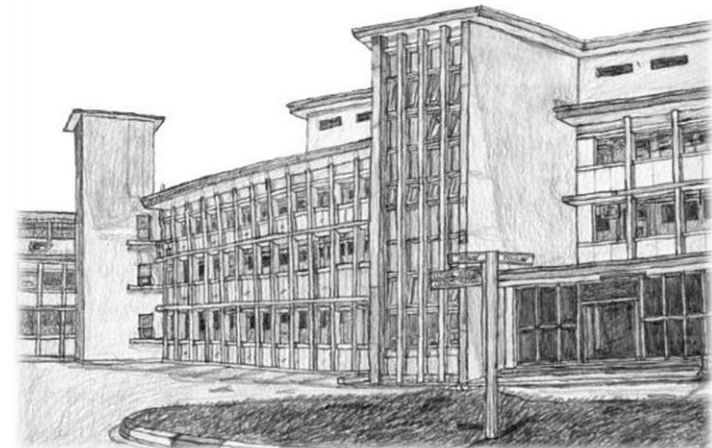
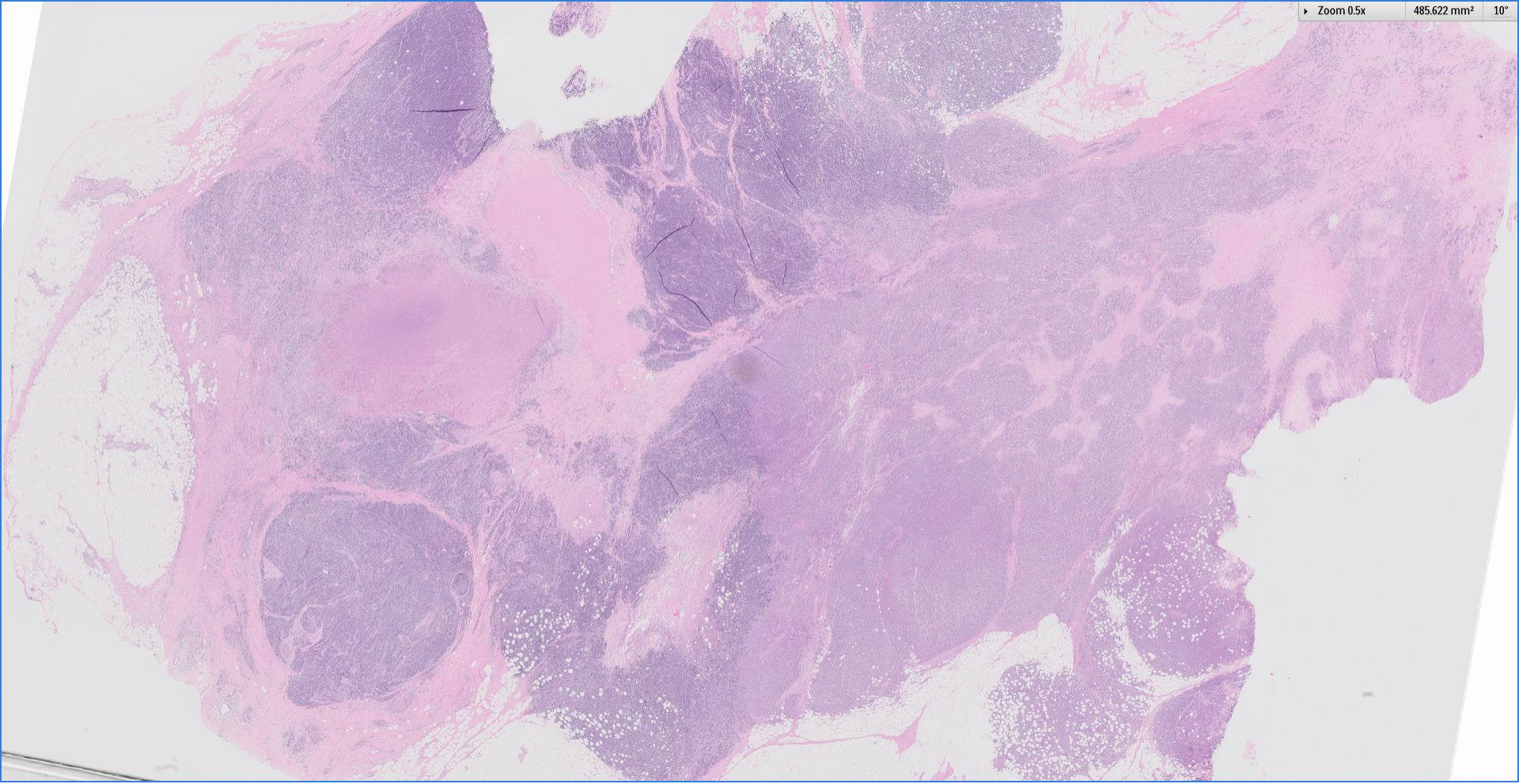


