

CURRICULUM VITAE
University of Alabama at Birmingham
School of Medicine Faculty

DATE: March 19, 2026

PERSONAL INFORMATION:

Name: Suzanne E. Lapi, PhD
Citizenship: USA, Canada
Foreign Language(s):
Home Address: 4141 Crescent Road
Birmingham, AL 35222
Phone: (314) 604-8412

RANK/TITLE:

Distinguished Professor with Tenure
Department: Department of Radiology, Department of Chemistry
Business Address: Wallace Tumor Institute (WTI) 310F
1824 6th Ave. South
Birmingham, AL 35233-3300

Phone: (205)-975-8689

Fax:

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HOSPITAL AND OTHER (NON ACADEMIC) APPOINTMENTS:

UAB Medical Center, Birmingham, AL 2015 – Present

PROFESSIONAL CONSULTANTSHIPS:

Scientific Advisory Board Member, Bioisotopes LLC, Columbia, MO	2012 – 2018
Consultant, The Gollman Group, Inc.	2013 – 2018
Consultant, Nusano (formally Alpha Source, Inc.)	2015 – 2024
Consultant, Bicycle Tx	2025 – Present
Advisory Board, Northstar Medical Isotopes	2022 – Present
Advisory Board, Trevarx Biomedical, Inc	2022 – Present
Advisory Board, Nusano	2024 – Present
Advisory Board, T-Mabs	2025 – Present

EDUCATION:

1995 – 2001	B.S.	Simon Fraser University
2002 – 2003	M.S.	Simon Fraser University
2003 – 2007	Ph.D.	Simon Fraser University

MILITARY SERVICE:

Not applicable

LICENSURE:

Not applicable

BOARD CERTIFICATION:

Not applicable

POSTDOCTORAL TRAINING:

2007 – 2008 Postdoctoral Fellow UCSF Radiology and Biomedical Imaging

ACADEMIC APPOINTMENTS:

2025– Present Distinguished Professor, UAB Heersink School of Medicine

2022 – Present Emmet O’Neal II Professor, O’Neal Comprehensive Cancer Center at UAB

2021 – Present Vice Chair of Research, University of Alabama at Birmingham
Department of Radiology

2018 – Present Professor with Tenure University of Alabama at Birmingham
Department of Radiology
Department of Chemistry
Department of Biomedical Engineering

2017 – 2023 Division Director, University of Alabama at Birmingham
Advanced Medical Imaging Research Division

2018 – 2021 Vice Chair of Translational Research University of Alabama at Birmingham
Department of Radiology

2015 – 2018 Associate Professor with Tenure University of Alabama at Birmingham
Department of Radiology
Department of Chemistry

2015 – Present Cyclotron Facility Director University of Alabama at Birmingham School of Medicine

2014 – 2015 Associate Professor with Tenure Washington University Radiology

2013 – 2014 Assistant Professor, Washington University
Division of Biology and Biomedical Sciences

2012 – 2014 Adjunct Assistant Professor, Washington University
Department of Chemistry

2012 – 2014 Assistant Professor, Washington University
Department of Biomedical Engineering

2011 – 2015 Member Washington University Institute of Clinical
and Translational Sciences

2010 – 2015 Member Washington University
Siteman Cancer Center

2009 – 2014 Assistant Professor Washington University Radiology

2007 – 2008 Postdoctoral Fellow UCSF Radiology and Biomedical Imaging

WORK HISTORY:

2003 – 2007 Ph.D., Thesis Research TRIUMF PET Group

2005 – 2005 Ph.D., Thesis Research Oak Ridge National Lab, Physics Division

2005 – 2007 Consultant Accsys Technology

2002 – 2002 Teaching Assistant Simon Fraser University
General Chemistry II

1999 – 2000 Analytical Chemistry Tech Stanley Pharmaceuticals

1998 – 1998 Analytical Chemistry Tech Environment Canada
Pacific Environmental Research Center

AWARDS/HONORS:

June 2025 Presidential Distinguished Educator Award - Society of Nuclear Medicine and Molecular Imaging

May 2025 Fellow, Society of Radiopharmaceutical Sciences

June 2024 Micheal J Welch Award - Society of Nuclear Medicine and Molecular Imaging

February 2023 Emmet O’Neal II Professorship,
O’Neal Comprehensive Cancer Center at UAB

November 2022 Academy for Radiology and Biomedical Imaging Research Distinguished Investigator

April 2021 UAB Dean’s Mentorship Award

June 2020 Fellow, Society of Nuclear Medicine and Molecular Imaging

August 2014 Marie Curie Lecture, International Conference on Isotopes

August 2010 Mario Nicolini Prize, Terachem, Italy

June 2010 Harry Gray Family Fund Award, Metals in Medicine, NH

January 2007 President’s Research Stipend, Simon Fraser University

September 2006 Student Travel Bursary, Tc Symposium, Bressanone, IT

May 2006 2006 Chemistry Poster Competition – First Place, SFU

February 2006 SNM Student Travel Bursary for Midwinter meeting, Tempe, AZ

February 2006 Carl H. Westcott Fellowship, University of Alberta/TRIUMF

December 2005 Student Bursary, Pacific Rim Chemistry Symposium, Honolulu, HI

October 2005 2005 Chemistry Oral Competition – Second Place, SFU

August 2005 TRIUMF Life Sciences Scholarship

July 2005 Student Travel Bursary for 2005 International Symposium on Radiopharmaceutical Chemistry, University of Iowa

May 2005 Student Travel Bursary for Summer School on Targets and Ion Sources for the Production of Radioactive Ion Beams, Oak Ridge, TN

August 2005 Student Travel Bursary for the 288th American Chemical Society Meeting Philadelphia, PA

September 2004 Student Travel Bursary for International Symposium on Radiohalogens Whistler, BC

November 2003 Graduate Fellowship, Simon Fraser University

PROFESSIONAL SOCIETIES:

Society of Nuclear Medicine	2008 – Present
Board Member	2016 -- 2022
Radiopharmaceutical Sciences Council	2008 – Present
Board Member	2011 – 2022
Vice President	2014 – 2015
President	2015 – 2016
Continuing Education Session Organizer	2011 – 2017
Society of Radiopharmaceutical Sciences	2008 – Present
Board Member	2015 – 2022
American Chemical Society	2008 – Present
Board Member	2011 – 2019
Session Organizer	2013, 2015, 2018 2023, 2026
American Nuclear Society	2010 – Present
Conference on Isotopes Organizing Committee	2010, 2014
AccApp Organizing Committee	2017

COUNCILS AND COMMITTEES:

Federal Advisory

Nuclear and Radiation Studies Board (Standing Committee)
The National Academies of Sciences, Engineering, and Medicine 2025-Present

Nuclear Science Advisory Committee (NSAC)

Standing Member 2013-2017
SNMMI Representative 2018- 2020
Subcommittee to assess the effectiveness of the National Nuclear Security
Administration Global Threat Reduction Initiative's Domestic Molybdenum-99 Program
2013-2019 Chair: 2019-2022
Isotopes Subcommittee 2014-2015

NIH Review Panels

Imaging Probes and Contrast Agents (IPCA) Study Section Standing Member 2016-2022
NIH NCI Molecular Imaging Branch 2021
SPORE review Panel Ad Hoc Member 2020
Conflict section review Panel Ad Hoc Member 2023
Academic Industrial Partnerships Panel Ad Hoc Member 2023
P01 review Panel Ad Hoc Member 2024
Special Emphasis Panel 2025
Special Emphasis Panel 2026

DOE Review Panels

Early Career Award Review 2021, 2023

Institutional Review Panels and Advisory Committees

NFRF-T “Rare Isotopes to Transform Cancer Therapy” 2024-Present
Arronax Facility, Nante, France 2023-Present

MSKCC Cyclotron Facility External Advisory Board	2022-Present
University of Wisconsin mTRT P01 External Advisory Board	2021-Present
Advisory Committee on TRIUMF	2021-Present
Stanford Cyclotron/Radiochemistry program	2021-2022
Oregon Health Sciences Radiochemistry Program	2021-2022

International Atomic Energy Agency (IAEA)

Chief Scientific Investigator, "Production and utilization of Copper-64 and Iodine -124" 2010-2015 (United States Representative)

Chief Scientific Investigator, "Accelerator-based Alternatives to Non-HEU production of Mo-99 / Tc99m" 2012-2016 (United States Representative)

Chief Scientific Investigator, "Therapeutic Radiopharmaceuticals Labelled with New Emerging Radionuclides (⁶⁷Cu, ¹⁸⁶Re, ⁴⁷Sc)" 2016-2019 (United States Representative)

Chief Scientific Investigator on the International Atomic Energy Agency (IAEA) coordinated research project "Zr-89 Production & Zr-89 Radiopharmaceuticals" 2021-Present (United States Representative)

Working Group on Isotope Harvesting at FRIB: 2010-2022

Organizing Committee: 2012, 2014, 2016, 2018, 2020, 2022, 2024, 2026 Workshop on Targetry and Target Chemistry

Organizing Committee: 2013 ACS Annual Meeting: Isotope Production, Past Present & Future

Organizing Committee: 2013 Radiometals Meeting

Organizing Committee: 2014 International Conference on Isotopes (8th ICI)

Organizing Committee: 2017 International Topical Meeting on the Applications of Accelerators (AccApp 2017)

UNIVERSITY ACTIVITIES:

UAB

Co-Leader, Experimental Therapeutics Program, O'Neal Comprehensive Cancer Center 2020-Present

Radiology Research Re-engage Committee (Chair) 2020-2021

Appointment, Promotion and Tenure (APT) Committee 2019-Present

Radioisotope and Radiation Safety Committee 2015-Present

Subcommittee for Human Use 2015-Present

Advanced Imaging Facility Leadership Committee 2015-2016

Chair of the AIF Oversight Committee 2016-Present

UAB Comprehensive Cancer Center Member 2016 - Present

UAB Alzheimer's Disease Center Member 2016 – Present

School of Medicine Executive Leadership Program 2016- 2018

Council of Postdoctoral Education September 2018-2023

UAB School of Medicine Representative

Washington University School of Medicine:

Cyclotron Users Group 2009-2015

Positron Emitting Radionuclides Radiation Committee (PERCS) 2010-2015

Animal Studies Committee 2011-2014

Chemistry Faculty Search Committee – Fall 2011
Director, MIR Summer Research Program 2010-2015
Director of Isotope Production 2011- 2015
Moog Scholarship Selection Committee 2010-2015
DBBS Admissions Committee 2013-2015

EDITORIAL BOARD MEMBERSHIPS:

<i>Radiochimica Acta</i>	2024 - Present
<i>Nuclear Medicine and Biology</i>	2019 - Present
<i>Cancers</i>	2019 - Present
<i>Cancer Biotherapy and Radiopharmaceuticals</i>	2018 - Present
<i>Journal of Nuclear Medicine</i>	2017 - Present
<i>Journal of Labelled Compounds and Radiopharmaceuticals</i>	2015 – Present
<i>Scientific Reports</i>	2015 – Present
<i>Frontiers in Oncology</i>	2013 – Present
<i>American Journal of Nuclear Medicine and Molecular Imaging</i>	2013 – Present

Journal Reviewer (selected): *Journal of Nuclear Medicine, Cancer Research, Molecular Imaging, Applied Radiation and Isotopes, Nuclear Medicine and Biology, Pharmaceutical Research, Current Topics in Medicinal Chemistry, Plos One, Nature Protocols, Molecules, Molecular Imaging and Biology, Chemical Communications, Future Medicinal Chemistry, Radiochimica Acta, Cancer Biology, Bioconjugate Chemistry, Molecular Pharmaceutics, Journal of Medicinal Chemistry, Scientific Reports*

Abstract Reviewer (selected): Society of Nuclear Medicine and Molecular Imaging, World Molecular Imaging Society, International Society of Radiopharmaceutical Chemistry, American Chemical Society, American Nuclear Society, Workshop on Targetry and Target Chemistry

MAJOR RESEARCH INTERESTES: (2-3 Sentences)

My research includes the production and purification of novel radioisotopes for biomedical applications with a focus on metal radionuclides. Our group also has significant interest in radiochemistry development of new molecular imaging agents and translation of these agents into clinical trials.

TEACHING EXPERIENCE:

UAB:

Course Master, Radiochemistry for the Life Sciences	Spring 2017, 2019, 2021,2023
Lecturer, Residents (2-3 lectures/year)	2016 – Present
Guest Lectures, various undergraduate courses in BME and Chemistry	2016-Present

Washington University School of Medicine:

Lecturer, Contrast Agents in Biological Imaging (CABI)	Spring 2009, 2010
Course Master, Contrast Agents in Biological Imaging (CABI)	Spring 2012, 2013, 2014
Course Master, Radiochemistry for the Life Sciences	Spring 2011, 2015
Organizer and lecturer, NCI Imaging Camp	Summer 2011
Lecturer, Nuclear Medicine Residents (2-3 lectures/year)	2010 – Present
Lecturer, Honorary Scholars Program	2011 – Present

National Summer Schools

ACS Summer School in Nuclear Chemistry (one lecture each year)	2019, 2020, 2022, 2023, 2024, 2025
Exotic Beam Summer School (one lecture each year)	2014, 2016
US Particle Accelerator School (4 lectures)	2016, 2021
National Nuclear Physics Summer School (2 lectures)	2017

Washington University Chemistry Thesis Defense Committees

2009: Guorong Sun
2010: Kim Nguyen
2011: Yinyin Song
2012: Bo Bi
2013: Valentine Bumbu, Xin Peng, Shiyi Zhang
2014: Tara Mastren (mentee)
2015: Matthew Graaf
2018: Stacy Queern (mentee)
2020: C. Shaun Loveless (mentee)

UAB Thesis Committees

2018: Elizabeth Duran (Chemistry, PI: Lucius)
2017-2021: Ivis Chaple (GBS, mentee)
2018-2023: Kristen Reeves (GBS, PI: Larimer)
2018-2023: Jennifer Pyles (Chemistry, Mentee)
2017-2023: Maxwell Ducharme (GBS, Mentee)
2018-2023: Candace Parker (Chemistry, Mentee)
2019-2024: Logan Stone (GBS, PI: Amm)
2019-2024: Shelbie Cingoranelli (Chemistry, Mentee)
2020-2024: Shefali Saini (Chemistry, Mentee)
2020-Present: Grayson Gimblet (MSTP, Mentee)
2021-2024: James Omweri (Chemistry, Mentee)
2021-Present: Pallavi Sarkhel (Chemistry, PI: Keinaenen)
2021-2025: Shannon Lynch (GBS, PI: Sorace)
2022-2023: Kaytlyn McNeal (Biotech, PI: Larimer)
2021-2025: Noimat Jinadu (Chemistry, PI: Burns)
2021-2025: Shanuk Rajapakse (Chemistry, PI: Wijeratne)
2021-2025 Samith B. Jayawardana (Chemistry, PI: Wijeratne)
2023-Present: Mangi Lal Godara (Chemistry, Mentee)
2024-Present: Grace Liles (Chemistry, Mentee)

External Thesis Committees

2025: Bryce Nelson (University of Alberta, Edmonton)
2023-present : Amy Renne (University of Chicago)
2017: Brandon E. Nemieboka (Sloan Kettering Institute)
2017: Gemma Marie Dias (University of British Columbia)
2016: Eva Razumienko (University of Toronto)
2015: James Patrick Dzandzi (McMaster University)

Past Trainees: Undergraduate Researchers

Gordon Schweitzer, University of Missouri, St. Louis, Biochemistry, 2011-2012
Rachel Waller, University of Missouri-Columbia Biochemistry, 2011

Minjun Hur, Washington University Pre-Med, 2011
Caleb Edwards, Washington University Biology 2011-2013
Amrita Hari-Raj, Washington University Pre-Med, 2012-2013
Chiedza Mupanomunda, Washington University Biochemistry, 2012-2013
Shaun Loveless, Fort Lewis College, Chemistry, 2013-2014
Kaavya Cherkuri, Washington University Chemistry, 2013
Ben Lewis, Washington University Physics, 2013- 2014
Elizabeth Bollinger, Washington University Physics, 2013- 2014
Rebecca Gross, Yeshiva University, 2014
Christopher Sun, Washington University, Chemistry, 2014
Supum Lee, Washington University Biochemistry, 2014-2015
Christina DeFelice, Rhode University Biochemistry, 2014-2015
Laura Wilke, University of Notre Dame, Biochemistry, 2014-2015
George Diehl, Vassar College May 2017-August 2017
Julianne Baker, Johns Hopkins University May 2017-August 2017
Brenda Kiritkumar, University of Alabama at Birmingham October 2017-April 2018
Alec Cacheris, University of Tennessee Knoxville, May 2018-August 2018
Bryant Crenshaw, University of Alabama at Birmingham, 2016-2018
Manar Sakalla, University of Alabama at Birmingham, August 2018-December 2018
Ian Super, University of Alabama at Birmingham, 2016-2018
Rachel Ellis, University of Alabama at Birmingham 2018
Retta El Sayed, University of Alabama at Birmingham 2016-2019
Caroline Baker, Duke University, 2018-2019
Grace Thaggard, University of Alabama at Birmingham 2018-2019
Jose Blanco, University of Alabama at Birmingham 2018-2020
Rawdah Elbahrawi, University of Alabama at Birmingham, 2019-2021
Dhruval Gadhia, University of Alabama at Birmingham 2018-2021
Patrick Gamble, Vanderbilt University, 2021- 2021
Mary Grace O'Malley, Boston College, 2019-2021
Addison Hunt, University of Alabama at Birmingham, 2021-2022
Odalyz Montes, University of Alabama at Birmingham, 2021-2022
Luke Jaskowski, University of Alabama at Birmingham 2021-2022
Noel Archer, University of Alabama at Birmingham, 2022-2023
Logan Burnett, University of Alabama at Birmingham, 2023-2024

Current Trainees: Undergraduate Researchers

Pratheek Reddy, University of Alabama at Birmingham, 2023-Present
Arnav Patel, University of Alabama at Birmingham, 2024-Present
Gabriel Dufour, University of Alabama at Birmingham, 2024-Present

Past Trainees: Postdoctoral Fellows and Graduate Students

Sandeep Jain – Postdoctoral Fellow 2009-2010
Currently Staff Scientist at Sun Pharma Advanced Research Company Ltd, India
Ravindra DeSilva - Postdoctoral Fellow 2010-2011
Currently Instructor at Johns Hopkins Medicine
Mai Lin – Postdoctoral Fellow 2010-2012
Currently Staff Scientist at MD Anderson
Albert Chang – Radiation Oncology Resident 2011-2012
Currently Associate Professor, UCLA
Efrem Mebrahtu - Postdoctoral Fellow 2009-2012
Currently Staff Scientist at Novartis

Oluwatayo Ikotun - Postdoctoral Fellow 2009-2013
Currently Assistant Professor at UCLA

Tara Mastren – Chemistry Graduate Student 2011-2014
Currently Associate Professor of University of Utah

Vernal Richards - Postdoctoral Fellow 2012-2015
Currently Staff Scientist at Spectron Rx

Nora Goscinski – Chemistry Graduate Student 2013- 2015
Currently High School Chemistry Teacher at Hazelwood West High School

Nilantha Bandara – Postdoctoral Fellow 2012-2014
Currently Staff Scientist at FDA

Brian Wright – Postdoctoral Fellow 2013-2015
Currently Research Associate at University of Alabama at Birmingham

