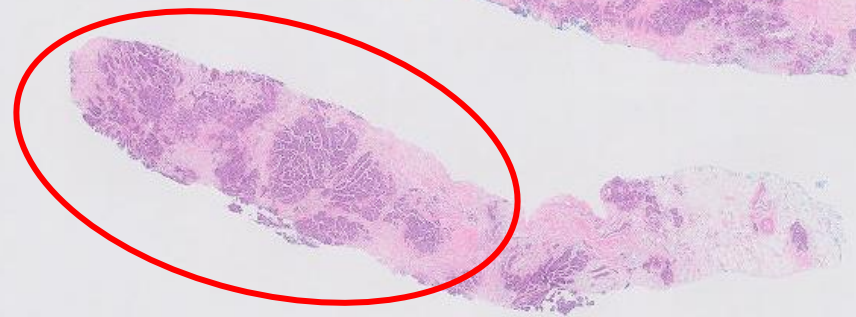
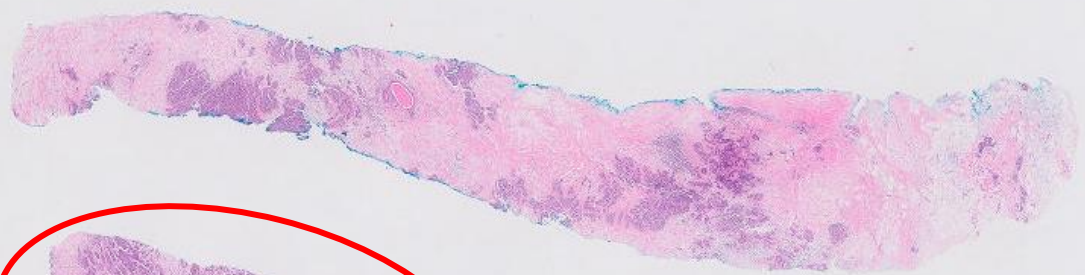
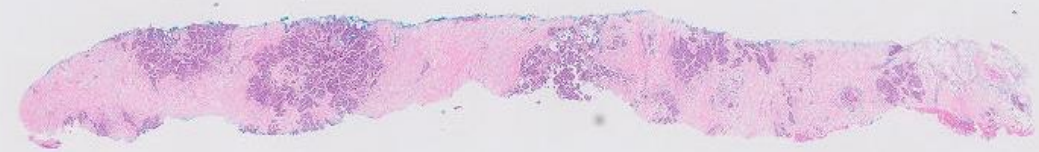
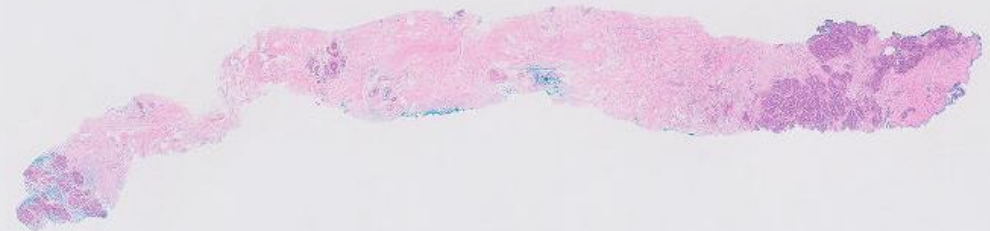
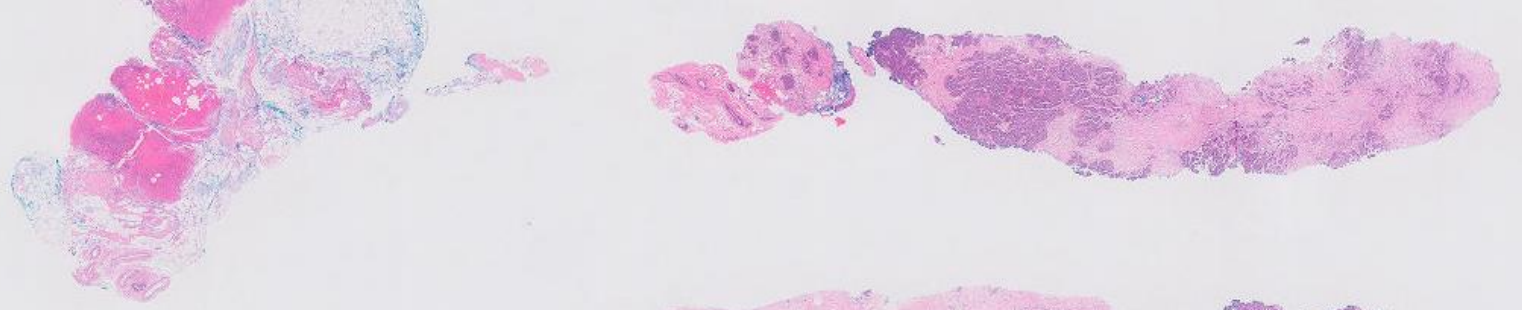


Case 2

49 year old Indonesian woman.
Presented with a left breast 0100 mass and
abdominal ascites.
Core biopsy was performed for the left
breast mass.

