

Curriculum Vitae

Brian M. Zeglis, Ph.D.

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Scientific Positions

Hunter College, City University of New York	New York, NY
Professor, Department of Chemistry (Aug. 2022 – present)	
Associate Professor, Department of Chemistry (Sept. 2019 – Aug. 2022)	
Assistant Professor, Department of Chemistry (Jan. 2015 – Sept. 2019)	
Memorial Sloan Kettering Cancer Center (Oct. 2015 – present)	New York, NY
Attending Radiochemist (Affiliate), Department of Radiology	
Weill Cornell Medical College (Mar. 2015 – present)	New York, NY
Assistant Professor (Adjunct), Department of Radiology	
Memorial Sloan Kettering Cancer Center (Sept. 2009 – Jan. 2015)	New York, NY
Postdoctoral Research Fellow	
California Institute of Technology (2004-2009)	Pasadena, CA
Ph.D., Chemistry	June 2010
Yale University (2000-2004)	New Haven, CT
B.S., summa cum laude, Chemistry	May 2004

Awards and Honors

Roger Tsien Award for Excellence in Chemical Biology, World Molecular Imaging Society	October 2022
PSC-CUNY Research Award, City University of New York	June 2019
William Stewart Travel Award	June 2019
President's Award for Excellence in Scholarly and Creative Achievement, Hunter College	June 2017
William Stewart Travel Award, City University of New York	March 2017
PSC-CUNY Research Award, City University of New York	May 2016
Feliks Gross Award, City University of New York	April 2016
Junior Faculty Research Award, City University of New York	Jan. 2016
William Stewart Travel Award, City University of New York	Oct. 2015
Chief Radiology Laboratory Research Fellow, MSKCC	Sept. 2013 – Jan. 2015
CMIIT Young Investigator Award, Society of Nuclear Medicine	June 2014
Alavi Mandell Award, Society of Nuclear Medicine	June 2014
Editor's Choice Award, Society of Nuclear Medicine	June 2014
Berson-Yalow Award, Society of Nuclear Medicine	June 2013
World Molecular Imaging Society Travel Award	Sept. 2012
Finalist, World Molecular Imaging Society Young Investigator Award	Sept. 2012
Society of Radiopharmaceutical Sciences Travel Award	Aug. 2011
Arthur Fleischer Award for Excellence in Chemistry, Yale University	May 2004
Saybrook College Marshall, Yale University	May 2004
<i>Phi Beta Kappa</i> , early induction, Yale University	May 2002

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Funding

Active Support

National Institutes of Health SBIR Award “Providing GMP-Grade Terbium-161 as a Therapeutic Option for US Academic Institutions (Subcontract PI) <i>Serva Energy/Hunter College/CUNY</i>	August 2025 – July 2029
National Institutes of Health R01 Award “Radiotheranostic Paradigms for Desmoplastic Small Round Cell Cancer” (Contact PI) <i>Hunter College/CUNY/Memorial Sloan Kettering Cancer Center</i>	June 2026 – May 2028
National Institutes of Health R01 Award “ImmunoPET Probes for the Imaging of Lyme Disease” (Contact PI) <i>Hunter College/CUNY/University of Tennessee Health Sciences Campus</i>	Sept. 2023 – Aug. 2028
National Institutes of Health R01 Award “Antibodies to Tumor-Derived Neoepitopes as Biomarkers and ImmunoPET agents For the Early Detection of Small Cell Lung Cancer” (MPI) <i>Fred Hutchinson Cancer Research Center/Hunter College/CUNY</i>	July 2023 – June 2028
McMillan Family Foundation “The Development of Radiotheranostic Paradigms for Endometrial Cancer” (Contact PI) <i>Hunter College</i>	Sept. 2025 – Aug. 2028

Completed Support

National Institutes of Health R01 Award “Novel Transgenic Mouse Models Addressing Outstanding Translational Barriers in Antibody-Based Therapeutics ” (MPI) <i>Rockefeller University/Hunter College/CUNY</i>	July 2020 – June 2026
National Institutes of Health R21 Award “Targeting DNA Mismatches for Auger Electron Radiotherapy” (Contact PI) <i>Hunter College/CUNY/MSKCC</i>	Sept. 2023 – Aug. 2025
Clinical and Translational Science Center Pilot Award “PET as a Diagnostic Tool for Endometriosis” (Contact PI) <i>Hunter College/CUNY/WCMC</i>	Sept. 2023 – Aug. 2025
National Institutes of Health R01 Award “Novel Reagents for Rapid and Stable Thiol-Based Bioconjugations” (Contact PI) <i>Hunter College/CUNY</i>	July 2019 – June 2024
Memorial Sloan Kettering Cancer Center Imaging and Radiation Sciences Award “Ovarian Cancer Theranostics: A MUC16-targeted Antibody for ImmunoPET Imaging and Radioimmunotherapy” (MPI) <i>Memorial Sloan Kettering Cancer Center/Hunter College</i>	Sept. 2021 – Aug. 2023
National Institutes of Health U01 Award “Pretargeted Clinical Imaging of CA19.9 in Pancreatic Cancer” (MPI) <i>Memorial Sloan Kettering Cancer Center/Hunter College/CUNY</i>	Dec. 2018 – Nov. 2023
National Institutes of Health R21 Award	June 2020 – May 2022

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“A PET Radiotracer for the Diagnostic and Theranostic Imaging of Lyme Disease” (Contact PI)
Hunter College/CUNY

National Institutes of Health R01 Award April 2016 – March 2021
“The Clinical PET Imaging of Metastatic Breast Cancer with Site-Specifically Labeled ⁸⁹Zr-Trastuzumab” (MPI)
Memorial Sloan Kettering Cancer Center/Hunter College/CUNY

Memorial Sloan Kettering Cancer Center Department of Surgery Award Sept. 2018 – Aug. 2020
“Intraoperative Imaging of High Grade Serous Ovarian Cancer During Cytoreductive Surgery” (MPI)
Memorial Sloan Kettering Cancer Center/Hunter College/CUNY

