

Sheryl Roberts, Ph.D.

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Faculty Appointments

Faculty Appointments at Wayne State

11/2022 - Present	Assistant Professor - Research Educator (tenure track), College of Engineering, Other (Department of Biomedical Engineering) (Secondary)
03/2022 - Present	Assistant Professor - Research Educator (tenure track), School of Medicine, Department of Oncology (Primary)

Hospital or Other Professional Appointments

03/2022 - Present	Faculty Member, Oncology, Karmanos Cancer Institute, Detroit, MI, United States of America
09/2020 - 03/2022	Chief Fellow, Department of Radiology, Memorial Sloan Kettering Cancer Center (MSKCC), New York, NY, United States of America
11/2016 - 11/2017	Graduate Research Assistant, Department of Radiology, MSKCC, New York, NY, United States of America
11/2012 - 11/2016	Guest Researcher, Institute of Medical Imaging and Biology (IBMI), Helmholtz Zentrum München (HMGU), Neuherberg, Munich, Germany
11/2012 - 11/2016	Ph.D. Candidate, School of Medicine, Technische Universität München (TUM), Munich, Bavaria, Germany
10/2011 - 05/2012	Science and Engineering Program in Law Trainee, Industrial Chemistry Processes, European Patent Office (EPO), Munich, Bavaria, Germany
09/2009 - 08/2010	Industrial Placement, Physics and Analytics Group, Agfa-Gevaert Group N.V., Antwerp, Belgium
06/2008 - 08/2008	Summer Intern, Fine Chemicals, Ceimig Ltd., Dundee, Scotland
02/2008 - 05/2008	Undergraduate Research Intern, Department of Chemistry, University of St. Andrews, St. Andrews, Fife, Scotland

Education

Education

10/2013 - 11/2017	Ph.D., Medical Life Science and Technology Technical University Munich, Munich, Bavaria, Germany
09/2006 - 06/2011	M.S., Masters' in Chemistry with Medicinal Chemistry (MChem (Hons)) University of St. Andrews, St. Andrews, Fife, Scotland

Postgraduate Training

11/2020 - 03/2022	Other (Research Associate), Department of Radiology, Reiner & Pillarsetty Lab MSKCC, New York, NY, United States of America
12/2017 - 10/2020	Other (Research Scholar), Department of Radiology, Thomas Reiner Lab MSKCC, New York, NY, United States of America

Professional Society Memberships

06/2025	American Chemical Society
2018 - Present	New York Academy of Sciences (NYAS)
2018 - Present	American Association for the Advancement of Science (AAAS)
2017 - Present	World Molecular Imaging Conference (WMIC)
2013 - Present	European Molecular Imaging Meeting (EMIM)
2013 - 2016	Amnesty International Munich
2006 - Present	Royal Society Chemistry (RSC)

Honors / Awards

2022	Alavi-Mandell Award 2022, Society of Nuclear Medicine and Molecular Imaging (SNMMI) <i>High ranking 1st author research paper</i>
2021	ITARSc Award, Radiological Society of North American (RSNA) <i>\$1,000 toward travel, one applicant per department</i>
2016	Laura-Bassi Award, Technische Universität München, Germany <i>For outstanding women in Science (stipend, salary and consumables support).</i>
2016	EXCITE: Biomedical Imaging, ETH Zürich, Zurich, Switzerland <i>Summer school as one of the top 50 selected applicants worldwide. Travel and full board accommodation support</i>
2016	Executive MBA in Innovation & Business Creation Scholarship, Technische Universität München, Munich, Germany <i>Awarded €19,500, part-time and modular in tandem with Ph.D., I declined</i>
2014	Sino-German DFG Travel Award, German Research Foundation <i>DGF-funded all inclusive travel and accommodation to The Third Military Medical University (TMMU), Chongqing, China</i>
2013	Life Science and Technology Award, Faculty of Medicine, Technische Universität München, Munich, Germany <i>1st ranked Ph.D. candidate in the program, 1-year fellowship (salary and €5000 for consumables)</i>
2013	Medical Life Science and Technology Program, Faculty of Medicine, Technische Universität München, Munich, Germany <i>Highly competitive Ph.D. training program at TUM</i>
2009	Erasmus+ Mobility Award, British Council, UK <i>For best promoting International Work Relationship, 1-year monetary monetary living expenses support</i>

Biographical Citations

2020	Ones to Watch 2020, Society of Nuclear Medicine and Molecular Imaging (SNMMI) <i>Nominated and awarded as "Ones to Watch" in 2020</i> https://www.snmmi.org/NewsPublications/NewsDetail.aspx?ItemNumber=33498
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Teaching

Teaching at Wayne State University

Graduate (Masters, Ph.D., Pharm.D., etc.)

08/2025 - 10/2025	Ph.D rotation- Cancer Biology Program (Ms. Marilyn Williams), Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Research Advisor / Mentor
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06/2024 - 06/2025	Alexander Deck, Laboratory Precepting / Instruction, Mentoring / Advising, Masters' Committee Member
04/2023 - 04/2023	Imaging Cancer and Contrast Agents, Didactic / Traditional Course Teaching, Lectures, Instructor, Lecturer

Elementary, Middle, or High School

06/2025 - 08/2025	Biomedical Career Advancement Pipeline (BCAP) Program, Sabiha Khan, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Mentor, Research Advisor / Mentor
06/2025 - 08/2025	Biomedical Career Advancement Pipeline (BCAP) Program, LLondon Shivers, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Research Advisor / Mentor
06/2024 - 08/2024	Biomedical Career Advancement Pipeline (BCAP) Program, Madison Markham, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Mentor, Research Advisor / Mentor
06/2024 - 08/2024	Biomedical Career Advancement Pipeline (BCAP) Program, Haley Christian, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Mentor, Research Advisor / Mentor

Laboratory Staff (non-student)

01/2024 - 01/2025	Allison Ingman, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Research Advisor / Mentor
04/2023 - 10/2023	William Grace, Laboratory Technician, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction
01/2023 - 03/2023	Lubna Kader, Research Assistant, Laboratory Precepting / Instruction, Mentoring / Advising, Mentor, Preceptor, Research Advisor / Mentor
06/2022 - 11/2022	Punita Bhardwaj, Research Assistant, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Research Advisor / Mentor

Medical Student

11/2023	Cassidy McColl, M1 Research Electives, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Research Advisor / Mentor
12/2022	Juwan Taylor, M1 Research Electives (MD1 5541 and MD1 5542), School of Medicine, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Research Advisor / Mentor

Postdoctoral

06/2025 - Present	Diksha Parmar, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Research Advisor / Mentor
07/2024 - Present	Riya Mallik, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Mentor, Research Advisor / Mentor
10/2023 - Present	Saheed Ayodeji, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Mentor, Research Advisor / Mentor
03/2023 - 06/2024	Chandra Prakash Sharma, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Mentor, Preceptor, Research Advisor / Mentor
08/2022 - 01/2023	Marlon Profeta de Almeida, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Discussion Leader, Laboratory Supervisor / Instruction, Mentor, Research Advisor / Mentor

Undergraduate

04/2024	Sara Qasim, Undergraduate Research Student, Biochemistry and Chemical Biology, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction
09/2023	Destina Unaegbu, Undergraduate Research Student, Biochemistry and Chemical Biology, Laboratory Precepting / Instruction, Academic Advisor / Mentor, Mentor, Research Advisor / Mentor
05/2023 - 05/2023	Sara Abdul-Hak, Undergraduate Biochemistry and Chemical Biology, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Mentor
02/2023 - 02/2023	Layan Ghali, Undergraduate Research Student, Biochemistry and Chemical Biology, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Mentor, Preceptor, Research Advisor / Mentor
12/2022 - 01/2023	Sara Qasim, Undergraduate Research Student, Biochemistry and Chemical Biology, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Research Advisor / Mentor
11/2022	Kareem Krayem, Undergraduate Research Student, Biochemistry and Chemical Biology, Laboratory Precepting / Instruction, Mentoring / Advising, Academic Advisor / Mentor, Laboratory Supervisor / Instruction, Research Advisor / Mentor

Teaching at Other Institutions

Graduate (Masters, Ph.D., Pharm.D., etc.)