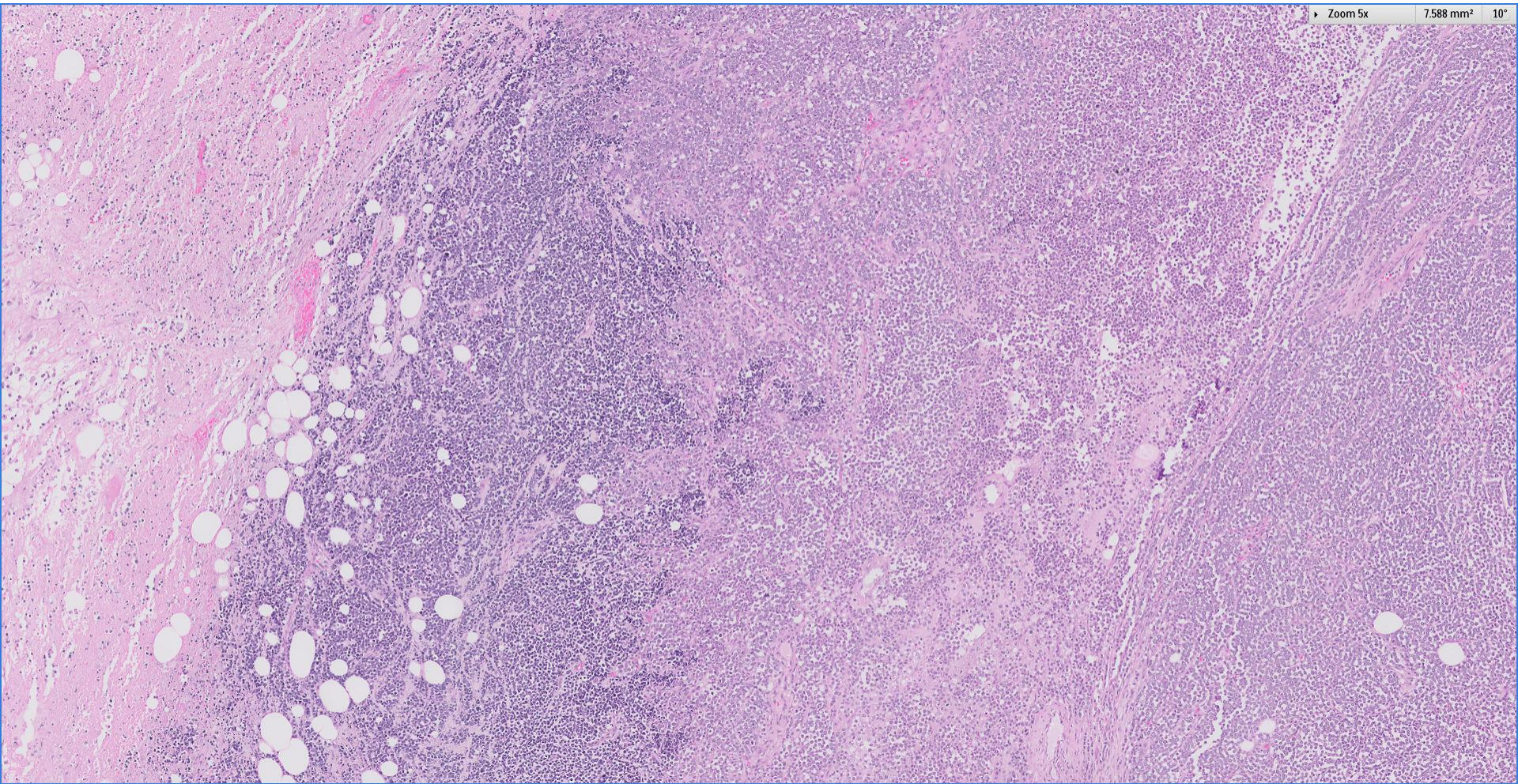
Case 6

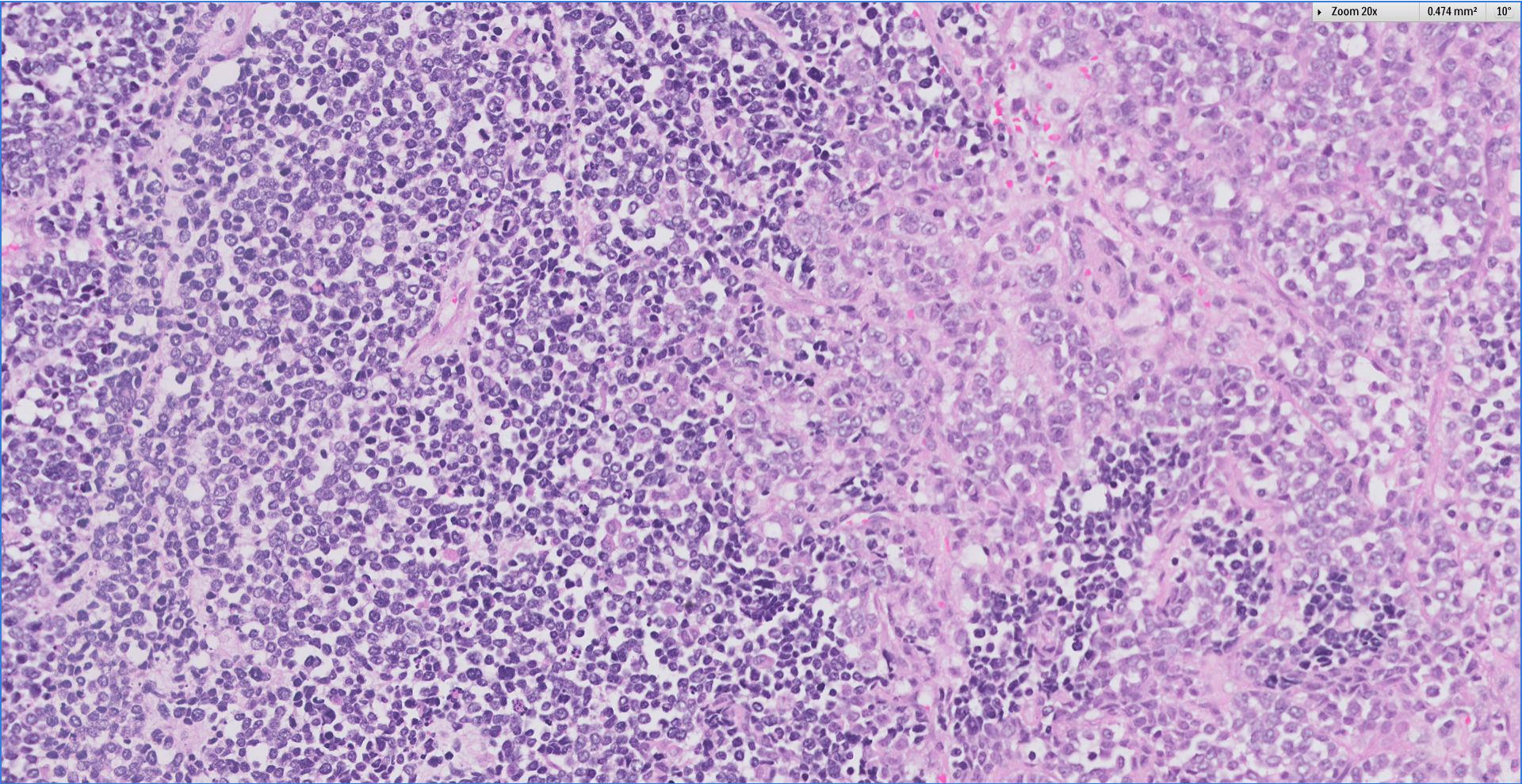
44 year old female.

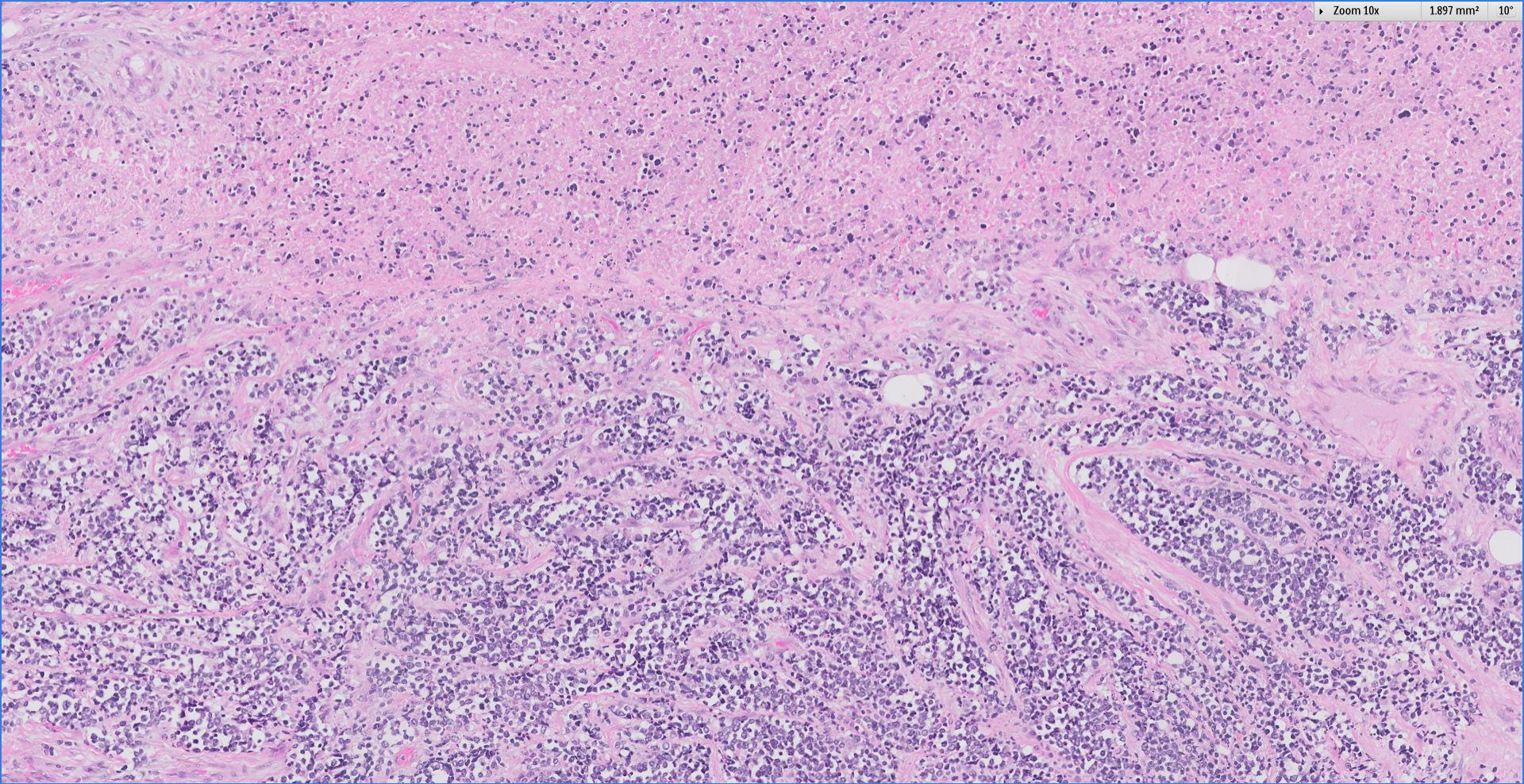
Left breast locally advanced cancer treated with neoadjuvant chemotherapy. Section from an upper outer quadrant nodule in the post-neoadjuvant mastectomy specimen.

