

TCGA Breast Phenotype Research Group

Summary

The Cancer Genome Atlas (TCGA) Breast Phenotype Research Group is part of the [Cancer Imaging Project TCGA Radiology Initiative](#); an effort to build a research community focused on connecting cancer phenotypes to genotypes by providing clinical images matched to tissue specimens analyzed for [The Cancer Genome Atlas \(TCGA\)](#).

Imaging Source Site (ISS) Groups are being formed and governed by participants from institutions that have provided imaging data to the archive for a given cancer type. Modeled after TCGA analysis groups, ISS groups are given the opportunity to publish a marker paper for a given cancer type per the guidelines in the table above. This opportunity will generate increased participation in building these multi-institutional data sets as they become an open community resource. Current [TCGA-BRCA](#) source sites include:

- Mayo Clinic
- Roswell Park Cancer Institute
- MemorialSloan-KetteringCancerCenter
- University of Pittsburgh/UPMC
- University of Miami Health System

The ISS group has also been collaborating with the University of Chicago to conduct quantitative MRI phenotyping efforts. Please contact Dr. Elizabeth Morris (morrise@mskcc.org) if you have scientific questions for TCGA-BRCA ISS or are interested in collaborating with their group.

Publications

TCGA Breast Phenotype Research Group Publications

- Guo W, Li H, Zhu Y, Lan L, Yang S, Drukker K, Morris E, Burnside E, Whitman G, Giger ML*, Ji Y*: Prediction of clinical phenotypes in invasive breast carcinomas from the integration of radiomics and genomics data. *J Medical Imaging* 2(4), 041007 (Oct-Dec 2015).
- Burnside E, Drukker K, Li H, Bonaccio E, Zuley M, Ganott M, Net JM, Sutton E, Brandt K, Whitman G, Conzen S, Lan L, Ji Y, Zhu Y, Jaffe C, Huang E, Freymann J, Kirby J, Morris EA*, Giger ML*: Using computer-extracted image phenotypes from tumors on breast MRI to predict breast cancer pathologic stage. *Cancer* doi: 10.1002/cncr.29791, 2015.
- Zhu Y, Li H, Guo W, Drukker K, Lan L, Giger ML*, Ji Y*: Deciphering genomic underpinnings of quantitative MRI-based radiomic phenotypes of invasive breast carcinoma. *Nature – Scientific Reports* 5:17787. doi: 10.1038/srep17787, 2015.
- Li H, Zhu Y, Burnside ES, Perou CM, Ji Y*, Giger ML*: MRI radiomics signatures for predicting the risk of breast cancer recurrence as given by research versions of gene assays of MammaPrint, Oncotype DX, and PAM50. *Radiology* DOI: <http://dx.doi.org/10.1148/radiol.2016152110>, 2016.
- Li H, Zhu Y, Burnside ES, Perou CM, Ji Y, Giger ML: Quantitative MRI radiomics in the prediction of molecular classifications of breast cancer subtypes in the TCGA/TCIA Dataset. *npj Breast Cancer* (2016) 2, 16012; doi:10.1038/npjbcancer.2016.12; published online 11 May 2016.

Publications written by other members of the research community can be found on our [TCIA Publications](#) page. Please contact us at help@cancerimagingarchive.net if you have a publication you would like us to add.

TCGA Genomics Publications

[Read the Cell paper about the TCGA-BRCA genomic study](#). Additional TCGA publications can be found at: <http://cancergenome.nih.gov/publications>.

Publication Policies

Per TCGA and TCIA Guidelines, formal permission requests are no longer required to submit publications using TCGA-BRCA data. Please see the following links for more information about the freedom-to-publish criteria for these data sets:

Data Source	Status
TCGA Data Portal Publication Guidelines	No restrictions; all data available without limitations.
TCIA Data Usage Policies and Restrictions	No restrictions; all data available without limitations.

Please contact us at help@cancerimagingarchive.net if you have any questions about these policies.