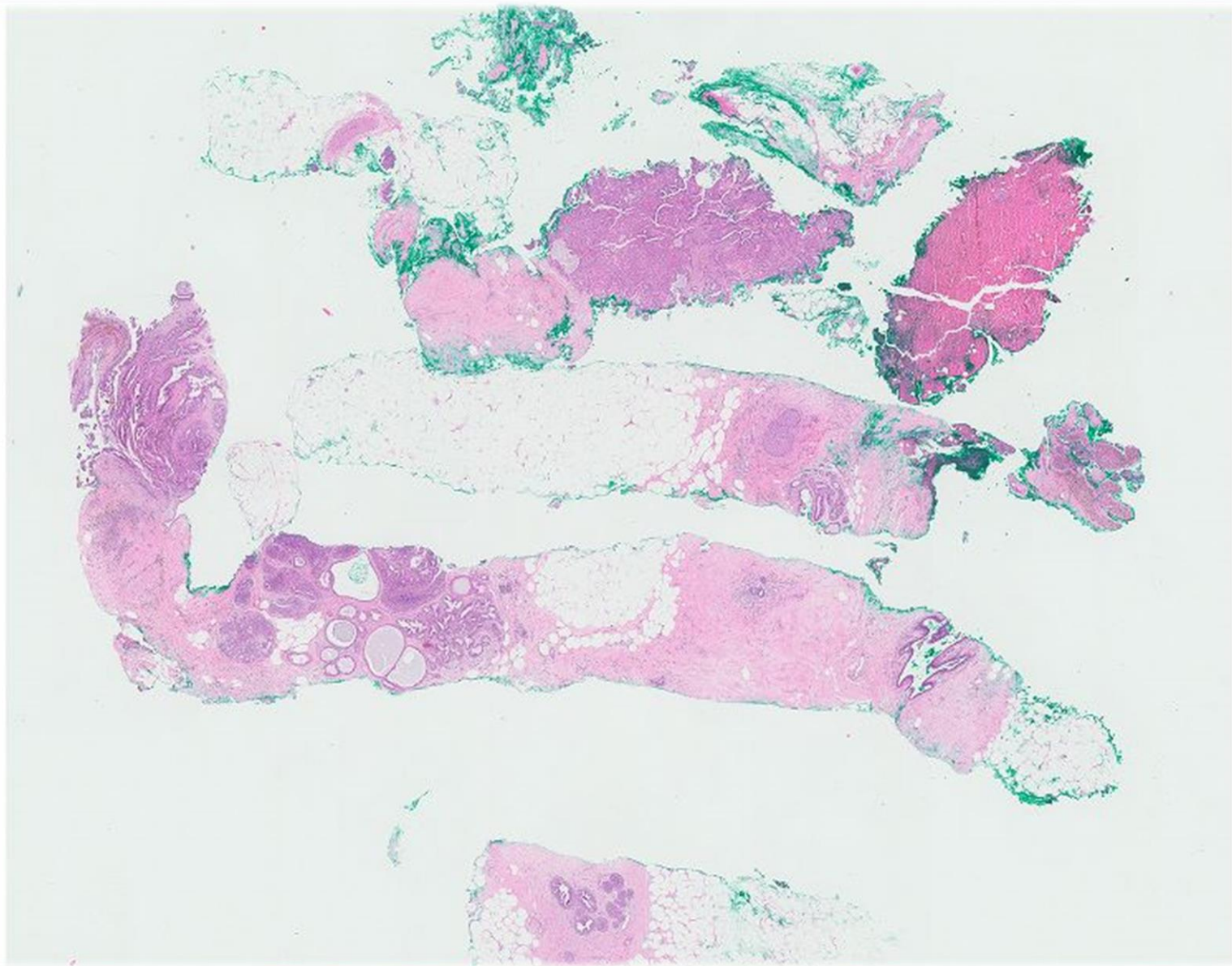


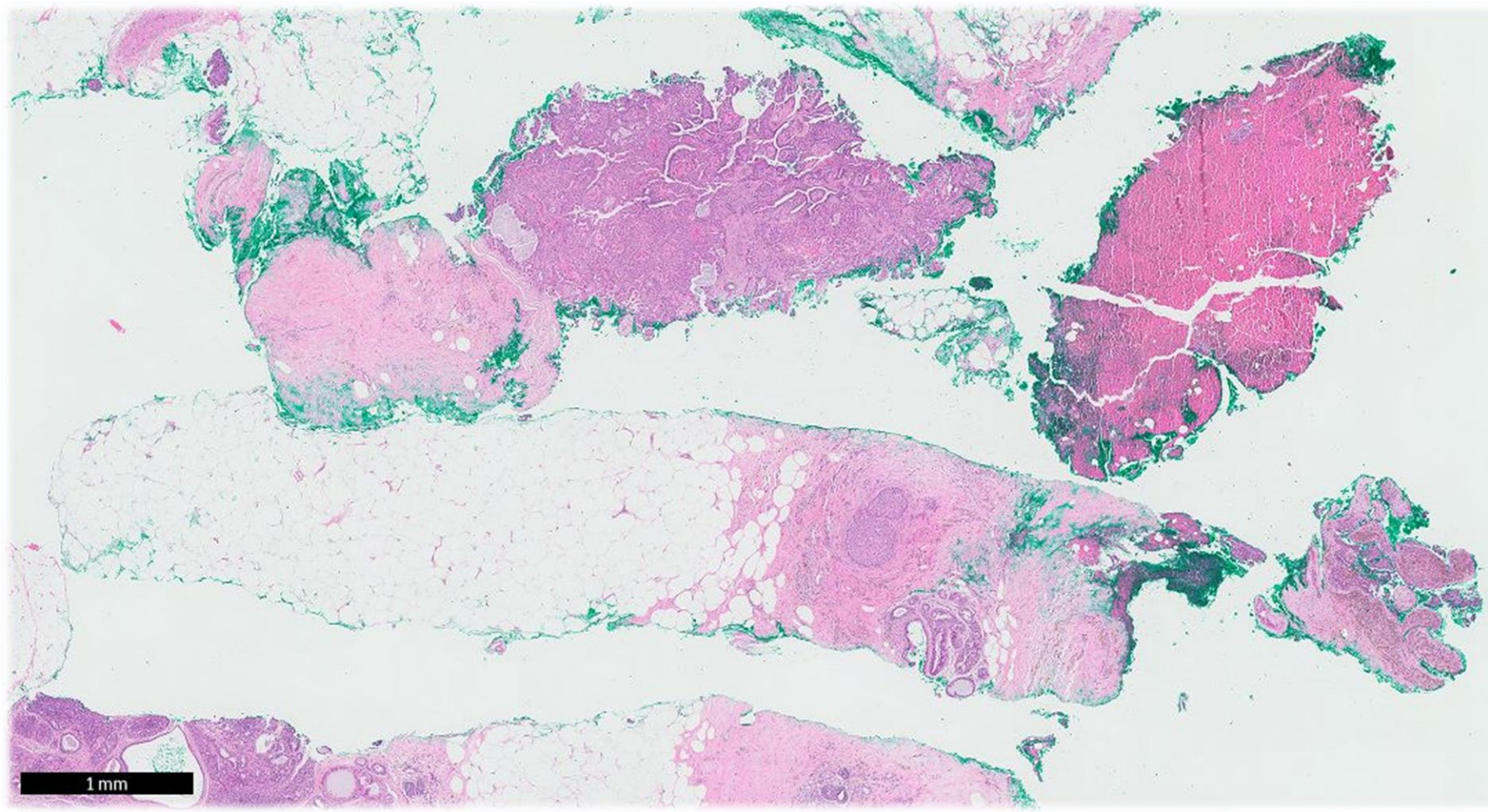
Case 23

69 year old Chinese lady with past history of excision of an intraductal papilloma in the left breast, presented with a recurrent left breast nodule at the 3 o'clock position on radiological follow-up.

Ultrasound guided core biopsies were performed.



