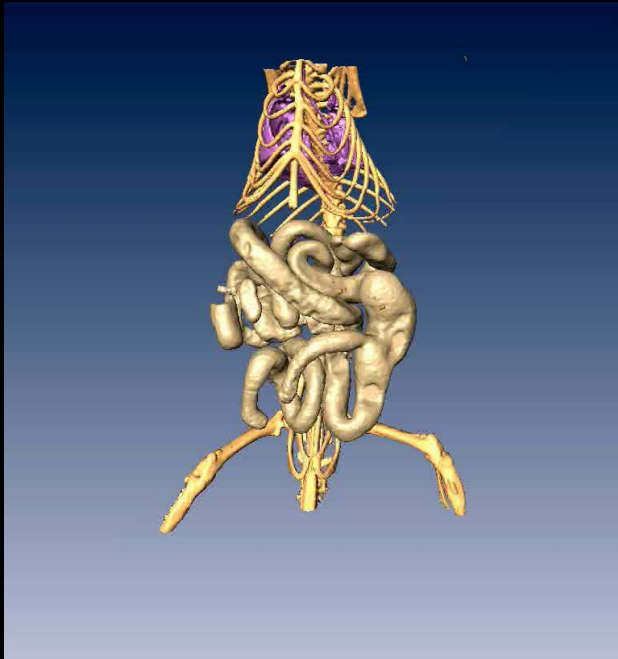
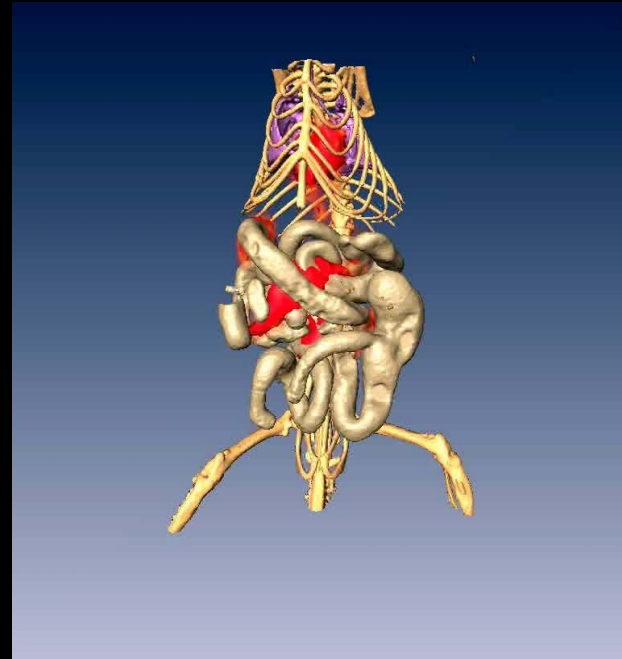


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CT Fly



Dual Modality

**¹²⁴I-NM404 *In vivo* Dual Modality Colonoscopy in a Live Mouse
Fused microPET/microCT Images**

Data courtesy of University of Wisconsin, Madison, Jamey P. Weichert, Ph.D.



Lung Targeting Monoclonal Antibody SPECT•CT Study

Purpose of Study:

Antibody 201B, an antibody with affinity for thrombomodulin, has been investigated as a targeting agent for delivering radio-immuno-therapeutic agents to the lungs. To investigate the targeting efficiency of this delivery vehicle, we have labeled mAb (201B) with ^{125}I and imaged a mouse using high resolution pinhole SPECT (2 mm pinhole) and contrast enhanced CT. Images indicate this antibody is highly specific to lung tissue.

Scan Protocol:

