Case 8

82 year old Chinese lady with a past history of lung cancer, presented with a left breast mass with enlarged left axillary lymph nodes.

Ultrasound guided core biopsies were performed.

Section provided is from the biopsy of the left breast.

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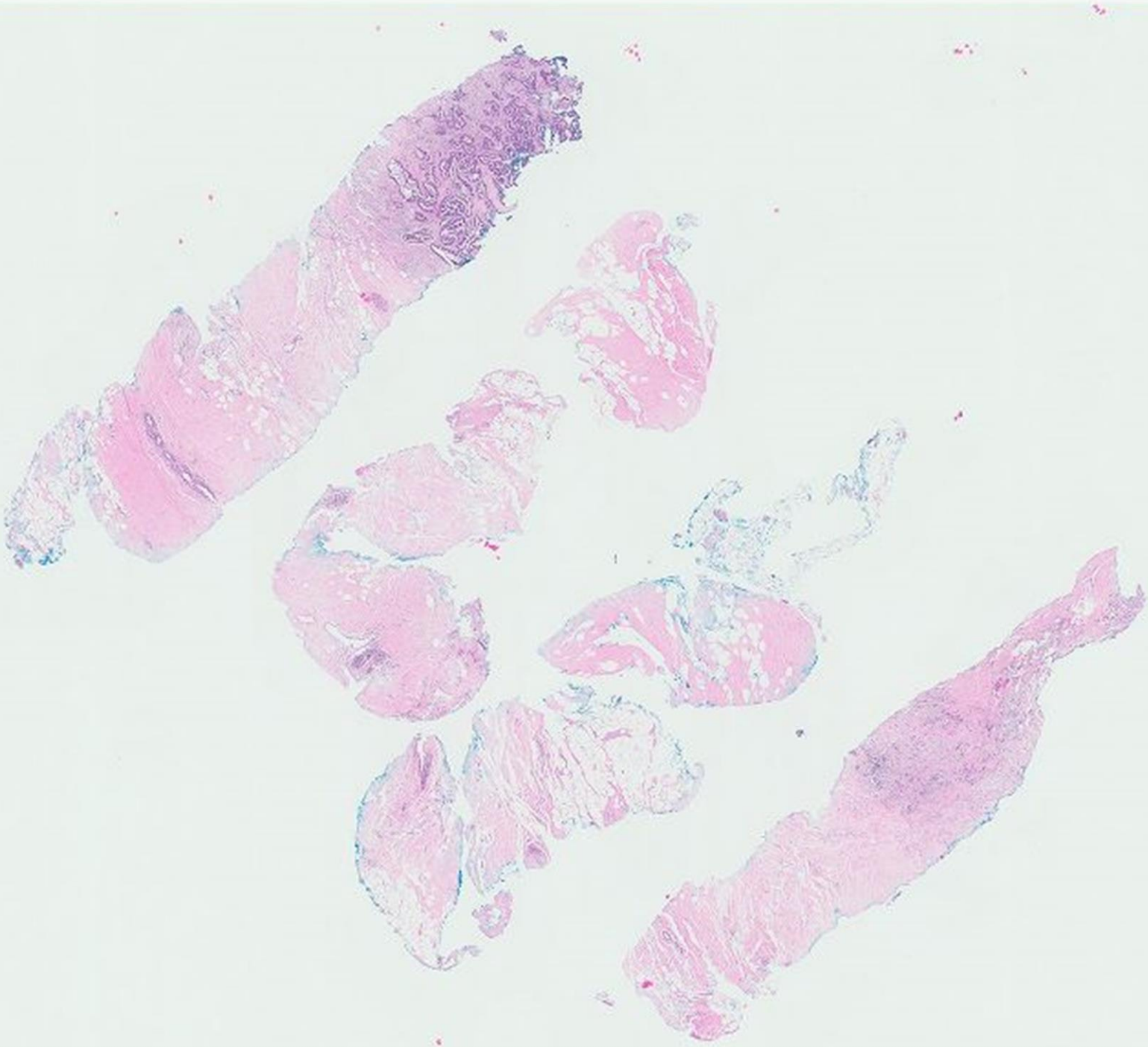
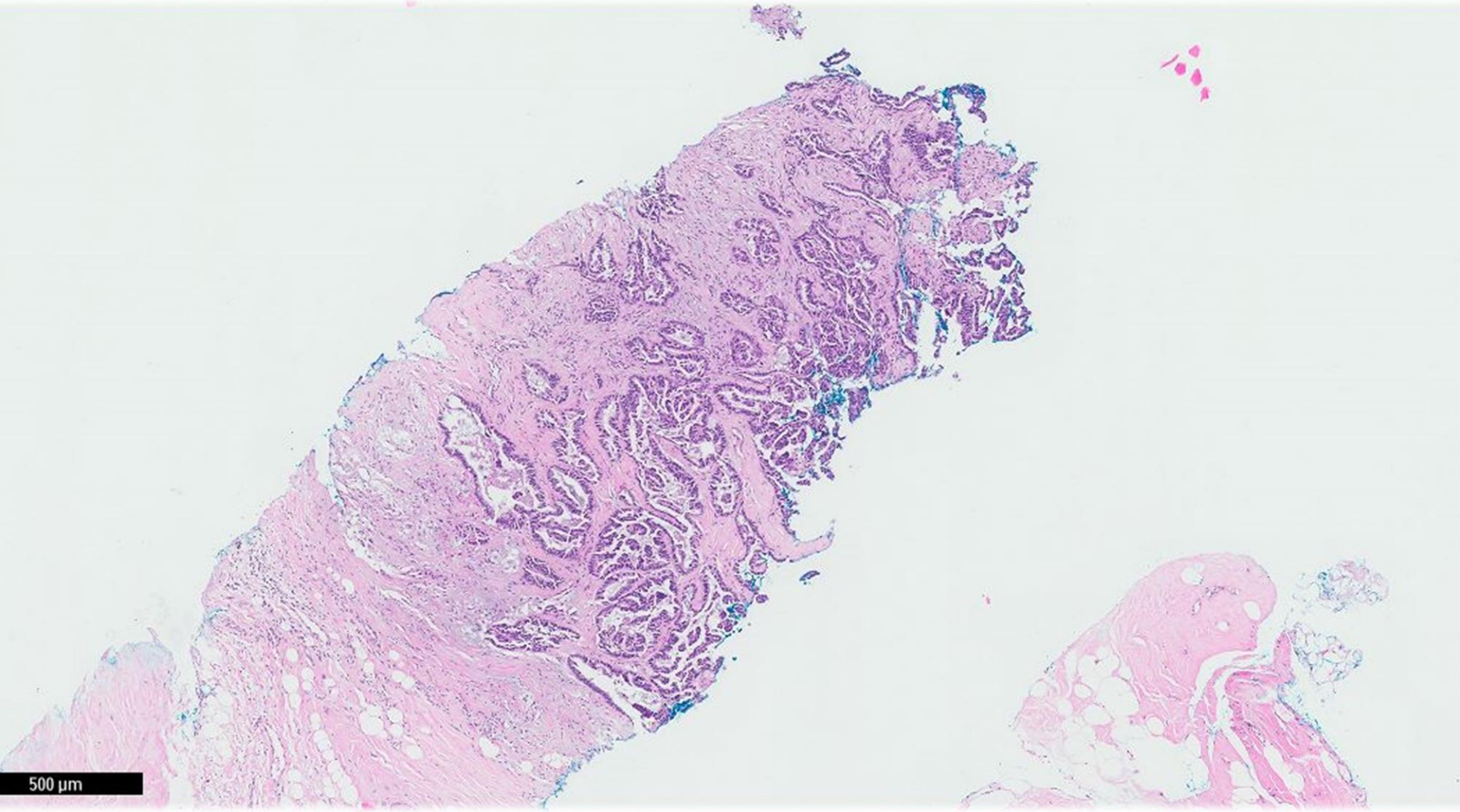