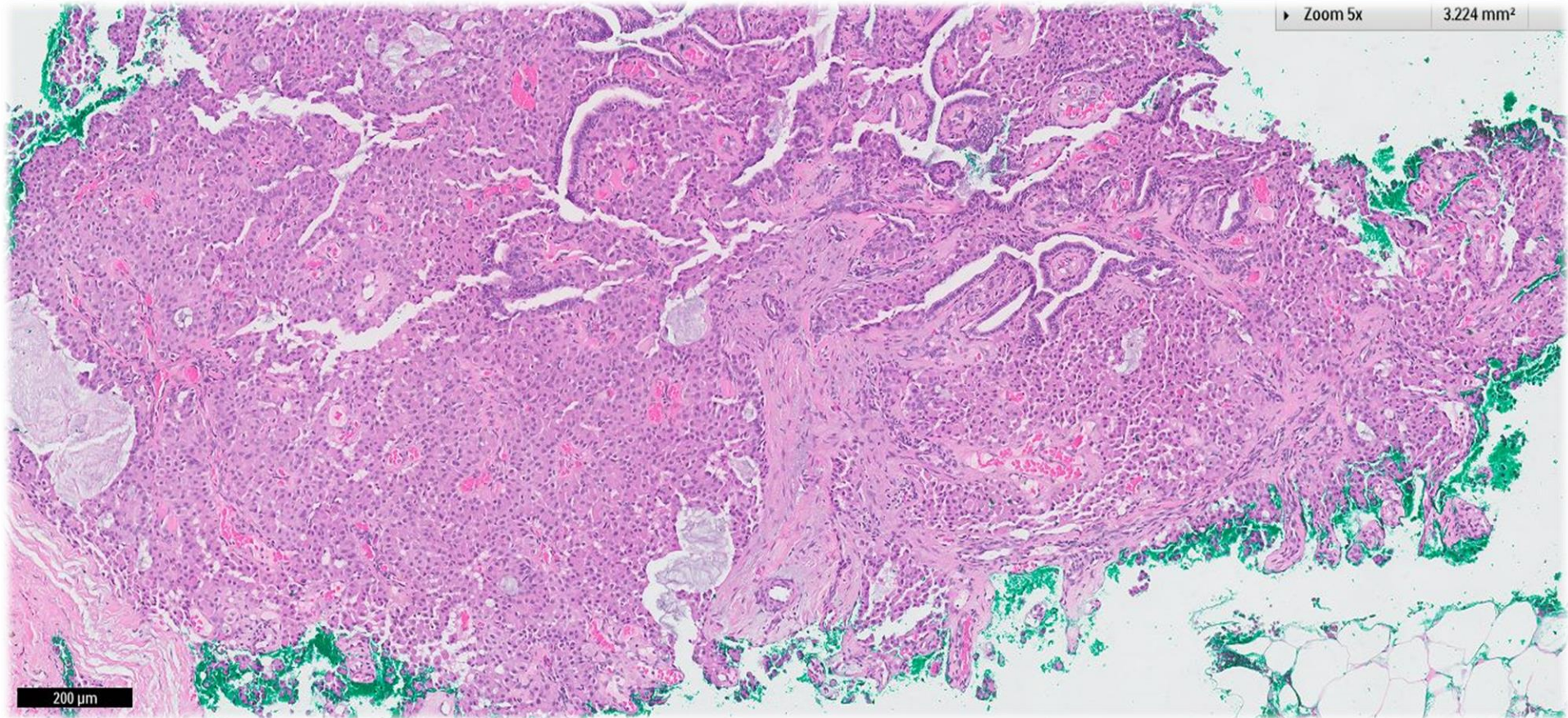




1 mm

► Zoom 5x

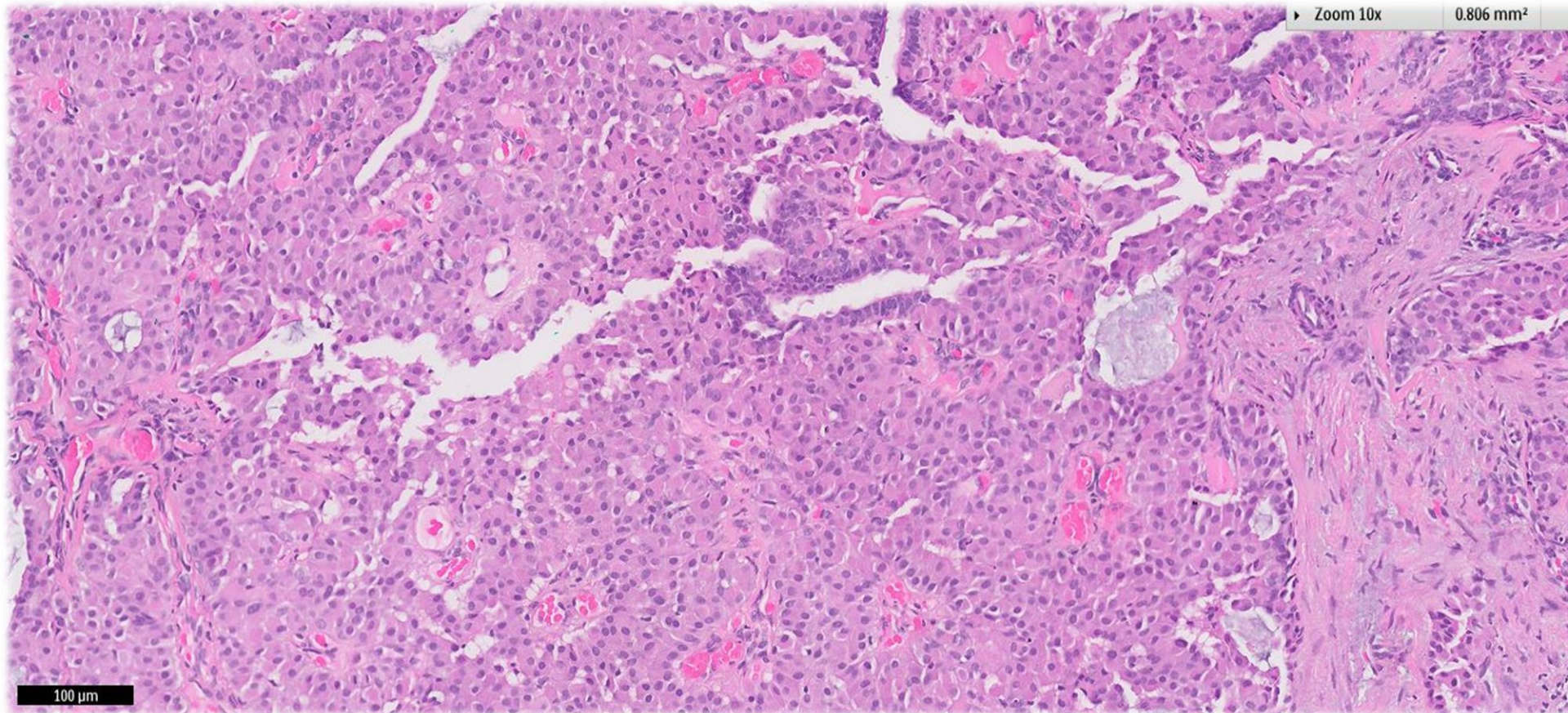
3.224 mm²



200 μ m

Zoom 10x

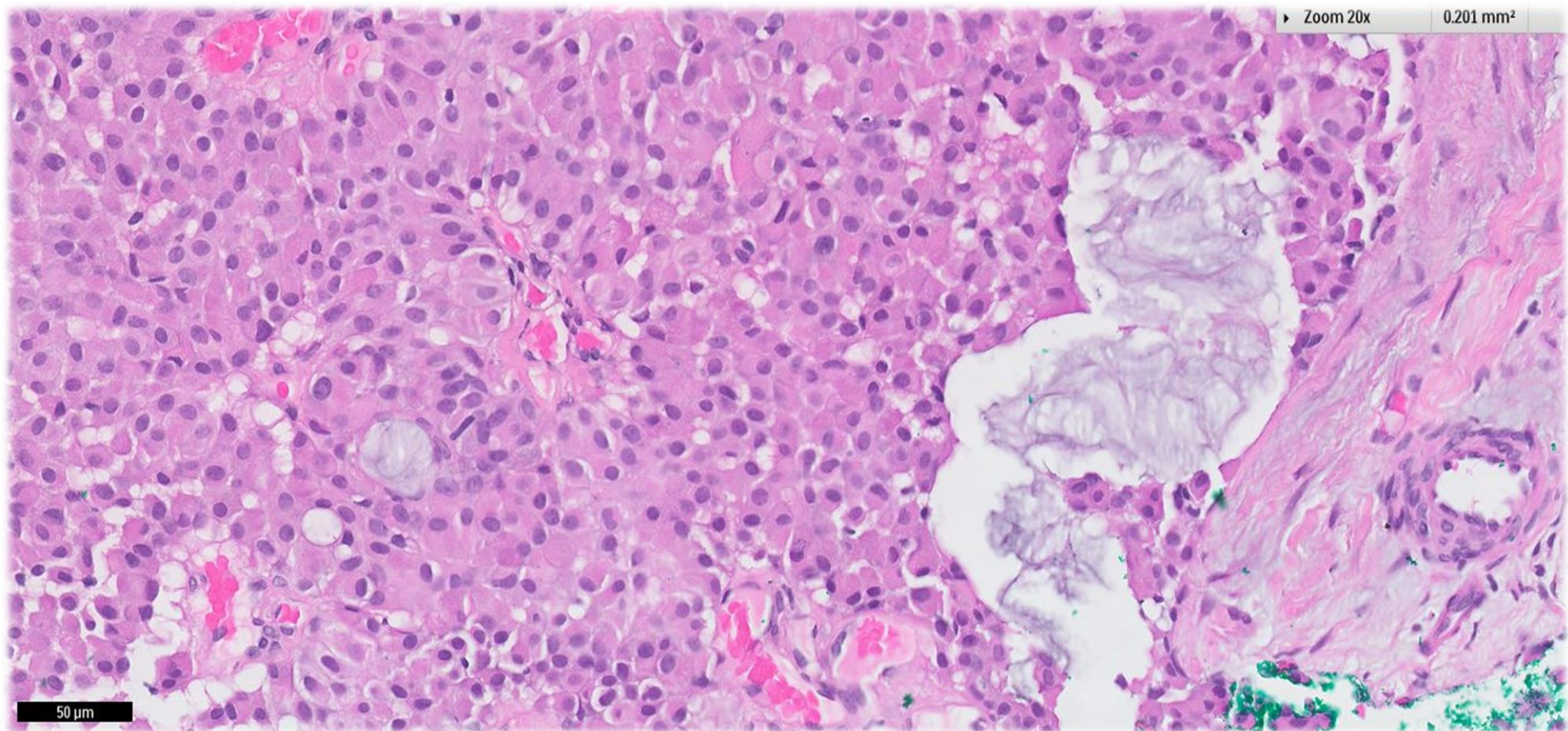
0.806 mm²



100 μm

▶ Zoom 20x

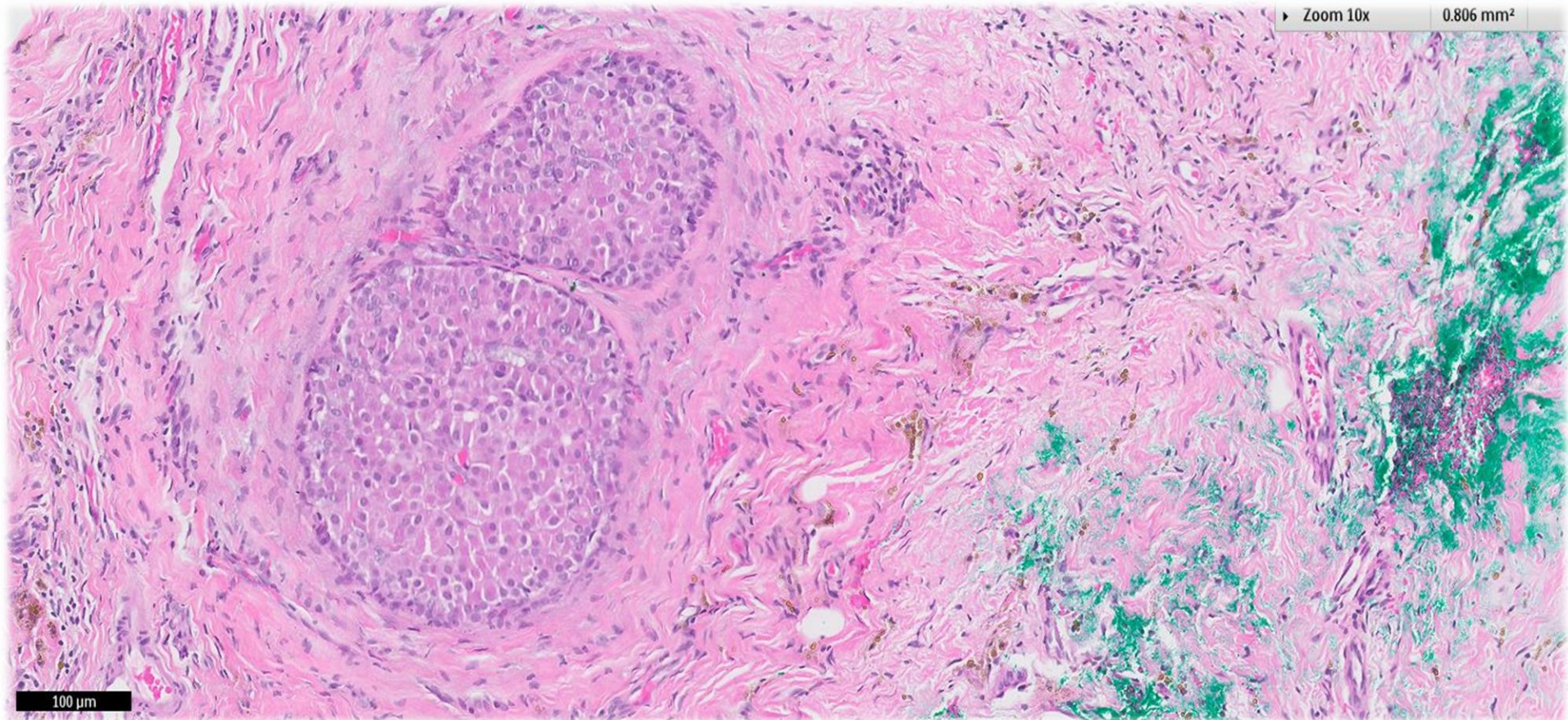
0.201 mm²



50 μm