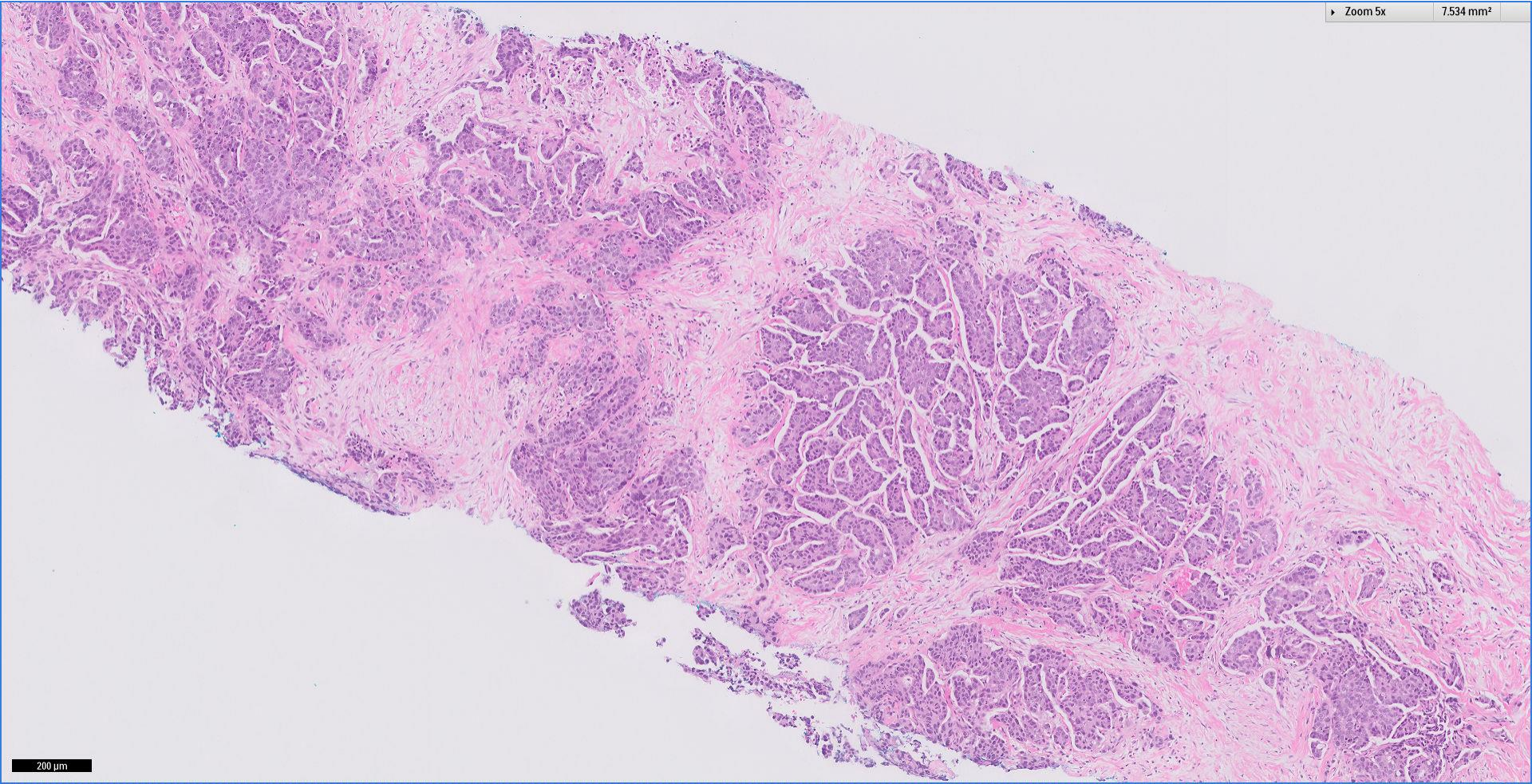
Presented by Dr Puay Hoon Tan





Zoom 5x

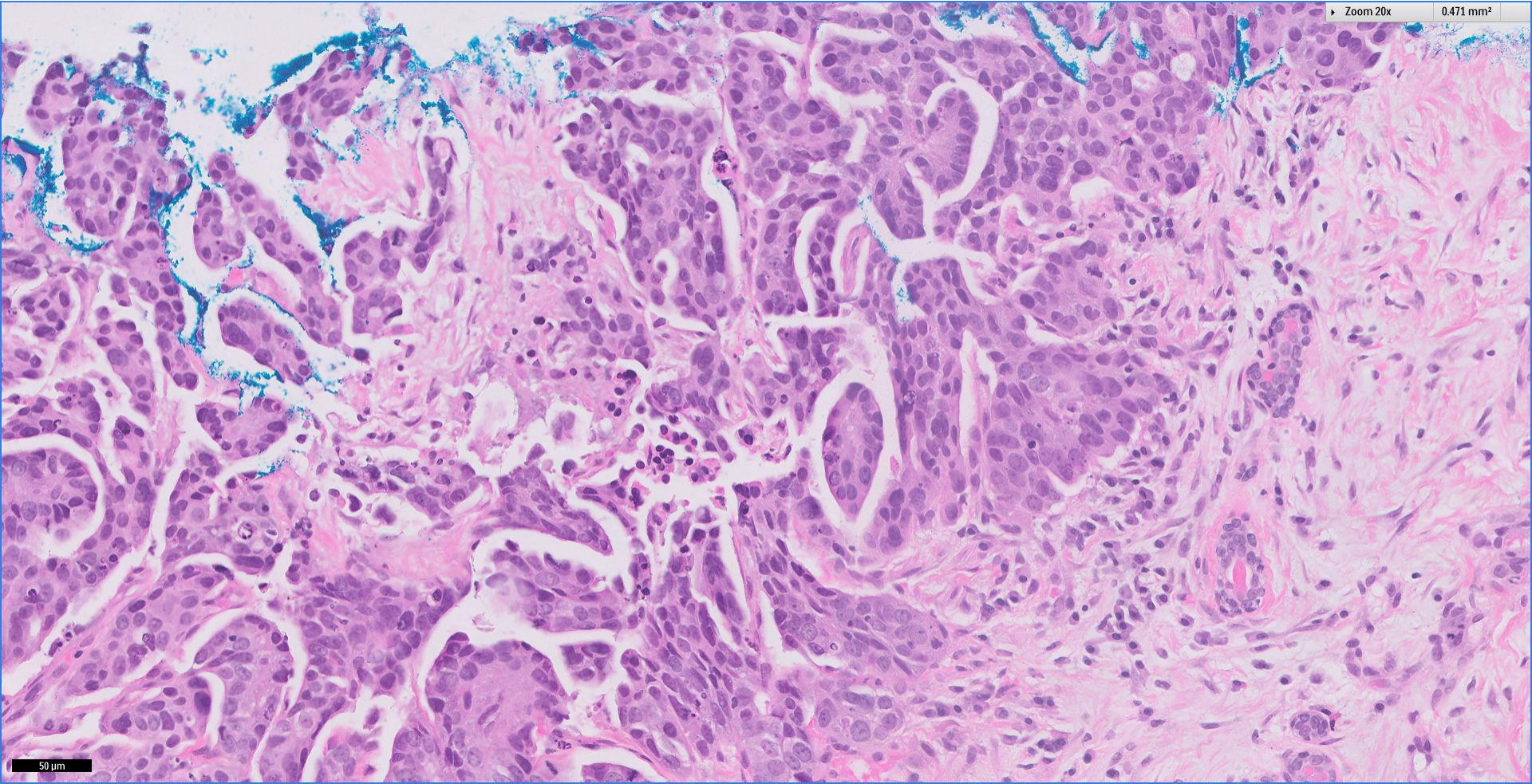
7.534 mm²



200 μ m

Zoom 20x

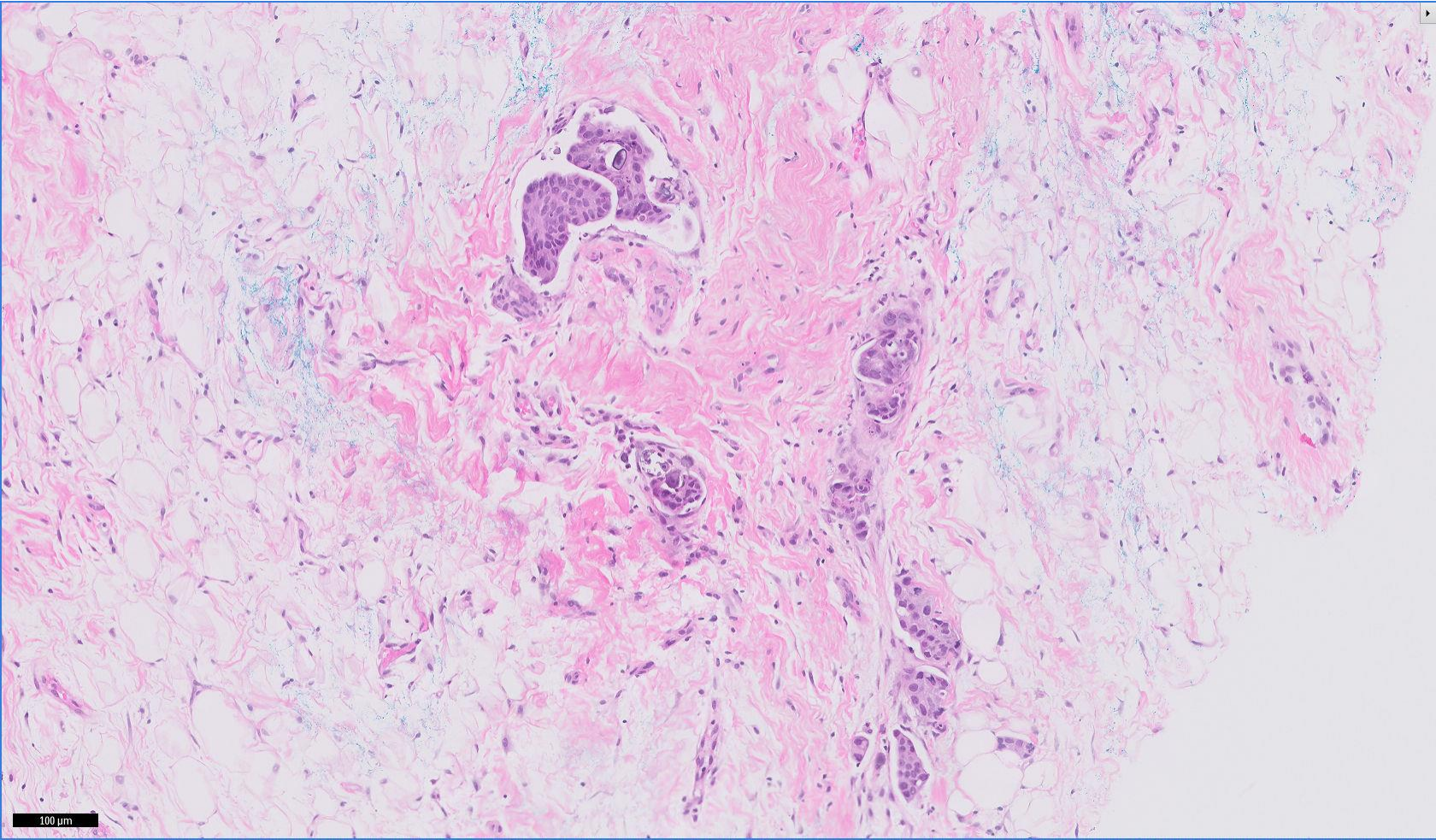
0.471 mm²



50 μm

Zoom 10x

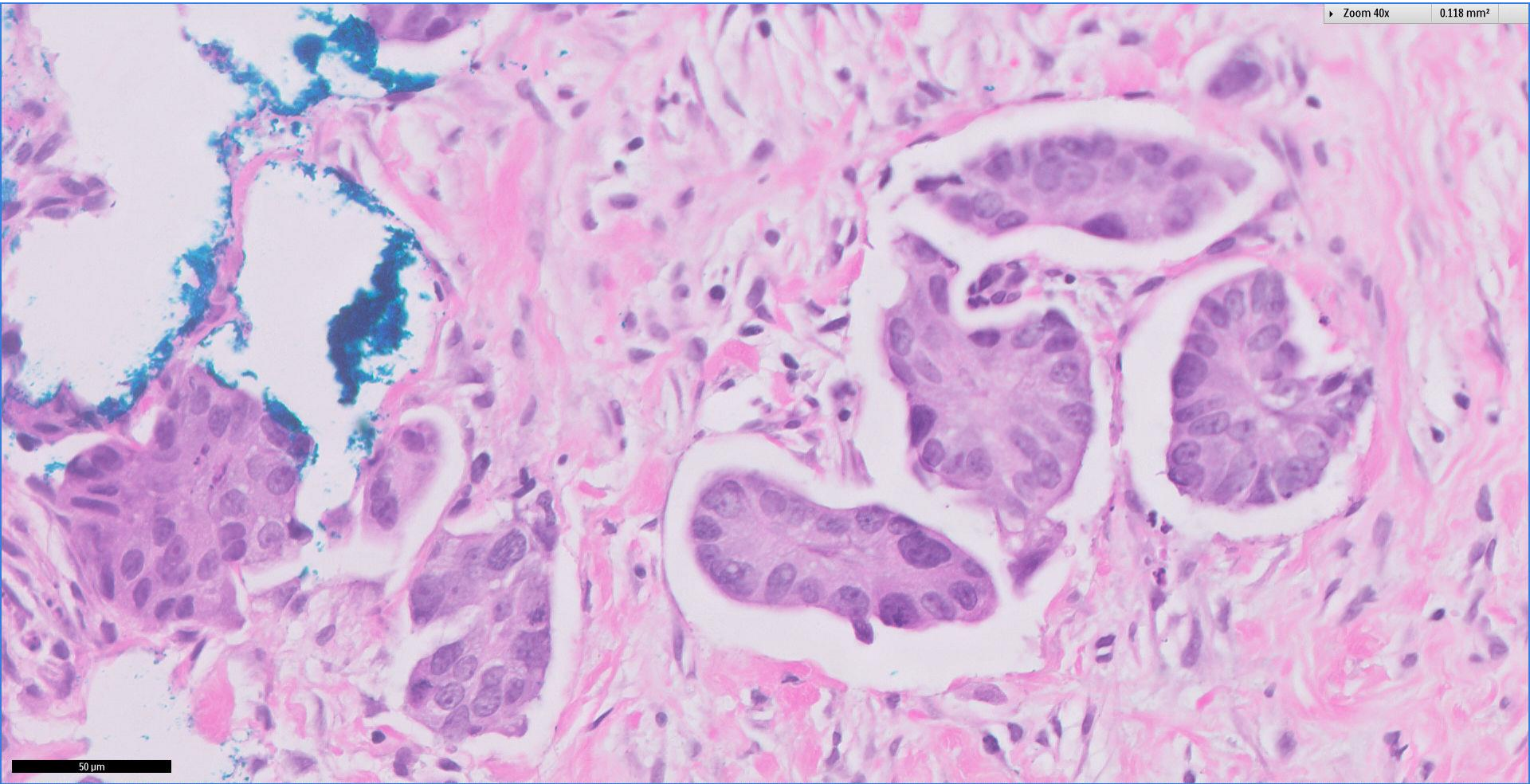
1.884 mm²



100 μm

Zoom 40x

0.118 mm²

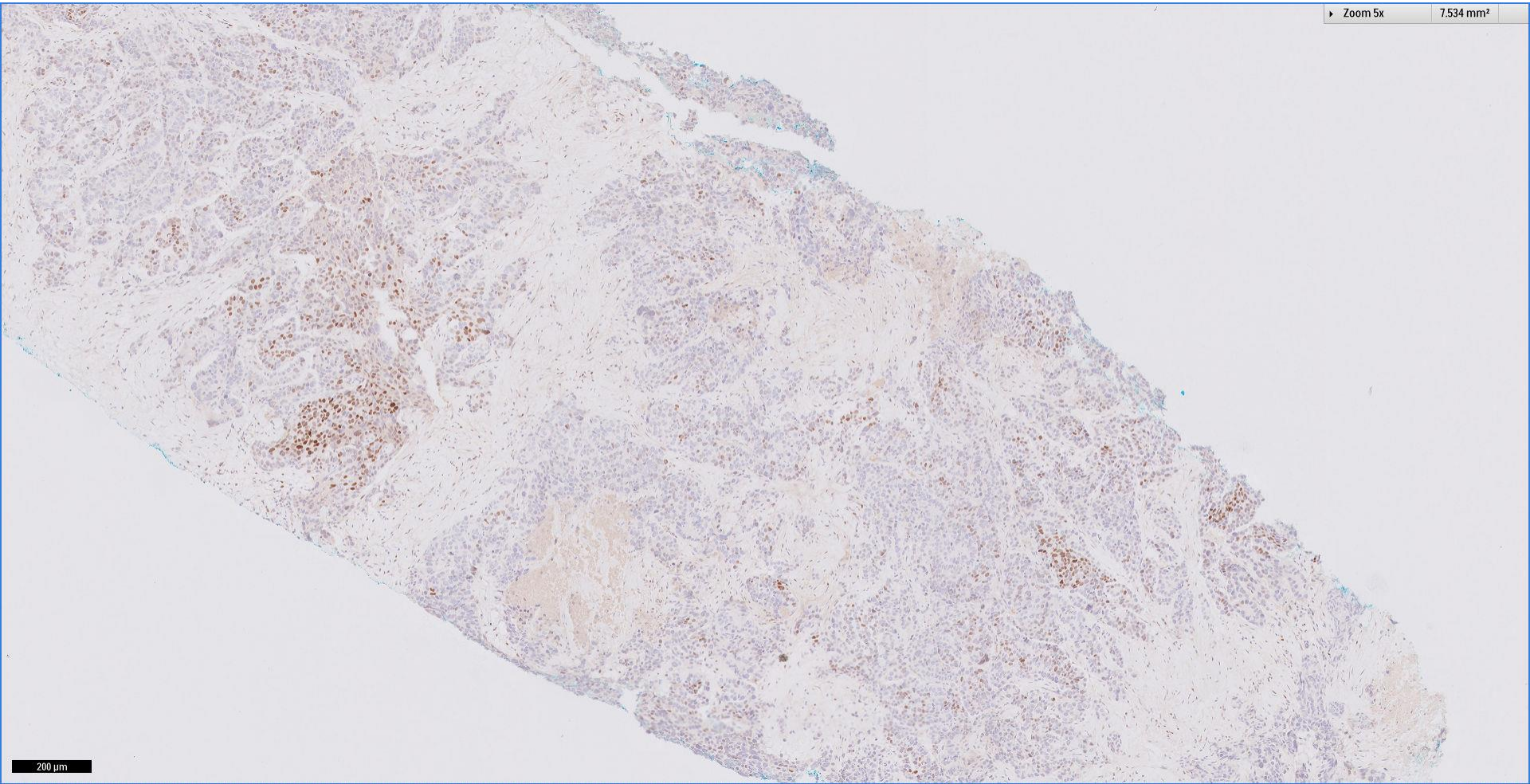


50 µm

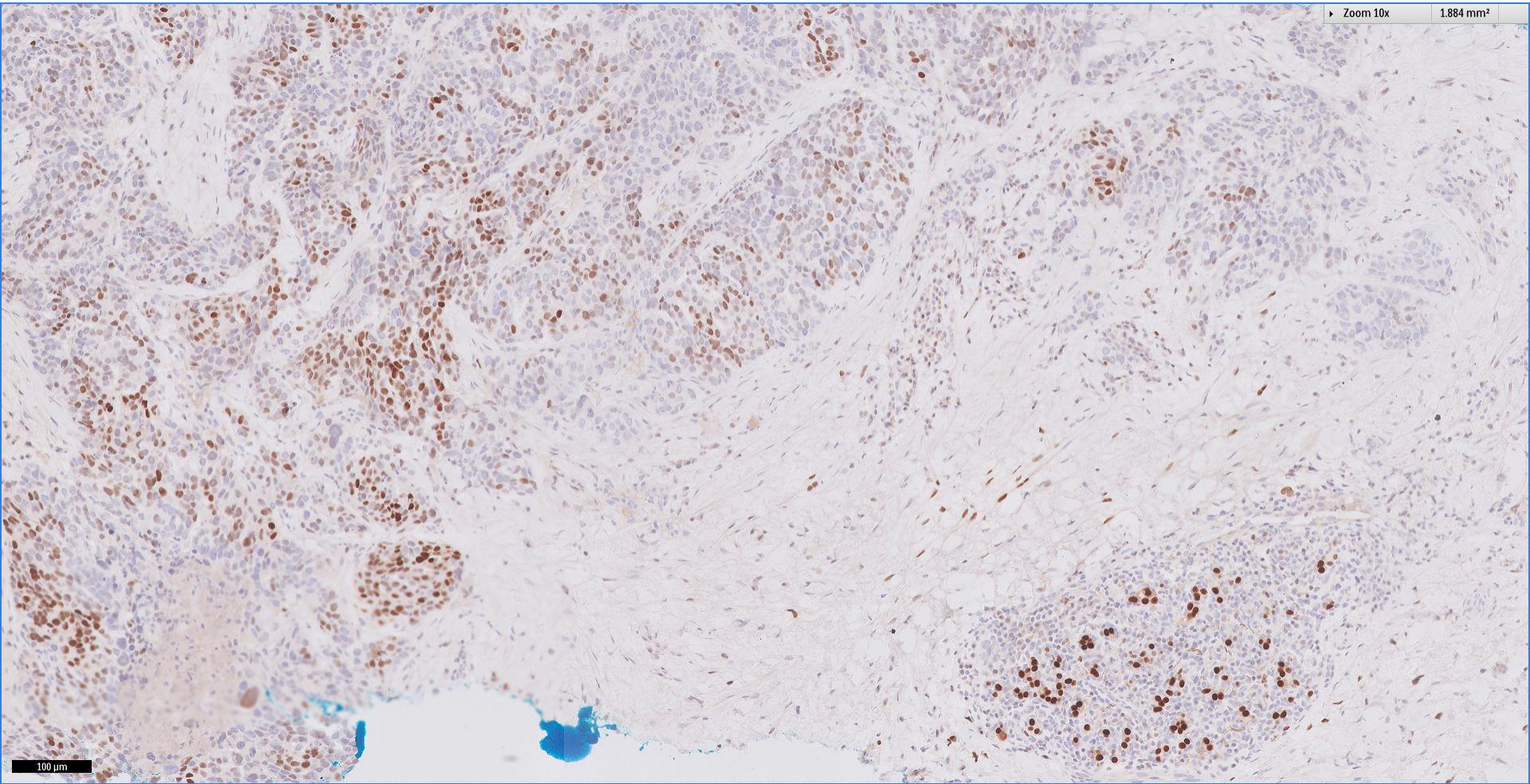
ER



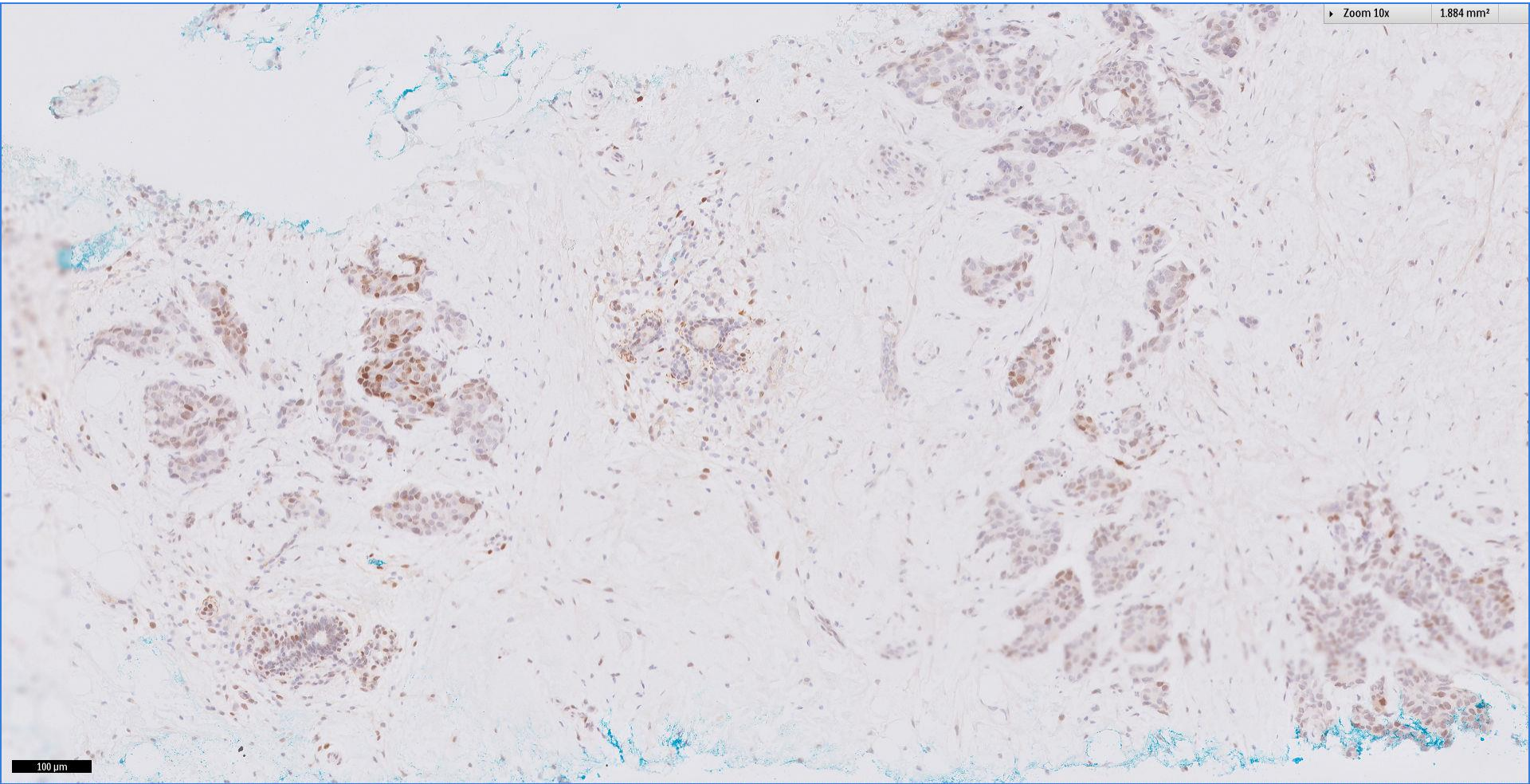
ER



ER

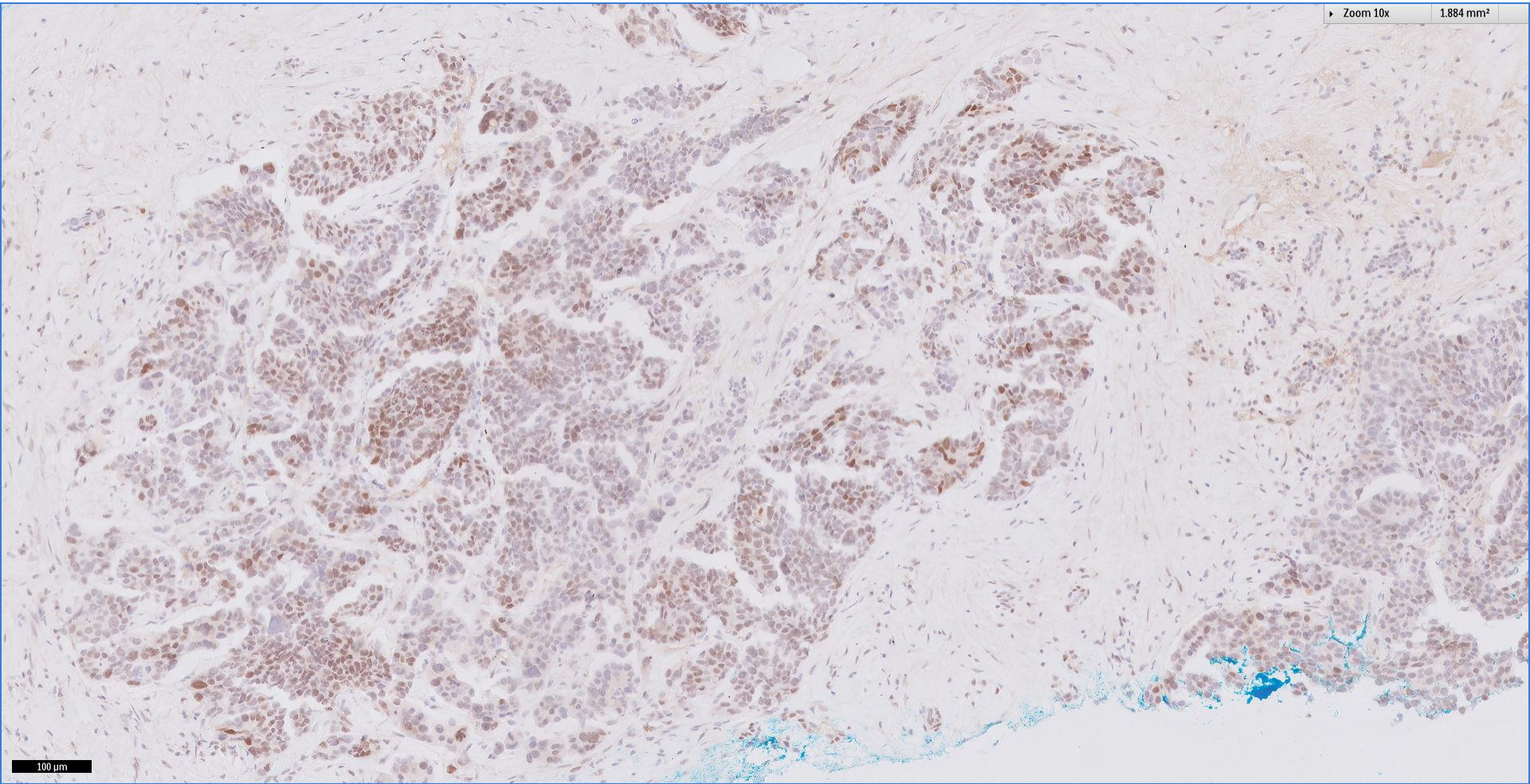


PR



