



# Mouse-Astrocytoma

## Summary

This collection consists of magnetic resonance images (MRI) of genetically engineered mouse models (GEMMs) of high grade astrocytoma, including glioblastoma multiforme (GBM).

In these GEMMs, the most commonly disregulated networks in GBM -- RB, KRAS and/or PI3K signaling -- are perturbed at the genetic level. These genetic aberrations induce development of high grade astrocytoma in the mouse with properties similar to that of human disease. MRI was used to perform a qualitative and quantitative phenotypic characterization of the different genotypes and molecular subtypes. Additionally, mouse MRI images were compared human GBM imaging parameters using the VASARI lexicon. The MRI data contained herein includes anatomic T2 weighted images and dynamic contrast enhanced MRI.

For more information, please contact Dr. Sunny Jansen ([jansensa0@gmail.com](mailto:jansensa0@gmail.com)) or Dr. Nailong Zhang ([nailong9970@gmail.com](mailto:nailong9970@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, 2.0 GB)	 

Click the Versions tab for more info about data releases.

### Detailed Description

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<b>Collection Statistics</b>	
Modalities	MR
Number of Patients	48

Number of Studies	48
Number of Series	286
Number of Images	37110
Images Size (GB)	2.0 GB

A presentation about this data set can be found at: [Sunny\\_jansen\\_NBIA\\_mouseG BM\\_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](mailto: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, & Van Dyke, Terry. (2015). TCIA Mouse-Astrocytoma Collection. The Cancer Imaging Archive. <https://doi.org/10.7937/K9TCIA.2017.SGW7CAQW>

#### **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 2017/03/21**

Data Type	Download all or Query/Filter
Images ( 2.0 GB)	<div style="display: flex; gap: 10px;"> <div style="background-color: #007bff; color: white; padding: 5px 15px; border-radius: 3px; display: flex; align-items: center; justify-content: center;"> <span>↓</span> Download         </div> <div style="background-color: #ffc107; color: white; padding: 5px 15px; border-radius: 3px; display: flex; align-items: center; justify-content: center;"> <span>🔍</span> Search         </div> </div> <p>(Requires the <a href="#">NBIA Data Retriever</a>.)</p>