Tolulope Aweda – Postdoctoral Fellow 2012-2015
Currently Staff Scientist at Sofie

Jennifer Bartels – Postdoctoral Fellow 2012-2015
Currently Research Associate at University of Alabama at Birmingham

Andrew (Lake) Wooten - Biomedical Engineering Graduate Student 2012-2015
Currently Independent Consultant

Bernadette Marquez - Postdoctoral Fellow 2012-2016
Currently Associate Professor at University of Alabama at Birmingham

Xingyu Nie – Biomedical Engineering Graduate Student 2012-2017
Currently Medical Physicist at the University of Kentucky

Lauren Radford – Postdoctoral Fellow 2016-2018
Currently Staff Scientist at Nusano

Stacy Queern – Chemistry Graduate Student 2014-2018
Currently Staff Scientist at Oak Ridge National Laboratory

Adriana Massicano – Postdoctoral Fellow 2016-2019
Currently Staff Scientist at Telix

Hailey Houson – Postdoctoral Fellow 2018-2020
Currently Staff Scientist at University of Alabama at Birmingham

Christopher “Shaun” Loveless - Chemistry Graduate Student 2015-2020
Currently Staff Scientist at Nusano

Ivis Chaple – Biochemistry Graduate Student 2016-2021
Currently Assistant Professor at University of Tennessee, Knoxville

Jennifer Pyles – Chemistry Graduate Student 2018-2023
Currently Staff Scientist, University of Alabama at Birmingham, Chemistry

Maxwell Ducharme – Biochemistry Graduate Student 2017-2023
Currently Senior Radiochemist at Kettering Health

Candace Parker – Chemistry Graduate Student 2017- 2023
Currently Postdoctoral Fellow at Memorial Sloan Kettering Cancer Center

Volkan Tekin – Postdoctoral Fellow 2022-2024
Currently Staff Scientist at University of Alabama at Birmingham

Shefali Saini – Chemistry Graduate Student 2020-2024
Currently Staff Scientist at Atkis

James Omweri – Chemistry Graduate Student 2021-2024
Currently Staff Scientist at Spectron Rx

Shelbie Cingoranelli – Chemistry Graduate Student 2019-2024
Currently Postdoctoral Fellow at University of Michigan

Current Trainees: Postdoctoral Fellows and Graduate Students

Grayson Gimblet - Graduate Student Trainee, M.D./Ph.D. Program 2020-present

Mangi Godara - Chemistry Graduate Student, 2022-present
Grace Liles - Chemistry Graduate Student, 2024-present

Fellowship Trainee Awards (Awarded to trainees):

American Cancer Society Postdoctoral Fellowship (Ikotun)	2010 – 2013
Imaging Sciences Pathway Graduate Student Fellowship (Wooten)	2012 – 2013
Society of Nuclear Medicine & Molecular Imaging Postdoctoral Fellowship (Marquez-Nostra)	2013 – 2015
Imaging Sciences Pathway Graduate Student Fellowship (Nie)	2014 – 2015
NIH K99/R00 Award (Marquez-Nostra)	2015 – 2017
SNMMI Predoctoral Fellowship (Chaple)	2019 – 2021
NSF Bridge to the Doctorate (Parker)	2019 – 2021
EPSCoR Graduate Research Scholars Program (Cingoranelli)	2022 – 2023

Trainee Travel Awards (Awarded to trainees):

International Symposium on Radiopharmaceutical Sciences 2025	2 awards
Workshop on Targetry and Target Chemistry 2024	3 awards
International Symposium on Radiopharmaceutical Sciences 2023	2 awards
Workshop on Targetry and Target Chemistry 2022	3 awards
International Symposium on Radiopharmaceutical Sciences 2022	2 awards
Pacificchem 2021	2 awards
International Symposium on Radiopharmaceutical Sciences 2019	1 award
Workshop on Targetry and Target Chemistry 2018	3 awards
International Symposium on Radiopharmaceutical Sciences 2017	2 awards
Workshop on Targetry and Target Chemistry 2016	2 awards
SNMMI Travel Awards 2016	2 awards
International Symposium on Radiopharmaceutical Sciences 2015	4 awards
Workshop on Targetry and Target Chemistry 2014	2 awards
Radiometals 2013	4 awards
NSSC Summer School at UC-Davis 2013	2 awards
International Symposium on Radiopharmaceutical Sciences 2013	2 awards
Workshop on Targetry and Target Chemistry 2012	2 awards
5 th Annual Meeting of the Center for Silver Therapeutics Research	1 award
17 th International Workshop on Targetry and Target Chemistry	3 awards

International Visiting Scientists Hosted

Huseyin Enginar Afyon Kocatepe University (Turkey, 2012)
Luís Alberto Pereira Dias, Instituto de Pesquisas Energéticas e Nucleares - IPEN-CNEN/SP (Brazil, 2013)
Juan Carlos Manrique, Nacional Autónoma de México (Mexico, 2014)
Raquel Benedetto, Instituto de Pesquisas Energéticas e Nucleares - IPEN-CNEN/SP (Brazil, 2015 and 2017)
Fazilet Zumrut Biber Muftuler, Ege University, Institute of Nuclear Sciences (Turkey, 2018, 2021 and 2023)
Volkan Tekin, Ege University, Institute of Nuclear Sciences (Turkey, 2019)
Theo Demartinecourt, University of Nantes (France, 2024)
Cassandra Metivier, University of Nantes (France, 2024)

GRANT SUPPORT:

CURRENT FUNDING

NIH Funding

1R41CA291316-01 (Lapi/Trotta)

08/2024-07/2025 (NCE)

NH/NCI

\$283,683

A novel platform for targeted radiopharmaceuticals for imaging and therapy of ovarian cancer

Project Goals: To develop targeted theranostic radiopharmaceuticals for ovarian cancer

FNIIH (Graves/Sunderland, U of Iowa)

07/25-07/29

Biomarkers Consortium Precision Dosimetry Imaging Biomarker Project (PDIB)

Role: Principal Investigator on UAB subcontract

Project1: Establishment of an international network of academic secondary standards laboratories.

5P30CA013148-50 (Sleckman)

04/01/22 – 03/31/27

NIH

Comprehensive Cancer Center Core Support Grant.

Project Goals: The UAB O'Neal Comprehensive Cancer Center serves as a major source for effective approaches to cancer prevention, diagnosis, treatment, survivorship and as source for delivery of these discoveries, public and professional education, and ultimately as a resource for the local, regional, and national community.

Role: Co-Investigator, Program Leader

1R01HL168588-01A1 (Kotagiri, University of Cincinnati)

07/01/2023 – 06/30/2027

NHLBI/NIH

\$441, 306 (UAB sub)

Siderophore based molecular imaging of pulmonary infections.

Project Goals: The goal of this proposal is to determine the conditions for binding of different siderophores to different radiometals and then perform *in vivo* studies with pairs to detect relevant bacterial infections *in vivo*.

Role: Principal Investigator on UAB subcontract

R21CA289166 (Sorace)

12/2022 –11/2025

NCI/NIH

Mathematical Modeling and Molecular Imaging to Maximize Response While Minimizing Toxicities from Systemic Therapies in Preclinical Models of Breast Cancer

Major Goals: Our overarching goal is to utilize biology-based mathematical models and advanced molecular imaging to dramatically decrease systemic toxicities while either maintaining or accelerating tumor control in preclinical models of breast cancer.

Role:co-I

R01CA276540 (Sorace)

03/2025 –2/2027

NCI/NIH

Advanced PET/MRI to Quantify Heterogeneity of HER2 and Vasculature in HER2+ Breast-to-Brain Metastasis Prior to Combination Targeted and Radiotherapy

Major Goals The overall goal of this proposal is to integrate advanced molecular imaging of HER2 expression and vascularity to assess treatment response to radiation following quantification of targeted HER2 bioavailability and heterogeneity in HER2+ breast-to-brain metastasis

Role:co-I

DOE/DOD/NSF/Foundation Funding

DOE (Yennello, Texas A&M) 04/2022 – 03/2027 (renewal)

HIPPO: Horizon-broadening Isotope Production Pipeline Opportunities

Project Goals: Develop a traineeship in isotope research and development and production.

Role: UAB PI

DESC0020197 (Lapi) 06/19– 05/22 \$500,000 (initial)
DESC0021269 (Lapi) 06/22– 6/25 \$2,349,253 (renewal)
DESC0021269 (Lapi) 8/25 - 8/28 \$3,638,007 (renewal)

DOE

Expansion of UAB Isotope Production Capabilities to Enable Participation in the DOE UIN

Project Goals: The goal of this project is to expand the infrastructure associated with isotope production capabilities of the UAB cyclotron facility.

DESC0021269 (Wilbur, UWash) 8/25 - 8/28

DOE

Production, Quality Control and Shipment of Radionuclides from the University of Washington

Over the course of this project we will be responsible for development of techniques for electroplating Cadmium targets suitable for cyclotron radiation. We will investigate target backing, electrodes and electrodeposition solution composition. .

HT9425-25-1-0491 (Marquez-Nostra) 07/2025-06/2028

DOD

Macrophage-Centric Prognostic Biomarkers for Checkpoint Blockade Immunotherapy in Melanoma

Major Goals: This project is focused on developing macrophage-centric prognostic biomarkers for checkpoint blockade immunotherapy in melanoma

Role:co-I

The ChadTough Foundation (Kamata) 07/2025-06/2028

The ChadTough Foundation

An Innovative DIPG Therapy Using a Brain Penetrable Polymer-modified Nanomedicine

Major Goals: The major goal of this project is to develop an effective and safe treatment for DIPG by leveraging an antibody-drug conjugate (ADC).

Role:co-I

Internal Funding

O'Neal Comprehensive Cancer Center (Lapi) 04/04/2023-03/31/2025

A novel theranostic approach for targeting TSH in thyroid cancer \$160,000

Project Goals: to develop novel imaging and therapeutic strategies for RAI-R thyroid cancer.

UAB-Radiology Research Initiative Pilot Award (Lapi)

UAB

\$20,000

Imaging with [⁸⁹Zr]panitumumab-PET/MRI in patients with newly diagnosed colorectal cancer

This pilot study will investigate the utility of PET imaging with [⁸⁹Zr]Panitumumab for imaging of EGFR expression in newly diagnosed colon cancer patients to assess lymph node involvement.

Role: PI

Industry Funding

Oncurie (Lapi)	01/2024-12/2025
Industry	\$75,936
Preclinical Radiochemistry and Therapy studies with Porphyrin-Folate Conjugates	
Lantheus	10/2023-09/2025
Industry	\$202,564
Onboarding of ¹⁸ F-PYL	
Clarity Pharmaceuticals (Lapi)	11/2023-11/2026
Industry	\$200,000
Development of Metabolite Analysis Methods for [⁶⁴ Cu]radiopharmaceuticals	

COMPLETED PROJECTS

NIH Funding

1P01CA240307-01 (Schnitzer,PRISM) 07/19 – 06/24
NIH/NCI \$3,400,000 (Total UAB subcontract)
Precision Delivery and Imaging to Enhance Solid Tumor Therapy
Project Goals: The overall goal of this program project grant is to develop the precision delivery, imaging and therapy platform to create novel imaging and therapeutic agents that actively penetrate primary and metastatic solid tumors in preclinical models and in patients.
Role: Core Leader, Project Leader

R01NS109529 (Younger) 07/01/2019 – 03/31/2024
NINDS/NIH \$2,338,149
Measuring Neuroinflammation in Chronic Fatigue Syndrome with Whole-Brain Magnetic Resonance
Project Goals: The goal of this project is to investigate the use of positron emission tomography with DPA- 714 to imaging neuroinflammation in patients with chronic fatigue syndrome.
Role: Co-Investigator

R21DE029603 (Amm) 07/01/2021 – 06/30/2023
NIH \$362,156
Non-Invasive Imaging of Ameloblastomas
Project Goals: The proposed research will develop imaging techniques for ameloblastomas.
Role: Co-Investigator,

R21CA245580-01(Jaskula-Sztul/Lapi; MPI) 07/20-06/22
NIH/NCI \$381,830
Imaging of alterations in SSTR2 expression with histone deacetylase (HDAC) inhibitors treatment for neuroendocrine tumors
The major goal of this project is to characterize the HDAC inhibitor treatment-induced and enhanced SSTR2 expression in in neuroendocrine tumor cell lines and xenografts for improved detection and therapy.

S10OD032244 (Lapi) 02/22 – 01/23
NIH \$236,700
Synthra MelPlus Research with HCN/CO Options and Radchrom Plus for the UAB Cyclotron Facility
The requested new synthesizer, the Synthra Mel Plus Research with self- cleaning and HCN/CO options, will enable robust support of current funded projects, set the stage for long term growth for preclinical and human studies requiring new 11C radiotracers, and give the facility infrastructure additional capacity to simultaneously synthesize multiple 11C-labeled tracers for human use.
Role: PI

5P30CA013148 (Sleckman) 04/19 – 03/22
NIH
Comprehensive Cancer Center Core Support Grant. Small animal imaging shared facility
Project Goals: The small animal imaging resource has the goal to support molecular imaging applications for cancer, including early detection of cancer and therapy evaluation. The facility will provide detailed imaging evaluation of new cancer treatments, and thereby accelerate their translation to human trials.
Role: Co-Investigator, Program Leader

R41HL147640 (Lapi/Ralph, MPI) 09/19 - 08/21
NIH/NHLBI \$225,000
Gallium 68 Tilmanocept for PET Imaging of Atherosclerosis Plaques
Project Goals: This project seeks to develop a gallium-68 (68Ga) labeled radiopharmaceutical diagnostic imaging agent, 68Ga-tilmanocept, for positron emission tomography (PET) imaging of atherosclerotic plaques in the walls of arteries and characterization of their inflammatory microenvironments.
Role: PI

1R01CA200979-01 (Lapi) 09/16-08/20
NIH/NCI \$1,345,052 total costs
Radiolabeled Antibodies Targeting LAT1 for Imaging and Therapy of Prostate Cancer
The overall goal of this project is to develop and evaluate radiolabeled antibody constructs selective for LAT1 as positron emission tomography (PET) and therapeutic agents that overcome the substantial limitations of currently available tracers.
Role: PI

1R01HD086323-01 (Garbow, Washington University) 6/15-05/20
Washington University/NIH \$652,301
Integrated Placental Imaging: Novel Methods for Probing Function and Metabolism
The overall goal of this grant is to develop and validate robust, non-invasive imaging technologies for placental function assessment that will readily translate to human studies.
Role: PI on UAB subcontract

1R21CA182945-01 (Dehdashti) 01/14-12/15
NIH
A Feasibility PET Study of HER2 Receptors in Breast Cancer Using ⁸⁹Zr-Trastuzumab.
Role: Co-Investigator
The goal of this grant is to perform a pilot study with goals of demonstrating the feasibility of imaging breast cancer patients with ⁸⁹Zr-trastuzumab-PET, evaluating the relationship between

tumor ⁸⁹Zr- trastuzumab uptake and in vitro status of HER2, assessing the safety of ⁸⁹Zr- trastuzumab and determining the human dosimetry of this radiopharmaceutical.

HHSN268201000046 (Gropler/Brody)

08/10-07/15

NIH

\$17.8M total costs (Lapi subaward - \$260,000)

Integrated Nanosystems for Diagnosis and Therapy

Role: Co-Investigator

The central mission of this project is to develop a group of well-characterized and versatile nanoscale agents that can be assembled, labeled, targeted, filled, and activated as needed for the diagnosis and treatment of various diseases of relevance to the National Heart Lung and Blood Institute (NHLBI).

DOE/NSF Funding

DESC0021279 (Lapi)

09/20 – 08/24

DOE EPSCoR

\$749,178

Production, Purification and Characterization of Radioisotopes via Neutron Spallation

This project will involve the development of separation techniques for radioisotope production at UAB, using radiotracer analogues produced using the TR24 cyclotron, which would directly translate to separations of the desired isotopes produced at LANL via neutron spallation.

NSF (OnCurie/Lindsey, North Carolina State University)

01/2023-01/2024

\$66,398

Self-assembling molecular brachytherapy for treatment of metastatic cancer

Role: UAB PI

DOE (Lapi)

\$390,000

Production of Radioisotopes of Scandium for Imaging and Therapy

Project Goals: To develop techniques for the production of important medical isotopes of scandium; ⁴³Sc, ⁴⁴Sc, and ⁴⁷Sc. By leveraging complementary infrastructure available at the three collaborating institutions, we aim to set up a robust supply source for these isotopes.

Role: PI

DESC0023159 (Lapi)

07/22-05/23

U.S. Department of Energy

\$20,000

Support for Students, Postdoctoral Fellows and Trainees to Attend the 2022 Workshop on Targetry and Target Chemistry (WTTC).

DESC0017912 (Lapi)

08/17-08/19

DOE

\$299,980 total costs

Production of Radiohalogens: Bromine and Astatine for Imaging and Therapy

Role: PI

This collaborative proposal aims to research the efficient production of high purity, clinical grade radiohalogens for preclinical and translational applications by optimizing the cyclotron targetry and separation chemistry of ^{76,77}Br and ²¹¹At for use in imaging and therapeutic experiments.

DESC0015773 (Lapi)

03/16-06/18

DOE

\$286,000 total costs

Production of the Medically Important Radionuclides ⁵²Mn and ⁹⁰Nb

Role: PI

This collaborative proposal will create an integrated program of radionuclide production and research activities aimed toward the efficient isolation and characterization of the medically-relevant nuclides ^{52}Mn and ^{90}Nb .

DE-SC0018900 (Lapi) 12/17-11/18
DOE \$9,000

Bursary Program for ACS radiochemistry symposium

The overall goal of this project is to obtain financial support for students, postdoctoral fellows and trainees to attend nuclear and radiochemistry-related symposia at the 2018 Spring ACS meeting in New Orleans.

DESC0015558 (Lapi) 05/16-05/18
(UAB transfer and supplement)
\$338,351 total costs

DESC0013662 (Lapi) 04/15-12/15
DOE \$230,000 total costs

Potential for Isotope Harvesting at FRIB

Role: PI

The Facility for Rare Isotope Beams (FRIB) will be a new national user facility for nuclear science, funded by the Department of Energy Office of Science (DOE-SC) Office of Nuclear Physics and operated by Michigan State University (MSU). This nuclear physics facility will generate a host of new isotopes that could be “harvested” for off-line use without affecting the users of the radioactive ion beam facility. This project is a continuation of feasibility studies to harvest useful long-lived radioisotopes from the Facility for Rare Isotope Beams (FRIB) under similar conditions available now at the National Superconducting Cyclotron Lab (NSCL).

DESC0006435 (Lapi) 10/11-6/17
DOE \$750,000 total costs

Production of $^{99\text{m}}\text{Tc}$ using a medical cyclotron

Role: PI

The goal of this project is to investigate to production capability of $^{99\text{m}}\text{Tc}$ using a small medical cyclotron. Production rates will be determined and targetry, separation and quality control procedures will be developed.

DESC0006862 (Lapi) 10/11-12/15
NNSA (sub from UCB) \$25M total costs (Lapi subaward \$900,000 total)

National Nuclear Science Consortium

Role: Principal Investigator, Washington University

The goal of this project is to provide a pipeline of nuclear educated experts to work in the fields of nuclear chemistry and physics. To this end students and postdocs will gain experience in isotope production and separation techniques which are applicable in a variety of fields.

