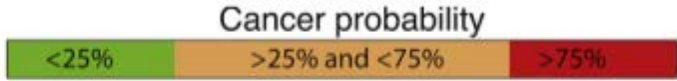


# QUS-based Cancer Detection in Human Lymph Nodes

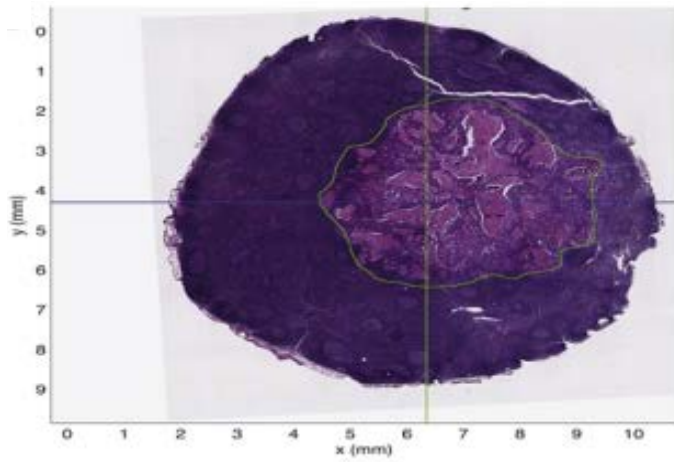
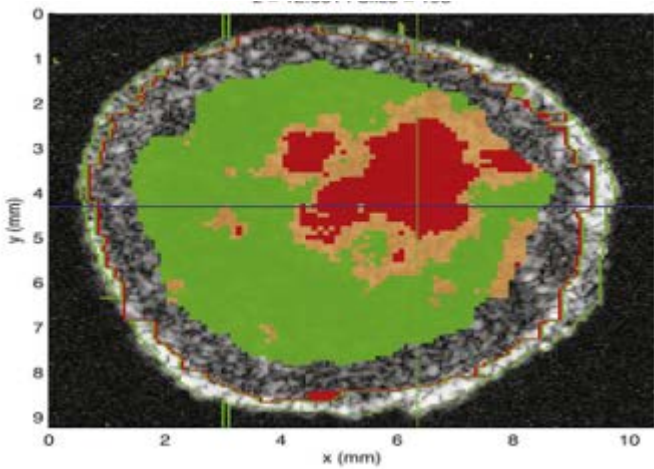
Primary-Cancer Type	Number Of All Lymph Nodes	Number Of Metastatic Lymph Nodes	Area Under the ROC Curve (AUC)	AUC 95% Confidence Interval	Sensitivity (%)	Specificity (%)
Breast	118	17 (14%)	$0.83 \pm 0.048$	0.74 to 0.93	100 88	50 65
Colorectal	147	21 (14%)	$0.96 \pm 0.019$	0.92 to 1.00	100 95	73 80
Gastric	36	6 (17%)	$0.96 \pm 0.030$	0.88 to 1.00	100 83	72 90
<b>Total</b>	<b>301</b>	<b>44 (15%)</b>	<b><math>0.90 \pm 0.024</math></b>	<b>0.85 to 0.94</b>	<b>100 96</b>	<b>41 63</b>

- 301 lymph nodes from 171 patients have been classified
- Detection of colorectal-gastric-cancer metastases is almost perfect
- Detection of breast-cancer metastases is quite good
- The most-important parameter for classification is scatterer size

# QUS-based Cancer Detection in Human Lymph Nodes



Partially-metastatic colorectal-cancer lymph node



Partially-metastatic breast-cancer lymph node