Cookies for Kids Cancer Research Project Award Jan. 2016 – Dec. 2018
“The Development of Preclinical Validation of Site-Specifically Radiolabeled hu3F8 for the PET Imaging and Radioimmunotherapy of Neuroblastoma” (MPI)
Memorial Sloan Kettering Cancer Center

TeamConnor Childhood Cancer Foundation Research Project Award Jan. 2016 – Dec. 2017
“Pretargeted Radioimmunotherapy of Pediatric Neuroblastoma” (PI)
Hunter College/CUNY

Hunter College Center for Translational and Biological Research Pilot Project Award Jan. 2016 – Dec. 2017
“Pretargeted PET Imaging of Pancreatic Cancer” (PI)
Hunter College/CUNY

Weill Cornell Medical Center Clinical and Translational Science Center Pilot Award Oct. 2015 – Sept. 2017
“Discovery of Targeted Teretoxin Imaging Agents” (MPI)
Hunter College/Memorial Sloan Kettering Cancer Center

National Institutes of Health K99/R00 Career Transition Award July 2014 – June 2018
“Pretargeted Radioimmunotherapy Based on Bioorthogonal Click Chemistry” (PI)
Memorial Sloan Kettering Cancer Center/Hunter College/CUNY

Translational and Integrative Medicine Research Fund Grant May 2014 – May 2015
“The First-in-Human Clinical Trial of a Pretargeted Methodology for the PET Imaging of Colorectal Cancer” (MPI)
Memorial Sloan Kettering Cancer Center

Clinical and Translational Science Center Seed Funding Grant Mar. 2014 – May 2014
“Assessing the Pharmacology and Toxicity of the Molecular Components of a Pretargeted Methodology for the PET Imaging of Colorectal Cancer” (MPI)
Memorial Sloan Kettering Cancer Center

MSKCC Imaging and Radiation Sciences Research Award Sept. 2012 – Sept. 2014
“PET Imaging of Highly Reactive Oxygen Species” (PI)
Memorial Sloan Kettering Cancer Center

Department of Defense PCRP Hypothesis Development Award Sept. 2012 – Sept. 2013
“Imaging of Oxidative Stress in Prostate Cancer” (PI)
Memorial Sloan Kettering Cancer Center

NIH F32 Postdoctoral National Research Service Award Sept. 2009 – Sept. 2012

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“PET Imaging of Topoisomerase Expression in Breast Cancer” (PI)
Memorial Sloan Kettering Cancer Center

National Science Foundation GRFP Pre-Doctoral Fellowship
California Institute of Technology

Sept. 2004 – Sept. 2007

Clinical Trials

NCT03109977 (Role: Investigator) Memorial Sloan Kettering Cancer Center
“Imaging With a New Agent That Finds a Cancer Protein Called HER2”

NCT02286843 (Role: Investigator) Memorial Sloan Kettering Cancer Center
“⁸⁹Zr-DFO-Pertuzumab for the ImmunoPET Imaging of Patients with HER2-Positive Metastatic Breast Cancer”

NCT04692831 (Role: Investigator) Memorial Sloan Kettering Cancer Center
“HER2-Targeted ImmunoPET Imaging with a Site-Specifically Labeled Radioimmunoconjugate”

NCT05737615 (Role: Investigator) Memorial Sloan Kettering Cancer Center
“Pretargeted PET Imaging in Patients with CA19-9-Expressing Pancreatic, Gastric, and Bladder Adenocarcinoma”

Publications

H-index = 60; i10-index = 100; citations = 10,248; * co-corresponding author

1. Grimaldi, C., Dehlavi, G., Sebastiano, J., Bilal, M., Patel, E., Zeglis, B. M. “MUC5AC as a Target for the Near-Infrared Fluorescence Imaging of Colorectal Lesions” *Chemical and Biomedical Imaging* Online Ahead of Print (2026).
2. Kao, W.-S., Grimaldi, C., Samuels, Z. V., Dehlavi, G., Strugala, E., Cornejo, M., Sebastiano, J., Carter, L. M., and Zeglis, B. M. “Selective Chemistry Enables Simultaneous ImmunoPET and Radioimmunotherapy with a Dual-Labeled Probe” *JACS Au* 6(7), 4028 (2026).
3. Stoddard, A., Furey, K., Mayuresh, M. M., Dehlavi, G., Sebastiano, J. *, Zeglis, B. M. * “Linker Chemistry in Radiopharmaceutical Design” *Bioconjugate Chemistry* 37(4), 630 (2026).
4. Klauser, P. C., Dehlavi, G., De Franco, M., Loor, A., Viray, T., Michel, A., Qeriqi, B., de Stanchina, E., Carter, L. M., Carrasco, S. E., Zeglis, B. M., Lewis, J. S. “CLDN18.2-Targeted Radiotheranostics Demonstrate Efficacy in Patient-Derived Models of Gastric Cancer” *Journal of Nuclear Medicine* 67(5), 765 (2026).
5. Cornejo, M. A., Samuels, Z. V., Dehlavi, G., Carter, L. M., Kao, W.-S., Strugala, E., Zeglis, B. M. “Pharmacokinetic Optimization of Radiocopper-Based Theranostic Pretargeting” *Molecular Pharmaceutics* 23(3), 1749 (2026).
6. Samuels, Z. V., Stoddard, A., Kao, W.-S. Cornejo, M. A., Strugala, E., McGlone, S. A., Furer, L., Rodriguez, C., Zeglis, B. M. “Harnessing Fremy’s Salt for Tyrosine-Directed Bioconjugations” *RSC Advances* 16, 4299 (2026).
7. Grimaldi, C., Sebastiano, J., Kao, W.-S., Strugala, E., McGlone, S. A., Watanabe, T., Aoki, T., Fujii, T., Zeglis, B. M. “Harnessing Fc-Directed Bioconjugation for the Synthesis of Site-Specifically Modified Radioimmunoconjugates” *Bioconjugate Chemistry* 36(8), 1588 (2025).
8. Sebastiano, J., McGlone, S. A., Samuels, Z. V., Grimaldi, C., Stoddard, A., Galka, S., Colaco, E., Zeglis, B. M. “Evaluating Radiotheranostic Targets for Endometrial Cancer” *Journal of Nuclear Medicine* 66(10), 1631 (2025).