Zoom 10x

0.806 mm²

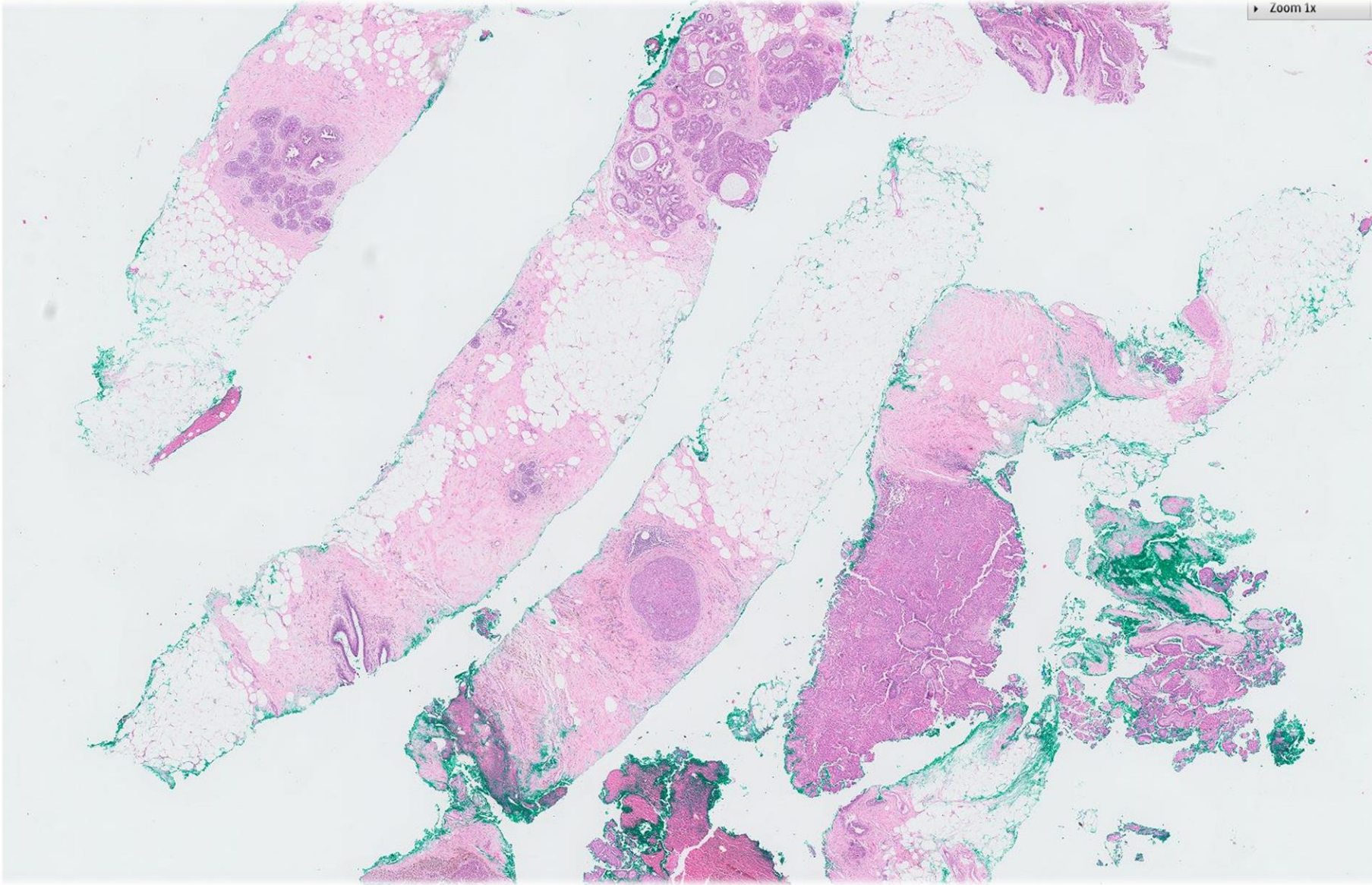


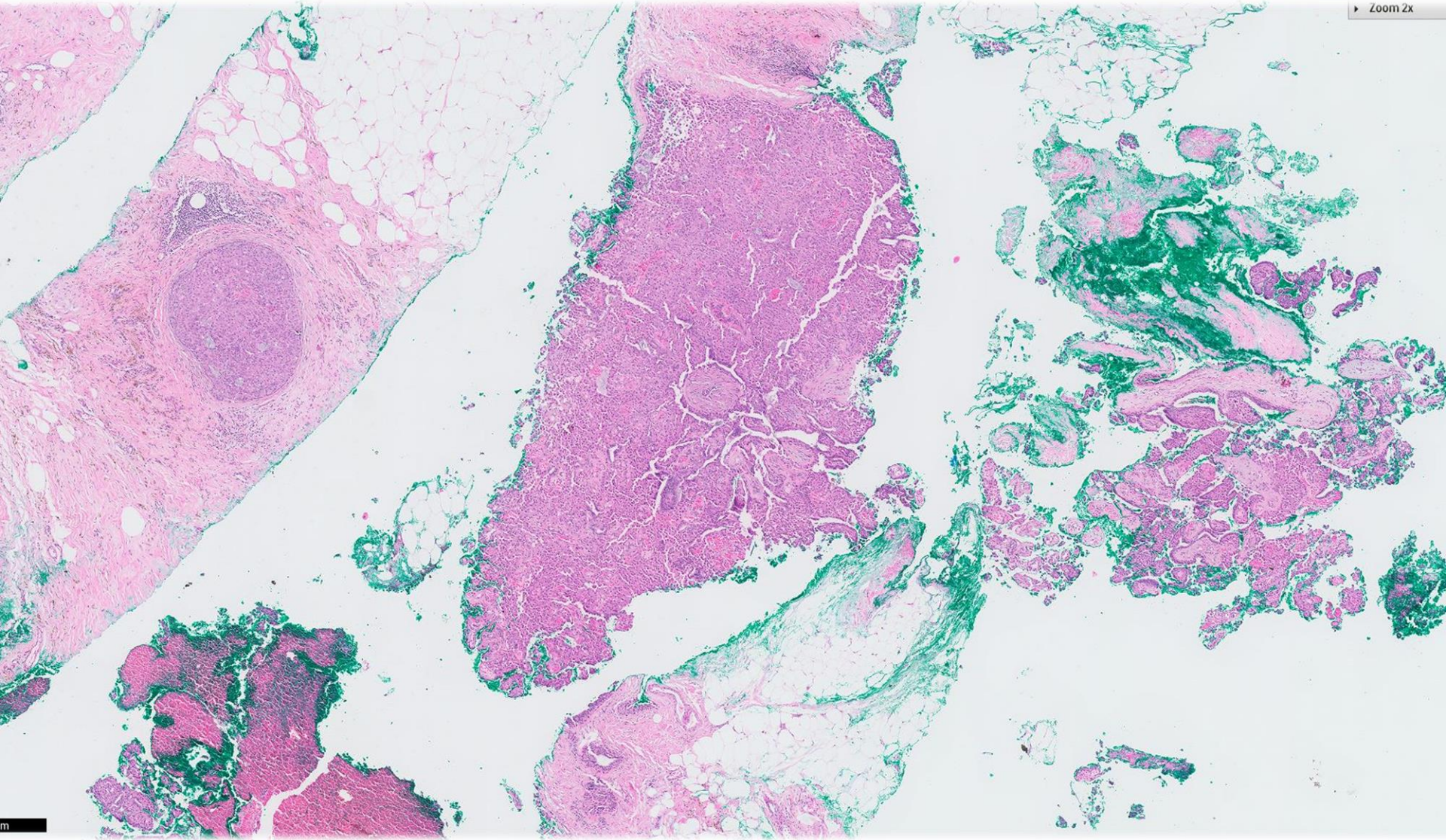
100 μm

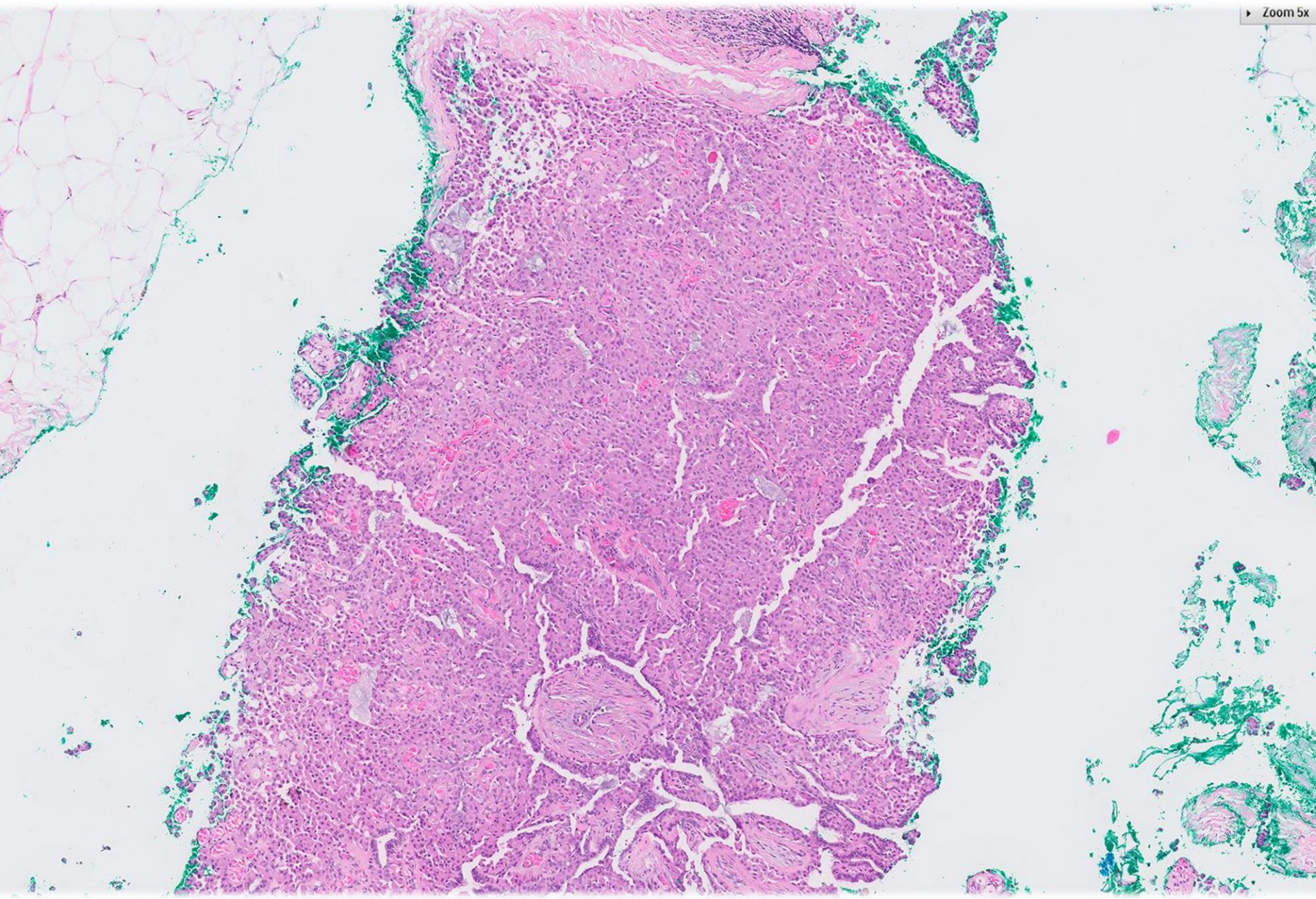


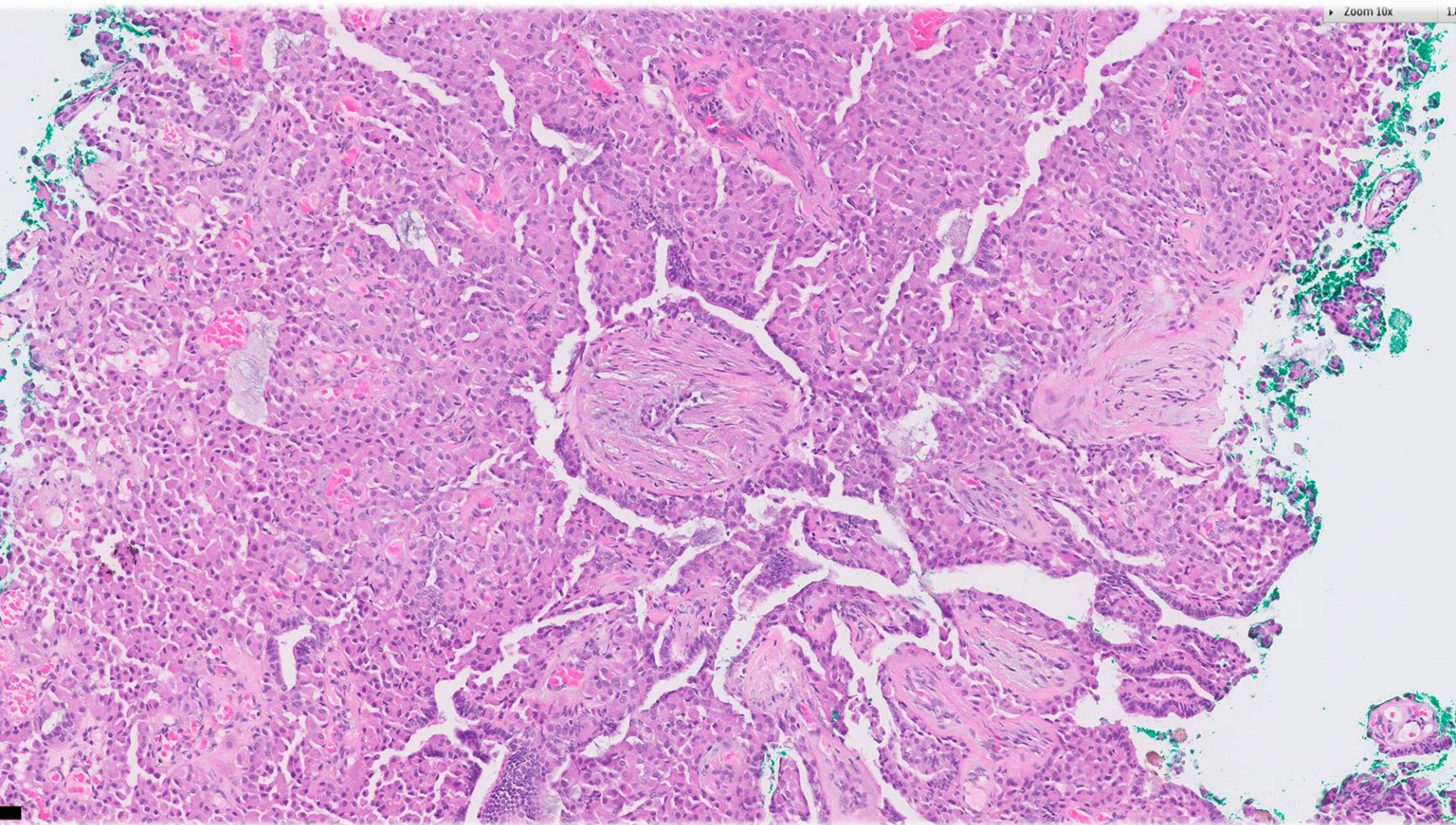
Academia

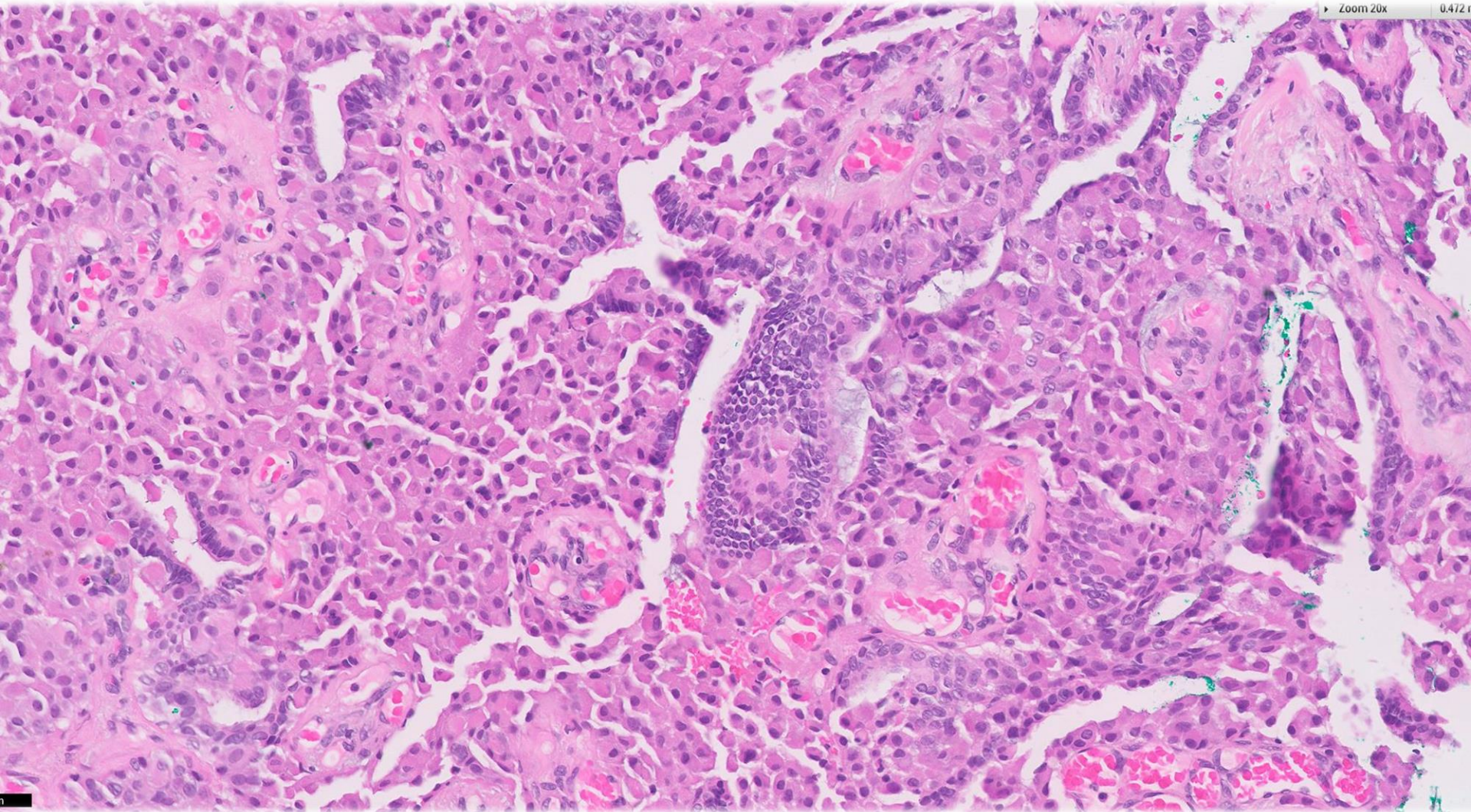
SGH

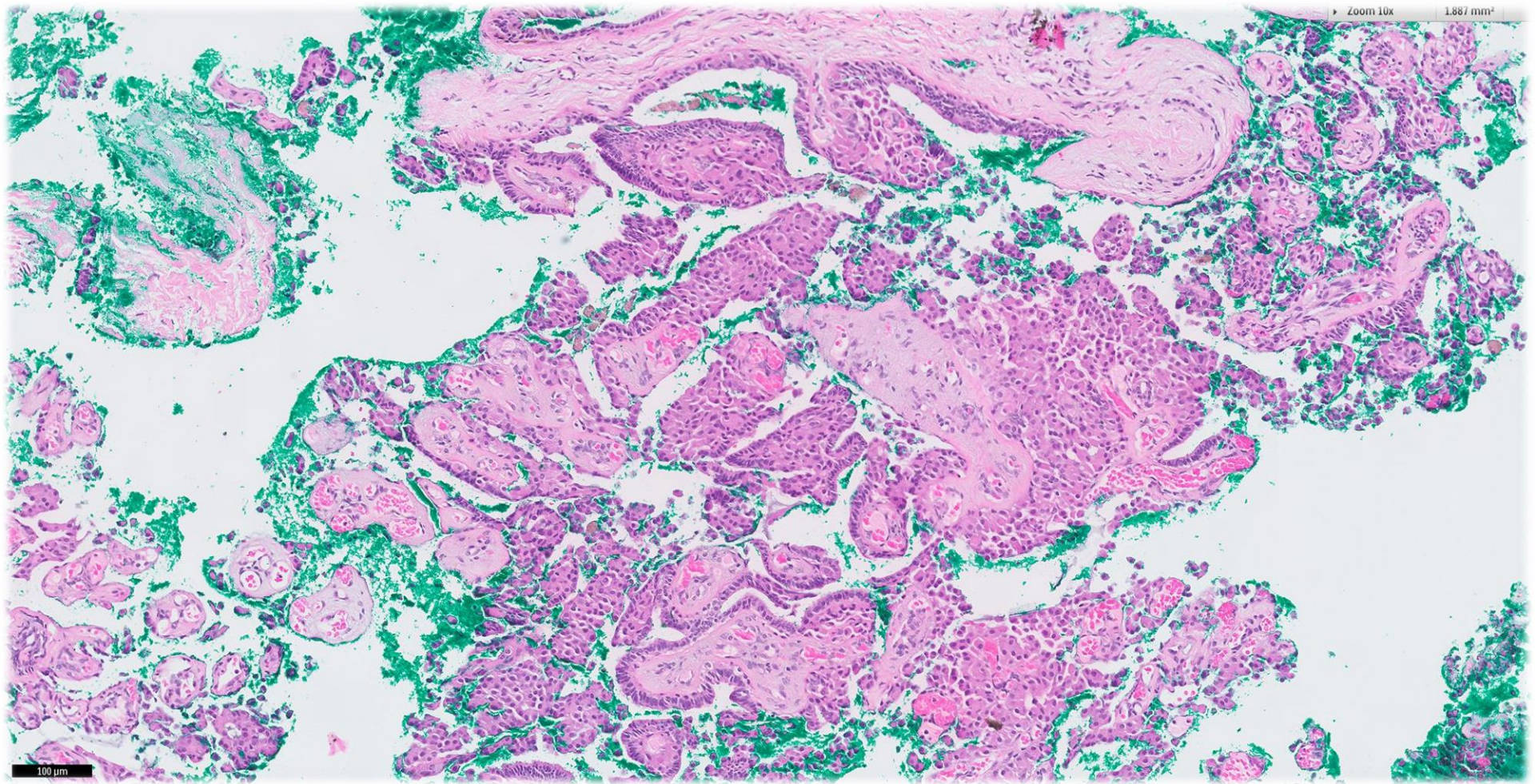