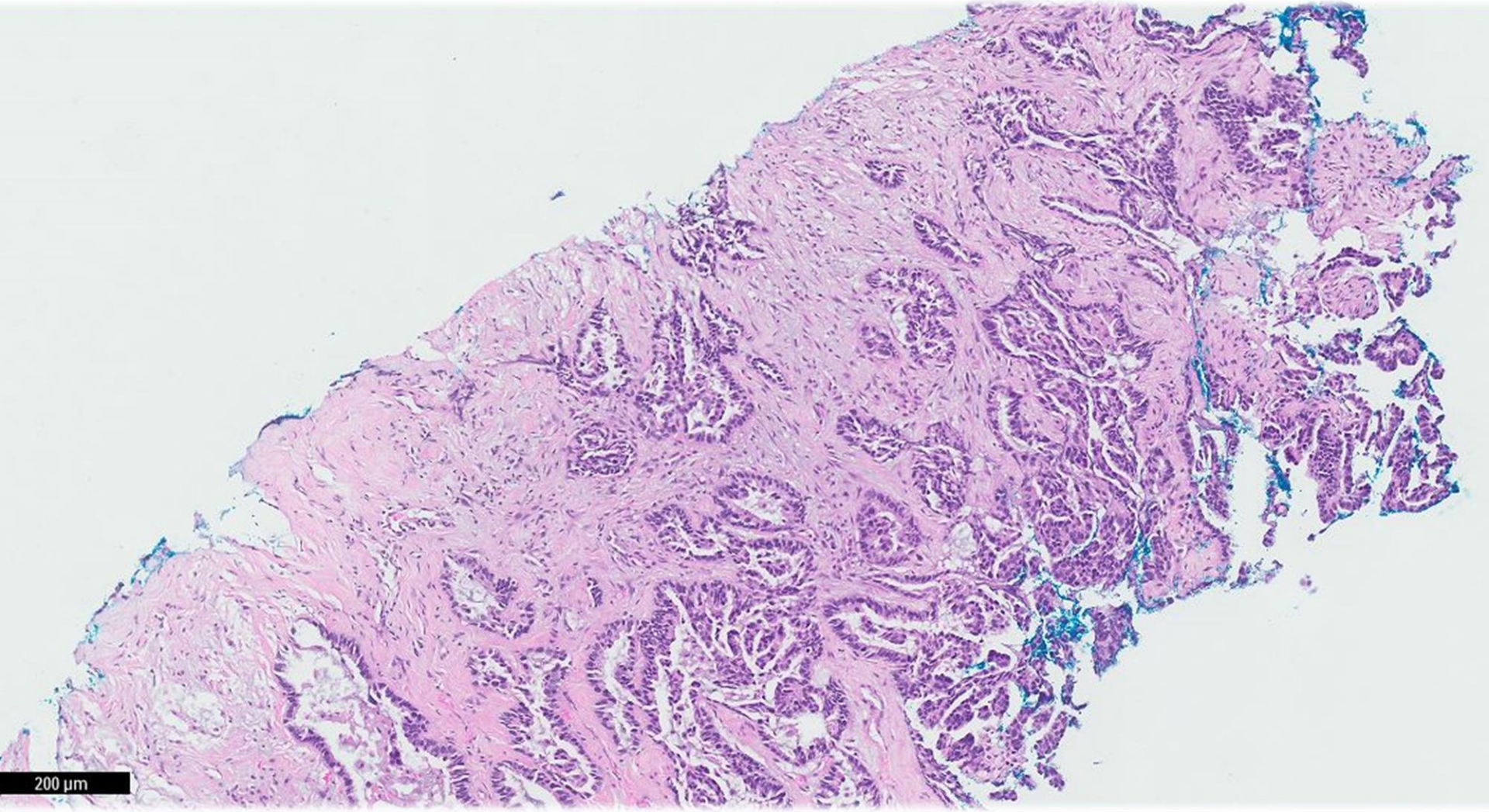
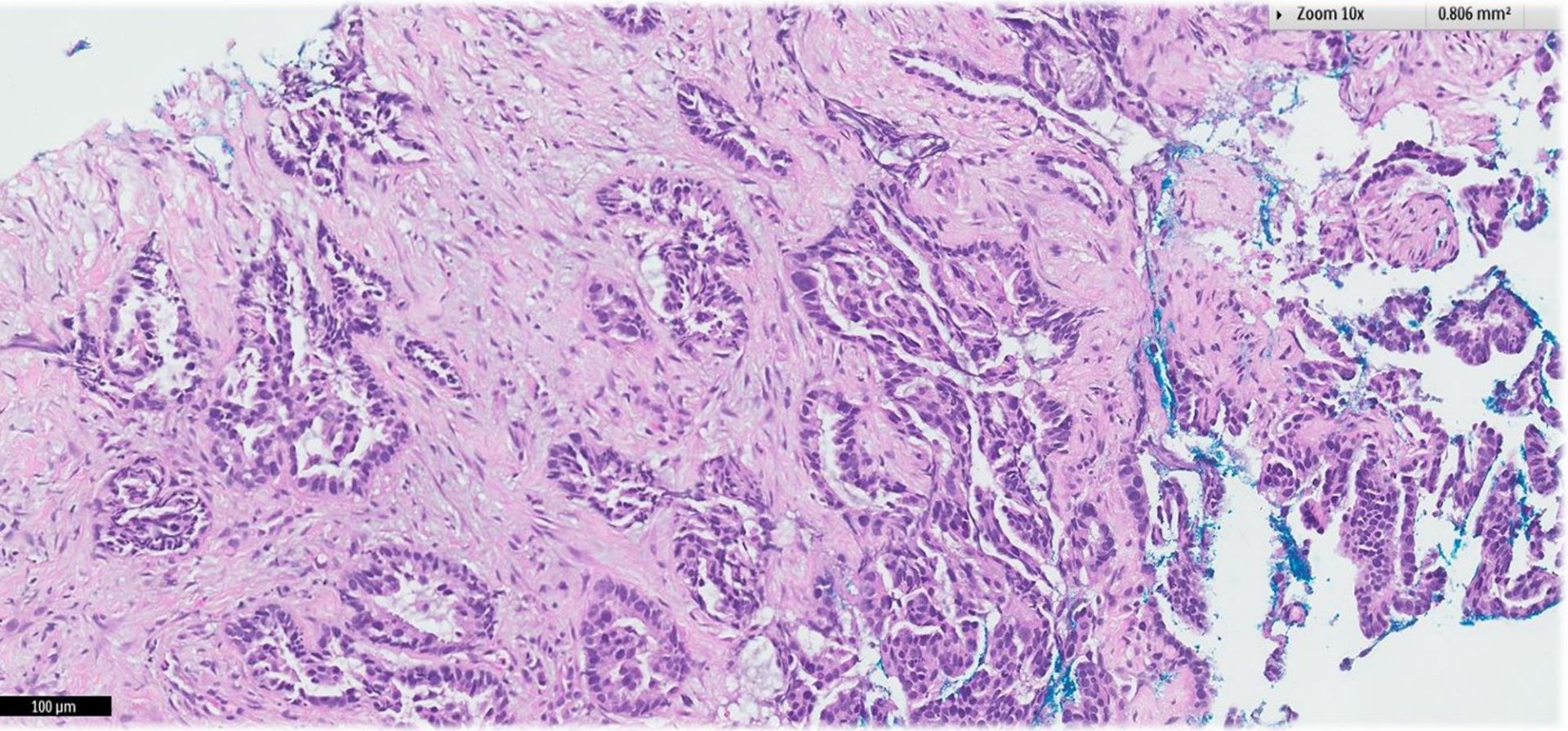
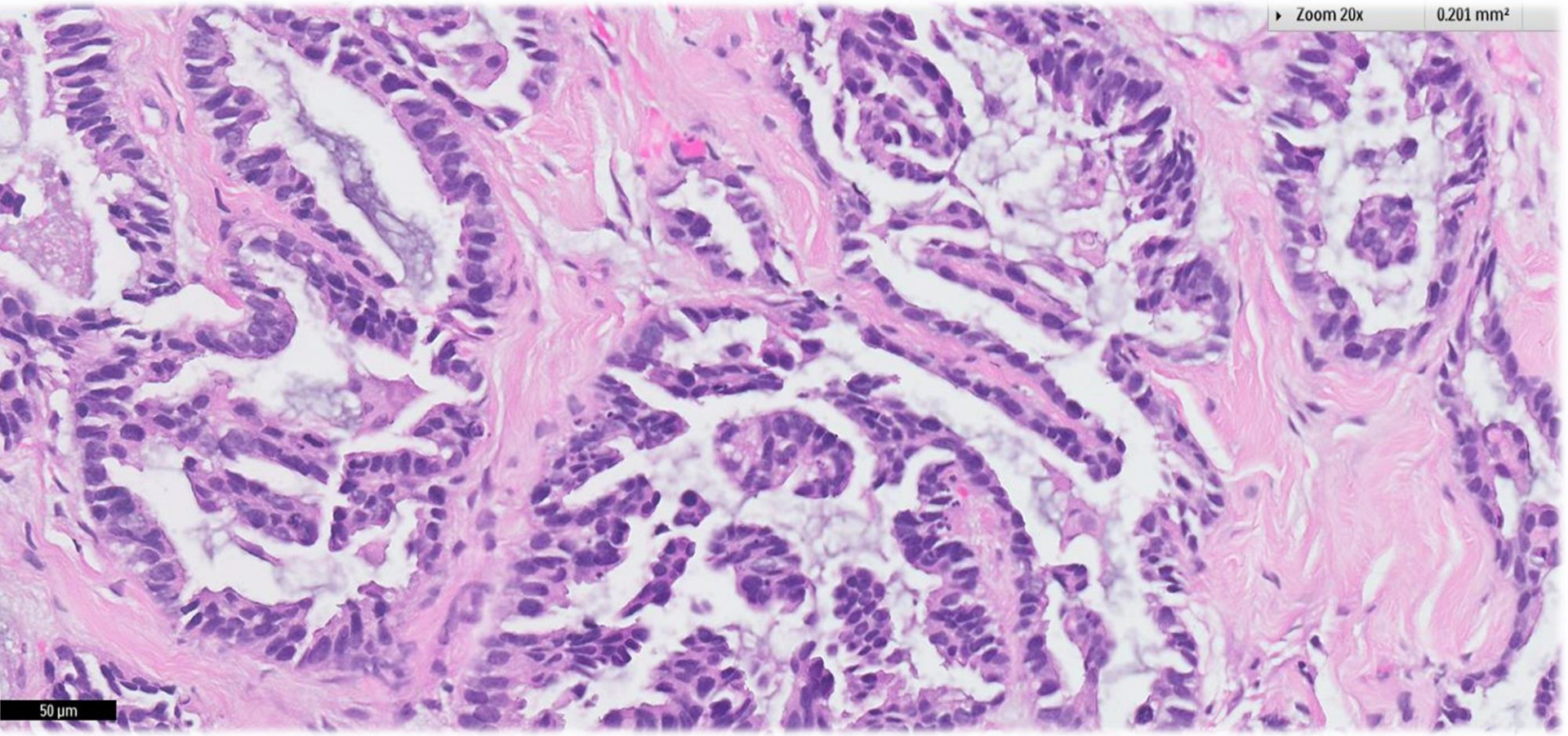
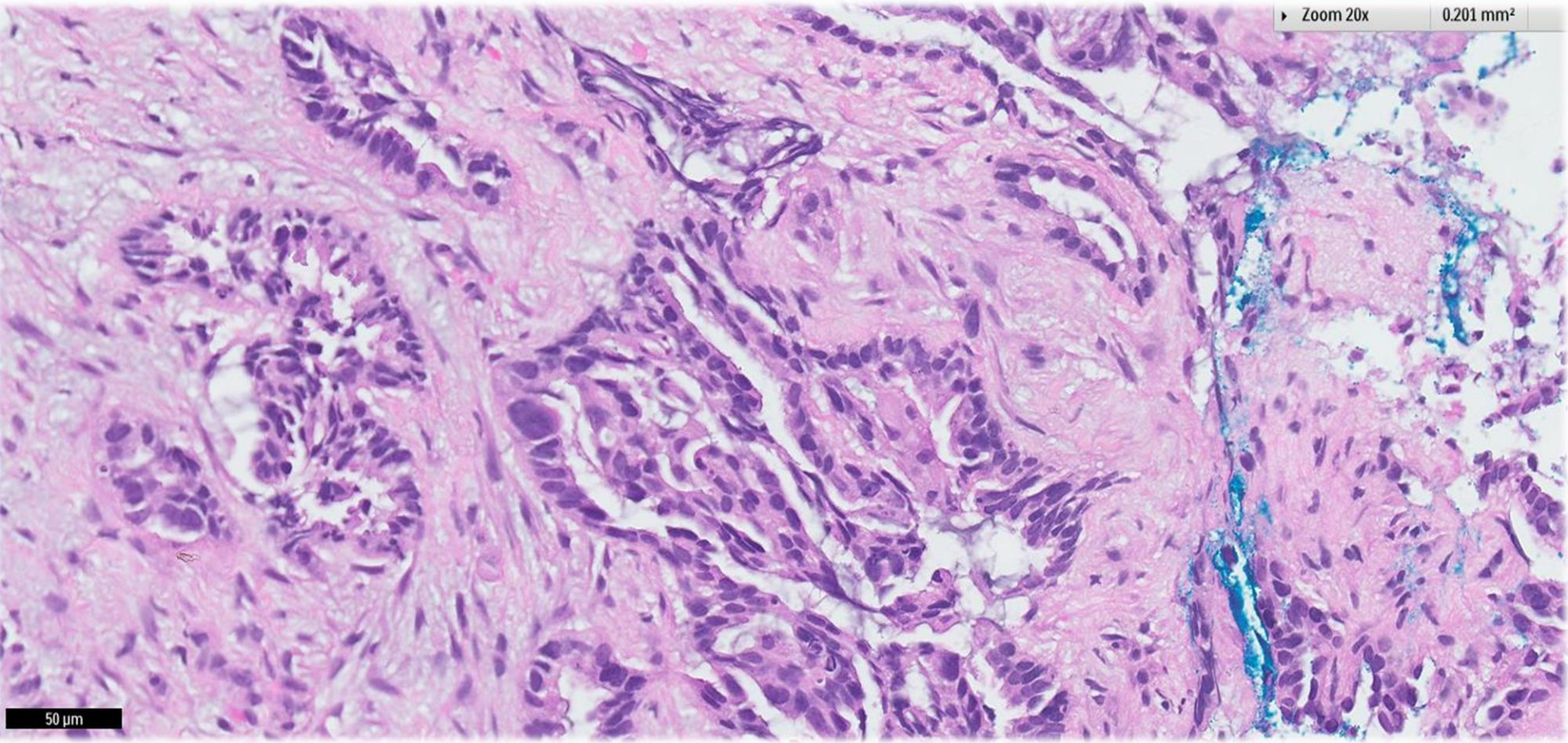