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9. Velo, A. F., Carter, L., Bellamy, M., Cornejo, M., Zeglis, B. M., Humm, J. L. “Exploring Auger Electron-Emitting Radionuclides for Targeted DNA Damage in Mismatch Repair-Deficient Cells: A Theoretical Study of ⁹⁰Rh- and ¹²³I-Labeled Metalloinsertors” *International Journal of Radiobiology* 20, 1 (2025)
10. Yeh, R., Zea, F. P., Shobeiri, P., Ross, D., Jayaprakasam, V. S., Razmaria, A. A., Drago, J. Z., Mauguen, A., Lyashchenko, S. K., Zeglis, B. M., Lewis, J. S., Ulaner, G. A. “Detection of HER2-Low Lesions Using HER2-Targeted PET Imaging in Patients with Metastatic Breast Cancer: A Paired HER2 PET and Tumor Biopsy Analysis” *Journal of Nuclear Medicine* 66(6), 873 (2025)
11. Velo, A. F., Carter, L., Bellamy, M., Zeglis, B. M., Humm, J. L. “Comparative Analysis of Auger Electron Emission Libraries and Monte Carlo Track Structure Codes for DNA-Targeted Auger Electron Therapy” *Medical Physics* 52(6), 4871 (2025)
12. Rodriguez, C., Sarrett, S. M., Sebastiano, J., Delaney, S., McGlone, S. A., Hosny, M. M., Thau, S., Bournazos, S., Zeglis, B. M. “Exploring the Interplay between Radioimmunoconjugates and Fcγ Receptors in Genetically Engineered Mouse Models of Cancer” *ACS Pharmacology and Translational Science* 7(11), 3452 (2024)
13. Delaney, S., Keinänen, O., Lam, D., Wolfe, A. L., Hamakubo, T., Zeglis, B. M. “Cadherin-17 as a Target for the ImmunoPET of Adenocarcinoma” *European Journal of Nuclear Medicine and Molecular Imaging* 51(9), 2547 (2024)
14. Sebastiano, J., Rodriguez, C., Samuels, Z. V., Pepin, K., Zeglis, B. M. “Molecular Imaging and Gynecology: Beyond Cancer” *Journal of Nuclear Medicine* 65(7), 998 (2024)
15. Sebastiano, J., Samuels, Z. V., Kao, W. -S., Zeglis, B. M. “Site-Specific Bioconjugation and Molecular Imaging” *Current Opinion in Chemical Biology* 81, 102471 (2024)
16. Delaney, S., Grimaldi, C., Houghton, J. K., Zeglis, B. M. “MIB Guides: Measuring the Immunoreactivity of Radioimmunoconjugates” *Molecular Imaging and Biology* 26(2), 213 (2024)
17. MacPherson, D. S., Dave, D., Kassem, S., Doganata, S., Zeglis, B. M., Ulijn, R. V. “Tuning Supramolecular Chirality in Iodinated Amphiphilic Peptides Through Tripeptide Linker Editing” *Biomacromolecules* 25(4), 2277 (2024)
18. Sarrett, S. M., Rodriguez, C., Delaney, S., Hosny, M. M., Sebastiano, J., Santos Coquillat, A., Keinänen, O. M., Carter, L. M., Lastwika, K. J., Lampe, P. J., Zeglis, B. M. “Evaluating CD133 as a Radiotheranostics Target in Small Cell Lung Cancer” *Molecular Pharmaceutics* 21(3), 1402 (2024)
19. Scott, A. M., Zeglis, B. M., Lapi, S. E., Scott, P. J. H., Windhorst, A. D., Abdel-Wahab, M., Giammarile, F., Paez, D., Jalilian, A., Knoll, P., Korde, A., Vichare, S., Ayati, N., Lee, S. T., Lyashchenko, S. K., Zhang, J., Urbain, J.-L., Lewis, J. S. “Trends in Nuclear Medicine and the Radiopharmaceutical Sciences in Oncology: Workforce Challenges and Training in the Age of Theranostics” *The Lancet Oncology* 25(6), e250 (2024).
20. Lapi, S. E., Scott, P. J. H., Scott, A. M., Windhorst, A. D., Zeglis, B. M., Abdel-Wahab, M., Baum, R. P., Buatti, J. M., Giammarile, F., Kiess, A. P., Jalilian, A., Knoll, P., Korde, A., Kunikowska, J., Lee, S. T., Paez, D., Urbain, J.-L., Zhang, J., Lewis, J. S. “Recent Advances and Impending Challenges for the Radiopharmaceutical Sciences in Oncology” *The Lancet Oncology* 25(6), e236 (2024).
21. Yeh, R., O'Donoghue, J. A., Jayaprakasam, V. S., Mauguen, A., Min, R., Park, S., Brockway, J. P., Bromberg, J. F., Zhi, W. I., Robson, M. E., Sanford, R., Modi, S., Agnew, B. J., Lyashchenko, S. K., Lewis, J. S., Ulaner, G. A., Zeglis, B. M. “First-in-Human Evaluation of Site-Specifically Labeled ⁸⁹Zr-Pertuzumab in Patients with HER2-Positive Breast Cancer” *Journal of Nuclear Medicine* 65(3), 386 (2024)

