

Mouse-Mammary

Summary

This collection consists of magnetic resonance images (MRI) of genetically engineered mouse models (GEMMs) of breast cancer. These images were acquired as part of a Department of Defense (DOD) Breast Cancer Research Program (BCRP) Postdoctoral Award W81XWH-12-1-0307 entitled “*Investigating Ductal Carcinoma in Situ Using Noninvasive Imaging of Genetically Engineered Mouse Models*”

A particular emphasis of this project was to study the earliest stages of breast cancer—preinvasive ductal carcinoma *in situ* (DCIS)—and to interrogate the underlying genetic events that influence progression into invasive disease. In particular, we focused on the role of perturbed Rb, p53 and BRCA1 functionality and how these pathways, acting alone and in combination, can influence the development and progression of DCIS. GEMMs serve as an excellent model system wherein genetic changes can be controlled and manipulated over time. *In vivo* MRI is a superb technique for noninvasively tracking and characterizing these microscopic early stage cancers as they develop, change and transition into lethal invasive disease.

For more information, please contact Dr. Sunny Jansen (jansensa0@gmail.com).

Acknowledgements



We would like to acknowledge the individuals and institutions that have provided data for this collection:

- **National Cancer Institute (Frederick, Maryland)** - Special thanks to **Sunny Jansen, PhD** from the Department of **Mouse Cancer Genetics Program**.

Data Access

Data Access

Click the **Download** button to save a ".tcia" manifest file to your computer, which you must open with the [NBIA Data Retriever](#). Click the **Search** button to open our Data Portal, where you can browse the data collection and/or download a subset of its contents.

Data Type	Download all or Query/Filter
Images (DICOM, 8.6GB)	 

Click the Versions tab for more info about data releases.

Detailed Description

Detailed Description

Collection Statistics	
Modalities	MR

Number of Patients	32
Number of Studies	149
Number of Series	205
Number of Images	23,487
Images Size (GB)	8.6

A presentation about a related Mouse GBM data set can be found at: [Sunny_jansen_NBIA_mouseGBM_update_ICR_508.ppt](#).

Citations & Data Usage Policy

Citations & Data Usage Policy

This collection is freely available to browse, download, and use for commercial, scientific and educational purposes as outlined in the [Creative Commons Attribution 3.0 Unported License](#). See TCIA's [Data Usage Policies and Restrictions](#) for additional details. Questions may be directed to help@cancerimagingarchive.net.

Please be sure to include the following citations in your work if you use this data set:

i Data Citation

Jansen, Sunny, Ileva, Lilia, Lu, Lucy, & Van Dyke, Terry. (2015). TCIA Mouse-Mammary Collection. The Cancer Imaging Archive. <http://doi.org/10.7937/K9/TCIA.2015.9P42KSE6>

i TCIA Citation

Clark K, Vendt B, Smith K, Freymann J, Kirby J, Koppel P, Moore S, Phillips S, Maffitt D, Pringle M, Tarbox L, Prior F. **The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository**, Journal of Digital Imaging, Volume 26, Number 6, December, 2013, pp 1045-1057. ([paper](#))

Other Publications Using This Data

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Versions

Version 1 (Current): Updated 2015/03/18

Data Type	Download all or Query/Filter
Images (8.6GB)	<div style="display: flex; gap: 10px;"> <div style="background-color: #007bff; color: white; padding: 5px 15px; border-radius: 3px; display: flex; align-items: center; gap: 5px;"> ⬇ Download </div> <div style="background-color: #ffc107; color: white; padding: 5px 15px; border-radius: 3px; display: flex; align-items: center; gap: 5px;"> 🔍 Search </div> </div> <p>(Requires the NBIA Data Retriever.)</p>

