PROSTATE-MRI

Reproduced from https://wiki.cancerimagingarchive.net

Redirection Notice

This page will redirect to https://doi.org/10.7937/K9/TCIA.2016.6046GUDv in about 10 seconds.

Reproduced from https://wiki.cancerimagingarchive.net

Summary

This collection of prostate Magnetic Resonance Images (MRIs) was obtained with an endorectal and phased array surface coil at 3T (Philips Achieva). Each patient had biopsy confirmation of cancer and underwent a robotic-assisted radical prostatectomy. A mold was generated from each MRI, and the prostatectomy specimen was first placed in the mold, then cut in the same plane as the MRI. The data was generated at the National Cancer Institute, Bethesda, Maryland, USA between 2008-2010. For scientific or other inquiries relating to this data set, please contact TCIA's Helpdesk.

Data Access

Data Access

Data Type	Download all or Query/Filter	License
Images (DICOM, 3.2GB)	*Download* *Search* (Download requires the NBIA Data Retriever)	CC BY 3.0
Histopathology Images (JPEG, 206MB)	*Download* *Search* (Download and apply the IBM-Aspera-Connect plugin to your browser to retrieve this faspex package)	CC BY 3.0

Additional Resources for this Dataset

The NCI Cancer Research Data Commons (CRDC) provides access to additional data and a cloud-based data science infrastructure that connects data sets with analytics tools to allow users to share, integrate, analyze, and visualize cancer research data.

- Imaging Data Commons (IDC) (Imaging Data)

Detailed Description

Detailed Description

	Radiology Statistics	Pathology Statistics
Modalities	MR	biopsy
Number of Participants	26	26
Number of Studies	26	26
Number of Series	182	26
Number of Images	22,036	26
Image Size	3.2 GB	206 MB

Note from the investigators: The DICOM elements for these values may no longer exist within the files themselves but: the b values are 0, 188, 375, 563, 750 for the diffusion weighted MRI of that dataset.

Citations & Data Usage Policy

Citations & Data Usage Policy

Users must abide by the TCIA Data Usage Policy and Restrictions. Attribution should include references to the following citations:

Data Citation

Choyke P, Turkbey B, Pinto P, Merino M, Wood B. (2016). Data From PROSTATE-MRI. The Cancer Imaging Archive. http://doi.org/10.7937/K9/TCIA.2016.6046GUDv

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.** In Journal of Digital Imaging (Vol. 26, Issue 6, pp. 1045–1057). Springer Science and Business Media LLC. https://doi.org/10.1007/s10278-013-9622-7 PMCID: PMC3824915

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 TCIA's Helpdesk. Below is a list of such publications using this Collection:

- Mayer, R., Simone II, C. B., Turkbey, B., & Choyke, P. (2021). Correlation of prostate tumor eccentricity and Gleason scoring from prostatectomy and multi-parametric-magnetic resonance imaging. In Quantitative Imaging in Medicine and Surgery (Vol. 11, Issue 10, pp. 4235–4244). AME Publishing Company. https://doi.org/10.21037/qims-21-24
- Mayer, R., Simone II, C. B., Turkbey, B., & Choyke, P. (2021). Algorithms applied to spatially registered multi-parametric MRI for prostate tumor volume measurement. In Quantitative Imaging in Medicine and Surgery (Vol. 11, Issue 1, pp. 119–132). AME Publishing Company. https://doi.org/10.21037/qims-20-137a
- Mayer, R., Simone, C. B., II, Skinner, W., Turkbey, B., & Choykey, P. (2018). Pilot study for supervised target detection applied to spatially registered multiparametric MRI in order to non-invasively score prostate cancer. In Computers in Biology and Medicine (Vol. 94, pp. 65–73). Elsevier BV. https://doi.org/10.1016/j.compbiomed.2018.01.003
- Ciga, O., Xu, T., & Martel, A. L. (2022). Self supervised contrastive learning for digital histopathology. Machine Learning with Applications, 7. doi:10.1016/j.mlwa.2021.100198
- Du, R., & Vardhanabhuti, V. (2020, 06-08 July 2020). 3D-RADNet: Extracting labels from DICOM metadata for training general medical domain deep 3D convolution neural networks. Paper presented at the Third Conference on Medical Imaging with Deep Learning (MIDL 2020), Montréal, QC, Canada.
- Elkhader, J. A. (2022). An Integrative Approach to Drug Development Using Machine Learning. (Ph. D. Dissertation). Weill Medical College of Cornell UniversityProQuest Dissertations Publishing, Available from TCIA 10.7937/k9tcia.2017.murs5cl ; 10.7937/K9/TCIA.2016.6046GUDV database. (29390845)
- Namakshenas, P., & Mojra, A. (2021). Optimization of polyethylene glycol-based hydrogel rectal spacer for focal laser ablation of prostate peripheral zone tumor. Physica Medica, 89, 104-113. doi:10.1016/j.ejmp.2021.07.034

Versions

Version 1 (Current): Updated 2011/06/30

Data Type	Download all or Query/Filter

Reproduced from https://wiki.cancerimagingarchive.net

Images (DICOM, 3.2GB)	*Download* *Search* (Download requires the NBIA Data Retriever)
Pathology Images (JPEG)	*Download* *Search* (Download and apply the IBM-Aspera-Connect plugin to your browser to retrieve this faspex package)

Update May 2018: The download of these data is no longer Limited to users with specific permission from the PIs of the Collection.

Reproduced from https://wiki.cancerimagingarchive.net