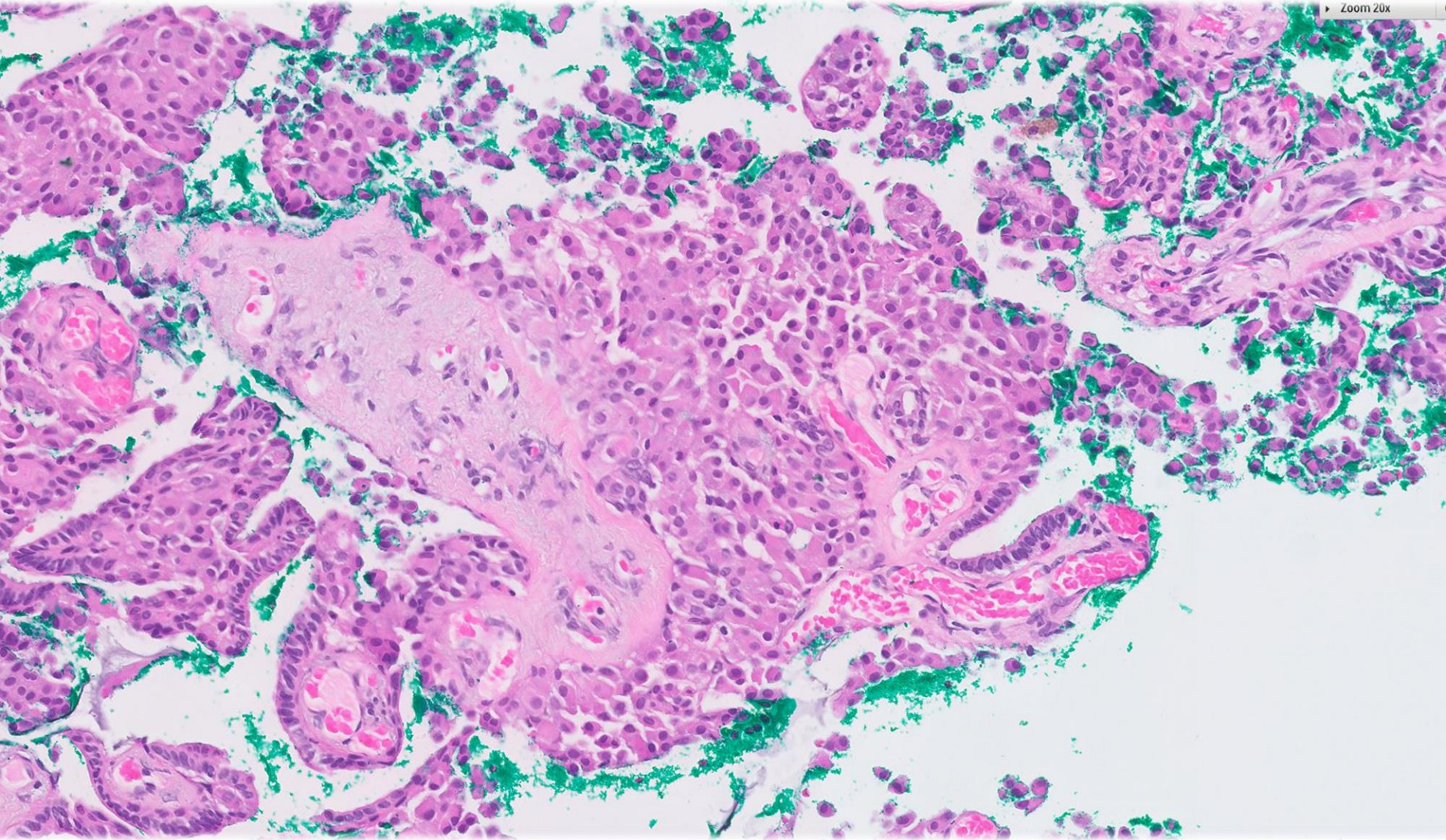


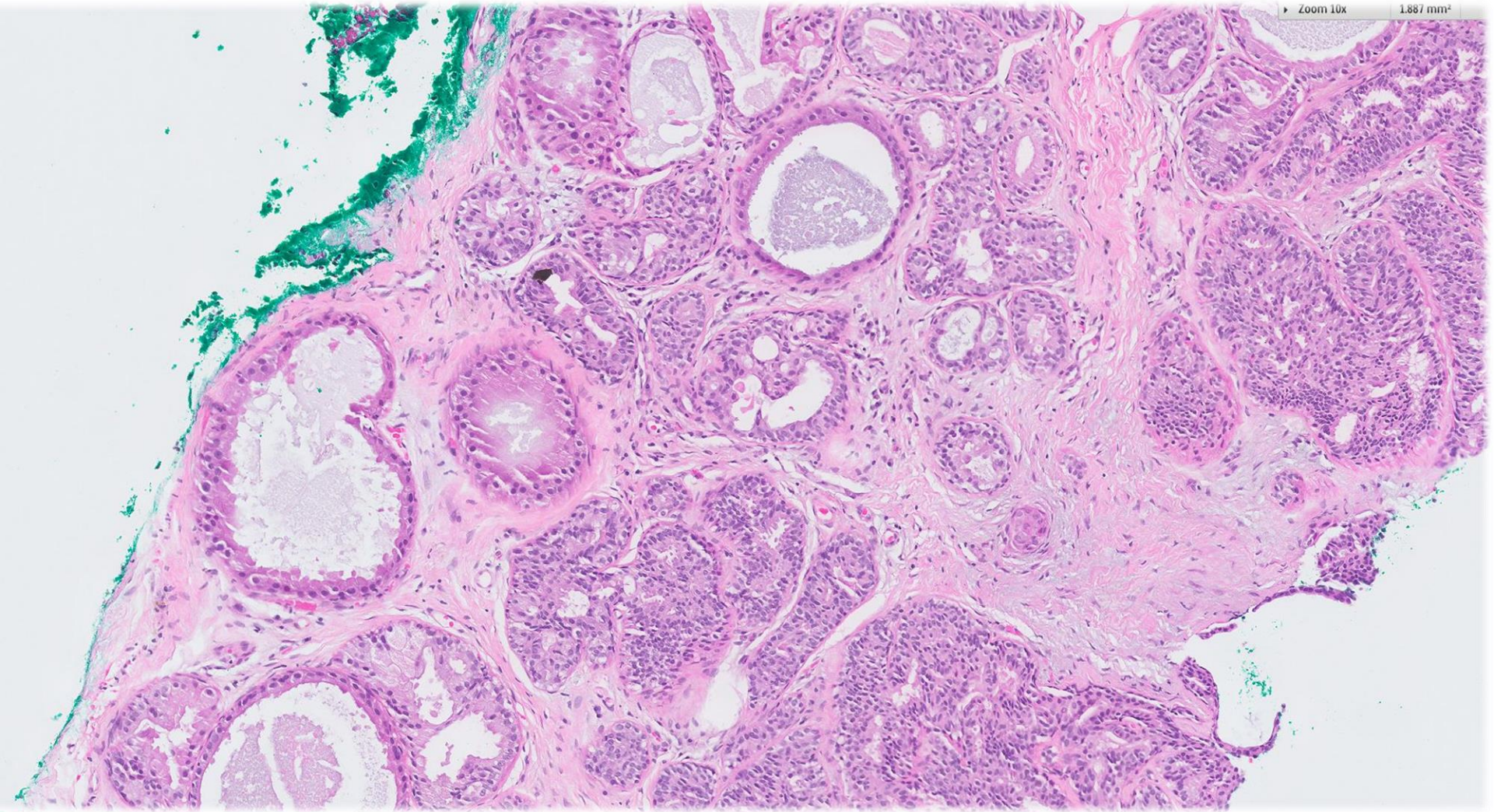




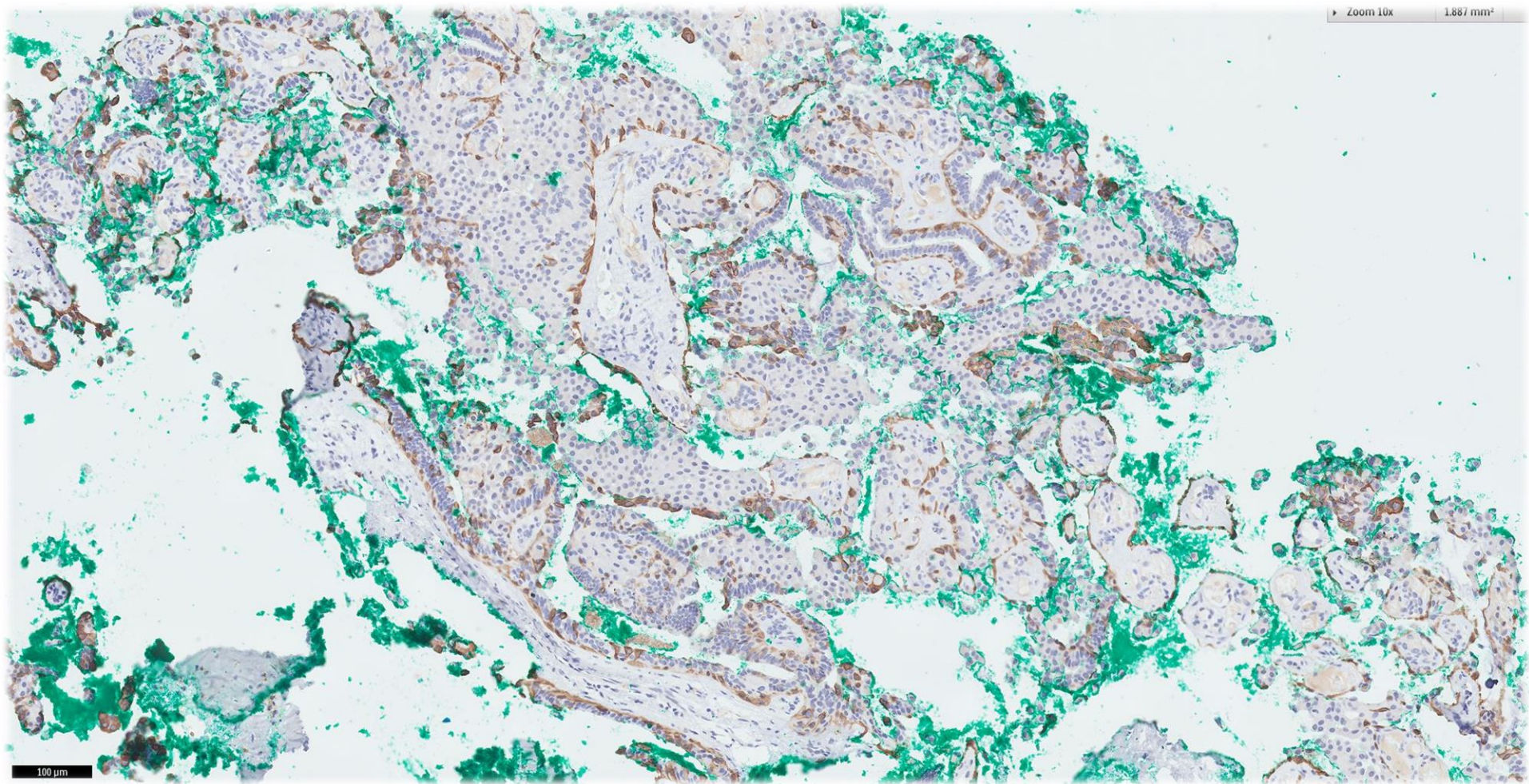


100 μm

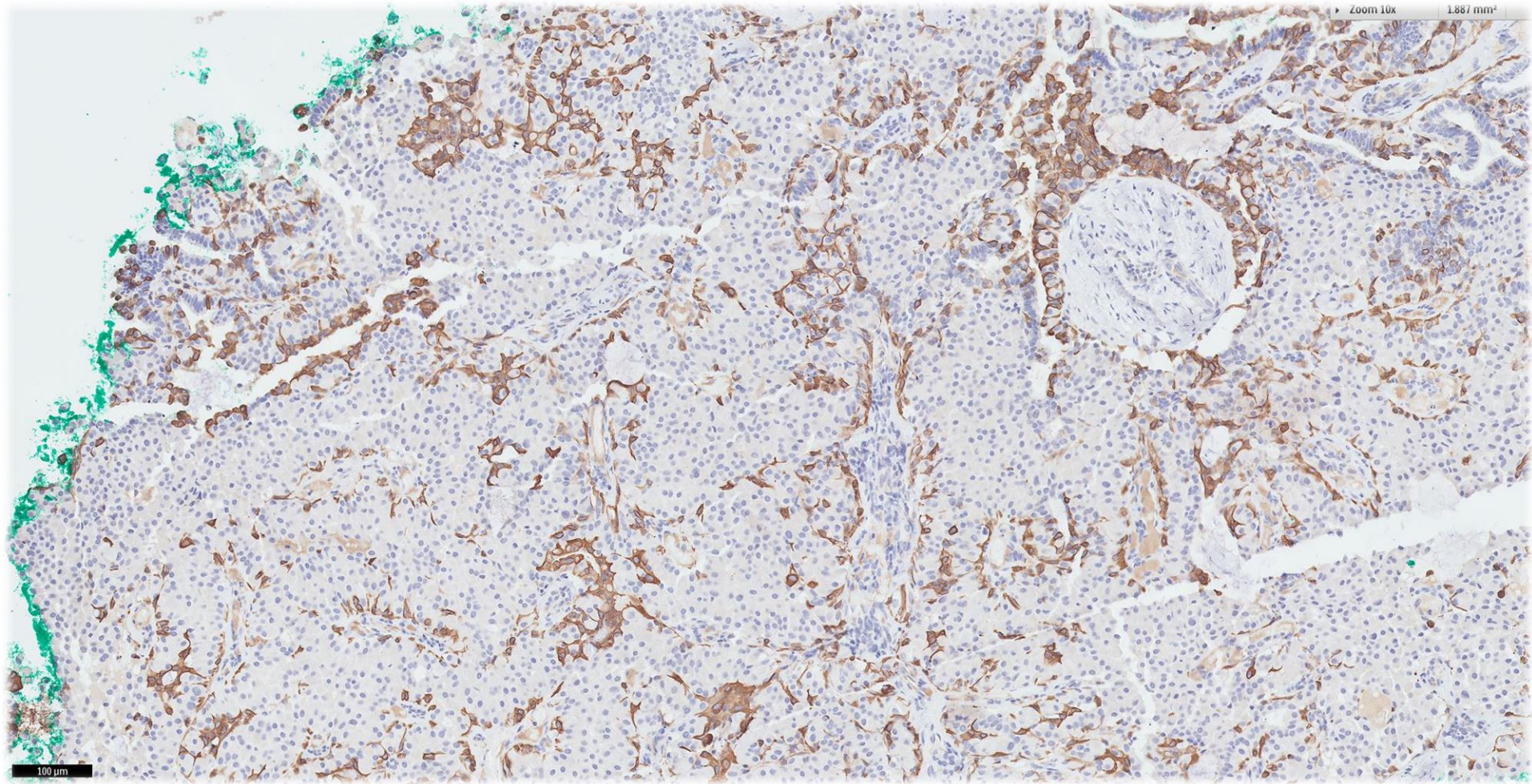




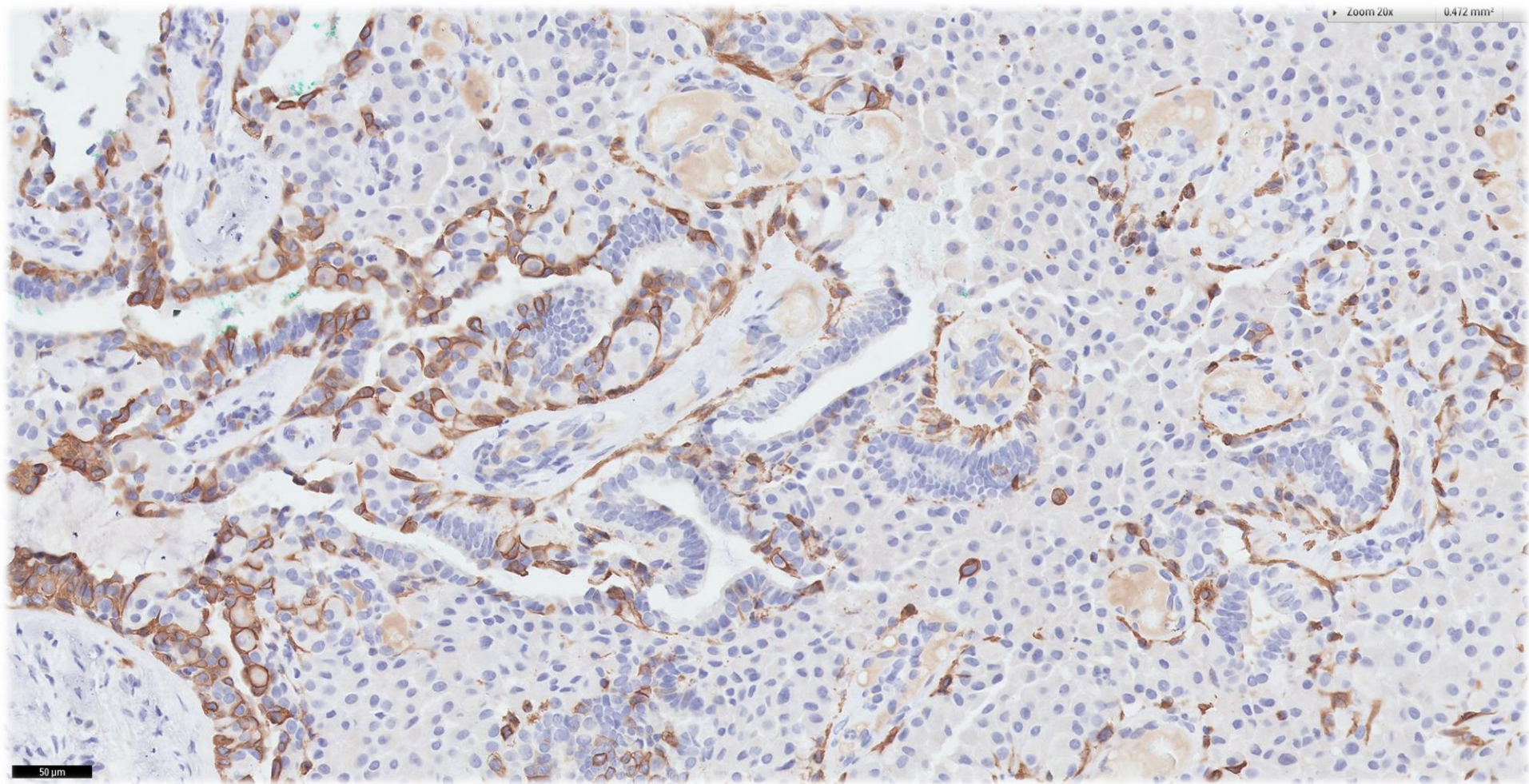
CK14



CK14