06/2021 - 03/2022	MSKCC, NY, USA- Lewis Laboratory, Justin Hackey, Weill Cornell Medicine, Ph.D. Candidate, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Mentor, Preceptor, Support mentor, oversee the project with fluorescent molecules targeting ATM
09/2019 - 02/2020	MSKCC, NY, USA- Reiner Laboratory, Christopher Wittman, University of Vienna, Laboratory Precepting / Instruction, Laboratory Supervisor / Instruction, Preceptor, Coordination chemistry, analytical chemistry
02/2017 - 06/2017	MSKCC, NY, USA- Reiner Laboratory, Madhu Jayaraman, Manipal Academy of Higher Education, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Preceptor, Data analysis training and writing

Elementary, Middle, or High School

06/2017 - 08/2017	MSKCC, NY, USA- Reiner Laboratory, Abby Hunt, "Evaluation of logP of near infrared red dyes", Mentoring / Advising, Laboratory Supervisor / Instruction, Mentor, Preceptor, Under my direct mentorship
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Laboratory Staff (non-student)

06/2021 - 01/2022	MSKCC, NY, USA- Reiner Laboratory, Delissa Johnson, Lab Technician, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Preceptor, Train day-to-day laboratory activities, mouse handling and in vivo work
09/2020 - 03/2022	MSKCC, NY, USA- Reiner Laboratory, Tara Viray, Lab Technician, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Mentor, Preceptor, Direct teaching on cell culture techniques and purification techniques, direct mentor for "PARPi-FL stability in various conditions", figures and manuscript training
11/2016 - 07/2018	MSKCC, NY, USA- Reiner Laboratory, Patrick Donabedian, Pre-medical student, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Preceptor, Radiochemistry training, Data analysis training and writing

Undergraduate

06/2021 - 08/2021	MSKCC, NY, USA- Pillarsetty Laboratory, Kaitlin Rhee, Berkeley University, Undergraduate Student, “Synthesis and purification of Affibodies”, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Mentor, Preceptor, Direct mentor, training day-to-day activities
06/2020 - 08/2020	MSKCC, NY, USA- Reiner Laboratory, Nina R. Filippone, Binghamton University, Undergraduate Student, Course Direction, Mentoring / Advising, Online Instruction, Mentor, Preceptor, Research Advisor / Mentor, Trained in writing review during COVID lockdown
09/2019 - 06/2021	MSKCC, NY, USA- Reiner Laboratory, Cien Hung, Hunter College, Undergraduate Student, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Mentor, Preceptor, Confocal microscopy and cell culture techniques, training for figures and manuscript writing
06/2019 - 08/2019	MSKCC, NY, USA- Reiner Laboratory, Dylan Manuele, Rochester University, Undergraduate Student, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Mentor, Preceptor, HPLC training
04/2018 - 07/2020	MSKCC, NY, USA- Reiner Laboratory, Navjot Guru, Pre-medical student, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Preceptor, Train day-to-day laboratory activities
11/2016 - 05/2019	MSKCC, NY, USA- Reiner Laboratory, Crystal Choi, Hunter College, Undergraduate Student, “Synthesis of Near-infrared Nanoemulsions”, Laboratory Precepting / Instruction, Mentoring / Advising, Laboratory Supervisor / Instruction, Mentor, Preceptor, Data analysis training and writing

Essays / Theses / Dissertations

07/2023 - 07/2025	Navjot Guru, Doctoral, Exploring the Multiciliation Pathway in Choroid Plexus: From Non-Coding RNA Regulation to Human Organoid Model, Dissertation (Committee Member) 07/2023
04/2022	Kelli Chapman, Doctoral, tbd, Co-mentor (Advisor / Mentor)

Course or Curriculum Development

2026	CB300- Special Topics in Cancer Biology Theranostics, Graduate (Masters, Ph.D., Pharm.D., etc.), Wayne State University, Detroit, MI, United States of America <i>Co-course Director (Viola/Roberts)</i> <i>Finalized course and approved by WSU through BME</i>
2024 - Present	CB7240- Principles of Cancer Therapy Tumor Physiology and Image Lectures Winter Term 2024, & 2025, Graduate (Masters, Ph.D., Pharm.D., etc.), Wayne State University, Detroit, MI, United States of America
12/2023 - Present	CB7210- Fundamentals of Cancer Biology Tumor Image Lectures Winter term 2023, 2024, & 2025, Graduate (Masters, Ph.D., Pharm.D., etc.), Wayne State University, Detroit, MI, United States of America <i>Current Course Co-director,</i> <i>Setting and Grading exams</i>

Research

Funded Research

Funded

Role: Principal Investigator, Percent Effort: 0 %
Title: Development of a targeted protein degrader with lutetium-177 for radionuclide therapy of prostate cancer
Sponsor Name: Karmanos Cancer Institute
09/2024 - 12/2025
Total Award: \$ 25,000, Institutional (Wayne State University)

Role: Faculty Sponsor/Mentor, Percent Effort: 0 %
Title: Undergraduate Research Opportunities Program (UROP), Student Award - Kareem Krayem
Sponsor Name: Wayne State University
06/2023 - 12/2023
Total Award: \$ 2,000 (student) + \$750 (lab supplies), Institutional (Wayne State University)

Role: Principal Investigator, Percent Effort: 0 % A22-0525-001
Title: Faculty Competition for Postdoctoral Fellows, 2 years for Postdoc Fellow support, \$30,000/year
Sponsor Name: Office of the Vice President for Research (OVRP)- Wayne State University
09/2022 - 09/2023
Total Award: \$ 60,000, Institutional (Wayne State University)

Role: Principal Investigator, Percent Effort: 0 % KCI-SRIG-2022
Title: KCI Strategic Research Initiative Grant (SRIG)
Sponsor Name: Karmanos Cancer Institute
07/2022 - 03/2024
Total Award: \$ 50,000, Institutional (Wayne State University)

Role: Principal Investigator, Percent Effort: NA %
Title: Start-up Fund
Sponsor Name: Karmanos Cancer Institute
03/2022 - 03/2027
Total Award: \$ start-up + 2 large capital equipment, Institutional (Wayne State University)

Pending Funding

Role: Co-Investigator, Percent Effort: 5 %
Eduard Chekmenev (Principal Investigator)
Title: Commercialization of a Molecular Imaging Tool for Longitudinal Assessment of Localized Metabolic Disruptions in Animal Research and Care, Received SBIR JIT request and submitted
Sponsor Name: NIH SBIR - Vizma Life Sciences (Sponsor)
04/2025 - 03/2027
Total Award: \$ 299,998.00, Federal

Submitted for Review

Role: Principal Investigator, Percent Effort: 30 % GRANT14484978
Title: Radioligand Strategies to Potentiate Prostate Cancer Therapy via Chemically Induced Proximity
Sponsor Name: NIH Director's New Innovator Award DP2
08/2026 - 07/2031
Total Award: \$ 3,671,006.00, Federal

Submitted - Not Funded

Role: Principal Investigator, Percent Effort: 25 % GRANT14235557
Title: Chimeric radiopharmaceuticals that target proteins for imaging and degradation
Sponsor Name: NIH Director's New Innovator Award (DP2)
07/2025 - 06/2030
Total Award: \$ 2,500,000, Federal

Role: Co-Principal Investigator, Percent Effort: 3 %
 Dauren Adilbay (Principal Investigator)
 Title: Project title: Development and validation of a clinical imaging agent for risk stratification of oral premalignant diseases (OPMD)
 Sponsor Name: NIH R01 NOSI: Precision Imaging of Oral Lesions
 09/2024 - 08/2029
 Total Award: \$ 1,000,000, Federal

Role: Principal Investigator, Percent Effort: 10 % GRANT14074121
 Title: Androgen receptor (AR)-targeting tracers for PET imaging
 Sponsor Name: NIH R21
 09/2024 - 08/2026
 Total Award: \$ 453,500, Federal