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22. Bauer, D., Cornejo, M. A., Hoang, T. T., Lewis, J. S., Zeglis, B. M. "Click Chemistry and Radiochemistry: An Update" *Bioconjugate Chemistry* 34(11), 1925 (2023)
23. Delaney, S., Rodriguez, C., Sarrett, S. M., Days, E. J., Zeglis, B. M., Keinänen, O. "Unraveling the In Vivo Fate of Inhaled Micro- and Nanoplastics with PET Imaging" *Science of the Total Environment* 904, 166320 (2023)
24. Delaney, S., Sebastiano, J., Zeglis, B. M., Keinänen, O. "Molecular Imaging, Radiochemistry, and Environmental Pollutants" *Journal of Nuclear Medicine* 64, 1179 (2023)
25. Rodriguez, C., Delaney, S., Sebastiano, J., Sarrett, S. M., Cornejo, M. A., Thau, S., Hosny, M. M., Zeglis, B. M. Zeglis, B. M. "Site-Selective Radiolabeling Using Mushroom Tyrosinase and the Strain-Promoted Oxidation-Controlled 1,2-Quinone Cycloaddition" *RSC Advances* 13, 17705 (2023)
26. Keinanen, O., Sarrett, S. M., Delaney, S., Rodriguez, C., Days, E. J., Capone, E., Saunier, F., Ippoliti, R., Sala, G., Iacobelli, S., Zeglis, B. M. "Visualizing Galectin-3 Binding Protein Expression with ImmunoPET" *Molecular Pharmaceutics* 20(6), 3241 (2023)
27. Delaney, S., Nagy, A., Karlström, A. E. *, Zeglis, B. M. * "Site-Specific Photoaffinity Bioconjugation for the Synthesis of ⁸⁹Zr-Labeled Radioimmunoconjugates" *Molecular Imaging and Biology* 25, 1104 (2023)
28. Bauer, D., Sarrett, S. M., Lewis, J. S., Zeglis, B. M. "Click Chemistry: A Transformative Technology in Nuclear Medicine" *Nature Protocols* 18(6), 1659 (2023)
29. MacPherson, D., Hwang, D., Sarrett, S. M., Keinanen, O., Rodriguez, C., Rader, CC., Zeglis, B. M. "Leveraging a Dual Variable Domain Antibody to Create a Site-Specifically Modified Radioimmunoconjugate." *Molecular Pharmaceutics* 20(1), 775 (2023)
30. Zeglis, B. M. * Lewis, J. S. * "Click Here for Better Chemistry" *New England Journal of Medicine* 387(24), 2291 (2022).
31. Feng, Y., Sarrett, S. M., Meshaw, R. L., Vaidyanathan, G., Cornejo, M. A., Zeglis, B. M., Zalutsky, M. R. "Site-Specific Radiohalogenation of a HER2-Targeted Single Domain Antibody Fragment Using a Novel Residualizing Prosthetic Agent." *Journal of Medicinal Chemistry* 65(22), 15358 (2022).
32. Li, L. Di, L., Akther, S., Zeglis, B. M., Qiu, W. "Evolution of the Antigenic-Variability vls Locus of the Lyme Disease Pathogen and Development of Recombinant Monoclonal Antibodies Targeting Conserved VlsE Epitopes" *Microbiology Spectrum* 10(5), e0174322 (2022)
33. Sarrett, S. M., Rodriguez, C., Rymarczyk, G., Hosny, M., Keinänen, O., Delaney, S., Thau, S., Krantz, B. A. *, Zeglis, B. M. "Lysine-Directed Site-Specific Bioconjugation for the Creation of Radioimmunoconjugates" *Bioconjugate Chemistry* 33(9), 1750 (2022).
34. Rodriguez, C., Delaney, S., Sarrett, S. M., Keinänen, O., Zeglis B. M. "Antibody Engineering for Nuclear Imaging and Radioimmunotherapy" *Journal of Nuclear Medicine* 63, 1316 (2022).
35. Maitz, C. A., Delaney, S., Cook, B. E., Genady, A. R., Hoerres, R. Kuchuk, M., Makris, G., Valliant, J. F., Sadeghi, S., Lewis, J. S., Hemkens, H. M., Bryan, J. N. *, Zeglis, B. M. * "Pretargeted PET of Osteodestructive Lesions in Dogs" *Molecular Pharmaceutics* 19, 3153 (2022).
36. Kunihiro, A. G., Sarrett, S. M., Lastwika, K. J., Solan, J. L., Pisarenko, T., Keinänen, O., Rodriguez, C., Taverne, L. R., Fitzpatrick, A. L., Li, C. I., Houghton, A. M., Zeglis, B. M. *, Lampe, P. D. * "CD133 as a Biomarker for an Autoantibody-to-ImmunoPET Paradigm for the Early Detection of Small Cell Lung

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Cancer” *Journal of Nuclear Medicine* 63, 1701 (2022).

