

Breast Metastases to Axillary Lymph Nodes (SLN-Breast)




Summary

The detection of breast cancer metastases to lymph nodes is of great prognostic value for patient treatment. Using machine learning to detect metastatic breast cancer to lymph nodes can increase efficiency of pathologist diagnosis and ultimately ensure patients are accurately staged for prospective treatment. This dataset allows for the objective comparison of breast cancer metastases detection algorithms.

The dataset consists of 130 de-identified whole slide images of H&E stained axillary lymph node specimens from 78 patients. Metastatic breast carcinoma is present in 36 of the WSI from 27 patients. No patient inclusion/exclusion criteria were followed. No slide inclusion/exclusion criteria were followed. The slides were scanned at Memorial Sloan Kettering Cancer Center (MSKCC) with Leica Aperio AT2 scanners at 20x equivalent magnification (0.5 microns per pixel). Together with the slides, the class label of each slide, either positive or negative for breast carcinoma, is given. The slide class label was obtained from the pathology report of the respective case.

Data Access

Data Access

Data Type	Download all or Query/Filter
Images (.SVS, 53 GB)	 
Supplemental Data (CSV)	

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Detailed Description

Detailed Description

Image Statistics	
Modalities	Pathology
Number of Participants	78
Number of Images	130
Images Size (GB)	53

Explanation of target.csv files

target.csv contains a binary label for each slide image in the dataset.

- target=1 means that the image contains breast cancer metastases.
- target=0 means that the image does not contain breast cancer metastases.

Citations & Data Usage Policy

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Data Citation

"Campanella, G., Hanna, M. G., Brogi, E., & Fuchs, T. J. (2019). Breast Metastases to Axillary Lymph Nodes [Data set]. The Cancer Imaging Archive. <https://doi.org/10.7937/tcia.2019.3xbn2jcc>"

Publication Citation

"Clinical-grade Computational Pathology using Weakly Supervised Deep Learning on Whole Slide Images", Gabriele Campanella, Matthew G. Hanna, Luke Geneslaw, Allen Mirafior, Vitor Werneck Krauss Silva, Klaus J. Busam, Edi Brogi, Victor E. Reuter, David S. Klimstra, Thomas J. Fuchs, Nature Medicine, July 2019

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. **The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository**, Journal of Digital Imaging, Volume 26, Number 6, December, 2013, pp 1045-1057. DOI: [10.1007/s10278-013-9622-7](https://doi.org/10.1007/s10278-013-9622-7)

Other Publications Using This Data

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Versions

Version 1 (Current): Updated 2019/07/18

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