



# 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

## Detailed Description

| Collection Statistics  |    |
|------------------------|----|
| Modalities             | MR |
| Number of Participants | 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\\_mouse\\_GBM\\_update\\_ICR\\_508.ppt](#) .

#### Citations & Data Usage Policy

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Users of this data must abide by the [Creative Commons Attribution 3.0 Unported License](#) under which it has been published. Attribution should include references to the following citations:

#### **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

See the [Publications](#) page for papers about this data set. If you have a publication you'd like to add, please [contact the TCIA Helpdesk](#).

#### 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 10px; border-radius: 3px; display: inline-block;"> Download</div> <div style="background-color: #ffc107; color: white; padding: 5px 10px; border-radius: 3px; display: inline-block;"> Search</div> </div> <p>(Requires the <a href="#">NBIA Data Retriever</a> .)</p> |