37. Macpherson, D. S., McPhee, S. A., Zeglis, B. M., Ulijn, R. V. “The Impact of Tyrosine Iodination on the Aggregation and Cleavage Kinetics of MMP-9-Responsive Peptide Sequences” *ACS Biomaterials Science and Engineering*. 8, 579 (2022).
38. Sharma, S. K., Mack, K. N., Piersigilli, A., Pourat, J., Edwards, K. J., Keinänen, O., Jiao, M. S., Zhao, H., White, B., Brooks, C. L., de Stanchina, E., Madiyalakan, M. R., Hollingsworth, M. A., Radhakrishnan, P., Lewis, J. S., Zeglis, B. M. “ImmunoPET of Ovarian and Pancreatic Cancer with AR9.6, a Novel MUC16-Targeted Therapeutic Antibody” *Clinical Cancer Research*. 28, 948 (2022).
39. Keinänen, O., Days, E. J., Rodriguez, C., Sarrett, S. M., Brennan, J. M., Sarparanta, M., Zeglis, B. M. “Harnessing PET to Track Micro- and Nanoplastics In Vivo” *Scientific Reports*. 11:11463 (2021).
40. Sharma, S. K., Adumeau, P., Keinänen, O., Sisodiya, V., Sarvaiya, H., Tchelepi, R., Korsen, J. A., Pourat, J., Edwards, K. A., Ragupathi, A., Hamdy, O., Saunders, L. R., Rudin, C. M., Poirier, J. T., Lewis, J. S., Zeglis, B. M. “Synthesis and Comparative In Vivo Evaluation of Site-Specifically Labeled Radioimmunoconjugates for DLL3-Targeted ImmunoPET” *Bioconjugate Chemistry*. 32, 1255 (2021).
41. Imlimthan, S., Khng, Y. C., Keinänen, O., Zhang, W., Airaksinen, A. J., Kostainen, M. A., Zeglis, B. M., Santos, H. A., Sarparanta, M. “A Theranostic Cellulose Nanocrystal-based Drug Delivery System with Enhanced Retention in Pulmonary Metastases of Melanoma” *Small*. 2007705 (2021).
42. Sarrett, S. M., Keinänen, O., Days, E. J., Dewaele-Le Roi, G., Rodriguez, C., Carnazza, K. E., Zeglis, B. M. “In Vivo Pretargeting Based on Inverse Electron-Demand Diels Alder Click Chemistry” *Nature Protocols*. s41596-021-00540-2 (2021).
43. Xiao, G., Annor, G. K., Fung, K., Keinänen O., Zeglis, B. M., Bargonetti, J. “Targeting Triple Negative Breast Cancer with a Nucleus-Directed p53 Tetramerization Domain Peptide” *Molecular Pharmaceutics*. 18, 338 (2021).
44. Herth, M. M., Ametamy, S., Antuganov, D., Bauman, A., Berndt, M., Brooks, A. F., Bormans, G., Choe, Y. S., Gillings, N., Häfeli, U. O., James, M. L., Kopka, K., Kramer, V., Krasikova, R., Madsen, J., Mu, L., Neumaier, B., Piel, M., Rosch, F., Ross, R., Schibli, R., Scott, P. J. H., Shalgunov, V., Vasdev, N., Wadsak, W., Zeglis, B. M. “On the Consensus Nomenclature Rules for Radiopharmaceutical Chemistry — Reconsideration of Radiochemical Conversation” *Nuclear Medicine and Biology*. 93, 19 (2021).
45. Sarbisheh, E. K., Dewaele-Le Roi, G., Shannon, W., Tan, S., Xu, Y., Zeglis, B. M.*, Price, E. W.* “DiPODS: A Reagent for Site-Specific Bioconjugation via the Irreversible Re-bridging of Disulfide Linkages” *Bioconjugate Chemistry*. 31, 2789 (2020).
46. Keinänen, O., Fung, K., Brennan, J. M., Zia, N., Harris, M., van Dam, E. Biggin, C., Hedt, A., Stoner, J., Donnelly, P. S., Lewis, J. S., Zeglis, B. M. “Harnessing ⁶⁴Cu/⁶⁷Cu for a Theranostic Approach to Pretargeted Radioimmunotherapy” *Proceedings of the National Academic of Sciences of the United States of America*. 117(45), 28316 (2020).
47. Fung, K., Sharma, S. K., Keinänen, O., Long Roche, K., Lewis, J. S., Zeglis, B. M. “A Moleculuarly Targeted Intraoperative Near-Infrared Fluorescence Imaging Agent for High-Grade Serous Ovarian Cancer” *Molecular Pharmaceutics*. 17, 3140 (2020).
48. Fung, K., Vivier, D., Keinänen, O., Sarbisheh, E. K., Price, E. W., Zeglis, B. M. “⁸⁹Zr-Labeled AR20.5: A MUC1-Targeting ImmunoPET Probe” *Molecules*. 25, 2315 (2020).
49. White, J. M., Keinänen, O. M., Cook, B. E., Zeglis, B. M., Gibson, H. M., Viola, N. T. “Removal of Fc

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- Glycans from [⁸⁹Zr]Zr-DFO-anti-CD8 Prevents Peripheral Depletion of CD8⁺ T Cells” *Molecular Pharmaceutics*. 17(6), 2099 (2020).
50. Ulaner, G. A., Carrasquillo, J. A., Riedl, C., Yeh, R., Ross, D. S., Jhaveri, K., Chandarlapaty, S., Hyman, D. M., Zeglis, B. M., Lyashchenko, S. K., Lewis, J. S. “Identification of HER2-positive metastases in patients with HER2-negative primary breast cancer using HER2-targeted ⁸⁹Zr-pertuzumab PET/CT” *Radiology*. 296, 370 (2020).
 51. Imberti, C., Adumeau, P., Blower, J. E., Al Saleme, F., Torres, J. B., Lewis, J. S., Zeglis, B. M., Terry, S. Y. A., Blower, P. J. “Manipulating the In Vivo Behavior of ⁶⁸Ga with Tris(hydroxypyridinone) Chelators: Pretargeting and Blood Clearance” *International Journal of Molecular Sciences*. 21, 1496 (2020)
 52. Jannetti, S. A., Zeglis, B. M., Zalutsky, M. R., Reiner, T. “Poly(ADP-ribose)polymerase (PARP) Inhibitors and Radiation Therapy” *Frontiers in Pharmacology*. 11, 170 (2020)
 53. Pirovano, G., Jannetti, S. A., Carter, L. M. Sadique, A., Kossatz, S., De Souza Franca, P. D., Maeda, M., Zeglis, B. M., Lewis, J. S., Humm, J. L., Reiner, T. R. “Targeted Brain Tumor Radiotherapy Using an Auger Emitter” *Clinical Cancer Research*. 26, 2871 (2020)
 54. Vivier, D., Fung, K., Rodriguez, C., Adumeau, P., Ulaner, G. A., Lewis, J. S. Sharma, S. K., Zeglis, B. M. “The Influence of Glycans-Specific Bioconjugation on the FcγRI Binding and In Vivo Performance of ⁸⁹Zr-DFO-Pertuzumab” *Theranostics*. 10(4), 1746 (2020)
 55. MacPherson, D. S., Fung, K., Cook, B. E., Francesconi, L. C., Zeglis, B. M. “A Brief Overview of Metal Complexes as Nuclear Imaging Agents” *Dalton Trans.* 48, 14547 (2019).
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Book Chapters

Sebastiano, J., Samuels, Z. V., Furey, K., Grimaldi, C., Keinänen, O., Zeglis, B. M. “Click Chemistry and Radiopharmaceutical Chemistry” in *Radiopharmaceutical Chemistry*. Lewis, J. S., Windhorst, A. D., and Zeglis B. M. eds. Springer: New York, USA, 2026.

