PET-RTRC

The latest news from the PET Radiotracer Translation and Resource Center

Washington University in St. Louis
School of Medicine

Summer 2026

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Letter from the Program Director



Dear Colleagues,

Welcome to the Summer 2026 edition of the PET-RTRC newsletter. We have had an active winter and spring since our last newsletter. The PET-RTRC Workshops and Scientific Sessions were conducted in hybrid format in February with more than 200 registered attendees. The Workshops focused on Imaging Infection and Inflammation as well as FDA Regulatory updates. A "hands-on" training session was also part of the Workshops on the utilization of preclinical software for image analysis. The Scientific Session focused on imaging of oxidative stress with outsanding lectures from Drs. Sruti Shiva, Paul Zolkind, Vijay Sharma, and Caroline Guglielmetti. We also had a Rapid Fire abstract presentation session which allowed young investigators to highlight their innovative work. In person attendees were able to tour the MIR facilities. Finally, our External Advisory and Tracer Review Committee meeting was held on February 20. We thank the members of these committees for their excellent feedback on how to improve the impact of the Center moving forward to maintain its status as an invaluable resource to the research community. In addition, the PET-RTRC co-sponsored the Daniel R. Biello Lecture in May where Dr. Michael Hofman spoke on "Precision Oncology in Action: The PSMA Revolution".

In this issue, the Spotlight section focuses on the exciting work of our new Co-leader for TR&D 1, Dr. Guangyong Peng, MD, PhD., whose research collaboration will combine immunology and molecular imaging to advance cancer immunotherapy and our understanding of the tumor microenvironment.

Our booth was busy at the SNMMI meeting in Los Angeles in June. Thanks to everyone who stopped by, it is always great to talk to you and tell you about the great things happening with the Center. This September at WMIC in Salt Lake City, we will not only have a booth on the exhibit floor but will also host our third P41 session at the conference. Look for updates to the agenda here.

Please visit our website to learn more about the PET-RTRC and our upcoming activities. To stay up to date with our most recent developments or to be added to our mailing list, please contact Lisa Detering at lisa.moore@wustl.edu

Best Regards,

Robert J Gropler, MD
PET-RTRC Program Director

The PET-RTRC is the U.S. innovation hub for the development of novel PET radiotracers. Leading the way for a nationwide network of collaborators, the center seeks to expand the understanding of diseases and advance the mission of precision imaging.

MIR Mallinckrodt Institute of Radiology

NIH National Institute of Biomedical Imaging and Bioengineering

The PET-RTRC is supported by the NIH NIBIB Grant # P41 EB025815

Spotlight



The NIBIB funded P41 PET-RTRC program at WashU and MIR aims to develop new PET radiotracers to deliver accurate diagnosis and personalized treatment of human disease. In the current funding cycle, the PET-RTRC program is centered on the development of PET radiotracers for imaging inflammation and inflammatory responses. Among the three Translational Research and Development (TR&D) projects, **TR&D 1** (Led by Dr. Zhude Tu, Professor of Radiology, and new Co-leader **Dr. Guangyong Peng**) is focused on the development and evaluation of imaging agents targeting S1PR receptors, which are of clinical significance in cancer. The organizational foundation for scientific innovation within a P41 Center is the "push-pull" relationship between its TR&D projects and Collaborative Projects (CPs). In this newsletter, we highlight this partnership through the work of **Dr. Guangyong Peng- above**, whose collaboration with TR&D 1 is propelling new PET-related research with the potential to transform biomedical research and precision medicine.

Dr. Peng is a Professor of Medicine and Immunobiology in the Departments of Otolaryngology–Head & Neck Surgery and Pathology & Immunology at Washington University School of Medicine. The Peng laboratory conducts translational research aimed at elucidating the molecular mechanisms underlying T-cell senescence and dysfunction in a range of diseases, including cancer, chronic inflammatory conditions, and age-related neurodegenerative disorders such as Alzheimer's disease (**Figure 1**). The laboratory also develops innovative molecular and metabolic strategies to modulate T-cell fate and function for disease prevention and immunotherapy. Dr. Peng's research has been supported by the National Institutes of Health (NIH), the American Cancer Society (ACS), the Department of Defense (DoD), and the Melanoma Research Alliance (MRA). He currently serves as Principal Investigator on four active NIH R01 grants focused on investigating the role of T cells in cancer and Alzheimer's disease.