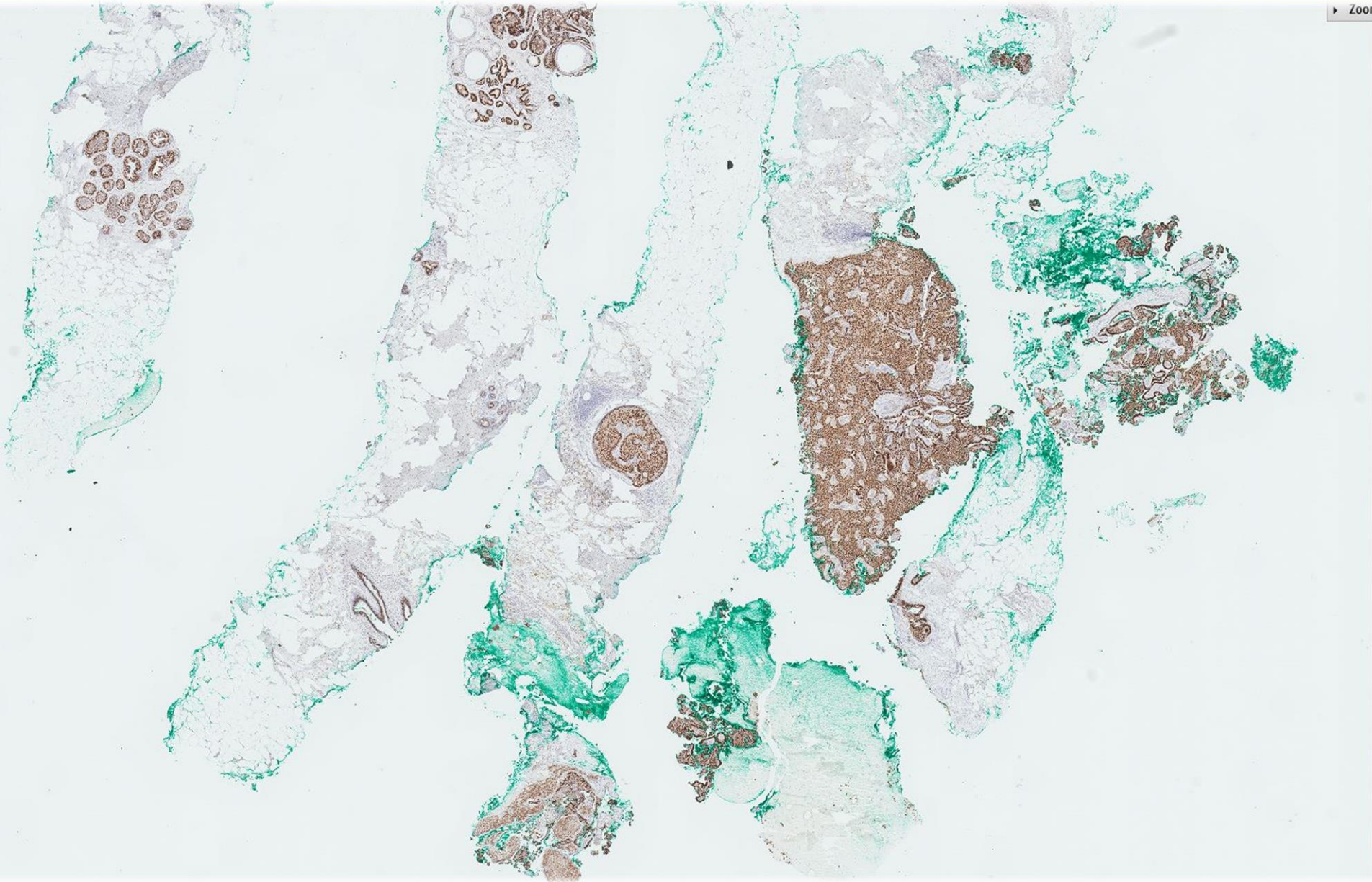


CK14

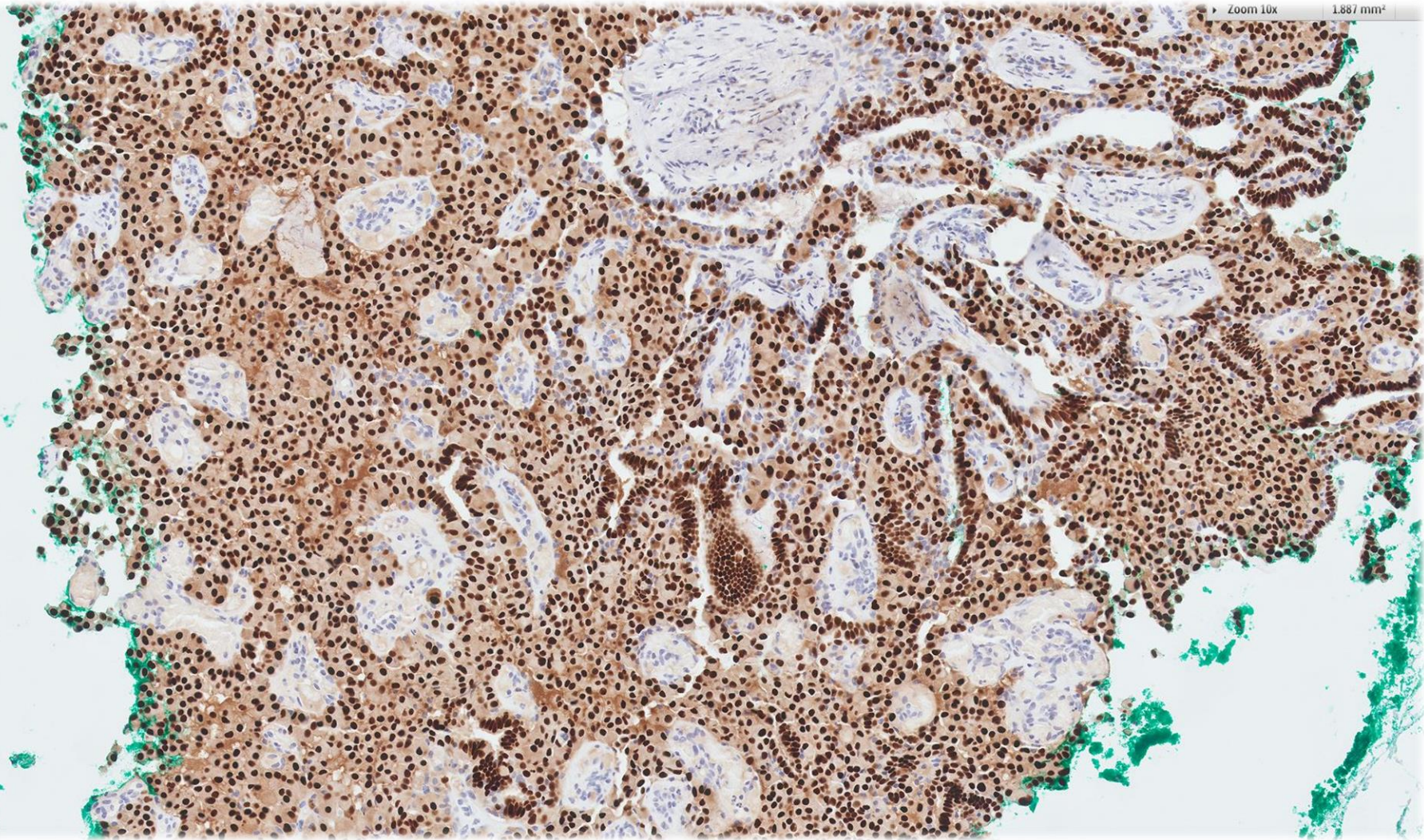


ER

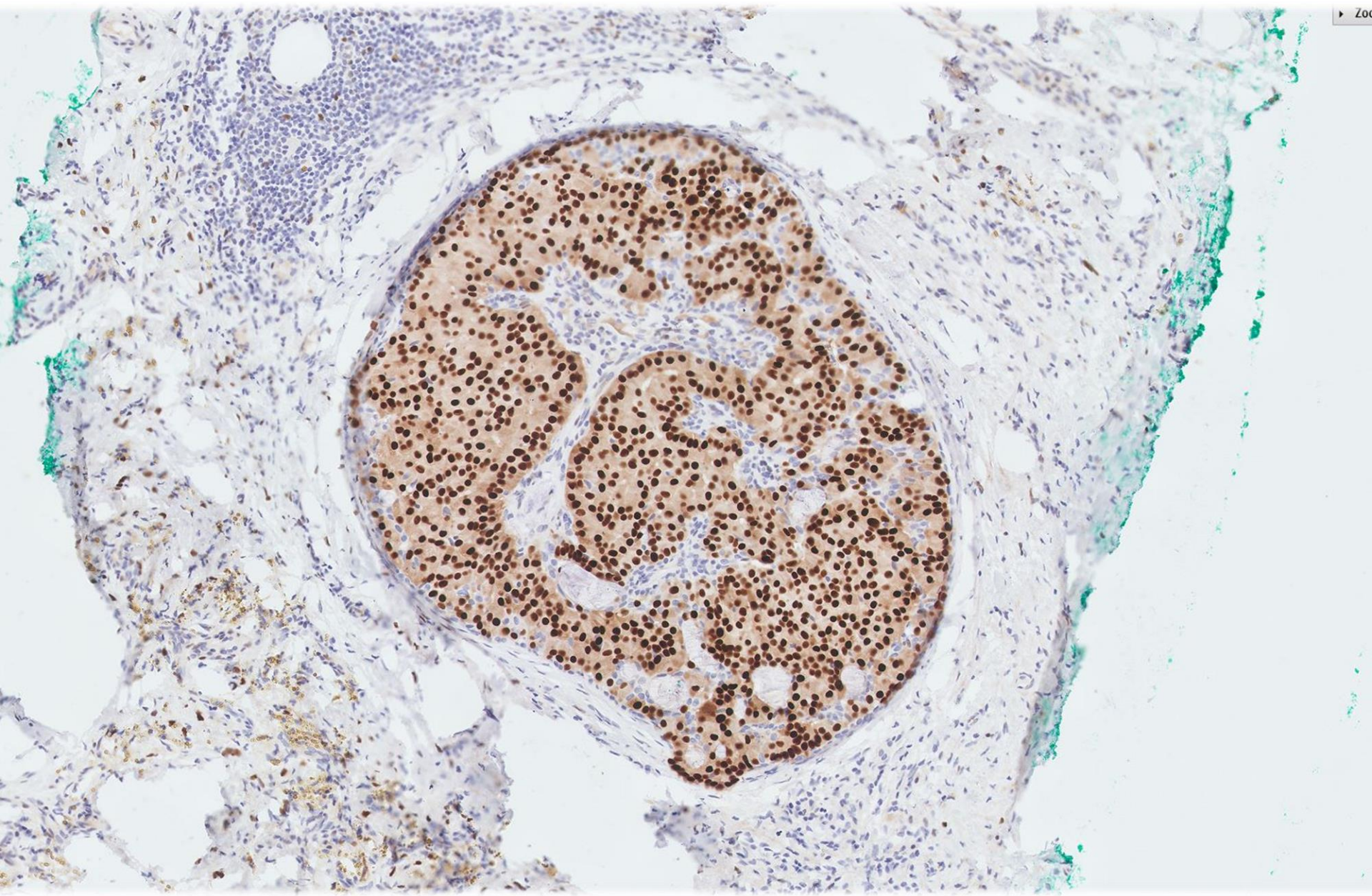
► Zoom



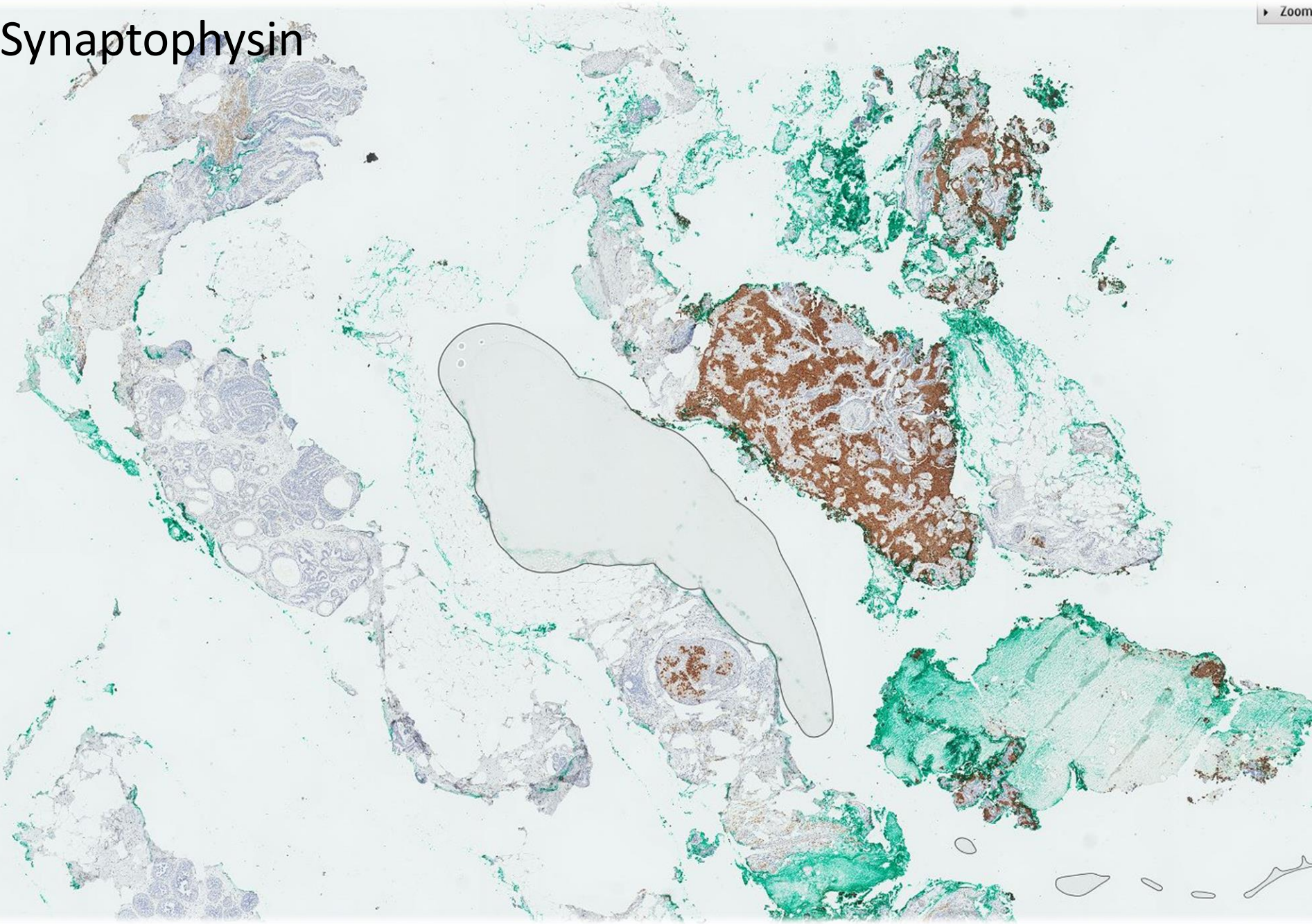
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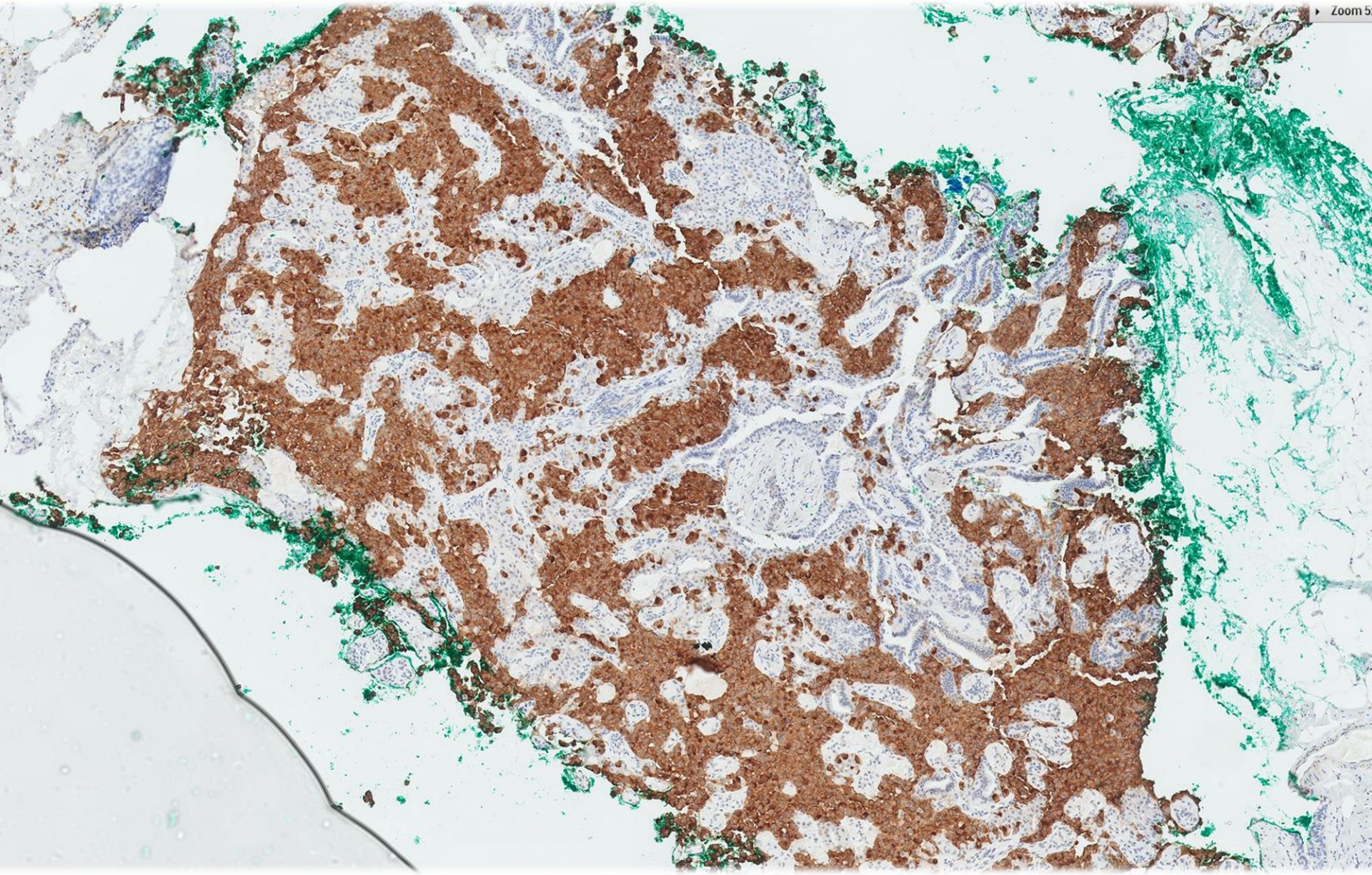
ER