Xiao, G., Keinänen, O., Rowdo, F. M., Delaney, S., Harmon, K. W., Zeglis, B. M., Bargonetti, J. “Identifying Methods to Deliver Mutant p53-Based Diagnostics and Therapeutics to Target the Previously Undruggable” in *Cancer Detection and Diagnosis: A Handbook of Emerging Technologies (1st Edition)*. Ossandon, M., Prickril, B., and Rasooly, A. eds. Taylor & Francis: Boca Raton, USA, 2025.

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Keinänen, O., Nash, A. G., Sarrett, S. M., Sarparanta, M., Lewis, J. S., Zeglis, B. M. “Emerging Radiopharmaceuticals in Clinical Oncology” in *Nuclear Oncology: Pathophysiology and Clinical Applications, 3rd Edition*. Strauss W., Mariani G., Volterrani, D., and Larson, S. M., eds. Springer: New York, USA, 2022.

Goos, J. A. C. M., Keinänen O. M., Zeglis B. M., Lewis J. S. “Radiopharmaceuticals in Oncology” in *Handbook of Radiopharmaceuticals (2nd Edition) - Methodology and Applications*. Scott, P. J. H. and Kilbourn, M. R. Eds. Wiley-Blackwell: Hoboken, USA, 2021.

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Books

Radiopharmaceutical Chemistry, 2nd Edition. Lewis, J. S., Windhorst, A. D., and Zeglis, B. M., Eds. Springer: New York, 2026.

Radiopharmaceutical Therapy. Bodei, L., Lewis, J. S., and Zeglis, B. M., Eds. Springer: New York, 2023.

Radiopharmaceutical Chemistry. Lewis, J. S., Windhorst, A. D., and Zeglis, B. M., Eds. Springer: New York, 2019.

Patents

Barton, J. K., Zeglis, B. M., Lau, I. H., Hart, J. R., and Lim, M. H. “Compounds and Methods for Nucleic Acid Mismatch Detection.” U. S. Patent #7,786,298 (Issued August 31, 2010)

Zeglis, B. M., Adumeau, P., and Davydova, M. “Reagent for Site-Selective Bioconjugation of Proteins or Antibodies.” U. S. Patent #11,000,604 (Issued May 11th, 2021)

Curriculum Vitae

Zeglis, B. M., Lewis, J. S. Reiner, T., Houghton, J. H., Meyer, J. P., and Brand, C. "Radioligands for Pretargeted PET Imaging and Methods of their Therapeutic Use" U. S. Patent #11,135,320 (Issued October 5th, 2021)

Entrepreneurships

Founder, Red Eft Bioscience, LLC (2025-)

Co-founder, Sharp RTx., Inc. (2021-2023)

Teaching

Introduction to Radiochemistry – Spring 2016, 2017

Inorganic Chemistry – Fall 2016-2025

Inorganic Chemistry Laboratory – Spring 2019, 2022, 2024, 2025, 2026

Mentoring

Current Students and Fellows:

Mr. Zach Samuels (Graduate Student; anticipated graduation – Winter 2027)

Ms. Camilla Grimaldi (Graduate Student; anticipated graduation – Winter 2027)

Dr. Mayuresh Mane (Graduate Student; anticipated graduation – Winter 2028)

Ms. Gina Dehlavi (Graduate Student; anticipated graduation – Winter 2028)

Mx. Ava Stoddard (Graduate Student; anticipated graduation – Winter 2028)

Ms. Kiarra Furey (Graduate Student; anticipated graduation – Winter 2029)

Ms. Cassidy Mays (Graduate Student; anticipated graduation – Winter 2030)

Ms. Iulianna Taradachuk (Graduate Student; anticipated graduation – Winter 2030)

Mr. Shane McGlone (Graduate Student; anticipated graduation – Winter 2031)

Former Postdoctoral Fellows

Dr. Wei-Siang Mark Kao (2024-2026, Lead Scientist, Nuclidium)

Dr. Outi Keinänen (2018-2023, Assistant Professor, University of Alabama at Birmingham)

Dr. Aaron Nash (2020-2022, Scientific Advisor, Amster Rothstein & Ebenstein)

Dr. Sai Kiran Sharma (2015-2019, Lead *In Vivo* Imaging Scientist, Regeneron Pharmaceuticals)

Dr. Pierre Adumeau (2015-2018, Study Director, Oncodesign)

Dr. Delphine Vivier (2016-2018, Project Manager, University of Burgundy)

Former Graduate Students:

Dr. Mike Cornejo (2021-2026, Staff Scientist, Z-Alpha Therapeutics)

Dr. Joni Sebastiano (2021-2026, Postdoctoral Fellow, Laboratory of Angus Lindsay, University of Otago)

Dr. Cindy Rodriguez (2019-2024, Postdoctoral Fellow, Laboratory of Jason S. Lewis, MSKCC)

Dr. Samantha Delaney (2019-2022; Postdoctoral Fellow, Laboratory of Graeme Stasiuk, Kings College London)

Dr. Samantha Sarrett (2018-2023, Staff Scientist, Pfizer)

Dr. Douglas McPherson (2018-2022; Equity Research Senior Associate, Mizuho)

Dr. Guillaume Dewaele Le Roi (2018-2022; Staff Scientist, Evergreen Theragnostics)

Dr. Stephen Jannetti (2015-2019; Principal Scientist, Nuclidium)

Dr. Kimberly Fung (2015-2019; Medical Director at IMPRINT Science)

Dr. Rosemary Cook (2015-2018, Director of Communications, World Molecular Imaging Society)

Dr. Brendon Cook (2015-2018; Senior Scientist, Biogen)

Service to the University

Committee Chair (2025), Search Committee for Biochemistry Faculty Member

Member (2019-Present), Hunter Chemistry Department Personnel and Budget Committee

Member (2021-2025), Hunter College Senate

Member (2021-2023), Hunter College Research Strategic Planning Committee

Curriculum Vitae

Committee Member (2020), Committee on Developing a Framework for the Undergraduate Honors Thesis
Committee Member (2017), Search Committee for Radiochemistry Faculty Member
Co-Chair (2017), Hunter College Symposium on Radiometals
Committee Member (2016), Search Committee for Radiochemistry Research Associate

