-2010	Epidemiology Intern, Jefferson County Health Department
2007-2018	Volunteer, American Red Cross
2003-2007	Volunteer, National Kidney Foundation

HONORS AND AWARDS

2022	SNMMI-TS 1 st Place Technologist Best Therapy/Nuclear Oncology Abstract
2022	SNMMI-TS Kathy E. Hunt Outstanding Educator Award
2022	SNMMI-TS Presidential Distinguished Service Award
2021	SNMMI-TS Presidential Distinguished Service Award
2020	DCHS Outstanding Service Award
2019	Alpha Sigma Nu, Jesuit Honor Society Inductee
2018	Fellow of the Society of Nuclear Medicine and Molecular Imaging-Technologist Section (FSNMMI-TS)
2017	Alpha Epsilon Lambda National Honor Society of Graduate and Professional School Students Inductee
2017	ERF SNMMI-TS Advanced Degree Program Award
2017	SNMMI-TS PDEF Professional Development Scholarship
2016	SNMMI-TS "2016 Outstanding Educator Award"

- 2016 Saint Louis University Reinert Center for Transformative Teaching and Learning “Foundations Certificate”
- 2014 DCHS Faculty Award “Excellence in Classroom Teaching”
- 2012 Missouri Omega Chapter of Lambda Nu Member
- 2008 DCHS Faculty Award “Excellence in Clinical Teaching”
- 2000 Mallinckrodt Award of “Outstanding Achievement in Nuclear Medicine Technology Program”

PUBLICATIONS

Peer Reviewed Articles

- 2021 Sarah Frye, Alyssa M Reynolds, **Crystal Botkin**, Razi Muzaffar and Medhat M Osman. Monitoring Individual Occupational Radiation Exposure at Multiple Institutions. *Journal of Nuclear Medicine Technology* November 2021, jnmt.120.243154; DOI: <https://doi.org/10.2967/jnmt.120.243154>.
- 2020 Hatami S, Frye S, McMunn A, **Botkin C**, Muzaffar R, Christopher K, Osman M. Added Value of Digital over Analog PET/CT: More Significant as Image Field of View and Body Mass Index Increase. *J Nucl Med Technol.* 2020 Dec;48(4):354-360. doi: 10.2967/jnmt.120.244160. Epub 2020 Sep 4. PMID: 32887763.
- 2016 Bauer K, Lathrum A, Raslan O, Kelly P, Zhou Y, Hewing D, **Botkin C**, Turner J, Osman MM. “Do gadolinium-based contrast agents affect the 18F-FDG PET/CT uptake in the dentate nucleus and the globus pallidus? A pilot study.” *J Nucl Med Technol.* pii: jnmt.116.180844. November 10, 2016.
- 2014 Havrilla, A. Raslan, O. Muzaffar, R., **Botkin, C.**, Hubble, W., Hewing, D., Sayed, M., and Osman, M. “Value of Tc-99m-Bicisate (ECD) Ballon Test Occlusion in Preoperative Assessment of Stroke Risk Prior to Carotid Artery Sacrifice.” *Egyptian Journal of Nuclear Medicine.* 2014; 10(2): 8-17.
- 2011 W. Hubble, **C. Botkin**, “NMAA: Past, Present and Future.” *Journal of Nuclear Medicine Technology*, 2011; 39: 175-178.
- 2007 **C. Botkin**, M. M. Osman. “Prevalence, Challenges and Solutions for F-18 FDG PET Imaging of Obese Patients.” *Journal of Nuclear Medicine Technology.* 2007; 35: 80-83.

Book Chapters/Reviews

- 2022 Gilmore, D., Waterstram-Rich, K., **Botkin, C., Frye, S.**; Nuclear Medicine and PET/CT Technology and Techniques, Chapter 16, Respiratory System, Ninth Edition, Elsevier. (Published November 2022)
- 2019 **Botkin C.** and Frye, S.; Basics of PET and CT, SNMMI-TS PET Oncology Mini Book Part 2. (Submitted Oct 2019)
- 2019 Frye, S. and **Botkin, C.**; Patient Care in PET, SNMMI-TS PET Oncology Mini Book Part 1.
- 2018 Bolus N., Glasgow K., **Botkin C.**; Review of Nuclear Medicine Technology, Chapter 8, Fifth Edition, SNMMI.
- 2016 Gilmore, D., Waterstram-Rich, K., **Botkin, C.**; Nuclear Medicine and PET/CT Technology and Techniques, Chapter 18, Respiratory System, Eighth Edition, Mosby.
- 2016 Pagana, Pagana, Pagana, "Mosby's Diagnostic & Laboratory Test Reference" (**Reviewer**) 13th Edition, Elsevier, Maryland Heights, MO, Book Review.
- 2015 Christian, Paul and Swanston, Nancy, "PET Review Book, 2nd Edition" (**Reviewer**) Society of Nuclear Medicine and Molecular Imaging, Reston, Virginia.
- 2013 Myers, Karen and **Botkin, Crystal**, "Good Quality of Life for People with Disabilities? On Whose Terms?" PsycCRITIQUES Vol. 58, No. 46, Article 6, Published Online, Book Review.
- 2012 Pagana, Pagana, Pagana, "Mosby's Diagnostic & Laboratory Test Reference" (**Reviewer**) 11th Edition, Elsevier, Maryland Heights, MO, Book Review.
- 2011 Christian P., Waterstram-Rich K., **Botkin, C.**; Nuclear Medicine and PET/CT Technology and Techniques, Chapter 16, Respiratory System, Seventh Edition, Mosby.
- 2011 Bolus N., Byrd A., **Botkin, C.**; Steves' Review of Nuclear Medicine Technology, Chapter 8, Fourth Edition, SNM.

2010 Christian, Paul and Swanston, Nancy, "PET Review Book,"
(**Reviewer**) Society of Nuclear Medicine, Inc., Reston, Virginia,
Book Review.