Role: Principal Investigator, Percent Effort: 15% % GRANT14001202
 Heath E, M.D. (Co-Investigator)
 Title: Synthetic development of positron emission tomography (PET)-based LYTACs using trivalent linkers
 Sponsor Name: NIH R21 Trailblazer Award for New and ESI
 07/2024 - 06/2027
 Total Award: \$ 613,030.00, Federal

Role: Principal Investigator, Percent Effort: 25 % GRANT13785276
 Heath E (Co-Investigator), Boerner J (Co-Investigator)
 Title: Development of trivalent PROTACs for targeted PET imaging and degradation of fibroblast activated proteins
 Sponsor Name: NIH R01 Stephen I. Katz Early Stage Investigator
 12/2023 - 11/2028
 Total Award: \$ 3,412,143, Federal

Role: Principal Investigator, Percent Effort: 100 % GRANT13243092
 Title: K99/R00 Pathway to Independence Award , discussed and scored (impact score 39)
 Sponsor Name: NIH
 11/2021 - 11/2026
 Total Award: \$ 995,017.00, Federal

Role: Principal Investigator, Percent Effort: NA % 2023_SRF-3635840050
 Title: 2023 Sloan Research Fellowship
 Sponsor Name: Alfred P. Sloan Foundation
 02/2023 - 02/2025
 Total Award: \$ 75,000, Foundations / Associations / Societies

Role: Principal Investigator, Percent Effort: 5 % 20372
 Title: Elsa U. Pardee Research Grant Application
 Sponsor Name: The Elsa U. Pardee Foundation
 01/2023 - 01/2024
 Total Award: \$ 167,980, Foundations / Associations / Societies

Role: Co-Principal Investigator, Percent Effort: 0 %
 Eduard Chekmenev (Principal Investigator), Nerissa Viola (Co-Principal Investigator), Anthony Shields (Co-Principal Investigator)
 Title: Scalable ultrafast low-cost molecular imaging of response to treatment of cancer
 Sponsor Name: Karmanos Cancer Institute
 06/2024 - 06/2025
 Total Award: \$ 50,000, Institutional (Wayne State University)

Role: Principal Investigator, Percent Effort: 80 % NA
 Title: HHMI 2023 Freeman Hrabowski Scholars Competition
 Sponsor Name: Howard Hughes Medical Institute
 09/2023 - 09/2028
 Total Award: \$ 2 M research (+capital equipment, salary, benefits) , Not for Profit

Role: Principal Investigator, Percent Effort: 25 % DTI2-0000000271
 Title: Imaging between scales using radio-optoacoustic strategies
 Sponsor Name: Chan Zuckerberg Initiative
 03/2024 - 02/2028
 Total Award: \$ 1,989,907, Other

Publications

Peer Reviewed

Key: CV Holder, Corresponding Author^, Co-First Author#, Contributor~, Junior Faculty, Student*, Trainee

Original Observations

1. Ayodeji S.A., Balytskyi Y, Unaegbu D*, Ingman A, Kelly C.V., **Roberts S**^ . High-Affinity Probes for Androgen Receptor Imaging: From Cells and In Silico Modeling to Whole-Body Fluorescent Applications. *Journal of Medicinal Chemistry*. 08/2025;68(15):15812–15827. doi: 10.1021/acs.jmedchem.5c00836.
2. Adilbay D, Gonzales J, Zazhytska M, Demetrio de Souza Franca P, **Roberts S**, Viray T, Artschwager R, Patel S, Kodra A, Overdevest JB, Chow CY, King GF, Jain SK, Ordonez AA, Carroll LS, Reiner T, Pillarsetty N. Non-invasive diagnostic method to objectively measure olfaction and diagnose smell disorders by molecularly targeted fluorescent imaging agent. *Journal of Nuclear Medicine (JNM)*. 08/01/2024;65(8):1293-1300. PubMed PMID: 36482968. doi: doi.org/10.2967/jnumed.123.266123.
3. McLarney B^, Mijin K~, **Roberts S**~, Skubal M~, Hsu H, Ogirala A, Pratt E, Pillarsetty N.V.K, Heller D, Lewis J.S., Grimm J^ . Ambient Light Resistant Shortwave Infrared Fluorescence Imaging for Preclinical Tumor Delineation via the pH Low-Insertion Peptide Conjugated to Indocyanine Green. *Journal of Nuclear Medicine (JNM)*. 08/24/2023;64(10):1647-1653. PubMed PMID: 37620049. doi: 10.2967/jnumed.123.265686.
4. Demétrio de Souza França P, Viray T, **Roberts S**, Michel A, Abrahão M, Patel SG, Ganly I, Schöder H, Brand C, Reiner T, Pillarsetty NVK^ . Polyethylene Glycol 3350 (PEG 3350) as a Practical Vehicle for Rapid Reconstitution of PARPi-FL Formulations for Clinical Use. *Molecular Imaging and Biology*. 04/01/2023;25(2):294-302. PubMed PMID: 35882728. doi: 10.1007/s11307-022-01756-8.
5. Sahu A, Cordero J, Wu X, Kossatz S, Harris U, Franca PDD, Kurtansky NR, Everett N, Dusza S, Monnier J, Kumar P, Fox C, Brand C, **Roberts S**, Kose K, Phillips W, Lee E, Chen CJ, Rossi A, Nehal K, Pulitzer M, Longo C, Halpern A, Reiner T, Rajadhyaksha M, Jain M^ . Combined PARP1-Targeted Nuclear Contrast and Reflectance Contrast Enhance Confocal Microscopic Detection of Basal Cell Carcinoma. *Journal of Nuclear Medicine (JNM)*. 06/01/2022;63(6):912-918. PubMed PMID: 34649941. doi: 10.2967/jnumed.121.262600.
6. Demétrio de Souza França P, Kossatz S, Brand C, Karassawa Zanon D, **Roberts S**, Guru N, Adilbay D, Mauguen A, Valero Mayor C, Weber WA, Schöder H, Ghossein RA, Ganly I, Patel SG^, Reiner T^ . A phase I study of a PARP1-targeted topical fluorophore for the detection of oral cancer. *European Journal of Nuclear Medicine and Molecular Imaging (EJNMMI)*. 10/01/2021;48(11):3618-3630. PubMed PMID: 33954826. doi: 0.1007/s00259-021-05372-6. *Phase I Clinical Trial Results (NCT03085147)*
7. Wilson T, Pirovano G, Xiao G, Samuels Z, **Roberts S**, Viray T, Guru N, Zanzonico P, Gollub M, Pillarsetty NVK, Reiner T^, Bargonetti J^ . PARP-Targeted Auger Therapy in p53 Mutant Colon Cancer Xenograft Mouse Models. *Molecular Pharmaceutics*. 09/06/2021;18(9):3418-3428. PubMed PMID: 34318678. doi: 10.1021/acs.molpharmaceut.1c00323.
8. Demétrio de Souza França P, Guru N, Kostolansky AR, Mauguen A, Pirovano G, Kossatz S, **Roberts S**, Abrahão M, Patel SG, Park KJ, Reiner T^, Jewell E^ . PARP1: A Potential Molecular Marker to Identify Cancer During Colposcopy Procedures. *Journal of Nuclear Medicine (JNM)*. 07/01/2021;62(7):941-948. PubMed PMID: 33188153. doi: 10.2967/jnumed.120.253575.
Invited for journal video promotion
9. **Roberts S**, Khera E, Choi C*, Navaratna T, Grimm J, Thurber GM, Reiner T^ . Optoacoustic Imaging of Glucagon-like Peptide-1 Receptor with a Near-Infrared Exendin-4 Analog. *Journal of Nuclear Medicine (JNM)*. 06/01/2021;62(6):839-848. PubMed PMID: 33097631. doi: 10.2967/jnumed.120.252262.
Alavi-Mandell Award 2022

