

# Okayama Medical Innovation Center (OMIC) and Frontier Studies of Molecular Imaging

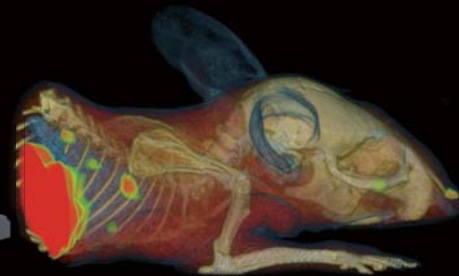
Akiya Akahoshi

Collaborative Research Center for OMIC, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University



## OMIC Okayama Medical Innovation Center

Supporting of drug discovery and medical device development in the frontier molecular imaging technology



OMIC promotes the external use of molecular imaging research facilities.

### Molecular Imaging Facilities



Cyclotron HM-12S  
(Sumitomo Heavy Industries, Ltd.)



Clairvivo PET  
(Shimadzu Corp.)



Eminence STARGATE  
(Shimadzu Corp.)



Small Animal SPECT/CT  
(Gamma Medica-Ideas, Inc.)



Mass Imaging Spectrometry System  
(Shimadzu Corp.)



IVIS Imaging System  
(Xenogen Corp.)

Considering the utility of PET-probes prepared at our facility for clinical researchers including exploratory clinical researches in the early stage, OMIC has promoted the introduction of **GMP regulation** for investigational medicinal products to guarantee the quality and safety since it started servicing in 2011.

\* Outfitted with temporary housing facilities for experiment animals.  
\* About use charges, please refer to the HP.

### Usage Flow

Usage Consultation

Research Proposal

Adoption

Reservation

Experiment

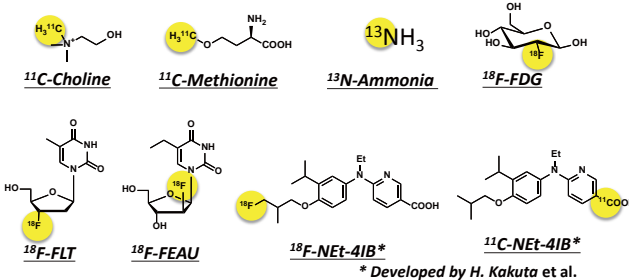
Report

### Usage Patterns

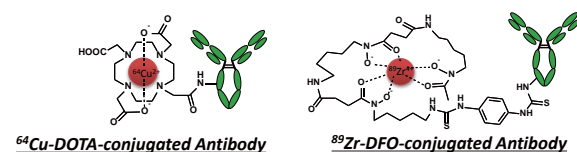
Uncharged non-proprietary usage	Free use of equipment
Charged non proprietary usage	Half cost of equipment
Charged proprietary usage	Full cost for use of equipment

### PET probe

• Short half-life nuclides (~ 110 min)



• Long half-life nuclides (~ 78.4 hr)

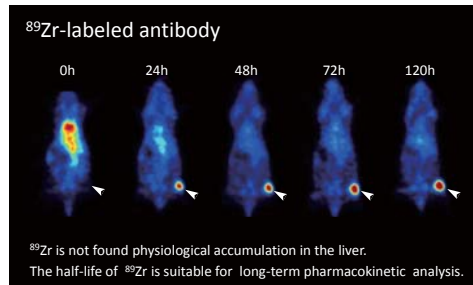
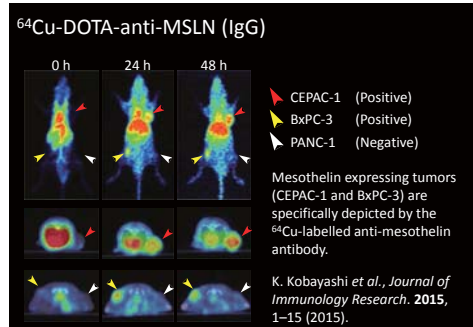


### Outcomes

竹中文章、佐々木崇了、松浦栄次、公文裕巳、谷口愛美、小田敬、菅亨。「放射性同位元素製造装置」。特願2014-189280。  
竹中文章、松浦栄次、小田敬。「<sup>89</sup>Zrの標識方法、及び<sup>89</sup>Zrの標識装置」。特願2014-191365。  
T. Kobayashi et al., ACS Medicinal Chemistry Letters 6, 334-338 (2015).  
K. Kobayashi et al., Journal of Immunology Research. 2015, 1-15 (2015).

### PET imaging data

• Research staffs are on hand for everything from usage consultations and equipment operation, to post-experimental image analysis.



【Contact Us】 Collaborative Research Center, Graduate of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University Tel : +81-86-251-6529 E-mail : crc-omic@md.okayama-u.ac.jp

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