Non-Peer Reviewed Articles

2008 **C. Botkin.** "Positive Identification, Positron Emission
Mammography", Advance for Imaging and Radiation Therapy
Professionals, September 29, Vol. 21, Issue 21

Editorial Review Board Activities

2014-2023 Technologist Abstract Reviewer, Society of Nuclear Medicine and
Molecular Imaging-Technologist Section

2009-2023 Article Reviewer for Journal of Nuclear
Medicine Technology, reviewed 25 articles

INVITED PRESENTATIONS

National

2023 **C. Botkin,** "Back to the Basics: Splenic Imaging" presented at the
Annual Meeting of the Society of Nuclear Medicine and Molecular
Imaging, Chicago, IL, June 2023

2022 **C. Botkin,** "Update on the SNMMI-TS Entry-Level Curriculum"
presented at the Annual Meeting of the Society of Nuclear
Medicine and Molecular Imaging, Vancouver, B.C., June 2022

2022 **C. Botkin,** "Nuclear Medicine Career Opportunities for
Technologists Panel " presented at the Annual Meeting of the
Society of Nuclear Medicine and Molecular Imaging, Vancouver,
B.C., June 2022

2021 **C. Botkin,** "Student Technologist Career Opportunity Panel
Discussion" presented at the Virtual Annual Meeting of the
Society of Nuclear Medicine and Molecular Imaging, June 2021

2019 **C. Botkin,** "Nuclear medicine technologists with disabilities: An
overview of legislation and accommodations" presented at the
Annual Meeting of the Society of Nuclear Medicine and Molecular
Imaging, Anaheim, CA, June 22, 2019

- 2018 **C. Botkin**, “The Nuclear Medicine Leader: Panel Discussion,” presented at the Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 23, 2018
- 2016 **C. Botkin**, “Technologist to Educator: The Voyage,” presented at the Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, San Diego, CA, June 14, 2016
- 2015 **C. Botkin**, “Review of Radiation Physics,” International Atomic Energy Agency Scientific Visit, St. Louis, MO, May 15, 2015
- 2015 **C. Botkin** and Marcia Hess-Smith, “Integrity and Technology,” presented at the Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Baltimore, MD, June 7, 2015
- 2015 **C. Botkin**, W. Hubble, P. Murphy, “Relationship Based Care”, presented at the Annual Conference for Association of Collegiate Educators in Radiologic Technology (ACERT), Las Vegas, Nevada, on February 6th, 2015
- 2014 **C. Botkin**, “Wiki for Clinical Teaching”, presented at the Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, Missouri, June 7, 2014
- 2014 **C. Botkin**, “Wiki for Clinical Teaching”, presented at the Annual Conference for Educators in Radiologic Technology (ACERT), Las Vegas, Nevada, on February 6th, 2014
- 2011 **C. Botkin** and W. Hubble, “Incorporating Research and Mentoring Students on Research Topics”, presented at the Annual Conference for Educators in Radiologic Technology (ACERT), Las Vegas, Nevada, on February 24th, 2011
- 2010 **C. Botkin** and W. Hubble, “Incorporating Research and Mentoring Students on Research Topics”, presented at the 57th Annual Meeting of the SNM held in Salt Lake City, Utah on June 8th, 2010
- 2010 **C. Botkin** and W. Hubble, “Collaborative Imaging Education is “NICE”, presented at the Annual Conference for Educators in Radiologic Technology (ACERT), Las Vegas, Nevada, on February 10th, 2010

- 2009 M. Pickett, W. Hubble, **C. Botkin**, “NMAA Program Workshop”, Society of Nuclear Medicine, Mid-Winter Symposium, Clearwater, FL, February 2009
- 2008 W. Hubble, M. Ward, K. Kienstra, **C. Botkin**, “Interprofessional Education in Action”, Educator’s Forum, American Society of Therapeutic Radiology and Oncology Meeting, Boston, MA, September 2008
- 2008 W. Hubble, M. Ward, K. Kienstra, **C. Botkin**, “Interprofessional Education in Action”, Educator’s Forum, 55th Annual Society of Nuclear Medicine Meeting, New Orleans, LA, June 2008
- 2006 **C. Botkin**, “PET 101: Basic Image Formation” Northwest Imaging Forum, San Francisco, CA, October 5, 2006
- 2006 **C. Botkin**, “Staff Training for PET/CT and SPECT/CT” Northwest Imaging Forum, San Francisco, CA, October 5, 2006
- 2006 **C. Botkin**, S. Huston, P. Yost, M.M. Osman. “Challenges and Solutions for Diagnostic CT Scanning in PET/CT Departments”, 53rd Annual Society of Nuclear Medicine Meeting, San Diego, California, June 2006
- 2005 **C. Botkin**, S. Anastas, P. Yost, D. Kallogjeri, M.M. Osman. “Correlation between Myocardial Uptake and Caffeine Intake: Detection with FDG-PET/CT”, 52nd Annual Society of Nuclear Medicine Meeting, Toronto, Canada, June 2005
- 2004 **C. Botkin**, M. M. Osman, S. Anastas, P. Yost, A.C. Civelek, “Prevalence, Challenges and Solutions for F-18 FDG PET Imaging of Claustrophobic Patients,” 51st Annual Society of Nuclear Medicine Meeting, Philadelphia, PA, June 2004, Poster Presentation

Regional

- 2021 **C. Botkin**, “Nuclear medicine technologists with disabilities: An overview of legislation and accommodations” presented at the Society of Nuclear Medicine MVC SNMMI Meeting, Kansas City, KS, October 8, 2021

