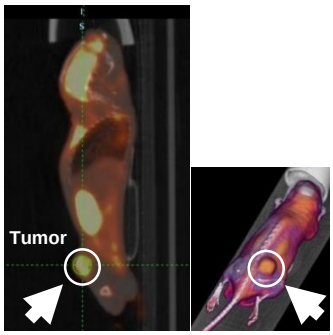
Details about Preclinical

Chronological evaluation of new antitumor drug effects in mouse models of tumor

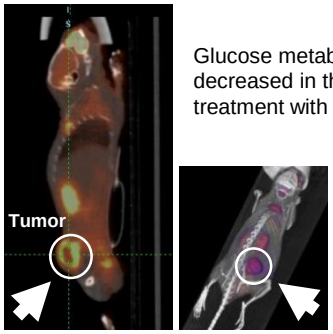
^{18}F-FDG PET Imaging

Pre-treatment



One month after treatment

Post-treatment



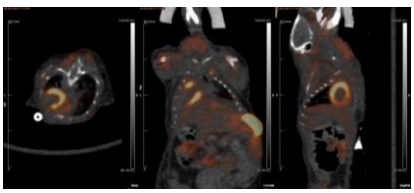
Glucose metabolism decreased in the tumor after treatment with a new drug.

Quantitative evaluation of the myocardial infarction region in mouse models of myocardial infarction

^{99m}Tc-tetrofosmin (TF) myocardial perfusion imaging

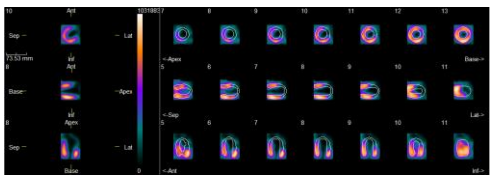
TTC staining of the mouse myocardium

SPECT/CT image
(static)



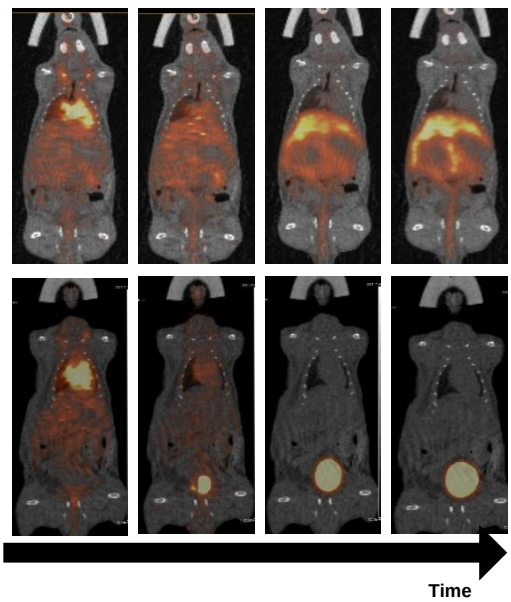
It is possible to quantify the fraction of blood flow showing a loss or a decrease in a mouse model of myocardialinfarction

Image analysis of mouse myocardium segmentation



Evaluation of pharmacokinetics with different drug structures in mice

^{64}Cu labeled nucleic acid PET imaging



Unlabeled ^{64}Cu

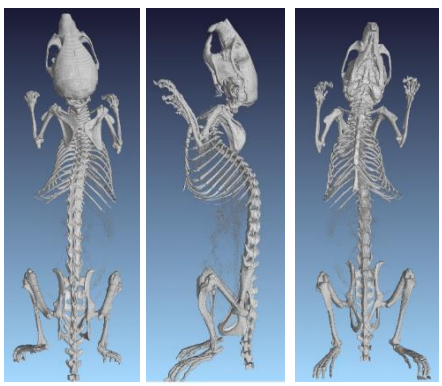
accumulated in the liver lowed from the heart after the intravenous injection

^{64}Cu-labeled nucleic acid

nucleic acid was promptly excreted from the kidneys into the urine after flowing from the heart and throughout the whole bod after the intravenous injection

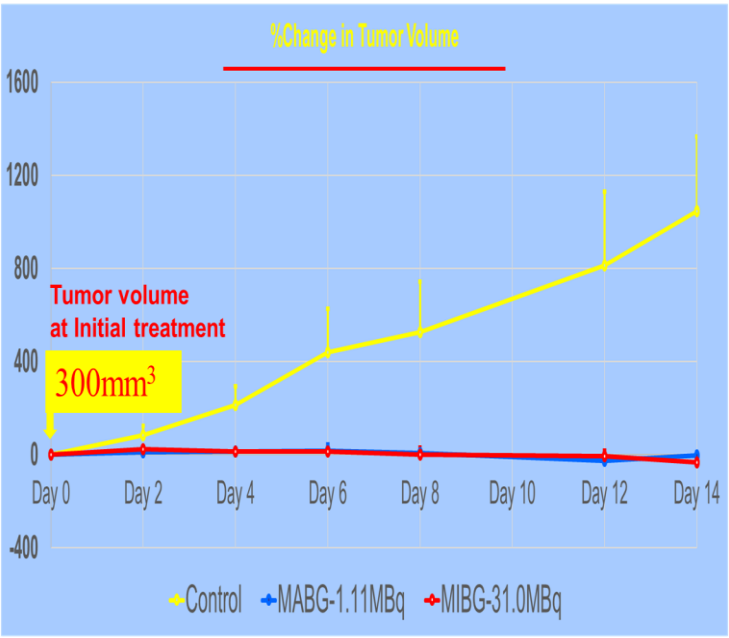
Evaluation of whole-body bone morphology of mouse