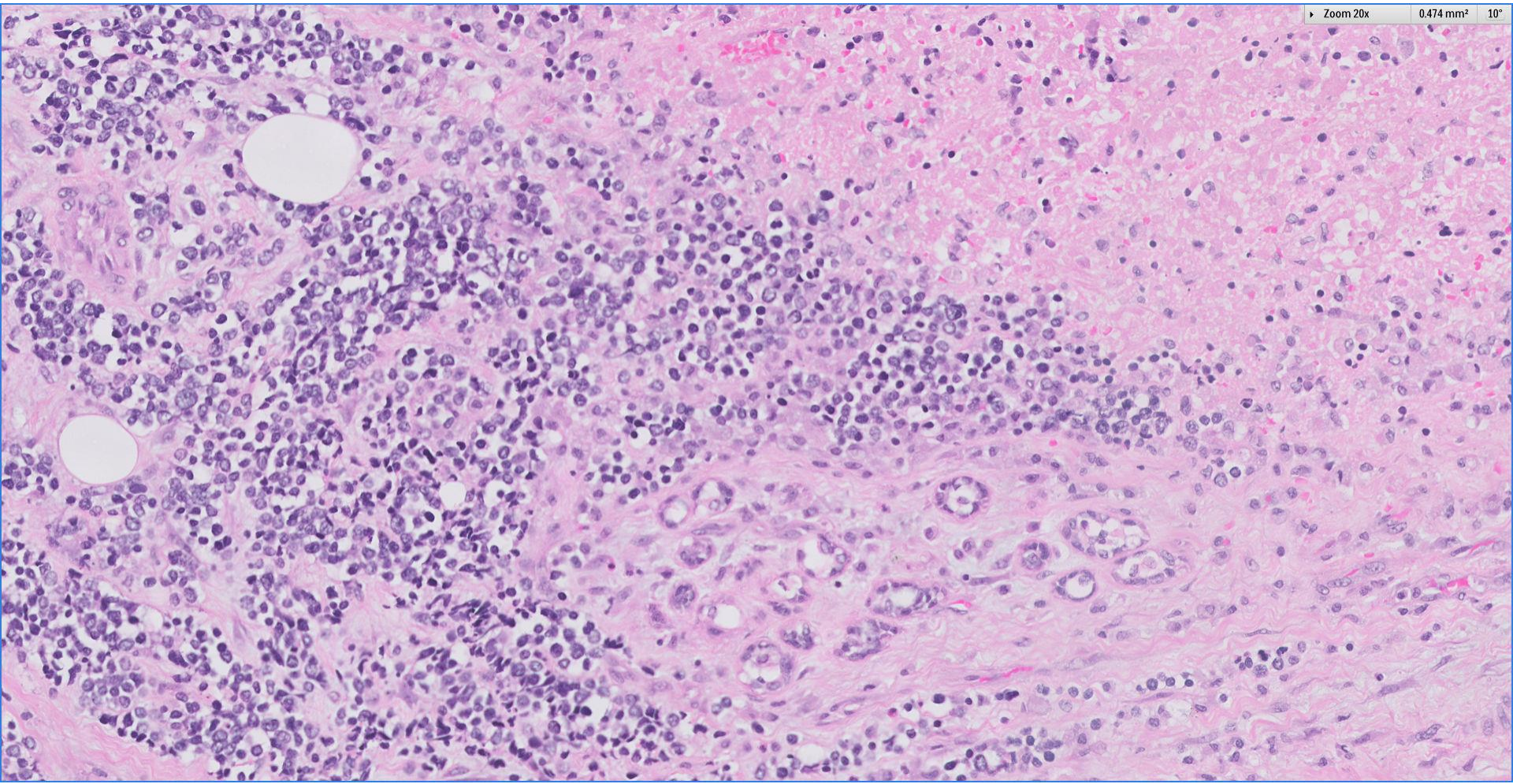




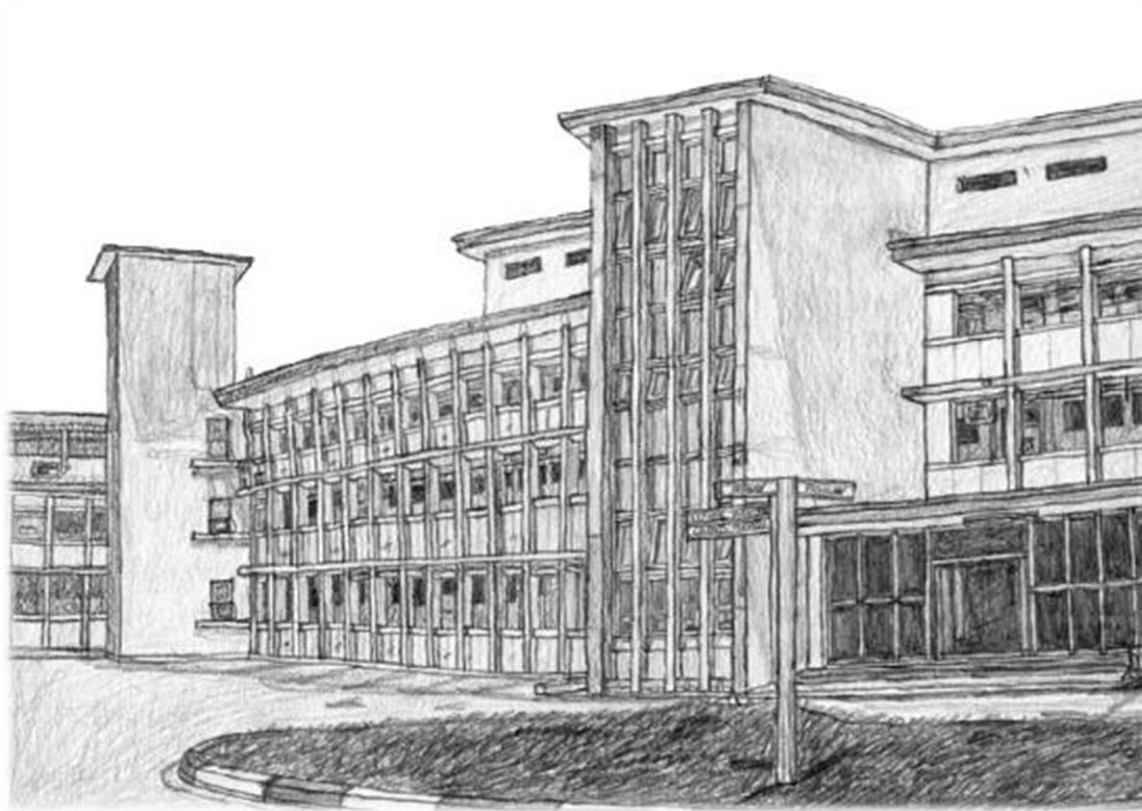








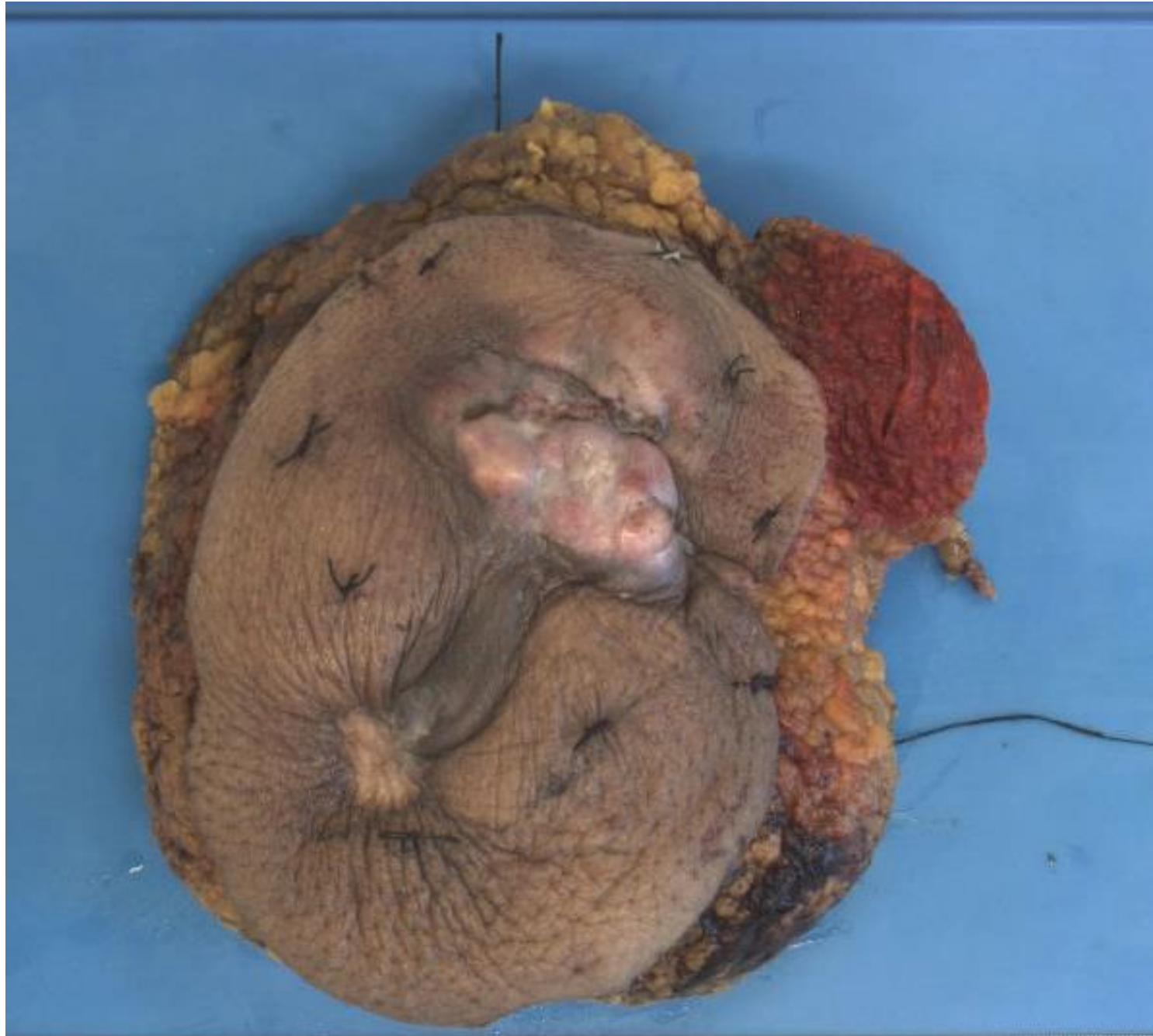