10. Young RJ, Demétrio De Souza França P, Pirovano G, Piotrowski AF, Nicklin PJ, Riedl CC, Schwartz J, Bale TA, Donabedian PL, Kossatz S, Burnazi EM, **Roberts S**, Lyashchenko SK, Miller AM, Moss NS, Fiasconaro M, Zhang Z, Mauguen A, Reiner T[^], Dunphy MP[^]. Preclinical and first-in-human-brain-cancer applications of [¹⁸F]poly (ADP-ribose) polymerase inhibitor PET/MR. *Neuro-Oncology Advances*. 09/15/2020;2(1):vdaa119. PubMed PMID: 33392502. doi: 10.1093/oaajnl/vdaa119.
Phase I Clinical Trial Results (NCT04173104)
11. Pereira PMR~, **Roberts S**~, Figueira F, Tomé JPC, Reiner T, Lewis JS[^]. PET/CT Imaging with an ¹⁸F-Labeled Galactodendritic Unit in a Galectin-1-Overexpressing Orthotopic Bladder Cancer Model. *Journal of Nuclear Medicine (JNM)*. 09/01/2020;61(9):1369-1375. PubMed PMID: 32005776. doi: PMC7456169.
Alavi-Mandell Award 2022
12. Demétrio de Souza França P, Guru N, **Roberts S**, Kossatz S, Mason C, Abrahão M, Ghossein RA, Patel SG, Reiner T[^]. Fluorescence-guided resection of tumors in mouse models of oral cancer. *Scientific Reports*. 07/07/2020;10(1):11175. PubMed PMID: 32636416. doi: 10.1038/s41598-020-67958-8.
13. Schöder H, França PDS, Nakajima R, Burnazi E, **Roberts S**, Brand C, Grkovski M, Mauguen A, Dunphy MP, Ghossein RA, Lyashchenko SK, Lewis JS, O'Donoghue JA, Ganly I, Patel SG, Lee NY, Reiner T[^]. Safety and Feasibility of PARP1/2 Imaging with ¹⁸F-PARPi in Patients with Head and Neck Cancer. *Clinical Cancer Research*. 07/01/2020;26(13):3110-3116. PubMed PMID: 32245901. doi: 10.1158/1078-0432.CCR-19-3484.
Phase I Clinical Trial Results (NCT03631017)
14. Pirovano G, **Roberts S**, Reiner T[^]. TOPKi-NBD: a fluorescent small molecule for tumor imaging. *European Journal of Nuclear Medicine and Molecular Imaging (EJNMMI)*. 04/01/2020;47(4):1003-1010. PubMed PMID: 31734783. doi: 10.1007/s00259-019-04608-w.
15. Haedicke K, Agemy L, Omar M, Berezhnoi A*, **Roberts S**, Longo-Machado C, Skubal M, Nagar K, Hsu HT, Kim K, Reiner T, Coleman J, Ntziachristos V, Scherz A, Grimm J[^]. High-resolution optoacoustic imaging of tissue responses to vascular-targeted therapies. *Nature Biomedical Engineering*. 03/01/2020;4(3):286-297. PubMed PMID: 32165736. doi: 10.1038/s41551-020-0527-8.
Front cover, March Issue 3, Highlighted in several news outlets
16. Demétrio de Souza França P, **Roberts S**, Kossatz S, Guru N, Mason C, Zanoni DK, Abrahão M, Schöder H, Ganly I, Patel SG, Reiner T[^]. Fluorine-18 labeled poly (ADP-ribose) polymerase I inhibitor as a potential alternative to 2-deoxy-2-[¹⁸F]fluoro-d-glucose positron emission tomography in oral cancer imaging. *Nuclear Medicine and Biology*. 01/01/2020;84:85:80-87. PubMed PMID: 32135475. doi: 10.1016/j.nucmedbio.2020.01.004.
17. Khera E, Zhang L*, **Roberts S**, Nessler I, Sandoval D, Reiner T, Thurber GM[^]. Blocking of Glucagonlike Peptide-1 Receptors in the Exocrine Pancreas Improves Specificity for β -Cells in a Mouse Model of Type 1 Diabetes. *Journal of Nuclear Medicine (JNM)*. 11/01/2019;60(11):1635-1641. PubMed PMID: 31076502. doi: 10.2967/jnumed.118.224881.
18. Pirovano G, **Roberts S**, Brand C, Donabedian PL, Mason C, de Souza PD, Higgins GS, Reiner T[^]. [¹⁸F]FE-OTS964: a Small Molecule Targeting TOPK for In Vivo PET Imaging in a Glioblastoma Xenograft Model. *Molecular Imaging and Biology*. 08/01/2019;21(4):705-712. PubMed PMID: 30357568. doi: 10.1007/s11307-018-1288-6.
19. **Roberts S**, Strome A*, Choi C*, Andreou C, Kossatz S, Brand C, Williams T, Bradbury M, Kircher MF, Reshetnyak YK, Grimm J, Lewis JS, Reiner T[^]. Acid specific dark quencher QC1 pHLIP for multi-spectral optoacoustic diagnoses of breast cancer. *Scientific Reports*. 06/12/2019;9(1):8550. PubMed PMID: 31189972. doi: 10.1038/s41598-019-44873-1.
20. Gonzales J, Kossatz S, **Roberts S**, Pirovano G, Brand C, Pérez-Medina C, Donabedian P, de la Cruz MJ, Mulder WJM, Reiner T[^]. Nanoemulsion-Based Delivery of Fluorescent PARP Inhibitors in Mouse Models of Small Cell Lung Cancer. *Bioconjugate Chemistry*. 11/21/2018;29(11):3776-3782. PubMed PMID: 30354077. doi: 10.1021/acs.bioconjchem.8b00640.
21. **Roberts S**, Andreou C~, Choi C*, Donabedian P, Jayaraman M*, Pratt EC*, Tang J, Pérez-Medina C, Jason de la Cruz M, Mulder WJM, Grimm J, Kircher M, Reiner T[^]. Sonophore-enhanced nanoemulsions for optoacoustic imaging of cancer. *Chemical Science*. 05/18/2018;9(25):5646-5657. PubMed PMID: 30061998. doi: PMC6049522.
22. **Roberts S**, Seeger M, Jiang Y, Mishra A, Sigmund F, Stelzl A, Lauri A, Symvoulidis P, Rolbieski H, Preller M, Deán-Ben XL, Razansky D, Orschmann T, Desbordes SC, Vetschera P, Bach T, Ntziachristos V, Westmeyer GG[^]. Calcium Sensor for Photoacoustic Imaging. *Journal of the American Chemical Society (JACS)*. 02/28/2018;140(8):2718-2721. PubMed PMID: 28945084. doi: 10.1021/jacs.7b03064.
Front cover, Feb, Issue 8

23. Mishra A, Jiang Y, **Roberts S**, Ntziachristos V, Westmeyer GG[^]. Near-Infrared Photoacoustic Imaging Probe Responsive to Calcium. *Analytical Chemistry*. 11/15/2016;88(22):10785-10789. PubMed PMID: 27779396. doi: 10.1021/acs.analchem.6b03039.
24. Aitken, RA, Barker G, Cleghorn LP, Reid EJ, **Roberts S**. Formation of unexpected heterocyclic products from pyrolysis of thiocarbonyl stabilized phosphonium ylides. *Heterocycles*. 08/14/2014;88(2):1135-1147. doi: 10.3987/COM-13-S(S)70.