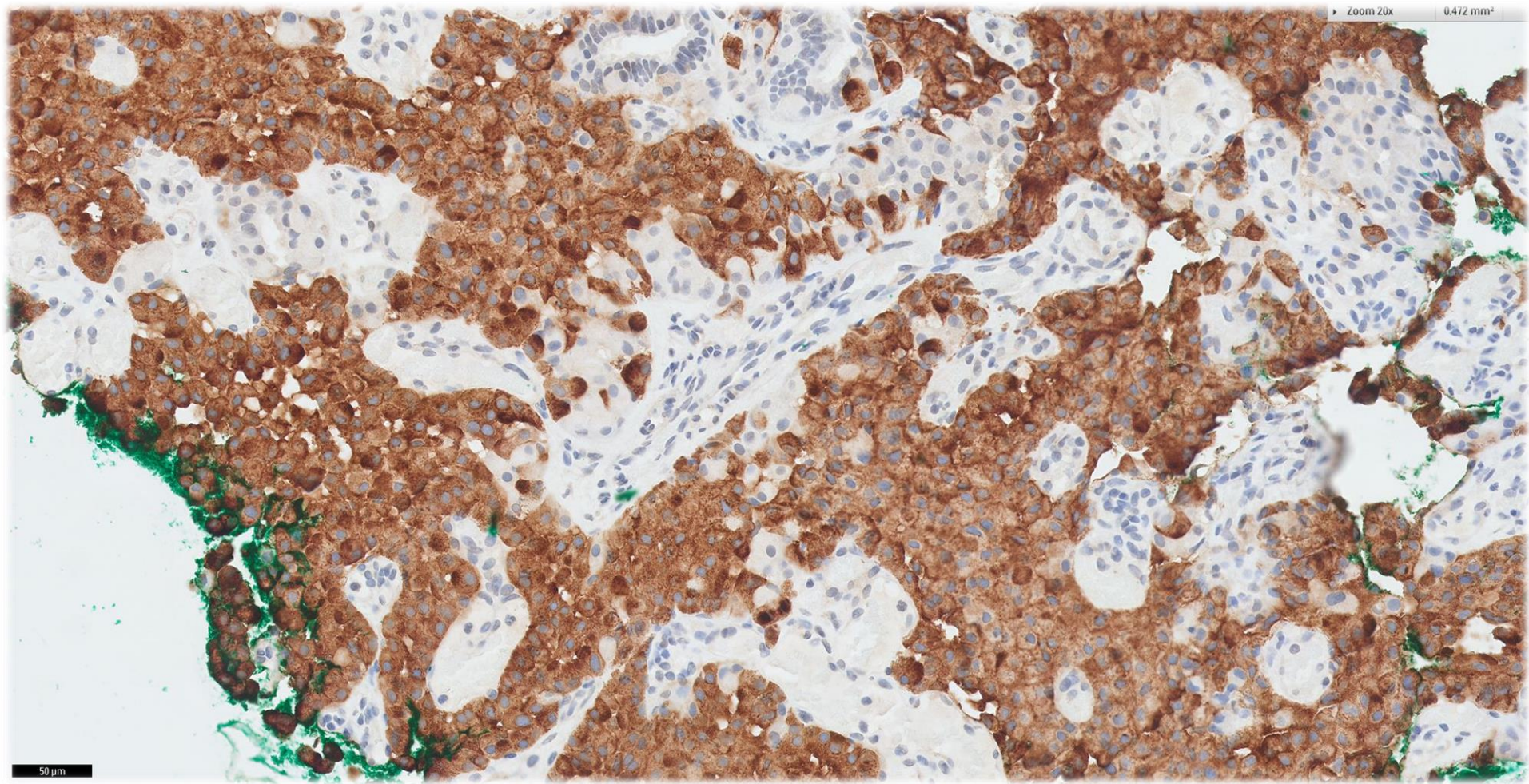
Synaptophysin



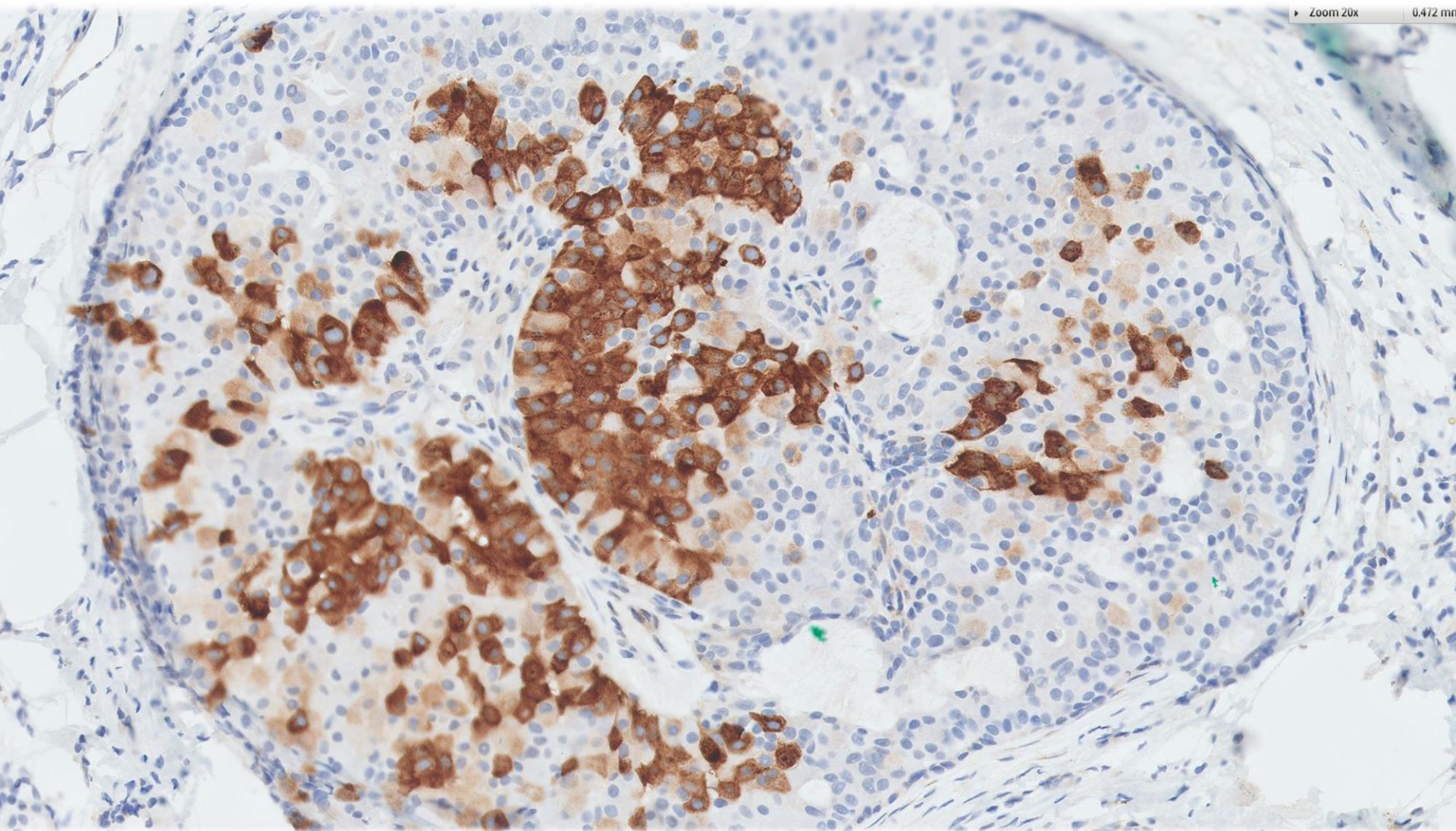
Synaptophysin



Synaptophysin



Synaptophysin

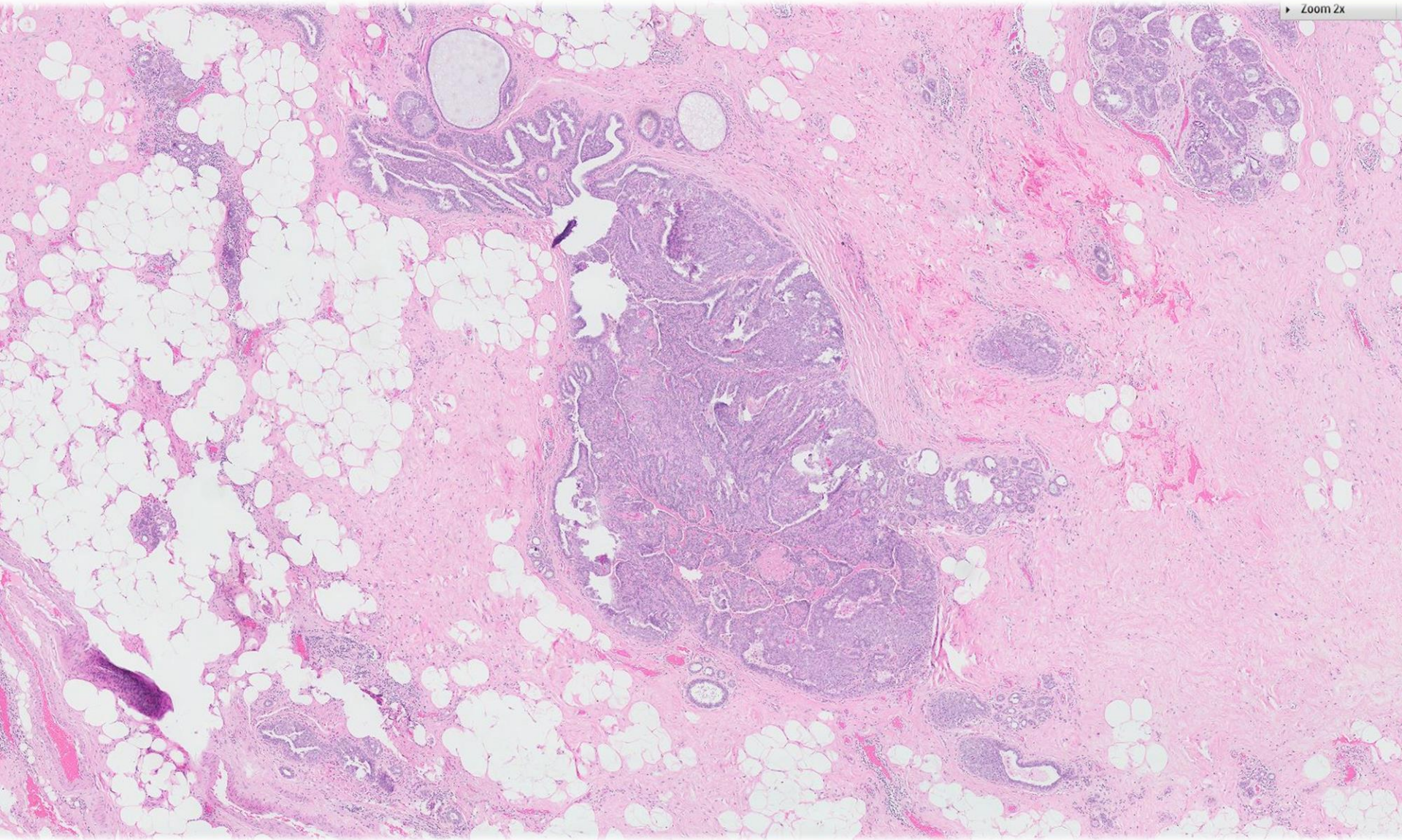


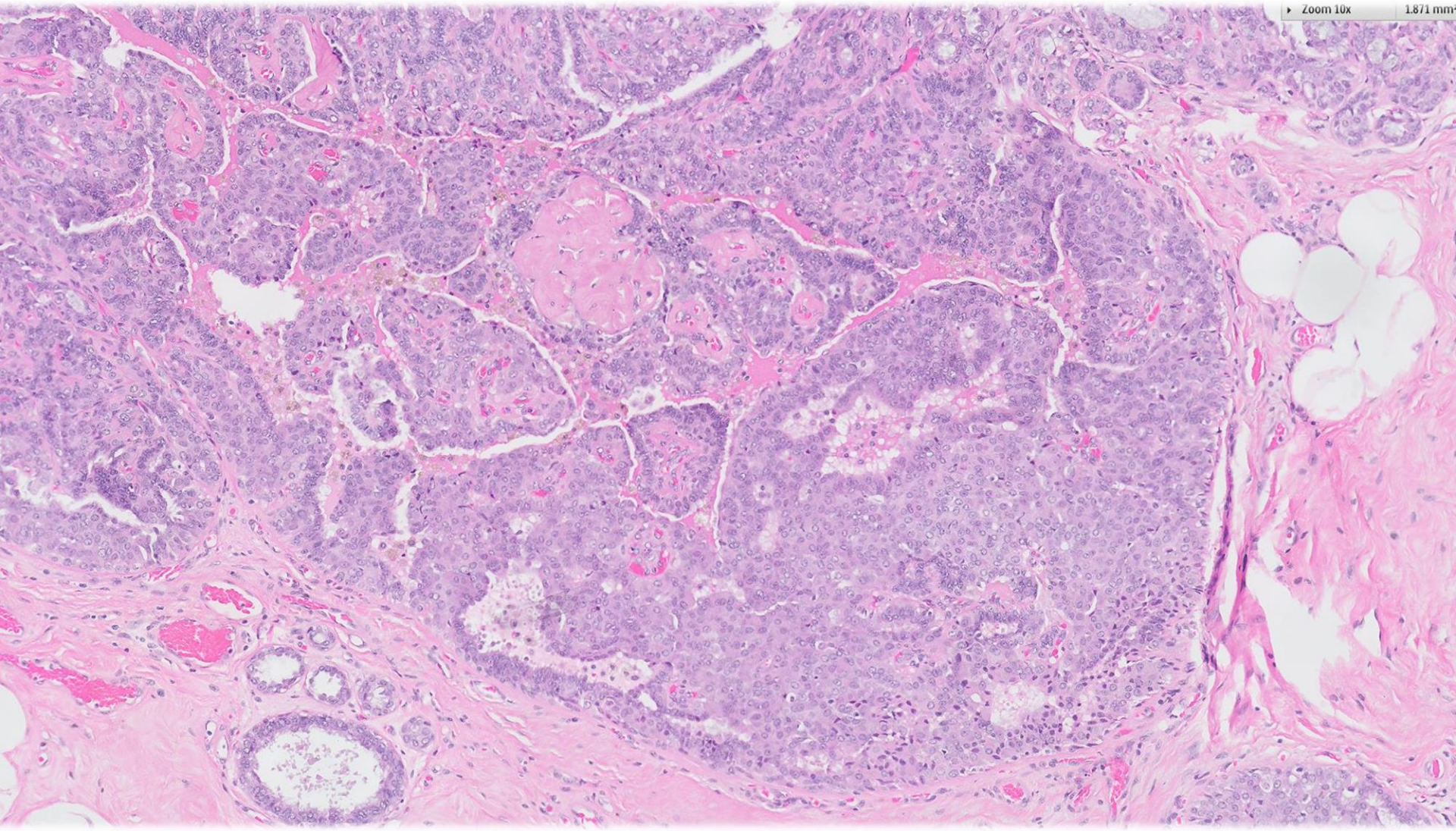
Ultrasound guided core biopsies, left breast 3 o'clock nodule:

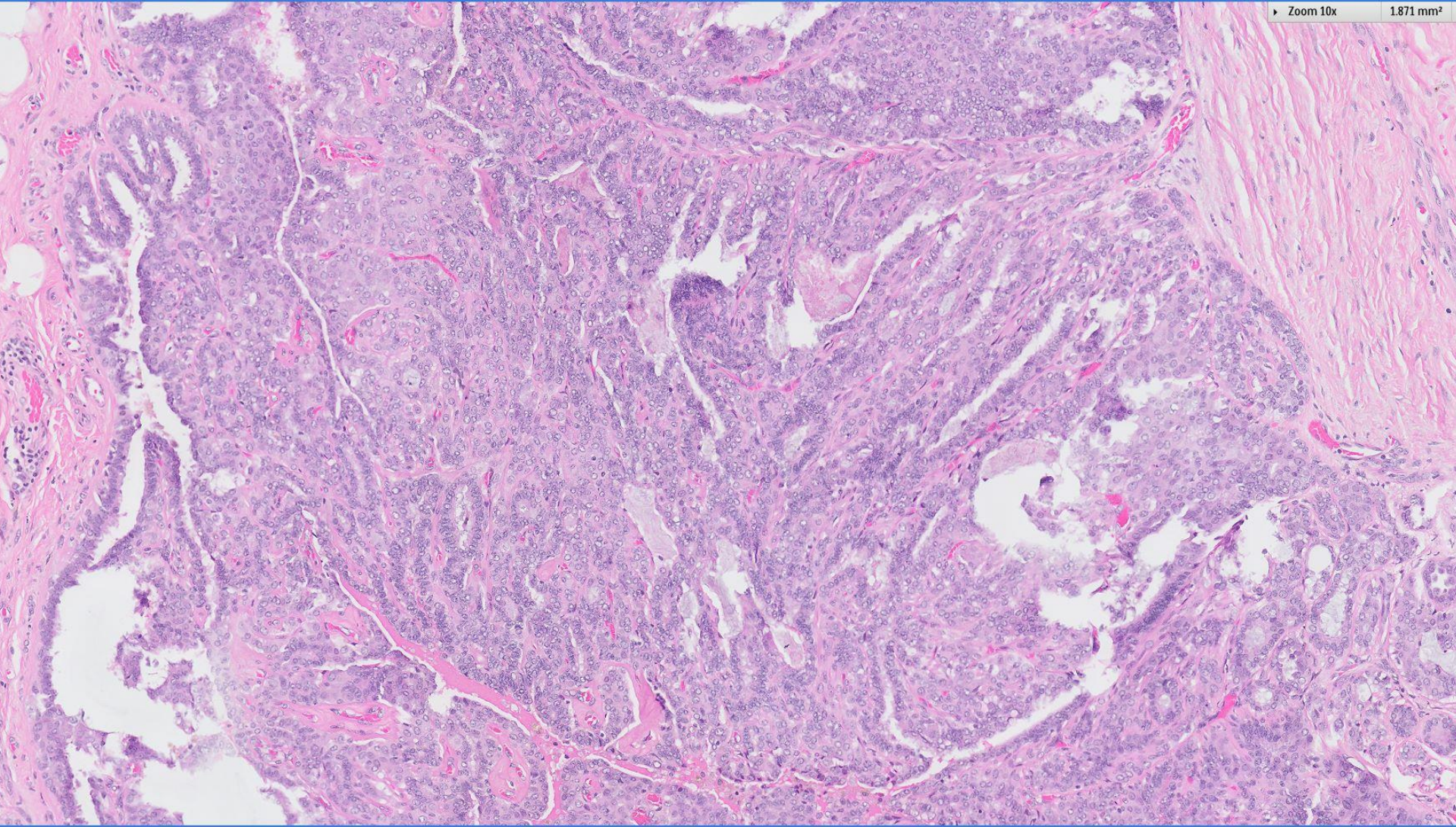
Neuroendocrine ductal carcinoma in situ within portions of an intraductal papillary lesion



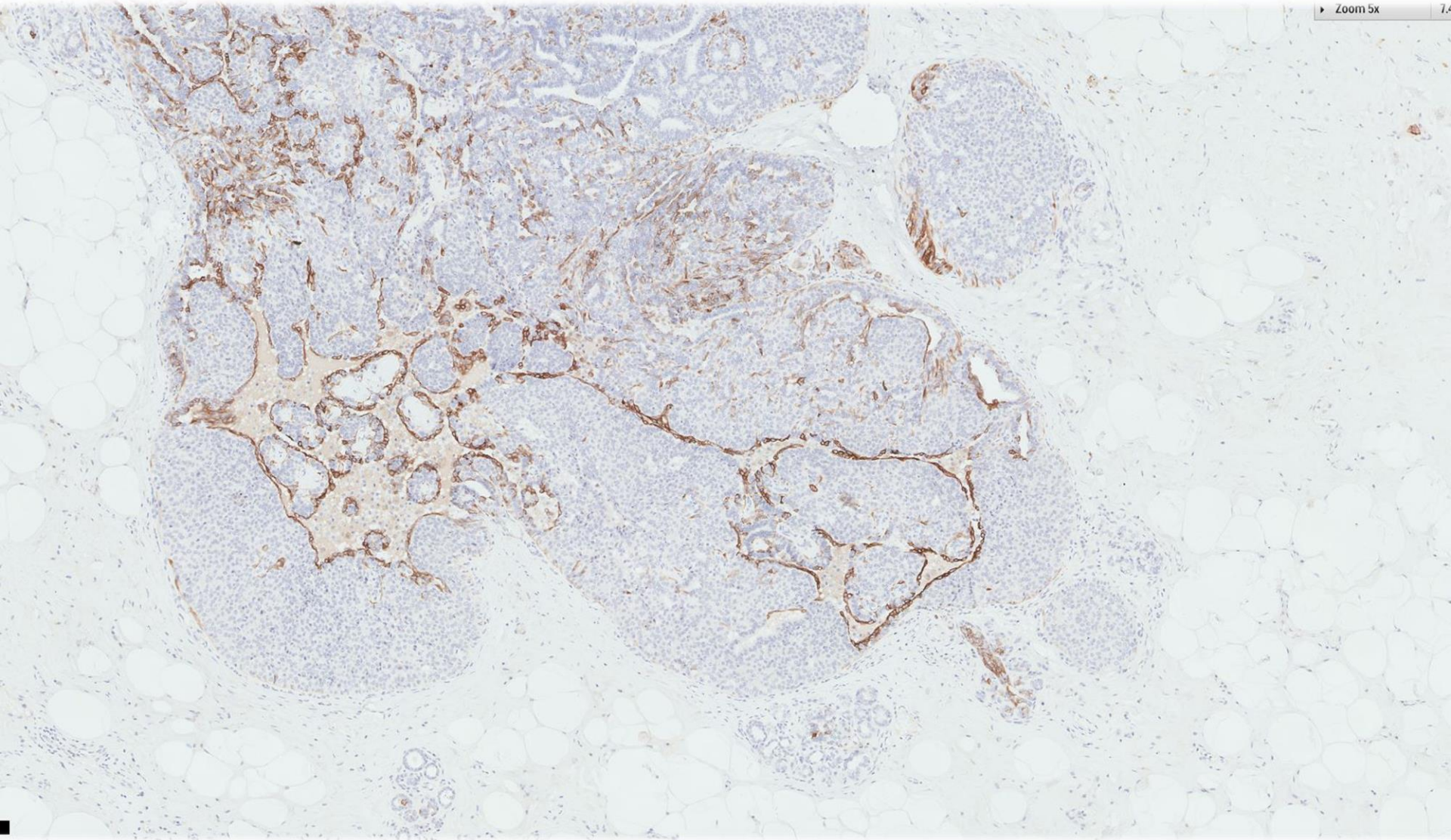
***Left breast mastectomy and sentinel
lymph node biopsy performed***



