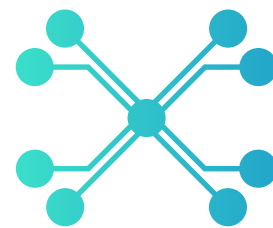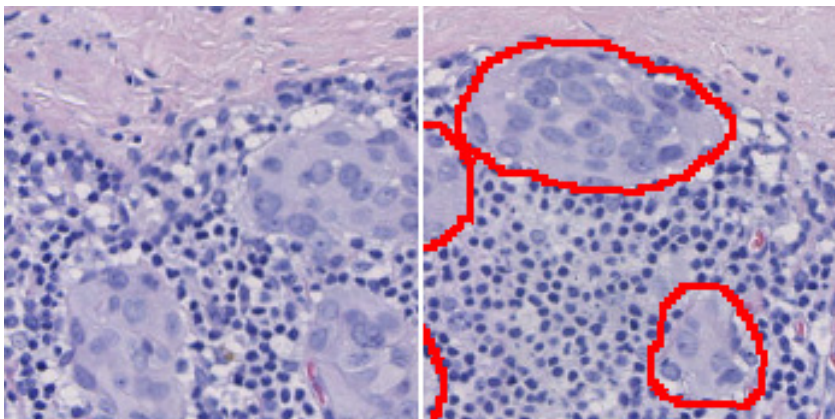# VISIOPHARM®

AI-assisted metastasis detection in lymph nodes

Visiopharm has developed a CE-IVD certified AI deep learning application that has been trained to detect metastases in H&E stained lymph nodes associated with breast and colorectal adenocarcinoma.

This highly accurate APP enables pathologists to not only detect areas of metastases in lymph nodes. It also orders, identifies, and assesses metastases based on relevant features for either breast or colorectal cancer metastasis (largest metastasis diameter or total area of metastasis).

Pathologist assessment of lymph node sections is a time consuming task that requires review of many slides, only a few of which are positive for cancer cells. Verified with clinical samples, the Metastasis Detection APP has proven to have equivalent performance to a pathologist by detecting metastases in lymph nodes from colorectal and breast adenocarcinoma.

Benefit from AI-assisted metastasis detection in your diagnostic workflow

Multi-indication
Verified on breast and colorectal data from three clinical sites for CE-IVD certification
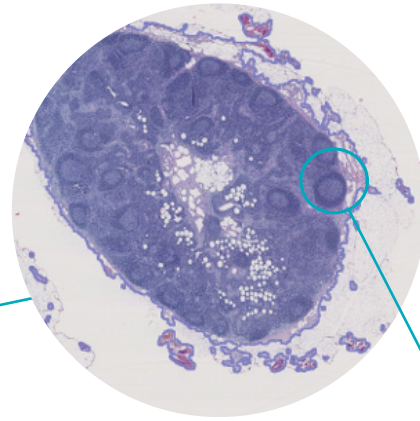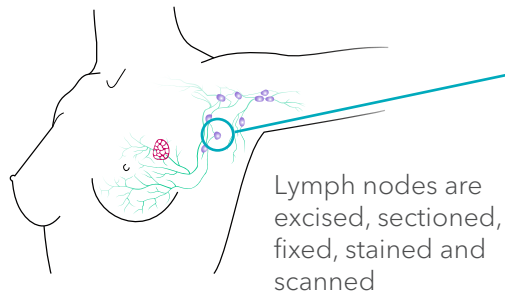
Performant
Proven to have equivalent performance to a pathologist
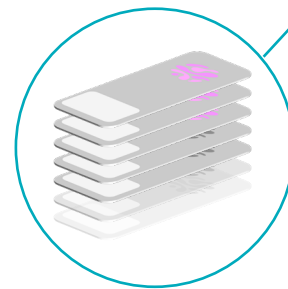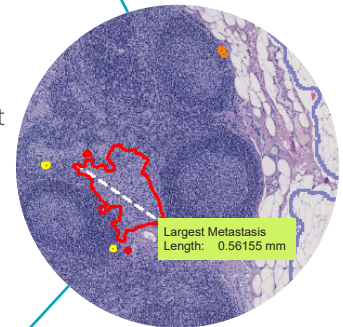
Efficient
Automated slide sorting based on indication specific output

Efficient workflow

Visiopharm's Metastasis Detection APP for whole slide images can easily be integrated into your workflow to become a potential time saver in your review process.

AI-assisted metastasis detection

Lymph nodes are excised, sectioned, fixed, stained and scanned

Metric based readout with tumor diameter

Largest Metastasis
Length: 0.56155 mm

After biopsies are processed, Visiopharm's deep learning based software identifies metastatic regions. Slides with metastatic regions are then ordered and presented based on the area or diameter of the tumor regions identified. This allows to focus review on the relevant slides.

Slides arranged allowing review by metastases diameter

Summary of clinical performance results

Site	Primary tumor	Samples (n)	Sensitivity	Specificity
University Medical Center, Groningen	Breast	115	98.0%	100.0%
	Colorectal	94	100.0%	97.8%
Department of Pathology, United Kingdom	Breast	103	94.1%	100.0%
	Colorectal	91	100.0%	100.0%
Odense University Hospital	Breast	78	100.0%	100.0%
	Colorectal	117	100.0%	100.0%
Total		**598**	**98.7%**	**99.6%**