Service to the Scientific Community

NIH Proposal Review

Standing Member, National Institutes of Health, Imaging Probes and Contrast Agents (IPCA) Study Section (2020-2021; 2022-2026)
Ad Hoc Member, National Institutes of Health, Center for Molecular Imaging Probe Development (CMIP) Study Section (2017-2020)
Ad Hoc Member, National Institutes of Health, Imaging Guided Interventions and Surgery (IGIS) Study Section (2017-2019)

Editorial Work

Deputy Editor-in-Chief (2023-present), *Molecular Imaging and Biology*
Associate Editor (2020-2023), *Molecular Imaging and Biology*
Editorial Board (2016-present), *Journal of Nuclear Medicine*

Other Service

Secretary, Treasurer, and Head of Continuing Education (2024 – present), Center for Molecular Imaging Innovation and Translation, Society of Nuclear Medicine and Molecular Imaging
Founding Member (2016) and Chair (2017-2019), Early-Stage Investigators in Molecular Imaging Sciences (ESPMIS) Interest Group, *World Molecular Imaging Society*
Reviewer for several journals, including *Cancer Research*, *Clinical Cancer Research*, *Cancer Discovery*, *Proceedings of the National Academy of Sciences*, *Chemical Communications*, *Journal of the American Chemical Society*, *Journal of Nuclear Medicine*, and *European Journal of Nuclear Medicine*

Invited Lectures

1. *Annual Meeting of the American Chemical Society*. “The Development of Tyrosine-Directed Approaches to Bioconjugation for the Synthesis of Molecular Imaging Agents” Atlanta, Georgia: March 22nd, 2026.
2. *Annual Meeting of the American Chemical Society*. “Leveraging Click Chemistry to Improve Radiopharmaceuticals” Atlanta, Georgia: March 23rd, 2026.
3. *Hunter College Department of Chemistry*. “Leveraging Selective Chemistries to Improve Radiopharmaceuticals” New York, York: November 14th, 2025.
4. *Cold Spring Harbor Laboratory*. “Harnessing Selective Chemistries to Improve Nuclear Medicine” Cold Spring Harbor, York: October 22nd, 2025.
5. *National Cancer Institute*. “Leveraging Click Chemistry to Improve Radiopharmaceuticals” Frederick, Maryland: October 15th, 2025.
6. *World Molecular Imaging Congress*. “Schrödinger’s Proposal: Demystifying the Grant Review Process” Anchorage, Alaska: October 4th, 2025.
7. *World Molecular Imaging Congress*. “Haters Gonna Hate: Navigating Proposal Critiques” Anchorage, Alaska: October 4th, 2025.
8. *European Molecular Imaging Meeting*. “Optimizing mAb Bioconjugation” Bilbao, Spain: March 12th, 2025

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9. *European Association of Nuclear Medicine*. "Pretargeting: A Clinical Perspective on Strengths and Challenges" Hamburg, Germany: October 22nd, 2024.
10. *European Society for Molecular Imaging and Technology*. "The Promise and Pitfalls of In Vivo Pretargeting" Porto, Portugal: September 1st, 2024.
11. *Gordon Research Conference on Radiotheranostics*. "In Vivo Pretargeting for the Radiopharmaceutical Therapy of Cancer" Newry, Maine: July 2nd, 2024.
12. *International Atomic Energy Agency*. "Exploiting Innovative Animal Models for the Exploration of Radiopharmaceutical Delivery System" Vienna, Austria: May 20th, 2024.
13. *Olivet Nazarene University*. "The Inverse Electron-Demand Diels-Alder Reaction in Radiochemistry" Bourbonnais, Illinois: April 30th, 2024.
14. *University of Alabama Birmingham*. "Leveraging Bioorthogonal Chemistry to Improve Radiopharmaceuticals" Birmingham, Alabama: April 10th, 2024.
15. *City College of New York*. "Harnessing Bioorthogonal Chemistry to Improve Nuclear Medicine" New York, New York: March 27th, 2024.
16. *Annual Meeting of the American Chemical Society*. "Harnessing Copper-Free Click Chemistry for Site-Specific Bioconjugation" Indianapolis, Indiana: March 28th, 2023.
17. *University of Virginia*. "Harnessing Selective Chemistries to Improve Radiopharmaceuticals" Invited Speaker. Charlottesville, Virginia: December 7th, 2022.
18. *Oak Ridge National Laboratory Meeting on Evolving Targeted Therapies for Cancer*. "Leveraging Bioorthogonal Chemistry to Improve Radiopharmaceuticals" Oak Ridge, Tennessee: November 2nd, 2022.
19. *World Molecular Imaging Congress*. "Harnessing Selective Chemistries to Improve Radiopharmaceuticals" Roger Tsien Award Lecture. Miami, Florida: September 30th, 2022.
20. *North Carolina State University*. "Harnessing Bioorthogonal Chemistry for Nuclear Imaging and Endoradiotherapy" Virtual Presentation: February 28th, 2022.
21. *Newcastle University*. "Harnessing Bioorthogonal Chemistry for Nuclear Imaging and Endoradiotherapy" Virtual Presentation: December 14th, 2021.
22. *Wayne State University and Karmanos Cancer Center*. "Harnessing Bioorthogonal Chemistry for Nuclear Imaging and Endoradiotherapy" Detroit, Michigan: December 7th, 2021.
23. *Annual Meeting of the European Society of Nuclear Medicine*. "Antibodies as Radiopharmaceutical Vectors: Do the Benefits Outweigh the Costs" Virtual Meeting: October 5th, 2021.
24. *Department of Energy Nuclear Chemistry Summer School*. "In Vivo Pretargeting: Radiosynthesis at the Tumor Surface" Virtual Meeting: July 23rd, 2021.
25. *Weill Cornell Medical College*. "Harnessing Click Chemistry for Pretargeted PET Imaging and Radioimmunotherapy" New York, New York: May 21st, 2021.
26. *Annual Meeting of the International Society for Radiopharmaceutical Sciences*. "Robin Hood and the Merry Pre-Targeters: On the Utility and Promise (or Lack of) Pretargeting Methods" Virtual Meeting: May 19th, 2021.

