ROI Masks Defining Low-Grade Glioma Tumor Regions In the TCGA-LGG Image Collection (TCGA-LGG-Mask)

Summary

This collection contains 406 ROI masks in MATLAB format defining the low grade glioma (LGG) tumour region on T1-weighted (T1W), T2-weighted (T2W), T1-weighted post-contrast (T1CE) and T2-flair (T2F) MR images of 108 different patients from the TCGA-LGG collection. From this subset of 108 patients, 81 patients have ROI masks drawn for the four MRI sequences (T1W, T2W, T1CE and T2F), and 27 patients have ROI masks drawn for three or less of the four MRI sequences.The ROI masks were used to extract texture features in order to develop radiomic-based multivariable models for the prediction of isocitrate dehydrogenase 1 (IDH1) mutation, 1p/19q codeletion status, histological grade and tumour progression.

Clinical data (188 patients in total from the TCGA-LGG collection, some incomplete depending on the clinical attribute), VASARI scores (188 patients in total from the TCGA-LGG collection, 178 complete) with feature keys, and source code used in this study are also available with this collection. Please contact Martin Vallières (mart.vallieres@gmail.com) of the Medical Physics Unit of McGill University for any scientific inquiries about this dataset.

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

Data Type	Download all or Query/Filter
Images (DICOM, 9.03 GB)	Download
Clinical data (CSV)	Download
VASARI information (CSV)	Download
VASARI MR feature key (PDF)	Download
Matlab Segmentations	Please contact help@cancerimagingarchive.net with a completed Data Use Agreement to request access. More information is on the Detailed Description tab of this page.

Please contact help@cancerimagingarchive.net with any questions regarding usage.

Collections Used in this Third Party Analysis
Below is a list of the Collections used in these analyses:

- TCGA-LGG

Detailed Description

Detailed Description

Access to this collection's MATLAB ROI masks is currently restricted by Harrison X. Bai from the Department of Radiology, Hospital of University of Pennsylvania. Access could be granted if this dataset is properly acknowledged in your research. If you believe this data will be useful for a current or planned research project, you may request access to this dataset by completing the attached Data Use Agreement and forwarding it via e-mail to the TCIA help desk help@cancerimagingarchive.net. Please make sure that the form is filled out by a formal Principal Investigator (PI) and please also make sure to include your institutional address with contact information. The Data Use Agreement will then be promptly reviewed by Harrison X. Bai and you will be informed of his decision. In most cases, access will be granted and members of your research team will be granted access to the dataset. Note: you must have TCIA login credentials in order to access any restricted collection.

Citations & Data Usage Policy

Citations & Data Usage Policy

Users of this data must abide by the TCIA Data Usage Policy and the Creative Commons Attribution 3.0 Unported License under which it has been published. Attribution should include references to the following citations:

Data Citation

Su, C., Vallières, M., & Bai, H. (2017). **ROI Masks Defining Low-Grade Glioma Tumor Regions In the TCGA-LGG Image Collection** [Data set]. The Cancer Imaging Archive. https://doi.org/10.7937/K9/TCIA.2017.BD7SGWCA

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.** Journal of Digital Imaging, 26(6), 1045–1057. https://doi.org/10.1007/s10278-013-9622-7

In addition to the dataset citation above, please be sure to cite the following if you utilize these data in your research:

Publication Citation

Zhou, H., Vallières, M., Bai, H. X., Su, C., Tang, H., Oldridge, D., Zhang, Z., Xiao, B., Liao, W., Tao, Y., Zhou, J., Zhang, P., & Yang, L. (2017). **MRI features predict survival and molecular markers in diffuse lower-grade gliomas**. Neuro-Oncology, 19(6), 862–870. https://doi.org/10.1093/neuonc/now256

Other Publications Using This Data

TCIA maintains a list of publications that leverage TCIA data. If you have a manuscript you'd like to add please contact the TCIA Helpdesk.

Versions

Version 1 (Current): 2017/03/17

Data Type	Download all or Query/Filter
Images (DICOM, 9.03 GB)	Download
Clinical data (CSV)	Download
VASARI information (CSV)	Download
VASARI MR feature key (PDF)	Download
Matlab Segmentations	Please contact help@cancerimagingarchive.net with a completed Data Use Agreement to request access. More information is on the Detailed Description tab of this page.