500 µm

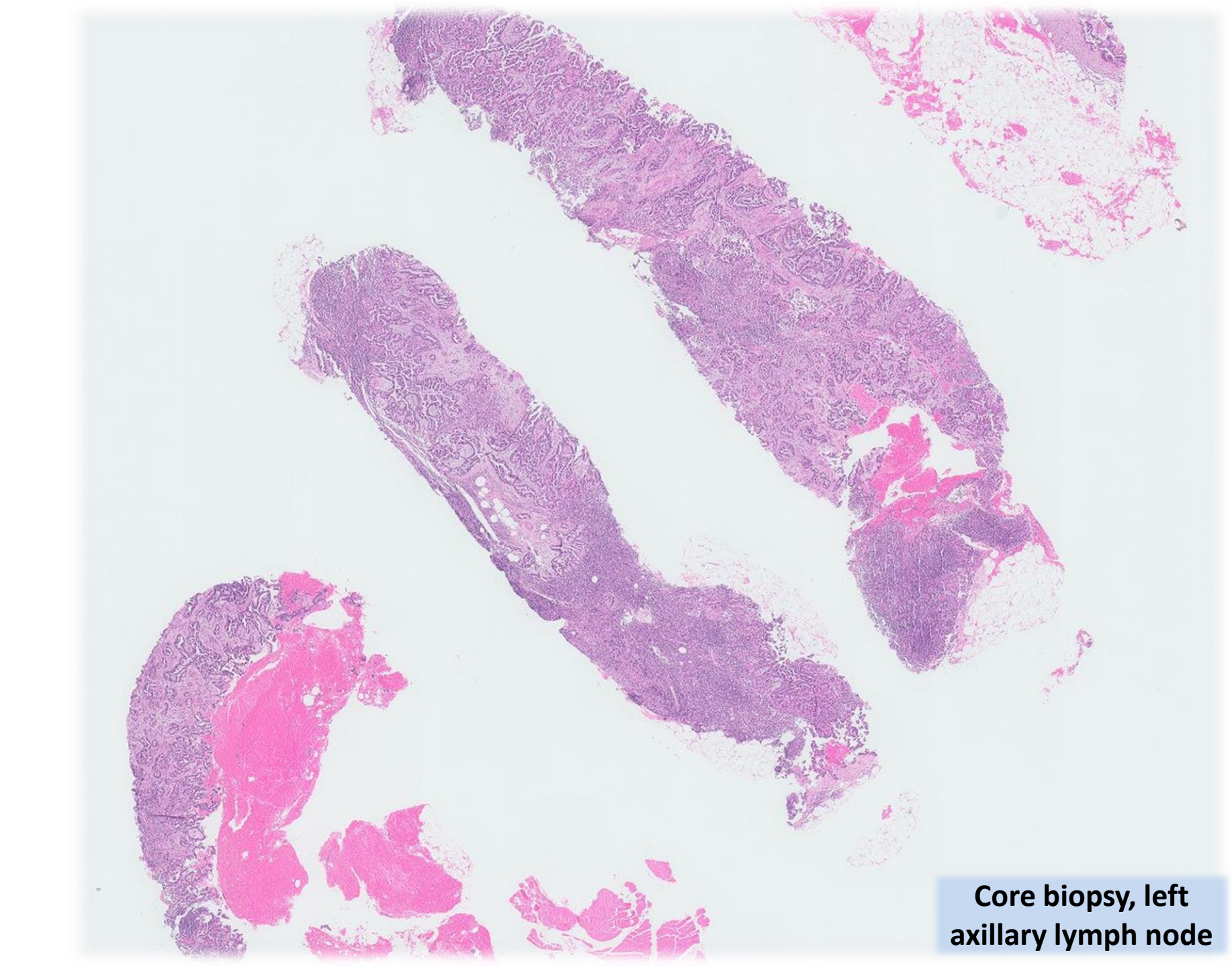

200 µm


Zoom 10x
0.806 mm²
100 µm

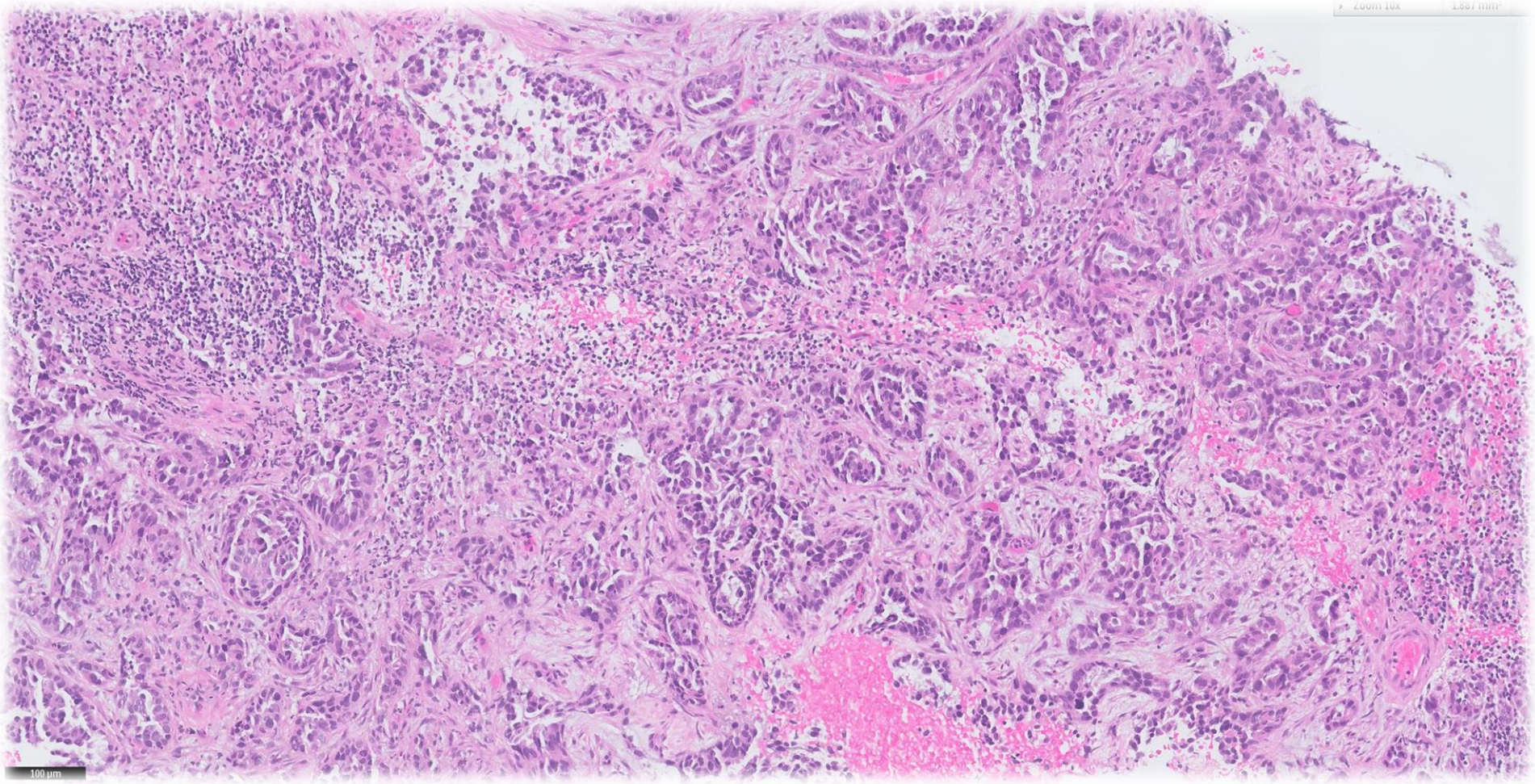

Zoom 20x