Key: CV Holder, Corresponding Author[^], Co-First Author#, Contributor~, *Junior Faculty*, Student*, Trainee

Review Articles

1. Huang C*, Filippone NR*, Reiner T, **Roberts S**[^]. Sensors and Inhibitors for the Detection of Ataxia Telangiectasia Mutated (ATM) Protein Kinase. *Molecular Pharmaceutics*. 07/05/2021;18(7):2470-2481. PubMed PMID: 34125542. doi: 10.1021/acs.molpharmaceut.1c00166.
2. Pirovano G, **Roberts S**, Kossatz S, Reiner T[^]. Optical Imaging Modalities: Principles and Applications in Preclinical Research and Clinical Settings. *Journal of Nuclear Medicine (JNM)*. 10/01/2020;61(10):1419-1427. PubMed PMID: 32764124. doi: 0.2967/jnumed.119.238279.
Continuing Education (invitation only), invited review

Key: CV Holder, Corresponding Author[^], Co-First Author#, Contributor~, *Junior Faculty*, Student*, Trainee

Other

1. **Roberts S**. Design and Synthesis of Calcium Sensors for Photoacoustic Imaging. Ph.D. Thesis. 09/2017; Technische Universität München (TUM), Chair of Biological Imaging (Munich, Germany).
<http://mediatum.ub.tum.de/?id=1506222>
Mentor: Dr. Gil G. Westmeyer, Thesis Committee: Dr. Vasilis Ntziachristos, Dr. Thorsten Bach
2. **Roberts S**. Syntheses of New Chiral Ligands from β -thiocarbonyl Phosphonium Ylides. MChem Thesis. 05/2011; University of St. Andrews, Department of Chemistry (St. Andrews, UK).
Mentor: Dr. Alan A. Aitken
3. **Roberts S**. Determination of Hansen Solubility Parameters (HSP) of Different Amigo II Plate Components to Quantify Chemical Resistance. 52-page company thesis. 06/2010; Physics and Analytics Group, AGFA N.V. (Mortsel, Antwerpen, Belgium).
Mentor: Bart Wuytens
4. **Roberts S**. The Effect of Co-solvents and Varying its Concentration on the Stability of Dispersion Inks. 46-page company thesis. 12/2009; Physics and Analytics Group, AGFA N.V. (Mortsel, Antwerpen, Belgium).
Mentor: Bart Wuytens
5. **Roberts S**. Determining the Mechanism for the Formation of Titanate Nanotubes using SEM and HRTEM for Scanning Process and Image Formation. Undergraduate Research Thesis. 05/2008; University of St. Andrews, Department of Chemistry (St. Andrews, UK).
Mentor: Dr. Wuzong Zhou

Non-Peer Reviewed

Key: CV Holder, Corresponding Author[^], Co-First Author#, Contributor~, *Junior Faculty*, Student*, Trainee

Original Observations

1. Mallik R, Ayodeji S.A., **Roberts S**[^]. Dynamic Imaging via Estrogen Receptor Alpha (ER α) Probe Reveals PROTAC-induced Treatment in Breast Cancer. submitted for peer-review. 08/2025.
submitted for peer-review

2. Sharma C.P, Ingman A, Ayodeji S.A., **Roberts S**[^]. Trivalent PROTAC Enables In Vivo Imaging and Degradation of Fibroblast Activation Protein (FAP). submitted for peer-review. 06/2025.
submitted for peer-review
3. Saheed Ayodeji, Destina Unaegbu*, Allison Ingman, **Roberts S**[^]. High-affinity probes for androgen receptor imaging: from cells to whole-body fluorescent applications. ChemRxiv. 03/2025. doi: 10.26434/chemrxiv-2025-40bvk-v2.
4. Adilbay D, Gonzales J, Zazhytska M, Franca PDS, **Roberts S**, Viray T, Artschwager R, Patel S, Kodra A, Overdevest JB, Chow C, King GF, Jain SK, Ordonez AA, Carroll LS, Reiner T[^], Pillarsetty N[^]. Non-invasive diagnostic method to objectively measure olfaction and diagnose smell disorders by molecularly targeted fluorescent imaging agent. bioRxiv. 11/2022. doi: <https://doi.org/10.1101/2021.10.07.463532>.

Published Abstracts

1. McLarney B[^], Kim M, **Roberts S**, Skubal M, Tsu H, Ogirala A, Pillarsetty NVK, Heller DA, Lewis JS, Grimm J. Shortwave infrared preclinical tumor screening and resection via pHLIP ICG. Shortwave infrared preclinical tumor screening and resection via pHLIP ICG; San Francisco, CA, USA. Reporters, Markers, Dyes, Nanoparticles, and Molecular Probes for Biomedical Applications XIV, Photonics West, SPIE; 01/2023. p. 12398-4
2. Sahu S, Cordero J, Wu X, Franca PDS, Kossatz S, Harris U, Kurtansky N, Everett N, Dusza S, Monnier J, Kumar P, Fox C, Brand C, **Roberts S**, Kose K, Phillips W, Lee E, Chen CJ, Rossi A, Nehal K, Pulitzer M, Longo C, Halpern A, Reiner T, Rajadhyaksha M, Jain M. Combining PARPi-FL fluorescence and reflectance contrast for improved detection of basal cell carcinoma (BCC). Optical Molecular Probes, Imaging and Drug Delivery; Washington DC, USA. Biophotonics Congress; 04/2021. p. OTh2D.4
3. Serganova I, Vemuri K, Cohen I, Lubin M, **Roberts S**, Maeda M, Mane M, Mann H, Reiner T, Chan E, Yarilin D, M-T, K, Zappasodi R, Merghoub T, Koutcher J, Blasberg R. Vessel normalization following LDH-A knockdown in murine breast tumors. AACR Annual Meeting, Cancer Research; Philadelphia, PA, USA. AACR; 08/2020. p. 80 (16), 476

Media

1. **Roberts S**. iThera Medical Seminar: Optoacoustics and Optical - Complementary Modalities for Molecular Imaging: <https://www.youtube.com/watch?v=eXBJn27D65U>; 05/2020
2. **Roberts S**. World Molecular Imaging Society: <https://register.gotowebinar.com/recording/2241008513520205583>; 2020

Presentations

Podium

International / National

1. **Roberts S**[^], Sharma CP, Ingman A, Ayodeji SA. FAP-targeted PROTAC for fluorescent imaging and protein depletion. Contrast Media Research Symposium; 10/2024; Oslo, Norway
2. **Roberts S**[^], Sharma CP, Ingman A, Ayodeji SA. Rational design of trivalent PROTAC for fluorescent imaging and degradation of fibroblast activated protein. World Molecular Imaging Conference (WMIC); 09/2024; Montreal, QC, Canada

Posters

International / National

1. Ayodeji SA, Unaegbu D*, **Roberts S**[^]. Androgen Receptor Imaging with a Fluorescent Probe for Prostate Cancer. WMIC; 09/2024; Montreal, QC, Canada
2. Ingman A, Sharma CP, Ayodeji SA, **Roberts S**[^]. Small-molecule trivalent PROTAC for in vitro fluorescence imaging of prostate cancer. WMIC; 09/2024; Montreal, QC, Canada

