

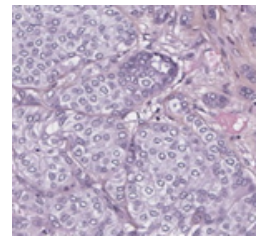


Lymph Node Metastasis Finder (“LNMF”)

What’s new: We have implemented a deep learning framework to identify the presence of cancer metastasis in lymph node histopathological images.

Key insights: LNMF is designed to mimic the detection of cancer cells in pathological settings. It takes a histopathological image as input, returning whether it harbors cancer cells.

How it works: LNMF takes hematoxylin/eosin-stained tissue sections of lymph nodes as input. An encoding algorithm within Topazium’s cloud feeds a non-linear algorithmic framework which predicts the probability of harboring a metastatic foci on it.



Probability of metastasis:
0.985

Results: LNMF framework can detect lymph node metastases with an accuracy similar to the efficiency reported in the literature by expert pathologists.

Why it matters: Defining the presence or absence of lymph node metastases is essential in cancer staging, as it affects patients’ treatment and prognosis. This task is highly relevant but requires large amounts of reading-time from a pathologist on-site or close to the point-of-care. Therefore, LNMF can be used to reduce the workload of pathologists while simultaneously improving their accuracy and efficiency.