### Subspecialty Expertise Sets Stanford Radiology Apart

Our radiologists are internationally renowned experts with subspecialty training in PET/ CT. In addition to excellence in patient care, the Nuclear Medicine and Molecular Imaging Clinic thrives to advance science through translational research aimed at improving outcomes of cancer, brain disorders and cardiac disease.



### Andrew Quon, MD

Chief, Clinical PET/CT

Co-Section Chief, Nuclear Medicine & Molecular Imaging Associate Professor of Radiology



### Andrei lagaru, MD

Co-Section Chief, Nuclear Medicine & Molecular Imaging

Assistant Professor of Radiology



### Erik Mittra MD, PhD Clinical Assistant Professor of

Clinical Assistant Professor of Radiology



### Ross McDougall MD, PhD

Emeritus Professor of Radiology and Medicine

### Location

### **Stanford Hospital**

300 Pasteur Drive, Stanford, CA 94305 Services: PET/CT & Nuclear Medicine -2nd Floor H2200 - Directly above the Cafeteria



Self-parking is to your left immediately after crossing Welch Road. Continue forward for Valet and Drop-off at the Fountain Entrance. Please visit **stanfordhospital.org/future** for detailed instructions on construction-related traffic and parking changes.

### Scheduling a PET/CT Scan

Stanford Radiology Scheduling Center Phone: 650-723-6855 Fax: 650-723-6036

Appointments are available Monday thru Friday.

For more information, go to: http://imaging.stanfordhospital.org www.petct.stanfordhospital.com

### Your appointment is scheduled for:

Date: \_

□Sun □Mon □Tue □Wed □Thur □Fri □Sat Time: \_\_\_\_\_



Department of Radiology

## **PET/CT** Stanford Medicine Imaging



# A powerful tool for you and your patients

### The Stanford Advantage

The world-renowned faculty and staff of the Stanford PET/CT and Molecular Imaging Program at Stanford (MIPS) are committed to being at the forefront of diagnostic molecular imaging. Stanford is the epicenter of innovative 3D recontructive techniques as well as the development of new radiotracers for imaging.

The PET/CT scanner at Stanford combines two state of the art imaging modalities. By monitoring cellular glucose metabolism, PET provides very sensitive information regarding the function and malignant potential of lesions. CT meanwhile provides exquisitely detailed anatomical information about the location, size, and shape of various lesions but cannot differentiate benign lesions from malignant lesions with the same accuracy as PET. The combined PET/CT scanner merges PET and CT images together and enables physicians to pinpoint with greater precision the location of a malignancy and ultimately stage the patient more accurately.

### Innovation and Building a Bridge to the Community at Stanford

In September of 2010, Stanford Medicine Imaging underwent a major expansion with the opening of the new Nuclear Medicine and Molecular Imaging Clinic. The expansion includes two additional state-of-the-art PET/CT scanners as well as two SPECT/CT scanners. Access to these technologies and Stanford faculty is a priority of the PET/CT Program. The infrastructure within the PET/ CT division is designed for maximal scheduling availability, reliable delivery of reports, and access to faculty for case discussion.





### **How PET Works**

PET scanning utilizes a radioisotope tracer that is an analog to glucose, called fluorodeoxyglucose (FDG). FDG accumulates within malignant cells because of their high rate of glucose metabolism. Once injected with this agent, the patient is imaged on the whole body PET scanner to reveal malignant lesions which may have been overlooked or difficult to characterize by conventional CT, X-ray, or MRI.

### **The Procedure**

Patients referred for PET/CT scanning will be required to spend approximately two hours at Stanford. Patients are first injected with a very small amount of the FDG radiotracer. The patient then waits approximately 45-60 minutes prior to scanning to allow for the FDG to adequately target and bind to possible malignant cells within the body. The actual scan takes ap proximately 35-45 minutes with the patient lying flat within the scanner.

### The Benefit of PET in Oncology

Clinical research data has proven that PET is superior to conventional imaging in the diagnosis, staging, and surveillance (restaging) of various types of cancers. Recently, the Centers for Medicare & Medicaid Services (CMS) expanded to include many more tumor types and reaffirmed its role in preexisting covered tumor types.

### Centers for Medicare & Medicaid Services (CMS): Expanded List of Cancers and Indications for PET/CT

Initial Staging<sup>1</sup> and Restaging/Treatment Monitoring<sup>2</sup> Non-small cell lung cancer Colorectal cancer Esophageal cancer Head & Neck cancer Lymphoma Ovarian cancer Myeloma Thyroid<sup>3</sup>

#### Initial Staging Specifically for Detection of Distant Metastatic Disease and Treatment Monitoring Cervical cancer Breast cancer

Melanoma

### **Initial Staging Only**

Brain cancers Small cell lung cancer Soft Tissue Sarcoma Pancreas Testes All other Solid Tumors

All other cancers and indications not listed above may be covered by the Coverage with Evidence Development (CED) Program which is administered by CMS and Stanford Medical Center is an active participant

<sup>1</sup> New terminology to be used will be: *"Initial Treatment Strategy"* 

<sup>2</sup> New terminology to be used will be: "Subsequent Treatment Strategy"

<sup>3</sup> Thyroid covered for follow-up imaging only after a negative I-131 scan and rising Tg levels Adapted from: Centers for Medicare and Medicaid Services www.cms.hhs.gov 4/6/2009