

# Mapping of Edema and Cellular Invasion to MR Phenotypes

# Summary

This project sets out to present the first comprehensive radiogenomic analysis using quantitative magnetic resonance imaging (MRI) volumetrics and large-scale gene- and micro-RNA expression profiling in glioblastoma multiforme (GBM). This project was led by Pascal Zinn and Rivka Colen of the M.D. Anderson Cancer Center (MDACC) and *Brigham and Women's Hospital* (BWH), respectively. The following publication was written on the subject and published in PLoS ONE: [Radiogenomic Mapping of Edema/Cellular Invasion MRI-Phenotypes in Glioblastoma Multiforme](#).

# Supporting Documentation and Metadata

## Shared Lists

The following shared lists have been created to easily obtain the subset of [The Cancer Genome Archive \(TCGA\)-GBM relevant to this study](#):

- **Radiogenomic Mapping of Edema/Cellular Invasion MRI-Phenotypes:** Consists of only the 78 subjects which were reviewed for their publication. From these cases, the PLoS ONE article indicates two sequences from each case were used for the study: 1) Fluid-Attenuated Inversion Recovery (FLAIR) for segmentation of the edema and 2) post-contrast T1-weighted imaging (T1WI) for segmentation of enhancement (defined as tumor) and necrosis.

*Note: See [Section 3.7 of The Cancer Imaging Archive's User Guide](#) for help with shared lists.*

## 3D Segmentations, Clinical, and Genetic Data

The corresponding clinical and genetic data for the study patients can be obtained from the [TCGA Data Portal](#). The 3D segmentations were created in the slicer and may be made available upon request. Please contact us for more information: [help@cancerimagingarchive.net](mailto:help@cancerimagingarchive.net).