0.201 mm²
50 µm


Zoom 20x
0.201 mm²
50 µm

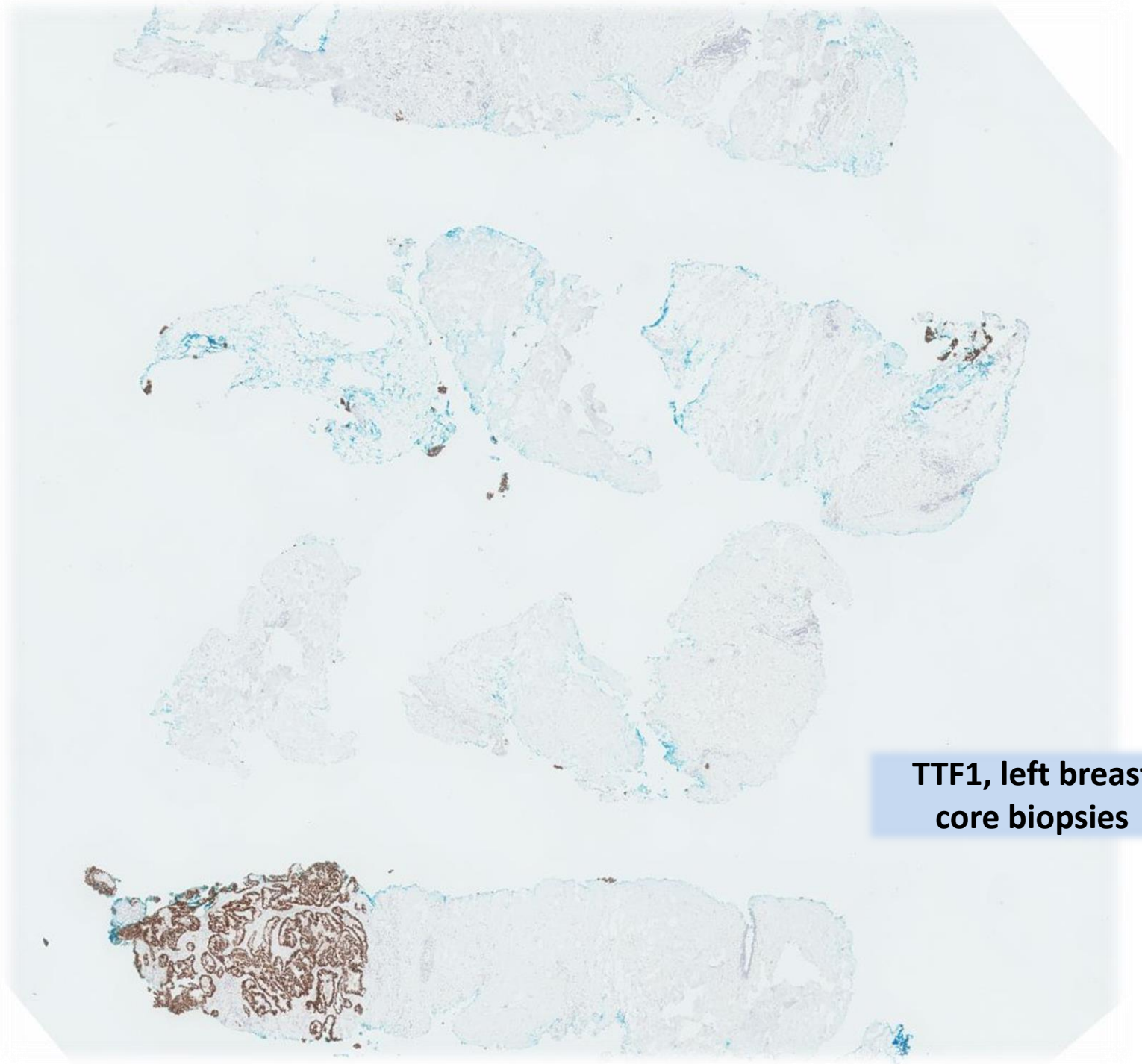
Singapore Botanic Gardens
UNESCO World Heritage Site