3. McLarney B, Mijin K, **Roberts S**, Skubal M, Hsu H, Ogirala A, Pratt E, Pillarsetty N.V.K, Heller D, Lewis J.S., Grimm J. Shortwave infrared fluorescence imaging for preclinical tumor screening and resection via pHLIP ICG. WMIC; 09/2023; Prague, Czech Republic
4. **Roberts S**[^], Huang C, Adilbay D, Viray T, Reiner T, Pillarsetty NVK. E7-specific affibody for HPV-positive Head and Neck Cancer. WMIC; 09/2022; Miami, FL, United States of America
5. Demétrio de Souza França P, Guru N, **Roberts S**, Kossatz S, Mason C, Abrahão M, Ghossein RA, Patel SG, Reiner T[^]. PARPi-FL use in fluorescence-guided resection of oral cancer. Pacificchem, Pacific Basin Societies; 12/2021; Honolulu, HI, United States of America
6. Michel A, Demétrio de Souza França P, **Roberts S**, Brand C, Adilbay A, Mauguén A, Viray T, Reiner T, Molena D, Pillarsetty NVK[^]. Optimizations of PARPi-FL imaging with the clinical Quest System. WMIC; 09/2021; Miami, United States of America
7. Viray T, Demétrio de Souza França P, **Roberts S**, Brand C, Lewis JS, Pillarsetty NVK, Reiner T[^]. PARPi-FL in polyethylene glycol 3350 (PEG3350) as a practical vehicle for clinical use. WMIC; 09/2021; Miami, FL, United States of America
8. Demétrio de Souza França P, **Roberts S**. Improving Oral Cancer detection using PARPi-FL: A Phase I Clinical Trial. WMIC; 09/2021; Miami, FL, United States of America
9. Demétrio de Souza França P, **Roberts S**. Fluorescence-guided resection of tumors in mouse models of oral cancer. WMIC; 09/2020, United States of America
10. Demétrio de Souza França P, **Roberts S**. PARP1 derived tracers for imaging of Head and neck tumors. Brazilian Head and Neck Surgery Society; 2020, Brazil
New technologies applied to Head and Neck Surgery
11. **Roberts S**, Khera E, Choi C*, Thurber GM, Reiner T[^]. Near infrared optoacoustic exendin-4 analog for β -cell cluster imaging. WMIC; 09/2019; Montreal, QC, Canada
12. Demétrio de Souza França P, **Roberts S**. PARP1 imaging as a potential solution for the pitfalls seen with [18F]FDG - PET/CT Imaging of Head and Neck Tumors. WMIC; 09/2019; Montreal, QC, Canada
13. **Roberts S**, Andreou C, Choi C*, Kossatz S, Brand C, Kircher MF, Reshetnyak Y, Grimm J, Lewis JS, Reiner T[^]. Targeting the acidic environment of cancer using a pH low insertion peptide for multi- spectral optoacoustic tomography. New York Academy of Sciences (NYAS); 05/2019; New York, NY, United States of America
14. **Roberts S**, Andreou C, Choi C*, Donabedian P, Pratt EC, Jayaraman M, Medina CP, Mulder WJM, Grimm J, Kircher MF, Reiner T[^]. Optoacoustic diagnoses of cancer with sonophore-enhanced nanoemulsions. EMIM; 03/2019; Glasgow, Scotland
15. **Roberts S**, Strome A*, Choi C*, Andreou C, Kossatz S, Kircher MF, Lewis JS, Reiner T[^]. pH specific dark quencher enables multi-spectral optoacoustic imaging of breast cancer. WMIC; 09/2018; Seattle, WA, United States of America
16. Choi C*, **Roberts S**, Reiner T[^]. Optoacoustic Imaging of Breast Cancer Using Dark Quencher QC1 pHLIP. Annual Biomedical Research Conference for Minority Students; 2018; Indianapolis, IN, United States of America
17. Choi C*, **Roberts S**, Reiner T[^]. The Synthesis of Near Infrared Dye-Encapsulated Nanoemulsions. American Medical Student Association Convention & Exposition; 2018; Washington D.C, DC, United States of America
18. **Roberts S**, Seeger M, Mishra A, Jiang Y, Sigmund F, Stelzl A, Ntziachristos V, Bach T, Westmeyer GG[^]. Calcium Selective Photoacoustic Agent and its Design Principles. EXCITE Summer School; 09/2016; Zurich, Switzerland

Regional / Local

1. Manuele D*, Gonzales J, **Roberts S**. Fluorescence Imaging of Peripheral Nerves by Hsp1a-FL targeting Nav1.7. Molecular Imaging Summer Program, MSKCC; 07/2019; New York, NY, United States of America
2. Choi C*, **Roberts S**, Andreou C, Reiner T[^]. Optoacoustic Imaging of Breast Cancer Using Dark Quencher QC1 pHLIP. Hunter College Research Conference; 2019; New York, NY, United States of America
3. Choi C*, **Roberts S**, Reiner T[^]. The Synthesis of Near Infrared Dye-Encapsulated Nanoemulsions. Hunter College Research Conference; 2018; New York, NY, United States of America

Invited Lectures

International / National

1. **Roberts S[^]**. Protein degraders targeting the androgen receptor (AR) for imaging and therapy. Imaging Sciences Seminar Series 2025; 01/2025; New York, NY, United States of America
Host: Dr. Vladimir Ponomarev
2. **Roberts S.** Applications of Optoacoustics. Great Lakes Advanced Molecular Sciences (GLAMS); 06/2024; Holland, MI, United States of America
Course Directors: Drs. Paula Foster (University of West Ontario) and Ashley Makela (Michigan State University)
3. **Roberts S.** Imaging with optoacoustics. from macroscopic to mesoscopic scale. World Molecular Imaging Conference; 09/2023; Prague, Czech Republic
Session Chair: Dr. Lacey McNally (University of Oklahoma)
4. **Roberts S[^]**, Khera E*, Choi C*, Navaratna T*, Grimm J, Thurber G, Reiner T. Exendin-4 analog for optoacoustic imaging of the GLP-1 Receptor. Eastern Analytical Symposium (EAS); 11/2022; Princeton, NJ, United States of America
Session Chair: Dr. Fay Nicolson (Dana-Farber Cancer Institute)
5. **Roberts S[^]**, Huang C*, Viray T, Reiner T, Pillarsetty NVK. Targeting the Oncogene HPV16 E7 with Affibody Molecules in Head and Neck Cancer. Eastern Analytical Symposium (EAS); 11/2021; Princeton, NJ, United States of America
Session Chair: Dr. Fay Nicolson (Dana-Farber Cancer Institute)
6. **Roberts S[^]**. New Chemistry and Multi-modal Approaches for Molecular Imaging. Radiopharmaceutical Chemistry, Department of Chemistry, University of Helsinki; 10/2021; Helsinki, Finland
Faculty Candidate
7. **Roberts S.** Leveraging Chemistry for Molecular Imaging. Oncology Research, Novartis Institutes of Biomedical Research (NIBR), Novartis Pharma AG; 09/2021; Basel, Switzerland
Candidate for Lab Head Position (Radio- Pharmacology-Molecular Imaging/Therapy Laboratory)
8. **Roberts S.** Chemical Probes for Molecular Imaging of Cancer. Department of Oncology, Karmanos Cancer Institute; 09/2021; Detroit, MI, United States of America
Faculty Candidate
9. **Roberts S.** Optoacoustics and optical- complementary modalities for molecular imaging. iThera Medical's Webinar; 05/2020, United States of America
<https://www.youtube.com/watch?v=eXBJn27D65U>, virtual
10. **Roberts S[^]**. Optoacoustic chemical imaging probes for exploring cancer biology. World Molecular Imaging Society (WMIS), Early Professionals Webinars; 04/2020, United States of America
<https://register.gotowebinar.com/recording/2241008513520205583>, virtual
11. **Roberts S**, Reiner T. Near infrared optoacoustic nanoemulsions for in vivo optoacoustic imaging. Weill Cornell Medicine; 01/2020; New York, NY, United States of America
12. **Roberts S**, Khera E, Choi C*, Navaratna T, Grimm J, Thurber GM, Reiner T[^]. Imaging Pancreatic β -cells with Optoacoustic Biomarkers for Diabetes Detection. iThera Medical Optoacoustic Imaging Symposium; 09/2019; Montreal, QC, Canada
13. Demétrio de Souza França P, **Roberts S.** Detection and Delineation of Oral Cancer with a PARP1-Targeted Optical Imaging Agent. Hollywood Private Hospital; 2019; Perth, Australia
14. Demétrio de Souza França P, **Roberts S.** Principles of molecular imaging, PARPi-FL Imaging of Head and Neck Oral Cancer 6th SECCAPE, USP Head and Neck Surgery Week; 2019; Sao Paulo, Brazil
15. Demétrio de Souza França P, **Roberts S.** Imaging of Head and Neck Cancer Tissue Sample with PARP Tracers and the use of artificial intelligence to read stained slides. University of Sao Paulo; 2019; Sao Paulo, Brazil
16. **Roberts S.** pHLIP® technology with optoacoustic imaging. Bracco Diagnostics Inc., MSKCC; 04/2018; New York, NY, United States of America
company visit for interest in agent acquisition
17. **Roberts S.** Calcium Selective Photoacoustic Agent and its Design Principles. Summer School Biomedical Imaging, ETH Zürich; 09/2016; Zurich, Switzerland
Experimental and Clinical Imaging Technologies (EXCITE)

18. **Roberts S.** Neurosensing using Photoacoustics. Radiology Department, MSKCC; 07/2016; New York, NY, United States of America
Invited in-person seminar for a Postdoctoral Position in the Laboratory of Dr. Thomas Reiner
19. **Roberts S.** Dynamic contrast agents for non-invasive optoacoustic imaging of neural activations. Roche Diagnostics GmbH 05/2016; Penzberg, Germany
Invited interview for Postdoctoral Position (in German/English)