- 2021 **C. Botkin**, “Nuclear medicine technologists with disabilities: An overview of legislation and accommodations” presented at the Annual Virtual Meeting of the Missouri Society of Radiologic Technologists, April 9, 2021
- 2019 **C. Botkin**, “The Job Search Game-How to Play It Well” Society of Nuclear Medicine MVC SNMMI Meeting, Omaha, NE, October 12, 2019
- 2019 **C. Botkin**, “Nuclear medicine technologists with disabilities: An overview of legislation and accommodations” Fourth District Missouri Society of Radiologic Technologists, St. Louis, MO May 4, 2019
- 2018 **C. Botkin**, “The Job Search Game-How to Play It Well” Society of Nuclear Medicine MVC SNMMI Meeting, Branson, MO, October 13, 2018
- 2017 **C. Botkin**, “Resume Writing and Interviewing” Society of Nuclear Medicine MVC SNMMI Meeting, Kansas City, MO, September 16, 2017
- 2016 **C. Botkin**, William Hubble and Austin Turner. “Personal and Professional Development for Health Care Professionals,” Missouri Valley Chapter of Society of Nuclear Medicine and Molecular Imaging, Lake Ozark, MO, September 18, 2016
- 2016 **C. Botkin**, Peggy Squires and Richard Siska. “Alternative Pathways,” Missouri Valley Chapter of Society of Nuclear Medicine and Molecular Imaging, Lake Ozark, MO, September 17, 2016
- 2015 **C. Botkin**, D. Hewing. “Success Beyond Entry Level Nuclear Medicine,” Missouri Valley Chapter of Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO, October 10, 2015
- 2015 **C. Botkin**, D. Hewing. “Landing the J-O-B,” Missouri Valley Chapter of Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO, October 10, 2015
- 2015 **C. Botkin**, D. Hewing. “Insights on Professionalism in Nuclear Medicine,” Missouri Valley Chapter of Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO, October 10, 2015

- 2014 **C. Botkin**, "Wiki for Clinical Teaching", presented at the Annual Meeting of the Missouri Society Radiologic Technologists, Columbia, Missouri, April 3, 2014
- 2012 **C. Botkin**, "Introduction to PET/CT" Society of Nuclear Medicine MVC Meeting, Overland Park, KS, October 12-14, 2012
- 2012 **C. Botkin**, "Introduction to Positron Emission Tomography" Missouri Society of Radiologic Technologists, Lake Ozark, MO, April 19-20, 2012
- 2011 **C. Botkin**, "Nuclear Medicine Basics and Beyond: Preparing future NMT's" Society of Nuclear Medicine MVC Meeting, Lake Ozark, MO October 14-16, 2011
- 2007 **C. Botkin**, "Resume Writing" Society of Nuclear Medicine MVC Meeting, St. Louis, MO, October 13, 2007
- 2006 **C. Botkin**, "Resume Writing" Society of Nuclear Medicine MVC Meeting, Coralville, IA, October 14, 2006

Local

- 2019 **C. Botkin**, "Nuclear medicine technologists with disabilities: An overview of legislation and accommodations" Greater St. Louis Association of Nuclear Medicine, St. Louis, MO October 2, 2019
- 2012 **C. Botkin**, "Nuclear Medicine Technologists: Should They Learn CT?" Greater St. Louis SNM Meeting, St. Louis, MO, December 6, 2012
- 2012 **C. Botkin**, "Introduction to PET/CT" Missouri Society of Radiologic Technologists, St. Louis, MO September 8, 2012
- 2012 **C. Botkin**, "Introduction to Nuclear Medicine Technology" Missouri Society of Radiologic Technologists, St. Louis, MO June 2, 2012
- 2011 **C. Botkin**, "Head Injury from the Imaging Perspective," Blackboard to Backboard Alumni Event, December 3, 2011

TEACHING EXPERIENCE**Undergraduate Instructor**

2022-present	NMT 4000	NMT Procedures I
2022-present	NMT 4100	Radiation Protection
2022-present	NMT 4340	NMT Procedures II
2022-present	NMT 4700	NM Clinical Practicum I
2022-present	NMT 4710	Senior Seminar I
2016-2022	NMT 4340	Clinical Nuclear Medicine
2015-2022	NMT 4910	Clinical Practicum
2015-present	NMT 4960	Capstone in Nuclear Medicine
2015-present	NMT 4430	Emerging Technologies
2015-2022	NMT 4410	Imaging Clinical Practicum
2015-2022	XRT 4310	Radiation Physics
2015-2022	NMT 4310	Radiation Physics/Radiation Safety
2011-2015	NMT 443	Emerging Technologies
2011-2015	NMT 441	Imaging Clinical Practicum
2011-2015	XRT 431	Radiation Physics
2011-2015	NMT 431	Radiation Physics/Radiation Safety
2009-2011	NMT 343	Emerging Technologies
2007-2011	NMT/XRT 331	Radiation Physics/Radiation Safety
2006-2015	NMT 499	Clinical Practicum
2006-2015	NMT 498	Capstone in Nuclear Medicine
2006-2014	NMT 341	Imaging Clinical Practicum
2006-2011	NMT 399	Clinical Practicum

Graduate Instructor

2015	MIS 5362	Pathophysiology and Clinical Correlation II
2014	MIS 5261	Pathophysiology and Clinical Correlation I
2012-2014	MIS 5342	Fusion Technologies
2012-2013	MIS 6413	Pathophysiology and Clinical Correlation

Guest Lecturer

2020-present	MRI-4420	Emerging Technologies
2012-2017	DPT 540	Lab Studies and Imaging
2012-2013	HSCI 100	Intro to Health Sciences
2011-present	XRT 4430	Emerging Technologies
2011-2012	BHSH 100	Introduction to Health Sciences
2008-present	Radiologic Technology Program, Forest Park Community College	

2008-2011	XRT-343	Emerging Technologies
2007-2015	PPHS 193	Introduction to the Helping Professions
2007	Health Careers 101,	Program for High School and College Career Counselors
2007	Radiation Therapy Program,	Barnes Jewish College
2006-2012	IPE 110	Introduction to Health Care
2006-2008	AHP-H101	Introduction to Health Professions
2000-2005	NMT-H334	Clinical Nuclear Medicine