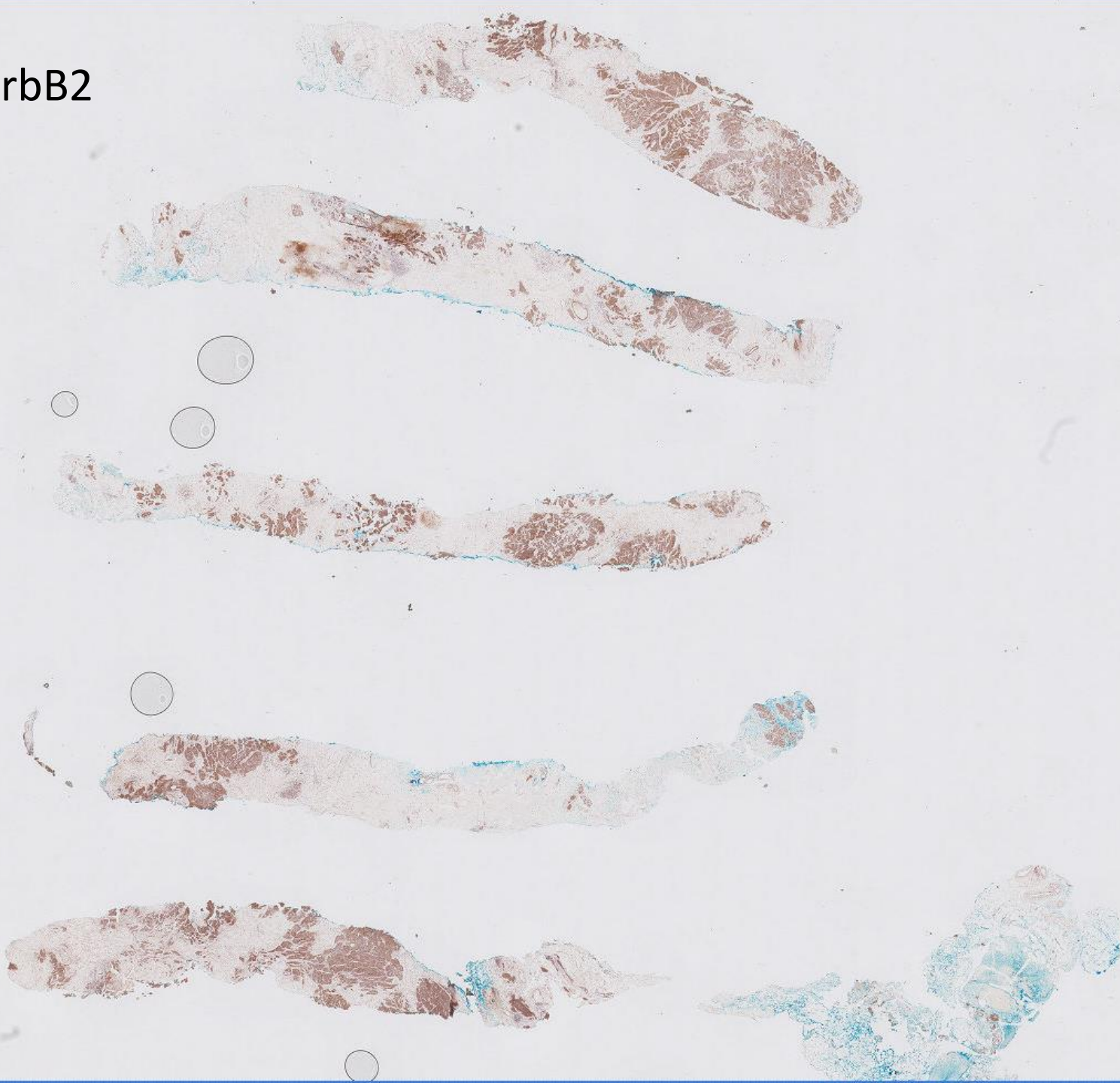
PR

Zoom 10x 1.884 mm²

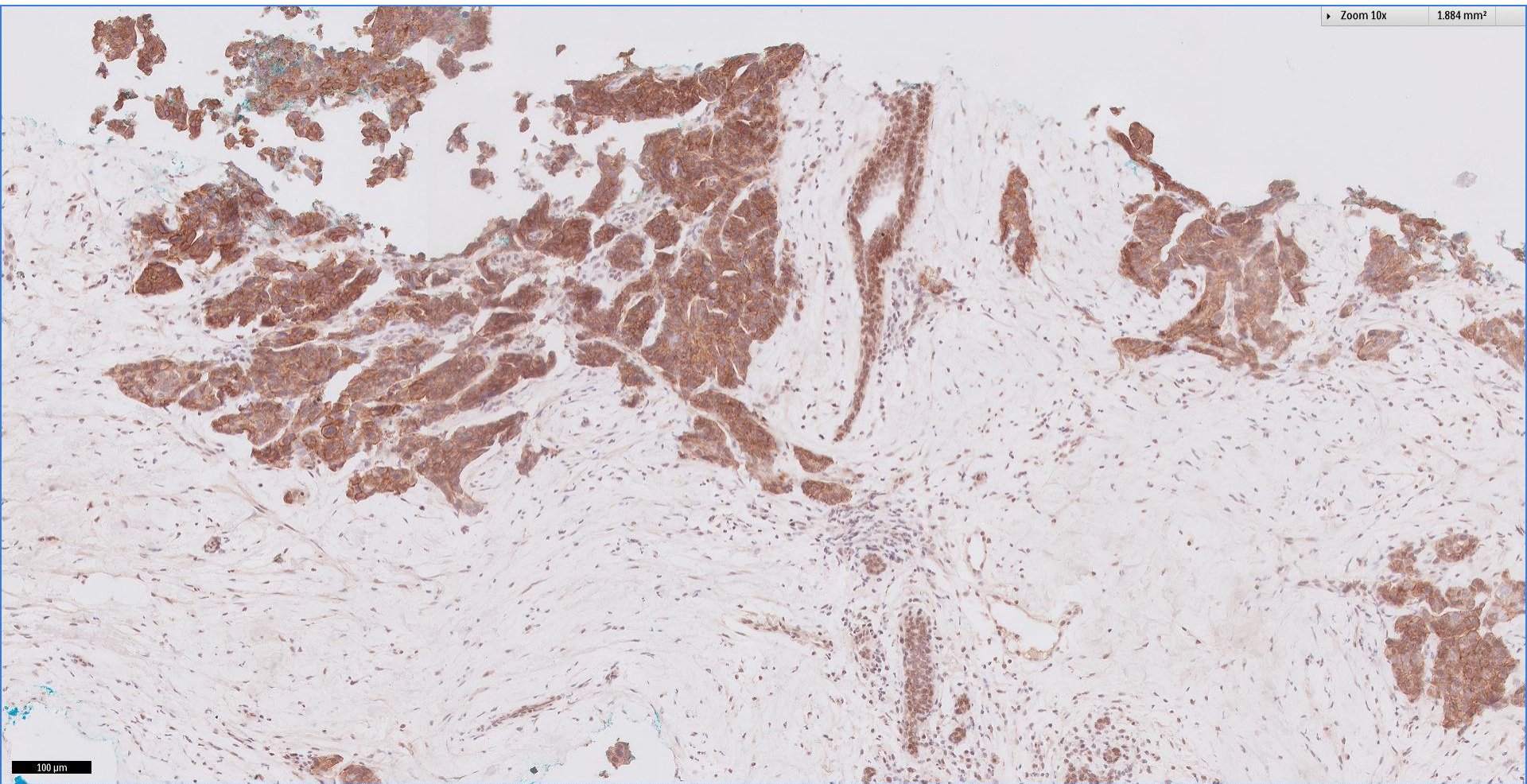


100 μm

cerbB2



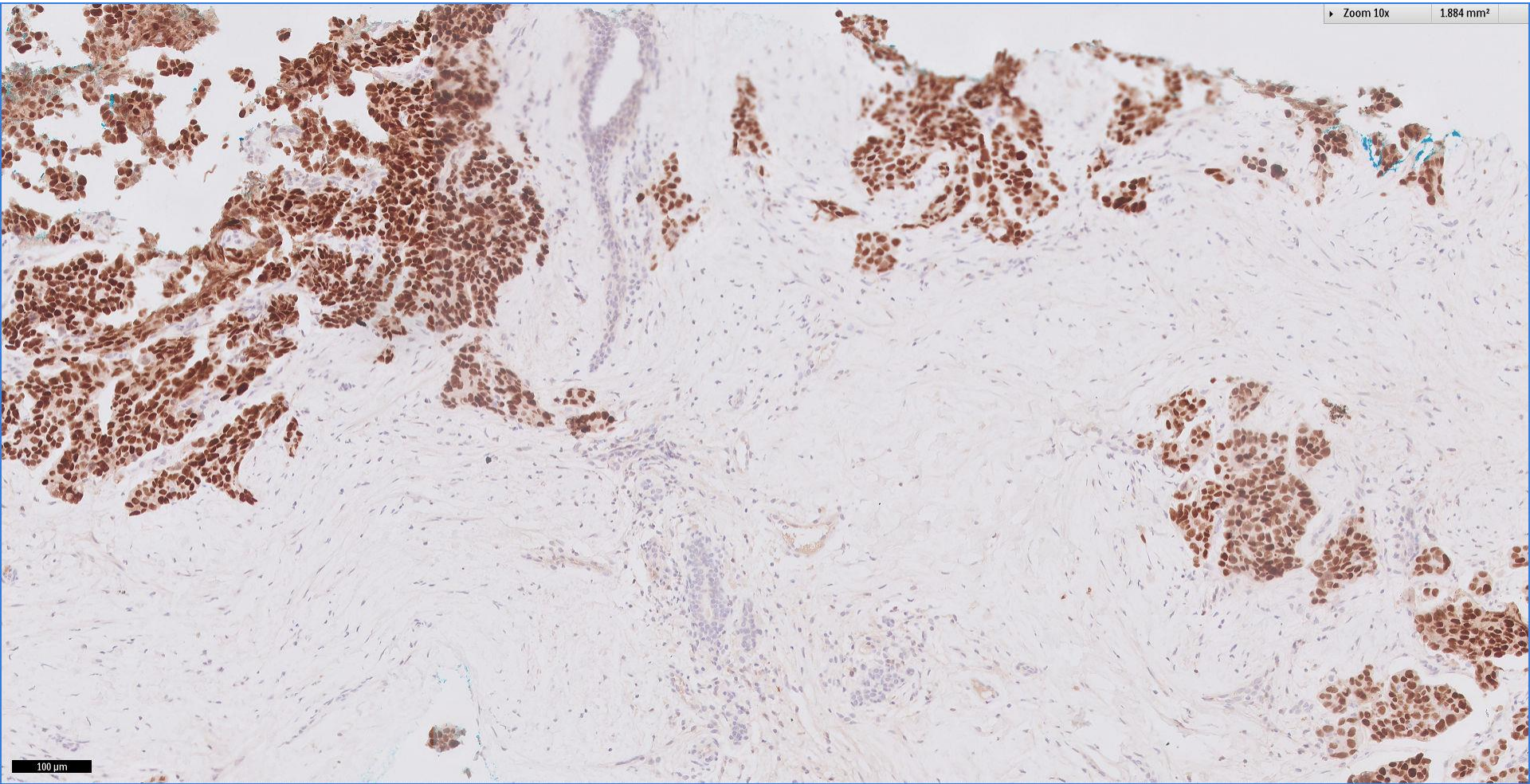
cerbB2



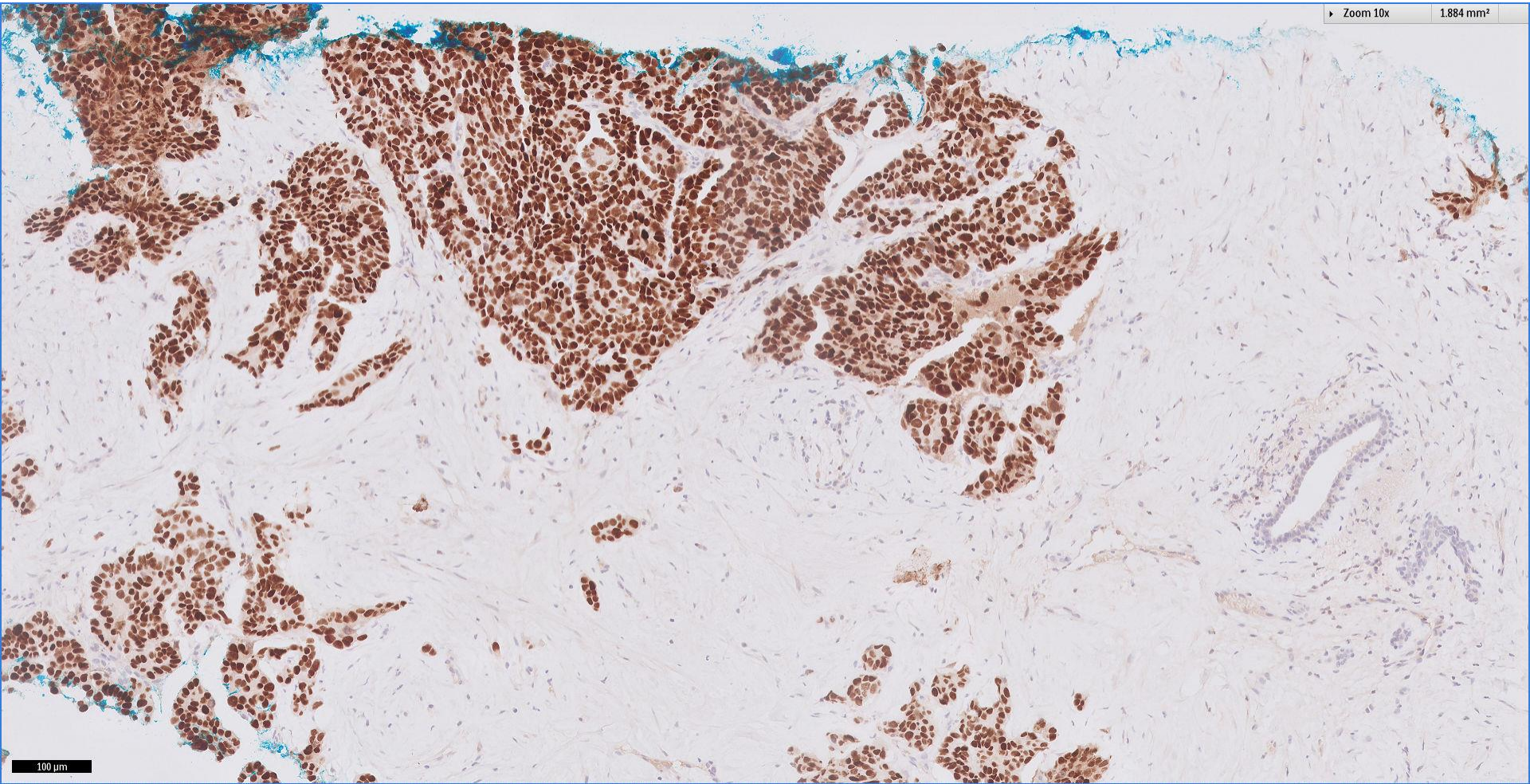
Pax8



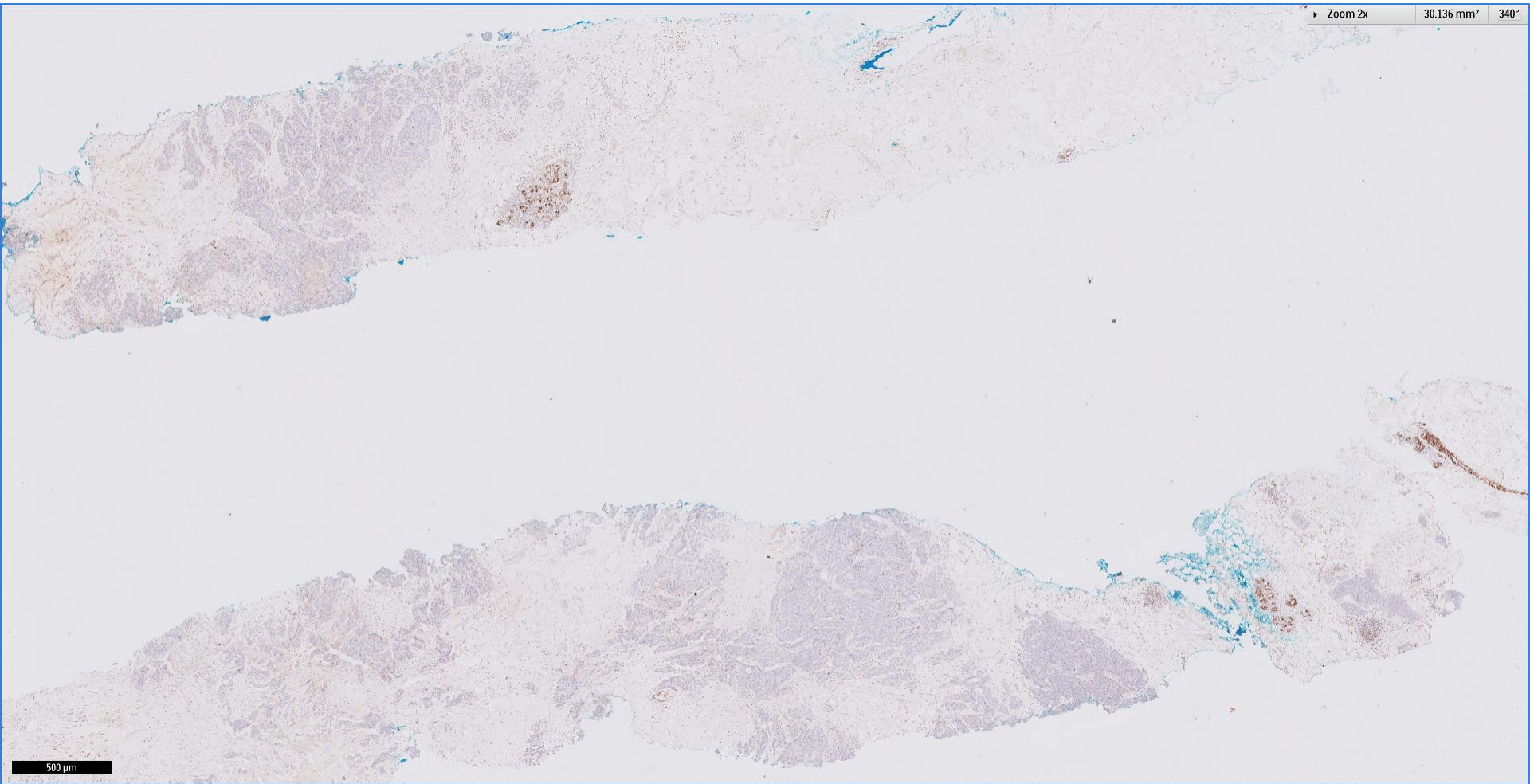
Pax8



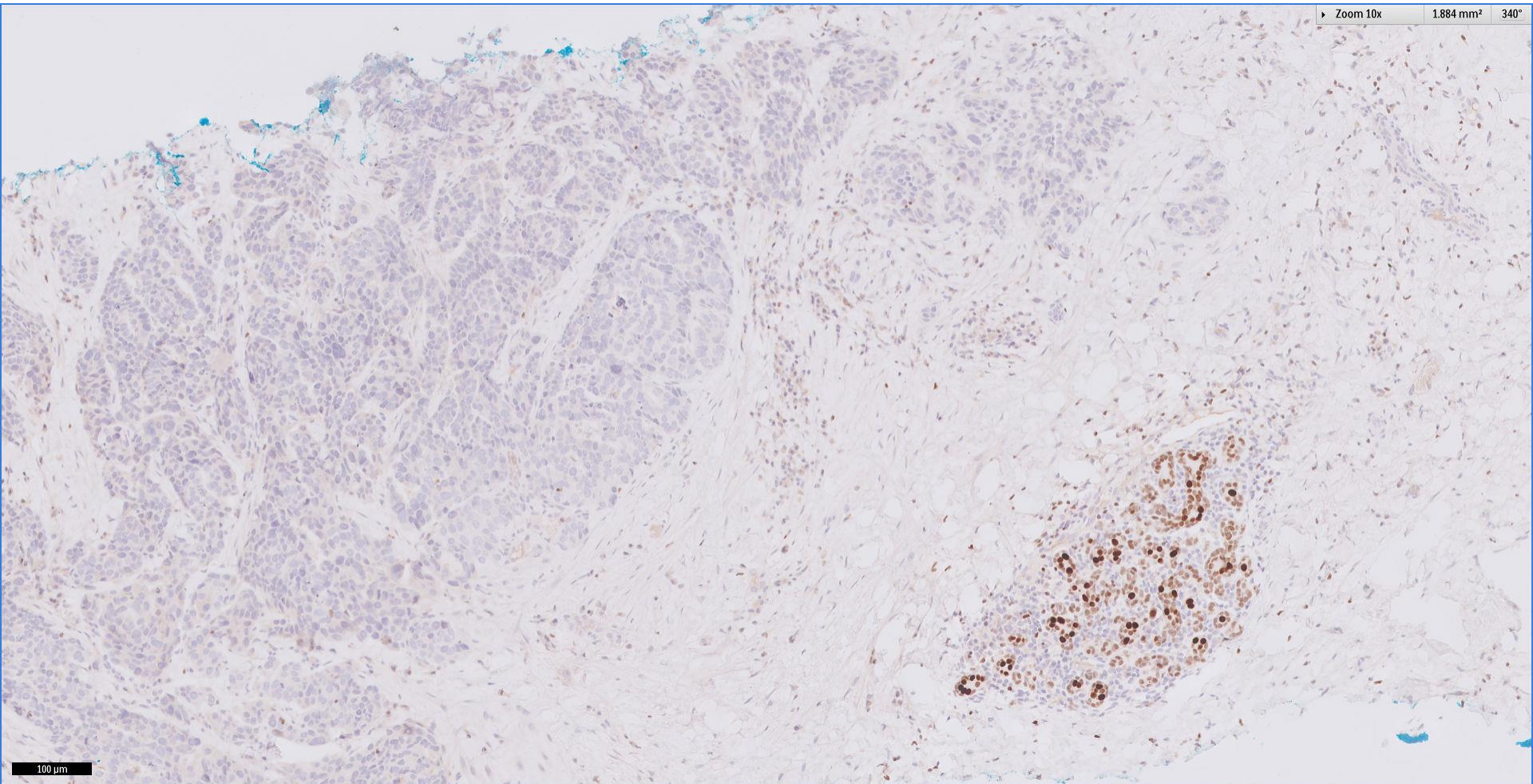
Pax8



Gata3



Gata3

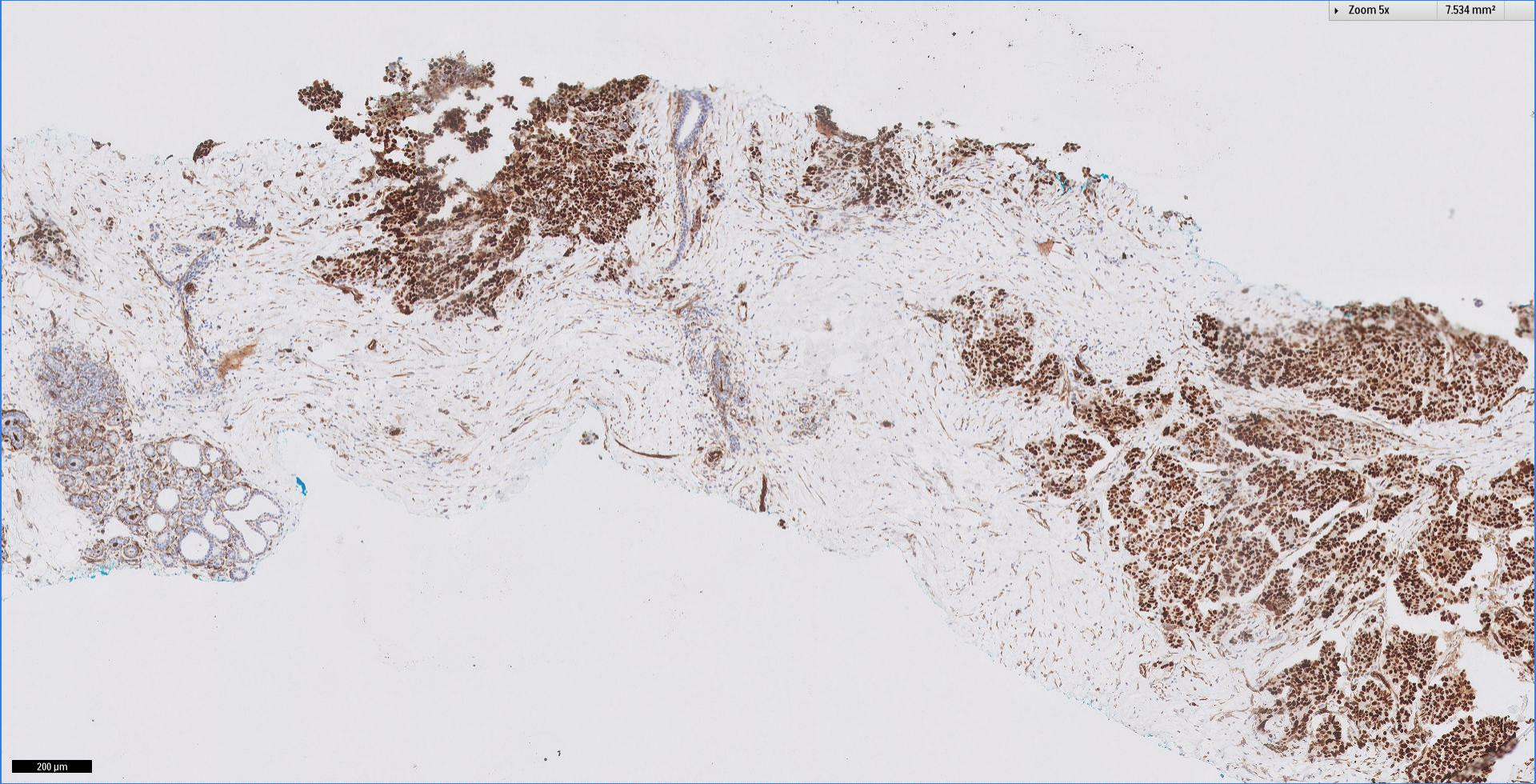


WT1



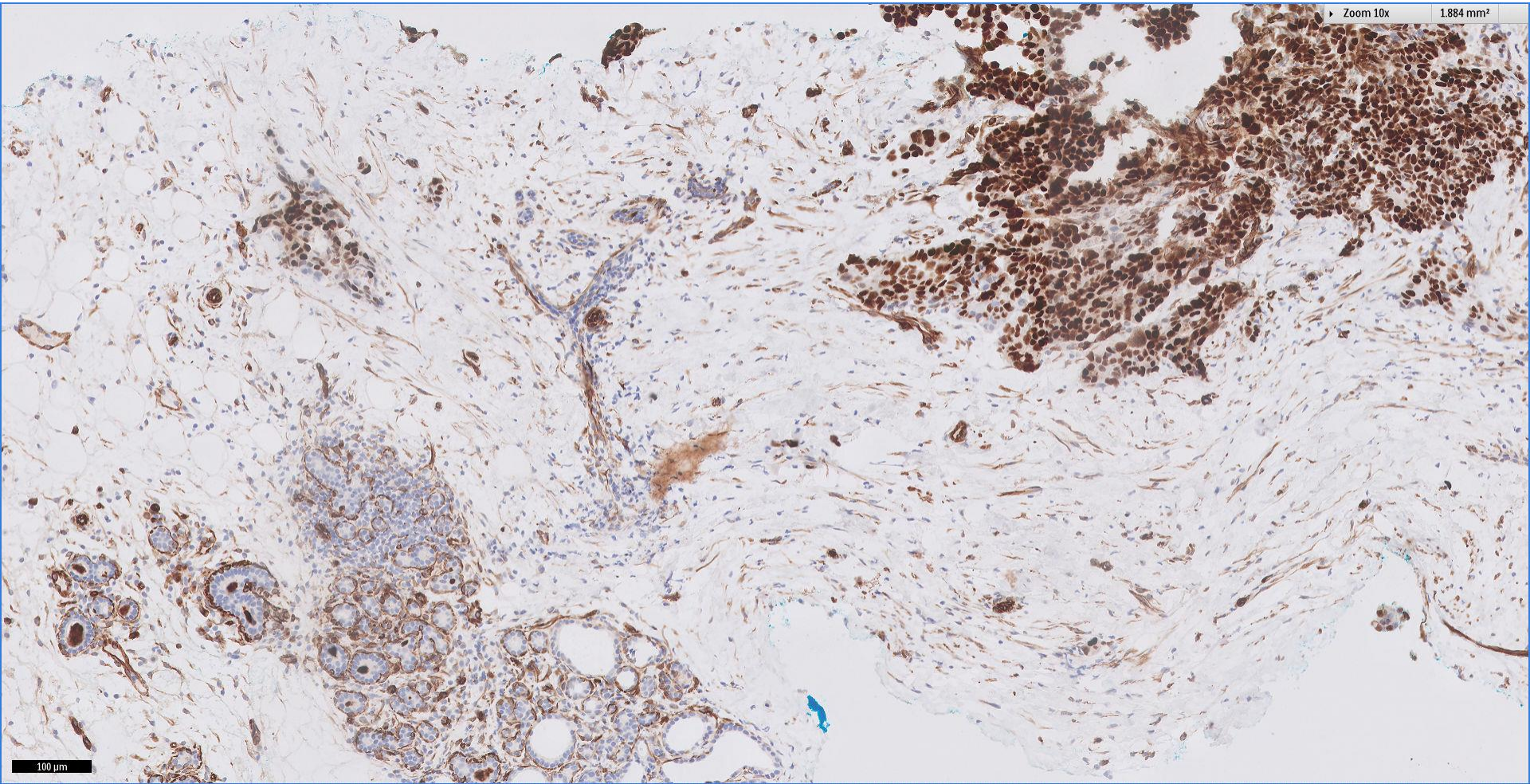
WT1

Zoom 5x 7.534 mm²



200 µm

WT1



Additional information –

- Ovarian tumour.