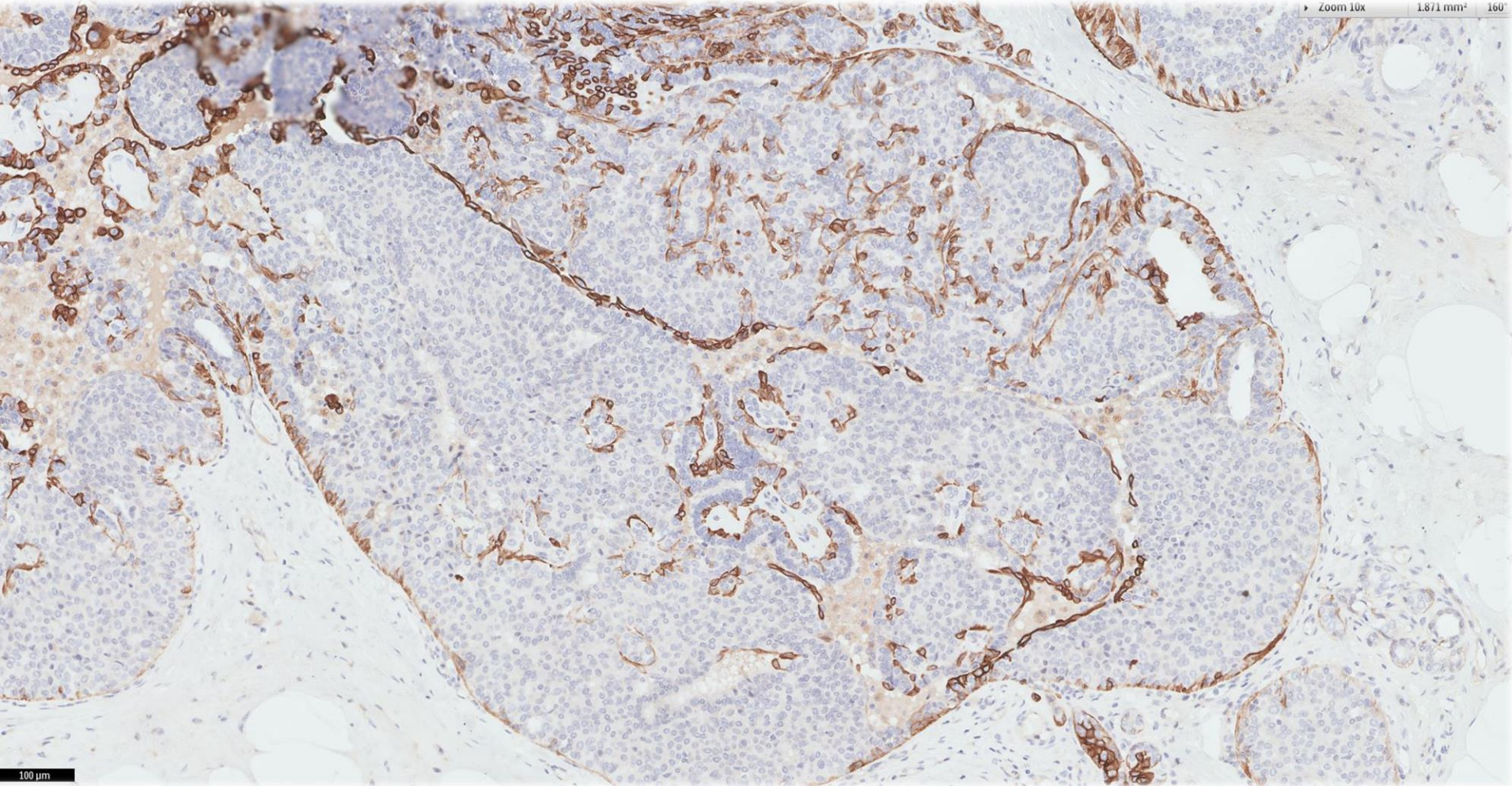




CK5/6

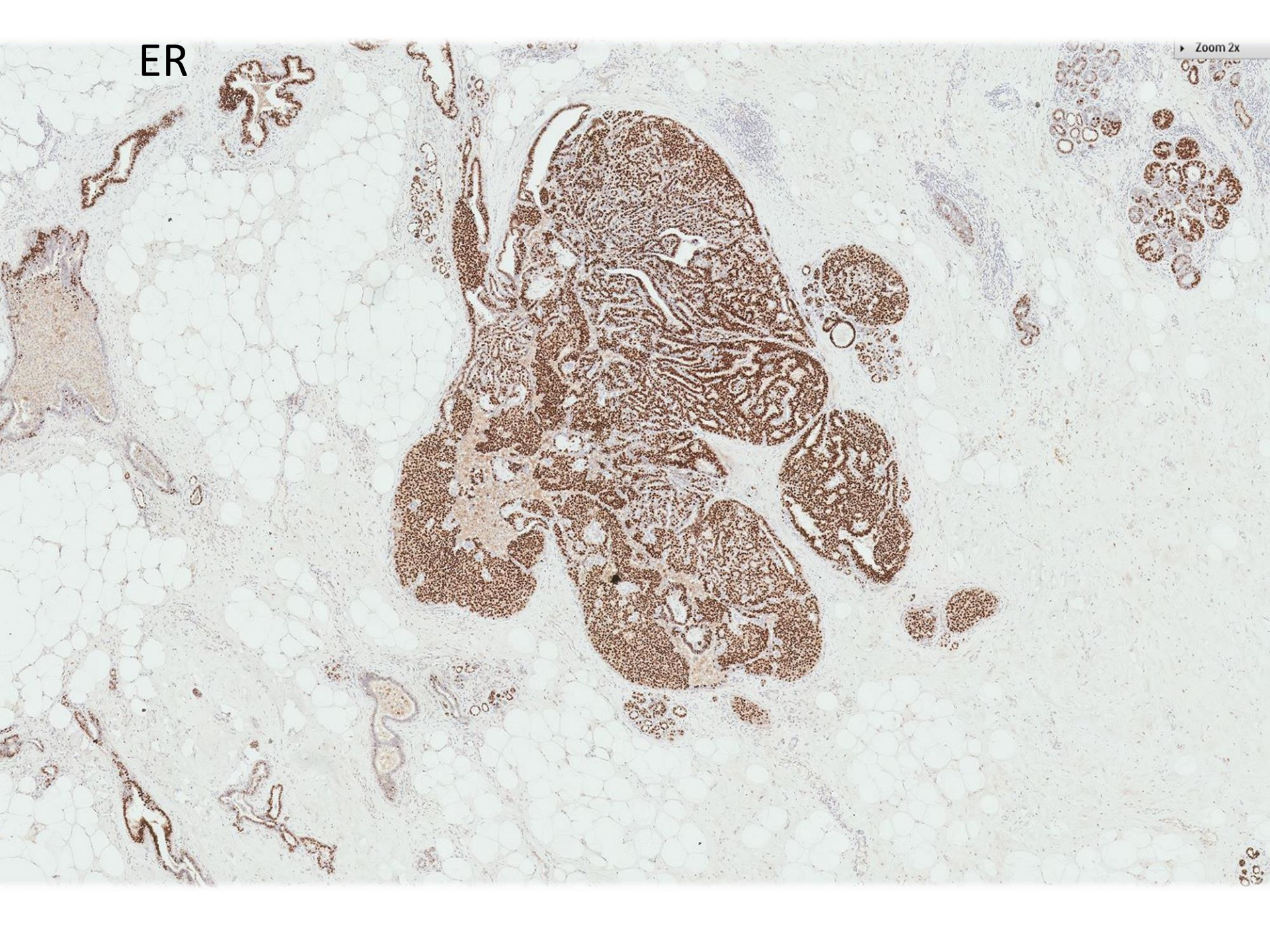


CK14

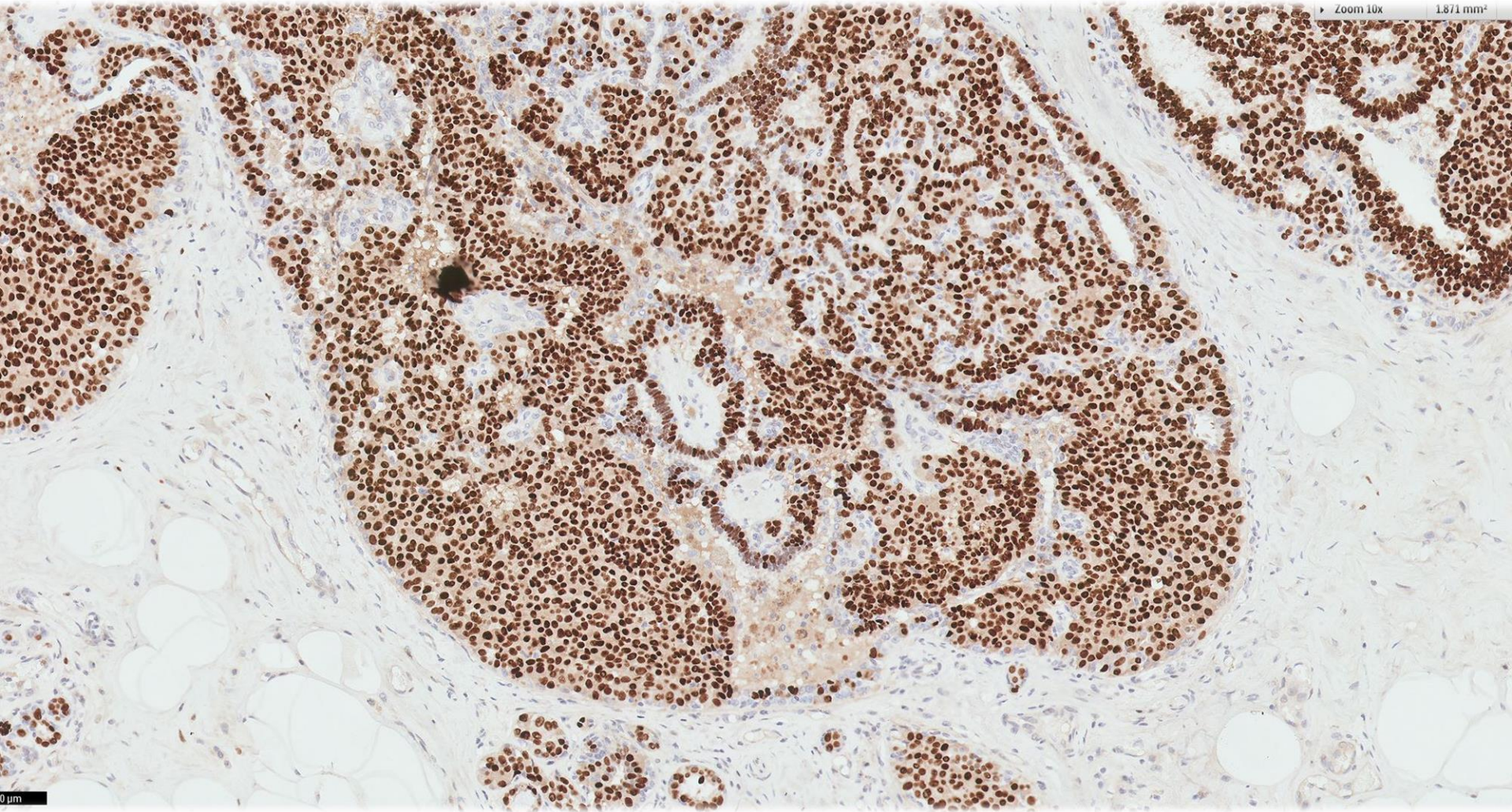


ER

Zoom 2x

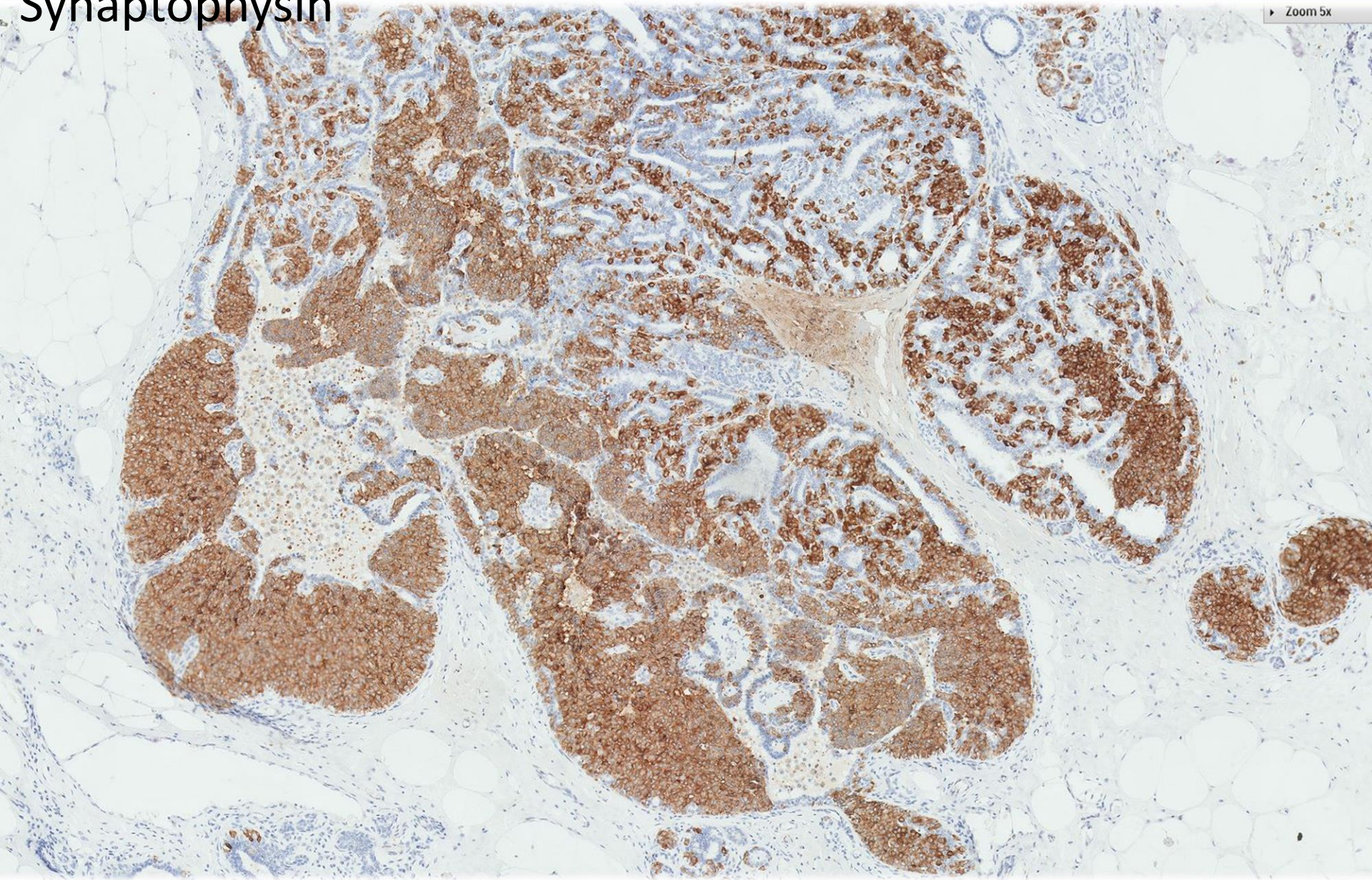


ER

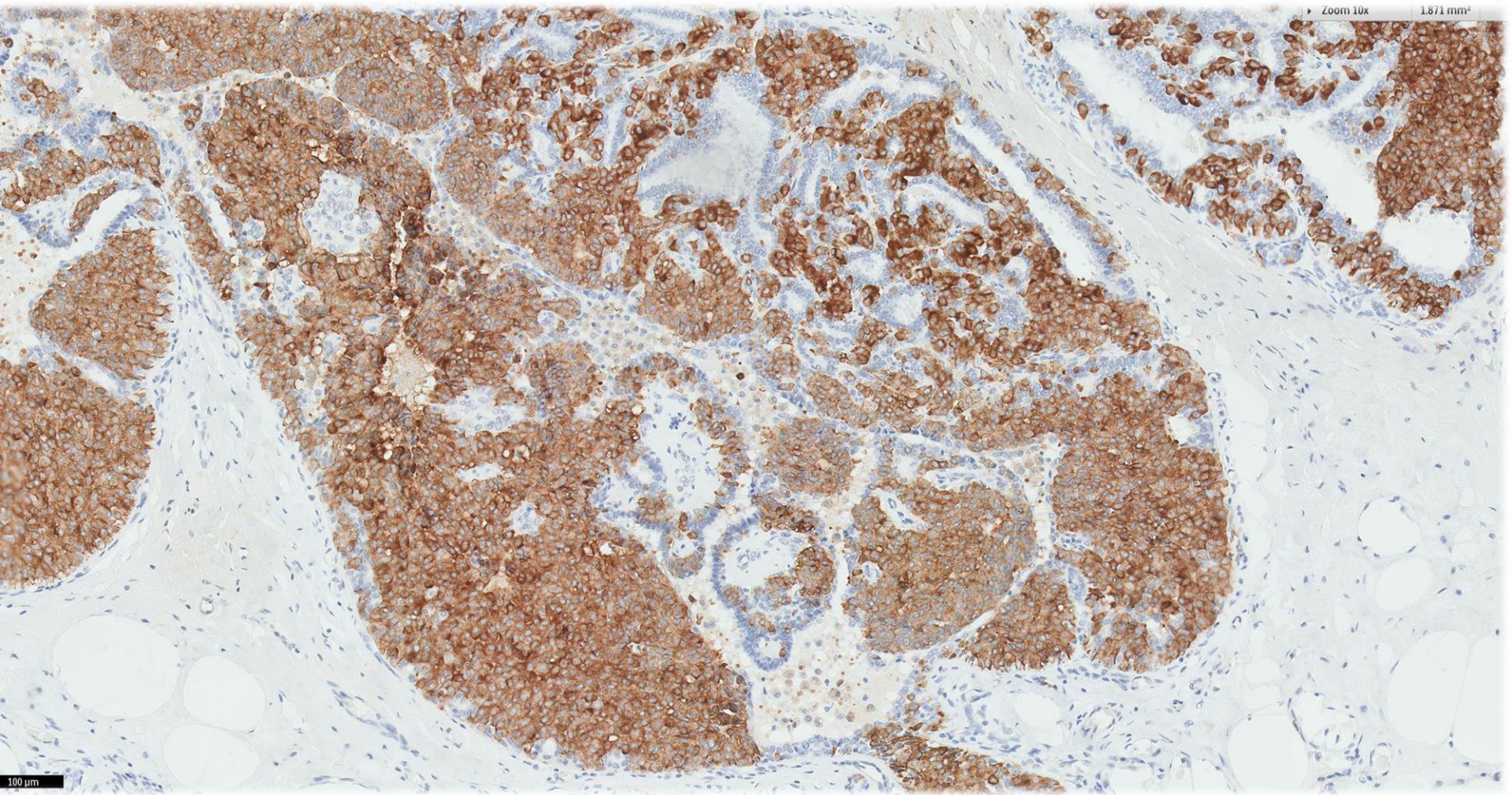


Synaptophysin

Zoom 5x



Synaptophysin



Left breast, mastectomy:

Neuroendocrine ductal carcinoma in situ, low nuclear grade, without necrosis, within an intraductal papilloma

Sentinel lymph nodes:

5 negative lymph nodes

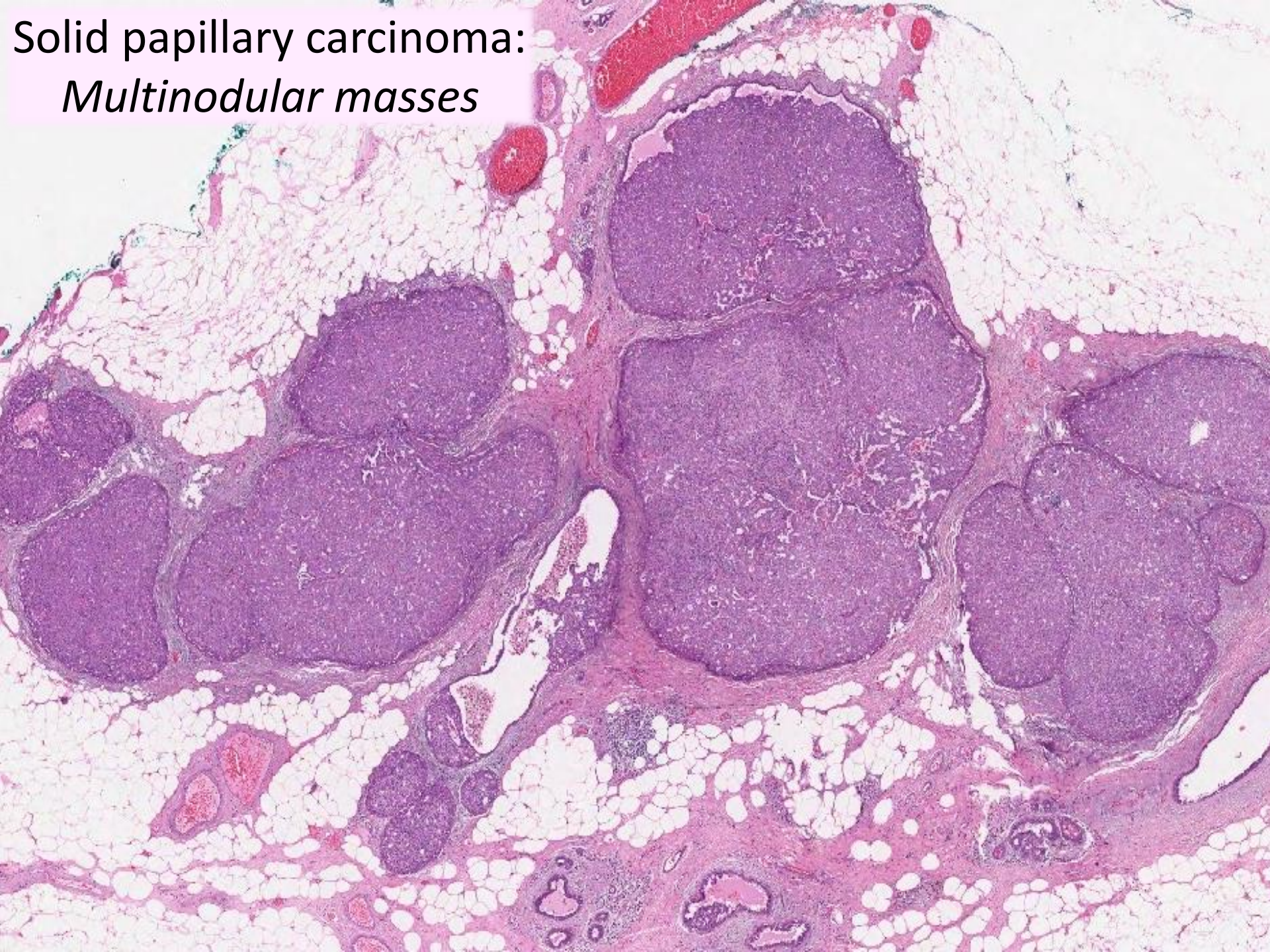
Neuroendocrine DCIS of breast

- Uncommon variant of breast DCIS.
- Nuclear grade, presence or absence of necrosis, can be applied.
- Distinct clinicopathologic entity initially characterised by Cross et al in 1985.
- Affects older women who present with bloodstained nipple discharge.
- Endocrine differentiation in the breast is believed to represent a pathway of neoplastic development.