Regional / Local

1. **Roberts S.** Chemical approaches to image and degrade cancer proteins. Molecular Therapeutics, Annual Retreat; 05/2025; Detroit, MI, United States of America
Host: Dr. Asfar Azmi
2. **Roberts S.** We detect, image and degrade problematic proteins. Lipid Group Seminar (iBio); 03/2025; Detroit, MI, United States of America
Host: Drs Christopher Kelly and James Granneman
3. **Roberts S.** Theranostic approaches for detecting and degrading oncogenic nuclear receptors. Internal KCI Seminar Series 2025; 03/2025; Detroit, MI, United States of America
Host: Dr. Yubin Ge
4. Targeting the oncogene E7 in head and neck cancer. Molecular Imaging Yearly Retreat; 09/2023; DETROIT, MI, United States of America
Leader: Dr. Nerissa Viola
5. **Roberts S[^].** Imaging and therapy of the fibroblasts activation protein (FAP). KCI-Molecular Imaging Program Series; 04/2023; Detroit, MI, United States of America
Leader Dr. Nerissa Viola
6. **Roberts S[^].** Molecular imaging with optoacoustics. Biomedical Engineering Seminar; 04/2023; Detroit, MI, United States of America
Host Dr. Jitao Zhang
7. **Roberts S[^].** Therapy and Imaging in the near-infrared window of the fibroblast activation protein (FAP). Prostate Cancer Research Team (PCRT) Monthly Seminar; 06/2022; Detroit, MI, United States of America
Leader Dr. Elisabeth Heath
8. **Roberts S[^].** Sensors for Optoacoustic Detection. Chemical Biology Monthly Seminar, MSKCC; 07/2020; New York, NY, United States of America
Chaired by Dr. Derek Tan
9. **Roberts S[^].** The use of optoacoustic tomography for cancer detection. Imaging Sciences Seminar, MSKCC; 11/2019; New York, NY, United States of America
Chaired by Dr. Jason S. Lewis
10. **Roberts S[^].** Chemical Sensors for Optoacoustic Imaging. Chemical Biology Monthly Seminar, MSKCC; 03/2019; New York, NY, United States of America
Chaired by Dr. Derek Tan
11. **Roberts S[^].** Chemical Tools for the Optoacoustic Imaging of Cancer. Radiology Science Slam, MSKCC; 09/2018; New York, NY, United States of America
Chaired by Dr. Jason S. Lewis
12. **Roberts S.** Chemical Functional Sensors for Photoacoustics. IBMI Meeting, Helmholtz Zentrum Munich; 06/2016; Munich, Germany
Chaired by Dr. Vasilis Ntziachristos
13. **Roberts S.** Functional Sensors for NIR Fluorescence and MSOT. IBMI, Helmholtz Zentrum Munich; 06/2015; Munich, Germany
3-day Retreat

Invited Seminars / Grand Rounds

International / National

1. Mallik R, Ayodeji SA, Roberts S[^]. A non-steroidal fluorescent estrogen receptor (ER)-targeting probe reveals PROTAC-induced ER protein degradation. WMIC 2025; 10/2025; Anchorage, AK, United States of America
Oral Presentation - New Chemistry, Materials & Probes
Speaker- Mallik
2. Ayodeji SA, Ingman A, Roberts S[^]. ARi-PROTAC-FL: Fluorophore-labeled PROTACs for dual imaging and depletion of androgen receptor (AR) in prostate cancer. WMIC 2025; 10/2025; Anchorage, AK, United States of America
Oral Presentation- Oncology
Speaker- Ayodeji
3. McLarney B[^], Kim M, Roberts S, Skubal M, Ogirala A, Pillarsetty NVK, Heller DA, Lewis JS, Grimm J. Shortwave infrared preclinical tumor screening and resection via pHLIP ICG. Photonics West, SPIE; 01/2023; San Francisco, CA, United States of America
Session: Reporters, Markers, Dyes, Nanoparticles, and Molecular Probes for Biomedical Applications XIV
4. Demétrio de Souza França P, Roberts S. Improving Oral Cancer detection using PARPi-FL in vivo imaging: A Phase I/II Clinical Trial. International Academy of Oral Oncology (IAOO); 06/2022; Chicago, IL, United States of America
5. Roberts S, Khera E, Choi C^{*}, Navaratna T, Grimm J, Thurber GM, Reiner T[^]. Near-infrared exendin-4 analog for optoacoustic imaging of the GLP-1 receptor. Pacificchem, Pacific Basin Societies; 12/2021; Hawaii, United States of America
Making Drugs Smarter through Innovative Chemistry , Chemistry of Health Care
6. Roberts S, Viray T, Mason C, Huang C^{*}, Pillarsetty NVK, Reiner T[^]. ¹²⁴I]-ATMi for in vivo PET imaging of ataxia telangiectasia mutated (ATM) kinase in mouse models of glioblastoma. World Molecular Imaging Conference (WMIC); 10/2021; Miami, FL, United States of America
7. Adilbay D, Roberts S. Imaging of olfactory nerve using a selective Nav1.7 sodium channel inhibitor in the diagnosis of smell disorders. WMIC; 09/2021; Miami, United States of America
8. Demétrio de Souza França P, Roberts S. PARP1 Targeted Tracers to Enhance Diagnosis and Treatment of Oral Cancers. Brazilian Head and Neck Society; 10/2020, Brazil
9. Demétrio de Souza França P, Roberts S. A potential fluorescent tracers for in vivo cancer delineation. WMIC; 09/2020, United States of America
10. Demétrio de Souza França P,, Roberts S. PARP1 targeted tracers to enhance diagnosis and treatment of oral cancers. World Molecular Imaging Society (WMIS), Early Professional Webinars; 07/2020, United States of America
11. Demétrio de Souza França P, Roberts S. ¹⁸F-PARPi: A potential new PET/CT tracer or Head and Neck Cancers. New York Head and Neck Society (NYHNS); 10/2019; New York, NY, United States of America
** Awarded Best Research 2019 among Head and Neck (HN) Fellow at the New York HN Society*
12. Demétrio de Souza França P, Roberts S. PARP1 imaging as a potential solution for the pitfalls seen with ¹⁸FDG-PET/CT Imaging of Head and Neck tumors. WMIC; 09/2019; Montreal, Canada
13. Demétrio de Souza França P, Roberts S. Detection and Delineation of oral cancer with a PARP-1 targeted optical imaging agent. Peter McCallum Cancer Center; 06/2019; Melbourne, Australia
14. Demétrio de Souza França P, Roberts S. PAPri-FL Imaging of Head and Neck Oral Cancer. SECCAPE-USP; 05/2019; Sao Paulo, Brazil
15. Roberts S, Strome A^{*}, Choi C^{*}, Andreou C, Kossatz S, Brand C, Williams T, Bradbury, Kicher MF, Reschetnyak YK, Grimm J, Lewis JS, Reiner T[^]. Acid specific dark quencher QC1 pHLIP for multi-spectral optoacoustic diagnoses of breast cancer. European Molecular Imaging Meeting (EMIM); 03/2019; Glasgow, Scotland
16. Westmeyer GG, Roberts S. Optoacoustic Imaging of Calcium. EMIM; 09/2018; San Sebastian, Spain
** Spotlight session*
17. Westmeyer GG[^], Roberts. Calcium Sensors for Photoacoustics. WMIC; 09/2018; Seattle, WA, United States of America
18. Roberts S, Andreou C, Donabedian P, Jayaraman M^{*}, Choi C^{*}, Medina CP, Mulder WJM, Grimm J, Kircher MF, Reiner T[^]. Dark yet bright: non-radiative and high performance optoacoustic nanoemulsions. World Molecular Imaging Conference (WMIC); 09/2017; Philadelphia, PA, United States of America