DESC0008432 (Lapi) 09/12-12/15
DOE \$2,000,000 total costs

Training in Techniques and Translation: Novel Nuclear Medicine Imaging Agents for Oncology and Neurology

Role: PI

The goal of this proposal is to provide critical interdisciplinary research training for the next generation of radiochemists and nuclear medicine physicians. This multidisciplinary team consists of tenured and tenure-track basic science and clinical faculty who are actively involved in the development, application, and translation of radiopharmaceuticals. The research and

training plans are also supported through outstanding clinical research collaborators in neurology, immunology, oncology and neurosurgery.

DESC0012737 (Dehdashti/Lapi)

10/14-12/15

DOE

\$1,000,000 total costs

Interdisciplinary Training in Translational Radiopharmaceutical Development and Nuclear Medicine Research for Oncologic, Neurologic, and Cardiovascular Imaging

Role: Co-PI

The goal of this proposal is to provide outstanding, clinically relevant translational research training for the next generation of imaging scientists and clinicians to develop, translate, and apply radiopharmaceuticals for human studies

DESC00002032 (Lapi)

09/08-8/13

DOE

\$1,722,268 total costs

Integrated Research Training Program of Excellence in Radiochemistry

Role: PI

The goal of this training grant is provide a rich and deep research experience in state-of-the-art radiochemistry and in the fundamentals of radioisotopic labeling and tracer methodology to develop researchers who will be capable of meeting the challenges of designing and preparing radiotracers of broad applicability for monitoring and imaging diverse biological systems and environmental processes.

DESC0007352 (Lapi/Peaslee at Hope College)

01/12-12/13

DOE

\$840,000 total costs (Lapi subaward \$229,800)

Potential for Isotope Harvesting at FRIB

Role: Co-PI

The Facility for Rare Isotope Beams (FRIB) will be a new national user facility for nuclear science, funded by the Department of Energy Office of Science (DOE-SC) Office of Nuclear Physics and operated by Michigan State University (MSU). This nuclear physics facility will generate a host of new isotopes that could be "harvested" for off-line use without affecting the users of the radioactive ion beam facility. This project is a feasibility study to harvest useful long-lived radioisotopes from the Facility for Rare Isotope Beams (FRIB) under similar conditions available now at the National Superconducting Cyclotron Lab (NSCL).

DESC0008657 (Lapi)

08/12-07/14

DOE

\$305,592 direct

Production of Positron Emitting Radiometals: Cu-64, Y-86, Zr-89

Role: PI

This proposal seeks support to increase our production of yttrium-86 and zirconium-89 production while continuing to produce copper-64.

DESC0002114 (Lapi)

10/09-9/12

DOE

\$594,000 total costs

Novel, dually radiolabeled peptides for simultaneous monitoring of enzymatic activity and protein targets

Role: Principal Investigator

DESC0004038 (Welch)

10/10-09/12

DOE

\$420,000 total costs (Lapi subaward - \$124,800)

Improved Production and Separation Technologies for non-standard PET Isotopes

Role: Project 1 Principal Investigator

Internal Funding

University of Alabama Health Services Foundation 11/01/2019 – 10/31/2022 (NCE)
University of Alabama Health Services Foundation \$132,272
Infrastructure for Investigator Initiated Molecular Imaging Trials
Project Goals: This project provides support for a clinical coordinator and image analysis infrastructure for investigator initiated clinical trials at UAB

UAB AMC 21 (Lapi, Larimer, McConathy, Sorace) 01/19-12/22
UAB \$300,000
Imaging in Cancer Immunotherapy
2019 AMC21 Multi-PI pre-proposal
Role: PI

UAB-Faculty Development Grant (Lapi) 7/17-6/19
\$50,000
Profiling molecular markers in prostate cancer relevant to imaging and therapy
Role: PI
In this pilot grant, we will measure the presence and amounts of key molecular targets using immunohistochemistry (IHC) and binding of molecular imaging agents in human prostate cancer tissue.

UAB-HSF (Lapi) 11/16-10/18
\$65,350
GE FASTLab 2 for the UAB Cyclotron Facility
Role: PI
The overall goal of this project is to enhance the capabilities of the UAB Cyclotron Facility. Rapid, efficient and cost-effective of short lived positron emission tomography (PET) radiopharmaceuticals is a key component of a successful clinical and translation PET program.

AMC21 (Lapi) 7/16-6/18
UAB Department of Radiology \$50,000
PET imaging with ⁸⁹Zr-Trastuzumab for prediction of HER2 targeted monotherapy effectiveness
Role: PI
Our goal is to investigate the use of ⁸⁹Zr-trastuzumab as a HER2 imaging agent to determine which patients are likely to respond to targeted HER2 agents as single agent therapy.

DCDC Pilot (Woodard) 11/12-11/15
(renewed in competitive renewal)
Washington University Diabetic Cardiovascular Disease Center
Role: Co-Investigator
The overall goal of this project is to investigate the use of ⁶⁴Cu-ATSM PET imaging for determination of hypoxia in atherosclerotic plaques.

Industry Funding

RayzeBio 08/2024-07/2025
Industry \$131,900

Radiolabeling and Preparation of a CMC section for 68Ga-RYZ811

ITM industries (Lapi)

Industry \$110,859

Radiolabeling, Preparation of a CMC section and IND submission for 18F-AzaFol

Fusion Pharmaceuticals (Lapi)

08/2022-07/2024

\$438,972

Preclinical imaging studies for assessment of the impact of the radioisotope on the imaging characteristics and pharmacokinetics of Neurotensin targeting compounds

The goal of this study is to investigate PET and SPECT imaging with ⁸⁹Zr, ⁶⁴Cu, ¹¹¹In and ¹⁷⁷Lu constructs of Fusion's NT ligand (NLT) to determine suitability for future development

Riptide (Lapi)

03/2023-09/2023

Industry

\$76,219

Preclinical Imaging Studies for Assessment of [68Ga] RP832c in a Bleomycin Lung Injury Model

Viewpoint Molecular Targeting, Inc. (Lapi)

09/18/2021-06/17/2024

Industry

\$128,770

Production of ²⁰³Pb for Radiochemistry and Preclinical Studies

Genzyme Corporation (Lapi)

08/01/2021 – 07/31/2023

Industry

\$293,717

Development of a PET imaging agent for CD38 based on Isatuximab

Cytosite Biopharma Inc. (McConathy)

03/11/2020– 03/10/2024

Industry

\$260,000

First in Human Safety of [68Ga]-NOTA-hGZP- PET Imaging in Subjects with Melanoma or Non-Small Cell Lung Cancer (NSCLC) Treated with Pembrolizumab

Project Goals: The goal of this project is to conduct First in Human Safety of [68Ga]-NOTA-hGZP- PET Imaging in Subjects with Melanoma or Non-Small Cell Lung Cancer (NSCLC) Treated with Pembrolizumab.

Role: Co-Investigator

Southern Research/Sonnet Bio

03/2022 – 03/2023

\$85,387

Radiolabeling Method Development and Melanoma Biodistribution Study

The overall goal of this study is to provide radiolabeling method development of human and mouse IL12 conjugates

Role: PI

Navidea Biopharmaceuticals

02/22 – 06/22

\$75,122

Preclinical Imaging Studies for Assessment of Galactosylated Dextran Imaging Agent for Liver Visualization

The goal of this study is to investigate PET imaging with a [⁶⁸Ga]galactosylated dextran construct ([⁶⁸Ga]GDC) to capture the data for imaging agent localization in the liver (in rats) to set the stage for future studies in NASH or cancer models

Role: PI

ImaginAb (McConathy) 02/13/2019 – 02/12/2022
Industry \$195,000
A Phase II, Open Label, Multi-Dose Study of 89Zr-Df-IAB22M2C (CD8 PET Tracer) for Positron Emission Tomography (PET/CT) in Patients with Metastatic Solid Tumors
Project Goals: The goal of this project is to conduct a Phase II clinical trial with the imaging agent 89Zr-Df-IAB22M2C.

Bristol Myers Squibb (Lapi) 04/21-11/21
Industry \$125,147
Preparation and Radiolabeling of 18F-BMS-986327
Role: PI
Project Goals: In order to participate in an upcoming clinical trial (Sponsor: BMS), we aim to validate chemistry for preparation of 18F-BMS-986327, prepare all SOPs and conduct 3 validation runs for preparation of a paper based Chemistry Manufacturing and Controls (CMC) section for inclusion in an IND to be submitted to the FDA.

Nusano (Lapi) 02/21-04/21
Industry \$7,562
Role: PI
The purpose of this project is to perform Ge-68 experiments using the liquid-liquid extraction (LLE) method.

Navidea Biopharmaceuticals, Inc. (Lapi) 04/20-10/21
Industry \$271,602
Preclinical imaging studies for assessment of Tilmanocept based construct biodistribution in a syngeneic rat model
Role: PI
In order to assess the impact of molecular weight on the tumor uptake of 99mTc Tilmanocept, Navidea will provide separated molecular weight species to UAB. These compounds will be radiolabeled with 99mTc and the distribution will be assessed in a tumor bearing syngeneic rat model via SPECT/CT imaging and ex vivo biodistribution.

Mike Slive Foundation Pilot Grant in Prostate Cancer (Lapi) 01/19-01/21
Foundation \$50,000
Role: Co-PI
This pilot study will investigate targeting the amino acid transporter LAT1 to treat aggressive prostate cancer.

Clovis Oncology (Lapi) 11/20-05/21
Industry \$113,363
Radiolabeling and Preparation of a CMC section for 68Ga-FAP 2286

Last Call Foundation (Lapi) 04/19-04/20
\$50,000
Dermal Absorption Studies of Perfluorinated Alkyl Substances
For this project, we propose to conduct the first dermal absorption studies with ¹⁸F radiofluorinated PFAS to determine how quickly specific PFAS get absorbed through the skin of healthy mice by measuring the amount of radioactivity in blood samples over time.
Role: PI

Theranostics (Lapi) 08/18-07/19

\$28,989

Preparation and delivery of SOPs and validation data for a Chemistry Manufacturing and Controls (CMC) section as part of an FDA Investigational New Drug (IND) Application.

Role: PI

Precursor kits of ^{68}Ga -THP-PSMA will be provided by Theragnostics and compounded with ^{68}Ga from an Eckert and Ziegler GalliPharm generator under sterile conditions. The CMC section will be combined with the ^{68}Ga -THP-PSMA clinical imaging protocol and submitted to the appropriate regulatory bodies within UAB. After this, the completed IND package will be prepared and submitted the FDA. Once approved, we will provide human use ^{68}Ga -THP-PSMA on a per patient basis.

ImaginAb (Lapi)

12/18-07/19

\$25,140

Preclinical Assessment of ^{177}Lu ImaginAb Protein Constructs

Role: PI

The purpose of this study is to measure the biodistribution of ^{177}Lu minibodies in BALB/C mice. Both ^{177}Lu - DTPA-IAB2MA and ^{177}Lu - DOTA-IAB2MA will be studied.

Navidea Biopharmaceuticals, Inc. (Lapi)

02/18-01/19

\$43,011

Development of chemistry methods and stability studies for Cu-Tilmanocept

Role: PI

During the course of this proposal, we aim to optimize and validate the chemistry required to load Tilmanocept with Cu cargo in a robust and reproducible fashion. This will include the use of a ^{64}Cu radiotracer technique to measure optimal chemistry for maximal loading, purification from unbound Cu, and stability studies of the final Cu-Tilmanocept complex.

C100212 (Lapi)

03/17-06/18

AbbVie Inc.

\$252,381 total costs

Development of a Human Use ABBV-8E12 Based PET imaging Agent for Tau

Role: PI

The overall goal of this project is the preparation and delivery of SOPs, dosimetry and validation data for an FDA Investigation New Drug (IND) Application in order to initiate clinical trials with ^{89}Zr -DFO-ABBV-8E12

Navidea Biopharmaceuticals, Inc. (Lapi)

02/17-05/17

Industry

\$ 28,645

Development of a Metabolite Analysis Method for ($^{99\text{m}}\text{Tc}$) Tilmanocept

Role: PI

In order to assess the pharmacokinetics and metabolism of [$^{99\text{m}}\text{Tc}$]Tilmanocept for the upcoming clinical trial "A Phase I, Open-Label Study to Investigate the Pharmacokinetics and Dosimetry of Tc 99m Tilmanocept Following a Single Intravenous Dose Administration in Male and Female Subjects Diagnosed with Rheumatoid Arthritis", we aim to develop a method to characterize the molecular weight distribution profile of [$^{99\text{m}}\text{Tc}$]tilmanocept in plasma and urine.

Industry Contract (Lapi)

06/14-12/15

GSK

\$65,072 direct

PET imaging for assessment of the in vivo biodistribution and pharmacokinetics of GSK3052230

Role: PI

The goal of this project is to develop radiolabeled GSK3052230 for assessment of the biodistribution, pharmacokinetics and potential imaging attributes of this construct.

Industry Contract (Lapi)

ImaginAb

04/14-04/15

\$57,754 direct

Preparation of ⁸⁹Zr- Df-IAB27FA for Human Use

Role: PI

The goal of this proposal is to prepare a diagnostic radiopharmaceutical based on this agent in preparation for clinical trials aimed to assess dosimetry and image quality.

1355 (Lapi)

ACRIN

01/12-12/14

\$234,000 direct

ACRIN 6682 IND Agent Distribution

Role: PI

The goal of this project is to provide the radiopharmaceutical [⁶⁴Cu]ATSM for human use to support a clinical trial

0123820001 (Lapi)

Pfizer

05/12-05/13

\$48,774 direct

Preclinical Imaging of GLP-1R

Role: PI

The goal of this project is to obtain preclinical data in rats for a ⁶⁴Cu PET radioligand in preparation for first in human studies with a targeted therapeutic oral agent (Pfizer) to confirm GLP-1 receptor occupancy.

Glaxosmithkline (Lapi)

Corporate funding

12/10-12/11

\$154,401

Title: ¹¹C-acetate imaging of response to therapy

Role: Principal Investigator

Midwest Stone Institute (Lapi)

(Role: Principal Investigator)

03/10-03/11

\$50,000

Imaging Research

Title: Preclinical Molecular Imaging of Metabolic Response to Antiangiogenic Therapy in Prostate Cancer

PATENTS:

Lapi, S. Ruth, T.J., Becker, D.W. "Method and apparatus for isolating rhenium-186 for therapeutic and/or diagnostic radiopharmaceuticals." US 2008241025

Publicover, J.G., **Lapi, S.E.**, Ruth, T.J. "Method for calibrating particle beam energy" US 2007016783

BIBLIOGRAPHY:**MANUSCRIPTS:****Published Manuscripts**

1. **Lapi, S.**, Ruth, T.J., Zyuzin, A., D'Auria, J.M. (2003) Development of an intense ¹⁵O radioactive ion beam using low energy protons. *Nuclear Instruments and Methods B*. 204: 444-446
2. Britto, D.T., Ruth, T.J., **Lapi, S.**, Kronzucker. H.J. (2004) Cellular and whole-plant chloride dynamics in barley: Insights into chloride-nitrogen interactions and salinity responses. *Planta*. 218: 615-622

3. Sossi, V., Buckley, K., Piccioni, P., Rahmin, A., Camborde, M., **Lapi, S.**, Ruth, T.J. (2005) Printed Sources for Positron Emission Tomography. *IEEE Nuclear Science*. 52: 114-118
4. Guo, B., Liu, W.P., Trinczek, M., **Lapi, S.**, Ames, F., Buckley, K.R., D'Auria, J.M., Jayamanna, K., Ruiz, C., Ruth, T.J. (2006) Production of intense radioactive beams using low energy protons. *High energy physics and nuclear physics (Chinese edition)*. 30: 675-679
5. Trinczek, M., **Lapi, S.**, Guo, B., Ames, F., Buckley, K.R., D'Auria, J.M., Jayamanna, K., Liu, W.P., Ruiz, C., Ruth, T.J. (2006) Production of intense radioactive beams at ISAC using low energy protons. *Canadian Journal of Physics*. 84: 323-333
6. Heath, S.J., Olson, J.A., Buckley, K. R., **Lapi, S.**, Ruth, T.J., Martinez, D.M. (2007) Visualization of the flow of a fiber suspension through a sudden expansion using PET. *American Institute of Chemical Engineering Journal*. 53: 327-334
7. **Lapi, S.**, Ressler, J.J., Cox, M.E., Ruth, T.J., (2006) High-specific activity ¹⁸⁶Re-labeled antibodies for radioimmunotherapy. In Technetium, Rhenium and other metals in chemistry and nuclear medicine, *U. Mazzi, ed, S.G. Editoriali, Padova*. 2006. 593-596
8. **Lapi, S.**, Wilson, J., McQuarrie, S., Publicover, J., Schueller, M., Schyler, D., Ressler, J.J., Ruth, T.J. (2007) Measurement of production cross-sections of ¹⁸¹⁻¹⁸⁶Re isotopes from proton bombardment of natural tungsten. *Applied Radiation and Isotopes*. 65: 345-349
9. Ferreira, C.L., **Lapi, S.**, Steele, J., Green, D.E., Ruth, T.J., Adam, M.J. (2007) ⁵⁵Cobalt Complexes with Pendant Carbohydrates as Potential PET Imaging Agents. *Applied Radiation and Isotopes*. 65:1303-1308
10. Ruprecht, G., Vockenhuber, C., Buchmann, L., Woods, R., Ruiz, C., **Lapi, S.**, Bremmerer, D. (2008) Precise measurement of β -decay and EC modifications in low temperature metal hosts. *Physics Review C*. 77: 065502
11. Annett, A. L., **Lapi, S.**, Ruth, T.J., Maldonado, M.T. (2008) The effects of Cu and Fe availability on the growth and Cu:C ratios of marine diatoms. *Journal of Limnology and Oceanography*. 53: 2451-2461
12. Kronenberg, A., Spejewski, E.H., Carter, H.K., Mervin, B., Jost, C., Stracener, D.W., **Lapi, S.**, Bray, T. (2008) Molecular sidebands for refractory elements for ISOL. *Nuclear Instruments and Methods B*. 266: 4252-4256
13. **Lapi, S.E.**, Voller, T., Welch, M.J. (2009) Positron Emission Tomography Imaging of Hypoxia. *PET Clinics*. 4: 39-47
14. **Lapi, S.E.**, Wahhnische, H., Pham, D., Wu., L.Y., Nedrow-Byers, J.R., Liu, T., VanBrocklin, H.F., Berkman, C.E. Jones, E.F. (2009) Assessment of a [¹⁸F]-labeled phosphoramidate peptidomimetic as a new PSMA targeted imaging agent for prostate cancer. *Journal of Nuclear Medicine*. 50:2042-8
15. **Lapi, S.E.**, Ladouceur, K., Ruth, T.J., D'Auria, J.M. (2010) The MoRe project: An alternative route to the production of High Specific Activity ⁹⁹Mo In Technetium, Rhenium and other metals in chemistry and nuclear medicine. *U. Mazzi, ed, S.G. Editoriali, Padova*. 2010. 435-436
16. Guo, J., Annett, A. L., Taylor, R. L., **Lapi, S.**, Ruth, T. J. and Maldonado, M. T. (2010), Copper-uptake kinetics of coastal and oceanic diatoms. *Journal of Phycology*. 46: 1218–1228.
17. Gagnon, K., Jensen, M., Thisgaard, H., Publicover, J., **Lapi, S.**, McQuarrie, S.A., Ruth, T.J. (2010) A new and simple calibration-independent method for measuring the beam energy of a cyclotron. *Applied Radiation and Isotopes*. 69(1):247-53.
18. Ikotun, O., **Lapi, S.** (2011) The rise of metal radionuclides in medical imaging: copper-64, zirconium-89 and yttrium-86. *Future Medicinal Chemistry*. 2011 3(5), 599-621
19. Chang, A.J., DeSilva, R., Jain, S., Lears, K., Rogers, B., **Lapi, S.E.** (2012) ⁸⁹Zr-Radiolabeled Trastuzumab Imaging in Orthotropic and Metastatic Breast Tumors. *Pharmaceuticals*. 5(1), 79-83