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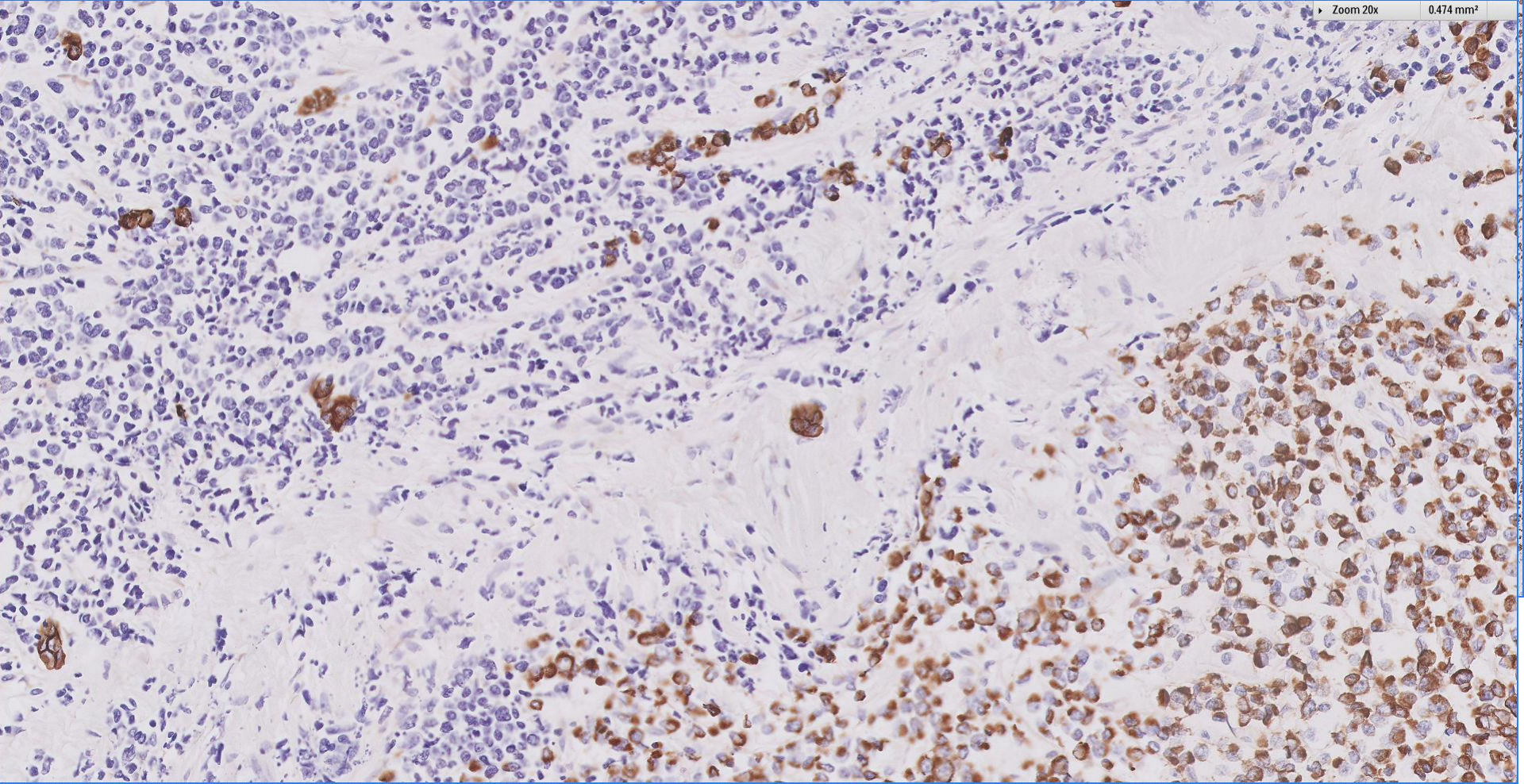
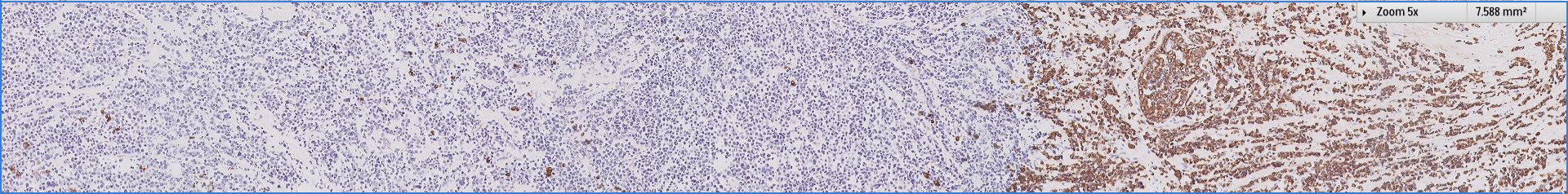