Regional / Local

1. Demétrio de Souza França P, **Roberts S.** PARP1 targeted imaging and theranostics. MSKCC, Imaging and Radiation Sciences Program; 11/2021; New York, NY, United States of America
2. Demétrio de Souza França P, **Roberts S.** PARPi-FL as a molecular marker for fluorescence-guided resection of tumors in mouse or oral cancer. Postdoc Symposium, MSKCC; 09/2020; New York, NY, United States of America

Service

Wayne State University Service

School / College

03/2023 - 03/2023	Judge, 12th Annual Cancer Biology Research Symposium, School of Medicine
01/2023 - 01/2023	Judge, 26th Annual Graduate Student Research Presentation Day, School of Medicine
01/2023 - 01/2023	Panelist, Cancer biology graduate recruitment day, School of Medicine
09/2022 - 05/2023	Member, KCI monthly seminar series, School of Medicine
09/2022 - 09/2022	Judge, Shark tank trainees, Annual KCI Molecular Imaging Retreat, School of Medicine
09/2022 - 09/2022	Panelist, Meet-and-Greet session M1 Research Elective, School of Medicine

Department / Division

01/2025 - Present	Member, Selective Salary Committee, Department of Oncology
11/2024 - 12/2024	Reviewer / Evaluator, NIH F30 Grant pre-submission review, Department of Oncology, Division of Basic Science <i>Evaluted four applications</i>
09/2024	Organizer / Coordinator, KCI internal seminar series 2024-2025, Department of Oncology
11/2023 - Present	Organizer / Coordinator, Molecular Imaging Pizza Seminars, Department of Oncology, Division of Basic Science <i>Hosting a Bi-weekly lunchtime seminar for Graduate and Postdoctoral Trainees</i>
02/2023	Member, HWCRC Shared Equipment Committee, Department of Oncology, Division of Basic Science
01/2023 - 01/2023	Interviewee, MI Program Faculty candidate hire, Department of Oncology, Division of Basic Science
12/2022 - 12/2022	Interviewee, Postdoc candidate hire- Viola Lab, Department of Oncology, Division of Basic Science
10/2022 - 12/2022	Interviewee, MI Program Faculty candidate hires, Department of Oncology, Division of Basic Science
08/2022 - 08/2022	Member, Annual KCI Molecular Imaging Retreat, Department of Oncology, Division of Basic Science
07/2022 - 07/2022	Interviewee, Postdoc candidate hire- Viola Lab, Department of Oncology, Division of Basic Science
06/2022 - 07/2022	Member, Speaker nominations for oncology seminar series, Department of Oncology, Division of Basic Science
05/2022 - Present	Member, Prostate cancer research team (PCRT) monthly meeting, Department of Oncology
04/2022 - Present	Member, Basic science faculty monthly meeting, Department of Oncology, Division of Basic Science
03/2022 - Present	Member, Molecular imaging monthly speaker series, Department of Oncology, Division of Basic Science

Other Professionally Related Service

Professional

09/2023 - 03/2024	Chair, Ultrasound & Optoacoustic Technologies, European Molecular Imaging Meeting (EMIM)
12/2022	Member, Optical Molecular Probes, Imaging and Drug Delivery (OMP), Optica's Biophotonics Congress: Optics in the Life Sciences, formerly OSA
09/2022	Member, Opto-Acoustic Methods and Applications in Biophotonics, SPIE

Community

07/2025 - 07/2025	Reviewer / Evaluator, Reviewer, WMIC <i>Late-breaking abstracts</i>
03/2025 - 03/2025	Reviewer / Evaluator, Reviewer, WMIC
04/2024 - 05/2024	Reviewer / Evaluator, Reviewer, WMIC
12/2023 - 12/2023	Reviewer / Evaluator, Reviewer, EMIM
02/2023 - 03/2023	Reviewer / Evaluator, European Conferences on Biomedical Optics (ECBO), SPIE <i>Session: Optoacoustic Methods and Applications in Biophotonics, 7 conference papers</i>
12/2022 - 01/2023	Reviewer / Evaluator, Late-breaking abstracts in Cancer Prevention, Detection & Diagnosis, EMIM
11/2022 - 12/2022	Reviewer / Evaluator, Cancer Prevention, Detection & Diagnosis, EMIM
09/2022 - 09/2022	Reviewer / Evaluator, Reviewer, International Symposium on Radiopharmaceutical Sciences (iSRS)
07/2021 - 07/2021	Presenter / Speaker, Summer Undergraduate Research Program, MSKCC <i>Lecture "Navigating career after undergraduate and graduate studies"</i>
06/2021	Panel Moderator, Molecular Imaging and Biology Journal Club, WMIC
06/2021	Editorship, Guest Editor, Journal of Visualized Experiments (JoVE)
07/2020	Presenter / Speaker, Summer Undergraduate Research Program, MSKCC <i>Lecture "Career Path & Science: Dream, Explore, Discover"</i>
06/2020	Moderator, Journal Club Summer Research Undergraduate Program, MSKCC
03/2020	Panelist, Class session McNulty Scholars, Hunter College <i>"Funding and Negotiation Workshop"</i>
07/2017 - 03/2022	Volunteer, McNulty Mentor for STEM Program, Hunter College
05/2013 - 11/2016	Volunteer, Women's Rights Campaign, Amnesty International, Munich, Germany <i>Organized monthly events to increase social awareness, ran in German/English</i> <i>Organized the premiere of the movie "Difret" in Munich (2015), "My body, my rights" campaign (2014), writing Urgent Actions for press release, monitoring international press.</i>
09/2010 - 06/2011	President, Class Liaison Representative, University of St Andrews
08/2008 - 11/2009	Volunteer, Active member for Charity, ChildReach International, London, UK <i>Ran and organized events, fundraised £40,000</i> <i>Participated in building schools in Kilimanjaro regions, Tanzania, Africa</i>

Grant Review Committees

International / National

08/2023 - 10/2023	Reviewer, Breast Cancer Research Program DDP-4, Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP)
10/2022 - 12/2022	Ad Hoc, Detection Diagnosis and Prognosis – 3 (DDP-3), FY22 Breast Cancer Research Program (BCRP), Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP) <i>Invited as a full-reviewer. Voluntarily moved as an Ad-hoc based on current applications and my expertise.</i>

Peer-Reviewed Journals

Manuscript Review

06/2025 - 07/2025	Reviewer, Molecular Imaging and Biology
07/2024 - 07/2024	Reviewer, Molecular Imaging and Biology
02/2024 - 03/2024	Reviewer, Journal of Nuclear Medicine, SNMMI
02/2024 - 03/2024	Reviewer, Molecular Imaging and Biology

01/2024 - 01/2024	Reviewer, Biomedical Optics Express, Optica
11/2023 - 11/2023	Reviewer, Biomedical Optics Express, Optica
11/2023 - 11/2023	Reviewer, Journal of Nuclear Medicine, SNMMI
07/2023 - 08/2023	Reviewer, Chemical Science
04/2023 - 04/2023	Photoacoustics, Elsevier
05/2021 - 07/2021	Chemical Society Review, RSC
02/2021 - 02/2021	Molecular Imaging and Biology, Springer
02/2021 - 02/2021	Advanced Therapeutics, Wiley
01/2021 - 01/2021	Frontiers Oncology, Frontiers Research Foundation
10/2020 - 10/2020	Scientific Reports, Springer Nature
07/2020 - 07/2020	Molecular Pharmaceutics, ACS
07/2020 - 07/2020	Molecular Imaging and Biology, Springer
06/2020 - 06/2020	Journal of Nuclear Medicine, SNMMI
05/2020 - 05/2020	Journal of Nuclear Medicine, SNMMI
08/2019 - 08/2019	Journal of Nuclear Medicine, SNMMI
06/2019 - 06/2019	Molecular Imaging and Biology, Springer
10/2018 - 10/2018	Nature Communications, Nature Portfolio
08/2018 - 09/2018	Chemical Science, Royal Society of Chemistry (RSC)
07/2018 - 07/2018	Theranostics, Ivyspring International
06/2018 - 06/2018	ACS Applied Materials & Interfaces, ACS