CT imaging of whole-body mouse skeleton

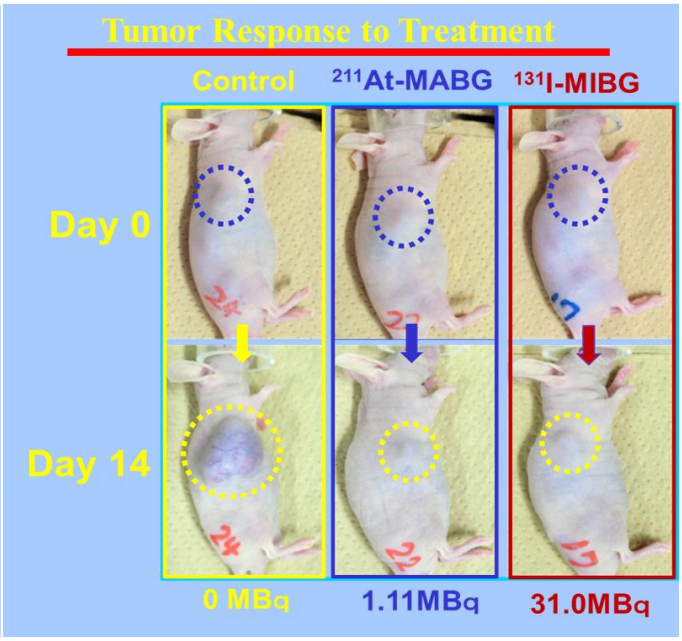


Three-dimensional evaluation of whole-body bone morphology of mouse by CT imaging for small animals

%Chamge in Tumor Volume



Tumor Response to ^{211}At-MABG/ ^{131}I-MIBG Treatment

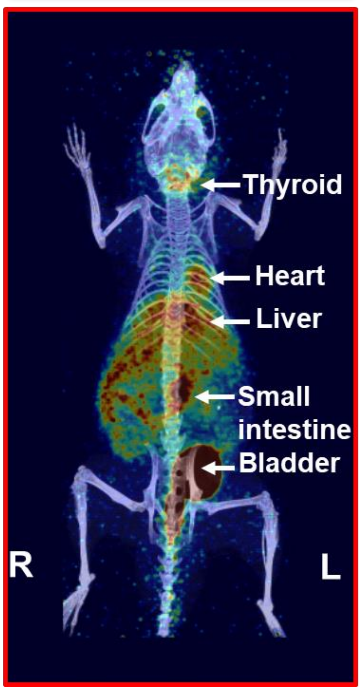


- At 14 days after radiopharmaceutical administration, ^{211}At-MABG produced significant tumor volume reduction as compared to that in the control group.
- ^{211}At-MABG had a tumor-reducing effect similar to that associated with ^{131}I-MIBG, which is considered one of the current treatment options.

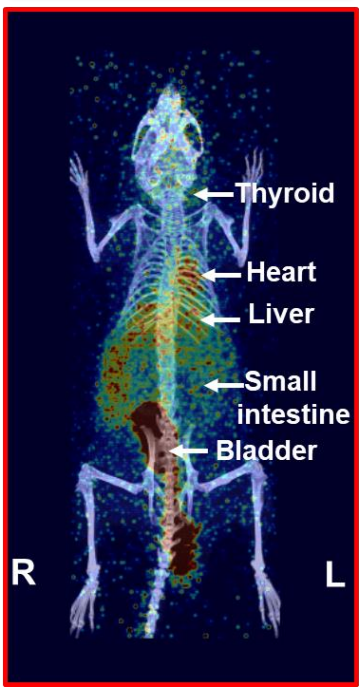
Zhao S, et al.J Nucl Med. 2020;61(Supp 1):1316

SNMMI 2020 Poster Award: 1st place

^{123}I-MIBG SPECT Image



^{211}At-MABG SPECT Image



^{123}I-MIBG Image Different color

^{211}At-MABG Different color

- At 1h post ^{123}I-MIBG injection; At 1h post ^{211}At-MABG injection (post 1 half-life imaging)
- SPECT images of ^{123}I-MIBG and ^{211}At-MABG distribution in normal mice was very similar.

Zhao S, et al. JSNM 2019