20. **Lapi, S.E.**, Welch, M.J. (2012) A Historical Perspective on the Specific Activity of Radiopharmaceuticals: What have we learned in the 35 years of the ISRC? *Nuclear Medicine and Biology*. 39(5), 601-8
21. Kume, M., Carey, P.C., Gaehle, G., Madrid, E., Voller, T., Margenau, B., Welch, M.J., **Lapi, S.E.**, (2012) A Semi-Automated System for the Routine Production of Copper-64. *Applied Radiation and Isotopes*. 70(8), 1803-6
22. Lin, M., Ranganathan D., Mori, T., Hagooley, A., Rossin, R., Welch, M.J., **Lapi, S.E.** (2012) Long-term evaluation of TiO₂-based ⁶⁸Ge/⁶⁸Ga generators and optimized automation of ⁶⁸Ga-DOTATOC radiosynthesis. *Applied Radiation and Isotopes*. 70(10), 2539-44
23. Chang, A.J., DeSilva, R, **Lapi, S.E.** (2013) Development and Characterization of ⁸⁹Zr-labeled Panitumumab for ImmunoPET Imaging of the EGF Receptor. *Molecular Imaging*. 12(1), 17-27
24. Mebrahtu, E., Zheleznyak, A, Hur, M., **Lapi, S.E.**(2013) Initial characterization of a dually radiolabeled peptide for simultaneous monitoring of protein targets and enzymatic activity. *Nuclear Medicine and Biology*. 40(2), 190-6
25. D'Auria, J.M., Keller, R., Ladoucer, L., **Lapi, S.E.**, Ruth, T.J., Schmor, P. (2013) An alternate approach to the production of radioisotopes for nuclear medicine applications. *Review of Scientific Instruments*. 84(3), 034705
26. Chang, A.J., Sohn, R., Lu, Z. H., Arbeit, J.A., **Lapi, S.E.** (2013) Detection of rapalog-mediated therapeutic response in renal cancer xenografts using ⁶⁴Cu-bevacizumab ImmunoPET. *PLoS One*. 8(3):e58949
27. Lin, M., Welch, M.J., **Lapi, S.E.** (2013) Effects of Chelator Modifications on ⁶⁸Ga-Labeled [Tyr3]Octreotide Conjugates. *Molecular Imaging and Biology*. 15(5), 606-13
28. Aweda, T., Ikotun, O.F., Mastren, T., Cannon, C.L., Wright, B., Youngs, W.J., Cutler, C., Guthrie, J., **Lapi, S.E.** (2013) The use of ¹¹¹Ag as a tool for studying biological distribution of silver-based antimicrobials. *Medicinal Chemical Communications*. 4, 1015-1017
29. Richards, V., Mebrahtu, E., **Lapi, S.E.** (2013) Cyclotron Production of ^{99m}Tc using ¹⁰⁰Mo₂C targets. *Nuclear Medicine and Biology*. 40(7), 939-45
30. Wright, B., **Lapi, S.E.** (2013) Designing the Magic Bullet? The Advancement of Immuno-PET into Clinical Use. *Journal of Nuclear Medicine*. 54:1171-1174
31. Knight, J.C., Wuest, M., Saad, F.A., Wang, M., Chapman, D.W., Jans, H.S., **Lapi, S.E.**, Kariuki, B.M., Amoroso, A.J., Wuest, F. (2013) Synthesis, characterisation and evaluation of a novel copper-64 complex with selective uptake in EMT-6 cells under hypoxic conditions. *Dalton Transactions*. 42(33):12005-14
32. Jin, H., Xu, M., Padakanti, P.K., Liu, Y., **Lapi, S.E.**, Tu, Z. (2013) Preclinical Evaluation of the Novel Monoclonal Antibody H6-11 for Prostate Cancer Imaging. *Molecular Pharmaceutics*. 10(10):3655-64
33. Wooten, A.L., Madrid, E., Schweitzer, A.D., Lawrence, L.A., Mebrahtu, E., Lewis, B.C. **Lapi, S.E.** (2013) Routine Production of ⁸⁹Zr Using an Automated Module. *Applied Science*. 3(3): 593-613
34. Ikotun, O.F., Marquez, B.V., Huang, C., Masuko, K., Daiji, M., Masuko, T., McConathy, J.E., **Lapi, S.E.** (2013) Imaging the L-type Amino Acid Transporter-1 (LAT1) with Zr-89 ImmunoPET. *PLoS ONE*. 8(10):e77476
35. Zheleznyak, A., Ikotun, O.F., Dimitry, J., Frazier, W.A., **Lapi, S.E.** (2013) Imaging of CD47 Expression in Xenograft and Allograft Tumor Models. *Molecular Imaging*. 12(8):525-34.
36. Pen, A., Mastren, T., Peaslee, G.F., Petrasky, K., DeYoung, P.A., Morrissey, D.J., **Lapi, S.E.** (2014) Design and construction of a water target system for harvesting radioisotopes at the National Superconducting Cyclotron Laboratory. *Nuclear Instruments and Methods A*. 747: 62-68

37. Marquez, B.V., Ikotun, O.F., Parry, J.J., Rogers, B.E., Meares, C.F., **Lapi, S.E.** (2014) Development of a Radiolabeled Irreversible Peptide Ligand for PET imaging of VEGF. *Journal of Nuclear Medicine*. 55(6):1029-1034
38. Mastren, T., Guthrie, G., Eisenbeis, P., Voller, T., Mebrahtu, E., Robertson, J.D., **Lapi, S.E.** (2014) Specific Activity Measurement of ^{64}Cu : A Comparison of Methods. *Applied Radiation and Isotopes*. 90: 117-121
39. Ikotun, O.F., Marquez, B.V., Fazen, C.H., Kahkoska, A.R., Doyle, R.P., **Lapi, S.E.** (2014) Investigation a Vitamin B12 Conjugate as PET Imaging Probe. *ChemMedChem*. 9(6):1244-51
40. Foerster, C., Knight, J.C., Wuest, M., Rowasn, B., **Lapi, S.E.**, Amoroso, A., Edwards, P., Wuest, F. (2014) Synthesis, complex stability and small animal PET imaging of a novel ^{64}Cu -labelled cryptand molecule. *MedChemComm* 5. 958-962
41. Marquez, B.M., Ikotun, O.F., Zheleznyak, A., Wright, B., Hari-Raj, A., Pierce, R.A., **Lapi, S.E.** (2014) Evaluation of ^{89}Zr -Pertuzumab in breast cancer xenografts. *Molecular Pharmaceutics*. 11(11):3988-95
42. Mastren, T., Pen, A., Peaslee, G.F., Wozniak, N., Loveless, S., Essenmacher, S., Sobotka, L.G., Morrissey, D.J., **Lapi, S.E.** (2014) Feasibility of isotope harvesting at a projectile fragmentation facility: ^{67}Cu . *Scientific Reports*. 4:6706
43. Sharma SK, Wuest M, Wang M, Glubrecht D, Andrais B, **Lapi S.E.**, Wuest F. (2014) Immuno-PET of epithelial ovarian cancer: harnessing the potential of CA125 for non-invasive imaging. *EJNMMI Research*. 4(1):60.
44. Wooten, A.L. Lewis, B.C., **Lapi, S.E.** (2015) Cross-sections of (p,x) reactions on natural chromium for the production of $^{52,52m,54}\text{Mn}$ radioisotopes. *Applied Radiation and Isotopes*. 96; 154-161
45. Richards V.N., Rath N., **Lapi S.E.** (2015) Production and separation of ^{186g}Re from proton bombardment of ^{186}W . *Nuclear Medicine and Biology*. 6:530-5
46. Aweda, T., Zhang, S., Mupanomunda, C., Burkemper, J., Seong Heo, G. Bandara, N., Lin, M., Cutler, C.S., Cannon, C.L., Youngs, W.J., **Lapi, S.E.** (2015) Investigating the pharmacokinetics and biological distribution of silver-loaded polyphosphoester-based nanoparticles using ^{111}Ag as a radiotracer. *Journal of Labelled Compounds and Radiopharmaceuticals*. 58(6):234-41
47. Zheleznyak, A., Garbow, J.R., Neeman, M., **Lapi, S.E.** (2015) Preclinical PET imaging of acute hyperoxia therapy of chronic hypoxia during pregnancy. *Molecular Imaging*. 14:366-72.
48. Mastren, T., Marquez, B.V., Sultan, D., Bollinger, E., Eisenbeis, P., Voller, T., **Lapi, S.E.** (2015) Cyclotron production of high specific activity ^{55}Co and in vivo evaluation of the stability of ^{55}Co metal-chelate-peptide complexes. *Molecular Imaging*. 14:11-22
49. Mastren, T., Pen, A., Loveless, S., Marquez, B., Bolliger, E., Marois, B., Hubley, N., Broan, K., Morrissey, D., Peaslee, G., **Lapi, S.E.** (2015) Harvesting ^{67}Cu from the Collection of a Secondary Beam Cocktail at the National Superconducting Cyclotron Laboratory. *Analytical Chemistry*. 87(20)10323-9
50. Burkemper, J.L., Huang, C., Li, A., Yuan, Rich, K., McConathy, J., **Lapi, S.E.** (2015) Synthesis and Biological Evaluation of (S)-amino-2-methyl-4-[^{76}Br]-bromo-3-(E)-butenoic Acid (BrVAIB) for Brain Tumor Imaging. *Journal of Medicinal Chemistry*. 58(21)8542-52
51. Bandara, N., Cherkuri, K., Zheleznyak, A., Griffith, D.A., Limberakis, C., Tess, D.A., Chen, J., Waterhouse, R., **Lapi, S.E.** (2016) Evaluation of ^{64}Cu and ^{68}Ga Radiolabeled Glucagon-Like Peptide-1 Receptor Agonists as PET Tracers for Pancreatic β -cell Imaging. *Molecular Imaging and Biology*. 18(1) 90-8
52. Wright, B.D., Whittenberg, J., Desai, A., DiFelice, C., Kenis, P.J.A, **Lapi, S.E.**, Reichert, D. (2016) Microfluidic Preparation of an ^{89}Zr -Labeled Trastuzumab Single Patient Dose. *Journal of Nuclear Medicine*. 57 (5) 747-52

53. Lange, S.E.S., Zheleznyak A., Studer, M., O'Shannessy D.J., **Lapi S.E.**, Van Tine B.A. (2016) Development of ⁸⁹Zr-Ontuxizumab for in vivo TEM-1/endosialin PET Applications. *Oncotarget*. 7 (11) 13082-92
54. Wooten, A.L., Lewis, B.C., Szatkowski, D.J., Sultan D.H., Abdin, K.I., Voller, T.F., Liu, Y., **Lapi, S.E.** (2016) Calibration setting numbers for dose calibrators for the PET isotopes (52)Mn, (64)Cu, (76)Br, (86)Y, (89)Zr, (124)I. *Applied Radiation and Isotopes*. 113:89-95
55. Gordon L, **Lapi S.E.**, Anderson C, Schwarz SW; SNMMI Committee on Women in Nuclear Medicine.(2016) Working Together to Advance Women in Nuclear Medicine. *Journal of Nuclear Medicine*. 2016 Sep;57(9):14N
56. Graaf MD, Marquez BV, Yeh NH, **Lapi S.E.**, Moeller KD.(2016) New Methods for the Site-Selective Placement of Peptides on a Microelectrode Array: Probing VEGF-v107 Binding as Proof of Concept. *ACS Chemical Biology*. (10):2829-2837.
57. Nie X, Randolph GJ, Elvington A, Bandara N, Zheleznyak A, Gropler RJ, Woodard PK, **Lapi S.E.** (2016) Imaging of Hypoxia in Mouse Atherosclerotic Plaques with (64)Cu-ATSM. *Nuclear Medicine and Biology*. 2016 Sep;43(9):534-42.
58. Jin, H., Yang, H., Zhang, Y., Zhange, X., Rosenberg, A.J., Liu, Y., **Lapi, S.E.**, Tu, Z. (2016) A promising carbon-11-labeled sphingosine-1-phosphate receptor 1-specific PET tracer for imaging vascular injury. *Journal of Nuclear Cardiology*. 2016 Feb 2.
59. Laforest, R., **Lapi, S.E.**, Oyama, R., Bose, R., Tabchy, A., Marquez-Nostra, B.V., Burkemper, J., Wright, B.D., Frye, J., Frye, S. Siegel, B.A., Dehdashti, F. (2016) [⁸⁹Zr]Trastuzumab: Evaluation of Radiation Dosimetry, Safety, and Optimal Imaging Parameters in Women with HER2-Positive Breast Cancer. *Molecular Imaging and Biology*. 18(6):952-959.
60. Nie X., Laforest R., Elvington A., Randolph GJ., Zheng J., Voller T., Abendschein DR., **Lapi S.E.**, Woodard PK.(2016) PET/MR imaging of hypoxic atherosclerosis using 64Cu-ATSM in a rabbit model. *Journal of Nuclear Medicine*. 2016 Jul 7. pii: jnumed.116.172544.
61. Burkemper JL, Aweda,TA, Rosenberg AJ, Lunderberg DL, Peaslee GF, **Lapi S.E.** (2017) Radiosynthesis and biological distribution of [¹⁸F]-labeled perfluorinated alkyl substances. *Environmental Science and Technology Letters*. DOI:10.1021/acs.estlett.7b00042
62. Wooten AL, Aweda TA, Lewis BC, Gross RB, **Lapi S.E.**(2017) Biodistribution and PET Imaging of pharmacokinetics of manganese in mice using Manganese-52. *PLoS One*. 2017 Mar; 12(3):e0174351.doi:10.137
63. Queern, SL, Aweda TA, Massicano AV, Clanton, NA, El Sayed, R, Sader, JA, **Lapi, S.E.** (2017) Production of Zr-89 using sputtered yttrium coin targets. *Nuclear Medicine and Biology*. 2017 Mar 23;50:11-16. doi: 10.1016.
64. Marquez-Nostra BV, Lee S, Laforest R, Vitale L, Nie X, Hyrc K, Keler T, Hawthorne T, Hoog J, Li S, Dehdashti F, Ma CX, **Lapi S.E.**. Preclinical PET imaging of glycoprotein non-metastatic melanoma B in triple negative breast cancer: feasibility of an antibody-based companion diagnostic agent. *Oncotarget*. 2017 Nov 1;8(61):104303-104314.doi: 10.18632.
65. Radka, C. D., Radford, L. L., Massicano, A. V., DeLucas, L. J., **Lapi, S. E.**, Aller, S. G. (2018) Essential Metal Uptake in Gram-negative Bacteria: X-ray Fluorescence, Radioisotopes, and Cell Fractionation. *J. Vis. Exp.* (132), e57169, doi:10.3791/57169
66. Massicano, A.V., Marquez-Nostra, B.V., **Lapi, S.E.** (2018) Targeting HER2 in Nuclear Medicine for Imaging and Therapy. *Molecular Imaging*. 2018 January. PMID: PMC5784567.
67. Dehdashti F, Wu N, Bose R, Naughton MJ, Ma CX, Marquez-Nostra BV, Diebolder P, Mpoy C, Rogers BE, **Lapi S.E.**, Laforest R, Siegel BA. (2018) Evaluation of [⁸⁹Zr]trastuzumab-PET/CT in differentiating HER2-positive from HER2-negative breast cancer. *Breast Cancer Research and Treatment*. 2018 Feb 13. doi: 10.1007/s10549-018-4696-z.
68. Larson-Casey JL, Gu L, Jackson PL, Briles DE, Hale JY, Blalock JE, Wells JM, Deshane JS, Wang Y, Davis D, Antony VB, Massicano AVF, **Lapi S.E.**, Carter AB. (2018) Macrophage Rac2 Is Required to Reduce the Severity of Cigarette Smoke-induced Pneumonia.