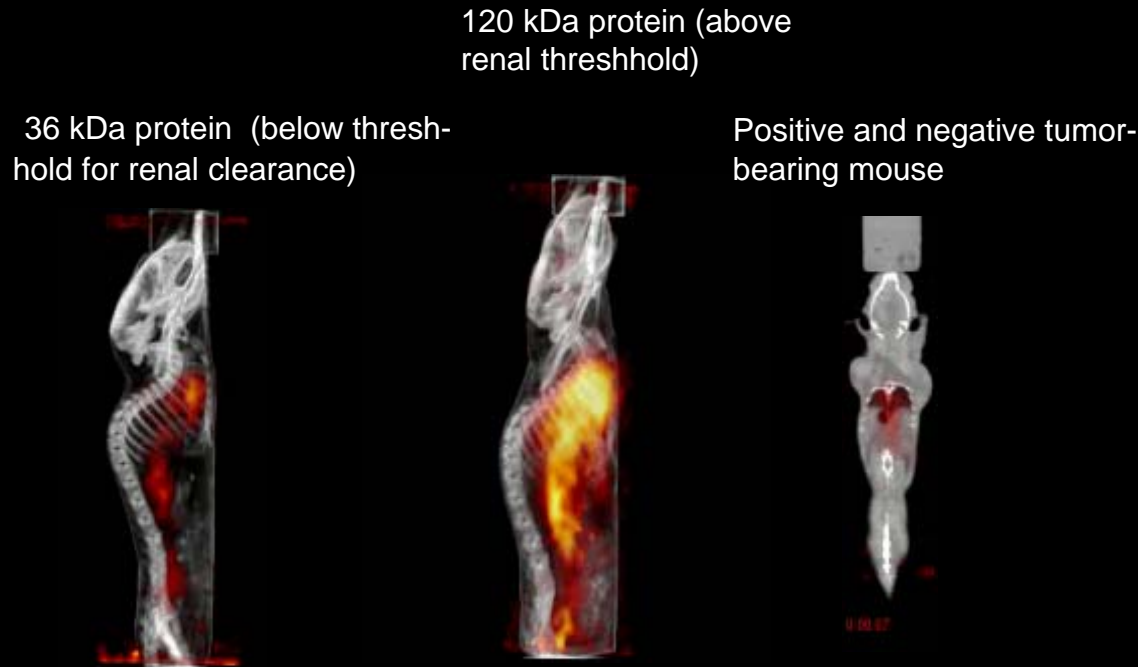
Mouse was injected i.v. in the tail vein with 200 uCi of ^{125}I labeled mAb (201B) in 150 uL volume. Mice were rested for 30 mins then received 200 uL of Fenestra VC in the tail vein and were sacrificed by isoflurane inhalation 15 mins later. SPECT scan time: 52 minutes.

Other Measurements:

Antibody targeting has been verified in our laboratory using $^{99\text{m}}\text{Tc}$ SPECT and ^{124}I PET studies.

Data courtesy of University of Tennessee Graduate School of Medicine, Dr. Jon Wall

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2 h dynamic microPET imaging of ^{124}I labeled proteins and engineered antibodies

Purpose of Study:

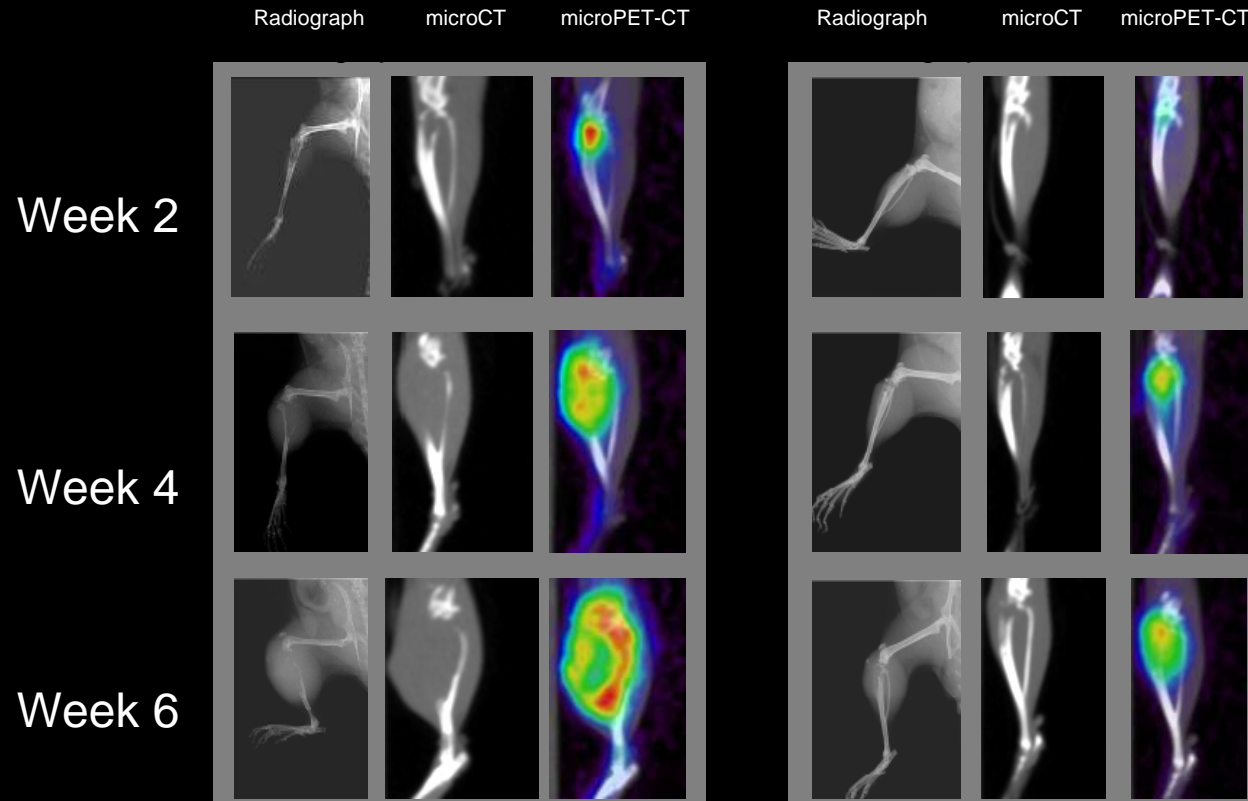
Antibody fragments of various sizes were created and imaged using microPET-CT. Shown are 36 and 120 KDa fragments, which are below and above the liver threshold, thus target to either the kidney or liver. Also shown is a mouse with 2 tumors, one with antibody label targets, and one tumor without, showing the specificity of the fragments to home to the appropriate binding site