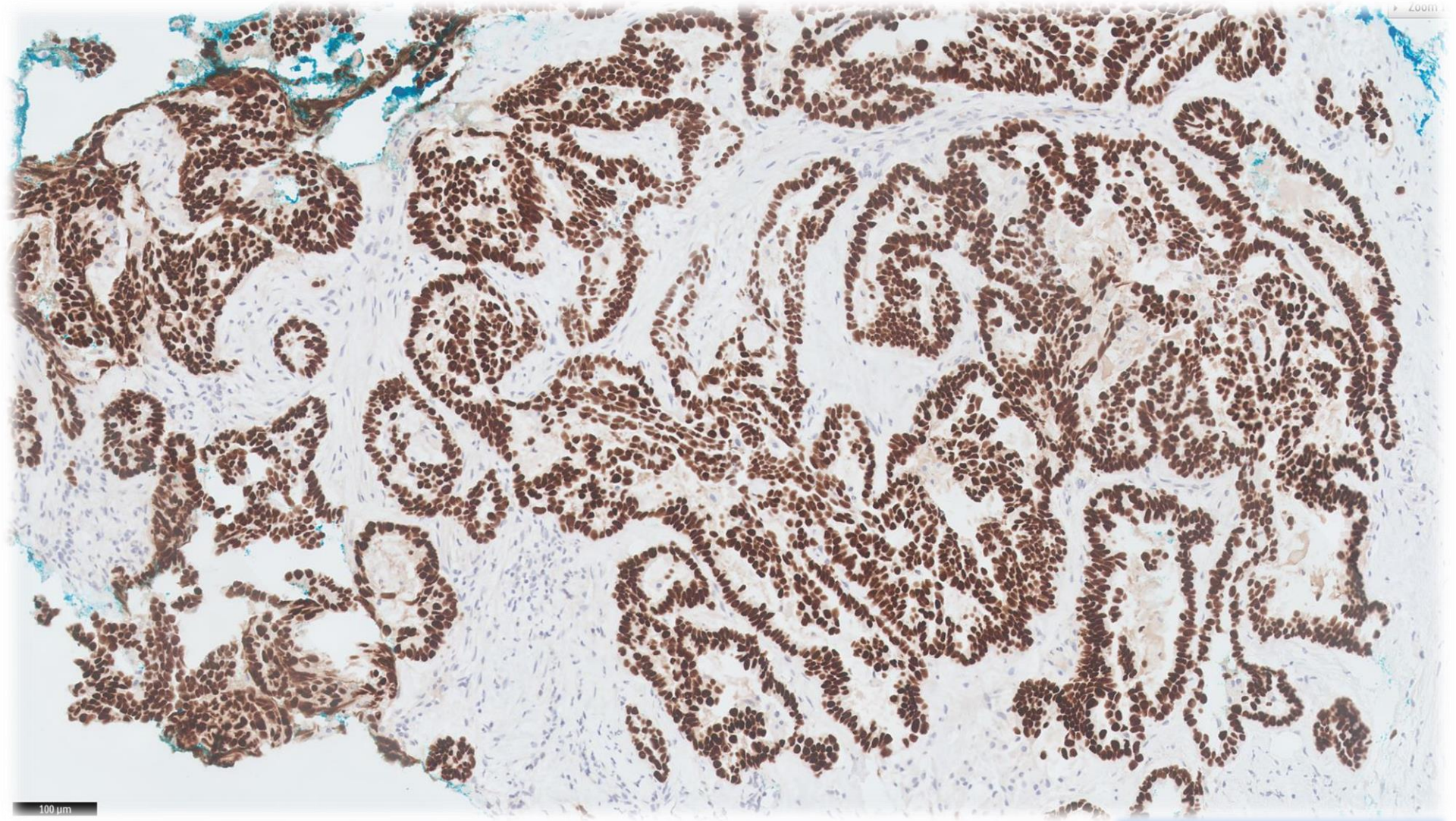
Core biopsy, left axillary lymph node



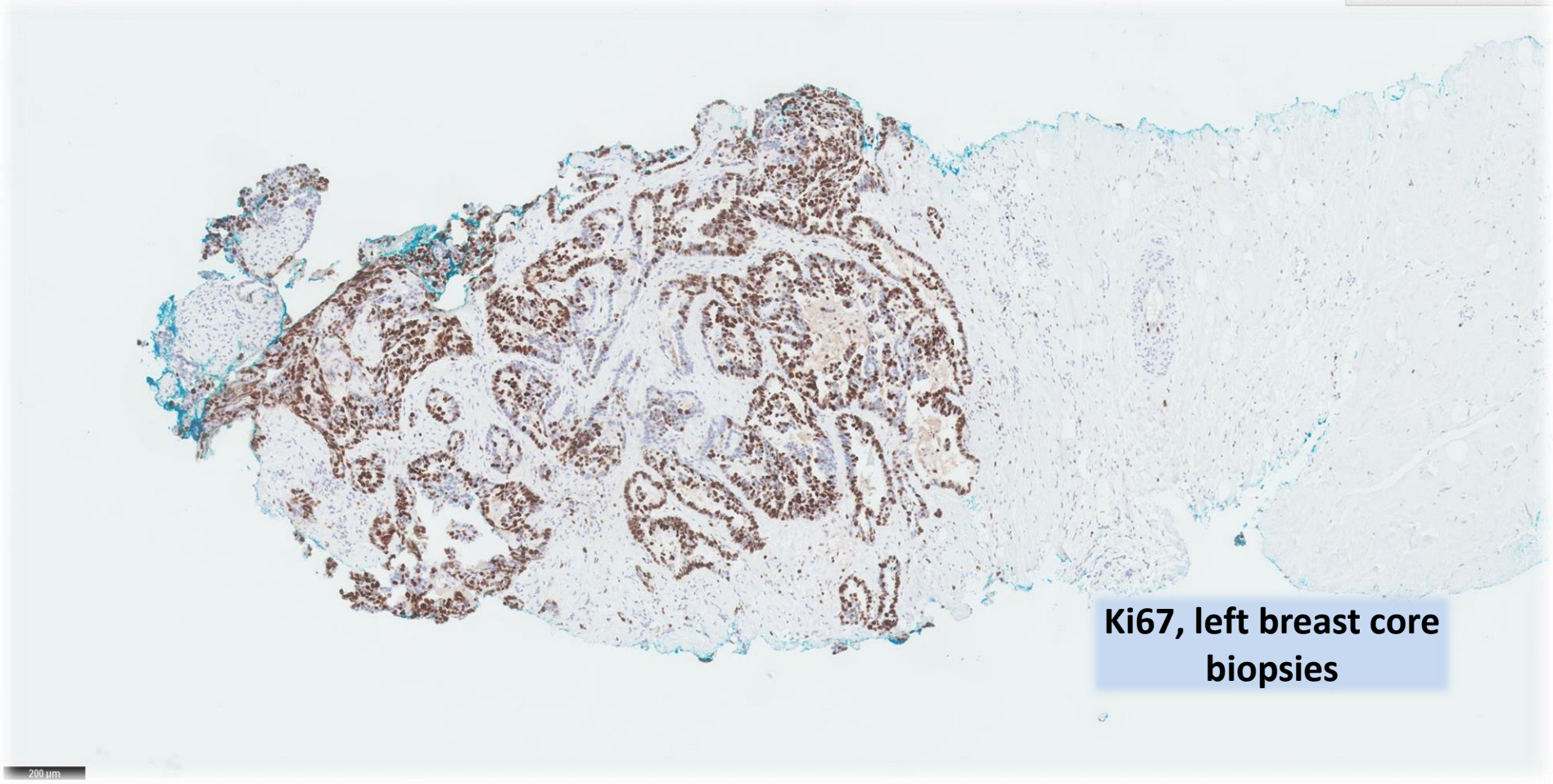
Core biopsy, left axillary lymph node



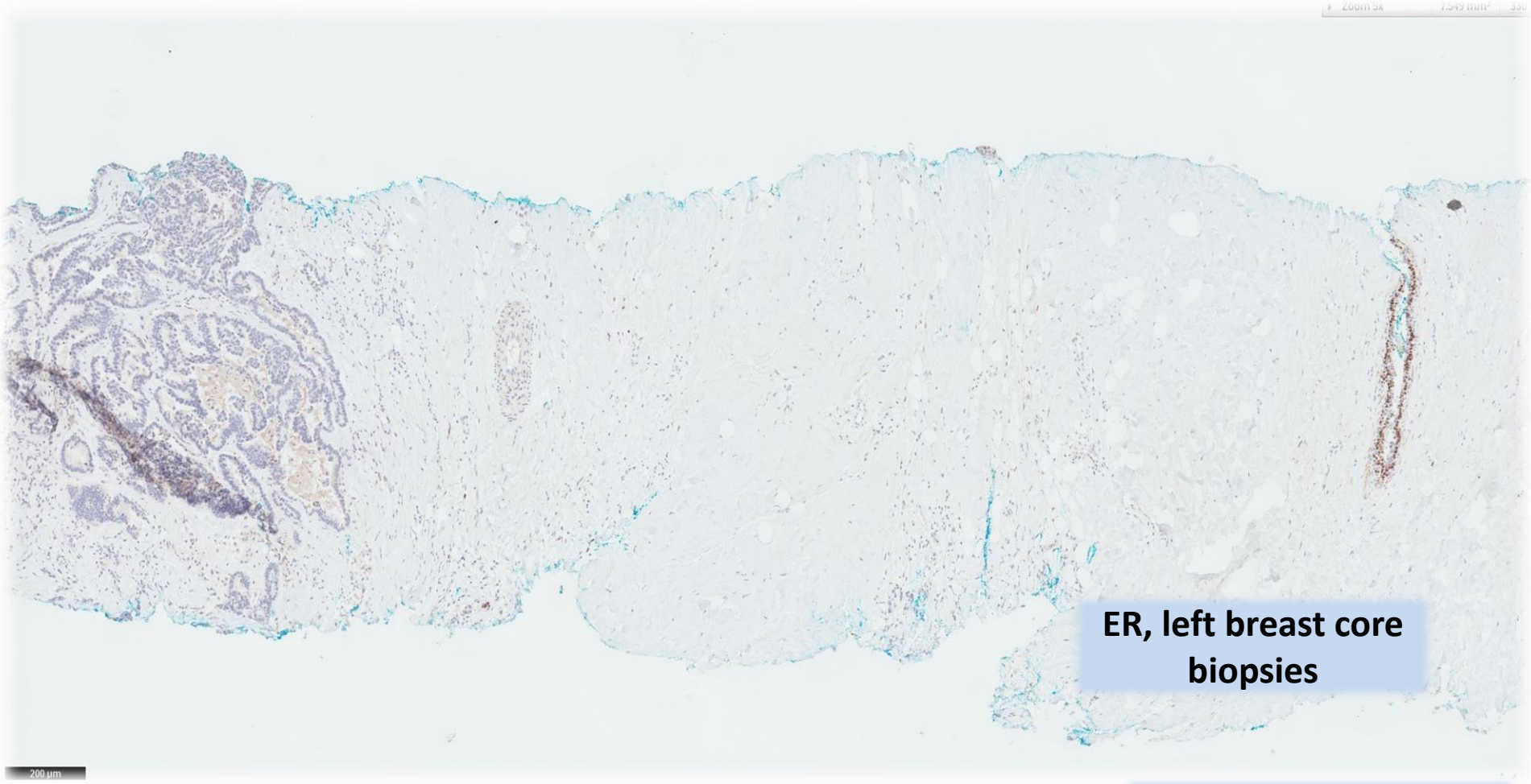
TTF1, left breast core biopsies



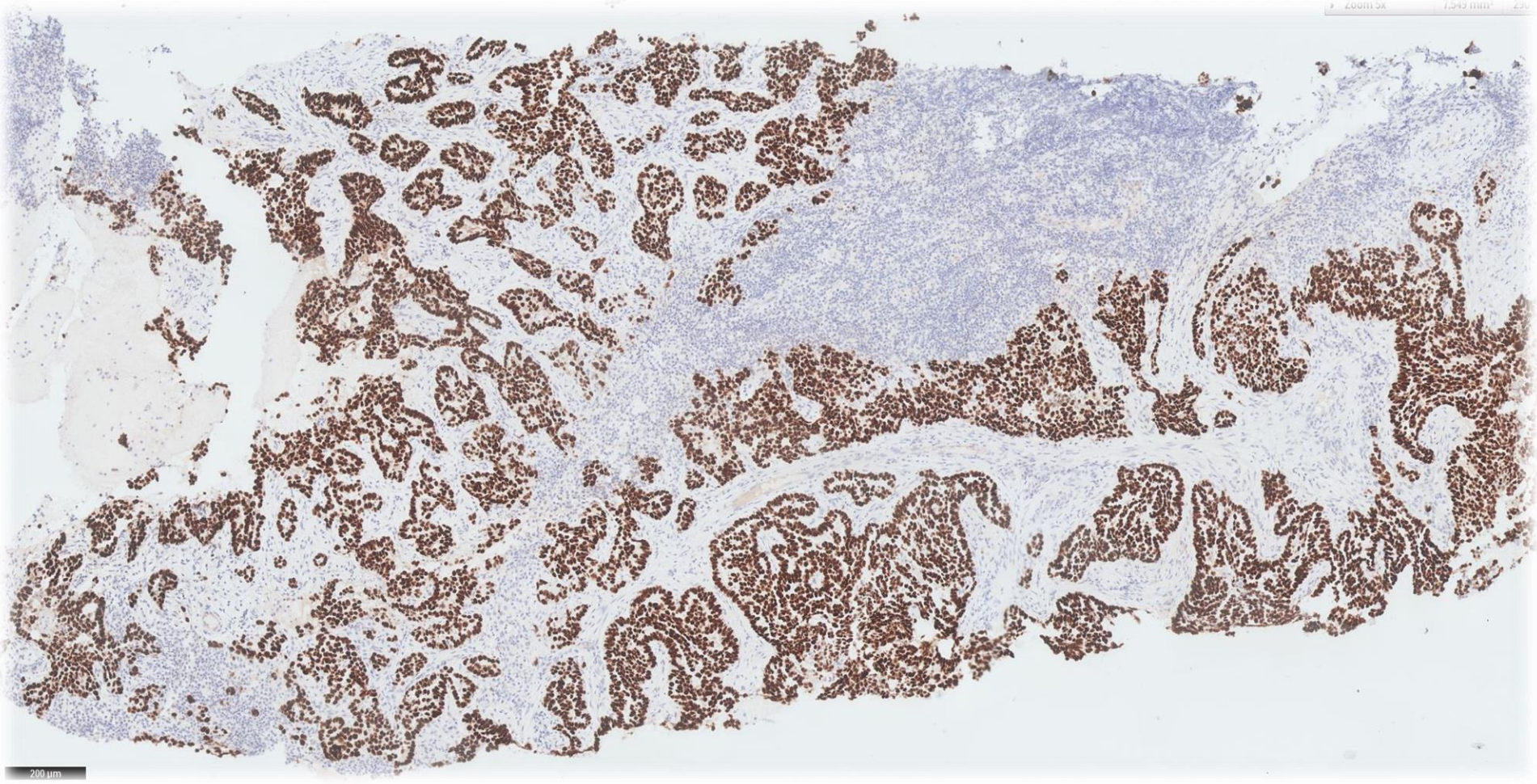
TTF1, left breast core biopsies



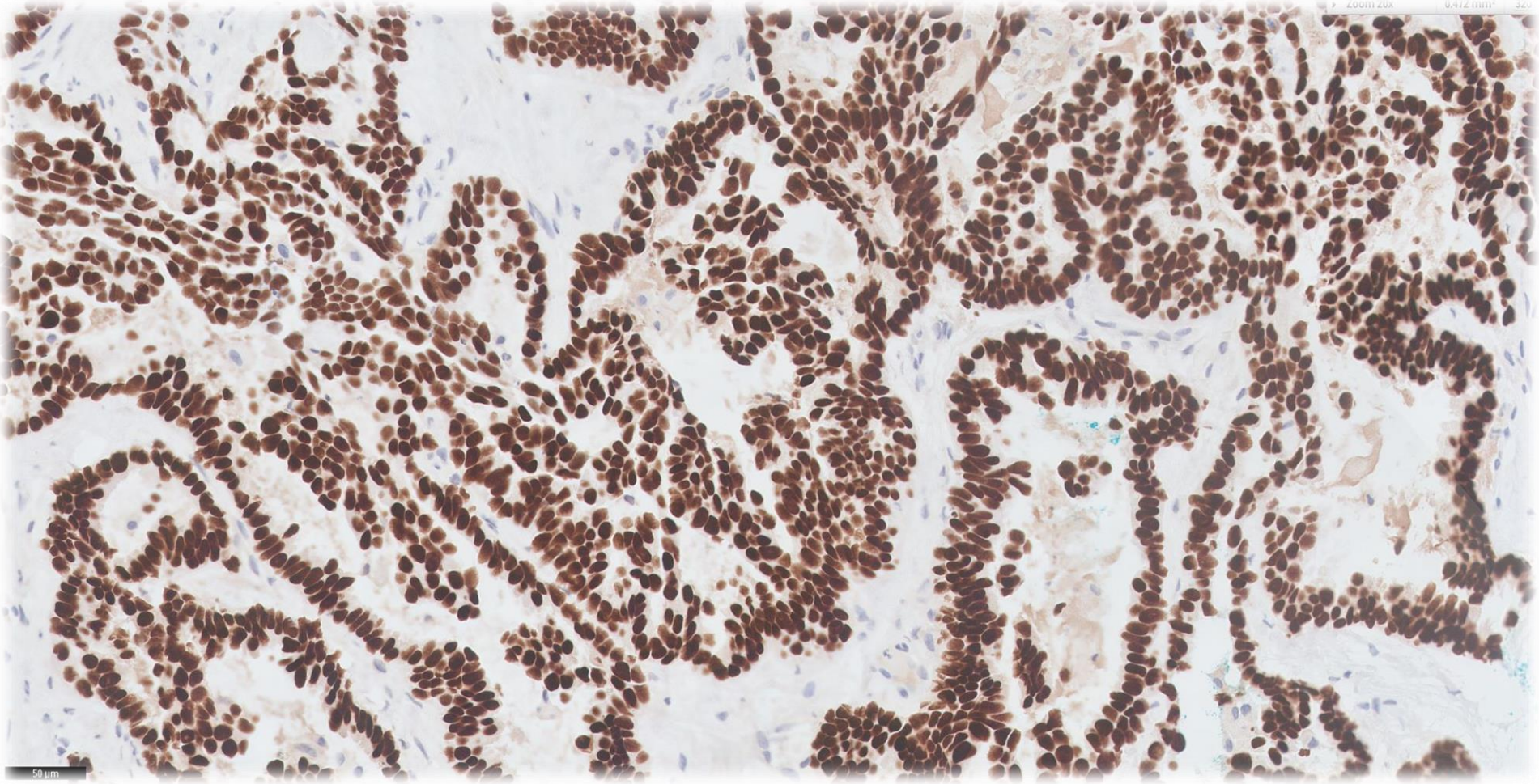
Ki67, left breast core biopsies



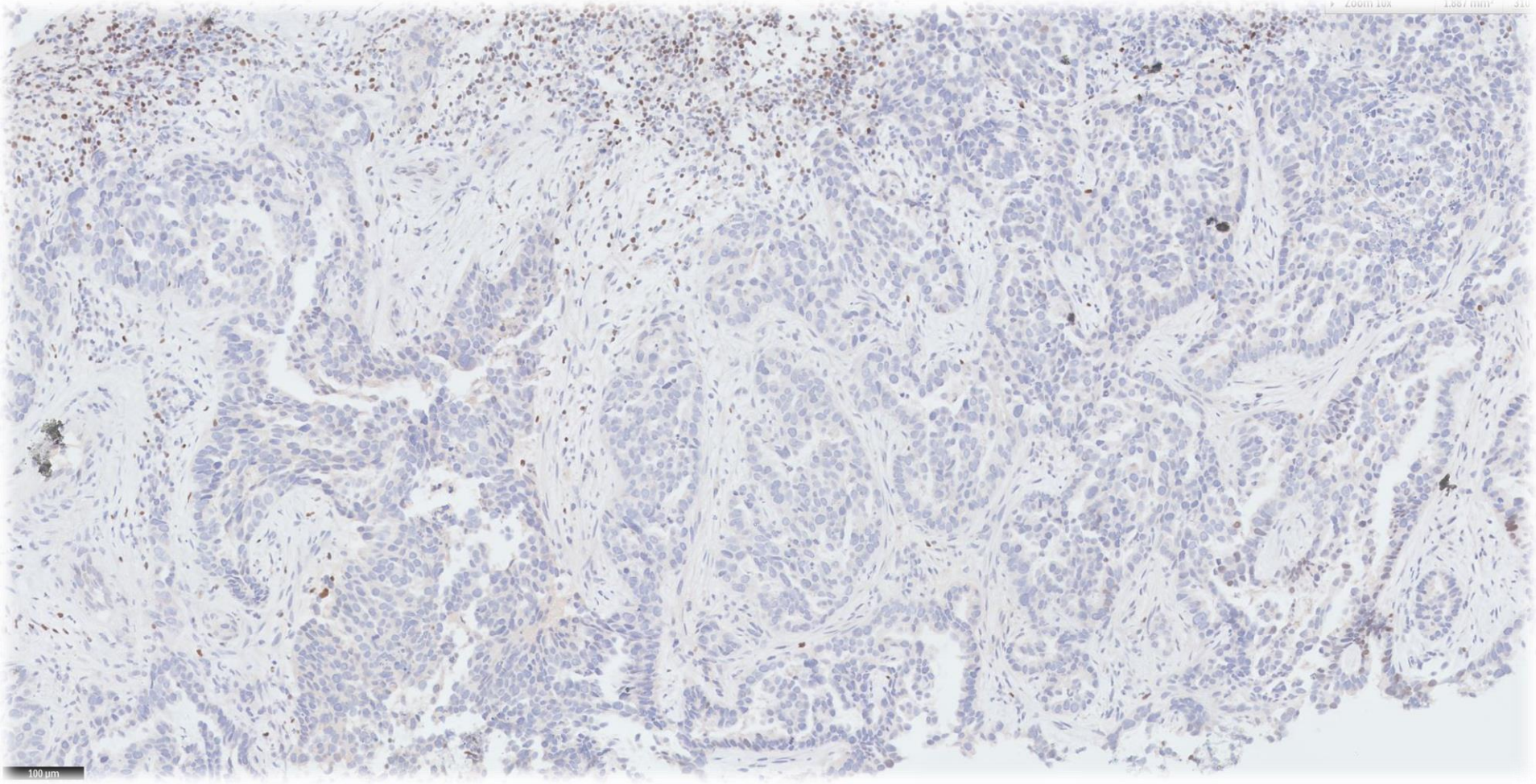
PR, cerbB2 negative



TTF1, left axillary lymph node



TTF1, left axillary lymph node



GATA3, left axillary lymph node

Diagnosis

- Core biopsy, left breast mass:
- Core biopsy, left axillary lymph node

Adenocarcinoma, consistent with metastases from the lung.