RESEARCH ABSTRACTS/PRESENTATIONS

2023	S. Frye, E. Bajric, A. Dwiggins, C. Botkin , M. M. Osman. "Anxiety Survey for Standard of Care PET/CT patients with and without Music Therapy: Preliminary Analysis." Accepted for the 2023 oral technologist section research abstracts for the annual SNMMI in 06/2023-Awarded 1 st Place Technologist Abstract
2022	E. Bajric, C. Botkin (presenting author) , S. Frye, C. Nation, M. M. Osman. "Administration of Lutetium 177 PSMA therapy in an outpatient nuclear medicine department, a technologist's perspective." Oral Abstract Presentation, Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Vancouver, B.C. June 2022-1 st place abstract
2022	S. Frye, E. Bajric, C. Botkin , A. Sundermeyer, M. M. Osman. "Quantitative Perfusion SPECT (QPS) Analysis Using Both Male and Female Normal Databases in an Obese Male Patient: A Case Study." Oral Abstract Presentation, Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Vancouver, B.C. June 2022-1 st place abstract
2021	Weaver, C., Frye, S., Dwiggins, A., McMunn, A., Hardy, A., Batha, C., Botkin , C., Katz, I., Muzaffar, R., & Osman, M. "Understanding the music therapist's level of radiation exposure during sessions with clients undergoing FDG-PET/CT imaging." Poster presentation at the 2021 American Music Therapy Association National Conference in Virtual Format on October 14-17, 2021
2020	S. Frye, C. Weaver, A. Dwiggins, A. McMunn, A. Hardy, C. Batha, C. Botkin , I. Katz, R. Muzaffar, and M. M. Osman, "Live Music Therapy impact on anxiety of patients receiving PET/CT scans" Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020

- 2020 C. Weaver, A. Dwiggins, S. Frye, A. Hardy, **C. Botkin**, R. Muzaffar, and M. M. Osman, "Rhythmic Entrainment: A Music Therapy Intervention to Elicit Relaxation and Decrease Anxiety Prior To Diagnostic Imaging." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020
- 2006 S. Huston, **C. Botkin**, P. Yost, M. M. Osman. "Warm Blanket: A Simple Common Sense Solution to the Problem of FDG Uptake in Brown Adipose Tissue", 53rd Annual Society of Nuclear Medicine Meeting, San Diego, California, June 2006
- 2006 **C. Botkin**, S. Huston, P. Yost, M.M. Osman. "Challenges and Solutions for Diagnostic CT Scanning in PET/CT Departments", 53rd Annual Society of Nuclear Medicine Meeting, San Diego, California, June 2006
- 2005 P. E. Yost, S. M. Anastas, **C. Botkin**, M. M. Osman. "A Technologist Prospective: True Whole Body F18-FDG PET/CT in Oncology; Added Value, Challenges, and Solutions", 52nd Annual Society of Nuclear Medicine Meeting, Toronto, Canada, June 2005
- 2005 R. Jackson, S. M. Anastas, **C. Botkin**, P. E. Yost. M. M. Osman. "Prevalence and Patterns of Physiologic Muscle Uptake Detected with True Whole Body F-18 FDG PET/CT", 52nd Annual Society of Nuclear Medicine Meeting, Toronto, Canada, June 2005
- 2005 S.M. Anastas, **C. Botkin**, P. Yost, D. Kallogjeri, M.M. Osman. "Correlation Between Myocardial Uptake and Caffeine Intake: Detection with FDG-PET/CT", 52nd Annual Society of Nuclear Medicine Meeting, Toronto, Canada, June 2005
- 2004 R S Jackson, T Schlarman, W Hubble, **C Botkin**, S Anastas, P Yost, and M M Osman. "Prevalence and Patterns of Physiological Muscle Uptake Detected With Whole-Body F18 FDG-PET", 51st Annual Society of Nuclear Medicine Meeting, Philadelphia, PA, June 2004
- 2004 M. M. Osman, P. Yost, **C. Botkin**, S. Anastas, A. C. Civelek. "True Whole Body F18 FDG-PET in Oncology; Added Value, Challenges, and Solutions", 51st Annual Society of Nuclear Medicine Meeting, Philadelphia, PA, June 2004

- 2004 M. M. Osman, R. Jackson, C. Mosley, N. Khayyat, **C. Botkin**, S. Anastas, P. Yost, C. Civelek. "Prevalence, Challenges and Solutions for F-18 FDG PET Imaging of Claustrophobic Patients", European Journal of Nuclear Medicine. 2004; 31(2):S373.

STUDENT MENTORED RESEARCH ABSTRACTS/PRESENTATIONS

- 2023 L. Alsarag, E. Bajric, H. Broska, S. Frye, **C. Botkin**, M. M. Osman. "Reducing Lu 177-Vipivotide Tetraxetan (PSMA) Acquisition Time While Maintaining Spatial Resolution". Accepted for the 2023 technologist student section oral research abstracts for the annual SNMMI in 06/2023.
- 2023 H. Flickinger, E. Bajric, S. Frye, **C. Botkin**, M. M. Osman. "Nuclear Medicine Technologists Survey to Assess Workplace Burnout." Accepted for the 2023 technologist student section oral research abstracts for the annual SNMMI in 06/2023.
- 2023 N. Onderak, E. Bajric, S. Frye, **C. Botkin**, M. M. Osman. "Analysis of Occupational Exposure Distribution in a Nuclear Medicine Department Beginning Lutetium177 Therapy Administration." Accepted for the 2023 technologist student section poster research abstracts for the annual SNMMI in 06/2023. Awarded 1st Place Student Technologist Poster
- 2021 A. Brnjic, C. Webb, **C. Botkin**, S. Frye, M.M. Osman. "Promising 177Lu-PSMA-617 Therapy results in Patients with Metastatic Castration-Resistant Prostate Cancer." Accepted for oral technologist student section research abstracts for the annual SNMMI in June 2021
- 2021 M. Alshahrani, S. Frye, **C. Botkin**, M.M. Osman. "Prevalence of Receiving COVID-19 Vaccination among Healthcare Professionals during the COVID-19 Pandemic in the U.S. and Saudi Arabia." Accepted for oral technologist student section research abstracts for the annual SNMMI in June 2021
- 2021 J. Whipple, S. Frye, **C. Botkin**, M.M. Osman. "SPECT/CT Pulmonary Perfusion Studies: Searching for a Solution during a Pandemic." Accepted for oral technologist student section research abstracts for the annual SNMMI in June 2021

