

# ROI Masks Defining Low-Grade Glioma Tumor Regions In the TCGA-LGG Image Collection

## 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>

## Description

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.

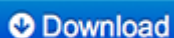
Clinical data (188 patients in total from the TCGA-LGG collection, some incomplete depending on the clinical attribute), VASARI scores (188 patients in total from the TCGA-LGG collection, 178 complete) with feature keys, and [source code](#) used in this study are also available with this collection.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

The analysis results are presented in the following study:

## Publication Citation

Hao Zhou, Martin Vallières, Harrison X. Bai, Chang Su, Haiyun Tang, Derek Oldridge, Zishu Zhang, Bo Xiao, Weihua Liao, Yongguang Tao, Jianhua Zhou, Paul Zhang, Li Yang; MRI features predict survival and molecular markers in diffuse lower-grade gliomas. *Neuro Oncol* 2017 now256. DOI: [10.1093/neuonc/now256](https://doi.org/10.1093/neuonc/now256)

## Download



- DICOM Image Data (9.03 GB):
  - Click the **Download** button above to save a ".tcia" manifest file to your computer, which you must open with the [NBIA Data Retriever](#).
- [TCGA Clinical data](#)
- [VASARI scores](#)
- [VASARI Feature Key](#)
- [Source Code](#)
- **Matlab Segmentations (2.1 MB) - please see Special Instructions below to request access**
  - 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](mailto: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.