- American Journal of Respiratory and Critical Care Medicine*. 2018 Jun 13. doi: 10.1164/rccm.201712-2388OC.
69. Queern, S.L., Cardman, R., Loveless, C.S., Shepherd, M.R, **Lapi, S.E.** (2018) Production of ^{15}O for medical applications via the $^{16}\text{O}(\gamma, n)^{15}\text{O}$ reaction. *Journal of Nuclear Medicine*. 2018 Sep 20. doi: 10.2967/jnumed.118.215681
 70. Schnoover, K.E., Queern, S.L., **Lapi, S.E.**, Roberts, R. C., Impaired copper transport in schizophrenia results in a copper-deficient brain state: a New side to the dysbindin story. *The World Journal of Biological Psychiatry*. 2018 Sep 19. DOI: 10.1080/15622975.2018.1523562
 71. Chaple, I.F., **Lapi, S.E.**, Production and use of first row transition metal PET radionuclides, $^{43,44}\text{Sc}$, ^{52}Mn , and ^{45}Ti . *Journal of Nuclear Medicine*. 2018 Nov 1. vol. 59 no. 11 1655-1659
 72. Shusterman J.A., Scielzo N.D., Thomas K.J., Norman E.B., **Lapi S.E.**, Loveless C.S., Peters N.J., Robertson J.D., Shaughnessy D.A., Tonchev A.P.. The surprisingly large neutron capture cross-section of ^{88}Zr . *Nature*. 2019 Jan;565(7739):328-330. doi: 10.1038/s41586-018-0838-z. Epub 2019 Jan 7.
 73. Massicano A.V.F., Lee S., Crenshaw B.K., Aweda T.A., El Sayed R., Super I., Bose R., Marquez-Nostra B.V., **Lapi S.E.**. Imaging of HER2 with ^{89}Zr pertuzumab in Response to T-DM1 Therapy. *Cancer Biotherapy & Radiopharmaceuticals*. 24 Jan 2019. doi: 10.1089/cbr.2018.2654.
 74. Marston J.C., Kennedy G.D., **Lapi S.E.**, Hartman Y.E., Richardson M.T., Modi H.M., Warram J.M. Panitumumab-IRDye800CW for Fluorescence-Guided Surgical Resection of Colorectal Cancer. *Journal of Surgical Research*. 2019 Feb 21;239:44-51. doi: 10.1016/j.jss.2019.01.065. Epub 2019 Feb 22. PubMed PMID: 30798171; PubMed Central PMCID: PMC6488377.
 75. El Sayed R., Massicano A.V.F., Queern S.L., Loveless C.S., **Lapi S.E.**. Manganese-52 production cross-section measurements via irradiation of natural chromium targets up to 20 MeV. *Applied Radiation and Isotopes*. 2019 Mar 1;147:165-170. doi: 10.1016/j.
 76. Benedetto R, Massicano A.V.F., Crenshaw B.K., Oliveira R., Reis R.M., Araújo E.B., **Lapi S.E.** ^{89}Zr -DFO-Cetuximab as a Molecular Imaging Agent to Identify Cetuximab Resistance in Head and Neck Squamous Cell Carcinoma. *Cancer Biotherapy & Radiopharmaceuticals*. 2019 Mar 13. doi: 10.1089/cbr.2018.2616. PubMed PMID: 30865493.
 77. Crawford C.L., Dalecki A.G., Narmore W.T., Hoff J., Hargett A.A., Renfrow M.B., Zhang M., Kalubowilage M., Bossmann S.H., Queern S.L., **Lapi S.E.**, Hunter R.N., Bao D., Augelli-Szafran C.E., Kutsch O., Wolschendorf F., Pyrazolopyrimidinones, a novel class of copper-dependent bactericidal antibiotics against multi-drug resistant *S. aureus*. *Metallomics*. 2019 Apr 17;11(4):784-798. doi: 10.1039/c8mt00316e. PubMed PMID: 30855050; NIHMSID:NIHMS1017539.
 78. Carter, L.M., Kesner, A.L., Pratt, E..C, Sanders, V.A., Massicano, A.V.F. Cutler, C.S. **Lapi, S.E.**, Lewis, J.S. The Impact of Positron Range on PET Resolution, Evaluated with Phantoms and PHITS Monte Carlo Simulations for Conventional and Non-conventional Radionuclides. *Molecular Imaging and Biology*. 2019 Apr 18. doi: 10.1007/s11307-019-01337-2. PubMed PMID: 31001765.
 79. **Lapi, S.E.**, Engle, J.W. Radiochlorine: an underutilized halogen tool *Radiochimica Acta* May 2019 DOI: <https://doi.org/10.1515/ract-2019-0015>
 80. Loveless C.S., Radford L.L., Ferran S.J., Queern S.L., Shepherd M.R., **Lapi S.E.**. Photonuclear production, chemistry, and in vitro evaluation of the theranostic radionuclide ^{47}Sc . *EJNMMI Res*. 2019 May 16;9(1):42. doi: 10.1186/s13550-019-0515-8. PubMed PMID: 31098710

81. Guenter, R.E., Aweda, T., Carmona Matos, D.M., Whitt, J., Chang, A.W., Cheng, E.Y., Liu, X.M., Chen, H., **Lapi, S.E.**, Jaskula-Sztul, R. Pulmonary Carcinoid Surface Receptor Modulation Using Histone Deacetylase Inhibitors. *Cancers (Basel)*. 2019 Jun 3;11(6). doi: 10.3390/cancers11060767. PubMed PMID: 31163616.
82. Mikolajczak R., van der Meulen N.P., **Lapi S.E.**, Radiometals for imaging and theranostics, current production and future perspectives. *J Labelled Comp Radiopharm*. 2019 May 28;. doi: 10.1002/jlcr.3770. [Epub ahead of print] PubMed PMID: 31137083.
83. Kasten BB, Udayakumar N, Leavenworth JW, Wu AM, **Lapi SE**, McConathy JE, Sorace AG, Bag AK, Markert JM, Warram JM. Current and Future Imaging Methods for Evaluating Response to Immunotherapy in Neuro-Oncology. *Theranostics*. 2019;9(17):5085-5104. doi: 10.7150/thno.34415. eCollection 2019. Review. PubMed PMID: 31410203; PubMed Central PMCID: PMC6691392.
84. Herring B, Whitt J, Aweda T, Ou J, Guenter R, **Lapi S**, Berry J, Chen H, Liu X, Rose JB, Jaskula-Sztul R. A growth model of neuroendocrine tumor surrogates and the efficacy of a novel somatostatin-receptor-guided antibody-drug conjugate: Perspectives on clinical response? *Surgery*. 2019 Sep 19. pii: S0039-6060(19)30563-X. doi: 10.1016/j.surg.2019.04.073.
85. Guenter R, Aweda T, Carmona Matos DM, Jang S, Whitt J, Cheng YQ, Liu XM, Chen H, **Lapi SE**, Jaskula-Sztul R. Overexpression of somatostatin receptor type 2 in neuroendocrine tumors for improved Ga68-DOTATATE imaging and treatment. *Surgery*. 2020 Jan;167(1):189-196. doi: 10.1016/j.surg.2019.05.092. Epub 2019 Oct 16. PubMed PMID: 31629542.
86. Ellison PA, Olson AP, Barnhart TE, Hoffman SLV, Reilly SW, Makvandi M, **Bartels JL**, Murali D, DeJesus OT, **Lapi SE**, Bednarz B, Nickles RJ, Mach RH, Engle JW. Improved production of ⁷⁶Br, ⁷⁷Br and ^{80m}Br via CoSe cyclotron targets and vertical dry distillation. *Nucl Med Biol*. 2019 Sep 5;. doi: 10.1016/j.nucmedbio.2019.09.001. PubMed PMID: 31575457.
87. Aweda,TA, Muftuler,ZFB, Massicano,A.V.F. Gadhia, D., McCarthy, K.A., Queern,S., Anupam Bandyopadhyay,A., Gao, J., **Lapi, S.E.** (2019) Radiolabeled Cationic Peptides for Targeted Imaging of Infection. *Contrast Media & Molecular Imaging* Article ID 3149249
88. Radford LL, Fernandez S, Beacham R, El Sayed R, Farkas R, Benešová M, Müller C, **Lapi SE**. New ⁵⁵Co-labeled Albumin-Binding Folate Derivatives as Potential PET Agents for Folate Receptor Imaging. *Pharmaceuticals (Basel)*. 2019 Nov 8;12(4). doi: 10.3390/ph12040166. PubMed PMID: 31717279.
89. Nie X, Elvington A, Laforest R, Zheng J, Voller TF, Zayed MA, Abendschein DR, Bandara N, Xu J, Li R, Randolph GJ, Gropler RJ, **Lapi SE**, Woodard PK. 64Cu-ATSM Positron Emission Tomography/Magnetic Resonance Imaging of Hypoxia in Human Atherosclerosis. *Circ Cardiovasc Imaging*. 2020 Jan;13(1):e009791. doi: 10.1161/CIRCIMAGING.119.009791. Epub 2020 Jan 8. PMID: 31910670
90. Loveless CS, Marois BE, Ferran SJ, Wilkinson JT, Sutherland L, Severin G, Shusterman JA, Scielzo ND, Stoyer MA, Morrissey DJ, Robertson JD, Peaslee GF, **Lapi SE** Harvesting 48V at the National Superconducting Cyclotron Laboratory *Appl Radiat Isot*. 2020 Mar;157:109023
91. Bartels, JL, Fernandez, SR, Aweda, TA, Alford, A, Peaslee, GF, Garbow, JR, **Lapi, SE**, Comparative Uptake and Biological Distribution of [18F]-Labeled C6 and C8 Perfluorinated Alkyl Substances in Pregnant Mice via Different Routes of Administration. *Environmental Science & Technology Letters*. 2020 Jul 15. doi:10.1021/acs.estlett.0c00367.
92. Loveless CS, Blanco JR, Diehl GL 3rd, Elbahrawi RT, Carzaniga, TS, Braccini, S, **Lapi SE**. Cyclotron Production and Separation of Scandium Radionuclides from Natural Titanium Metal and Titanium Dioxide Targets *J Nucl Med*. 2020 Jul 3;jnumed.120.242941. doi: 10.2967/jnumed.120.242941

93. Gee AD, Andersson J, Bhalla R, Choe YS, Dick DW, Herth MM, Hostetler ED, Jauregui-Haza UJ, Huang YY, James ML, Jeong JM, Korde A, Kuge Y, Kung HF, **Lapi SE**, Osso Jr JA, Parent E, Patt, M, Ekoume, FP, Riss PJ, Santos-Oliveira R, Taylor S, Vasdev N, Vercouillie J, Wadsak W, Yang Z, Zhu H, Scott PJH. Training the next generation of radiopharmaceutical scientists [published online ahead of print, 2020 Jun 17]. *Nucl Med Biol.* 2020;88-89:10-13. doi:10.1016/j.nucmedbio.2020.06.004.
94. Brugarolas P, Comstock J, Dick DW, Ellmer T, Engle JW, **Lapi, SE**, Liang SH, Parent EE, Pillarsetty NVK, Selivanova S, Sun X, Vavere A, Scott PJH. Fifty Years of Radiopharmaceuticals. *J Nucl Med Technol.* 2020;48(Suppl 1):34S-39S.
95. Ducharme M, **Lapi SE**. Peptide Based Imaging Agents for HER2 Imaging in Oncology. *Mol Imaging.* 2020 Jan-Dec;19:1536012120960258. doi: 10.1177/1536012120960258. PMID: 32957830.
96. Schoonover KE, McMeekin LJ, Farmer CB, Varghese, NE, Queern, SL, **Lapi, SE**, Cowell, RM, Roberts, RC. Interactions between knockout of schizophrenia risk factor dysbindin-1 and copper metabolism in mice *Brain Res Bull.* 2020;S0361-9230(20)30581-5. doi:10.1016/j.brainresbull.2020.07.024. PMID: 32795490
97. Chaple IF, Thiele K, Thaggard G, Fernandez S, Boros E, **Lapi SE**. Optimized methods for production and purification of Titanium-45. *Appl Radiat Isot.* 2020 Aug 29;166:109398. doi: 10.1016/j.apradiso.2020.109398. Epub ahead of print. PMID: 32911440.
98. Jansen FP, Deller TW, Fries MD, Khalighi MM, White SL, Radford LL, McConathy JE, **Lapi SE**. Real-Time Gain Control of PET Detectors and Evaluation with Challenging Radionuclides. *IEEE Trans Med Imaging.* 2021 Jan;40(1):71-80
99. Derke RM, Barron AJ, Billiot CE, Chaple IF, **Lapi SE**, Broderick NA, Gray MJ. The Cu(II) Reductase RclA Protects Escherichia coli against the Combination of Hypochlorous Acid and Intracellular Copper. *mBio.* 2020 Sep 29;11(5):e01905-20. doi: 10.1128/mBio.01905-20. PMID: 32994322; PMCID: PMC7527725.
100. Jalilian AR, Gizawy MA, Alliot C, Takacs S, Chakarborty S, Rovais MRA, Pupillo G, Nagatsu K, Park JH, Khandaker MU, Mikolajczak R, Bilewicz A, Okarvi S, Gagnon K, Al Rayyes AH, **Lapi SE**, Starovoitova V, Korde A, Jr JAO. IAEA activities on 67Cu, 186Re, 47Sc Theranostic radionuclides and Radiopharmaceuticals. *Curr Radiopharm.* 2020 Sep 28. doi: 10.2174/1874471013999200928162322. Epub ahead of print. PMID: 32988359.
101. Sorace AG, Elkassem AA, Galgano SJ, **Lapi SE**, Larimer BM, Partridge SC, Quarles CC, Reeves K, Napier TS, Song PN, Yankeelov TE, Woodard S, Smith AD. Imaging for Response Assessment in Cancer Clinical Trials. *Semin Nucl Med.* 2020 Nov;50(6):488-504. doi: 10.1053/j.semnuclmed.2020.05.001. Epub 2020 Jun 10. PMID: 33059819; PMCID: PMC7573201.
102. Ben Eliezer N, Lysenko M, Biton IE, Golani O, Bartels JL, Fernandez SR, Aweda TA, Clanton NA, Beacham R, **Lapi SE**, Garbow JR, Neeman M, Novel multimodal molecular imaging of Vitamin H (Biotin) transporter activity in the murine placenta *Sci Rep* 2020 Nov 27;10(1):20767. doi: 10.1038/s41598-020-77704-9.
103. Vaughn BA, Koller AJ, Chen Z, Ahn SH, Loveless CS, Cingoranelli SJ, Yang Y, Cirri A, Johnson CJ, **Lapi SE**, Chapman KW, Boros E. Homologous Structural, Chemical, and Biological Behavior of Sc and Lu Complexes of the Picaga Bifunctional Chelator: Toward Development of Matched Theranostic Pairs for Radiopharmaceutical Applications *Bioconjug Chem.* 2020 Dec 7. doi: 10.1021/acs.bioconjchem.0c00574.
104. Kozlovskaya V, Alford A, Dolmat M, Ducharme M, Caviedes R, Radford L, **Lapi SE**, Kharlampieva E. Multilayer Microcapsules with Shell-Chelated 89 Zr for PET Imaging and Controlled Delivery *ACS Appl Mater Interfaces.* 2020 Dec 23;12(51):56792-56804.
105. Massicano AVF, Bartels JL, Jeffers CD, Crenshaw BK, Houson H, Mueller C, Younger JW, Knapp P, **Lapi SE**. Production of [⁸⁹Zr]Oxinate4 and cell radiolabeling for human use.

- J Labelled Comp Radiopharm. 2020 Dec 16. doi: 10.1002/jlcr.3901. Epub ahead of print. PMID: 33326139.
106. Tekin V, Aweda T, Kozgus Guldu O, Biber Muftuler FZ, Bartels J, **Lapi SE**, Unak P. A novel anti-angiogenic radio/photo sensitizer for prostate cancer imaging and therapy: ^{89}Zr -Pt@TiO₂-SPHINX, synthesis and in vitro evaluation. Nucl Med Biol. 2021 Mar-Apr;94-95:20-31.
 107. Chernysheva M, Loveless SC, Brossard T, Becker K, Cingoranelli S, Aluicio-Sarduy E, Song J, Ellison P, Nolen J, Rotsch DA, **Lapi SE**, Engle JW. Accelerator Production of Scandium Radioisotopes: Sc-43, Sc-44, and Sc- 47. Curr Radiopharm. 2021 Jan 12. doi: 10.2174/1874471014999210112205535. Epub ahead of print. PMID: 33438551.
 108. Li FJ, Surolia R, Li H, Wang Z, Liu G, Kulkarni T, Massicano AVF, Mobley JA, Mondal S, de Andrade JA, Coonrod SA, Thompson PR, Wille K, **Lapi SE**, Athar M, Thannickal VJ, Carter AB, Antony VB. Citrullinated vimentin mediates development and progression of lung fibrosis. Sci Transl Med. 2021 Mar 17;13(585)
 109. **Lapi SE**, McConathy JE. Global access to medical imaging and nuclear medicine. Lancet Oncol. 2021 Apr;22(4):425-426.
 110. Lu Y, Li M, Massicano, A.V.F.; Song, P.N.; Mansur, A.; Heinzman, K.A.; Larimer, B.M.; **Lapi SE**, Sorace, A.G. [89Zr]-Pertuzumab PET Imaging Reveals Paclitaxel Treatment Efficacy Is Positively Correlated with HER2 Expression in Human Breast Cancer Xenograft Mouse Models. Molecules 2021, 26, 1568.
 111. Shusterman, JA, Scielzo, ND, Abel, EP, Clause, HK, Dronchi, ND, Frey, WD, Gharibyan N, Hart JA, Loveless CS, McGuinness SR, Sutherland LT, Thomas KJ, **Lapi SE**, Robertson JD, Stoyer MA, Norman EB, Peaslee GF, Severin GW, Shaughnessy DA. Aqueous Harvesting of ^{88}Zr at a Radioactive-Ion-Beam Facility for Cross Section Measurements Phys. Rev. C, 2021, 103.
 112. Parker CC, **Lapi SE**. Positron Emission Tomography Imaging of Macrophages in Cancer. Cancers (Basel). 2021 Apr 16;13(8):1921. doi: 10.3390/cancers13081921. PMID: 33923410; PMCID: PMC8072570.
 113. Pyles JM, Massicano AVF, Appiah JP, Bartels JL, Alford A, **Lapi SE**. Production of ^{52}Mn using a semi-automated module. Appl Radiat Isot. 2021 Apr 23;174:109741. doi: 10.1016/j.apradiso.2021.109741. Epub ahead of print. PMID: 33933840.
 114. Siddiqui NA, Houson HA, Kamble NS, Blanco JR, O'Donnell RE, Hassett DJ, **Lapi SE**, Kotagiri N. Leveraging copper import by yersiniabactin siderophore system for targeted PET imaging of bacteria. JCI Insight. 2021 May 24;6(10):144880. doi: 10.1172/jci.insight.144880. PMID: 34027898.
 115. Barrett KE, Houson HA, Lin W, **Lapi SE**, Engle JW. Production, Purification, and Applications of a Potential Theranostic Pair: Cobalt-55 and Cobalt-58m. Diagnostics (Basel). 2021 Jul 9;11(7):1235. doi: 10.3390/diagnostics11071235. PMID: 34359318; PMCID: PMC8306844.
 116. Kasten BB, Houson HA, Coleman JM, Leavenworth JW, Markert JM, Wu AM, Salazar F, Tavaré R, Massicano AVF, Gillespie GY, **Lapi SE**, Warram JM, Sorace AG. Positron emission tomography imaging with ^{89}Zr -labeled anti-CD8 cys-diabody reveals CD8+ cell infiltration during oncolytic virus therapy in a glioma murine model. Sci Rep. 2021 Jul 28;11(1):15384. doi: 10.1038/s41598-021-94887-x. PMID: 34321569; PMCID: PMC8319402.
 117. Wilkinson JT, Barrett KE, Ferran SJ, McGuinness SR, McIntosh LA, McCarthy M, Yennello SJ, Engle JW, **Lapi SE**, Peaslee GF. A heavy-ion production channel of ^{149}Tb via ^{63}Cu bombardment of ^{89}Y . Appl Radiat Isot. 2021 Sep 14;178:109935. doi: 10.1016/j.apradiso.2021.109935. Epub ahead of print. PMID: 34555596.