- 2020 A. Cesko, **C. Botkin**, S. Frye, C. Webb, M. M. Osman, "Lutetium-177 Dotatate Therapy, Revolutionizing the Way Somatostatin Receptor-Positive Neuroendocrine Tumors Are Treated." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020
- 2020 M. Mehmedovic, **C. Botkin**, S. Frye, R. Muzaffar, M. M. Osman, "New Age of Theranostics with New Radiation Safety Concerns; Challenges and Solutions." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020
- 2020 S. Bjork, **C. Botkin**, S. Frye, A. McMunn, C. Webb, R. Muzaffar, and M. M. Osman, "Theranostic Differences Between the United States and the Rest of the World." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020
- 2020 A. Grubmuller, **C. Botkin**, S. Frye, R. Muzaffar, and M. M. Osman. "Occipital exostosis resulting from excessive screen time." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020
- 2020 L. Aljaafari, S. Frye, **C. Botkin**, R. Muzaffar, and M. M. Osman, "Potential added value of dynamic PET in the detection and characterization of Hepatocellular Carcinoma (HCC): A case study." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020
- 2020 V. Le, S. Frye, **C. Botkin**, K. Christopher, P. Gulaka, B. Sterkel, R. Frye, R. Muzaffar, and M. M. Osman, "Effect of PET Scan with Count Reduction Using AI-Based Processing Techniques on Image Quality." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, June 2020
- 2019 A. Reynolds, **C. Botkin**, S. Frye, S. Gadani, R. Muzaffar, M. Osman, "Interventional Radiology and the Dosimetry Conundrum." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2019 A. Brown, **C. Botkin**, S. Frye, R. Muzaffar, M. Osman, "99mTc Pyrophosphate (PYP) Imaging Transthyretin Cardiac Amyloidosis Imaging: A new application for an old tracer." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019

- 2019 M. Jaime, **C. Botkin**, S. Frye, R. Muzaffar, M. Osman, "Digital PET imaging: Evaluating the Vereos PET/CT." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2019 M. Holloway, **C. Botkin**, S. Frye, C. Weaver, A. Hardy, A. Dwiggin, R. Muzaffar, M. Osman, "Music therapy sessions to decrease patient anxiety in diagnostic imaging." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2019 P. Couch, C. Webb, **C. Botkin**, S. Frye, R. Muzaffar, M. Osman, "Added Value of SPECT/CT in Post Lu-177 Dotatate Treatment for Neuroendocrine Tumors." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2019 S. Hatami, **C. Botkin**, S. Frye, A. McMunn, R. Muzaffar, M. Osman, "Added Value of Digital Over Analog PET/CT; Impact of Image Field of View and Body Mass Index." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2019 S. Abdullaeva, **C. Botkin**, S. Frye, R. Muzaffar, M. Osman, "Examining Ultratrace® Iobenguane I-131 for use in Patients with Malignant Pheochromocytoma/Paraganglioma or Metastatic Carcinoid." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2019 M. Tariq, R. Frye, R. War Hoover, J. Sauer, **C. Botkin**, S. Frye, E. Hooper, A. McMunn, M.M. Osman, "Digital vs Analog: PET/CT Spatial Resolution." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2019 M. T. Pham, J. Mhlanga, R. LaForest, D. Silvestros, W. Scheve, S. Frye, **C. Botkin**, D. Beyder, "Visual evaluation of different parameters for renal oncocytoma using GE Discovery 670 CZT." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019

- 2019 A. Jakubovic, **C. Botkin**, S. Frye, D. Beyder, D. Silvestros, T. Schindler, "Development of New Parameters for Myocardial Perfusion Studies to Improve Image Quality and Acquisition Time." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Anaheim, CA, June 2019
- 2018 N. Dunn, E. Koester, T. Muller, **C. Botkin**, S. Frye, M.M. Osman, "Initial Experience: An In-House Look at the Comparison Between a Digital Whiteboard to the Traditional Patient Tracking System." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 2018
- 2018 H. Broska, A. McMunn, **C. Botkin**, S. Frye, M. M. Osman, "Prostate Cancer Patients and PET/CT: Comparing and Contrasting ^{18}F -FDG and ^{18}F -Fluciclovine." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 2018
- 2018 A. M. Erwin, A. McMunn, **C. Botkin**, S. Frye, M.M. Osman, "Radiation Exposure Concerns: F18 Fluciclovine radiation exposure from the patient to the public." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 2018
- 2018 V. M. Carrizales, R. War Hoover, **C. Botkin**, S. Frye, M. M. Osman, "Discrepancy between physical and effective diameter in the Siemens Biograph mCT PET/CT imaged field of view." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Philadelphia, PA, June 2018
- 2017 A. Ryan, W. Hubble, **C. Botkin**, M.M. Osman, "Differences between HPV-positive and HPV-negative Head and Neck cancer patients as detected with FDG F18 PET/CT." J Nucl Med 2017 58:831
- 2017 H. Hristov, B. Hedgepeth, S. Frye, W. Hubble, **C. Botkin**, H. Lee, Y. Zhou, R. Muzaffar, and M.M. Osman, "Patterns and prevalence of F18-FDG uptake on PET/CT in conus medullaris and comparison with contrast-enhanced lumbar MRI in the same patient." J Nucl Med 2017 58:1151