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27. *Annual Meeting of the Australia and New Zealand Society of Nuclear Medicine*. “Harnessing the Heavy Chain Glycans for the Creation of Site-Specifically Modified Radioimmunoconjugates” Virtual Meeting: August 6th, 2020.
28. *Annual Meeting of the Australia and New Zealand Society of Nuclear Medicine*. “In Vivo Pretargeting: Radiosynthesis at the Tumor Surface” Virtual Meeting: July 23rd, 2020.
29. *Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging*. “Highlights Lecture for Radiopharmacy and Radiopharmaceutical Chemistry” Virtual Meeting: June 27th, 2020.
30. *Annual Meeting of the American Association of Physicists in Medicine*. “ImmunoPET: Leveraging Antibodies for Diagnostic and Theranostic Nuclear Imaging” San Antonio, Texas: July 16th, 2019.
31. *Northeast Regional Meeting of the American Chemical Society*. “Pretargeted Radioimmunotherapy with Metallic Radionuclides” Saratoga Springs, New York: June 24th, 2019.
32. *Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging*. “Highlights Lecture for Radiopharmacy and Radiopharmaceutical Chemistry” Anaheim, California: June 23rd, 2019.
33. *Iona College Nanoscience Symposium*. “The Emergence of ⁸⁹Zr-ImmunoPET: Harnessing Antibodies for Nuclear Imaging” New Rochelle, New York: April 9th, 2019.
34. *University of Copenhagen*. “Pretargeted Radioimmunotherapy Based on Bioorthogonal Click Chemistry” Copenhagen, Denmark: December 6th, 2018.
35. *Stony Brook University*. “In Vivo Pretargeting: Performing Radiochemistry Within the Body” Stony Brook, New York: September 18th, 2018.
36. *Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging*. “Highlights Lecture for Radiopharmacy and Radiopharmaceutical Chemistry” Philadelphia, Pennsylvania: June 15th, 2018.
37. *Vrije Universiteit Brussel*. “In Vivo Pretargeting: Radiosynthesis at the Tumor Surface” Workshop in Immuno-Imaging and Molecular Therapy. Brussels, Belgium: April 27th, 2018.
38. *VU University Medical Center Amsterdam*. “In Vivo Pretargeting: Radiosynthesis at the Tumor Surface” Amsterdam, the Netherlands: April 26th, 2018.
39. *University of California, Los Angeles*. “In Vivo Pretargeting: Radiosynthesis at the Tumor Surface” Crump Institute of Molecular Imaging. Los Angeles, California: March 26th, 2018.
40. *Annual Meeting of the Radiology Society of North America*. “A Primer in ⁸⁹Zr-ImmunoPET” Chicago, Illinois: December 1st, 2017.
41. *Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging*. “In Vivo Pretargeting: Radiosynthesis at the Tumor Surface.” Denver, Colorado: June 12th, 2017.
42. *St Jude Children’s Research Hospital*. “In Vivo Pretargeting: Radiosynthesis at the Tumor Surface” Memphis, Tennessee: April 28th, 2017.
43. *St Jude Children’s Research Hospital*. “Bioorthogonal Chemistry for Better Radiopharmaceuticals” Memphis, Tennessee: April 27th, 2017.
44. *City of Hope Hospital*. “In Vivo Pretargeting: Radiosynthesis at the Tumor Surface” Duarte, California: April 4th, 2017.

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45. *California Institute of Technology*. "In Vivo Pretargeting: Radiosynthesis at the Tumor Surface" Pasadena, California: April 3rd, 2017.
46. *University of Missouri Columbia*. "In Vivo Pretargeting: Radiosynthesis at the Tumor Surface" Columbia, Missouri: March 10th, 2017.
47. *Annual Meeting of the Radiology Society of North America*. "A Primer in ⁸⁹Zr-ImmunoPET" Chicago, Illinois: December 2nd, 2016.
48. *European Association of Nuclear Medicine Congress*. "Strategies for the Site-Specific Bioconjugation of Antibodies" Barcelona, Spain: October 14th, 2016.
49. *World Molecular Imaging Congress*. "The Anatomy of a Radioimmunoconjugate" New York, New York: September 7th, 2016.
50. *Annual Symposium of the Memorial Sloan Kettering Cancer Center Imaging and Radiation Sciences Program*. "Harnessing Bioorthogonal Chemistry for Pretargeted Imaging and Therapy" New York, New York: May 31st, 2016.
51. *The University of the West Indies*. "PET Imaging with ⁸⁹Zr" Kingston, Jamaica: March 21st, 2016.
52. *International Workshop on Molecular Imaging*. "Harnessing Bioorthogonal Chemistry for Pretargeted PET Imaging" San Sebastian, Spain: November 11th, 2015.
53. *European Association of Nuclear Medicine Congress*. "Advances in ⁸⁹Zr PET Imaging" Hamburg, Germany: October 10th, 2015.
54. *International Symposium on Technetium and Radiometals in Chemistry and Medicine (TERACHEM)*. "The Site-Specific Radiometallation of Antibodies on the Heavy Chain Glycans" Bressanone, Italy: September 11th, 2014.
55. *International Conference and Expo on Isotopes*. "The Site-Specific Labeling of Antibodies on the Heavy Chain Glycans" Chicago, Illinois: August 28th, 2014.
56. *Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging*. "Labeling Peptides and Proteins Using Click Chemistry" Vancouver, Canada: June 8th, 2013.
57. *Revolutionaries for Global Health Summit*. "⁸⁹Zr-ImmunoPET: Emergent Targets and Clinical Translation." Boston, Massachusetts: May 8th, 2013.
58. *Annual Meeting of the Society of Nuclear Medicine*. "Radiometal Chelates and Click Chemistry: The Development of Modular Systems" Miami, Florida: June 9th, 2012.
59. *Congress of the World Federation of Nuclear Medicine and Biology*. "New Radiopharmaceuticals: Availability, Development, and Challenges" Cape Town, South Africa: September 20th, 2010.