118. Mason C, Gimblet GR, **Lapi SE**, Lewis JS. Novel Tracers and Radionuclides in PET Imaging. *Radiol Clin North Am.* 2021 Sep;59(5):887-918. doi: 10.1016/j.rcl.2021.05.012. PMID: 34392925.
119. Vaughn BA, Loveless CS, Cingoranelli SJ, Schlyer D, **Lapi SE**, Boros E. Evaluation of ¹⁷⁷Lu and ⁴⁷Sc Picagala-Linked, Prostate-Specific Membrane Antigen-Targeting Constructs for Their Radiotherapeutic Efficacy and Dosimetry. *Mol Pharm.* 2021 Oct 29. doi: 10.1021/acs.molpharmaceut.1c00711. Epub ahead of print. PMID: 34714082.
120. **Lapi SE**, Trevorrow P. Meet the advisors - Suzy Lapi. *J Labelled Comp Radiopharm.* 2021 Oct 14. doi: 10.1002/jlcr.3956. Epub ahead of print. PMID: 34648205.
121. Fysikopoulos, E, Rouchota, M, Georgiou, C, Sfyris, N, Cheimarios, S, Sarpaki, S, Kostopoulos, D, Glotsos, B, Larimer, B., Hunter, C, **Lapi, SE**, Houson, H, Massicano, AVF, Sorace, A, Lamprou, E and Loudos, G β -eye: A benchtop system for in vivo molecular screening of labeled compounds. *Applied Radiation and Isotopes*, 2022. 180: p. 110034.
122. Chaple IF, Houson HA, Koller A, Pandey A, Boros E, **Lapi SE**. ⁴⁵Ti targeted tracers for PET imaging of PSMA. *Nucl Med Biol.* 2022 Feb 4;108-109:16-23. doi: 10.1016/j.nucmedbio.2022.01.005. Epub ahead of print. PMID: 35189565.
123. Song PN, Mansur A, Lu Y, Della Manna D, Burns A, Samuel S, Heinzman K, **Lapi SE**, Yang ES, Sorace AG. Modulation of the Tumor Microenvironment with Trastuzumab Enables Radiosensitization in HER2+ Breast Cancer. *Cancers (Basel).* 2022 Feb 17;14(4):1015. doi: 10.3390/cancers14041015. PMID: 35205763; PMCID: PMC8869800.
124. Koller AJ, Saini S, Chaple IF, Joaqui-Joaqui MA, Paterson BM, Ma MT, Blower PJ, Pierre VC, Robinson JR, **Lapi SE**, Boros E. A General Design Strategy Enabling the Synthesis of Hydrolysis-Resistant, Water-Stable Titanium(IV) Complexes. *Angew Chem Int Ed Engl.* 2022 Mar 9. doi: 10.1002/anie.202201211. Epub ahead of print. PMID: 35263017.
125. Shin J, Parker MFL, Zhu I, Alanizi A, Rodriguez CI, Liu R, Watchmaker PB, Kalita M, Blecha J, Luu J, Wright B, **Lapi SE**, Flavell RR, Okada H, Tlsty TD, Roybal KT, Wilson DM. Antigen-dependent inducible T cell reporter system for PET imaging of breast cancer and glioblastoma. *J Nucl Med.* 2022 Aug 18;jnumed.122.264284. doi:10.2967/jnumed.122.264284. Epub ahead of print. PMID: 35981900.
126. Ducharme M, Houson HA, Fernandez SR, **Lapi SE**. Evaluation of ⁶⁸Ga-Radiolabeled Peptides for HER2 PET Imaging. *Diagnostics (Basel).* 2022 Nov 5;12(11):2710. doi: 10.3390/diagnostics12112710. PMID: 36359554; PMCID: PMC9689602.
127. Houson HA, Tekin V, Lin W, Aluicio-Sarduy E, Engle JW, **Lapi SE**. PET Imaging of the Neurotensin Targeting Peptide NOTA-NT-20.3 Using Cobalt-55, Copper-64 and Gallium-68. *Pharmaceutics.* 2022 Dec 6;14(12):2724. doi: 10.3390/pharmaceutics14122724. PMID: 36559218; PMCID: PMC9781609.
128. Pyles JM, Omweri JM, **Lapi SE** Natural and enriched Cr target development for production of Manganese-52. *Sci Rep.* 2023 Jan 20;13(1):1167
129. Phipps MD, Cingoranelli S, Bhupathiraju NVSDK, Younes A, Cao M, Sanders VA, Neary MC, Devany MH, Cutler CS, Lopez GE, Saini S, Parker CC, Fernandez SR, Lewis JS, **Lapi SE**, Francesconi LC, Deri MA. Sc-HOPO: A Potential Construct for Use in Radioscandium-Based Radiopharmaceuticals *Inorg Chem* 2023 Feb 1. Online ahead of print
130. Lin W, Aluicio-Sarduy E, Houson HA, Barnhart TE, Tekin V, Jeffery JJ, Weichmann AM, Barrett KE, **Lapi SE**, Engle JW. Theranostic cobalt-55/58m for neurotensin receptor-mediated radiotherapy in vivo: A pilot study with dosimetry *Nucl Med Biol* 2023 Feb 13;118-119:108329
131. Bartels JL, Fernandez SR, Arnold JS, Parker CC, Tekin V, O'Malley G, Ralph DA, **Lapi SE**. In vivo Assessment of the Impact of Molecular Weight on Constructs of ⁶⁸Ga-DOTA-Manocept in a Syngeneic Mouse Tumor Model *Mol Imaging Biol.* 2023 Mar 7.

132. Kozlovskaya V, Ducharme M, Dolmat M, Omweri JM, Tekin V, **Lapi SE**, Kharlampieva E. Direct Radiolabeling of Trastuzumab-Targeting Triblock Copolymer Vesicles with ⁸⁹Zr for Positron Emission Tomography Imaging Biomacromolecules. 2023 Mar 16.
133. Larson-Casey JL, Liu S, Pyles JM, **Lapi SE**, Saleem K, Antony VB, Gonzalez ML, Crossman DK, Carter AB. Impaired PPAR γ activation by cadmium exacerbates infection-induced lung injury JCI Insight. 2023 Mar 16;e166608.
134. Parker CC, Bin Salam A, Song PN, Gallegos C, Hunt A, Yates C, Jaynes J, Lopez H, Massicano AVF, Sorace AG, Fernandez S, Houson HA, **Lapi SE**. Evaluation of a CD206-Targeted Peptide for PET Imaging of Macrophages in Syngeneic Mouse Models of Cancer Mol Pharm 2023 Apr 4. doi: 10.1021/acs.molpharmaceut.2c00977.
135. Massicano AVF, Song PN, Mansur A, White SL, Sorace AG, **Lapi SE**. [⁸⁹Zr]-Atezolizumab-PET Imaging Reveals Longitudinal Alterations in PDL1 during Therapy in TNBC Preclinical Models. Cancers (Basel). 2023 May 11;15(10):2708. doi: 10.3390/cancers15102708. PMID: 37345044; PMCID: PMC10216761.
136. Ducharme M, Mansur A, Sligh L, Ulaner GA, **Lapi SE**, Sorace AG. Human Epidermal Growth Factor Receptor 2/Human Epidermal Growth Factor Receptor 3 PET Imaging: Challenges and Opportunities. PET Clin. 2023 Jun 18:S1556-8598(23)00051-2. doi: 10.1016/j.cpet.2023.04.009. Epub ahead of print. PMID: 37339919.
137. Mueller C, Fang YD, Jones C, McConathy JE, Raman F, **Lapi SE**, Younger JW. Evidence of neuroinflammation in fibromyalgia syndrome: a [¹⁸F]DPA-714 positron emission tomography study. Pain. 2023 Jun 15. doi: 10.1097/j.pain.0000000000002927. Epub ahead of print. PMID: 37326674.
138. Saini S, Bartels JL, Appiah JK, Rider JH, Baumhover N, Schultz MK, **Lapi SE**. Optimized Methods for the Production of High-Purity ²⁰³Pb Using Electroplated Thallium Targets. J Nucl Med. 2023 Aug 31;jnumed.123.265976. doi: 10.2967/jnumed.123.265976. Epub ahead of print. PMID: 37652545.
139. Ducharme M, Hall L, Eckenroad W, Cingoranelli SJ, Houson HA, Jaskowski L, Hunter C, Larimer BM, **Lapi SE**. Evaluation of [⁸⁹Zr]Zr-DFO-2Rs15d Nanobody for Imaging of HER2-Positive Breast Cancer. Mol Pharm. 2023 Sep 4;20(9):4629-4639. doi: 10.1021/acs.molpharmaceut.3c00360. Epub 2023 Aug 8. PMID: 37552575.
140. Gimblet GR, Whitt J, Houson HA, Lin D, Guenter R, Rao TC, Wang D, Ness J, Gonzalez ML, Murphy MS, Gillis A, Chen H, Copland JA, Kenderian SS, Lloyd RV, Szkudlinski MW, **Lapi SE**, Jaskula-Sztul R. Thyroid-stimulating hormone receptor (TSHR) as a target for imaging differentiated thyroid cancer. Surgery. 2024 Jan;175(1):199-206. doi: 10.1016/j.surg.2023.05.045. Epub 2023 Oct 31. PMID: 37919223.
141. Jalilian A, Decristoforo C, Denecke M, Elsinga PH, Hoehr C, Korde A, **Lapi SE**, Scott PJH. Proceedings of international symposium of trends in radiopharmaceuticals 2023 (ISTR-2023). EJNMMI Radiopharm Chem. 2023 Nov 10;8(1):39. doi: 10.1186/s41181-023-00224-0. PMID: 37950112; PMCID: PMC10638263.
142. Cingoranelli SJ, Bartels JL, Kankanamalage PHA, Loveless CS, Rotsch DA, **Lapi SE**. Production and purification of ⁴³Sc and ⁴⁷Sc from enriched [⁴⁶Ti]TiO₂ and [⁵⁰Ti]TiO₂ targets. Sci Rep. 2023 Dec 19;13(1):22683. doi: 10.1038/s41598-023-49377-7. PMID: 38114543; PMCID: PMC10730517.
143. Omweri JM, Tekin V, Saini S, Houson HA, Jayawardana SB, Decato DA, Wijeratne GB, **Lapi SE**. Chelation chemistry of manganese-52 for PET imaging applications. Nucl Med Biol. 2023 Dec 23;128-129:108874. doi: 10.1016/j.nucmedbio.2023.108874. Epub ahead of print. PMID: 38154167.
144. Saini S, Mullen GED, Blower PJ, **Lapi SE**. Radiochemistry and In Vivo Imaging of [⁴⁵Ti]Ti-THP-PSMA. Mol Pharm. 2024 Jan 3. doi: 10.1021/acs.molpharmaceut.3c00917. Epub ahead of print. PMID: 38173242.

145. Carbo-Bague I, Saini S, Cingoranelli SJ, Davey PRWJ, Tosato M, **Lapi SE**, Ramogida CF. Evaluation of a novel hexadentate 1,2-hydroxypyridinone-based acyclic chelate, HOPO-O6-C4, for $^{43}\text{Sc}/^{47}\text{Sc}$, ^{68}Ga , and ^{45}Ti radiopharmaceuticals. *Nucl Med Biol.* 2023 Dec 22;128-129:108872. doi: 10.1016/j.nucmedbio.2023.108872. Epub ahead of print. PMID: 38262310.
146. Hu A, Martin KE, Śmiłowicz D, Aluicio-Sarduy E, Cingoranelli SJ, **Lapi SE**, Engle JW, Boros E, Wilson JJ. Construction of the Bioconjugate Py-Macrodipa-PSMA and Its In Vivo Investigations with Large $^{132}/^{135}\text{La}^{3+}$ and Small $^{47}\text{Sc}^{3+}$ Radiometal Ions. *Eur J Inorg Chem.* 2023 Dec 12;26(35):e202300457. doi: 10.1002/ejic.202300457. Epub 2023 Sep 20. PMID: 38495596; PMCID: PMC10939043.
147. Gallegos CA, Lu Y, Clements JC, Song PN, Lynch SE, Mascioni A, Jia F, Hartman YE, Massicano AVF, Houson HA, **Lapi SE**, Warram JM, Markert JM, Sorace AG. ^{89}Zr -CD8 ImmunoPET imaging of glioblastoma multiform response to combination oncolytic viral and checkpoint inhibitor immunotherapy reveals CD8 infiltration differential changes in preclinical models. *Theranostics.* 2024 Jan 1;14(3):911-923. doi: 10.7150/thno.89206. PMID: 38250045; PMCID: PMC10797292.
148. Song PN, Lynch SE, DeMellier CT, Mansur A, Gallegos CA, Wright BD, Hartman YE, Minton LE, **Lapi SE**, Warram JM, Sorace AG. Dual anti-HER2/EGFR inhibition synergistically increases therapeutic effects and alters tumor oxygenation in HNSCC. *Sci Rep.* 2024 Feb 14;14(1):3771. doi: 10.1038/s41598-024-52897-5. PMID: 38355949; PMCID: PMC10866896.
149. Saini S, **Lapi SE**. Titanium-45 (^{45}Ti) Radiochemistry and Applications in Molecular Imaging. *Pharmaceuticals (Basel).* 2024 Apr 9;17(4):479. doi: 10.3390/ph17040479. PMID: 38675439; PMCID: PMC11054510.
150. Houson HA, Wu Z, Cao PD, Lindsey JS, **Lapi SE**. Customizable Porphyrin Platform Enables Folate Receptor PET Imaging Using Copper-64. *Mol Pharm.* 2024 May 6;21(5):2441-2455. doi: 10.1021/acs.molpharmaceut.4c00015. Epub 2024 Apr 16. PMID: 38623055.
151. **Lapi SE**, Scott PJH. The future of the radiopharmaceutical sciences. *Nucl Med Biol.* 2024 Mar 27;132-133:108907. doi: 10.1016/j.nucmedbio.2024.108907. Epub ahead of print. PMID: 38599143.
152. Gimblet GR, Houson HA, Whitt J, Reddy P, Copland JA, Kenderian SS, Szkudlinski MW, Jaskula-Sztul R, **Lapi SE**. PET Imaging of Differentiated Thyroid Cancer with TSHR-Targeted ^{89}Zr -Zr-TR1402. *Mol Pharm.* 2024 Jul 8. doi: 10.1021/acs.molpharmaceut.4c00224. Epub ahead of print. PMID: 38976794.
153. Harriswangler C, Omweri JM, Saini S, Valencia L, Esteban-Gómez D, Ranga M, Guidolin N, Baranyai Z, **Lapi SE**, Platas-Iglesias C. Improving the In Vivo Stability of ^{52}Mn Mn(II) Complexes with 18-Membered Macrocyclic Chelators for PET Imaging. *J Med Chem.* 2024 Jul 11;67(13):11242-11253. doi: 10.1021/acs.jmedchem.4c00812. Epub 2024 Jun 27. PMID: 38935616.
154. Lu Y, Houson HA, Gallegos CA, Mascioni A, Jia F, Aivazian A, Song PN, Lynch SE, Napier TS, Mansur A, Larimer BM, **Lapi SE**, Hanker AB, Sorace AG. Evaluating the immunologically "cold" tumor microenvironment after treatment with immune checkpoint inhibitors utilizing PET imaging of CD4 + and CD8 + T cells in breast cancer mouse models. *Breast Cancer Res.* 2024 Jun 25;26(1):104. doi: 10.1186/s13058-024-01844-3. PMID: 38918836; PMCID: PMC11201779.
155. Satija S, Domnanich KA, Sumithrarachchi C, Liu Y, Cingoranelli SJ, Saini S, Chaple I, **Lapi SE**, Severin GW. Production and separation of ^7Be for use in an ion source. *Appl Radiat Isot.* 2024 Jun 2;211:111382. doi: 10.1016/j.apradiso.2024.111382. Epub ahead of print. PMID: 38843622.

156. Giammarile F, Paez D, Zimmermann R, Cutler CS, Jalilian A, Korde A, Knoll P, Ayati N, Lewis JS, **Lapi SE**, Delgado Bolton RC, Kunikowska J, Estrada Lobato E, Urbain JL, Holmberg O, Abdel-Wahab M, Scott AM. Production and regulatory issues for theranostics. *Lancet Oncol*. 2024 Jun;25(6):e260-e269. doi: 10.1016/S1470-2045(24)00041-X. PMID: 38821100.
157. Scott AM, Zeglis BM, **Lapi SE**, Scott PJH, Windhorst AD, Abdel-Wahab M, Giammarile F, Paez D, Jalilian A, Knoll P, Korde A, Vichare S, Ayati N, Lee ST, Lyashchenko SK, Zhang J, Urbain JL, Lewis JS. Trends in nuclear medicine and the radiopharmaceutical sciences in oncology: workforce challenges and training in the age of theranostics. *Lancet Oncol*. 2024 Jun;25(6):e250-e259. doi: 10.1016/S1470-2045(24)00037-8. PMID: 38821099.
158. **Lapi SE**, Scott PJH, Scott AM, Windhorst AD, Zeglis BM, Abdel-Wahab M, Baum RP, Buatti JM, Giammarile F, Kiess AP, Jalilian A, Knoll P, Korde A, Kunikowska J, Lee ST, Paez D, Urbain JL, Zhang J, Lewis JS. Recent advances and impending challenges for the radiopharmaceutical sciences in oncology. *Lancet Oncol*. 2024 Jun;25(6):e236-e249. doi: 10.1016/S1470-2045(24)00030-5. PMID: 38821098.
159. McNeal KC, Reeves KM, Song PN, **Lapi SE**, Sorace AG, Larimer BM. [18F]FMISO-PET imaging reveals the role of hypoxia severity in checkpoint blockade response. *Nucl Med Biol*. 2024 Jul-Aug;134-135:108918. doi: 10.1016/j.nucmedbio.2024.108918. Epub 2024 May 8. PMID: 38772123; PMCID: PMC11180552
160. Cingoranelli SJ, Burnett L, Putnam E, **Lapi SE**. Cross section measurements for the production of ^{49}Cr and ^{47}Sc from proton irradiation of natural vanadium up to 24 MeV. *Appl Radiat Isot*. 2024 Oct;212:111469. doi: 10.1016/j.apradiso.2024.111469. Epub 2024 Aug 6. PMID: 39153239.
161. Omweri JM, Saini S, Houson HA, Tekin V, Pyles JM, Parker CC, **Lapi SE**. Development of ^{52}Mn Labeled Trastuzumab for Extended Time Point PET Imaging of HER2. *Mol Imaging Biol*. 2024 Aug 27. doi: 10.1007/s11307-024-01948-4. Epub ahead of print. PMID: 39192059.
162. Cini JK, Kenney RT, Dexter S, McAndrew SJ, Eraslan RN, Brody R, Rezac DJ, Boohaker R, **Lapi SE**, Mohan P. SON-1010: an albumin-binding IL-12 fusion protein that improves cytokine half-life, targets tumors, and enhances therapeutic efficacy. *Front Immunol*. 2024 Dec 4;15:1493257. doi: 10.3389/fimmu.2024.1493257. PMID: 39697343; PMCID: PMC11652653.
163. Cingoranelli SJ, Putnam EE, Appiah JP, Rider J, Burnett L, **Lapi SE**. Production of high purity ^{47}Sc from proton irradiation of natural vanadium targets. *EJNMMI Radiopharm Chem*. 2024 Dec 18;9(1):89. doi: 10.1186/s41181-024-00321-8. PMID: 39692853; PMCID: PMC11655753.
164. Omweri JM, Houson HA, Lynch SE, Tekin V, Sorace AG, **Lapi SE**. PET imaging of ^{52}Mn labeled DOTATATE and DOTAJR11. *Sci Rep*. 2025 Jan 18;15(1):2395. doi: 10.1038/s41598-025-85143-7. PMID: 39827143; PMCID: PMC11742957.
165. Martin CL, Hill JH, Wright BD, Fernandez SR, Miller AL, Yoon KJ, **Lapi SE**, Aller SG. Evaluating TcAs for Use in Biotechnology Applications. *BioTech (Basel)*. 2025 Jan 25;14(1):5. doi: 10.3390/biotech14010005. PMID: 39982272; PMCID: PMC11843870.
166. Gallegos CA, Lu Y, Clements JC, Song PN, Lynch SE, Mascioni A, Jia F, Hartman YE, Massicano AVF, Houson HA, **Lapi SE**, Warram JM, Markert JM, Sorace AG. [89Zr]-CD8 ImmunoPET imaging of glioblastoma multiform response to combination oncolytic viral and checkpoint inhibitor immunotherapy reveals CD8 infiltration differential changes in preclinical models. *Theranostics*. 2024 Jan 1;14(3):911-923. doi: 10.7150/thno.89206. PMID: 38250045; PMCID: PMC10797292.
167. Dubey S, Yu Z, Stephens EM, Lazrak A, Ahmad I, Aggarwal S, Andrabi S, Hossain MI, Jilling T, Fernandez SR, Bartels JL, **Lapi SE**, Mobley JA, Pastukh VM, Gillespie MN, Matalon S. Oxidative damage to lung mitochondrial DNA is a key contributor to the