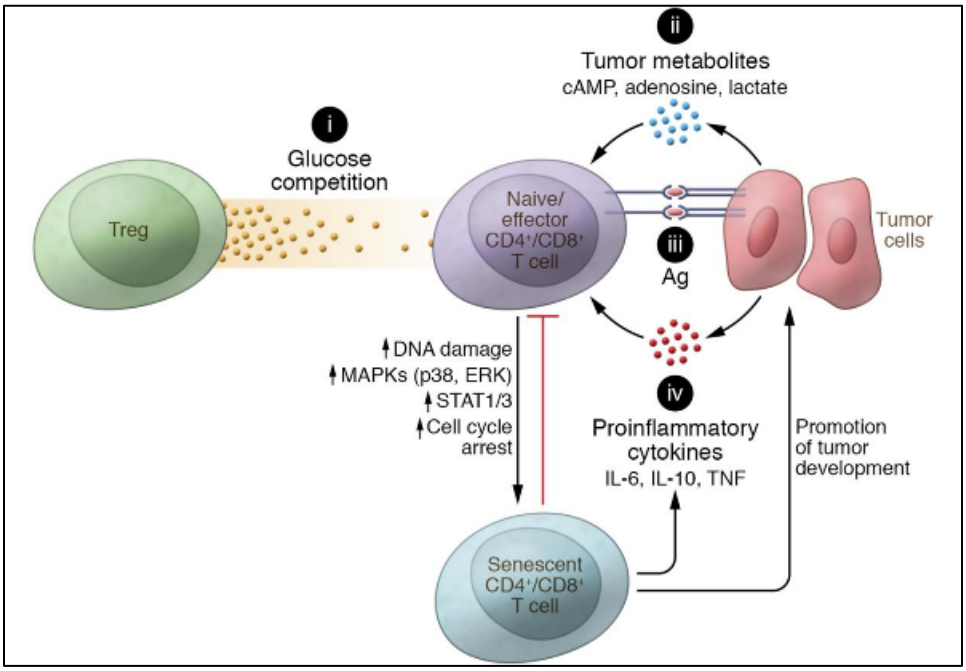


Figure 1: Potential signaling and mechanisms are responsible for the development of senescent T cells within the tumor microenvironment.

As a newly appointed co-Leader of TR&D 1 within the P41 PET-RTRC program, Dr. Peng will work closely with Dr. Tu to investigate the cellular and molecular mechanisms within the immunosuppressive tumor microenvironment that contribute to tumor metastasis and resistance to immunotherapy. This project will utilize PET radiotracers targeting sphingosine- 1- phosphate receptors 1, 2, and 3 (S1PR1/2/3) to image and characterize cell components and related signaling pathways across multiple cancer types.

Collaborative Projects

ALABAMA
University of Alabama at Birmingham
- Cancer Inflammation

ARIZONA
BNI Phoenix
- Multiple Sclerosis

CALIFORNIA
Stanford University
- Multiple Sclerosis
- Pancreatic Cancer

CONNECTICUT
Yale University
- Abdominal Aortic Aneurysm
- Acute Respiratory Distress Syndrome

GEORGIA
Emory University
- Bacterial Infection

LOUISIANA
Louisiana State University
- Ischemic Vascular Remodeling

MISSOURI
Washington University School of Medicine
- Abdominal Aortic Aneurysm
- Cardiac Inflammation
- Neuroinflammation
- Neuroinflammation in Nigrostriatal Injury

NEW YORK
Memorial Sloan Kettering Cancer Center
- Cancer Biology

NORTH CAROLINA
University of North Carolina at Chapel Hill
- Bladder Cancer

Service Projects

CALIFORNIA
University of California San Diego
- Metastatic Cancer

University of Southern California
- Myeloma Bone Disease

CONNECTICUT
Yale University
- Mitochondrial Diseases
- Neuroinflammation

MISSOURI
Saint Louis University
- Cardiac Inflammation

Washington University School of Medicine
- Multiple Sclerosis
- Osteoarthritis
- Pulmonary Fibrosis

NEW YORK
Icahn School of Medicine at Mount Sinai
- Myocardial Infarction

PENNSYLVANIA
University of Pittsburgh Medical Center
- Atherosclerosis

TEXAS
University of Texas Southwestern
- Kidney Injury

UTAH
University of Utah
- Atherosclerosis

WASHINGTON DC
Howard University
- Traumatic Brain Injury

GERMANY
Hannover University
- Cardiac Inflammation and Fibrosis

Interested in becoming a member of the Center?