Scan protocol:

Tail vein injection of ^{124}I antibody fragments, 2 hours dynamic imaging followed by 7 min 200 um microCTII imaging.

Data courtesy of UCLA Crump Institute for Molecular Imaging

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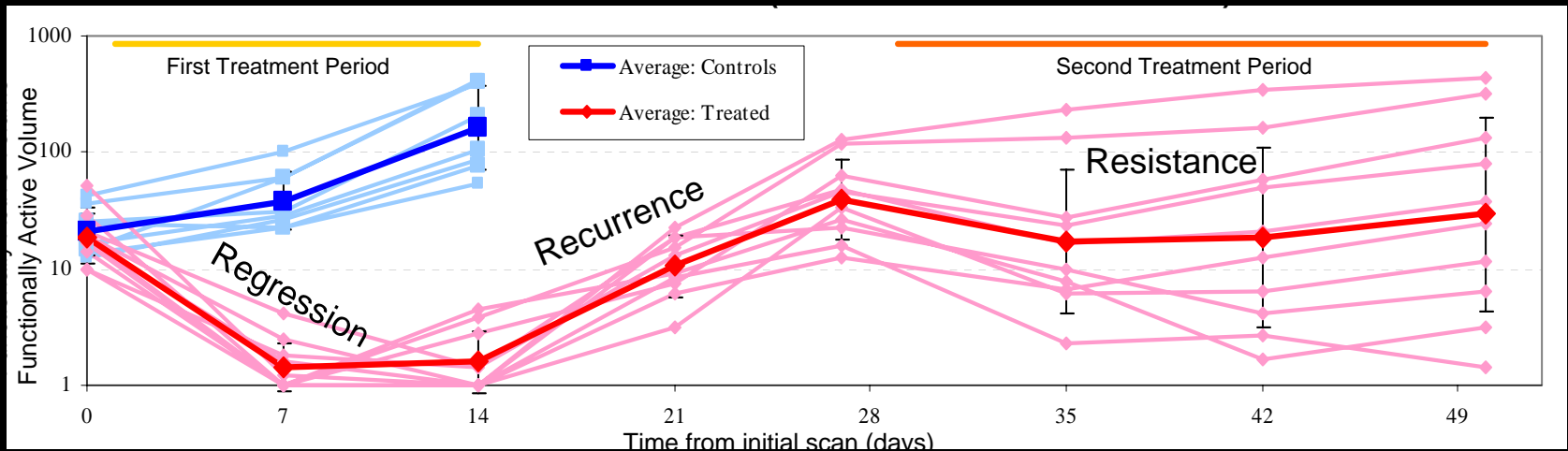
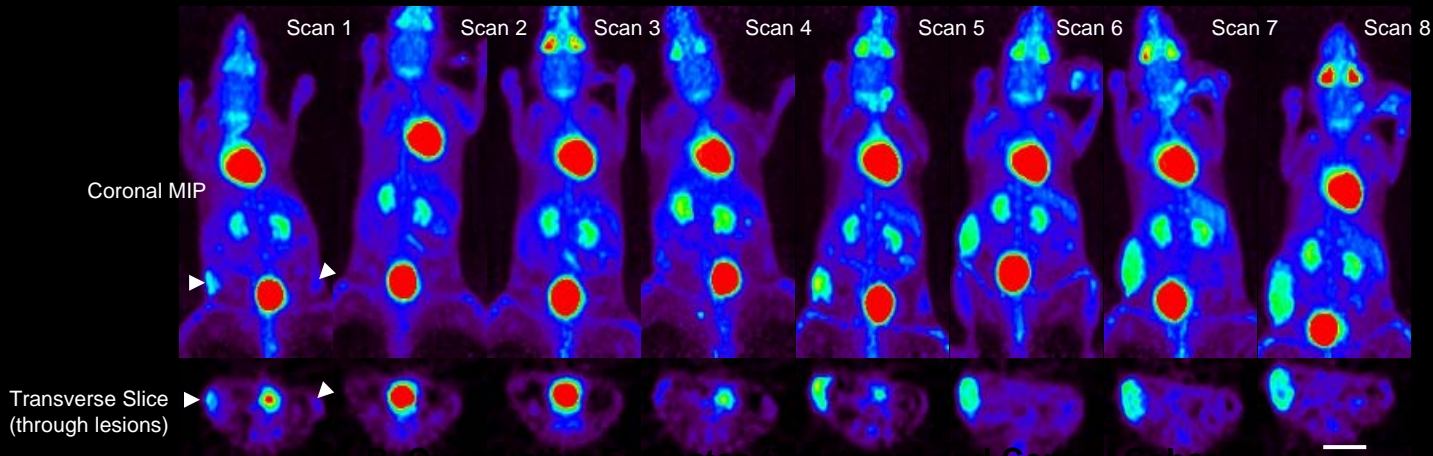