- Ascitic fluid – metastatic adenocarcinoma immunophenotype suggests primary ovarian carcinoma of serous type.

Diagnosis ~ **Metastatic carcinoma, consistent with ovarian origin**



Extramammary metastasis to the breast

- UOQ is the commonest site.
- 1st sign of malignancy in 1/3 of cases.
- Females > males.
- Clinical findings ~
 - Rapidly growing, painless, firm, palpable mass.
 - Bilaterality can occur.
 - Skin oedema, mimicking inflammatory breast cancer.
 - Mammography & US ~
 - Small superficial poorly defined irregular nodules.
 - Stellate configuration is not a feature.
 - Microcalcifications may be seen in serous carcinoma metastasis.



Extramammary metastasis to the breast

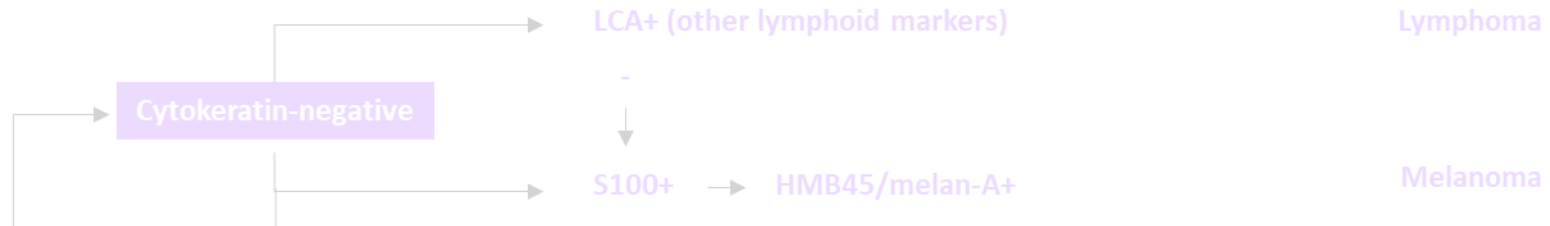
- 0.2 to 1.1% of all breast malignancies.
- 0.02 to 0.4% from systemic involvement by haematologic malignancies.
- Most common source is contralateral breast cancer.
- Majority of bilateral breast cancers are independent primaries.
- Primary sites of metastases to breast ~