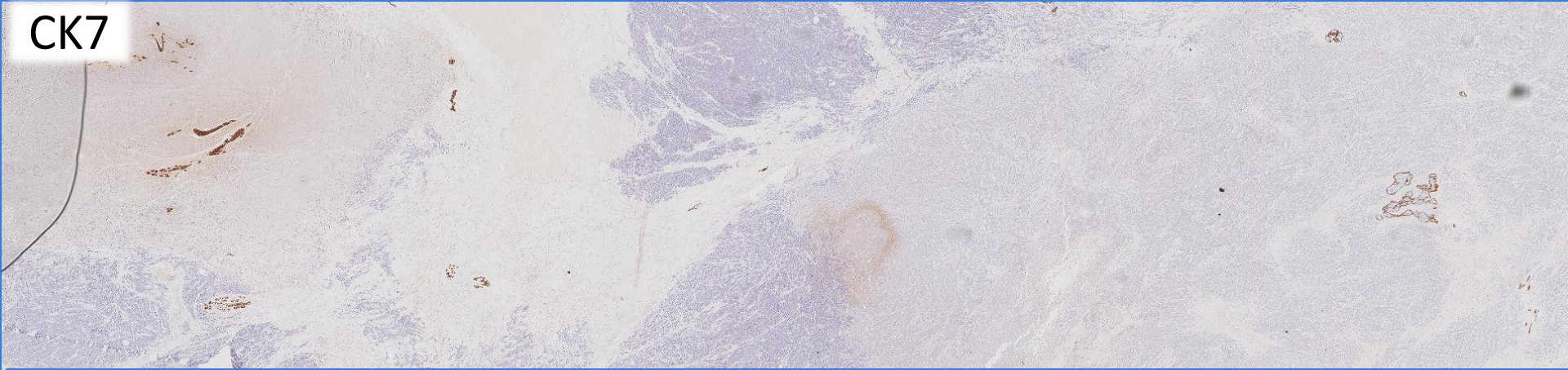


MNF116

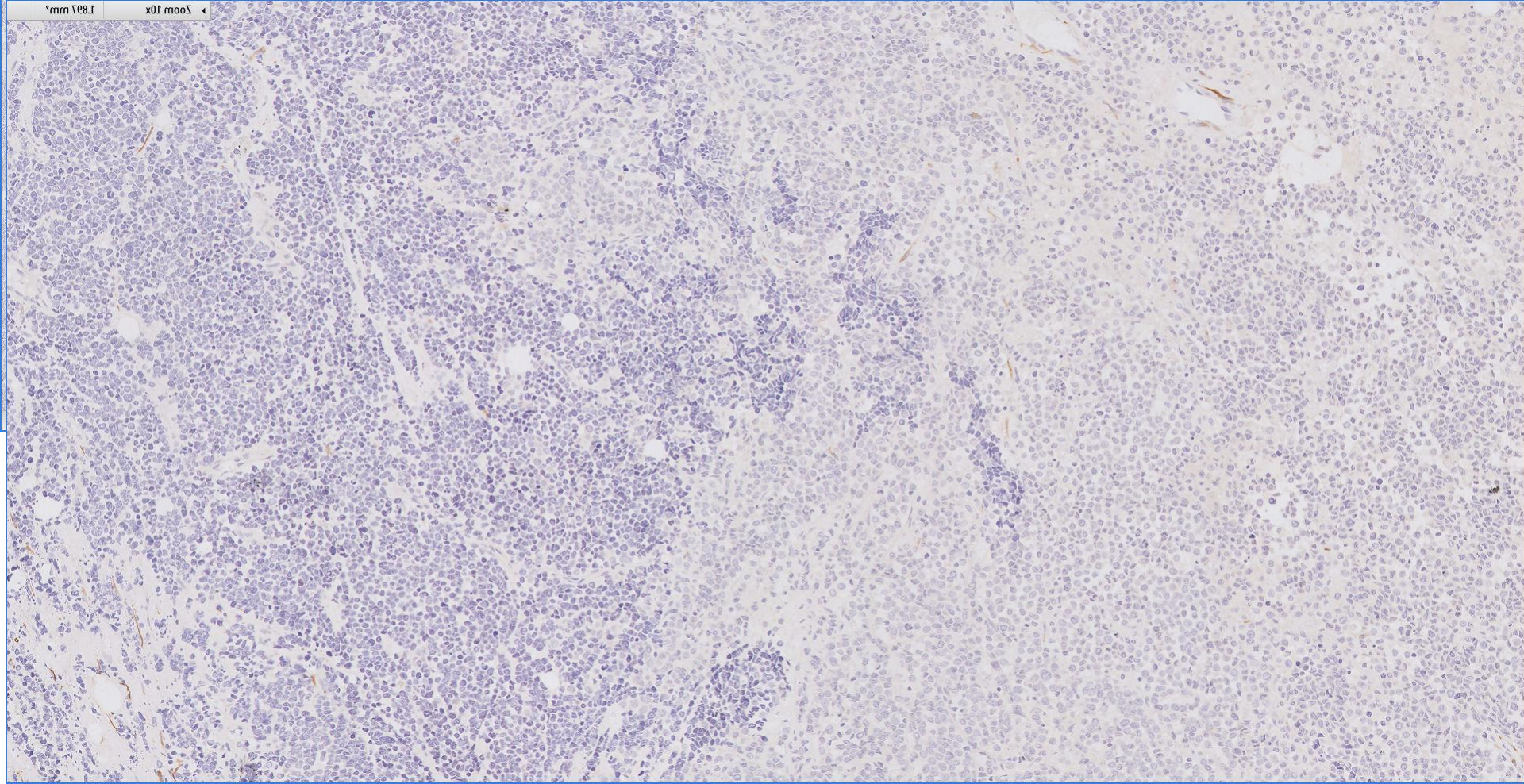
Zoom



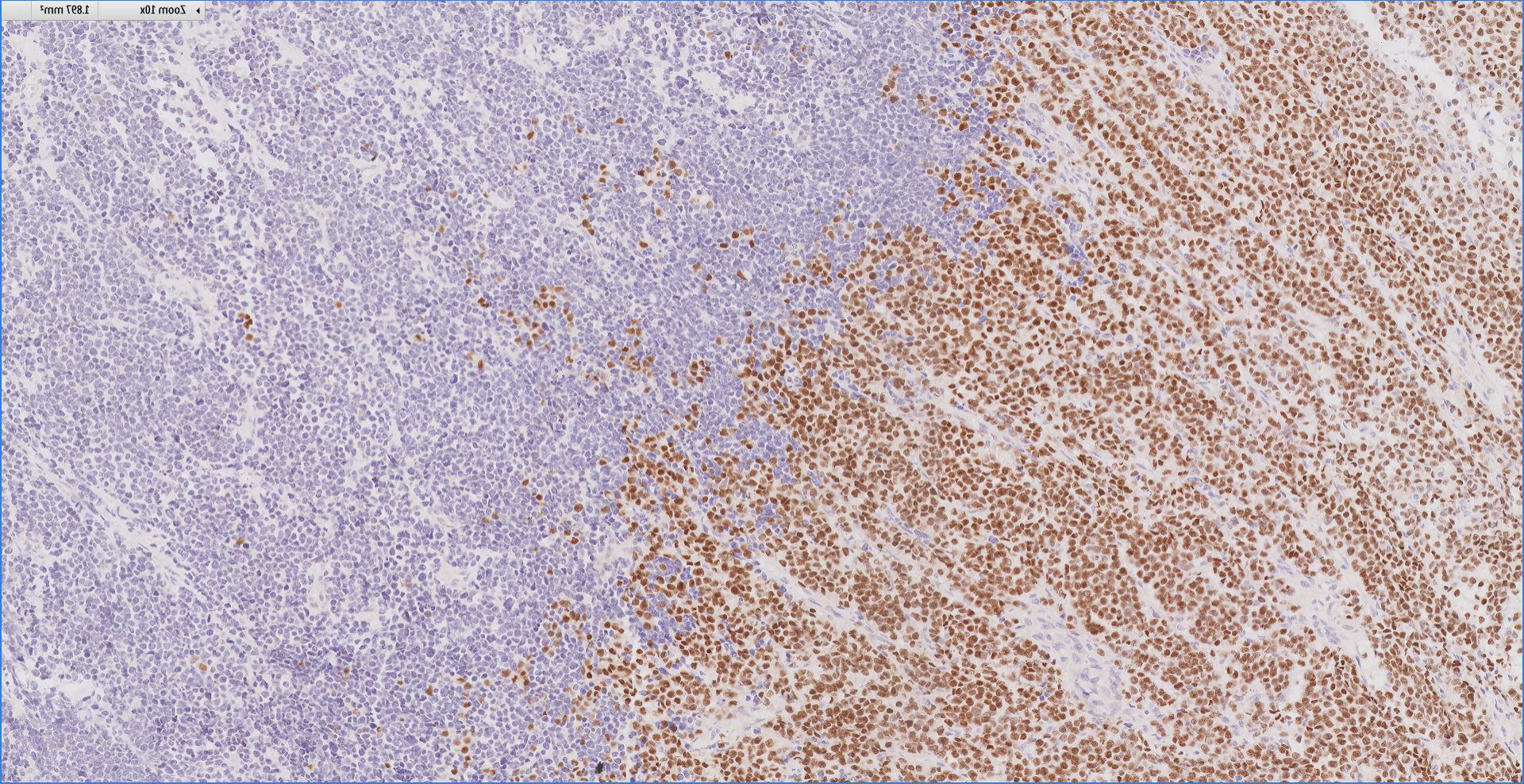
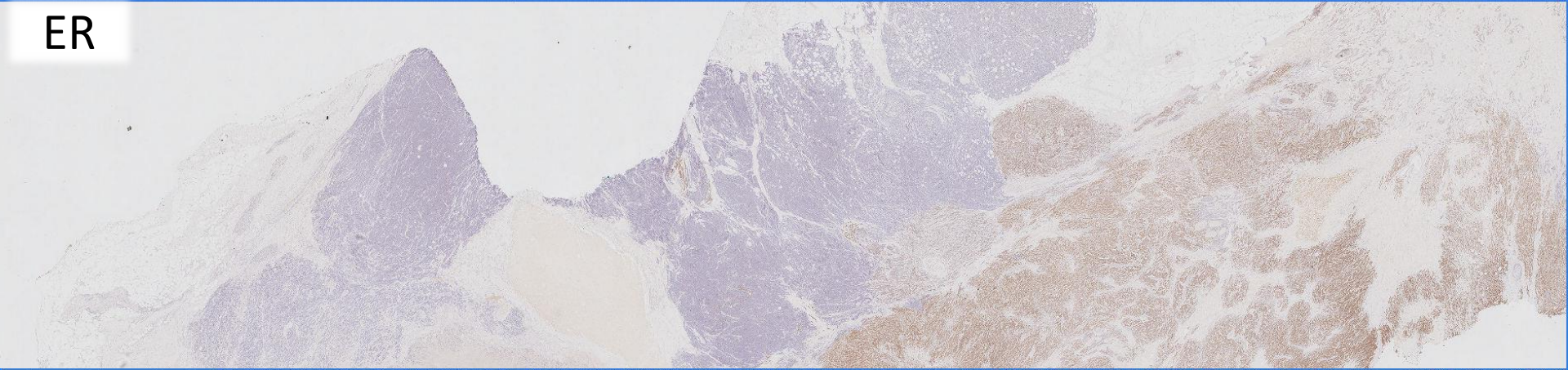
CK7