- 2016 B. Spiegel, W. Hubble, **C. Botkin**, M. M. Osman, "Identifying the Role Technologists May Play in Meeting Compliance with the PET PROS Elements of PET/CT Reporting Guidelines." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, San Diego, CA, June 2016
- 2016 E. Mustain, **C. Botkin**, W. Hubble, M.M. Osman, "Sentinel Lymph Node Detection in Melanoma Patients; Impact of Lesion Location, Patient's Age, Gender, Weight and CHF." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, San Diego, CA, June 2016
- 2015 A. Gharabagi, W. Hubble, **C. Botkin**, M. Ahmed, R. Muzaffar, M.M. Osman, "Assessing Liver Standard Uptake Value (SUV) in Patients with Congestive Heart Failure (CHF) versus those without CHF using Positron Emission Tomography (PET) as an Imaging Modality." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Baltimore, MD, June 2015
- 2015 J. Davis, **C. Botkin**, W. Hubble, "Should the scope of practice for nuclear medicine technologists (NMT) be expanded? A technologist's perspective." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Baltimore, MD, June 2015
- 2015 J. Yasin, M. Mikhayel, R. Parkar, R. Muzaffar, **C. Botkin**, W. Hubble, M. M. Osman, "The Effect of Pulmonary Arterial Hypertension on Standardized Uptake Values of the Liver in PET/CT Imaging." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Baltimore, MD, June 2015
- 2015 L. Fohne, F. Ahmed, R. Muzaffar, **C. Botkin**, W. Hubble, M. M. Osman, "PET/CT: analyzing the ability of fused technology in detecting PET positive CT negative bone metastasis." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, Baltimore, MD, June 2015
- 2014 J. Wahidi, W. Hubble, D. Hewing, **C. Botkin**, M. Osman, "Y-90 Sir-Sphere treatment of liver cancer and alternative imaging methods." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, Missouri, June 2014

- 2014 C. Wendorf, **C. Botkin**, W. Hubble, D. Hewing, E. Groh, R. Muzaffar, M. Osman, "Investigating ways to address the Joint Commission new diagnostic imaging standards in reference to radiation dose tracking." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, Missouri, June 2014
- 2014 A. Havrilla, O. Raslan, K. Hurtgen, **C. Botkin**, W. Hubble, D. Hewing, M. Sayed, M. Osman, "Value of Tc-99m-bicisate (ECD) balloon test occlusion in preoperative assessment of stroke prior to internal carotid artery sacrifice." Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, Missouri, June 2014
- 2014 L. Laughhunn, **C. Botkin**, W. Hubble, D. Hewing, J. Turner, R. Muzaffar, E. Robinson, M. Osman, "Xofigo: An exciting new therapy for prostate cancer." 61st Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, Missouri, June 2014
- 2014 H. Sweet, Kevah V., R. Muzaffar, D. Hewing, **C. Botkin**, W. Hubble, M. Osman, "Inter-reader reliability among regions of interest in 123I-ioflupane (DaTscan) brain SPECT processing." 61st Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, Missouri, June 2014
- 2014 C. Van Alstine, A. Green, **C. Botkin**, D. Hewing, W. Hubble, M. Osman, "Brown fat detected by FDG PET/CT is protective against elevated fasting blood glucose in obese patients." 61st Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, Missouri, June 2014
- 2013 H. Gandhi, D. Hewing, **C. Botkin**, W. Hubble, J. Turner, M.M. Osman. "Amyvid: A Review and assessment of clinical implementation", 60th Annual Society of Nuclear Medicine and Molecular Imaging Meeting, Vancouver, British Columbia, Canada, June 2013
- 2013 L. Sarajlic, **C. Botkin**, W. Hubble, D. Hewing, J. Turner, M.M. Osman. "I-131 Therapy: Lack of adherence to NRC and SNM guidelines regarding potential radiation exposure to the unborn", 60th Annual Society of Nuclear Medicine and Molecular Imaging Meeting, Vancouver, British Columbia, Canada, June 2013

- 2013 K. Yoder, D. Hewing, **C. Botkin**, W. Hubble, J. Turner, M.M. Osman. "Development and validation of simple methods to reduce radiation exposure from FDG PET/CT patients", 60th Annual Society of Nuclear Medicine and Molecular Imaging Meeting, Vancouver, British Columbia, Canada, June 2013
- 2013 D. Helina, **C. Botkin**, W. Hubble, D. Hewing, J. Turner, M.M. Osman. "Comparison of radiation doses for 18-F FDG PET/CT imaging and the effect of varying protocols on image interpretation", 60th Annual Society of Nuclear Medicine and Molecular Imaging Meeting, Vancouver, British Columbia, Canada, June 2013
- 2013 C. Kirchgessner, **C. Botkin**, W. Hubble, D. Hewing, J. Turner, M.M. Osman. "The variability of CT techniques and radiopharmaceutical doses for SPECT/CT MPI studies", 60th Annual Society of Nuclear Medicine and Molecular Imaging Meeting, Vancouver, British Columbia, Canada, June 2013
- 2012 K. Hammann, S., W. Hubble, **C. Botkin**, J. Dombrowski, M.M. Osman. "Role of FDG PET/CT in prediction of post-radiation therapy chest wall toxicity," 59th Annual Meeting of the Society of Nuclear Medicine, Miami, Florida, June 2012
- 2012 E. Watson, W. Hubble, **C. Botkin**, M.M. Osman. "Vendor reported CTDI vs. actual CTDI in SPECT/CT: Initial experience," 59th Annual Meeting of the Society of Nuclear Medicine, Miami, Florida, June 2012
- 2012 L. Sarajlic, W. Hubble, **C. Botkin**, M.M. Osman. "The incremental added value of including the head in the imaged field of view: A retrospective evaluation of 8431 18F-FDG PET/CT studies," 59th Annual Meeting of the Society of Nuclear Medicine, Miami, Florida, June 2012
- 2012 N. Simpson, W. Hubble, **C. Botkin**, M.M. Osman. "Added value of SPECT/CT in cancer imaging," 59th Annual Meeting of the Society of Nuclear Medicine, Miami, Florida, June 2012
- 2012 R. Krawiecki, W. Hubble, **C. Botkin**, M.M. Osman. "Added benefits of SPECT/CT in non-malignant nuclear medicine studies," 59th Annual Meeting of the Society of Nuclear Medicine, Miami, Florida, June 2012