 - Lymphoma/leukaemia, melanoma, lung, ovary, stomach, prostate, RCC, colorectal carcinoma, sarcoma, mesothelioma, NETs, cervical SCC.
- No specific macroscopic appearance (may be solitary or multiple nodules, pigmentation in melanoma).
- Histopathology ~
 - Unusual morphological appearance.
 - Lack of in situ component & elastosis.
 - Predominant periductal/perilobular distribution.
 - Extensive LVI.



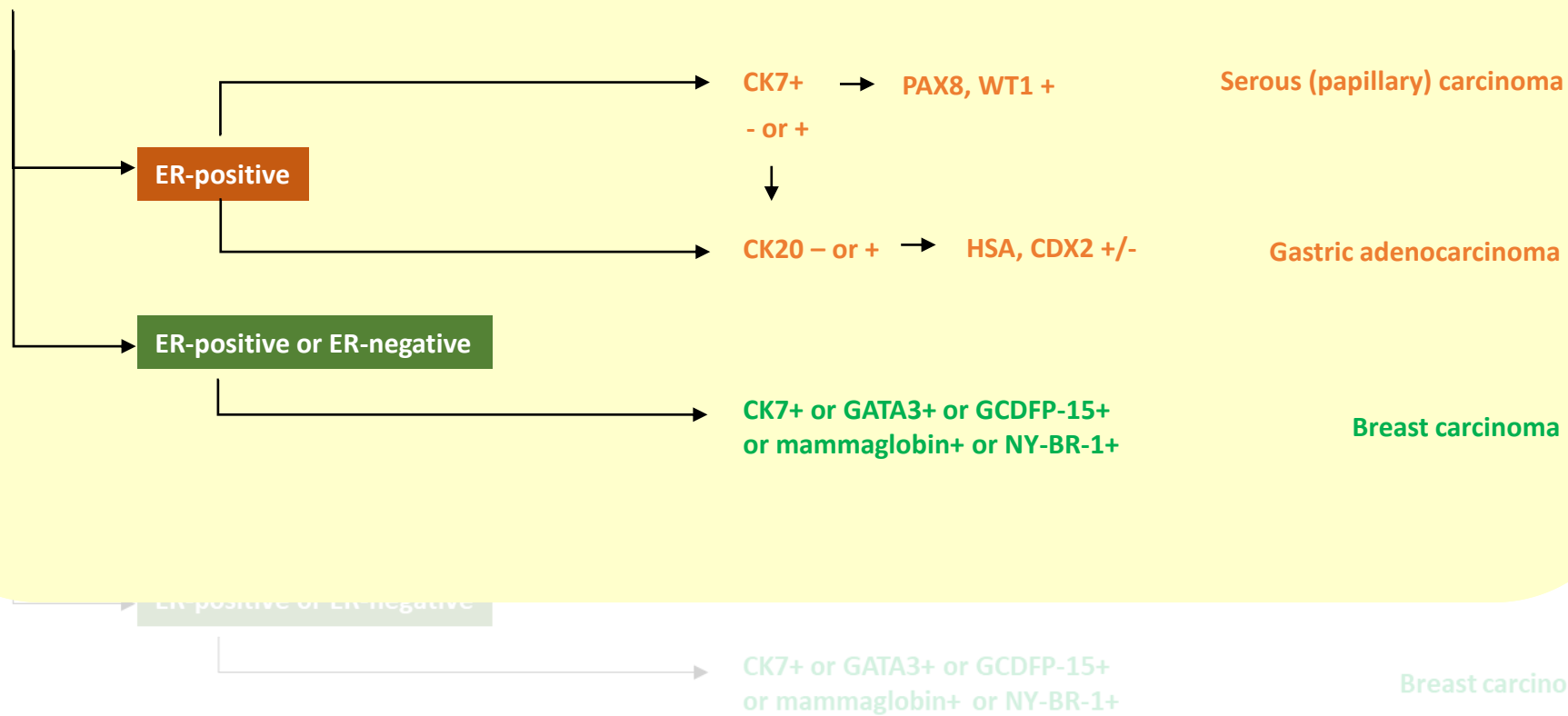
Extramammary metastasis to the breast

- Clinical history is very important.
- Additional histological clues ~
 - Typical nuclear features and pigment in melanoma.
 - Nuclear features in lymphoma.
 - Chromatin pattern in NETs.
 - Characteristic appearance of colorectal carcinoma.
 - Papillary architecture and psammoma bodies of serous carcinoma.
- 1/3 of cases do not possess specific histological features and are high grade.
- Comparison of breast & extramammary tumours is helpful.
- Immunohistochemical panel.





**UNUSUAL HISTOLOGY
RESULT OF PREDICTIVE
FACTORS' IHC**



Suggested algorithm for breast tumours suspected to be metastatic.

Extramammary metastasis to the breast

- Poor prognosis.
- Metastasis to breast occurs as part of disseminated disease.
- Survival of >1 year reported in patients with lymphoma and NETs.
- Better overall survival is reported in one study for patients undergoing surgery for breast metastasis.

Cancer 2007; 110: 731-7.





Breast
Pathology
Course 2020 @21

PATHOLOGY
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*Celebrating 118 years of Pathology
in Singapore in 2021*

Thank You



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