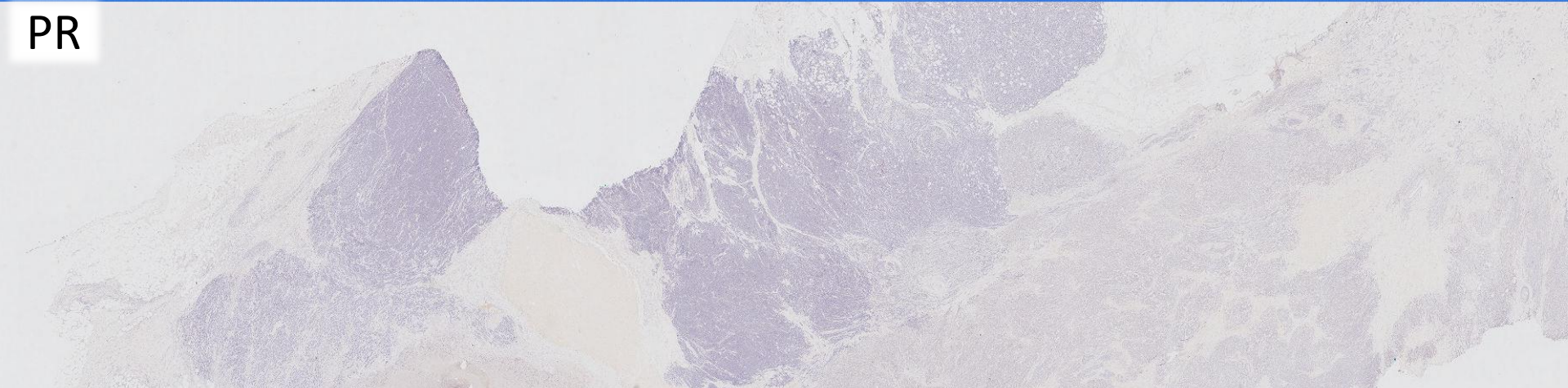
5mm 128.1 x01 moos



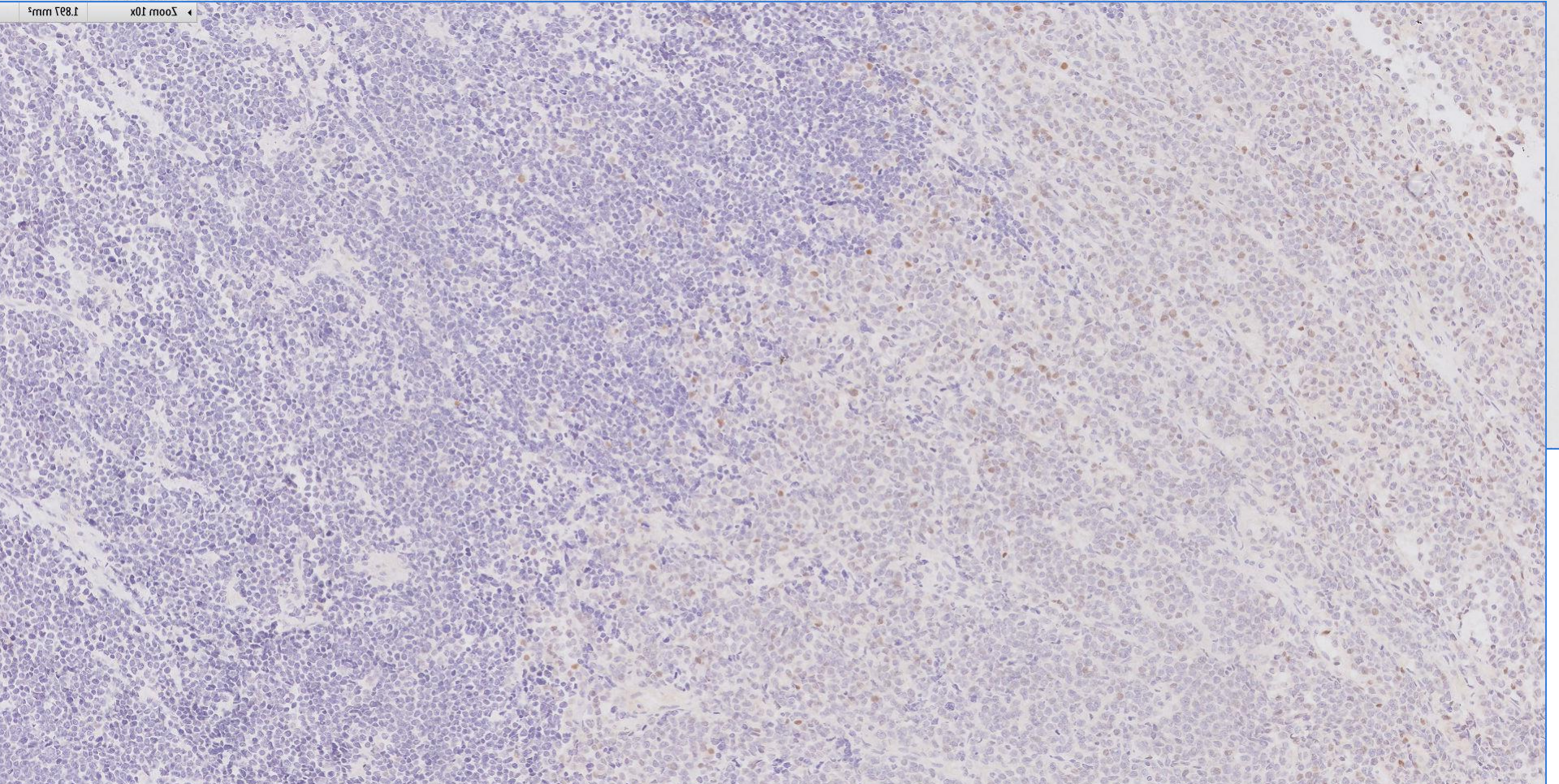
ER



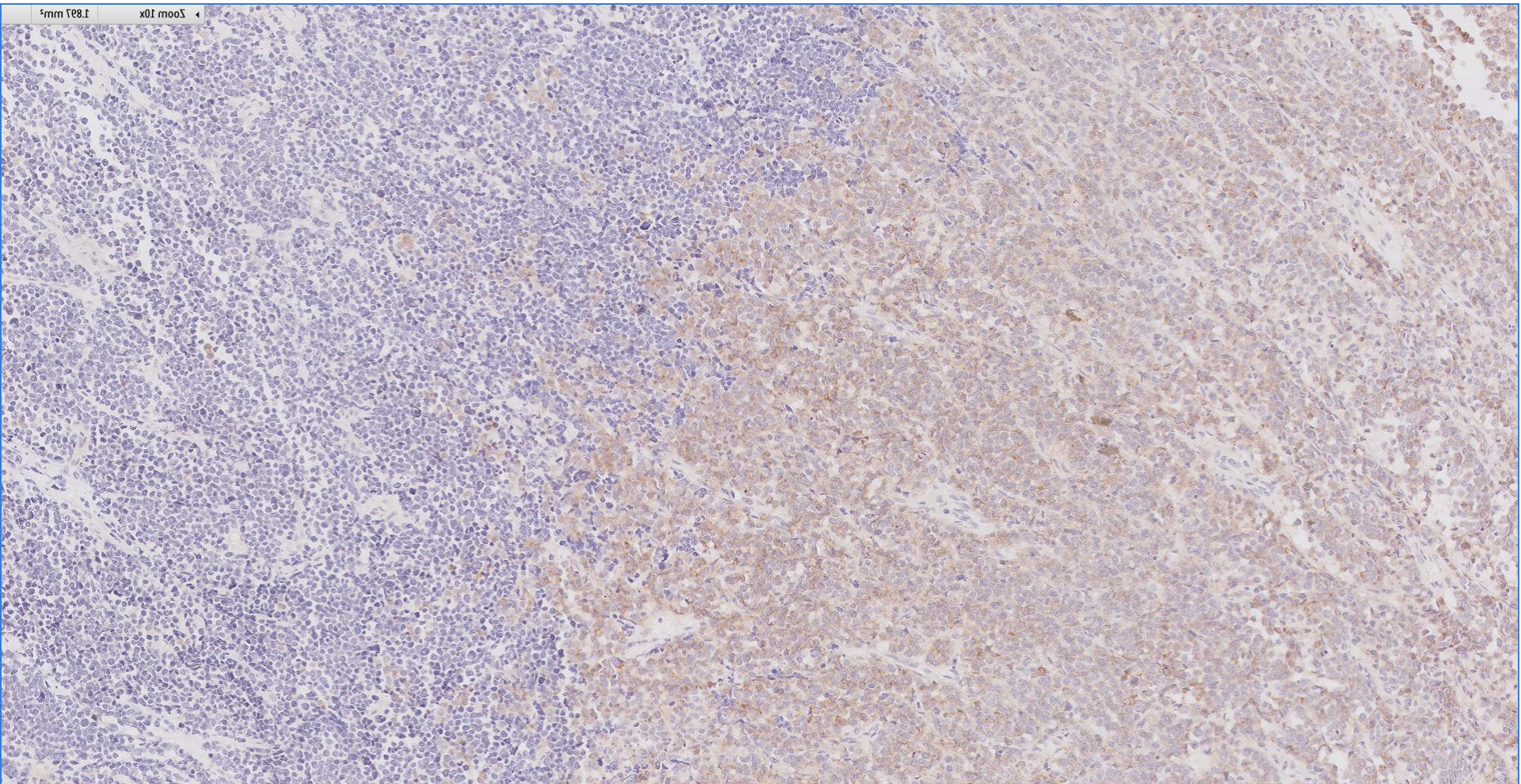
PR



Zoom 10x 1.881 mm

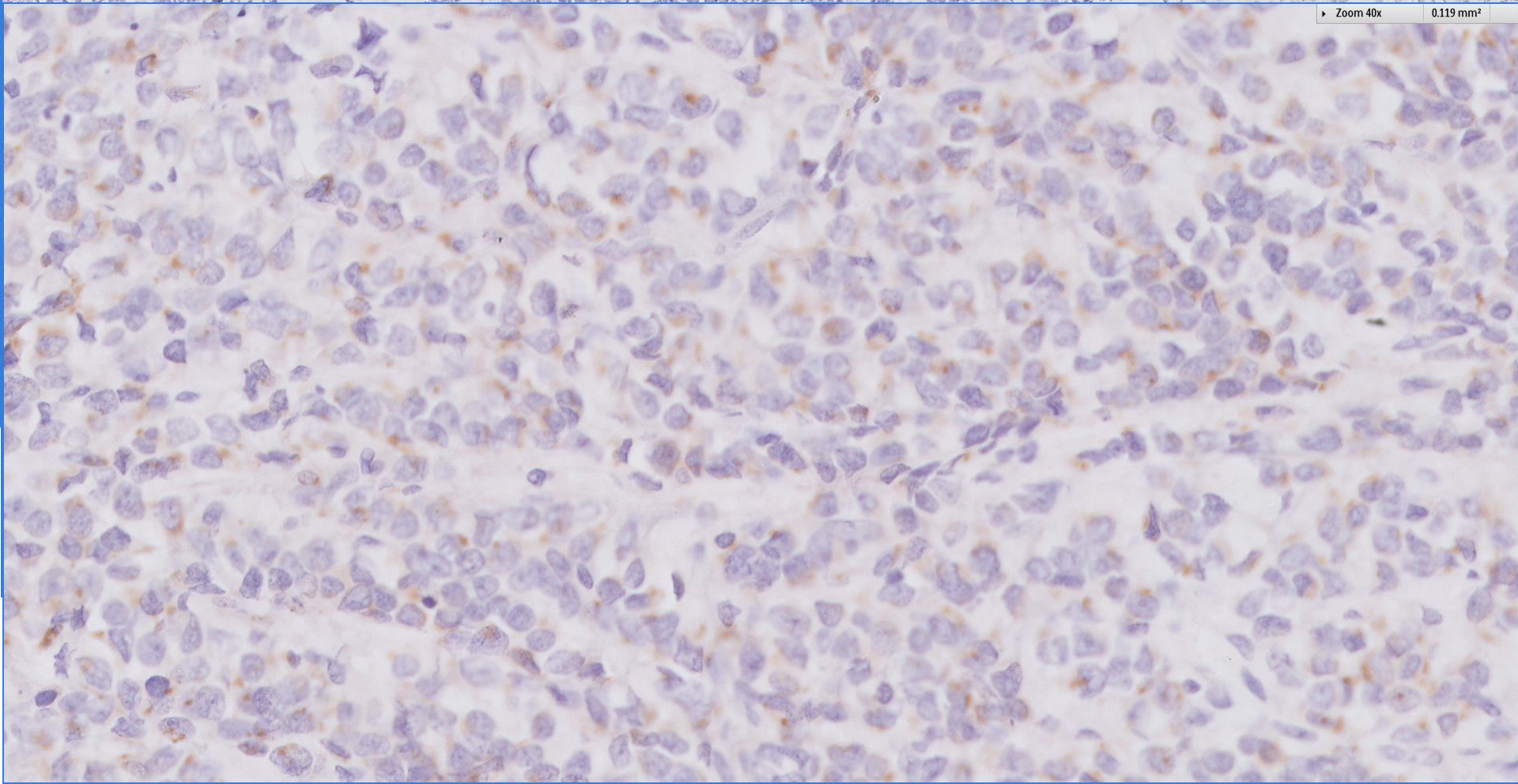
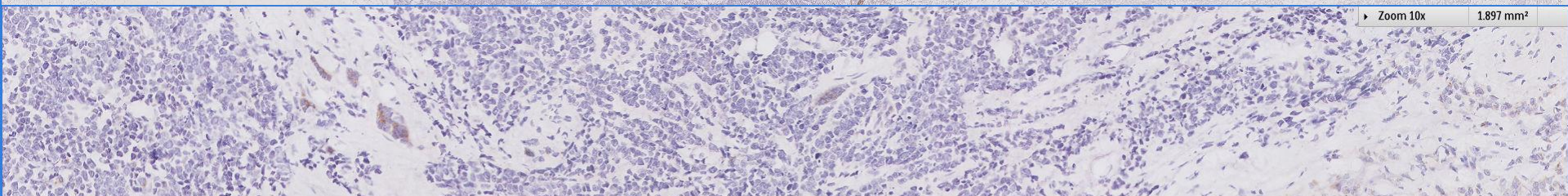