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Metastases to the breast from non-mammary malignancies

- Extramammary malignancies that can metastasize to the breast:
  - Haematological malignancies
  - Melanoma
  - Carcinomas of lung, ovary, prostate, kidney, stomach
  - Carcinoid
  - Rhabdomyosarcoma
  - Lymphoma

  } *In children*

- 0.2 to 1.3% of breast malignancies.

Metastases to the breast from non-mammary malignancies

- Breast lesion is the first sign of malignancy in 30% of the cases.
- Interval between initial diagnosis and mammary diagnosis ranges from 1 month to 15 years.
- Longer interval seen in melanoma and ovarian carcinoma.
- Radiologically often presents as a single well defined rounded mass; less often as multiple masses.
- Calcifications and spiculation are rare.

Metastases to the breast from non-mammary malignancies

- Consider this possibility in cases with unusual morphology, combined with triple negativity and absence of DCIS.
- Clinical history is vital.
- Comparison with morphology of primary tumour is useful.
- Adjunctive immunohistochemistry ~
  - Breast carcinoma: CK7+, ER+, GCDFP15+, mammaglobin+, GATA3+, CK20-
  - Lung adenocarcinoma: TTF1+
  - Ovarian serous papillary carcinoma: WT1+
  - Melanoma: S100+, HMB45+, melanA+


SGH
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