- 2012 T. Hemstock, W. Hubble, **C. Botkin**, M.M. Osman. "123 I-loflupane: A new and promising tracer for Parkinson's disease," 59th Annual Meeting of the Society of Nuclear Medicine, Miami, Florida, June 2012
- 2011 A. Lang, **C. Botkin**, W. Hubble, M.M. Osman. "The usefulness of ventilation/perfusion scans in children with pulmonary artery stenosis", 58th Annual Meeting of the Society of Nuclear Medicine, San Antonio, TX, June 2011
- 2011 C. Schmitt, E. Hoth, **C. Botkin**, W. Hubble, M.M. Osman. "SPECT/CT: A comparison of initial expectations versus actual utilization", 58th Annual Meeting of the Society of Nuclear Medicine, San Antonio, TX, June 2011
- 2011 A. Turnadzic, **C. Botkin**, W. Hubble, M.M. Osman. "Same day appointments after FDG PET/CT: A potential radiation exposure to medical personnel and general public", 58th Annual Meeting of the Society of Nuclear Medicine, San Antonio, TX, June 2011
- 2011 K. Valdez, **C. Botkin**, W. Hubble, J.Littlefield, M.M. Osman. "A single institution study comparing radiation exposure: MPI versus CCTA", 58th Annual Meeting of the Society of Nuclear Medicine, San Antonio, TX, June 2011
- 2011 A. Kalthoff, W. Hubble, **C. Botkin**, E. Hoth, R. Smith, M.M. Osman. "Patient exposure and diagnostic quality: An analysis of solid-state semiconductor technology in myocardial perfusion imaging", 58th Annual Meeting of the Society of Nuclear Medicine, San Antonio, TX, June 2011
- 2011 T. Yan, **C. Botkin**, W. Hubble, M.M. Osman. "Does weight loss affect stability of liver SUV in patients with head and neck cancer?", 58th Annual Meeting of the Society of Nuclear Medicine, San Antonio, TX, June 2011
- 2011 B. Kistner, **C. Botkin**, W.Hubble, W. Touma, M.M. Osman. "Patterns of myocardial uptake in FDG-PET/CT scans: Impact of changes in left ventricular ejection fraction", 58th Annual Meeting of the Society of Nuclear Medicine, San Antonio, TX, June 2011

- 2010 A. Kalthoff, **C. Botkin**, W. Hubble, J. Littlefield, M.M. Osman
“Availability and Utilization of Pinhole Collimators in Modern Nuclear Medicine Departments: An Update” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2010 B. Kistner, **C. Botkin**, W. Hubble, M.M. Osman “Proposed reduction in whole body maximum permissible dose for occupational workers: Awareness and Potential Impact” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2010 A. Lang, **C. Botkin**, W. Hubble, M.M. Osman “Administration of Iodinated Contrast Media by Nuclear Medicine Technologists: Awareness and Training” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2010 E. Groh, **C. Botkin**, D. Oliver, M.M. Osman
“Liver SUV in Whole Body ¹⁸F FDG-PET/CT: Stability and correlation with with age and gender.” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2010 K. Bouckaert, D. Oliver, B. Hubble, **C. Botkin**, N.C. Nguyen, M.M. Osman “Impact of Chemotherapy on Liver SUV in F-18 FDG PET/CT” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2010 A. Croxford, P. Fajnwaks, **C. Botkin**, D. Oliver, N.C. Nguyen, M. M. Osman “Prevalence and patterns of metal artifacts in FDG PET/CT” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2010 T. Collier, D. Oliver, **C. Botkin**, N.C. Nguyen, M.M. Osman “Should Liver SUV still be used as an internal reference in the presence of benign liver diseases?” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2010 S. Crandall, R Muzaffar, W. Hubble, **C. Botkin**, D. Phegley, N.C. Nguyen, M.M. Osman “A technologist perspective on half-time myocardial perfusion imaging: A promising new technology” 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010

- 2010 T. Moore, D. Oliver, **C. Botkin**, A. Abdelmalik, N. C. Nguyen, M.M. Osman "Contamination in ^{18}F -FDG PET/CT: An Initial Experience" 57th Annual Meeting of the Society of Nuclear Medicine, Salt Lake City, Utah, June 2010
- 2009 A. Bains, **C. Botkin**, D. Oliver, N. C. Nguyen, M.M. Osman "Contamination in ^{18}F -FDG PET/CT: An Initial Experience," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009
- 2009 R. Habing, **C. Botkin**, M.M. Osman, "Patterns and Prevalence of Truncation Artifacts in PET/CT," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada June 2009
- 2009 H. Jackson-Karsch, R. Muzaffar, **C. Botkin**, N. C. Nguyen, M.M. Osman, "Incidental Diagnosis of Prostate Cancer in FDG PET/CT: Frequency in 1420 Patients," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009
- 2009 J.Sahrmann, D. Phegley, **C. Botkin**, N. C. Nguyen, M.M. Osman "Prevalence and Challenges of Pediatric Studies in the Nuclear Medicine," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009
- 2009 M. Everding, W. Hubble, **C. Botkin**, N. C. Nguyen, M.M. Osman, "FDG PET Centers: The Difficult Balance between Demands and Appropriate Staffing," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009
- 2009 S. Hosseini, I. Tran, **C. Botkin**, A. Moinuddin, N. C. Nguyen, M. M. Osman, "Respiratory Gating in FDG PET/CT: An Initial Experience," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009
- 2009 S.Nagel, **C. Botkin**, P. Yost, M.M. Osman, "Patterns, Challenges and Solutions for F-18 FDG PET/CT studies of Pediatrics," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009
- 2009 C. Nation, **C. Botkin**, D. Oliver, M.M Osman, "Impact of Head Holder in Reducing Misregistration in the Head and Neck in Whole-Body FDG PET/CT" 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009