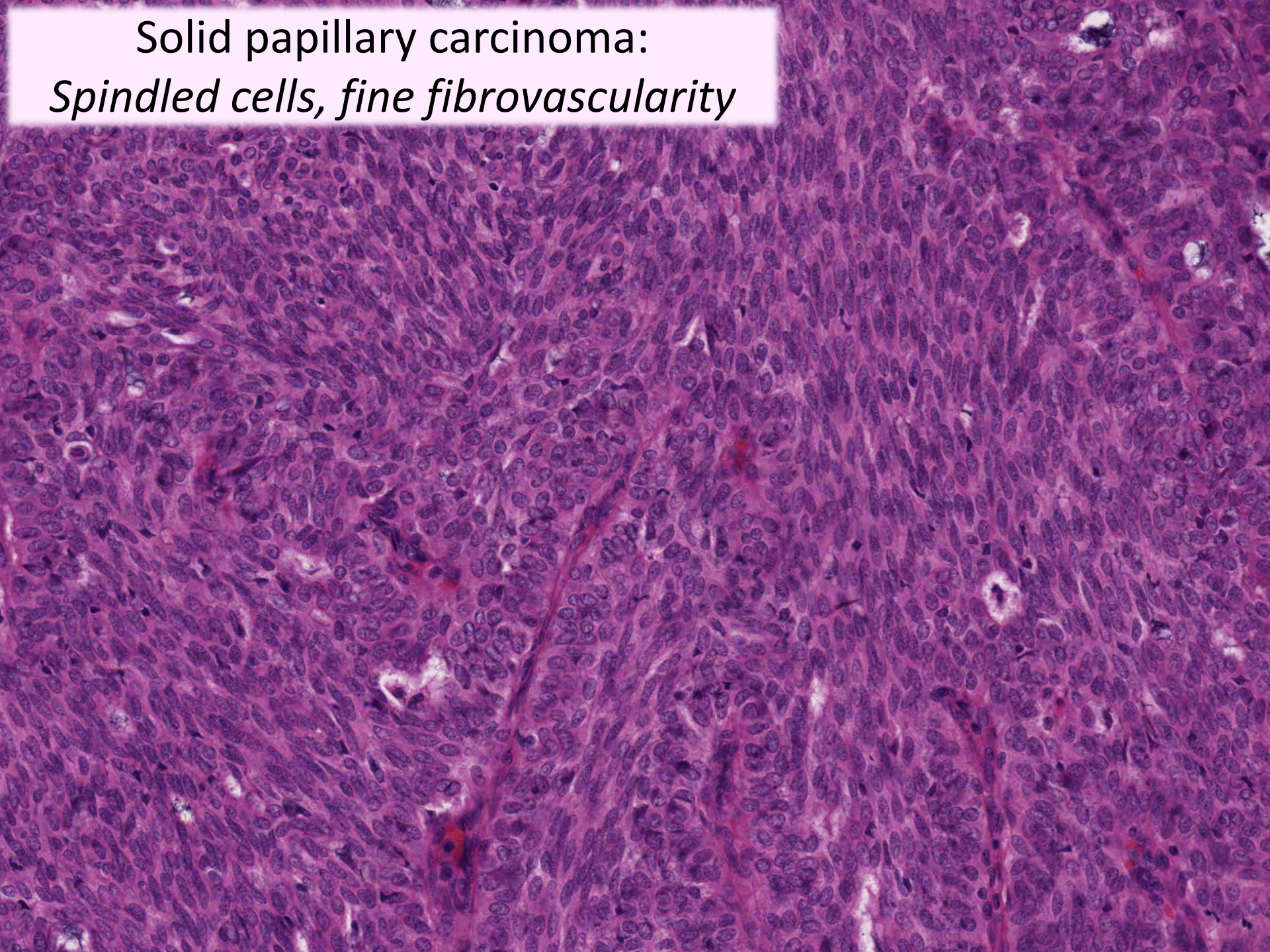
Neuroendocrine DCIS of breast

- Associated features:
 - Spindle cells
 - Mucin
 - Solid-papillary architecture (solid-papillary carcinoma)
- Solid-papillary carcinoma:
 - Multinodular, expansile solid epithelial masses
 - Subtle papillary architecture reflected by fine delicate vessels coursing through the cellular islands

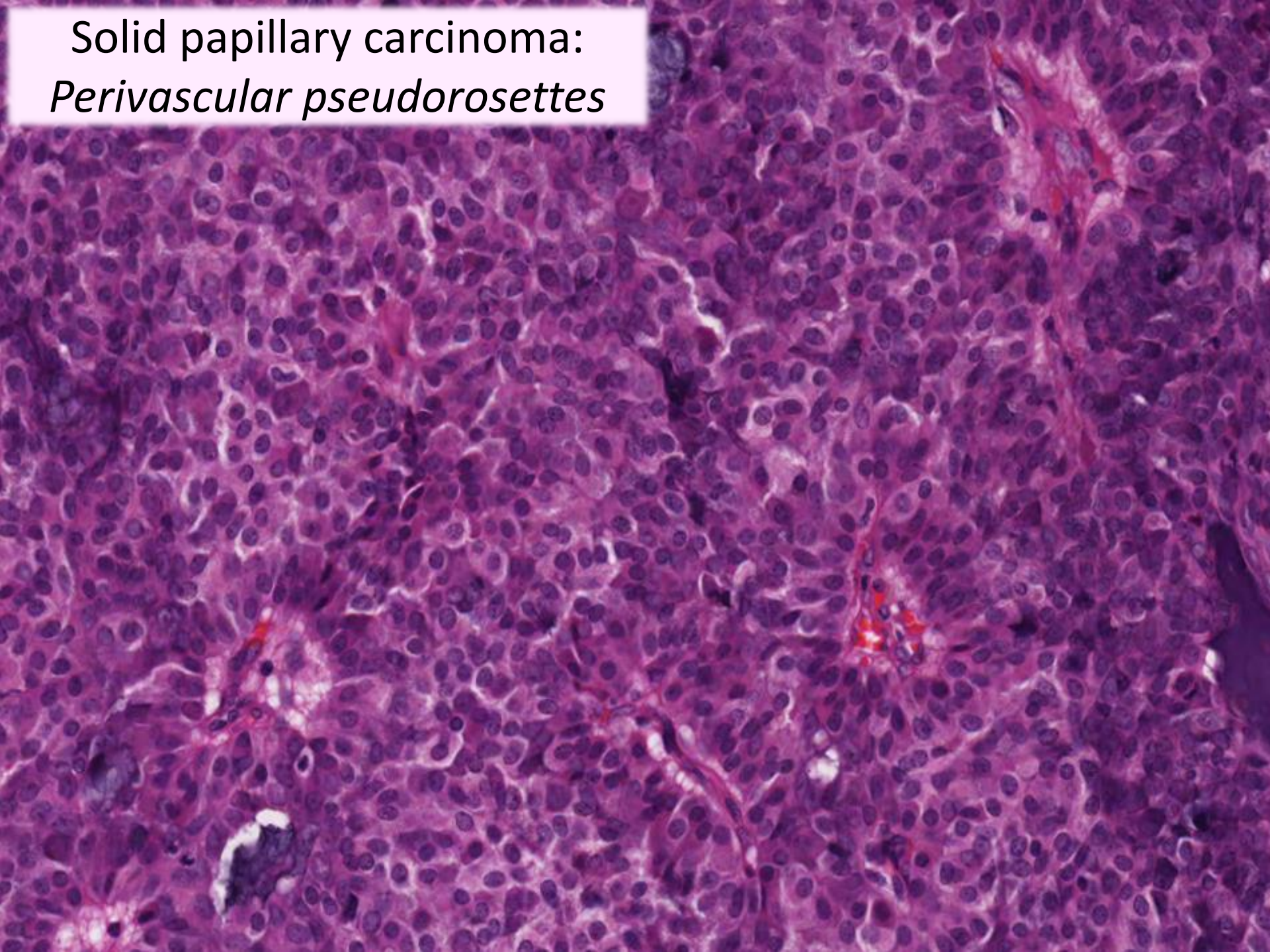
Solid papillary carcinoma:
Multinodular masses



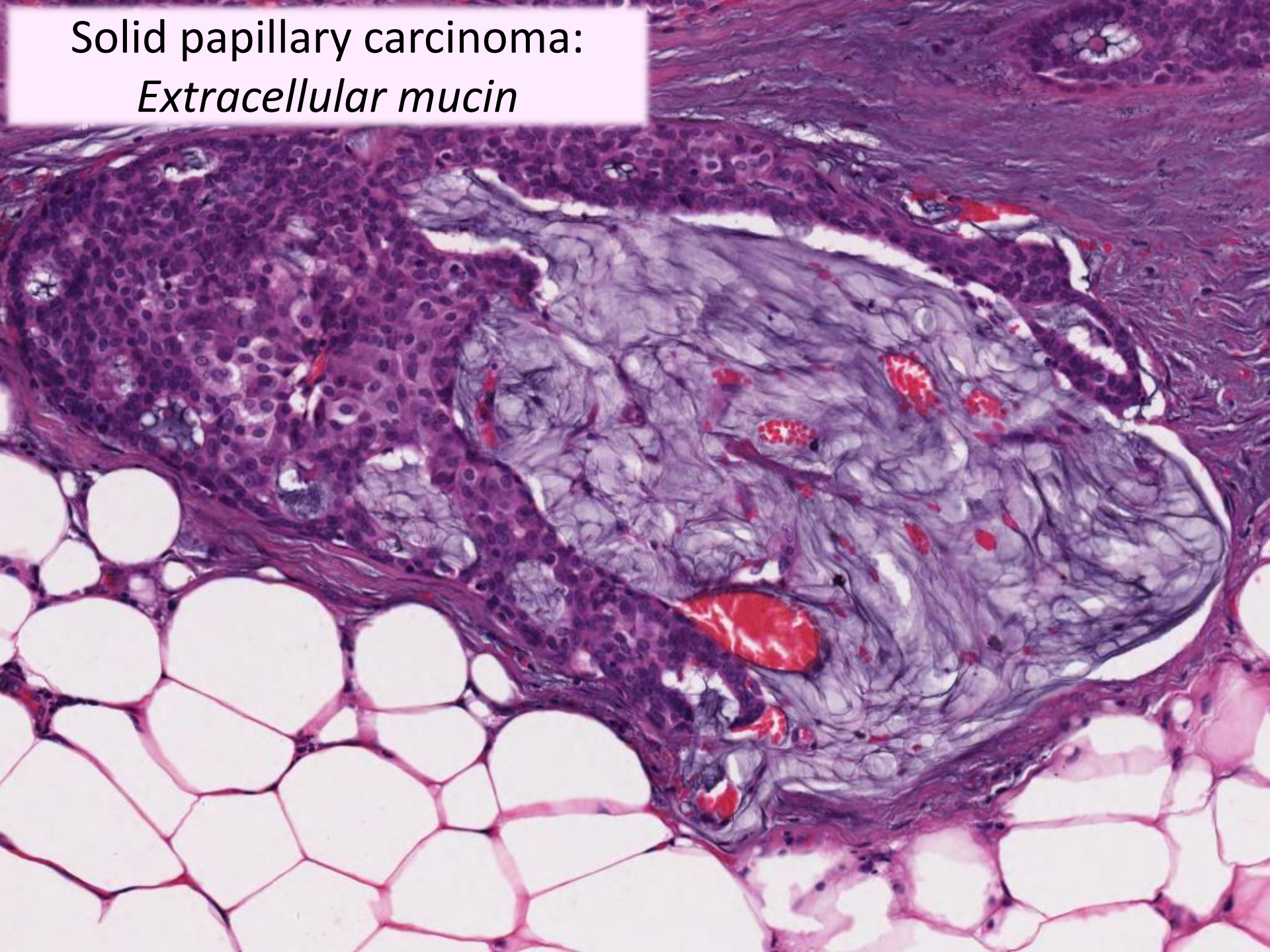
Solid papillary carcinoma:
Spindled cells, fine fibrovascularity



Solid papillary carcinoma:
Perivascular pseudorosettes



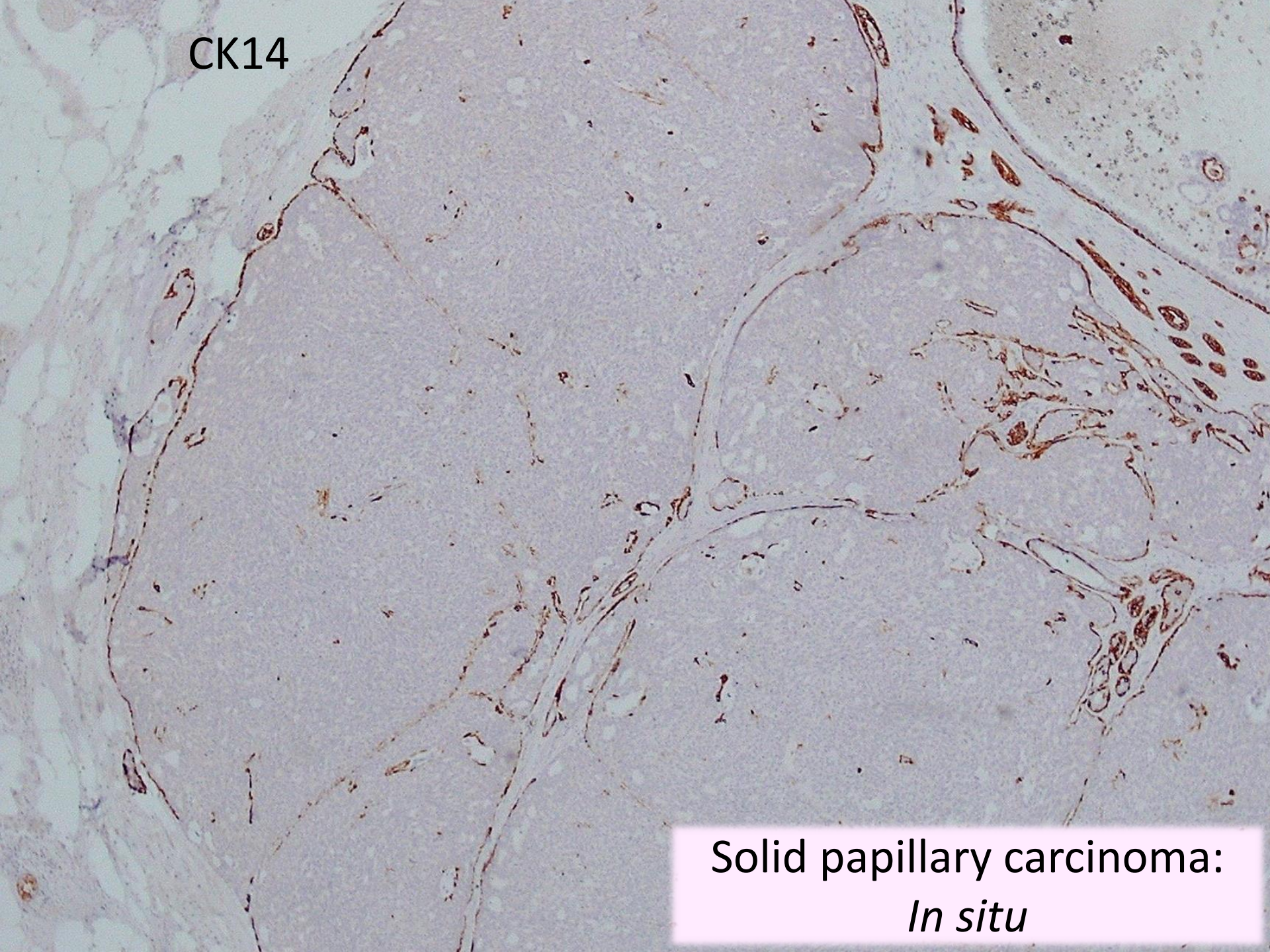
Solid papillary carcinoma:
Extracellular mucin



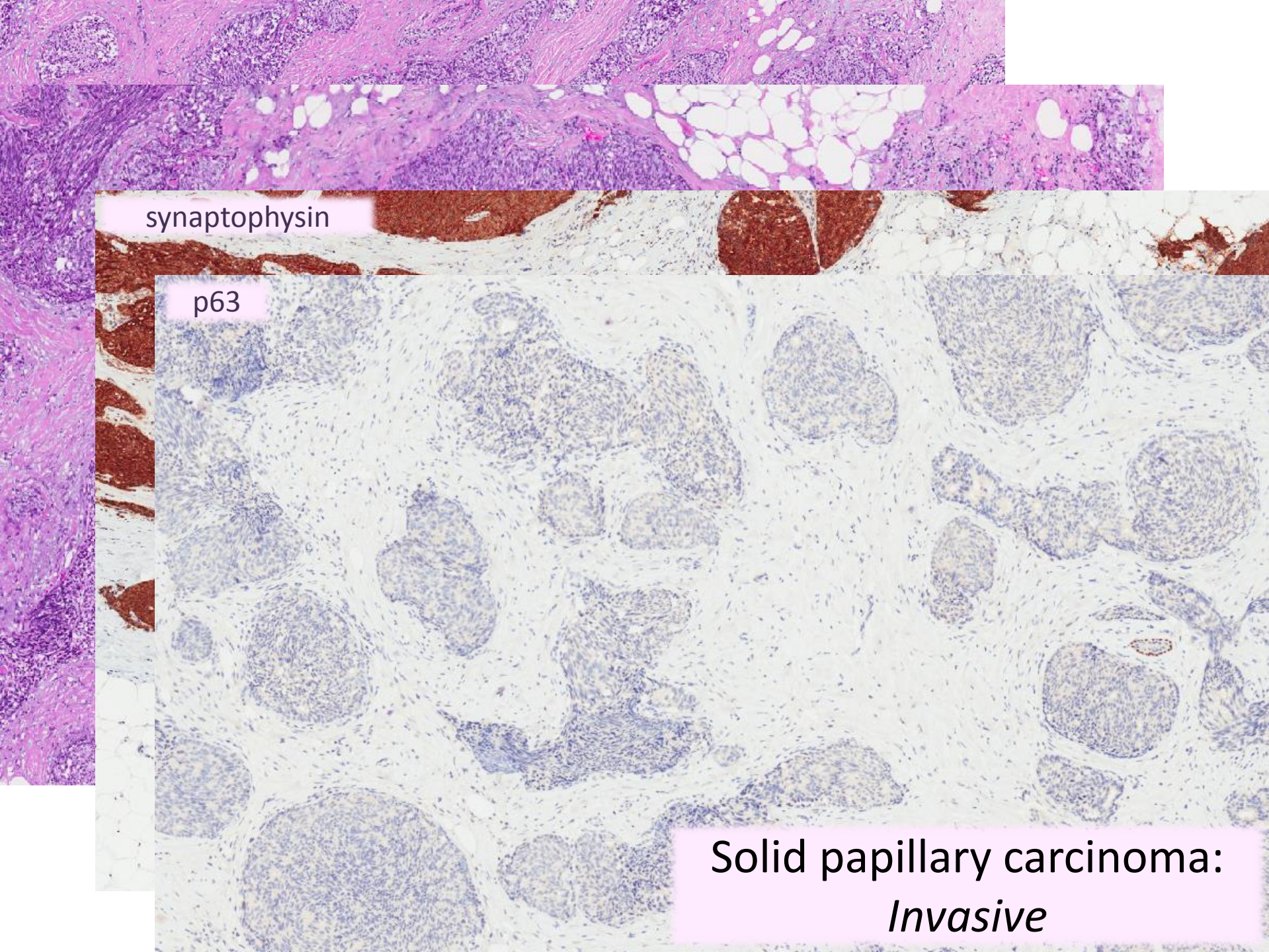
Solid papillary carcinoma: *in situ or invasive disease?*

- Precise distinction between in situ and invasive disease is difficult.
- Cases with retained myoepithelial cells are considered variants of DCIS.
- If there is uncertainty about invasion, the lesion should be regarded as in situ disease and staged as Tis.
- Presence of geographic jigsaw pattern with ragged and irregular margins, together with absence of myoepithelial cells, may be regarded by some as invasive disease.

CK14



Solid papillary carcinoma:
In situ



synaptophysin

p63

Solid papillary carcinoma:
Invasive

DCIS within an intraductal papilloma

- ‘..... papilloma with DCIS shows an underlying, identifiable benign papilloma upon which the abnormal epithelial proliferation is engrafted.’

Histopathology 2015 May;66(6):761-70.

Neuroendocrine DCIS

- Indolent disease with favourable prognosis.
 - Low nuclear grade.
 - Few mitoses.
 - Absent necrosis.
 - Diffuse ER, PR expression.

Summary

- Neuroendocrine DCIS can involve an intraductal papilloma and mimic a benign process.
- Cells with pink cytoplasm may be mistaken for apocrine cells.
- Undermining of luminal epithelium in a pagetoid manner may resemble lobular neoplasia.
- Awareness & familiarity with its histological appearances, with adjunctive immunohistochemistry, allow correct diagnosis.