Longitudinal evaluation of tumor growth and effect of RANK blockade in a prostate osteolytic metastasis using FDG micro PET-CT

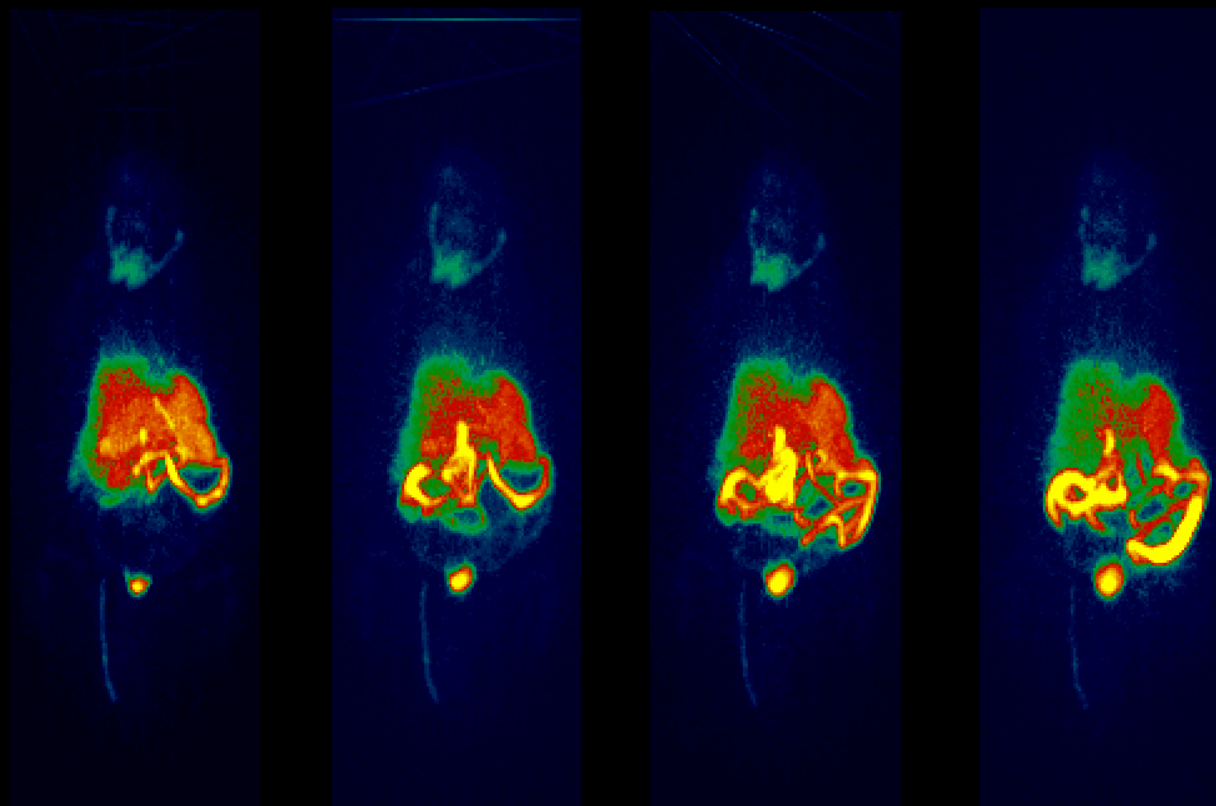
RANK Fc blocks activation of RANK L (receptor on osteoclasts) secreted by prostate tumor cells, which leads to bone destruction and tumor growth. RANK Fc treatment results in decreased bone destruction (picked up on micro CT) and decreased tumor burden (picked up on FDG micro PET)

Data courtesy of Brookhaven National Laboratory

A. Longitudinal Images (Animal 6525)



Imaging the three Rs of preclinical studies with microPET (^{18}F FDG): Regression, Recurrence, and Resistance



15 Min

30 Min

45 Min

60 Min

microPET Imaging Showing ^{18}F Paclitaxel Biodistribution in Rat

Scan protocol:

^{18}F labeled Paclitaxel

Data courtesy of CMGI, University of California Davis