- 2009 R. Littlejohn, **C. Botkin**, P. Yost, M.M. Osman, "Arm placement in F-18 FDG PET/CT scans," 56th Annual Meeting of the Society of Nuclear Medicine, Toronto, Canada, June 2009
- 2008 R. Bohle, **C. Botkin**, D. Oliver, N. Nguyen, M.M. Osman, "Effects of Blood Glucose Levels on SUV," 55th Annual Society of Nuclear Medicine Meeting, New Orleans, LA, June 2008
- 2008 H. Mulugeta, **C. Botkin**, P. Yost, N. Nguyen, M.M. Osman, "Cancellation of FDG PET Scans: Patterns, Prevalence, and Financial Ramifications," 55th Annual Society of Nuclear Medicine Meeting, New Orleans, LA, June 2008
- 2008 M. Lees, J. Dombrowski, **C. Botkin**, W. Hubble, N. Nguyen, M.M. Osman, "Utilization of Na22 PET markers in radiation therapy planning: Initial Experience," 55th Annual Society of Nuclear Medicine Meeting, New Orleans, LA, June 2008
- 2008 M. March, **C. Botkin**, P. Yost, N. Nguyen, M.M. Osman, "¹⁸F-FDG PET/CT for Inpatients: Prevalence and Challenges," 55th Annual Society of Nuclear Medicine Meeting, New Orleans, LA, June 2008
- 2008 M. Lazowitz, D. Oliver, **C. Botkin**, N. Nguyen, M. Osman, "Should MDP dose be based on body weight instead of the standard dose? Preliminary results," 55th Annual Society of Nuclear Medicine Meeting, New Orleans, LA, June 2008
- 2008 T. Mueller, **C. Botkin**, D. Oliver, N. Nguyen, M. M. Osman, "Prevalence of Abnormal Blood Glucose Levels in Patients Undergoing FDG PET/CT Scan," 55th Annual Society of Nuclear Medicine Meeting, New Orleans, LA, June 2008
- 2007 M. Blase, **C. Botkin**, M.M. Osman, "Comparison of ¹⁸F-FDG PET/CT and Bone Scan in Detection of Bone Metastases in Breast Cancer," 54th Annual Society of Nuclear Medicine Meeting, Washington, D.C, June 2007
- 2007 S. Krumrey, **C. Botkin**, P. Yost, M.M. Osman, "Prevalence of Multiple Cancers and Detection of Unexpected Additional Primary Malignancies in Patients Undergoing FDG PET/CT: An Initial Experience," 54th Annual Society of Nuclear Medicine Meeting, Washington, D.C, June 2007

- 2007 C. Teymouri, **C. Botkin**, M.M. Osman, "FDG Dose Extravasation in PET/CT: Frequency and Impact on SUV Measurements," 54th Annual Society of Nuclear Medicine Meeting, Washington, D.C, June 2007
- 2007 V. Ravindra, **C. Botkin**, P. Yost, M.M. Osman, "Incidental Diagnosis of Prostate Cancer in FDG PET/CT: An Initial Experience," 54th Annual Society of Nuclear Medicine Meeting, Washington, D.C, June 2007

PROFESSIONAL DEVELOPMENT ACTIVITIES

- 2023 *The Chronicle's* Strategic Leadership Program
- 2022 5 Principles of Effective Leadership: A Bootcamp for Leaders at All Levels Virtual training by Academic Impressions, July-Aug 2022
- 2021-2022 Saint Louis University Safe Zone Competency Program
- 2021 IUPUI Assessment Institute
- 2021 Leadership in Higher Education Virtual Conference
- 2021 SNMMI-TS Virtual Advanced Leadership Academy
- 2020 Mental Health First Aid Training
- 2020 Magna Publications Legal Compliance Training
- 2020 SLU Reinert Center Introduction to Teaching Online
- 2019 eValue Users Conference, Denver, CO, September 2019
- 2014 Missouri Society of Radiologic Technologists Annual Meeting, Columbia, MO, April 2014
- 2014 Society of Nuclear Medicine and Molecular Imaging Entry Level Committee Meeting, Reston, VA, March 2014
- 2012 4th District, Missouri Society of Radiologic Technologists, St. Louis, MO, September 8, 2012
- 2012 "What Matters to Student Success: The Promise of High Impact Practices", Dr. George Kuh, SLU CTE seminar, May 8, 2012
- 2010-2015 Annual Conference of the Association of Collegiate Educators in Radiologic Technology
- 2008 SNMTS Leadership Academy, Orlando, FL, October 24-26, 2008
- 2008 American Society of Therapeutic Radiology and Oncology Meeting, September 19-20, 2008
- 2007 Faculty Search Committee Workshop. September 19, 2007
- 2007 Speed Reading and Comprehension Training Program, September-October, 2007
- 2007 Understanding the Millennial Student, Faculty Workshop, May 15, 2007
- 2007 Cancer Center Retreat, April 20-21, 2007
- 2007 5 Dimensions of the SLU Experience, March 31, 2007

- 2007 Integrating Teaching and Research: Communicating Your Research Message, SLU CTE and ORSA, January 11, 2007
- 2006-2021 Missouri Valley Chapter SNMMI Annual Meetings
- 2004-2021 Annual Society of Nuclear Medicine and Molecular Imaging Meetings
- 2003-2022 Greater St. Louis Association of Nuclear Medicine Monthly Meetings