- development of chemical lung injury. *Redox Biol.* 2025 Mar 29;82:103624. doi: 10.1016/j.redox.2025.103624. Epub ahead of print. PMID: 40209617.
168. Houson HA, Wright BD, Fernandez SR, Buss T, White SL, Cederstrom B, Omweri JM, McConathy JE, Schnitzer JE, **Lapi SE**. PET Imaging Expedites Detection of Aberration in the Humanization of an Annexin A1 Targeting Antibody. *Pharmaceuticals (Basel)*. 2025 Feb 21;18(3):295. doi: 10.3390/ph18030295. PMID: 40143074; PMCID: PMC11946604.
169. Saini S, Bhupathiraju NVSDK, Jayawardana SB, Phipps MD, Lewis JS, Francesconi LC, Wijeratne GB, Deri MA, **Lapi SE**. [45Ti]Ti-HOPOs: Potential Complexes for the Development of 45Ti PET Imaging Agents. *ACS Omega*. 2025 Jan 29;10(7):7306-7316. doi: 10.1021/acsomega.4c05544. PMID: 40028061; PMCID: PMC11866203.
170. Tekin V, Zhang Y, Yates C, Jaynes J, Lopez H, Garvin C, Larimer BM, **Lapi SE**. PET Imaging of CD206 Macrophages in Bleomycin-Induced Lung Injury Mouse Model. *Pharmaceutics*. 2025 Feb 14;17(2):253. doi: 10.3390/pharmaceutics17020253. PMID: 40006620; PMCID: PMC11860134.
171. Lynch SE, Crawford CI, Houson HA, Omweri JM, Pukkanasut P, Gallegos CA, Whitt JD, Jaskula-Sztul R, **Lapi SE**, Sorace AG. Characterizing SSTR2 expression and modulation for targeted imaging and therapy in preclinical models of triple-negative breast cancer. *Sci Rep*. 2025 Mar 22;15(1):9988. doi: 10.1038/s41598-025-94578-x. PMID: 40121305; PMCID: PMC11929780.
172. Gimblet GR, Reddy P, Holland MM, Houson HA, Whitt J, Copland JA, Kenderian SS, Jaskula-Sztul R, **Lapi SE**. PET imaging of differentiated thyroid cancer with thyrotropin-alfa. *Sci Rep*. 2025 Apr 3;15(1):11375. doi: 10.1038/s41598-025-94923-0. PMID: 40175460; PMCID: PMC11965406.
173. Lynch SE, Crawford C, Hunt AL, Sligh LL, Zhang Y, Norian LA, Larimer BM, Lapi SE, Sorace AG. Granzyme B PET Imaging Predicts Response to Immunotherapy in a Diet-Induced Obesity Model of Breast Cancer. *J Nucl Med*. 2025 Jul 1;66(7):1039-1045. doi: 10.2967/jnumed.124.268938. PMID: 40441892; PMCID: PMC12212185.
174. Mansur A, McConathy JE, Stringer-Reasor E, Rocque G, Khoury K, Eltoun N, Nikpanah M, Bartels J, Wright B, Jahan N, Jeffers D, Lapi SE, Sorace AG. Quantitative [89Zr]Zr-Trastuzumab PET and Diffusion-Weighted MRI for Characterization of Metastatic HER2-Positive Breast Cancer with PET/MRI. *J Nucl Med*. 2025 Jul 1;66(7):1018-1026. doi: 10.2967/jnumed.124.268931. PMID: 40473459; PMCID: PMC12212413.
175. Pyles JM, Irvin TE, Renne A, Happel S, Nolen J, **Lapi SE**. Production and Purification of Terbium-155 Using Natural Gadolinium Targets. *ACS Omega*. 2025 Jul 8;10(28):30335-30343. doi: 10.1021/acsomega.5c01653. PMID: 40727817; PMCID: PMC12290648.
176. Lynch SE, Alsheikh HM, Song PN, Parker CC, Zhang Y, Yates CC, Larimer BM, **Lapi SE**, Shevde LA, Sorace AG. PET Imaging of Diabetes-Induced Alterations in Metabolism and Immune Activation. *Mol Imaging Biol*. 2025 Aug 12
177. Huang B, Dai B, **Lapi SE**, Liles G, Karp JS, Qi J. High-Resolution Positronium Lifetime Tomography at Clinical Activity Levels on the PennPET Explorer. *J Nucl Med*. 2025 Sep 2;66(9):1464-1470. doi: 10.2967/jnumed.125.270130. PMID: 40841149.
178. Jaskowski LN, Clanton NA, Wilkinson NJ, Bartels JL, LoCoco PM, Frantz AN, Boyer AD, Boerma JW, Bush JEM, Brown SD, Fernandez K, Archer NE, Tekin V, Fernandez SR, Risinger AL, Frantz DE, **Lapi SE**. Pharmacokinetic and Biodistribution Studies of [18F]-Taccalonolide: A Covalent Microtubule Stabilizer with Antitumor Efficacy. *ACS Med Chem Lett*. 2025 Jul 16;16(8):1569-1574. doi: 10.1021/acsmchemlett.5c00208. PMID: 40843363; PMCID: PMC12366129.
179. Tekin V, Archer NE, Fernandez SR, Houson HA, Bartels JL, **Lapi SE**. Homotypic Targeting of [⁸⁹Zr]Zr-Oxine Labeled PC3 and 4T1 Cells in Tumor-Bearing Mice. *Pharmaceutics*. 2025 Sep 26;17(10):1259. doi: 10.3390/pharmaceutics17101259. PMID: 41155896; PMCID: PMC12566915.

180. Boros E, Comba P, Engle JW, Harriswangler C, **Lapi SE**, Lewis JS, Mastroianni S, Mirica LM, Platas-Iglesias C, Ramogida CF, Tripier R, Tosato M. Chemical Tools to Characterize the Coordination Chemistry of Radionuclides for Radiopharmaceutical Applications. *Chem Rev.* 2025 Oct 28. doi: 10.1021/acs.chemrev.5c00641. Epub ahead of print. PMID: 41147499.
181. Godara ML, Cingoranelli SJ, Tekin V, Saini S, Samuel SL, Houson HA, **Lapi SE**. Production and radiochemistry of the in vivo PET generator $^{140}\text{Nd}/^{140}\text{Pr}$ as an imaging surrogate for F-block therapeutic radionuclides. *Sci Rep.* 2025 Oct 7;15(1):34991. doi: 10.1038/s41598-025-18929-4. PMID: 41057481; PMCID: PMC12504599.
182. Blanco JR, Edwards TS, Irvin TE, Kleinfeldt CR, **Lapi SE**, Severin GW. Cyclotron production of a $^{204}\text{Bi}/^{204\text{m}}\text{Pb}$ generator by 24 MeV proton irradiation of natural Pb foil targets. *Appl Radiat Isot.* 2025 Dec;226:112147. doi: 10.1016/j.apradiso.2025.112147. Epub 2025 Aug 30. PMID: 40934799.
183. Cingoranelli SJ, Putnam E, Houson HA, Gimblet GR, Samuel S, Tekin V, **Lapi SE**. Investigating the Theranostic Potential of Elementally Matched [^{43}Sc]Sc-PSMA-617 and [^{47}Sc]Sc-PSMA-617. *Mol Pharm.* 2026 Feb 18. doi: 10.1021/acs.molpharmaceut.5c01023. Epub ahead of print. PMID: 41705479.
184. Gallegos CA, Lu Y, Song PN, Queiroz R, Akca U, Sridhar S, Bartels JL, Zhang Y, Li L, Warram JM, **Lapi SE**, Larimer BM, Markert JM, Sorace AG. Quantitative dynamic granzyme B PET imaging to characterize novel combination immunotherapy response in preclinical glioblastoma models. *Theranostics.* 2026 Jan 1;16(6):2649-2664. doi: 10.7150/thno.123588. PMID: 41510159; PMCID: PMC12775653.
185. Wright BD, Houson HA, Fernandez S, Gultekin K, McConathy JE, Giri S, **Lapi SE**. PET Imaging of CD38 and IND enabling studies of [^{89}Zr]Zr-DFO-Isatuximab. *Mol Imaging Biol.* 2025 Dec 9. doi: 10.1007/s11307-025-02062-9. Epub ahead of print. PMID: 41364284.
186. Tekin V, Archer NE, Fernandez SR, Houson HA, Bartels JL, **Lapi SE**. Homotypic Targeting of [^{89}Zr]Zr-Oxine Labeled PC3 and 4T1 Cells in Tumor-Bearing Mice. *Pharmaceutics.* 2025 Sep 26;17(10):1259. doi: 10.3390/pharmaceutics17101259. PMID: 41155896; PMCID: PMC12566915.
187. Samuel SL, Fernandez S, Cingoranelli SJ, Pyles JM, Bartels JL, Houson HA, Lu Y, Wright BD, Yasui N, Sorace AG, **Lapi SE**. Spatial resolution and image quality of radionuclides for PET imaging. *Nucl Med Biol.* 2026 Feb 23;154-155:109612. doi: 10.1016/j.nucmedbio.2026.109612. Epub ahead of print. PMID: 41797021.
188. Cao PD, Wu Z, Houson HA, Ngo QT, **Lapi SE**, Lindsey JS. Preferential Formation and Stability of Copper Porphyrins amidst Other Metals in Dilute Aqueous Solution—Applications for Radiopharmaceuticals. *Inorg Chem.* 2026 Mar 9;65(9):4884-4900. doi: 10.1021/acs.inorgchem.5c04390. Epub 2026 Feb 23. PMID: 41797497; PMCID: PMC12978235.

INVITED COMMENTARIES, REVIEWS AND BOOK CHAPTERS

1. Marquez, B.V., Zheleznyak, A., **Lapi, S.E.** (2014) Invited Perspective: Glypican-3 Targeted ^{89}Zr -PET Imaging of Hepatocellular Carcinoma: Where antibody imaging dares to tread. *Journal of Nuclear Medicine* 55(5):708-9
2. Boros, E., Marquez, B., Ikotun, O., **Lapi, S.E.**, Ferreira, C., Chapter: Radiometal Chelation in "Ligand Design in Medicinal Inorganic Chemistry" Timothy Storr ed. (2014) Wiley
3. **Lapi, S.E.**, Lewis J.S., Dehdashti F. Evaluation of Hypoxia With Copper-Labeled Diacetyl-bis(N-Methylthiosemicarbazone) (2015) *Semin Nucl Med.* 2015 Mar;45(2):177-185.
4. Marquez, B.V., **Lapi, S.E.** (2015) Invited Perspective: Pretargeted immunoPET: Overcoming limitations of space and time. *Journal of Nuclear Medicine* 57 (3) 332-33

5. Radford, L.L., **Lapi, S.E.** Methods for the Production of Radionuclides for Medicine In: Radiopharmaceutical Chemistry (Eds. Jason Lewis PhD, Brian Zeglis PhD, and A.D. Windhorst PhD). Springer 2019
6. Decristoforo C, Mikolajczak R, Naidoo C, **Lapi SE**, Haddad F, Schmid DE, Gano L, Köster U, Stora T. To be GMP or not to be- a radionuclide's question. EJNMMI Radiopharm Chem. 2025 Jul 10;10(1):42.

INVITED ORAL PRESENTATIONS:

1. **Lapi, S.E.** (2010) Development of Zr-89, a longer lived PET radionuclide for molecular imaging. Presented at **Metals in Medicine Gordon Conference**, Andover , NH
2. **Lapi, S.E.**(2010) Opportunities for the production of medical isotopes with FRIB. Presented at the **American Chemical Society Annual Meeting**, Boston, MA
3. **Lapi, S.E.** (2010) From Antimatter to Disease Detection: The Use of Radioisotopes in the Life Sciences. Presented at **Oak Ridge National Laboratory**
4. **Lapi, S.E.** (2010) Sugar-free PET: New developments in radiometal imaging agents. Presented at **Memorial Sloan-Kettering Cancer Center**
5. **Lapi, S.E.** (2011) Radioactive Transition Metals: Cyclotron Production and Uses in Medical Imaging: Presented at **Chemistry Department, Washington University, MO**
6. **Lapi, S.E.** (2011) Imaging Applications of Radiometals. Presented at **Beckman Institute for Imaging**, University of Illinois, Urbana
7. **Lapi, S.E.** (2011) Ag-111: a radiotracer for silver chemistry and biochemistry. Presented at **Chemistry Department, University of Akron, OH**
8. **Lapi, S.E.** (2011) Imaging with Radiometals. Presented at **Society of Nuclear Medicine Annual meeting**, San Antonio, TX
9. **Lapi, S.E.** (2012) Diagnostic-Therapeutic Radioisotope Pairs. Presented at **Society of Nuclear Medicine Midwinter meeting**, Orlando, FL
10. **Lapi, S.E.** (2012) Copper-64 and Zirconium-89 PET Imaging Agents in Oncology Presented at **Chemistry Department, Missouri University**, Columbia, MO
11. **Lapi, S.E.** (2012) From Antimatter to Disease Detection, Presented at **Chemistry Department, Hope College**, MI,
12. **Lapi, S.E.** (2012) Imaging with Radiometals, The Nonstandard Isotopes become Standard. Presented at **Canadian Society of Chemistry Annual Meeting**, Calgary, AB
13. **Lapi, S.E.** 2012) PET Imaging with Radiometals, Presented at **MGH, Boston, MA**
14. **Lapi, S.E.** (2013) ImmunoPET Imaging: Where Antimatter Meets Antibodies, Presented at **Tgen, Phoenix, AZ**
15. **Lapi, S.E.** (2013) Radiochemistry Training at Washington University in St. Louis, Presented at **Chemistry Department, University of Iowa, IA**
16. **Lapi, S.E.** (2013) Production of PET Radiometals: ⁶⁴Cu and ⁸⁹Zr, Presented at **North American Particle Accelerator Conference, Pasadena, CA**
17. **Lapi, S.E.** (2013) Accelerator Production of Isotopes for Medical Use, Presented at **Oak Ridge National Laboratory, TN**
18. **Lapi, S.E.** (2014) Accelerator production of isotopes for medical use: A tale of two energies, Presented at **American Physics Society Annual Meeting, Savannah, GA**
19. **Lapi, S.E.** (2014) Radiometals for PET and SPECT: Data from the present and thoughts on the future Presented at **Turku PET Symposium, Turku Finland**
20. **Lapi, S.E.** (2014) Cyclotron Production and Separation of Positron Emitting Radiometals Presented at **Canadian Society of Chemistry annual meeting, Vancouver, Canada**
21. **Lapi, S.E.** (2014) Radiolabeled Antibodies (ImmunoPET) for Prediction of Response to Targeted Therapeutics Presented at **2014 Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO**

22. Lapi, S.E. (2014) Imaging of GLP1R for Assessment of Pancreatic Beta Cell Mass Presented at **2014 Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO**
23. Lapi, S.E. (2014) Cyclotron Production and Imaging Applications of Positron Emitting Radiometals Presented at **8th International Conference on Isotopes** , Chicago, IL
24. Lapi, S.E. (2014) PET imaging with radiometals: Cu-64 and Zr-89 Presented at **2014 World Federation of Nuclear Medicine and Biology** , Cancun, MX
25. Lapi, S.E. (2014) Antimatter and Antibodies: PET imaging of receptor expression in oncology, Presented at **Department of Radiology, University of Wisconsin, Madison, WI**
26. Lapi, S.E. (2014) Antimatter and Antibodies: PET imaging of receptor expression in oncology, Presented at **Department of Radiology, Emory University, Atlanta, GA**
27. Lapi, S.E. (2015) Antimatter and Antibodies: PET imaging with ⁸⁹Zr in oncology Presented at **University of Pennsylvania, PA**
28. Lapi, S.E. (2015) The Supply for Key Emerging Research Isotopes: University Cyclotron Production Sites, Presented at **High Country Nuclear Medicine Meeting, Vail, CO**
29. Lapi, S.E. (2015) From Nuclear Chemistry to Nuclear Medicine: Positron Emitting Radiometals for Cancer Imaging, Presented at **Lawrence Berkeley National Laboratory, Berkeley, CA**
30. Lapi, S.E. (2015) PET imaging in Oncology with Radiolabeled Antibodies: Tools for Personalized Medicine Presented at **Society of Nuclear Medicine Missouri Valley Chapter Meeting, St. Louis, MO**
31. Lapi, S.E. (2015) Radiochemistry and PET imaging with ⁸⁹Zr: Methodology, Preclinical Analysis and Clinical Applications Presented at **IPEN, São Paulo, Brazil**
32. Lapi, S.E. (2015) Emerging PET Research Isotopes:⁶⁴Cu, ⁸⁹Zr, ⁷⁶Br and others, Presented at **SBBN, São Paulo, Brazil**
33. Lapi, S.E. (2015) Recent developments in production and purification of novel PET isotopes **International Chemical Congress of Pacific Basin Societies**, Honolulu, Hawaii, December 15-20, 2015
34. Lapi, S.E. (2015) Potential for harvesting of long-lived radioisotopes at the Facility for Rare Isotope Beams (FRIB): Synergistic activities for basic and applied nuclear science **International Chemical Congress of Pacific Basin Societies**, Honolulu, Hawaii, December 15-20, 2015
35. Lapi, S.E. (2015) Assessment of the clearance and pharmacokinetics of silver antimicrobials using ¹¹¹Ag **International Chemical Congress of Pacific Basin Societies** , Honolulu, Hawaii, December 15-20, 2015
36. Lapi, S.E. (2016) Radiochemistry and PET Imaging with ⁸⁹Zr: Methodology, Preclinical Analysis and Clinical Applications, Presented at **APhA 2016 Annual Meeting and Exposition**, Baltimore, MD, March 4-7, 2016
37. Lapi, S.E. (2016) From Isotopes to Images: Cyclotron Production and Use of Radionuclides for Diagnostic Medicine, Presented at **The University of Illinois at Chicago**, Chicago, IL, March 31, 2016
38. Lapi, S.E. (2016) Anti-Matter and Antibodies: PET Imaging with ⁸⁹Zr in Oncology, Presented at **University of Toronto Graduate Seminar Series**, Toronto, Ontario, April 11-12, 2016
39. Lapi, S.E. (2016) From Isotopes to Images: Accelerator Production of Radionuclides for Nuclear Medicine **University of Saskatoon Chemistry Department**, Saskatoon Saskatchewan, April 29, 2016
40. Lapi, S.E. (2016) Accelerator Production of Isotopes, Presented at **Michigan State University, National Superconducting Cyclotron Laboratory**, Lansing, Michigan, July 21, 2016
41. Lapi, S.E. (2016) From Isotopes to Images, Radionuclides in Nuclear Medicine. **Presented at University of Michigan**, Ann Arbor, Michigan, Department of Radiology, July 22, 2016

