Mouse-Astrocytoma

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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 scientific or other inquiries about this dataset, please contact TCIA's Helpdesk.

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

Data Type	Download all or Query/Filter	License
Images (DICOM, 2.0 GB)	*Download Search* (Download requires the NBIA Data Retriever)	CC BY 3.0

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Additional Resources for this Dataset

The NCI Cancer Research Data Commons (CRDC) provides access to additional data and a cloud-based data science infrastructure that connects data sets with analytics tools to allow users to share, integrate, analyze, and visualize cancer research data.

- Imaging Data Commons (IDC) (Imaging Data)

Detailed Description

Detailed Description

Collection Statistics	
Modalities	MR
Number of Participants	48

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Number of Studies	48
Number of Series	286
Number of Images	37,110
Images Size (GB)	2.0 GB

A presentation about this data set can be found at: **Sunny_jansen_NBIA_mouseGBM_update_ICR_508.ppt** .

Citations & Data Usage Policy

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Users must abide by the TCIA Data Usage Policy and Restrictions. Attribution should include references to the following citations:

Data Citation

Jansen, Sunny, & Van Dyke, Terry. (2015). **TCIA Mouse-Astrocytoma Collection (Mouse-Astrocytoma) [Data set].** The Cancer Imaging Archive. https://doi.org/10.7937/K9TCIA.2017.SGW7CAQW

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. (2013). **The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository.** In Journal of Digital Imaging (Vol. 26, Issue 6, pp. 1045–1057). Springer Science and Business Media LLC. https://doi.org/10.1007/s10278-013-9622-7 PMCID: PMC3824915

Other Publications Using This Data

TCIA maintains a list of publications which leverage our data. If you have a manuscript you'd like to add, please contact TCIA's Helpdesk.

Versions

Version 1 (Current): Updated 2017/03/21

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