cerbB2

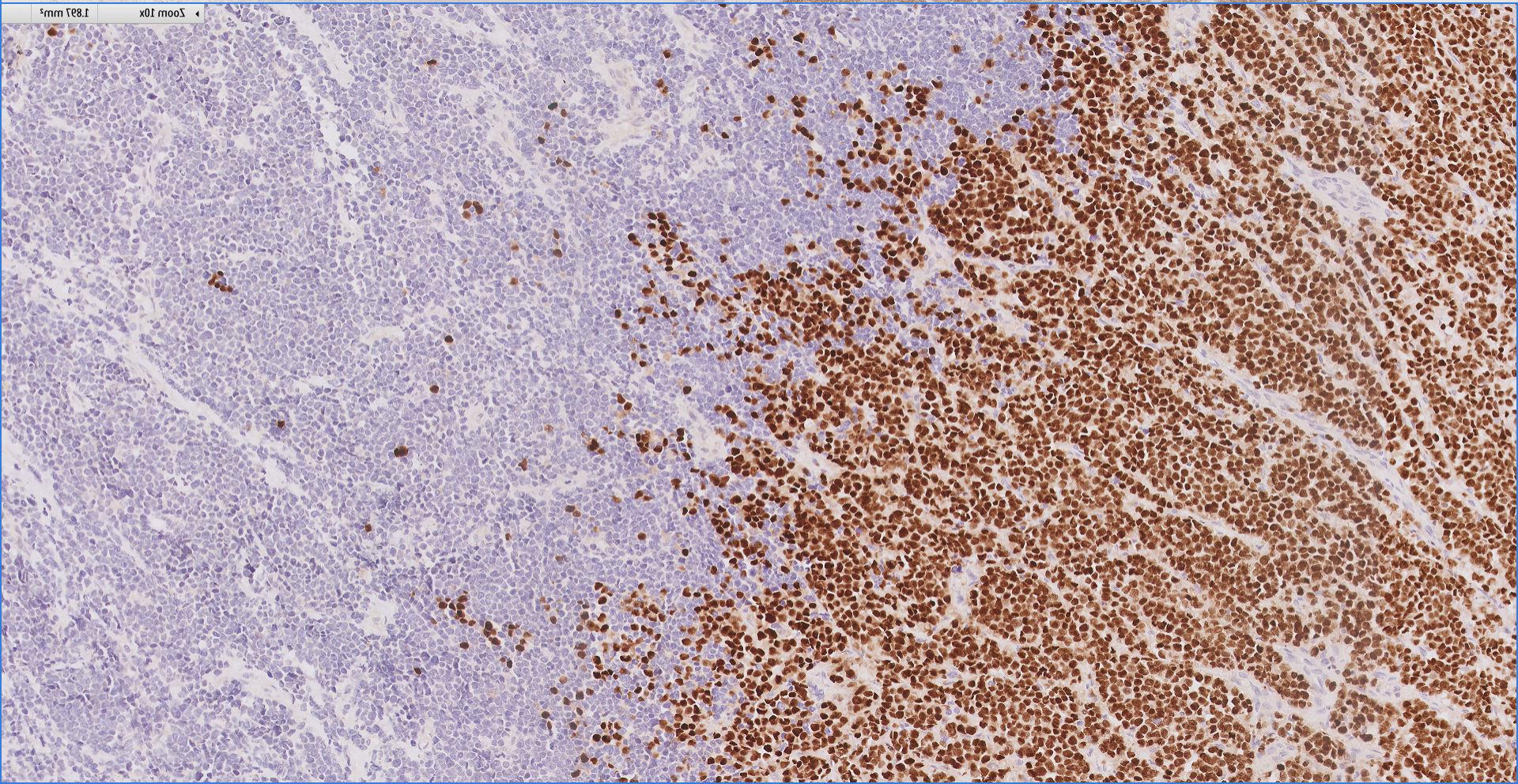


E-cadherin

Zoom 1x 121.405 mm²

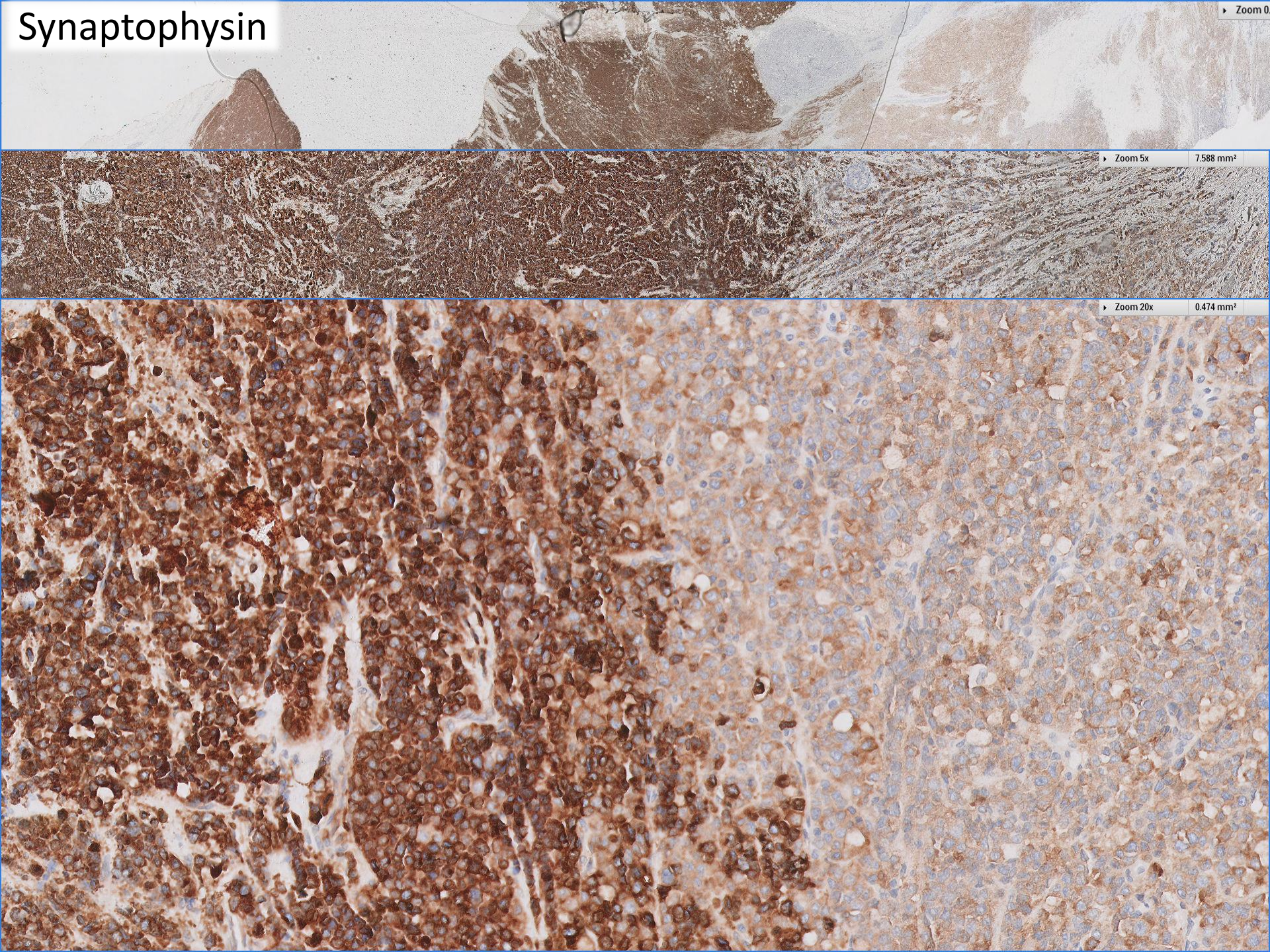


GATA3



1.897 mm
Zoom 10x