42. **Lapi, SE** (2016) Proof-of-Principal Experiments for Isotope Harvesting. Presented at **Michigan State University, National Superconducting Cyclotron Laboratory**, Lansing, Michigan, August 18, 2016
43. **Lapi, SE** (2016) Isotope Production Capabilities and Radiopharmaceutical Development at the University of Alabama at Birmingham. Presented at the **International Atomic Energy Agency (IAEA)** Vienna, Austria, September 6th, 2016
44. **Lapi, SE** (2016) Mid-Scale Instrumentation in Nuclear and Radiochemistry: Needs and Opportunities. **Presented at the National Science Foundation**, Washington DC, September 29th, 2016
45. **Lapi, SE** (2016) Cyclotron Production of Radionuclides for Nuclear Medicine at Academic Centers: Little Machines with a Big Impact Division of Nuclear Physics of the American Physical Society. **Presented at the APS Division of Nuclear Physics**. Vancouver, BC. October 10-14, 2016.
46. **Lapi, SE** (2016) From Isotopes to Images: Accelerator Production of Radionuclides for Nuclear Medicine. **Presented at The University of Tennessee Knoxville**. Knoxville, Tennessee. October 24-25, 2016.
47. **Lapi, SE** (2016) Production of Radionuclides with Accelerators Big and Small: Complementary Techniques for Filling the Toolbox of Useful Radiotracers. **Presented at Oak Ridge National laboratory**. Oak Ridge, Tennessee. October 24-25, 2016.
48. **Lapi, SE**. (2017) The UAB Cyclotron Facility: Capabilities and Partnership Opportunities. **Presented at Department of Energy University Accelerator Isotope Production Workshop**. Washington, D.C. March 21-23, 2017.
49. **Lapi, SE** (2017) From Isotopes to Images: An update on the UAB cyclotron facility. **Presented at Health Physics Society**. Birmingham, AL. March 24, 2017.
50. **Lapi, SE**. (2017) From Chemistry to the Clinic: An update on the UAB cyclotron facility. **Presented at Alabama Society of Nuclear Medicine**. Orange Beach, AL. May 7. 2017.
51. **Lapi, SE**. (2017) Cyclotron Production Techniques for Novel Positron Emitters. Center for Radiopharmaceutical Sciences. **Presented at Paul Scherrer Institut**. Villigen, Switzerland. May 23, 2017.
52. **Lapi, SE**. (2017) Cyclotron Production Techniques for Novel Positron Emitters. **Presented at Albert Einstein Center for Fundamental Physics**. University of Bern, Bern, Switzerland. May 24, 2017.
53. **Lapi, SE**. (2017) ⁸⁹Zr Production and Radiochemistry at UAB. **Presented at IAEA**. Vienna, Austria. June 20, 2017.
54. **Lapi, SE**. (2017) Novel Radionuclides and Applications in Nuclear Medicine and Basic Science. **Presented at Karmanos Cancer Center**. Detroit, MI July 7th, 2017.
55. **Lapi, SE**. (2017) Chemistry and PET imaging with radiometals at UAB. **Presented at TRIUMF**. Vancouver, Canada July 12th, 2017.
56. **Lapi, SE**. (2017) Low Energy Accelerator Production of Isotopes for Medical Imaging. **Presented at Accelerator Applications 2017 (AccApp2017)**. Quebec City, Canada, August 1, 2017.
57. **Lapi, SE**. (2018) Production of ⁴⁷Sc via NatTi(p,α) reactions at University of Alabama at Birmingham. **Presented via Skype at International Atomic Energy Agency**. Vienna, Austria, March 5-6, 2018.
58. **Lapi, SE**. (2018) From Isotopes to Images; Applications of PET Radiometals for Nuclear Medicine. **Presented at Molecular Physiology Seminar Series**. Houston, Texas, April 16-18, 2018.
59. **Lapi, SE**. (2018) Expanding the Toolbox of PET Radioisotopes at UAB with a 24 MeV cyclotron. **Presented at Society of Nuclear Medicine and Molecular Imaging**. Philadelphia, Pennsylvania. June 22-26, 2018

60. **Lapi, SE.** (2018) Emerging PET Radiopharmaceuticals. **Presented at GE PET/MRI Users Meeting.** Philadelphia, Pennsylvania. June 27, 2018
61. **Lapi, SE.** (2018) Nuclear and Radiochemistry at the University of Alabama at Birmingham. **Presented at the 256th ACS National Meeting.** Boston, Massachusetts. August 19-23, 2018.
62. **Lapi, SE.** (2018) Production and imaging applications of radiometal PET isotopes. **Presented at the International Symposium on Molecular Imaging.** Zhuhai, China. October 25-29, 2018.
63. **Lapi, SE.** (2019) From Isotopes to Images: Radiometals for PET Imaging in Oncology. **Presented at Stanford University.** Stanford, CA. January 28-30, 2019.
64. **Lapi, S.E.** (2019) Expanding the toolbox of radiometal PET agents: Imaging applications of ^{89}Zr , ^{45}Ti and $^{43,47}\text{Sc}$. Presented at the **Massachusetts General Hospital.** Boston, Massachusetts. February 4, 2019.
65. **Lapi, SE.** (2019) From Isotopes to Images: Novel Radiometals for PET Imaging. Presented at **Texas A&M University.** College Station, TX. March 25, 2019.
66. **Lapi, SE.** (2019) Annual Assessment of the NNSA-Material Management and Minimization (M3) ^{99}Mo Program. Presented to **Nuclear Science Advisory Committee.** Washington DC. April 8, 2019.
67. **Lapi, SE.** (2019) From Isotopes to Images: Radiometals for PET Imaging in Oncology. Biomedical Imaging Research Centre at **Western University.** London, ON, Canada. April 24, 2019.
68. **Lapi, SE.** (2019) "Radioisotope production and radiopharmaceutical development at the University of Alabama at Birmingham". Presented at the ACSI satellite workshop at the **International Symposium on Radiopharmaceutical Sciences.** May 26-31, 2019. Beijing, China.
69. **Lapi, S.E.** (2019) Creative Chemistry and Cyclotrons: Training students and expanding the toolbox of PET radionuclides. Presented at the **Canadian Association of Physicists John D'Auria Memorial Symposium.** June 4, 2019 Vancouver, Canada.
70. **Lapi, S.E.** (2019) Nuclear and Radiochemistry at the University of Alabama at Birmingham Cyclotron Facility. Presented at the **National Nuclear Chemistry Summer School.** Brookhaven National Laboratory, NY. July 11, 2019.
71. **Lapi, S.E.** (2019) From Isotopes to Images: Radiometals for PET Imaging in Oncology. Presented at the **Los Alamos National Laboratory,** NM. July 25, 2019.
72. **Lapi, S.E.** (2019) Innovative isotopes and illuminating images: Research at the UAB cyclotron facility. Presented at the Experimental Therapeutics Seminar Series sponsored by the UAB O'Neal Comprehensive Cancer Center. Birmingham, Alabama. September 24, 2019.
73. **Lapi, S.E.** (2019) From Isotopes to Images: The Use of Radioactive Materials in Medicine. Plenary Lecture at the **International Symposium on Trends in Radiopharmaceuticals (ISTR-2019).** International Atomic Energy Agency. Vienna, Austria. October 28th, 2019.
74. **Lapi, S.E.** (2019) Production of Radiometals Using a 24 MeV Cyclotron. Presented at the **International Symposium on Trends in Radiopharmaceuticals (ISTR-2019).** International Atomic Energy Agency. Vienna, Austria. October 28th, 2019.
75. **Lapi, SE.** (2019) Production of ^{47}Sc via $\text{Nat}/^{47}\text{Ti}(p,\alpha)$ reactions at University of Alabama at Birmingham. Presented at the **International Atomic Energy Agency (IAEA).** Vienna, Austria. November 5th, 2019.
76. **Lapi, SE.** (2020) Expanding the Toolbox of Radiometal PET Agents: Imaging Applications of ^{89}Zr , ^{64}Cu and $^{43,47}\text{Sc}$. Presented at **Ege University Institute of Nuclear Sciences.** Izmir, Turkey. February 18, 2020.
77. **Lapi, SE.** (2020) From Isotopes to Images: Novel Radiometals for PET Imaging. Presented at **Manisa Celal Bayar University.** Manisa, Turkey. February 19, 2020.

78. **Lapi, S.E.** (2020) Chemistry and PET Imaging with Radiometals at the University of Alabama at Birmingham. Presented at **Aydin Adnan Menderes University**. Aydin, Turkey. February 20, 2020.
79. **Lapi, S.E.** (2020) From Isotopes to Images: Applications of PET Radiometals for Nuclear Medicine. Remotely presented at **Tennessee Tech University**, TN. April 17th, 2020.
80. **Lapi, S.E.** (2020) Nuclear and Radiochemistry at the University of Alabama at Birmingham Cyclotron Facility. Presented virtually at the **National Nuclear Chemistry Summer School**. Brookhaven National Laboratory, NY. July 14, 2020.
81. **Lapi, S.E.** (2020) Production of Theragnostic Radio-Scandium. Presented virtually at the **Society of Nuclear Medicine Annual Meeting**. July 14, 2020.
82. **Lapi, S.E.** (2020) Cyclotron production and radiochemistry of Sc and Ti radiometals for imaging and radiotherapy. Presented at the **American Chemical Society Annual Meeting**, Virtual, August 20, 2020.
83. **Lapi, S.E.** (2020) Expanding the imaging toolbox with radiometal PET imaging agents. T-32 Research Track Invited Talk at the **University of Pennsylvania**. Virtual. October 8, 2020.
84. **Lapi, S.E.** (2021) Expanding the Imaging Toolbox with Radiometal PET Imaging Agents. Molecular Imaging & Biology Invited Seminar at the **University of Virginia**. Virtual. February 17, 2021.
85. **Lapi, S.E.** (2021) Zr-89 Production and Applications. Presented at the **International Atomic Energy Agency's** First Research Coordination Meeting on Zr89. Virtual. March 19, 2021.
86. **Lapi, S.E.** (2021) Expanding the Imaging Toolbox with Radiometal PET Imaging Agents. Invited Speaker to the Image Guided Cancer Therapy Program Seminar Series at **MD Anderson Cancer Center**. Virtual. March 24, 2021.
87. **Lapi, S.E.** (2021) Expanding the Cancer Imaging Toolbox with Radiometal PET Imaging Agents. Presented at **University of California San Francisco**. Virtual. April 13, 2021.
88. **Lapi, S.E.** (2021) Accelerator Isotope Production. Presented at the **US Particle Accelerator School**. Virtual. June 9, 2021.
89. **Lapi, S.E.** (2021) Isotope Research and Future Directions. Presented at the **US Particle Accelerator School**. Virtual. June 9, 2021.
90. **Lapi, S.E.** (2021) Nuclear Physics and Nuclear Medicine. Presented at The **International Union of Pure and Applied Physics**. Virtual. June 10, 2021.
91. **Lapi, S.E.** (2021) "Expanding the radioisotope toolbox for nuclear medicine". Presented at **TRIUMF Science Week**. Virtual. August 16, 2021.
92. **Lapi, S.E.** (2021) "Production and purification of Sc radionuclides". Presented at Seaborg Symposium, **American Chemical Society Annual Meeting**, Atlanta, Georgia. Aug 23, 2021.
93. **Lapi, S.E.** (2021) Novel PET Cyclotron Radioisotopes and Novel Radiopharmaceuticals. Presented at the **XIII Brazilian Society on Nuclear Biosciences Congress**. Virtual. October 4, 2021.
94. **Lapi, S.E.** (2022) From Isotopes to Images: Production and Imaging of Atypical Radiometals Presented at the **University of Missouri, Columbia**. March 3rd, 2022
95. **Lapi, S.E.** (2022) New radiopharmaceuticals for PET in oncology: Expanding the imaging toolbox. Presented at **the UAB Department of Radiation Oncology** Science Hour Seminar Series. March 9th, 2022.
96. **Lapi, S.E.** (2022) From Isotopes to Images: The UAB Cyclotron Facility. Presented at the **UAB Biotech Seminar** Series. April 6th, 2022.
97. **Lapi, S.E.** (2022) UAB Cyclotron Facility Isotope Research Program and Opportunities. Presented at the **Department of Energy** Strategic Planning meeting. April 27th, 2022.
98. **Lapi, S.E.** (2022) Production of PET Radiometals for Pre-Clinical and Clinical Research. Presented at the **Society of Nuclear Medicine and Molecular Imaging Annual Meeting**. Vancouver, Canada. June 11, 2022.

99. **Lapi, SE.** (2022) Update on Cu64/Cu67 Theranostic Pairs. Presented at the **Society of Nuclear Medicine and Molecular Imaging Annual Meeting**. Vancouver, Canada. June 12, 2022.
100. **Lapi, SE.** (2022) First-in-Human Imaging of 89Zr-oxine Labelled Autologous Leukocytes in Healthy Volunteers. Presented at the **Society of Nuclear Medicine and Molecular Imaging Annual Meeting**. Vancouver, Canada. June 14, 2022.
101. **Lapi, SE.** (2022) Current and Future Directions in the Creation of a Modern cGMP Radiochemistry Facility. Presented at the **Society of Nuclear Medicine and Molecular Imaging Annual Meeting**. Vancouver, Canada. June 14, 2022.
102. **Lapi, SE.** (2022) 89Zr Production and Applications at UAB. Presented at the **International Atomic Energy Agency**. Negrar, Italy. September 18- 24, 2022.
103. **Lapi, SE.** (2022) Antibody PET: Applications in research and informing clinical care. Presented at the **Southeastern Chapter Society of Nuclear Medicine**. Savannah, Georgia. October 7-9, 2022.
104. **Lapi, SE.** (2022) From Isotopes to Images: Applications of PET Radiometals for Nuclear Medicine. Presented at **Case Western Reserve University**. Cleveland, Ohio. October 12-14, 2022.
105. **Lapi, SE.** (2022) Radiochemistry for development of new radiopharmaceuticals. Presented at **Georgia State University**. Atlanta, Georgia. October 19-20, 2022.
106. **Lapi, SE.** (2022) From Isotopes to Images: Expanding the Oncology Radiopharmaceutical Toolbox. **University of Pennsylvania**. Philadelphia, PA. December 14-15, 2022.
107. **Lapi, SE.** (2023) From Isotopes to Images: Expanding the Radiopharmaceutical Tool Box. **University of Chicago**. Chicago, IL. February 8th, 2023.
108. **Lapi, S.E.** (2023) "Data Needs & Capabilities for UAB: Proton induced reactions for medical isotope production". Presented at the **Workshop for Applied Nuclear Data Activities**. March 1st, 2023. Washington, DC.
109. **Lapi, S.E.** (2023) "Development of elementally matched theranostic pairs for targeted radiotherapeutics". Presented at the **NCI Working Group on Radiopharmaceutical Therapy**. March 8th, 2023. Virtual.
110. **Lapi, S.E.** (2023) "Expanding the toolbox of radiometals for oncologic imaging and therapy" presented at the **American Chemical Society Annual Meeting**. March 28th, 2023. Indianapolis IN.
111. **Lapi, SE.** (2023) Expanding the toolbox of radiometals for oncologic imaging and therapy. **Stanford University Grand Rounds**. April 14, 2023. Stanford, CA.
112. **Lapi, SE.** (2023) Elementally matched radiopharmaceuticals for imaging and therapy. **International Symposium on Trends in Radiopharmaceuticals**. April 20th, 2023. International Atomic Energy Agency, Vienna, Austria.
113. **Lapi, SE.** (2023) Expanding the toolbox of isotopes for preclinical imaging. **International Symposium on Trends in Radiopharmaceuticals**. April 18th, 2023. International Atomic Energy Agency, Vienna, Austria.
114. **Lapi, SE.** (2023) Secondary Standard Labs – Ensuring Isotope Accuracy. **Society of Nuclear Medicine & Molecular Imaging Annual Meeting**. Chicago, IL. June 25, 2023.
115. **Lapi, SE.** (2023) Zr89 Production and use: The Academic Perspective. **Society of Nuclear Medicine & Molecular Imaging Annual Meeting**. Chicago, IL. June 26, 2023.
116. **Lapi, SE.** (2023) Production and Regulatory Aspects of Theranostics. **Society of Nuclear Medicine & Molecular Imaging Annual Meeting**. Chicago, IL. June 27, 2023.
117. **Lapi, SE.** (2024) Expanding the Imaging Toolbox with Radiometal PET Imaging Agents. Department of Radiology **McMaster University** Feb 29th, 2024.

118. **Lapi, SE.** (2024) Pb-203/212 & Sc-44/43/47: Recent progress in isotope production and radiopharmaceutical chemistry, **World Theranostics Conference**, Santiago, Chile March 22nd .
119. **Lapi, SE.** (2024) Expanding the Imaging Toolbox with Radiometal PET Imaging Agents. Department of Radiology, **Icahn School of Medicine** at Mt Sinai Grand Rounds. April 8th, 2024.
120. **Lapi, SE.** (2024) 89Zr Production and Applications at UAB. **International Atomic Energy Agency** meeting on 89Zr Production and 89Zr Radiopharmaceuticals, Warsaw, Poland. April 24th, 2024.
121. **Lapi, SE.** (2024) Elementally matched radiopharmaceuticals for imaging and therapy. **Korean Society for Nuclear Medicine Annual Meeting** Yeosu, Korea. May 17th, 2024.
122. **Lapi, SE.** (2024) From “Nonstandard” to “Must-Have” Radionuclides: Adventures in Applied Nuclear Chemistry. **Society of Nuclear Medicine & Molecular Imaging Annual Meeting**. Toronto, Canada June 8th, 2024
123. **Lapi, SE.** (2024) Elementally matched radiopharmaceuticals for imaging and therapy. **NFRF: Rare Isotopes to Transform Cancer Therapy Symposium** Toronto, Canada June 8th, 2024.
124. **Lapi, SE.** (2025) Elementally matched radiopharmaceuticals for imaging and therapy. **City of Hope**, Duarte, CA, March 6th, 2025
125. **Lapi, SE.** (2025) Elementally matched radiopharmaceuticals for imaging and therapy. **Society of Nuclear Medicine & Molecular Imaging Annual Meeting**. New Orleans, LA June 22nd, 2025
126. **Lapi, SE.** (2025) Matchmaking with Radionuclides for Theranostic Strategies. University of Alberta, Edmonton, Canada, August 15, 2025
127. **Lapi, SE.** (2025) Production and radiochemistry of novel radionuclides for theranostic strategies, Anchorage, Sept 28th, 2025
128. **Lapi, SE.** (2025) Radionuclides for the Theranostic Revolution: Matched Theranostic Pairs Prostate Cancer Foundation Scientific Retreat, San Diego, Oct 23rd, 2025
129. **Lapi, SE.** (2025) Rising Costs of Equipment and Other Research Expenditures and How to Support PIs in Pursuing Supplemental Funding, RSNA CORE Meeting, Chicago Oct 28th, 2025
130. **Lapi, SE.** (2025) Pain Points in Initial Outreach to Therapy Trial Sites: An Academic Perspective, SNMMI Theranostics Meeting Bethesda, Nov 6th, 2025.
131. **Lapi, SE.** (2026) The Potential and Challenges in Alpha Therapy Implementation: Theranostics for Alpha Emitters?, American Society for Radiation Oncology 2026 Multidisciplinary Radiopharmaceutical Therapy Symposium in Palm Desert, February 18, 2026.

MISCELLANEOUS:

IAEA Technical Documents

1. Cyclotron Productions of Positron Emitters: ⁶⁴Cu and ¹²⁴I, (2015) International Atomic Energy Agency, Vienna, Austria 2015 available at:
<http://www-pub.iaea.org/MTCD/publications/PDF/Pub1717Web-25315812.pdf>
2. Cyclotron based Production of Technetium-99m, (2017) International Atomic Energy Agency, Vienna, Austria 2017 available at:
<http://www-pub.iaea.org/books/IAEABooks/10990/Cyclotron-Based-Production-of-Technetium-99m>