REMBRANDT

Summary

Finding better therapies for the treatment of brain tumors is hampered by the lack of consistently obtained molecular data in a large sample set and the ability to integrate biomedical data from disparate sources enabling translation of therapies from bench to bedside. Hence, a critical factor in the advancement of biomedical research and clinical translation is the ease with which data can be integrated, redistributed, and analyzed both within and across functional domains. Novel biomedical informatics infrastructure and tools are essential for developing individualized patient treatment based on the specific genomic signatures in each patient's tumor. The Repository of Molecular Brain Neoplasia Data (REMBRANDT) is aimed at facilitating discovery by connecting the dots between clinical information and genomic characterization data.

REMBRANDT contains data generated through the Glioma Molecular Diagnostic Initiative from 874 glioma specimens comprising approximately 566 gene expression arrays, 834 copy number arrays, and 13,472 clinical phenotype data points. These data are currently housed in Georgetown University's G-DOC System and are described in a related manuscript . This image collection was created as a companion data set to augment the larger REMBRANDT project. It contains the pre-surgical magnetic resonance (MR) multi-sequence images from 130 REMBRANDT patients.

Data Access

Data Access

Some data in this collection contains images that could potentially be used to reconstruct a human face. To safeguard the privacy of participants, users must sign and submit a TCIA Restricted License Agreement to help@cancerimagingarchive.net before accessing the data.

Data Type	Download all or Query/Filter	License
Images (DICOM, 9.9GB)	*Download* *Search* (Download requires NBIA Data Retriever)	TCIA Restricted
Clinical Data (XLS, 30 kB)	*Download*	CC BY 3.0
VASARI_MR_featurekey4 (pdf, 107 kB)	*Download*	CC BY 3.0
VASARI_MRI_features (gmdi-wiki) (XLS, 57 kB)	*Download*	CC BY 3.0

Click the Versions tab for more info about data releases.

Additional Resources for this Dataset

The following external resources are also available. These are not hosted or supported by TCIA, but may be useful to researchers utilizing this collection.

- Molecular/Clinical Data in G-DOC
- Segmentation Labels for the REMBRANDT brain cancer MRI image collection are available on NITRC and are described in this Nature Scientific Data publication

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Detailed Description

Detailed Description

Collection Statistics	Updated 09/12/2014
Modalities	MR
Number of Participants	130
Number of Studies	174
Number of Series	1,483
Number of Images	110,020
Image Size (GB)	9.9

Clinical and Genomics Data

A clinical data dump was exported from the publicly accessible section of the REMBRANDT Data Portal on 1/16/2014 for convenience to TCIA users. The old data portal has since been retired and all non-image data has been migrated to Georgetown University's G-DOC System .

G-DOC contains extensive clinical, gene, and expression data of the same cases to research the link between radiological phenotype and tissue genotype. Registration is required. After logging in search for the REMBRANDT study to locate the data. The mapping table they provide within G-DOC is required to match TCIA's subject identifiers to the G-DOC identifiers.

Radiologist Analyses

In addition, there are imaging feature characterizations provided by neuroradiologists from Thomas Jefferson University (TJU) Hospital. This feature set has become known as "VASARI" and became the starting point for the The Cancer Genome Archive (TCGA) Glioma Phenotype Research Group efforts, which is utilizing data from the TCGA-GBM and TCGA-LGG collections.

- VASARI_MR_featurekey4.pdf- This document is a "key" for understanding and interpreting the annotation spreadsheet.
- VASARI_MRI_features (gmdi-wiki).xls- This document is the actual annotations spreadsheet generated at TJU.

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

Scarpace, L., Flanders, A. E., Jain, R., Mikkelsen, T., & Andrews, D. W. (2019). **Data From REMBRANDT [Data set].** The Cancer Imaging Archive. https://doi.org/10.7937/K9/TCIA.2015.588OZUZB

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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

Other Publications Using This Data

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

Versions

Version 2(Current) 2021/08/17

Some rows in the Clinical Data file were found to be misaligned per column headers:

row 39,87,93,104: right shift by one (change within MRI findings or OnStudy Therapy Chemo Agent Name)
row 46,57: right shift by 2 (change within MRI Findings)

these realign CSV with no further adjustments made to content.

Version 1 : Updated 2014/09/12

Data Type	Download all or Query/Filter
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VASARI_MRI_features (gmdi-wiki) (XLS)	*Download*

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