Please fill out the Collaborative Project or Service Project application and send to lisa.moore@wustl.edu

The PET-RTRC is supported by the NIH NIBIB Grant # P41 EB025815



PET-RTRC WORKSHOPS AND SCIENTIFIC SESSION





February 17-19, 2026





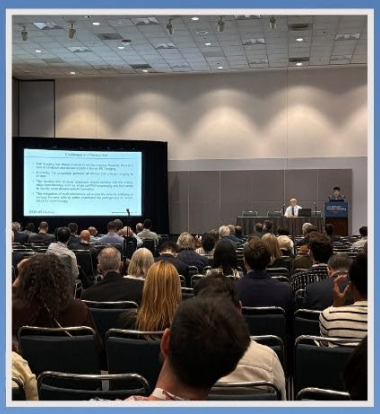


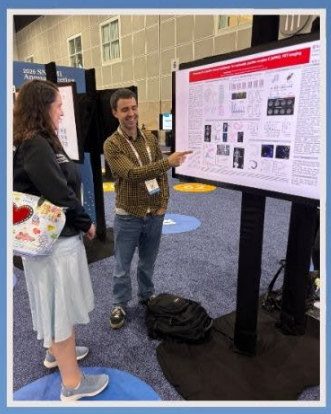


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SNMMI
2026





Los Angeles, California





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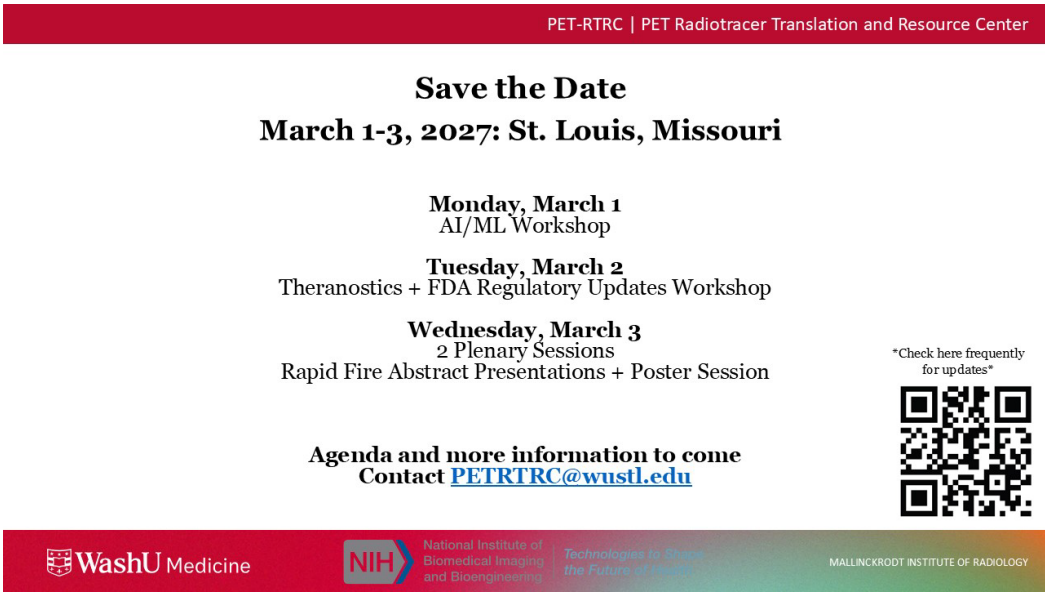
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Upcoming Events

SAVE THE DATE | March 1-3, 2027



The date for the 2027 Workshops has been set for March 1-3, 2027. This event provides informative presentations from experts in the field on **AI/ML and Theranostics**. We will also again be providing hands on training as well as trainees the opportunity to showcase their work during the rapid-fire abstract presentation session. Keep up with updates on our website.

Look for Us

PET-RTRC BOOTH #310 @ **WMIC September 8-11, 2026** | Salt Lake City, UT





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For more information about the PET-RTRC contact:

Michelle Hoelscher, Project Administrator
michellehoelscher@wustl.edu
314.747.4076
mir.wustl.edu/pet-rtrc

The PET-RTRC is supported by the NIH NIBIB Grant # P41 EB025815

Washington University in St. Louis
School of Medicine

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