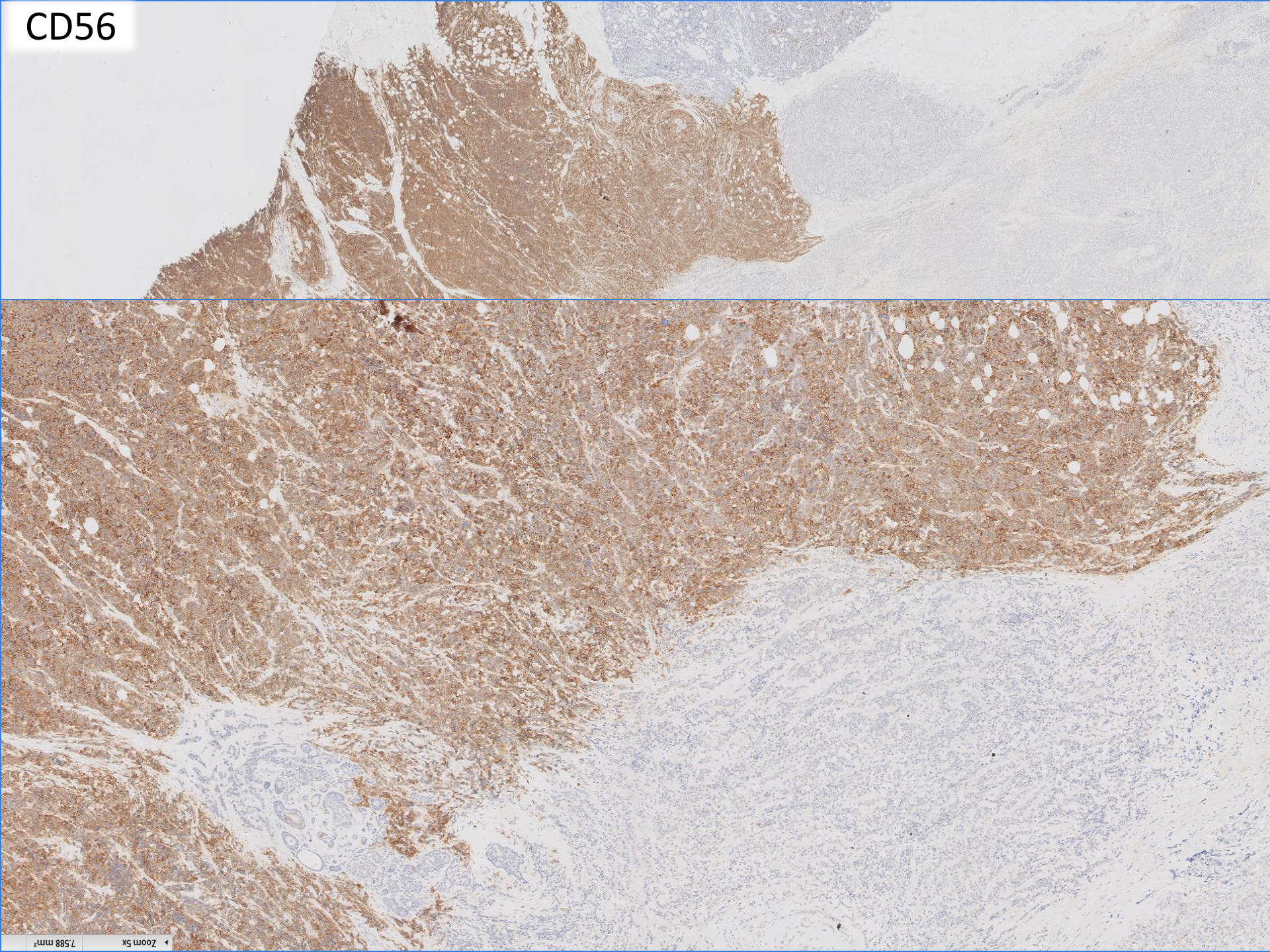
Synaptophysin



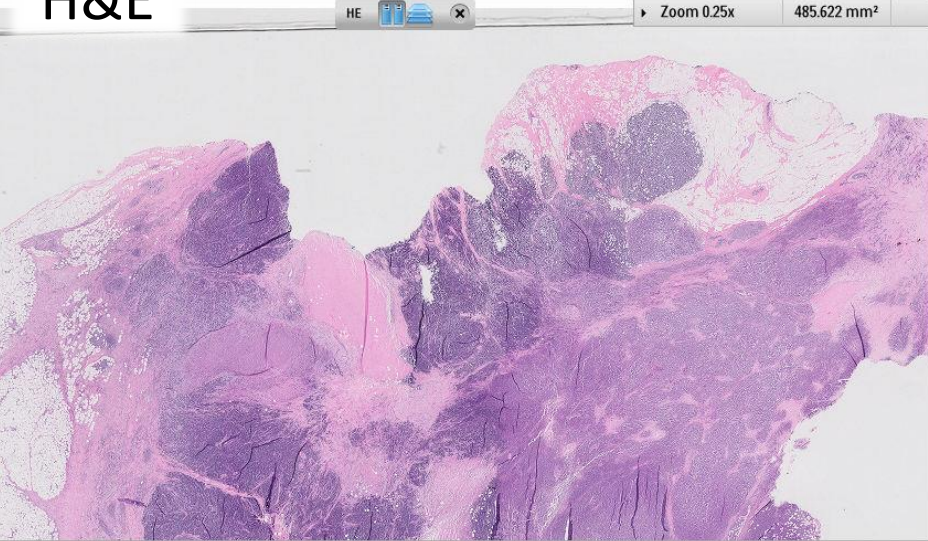
Zoom 5x 7.588 mm²

Zoom 20x 0.474 mm²

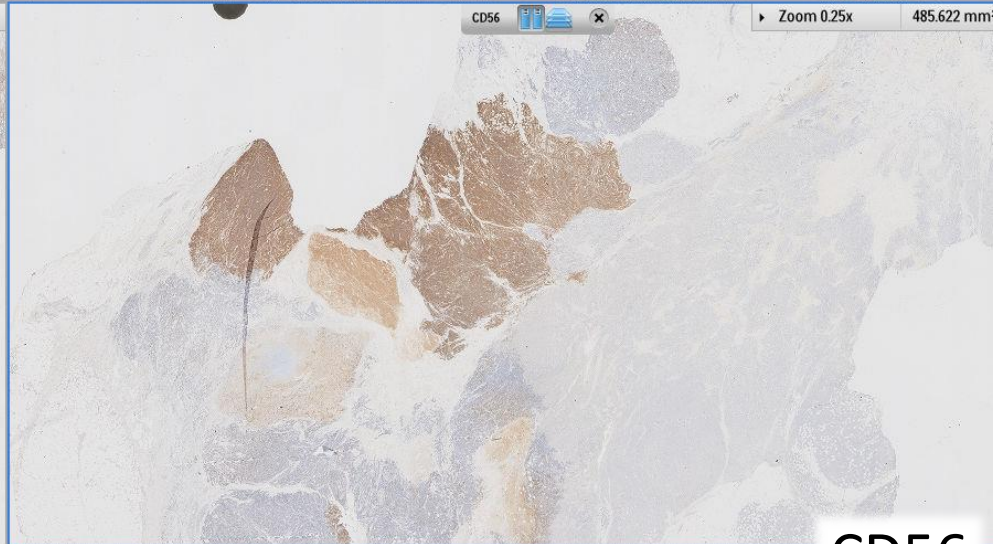
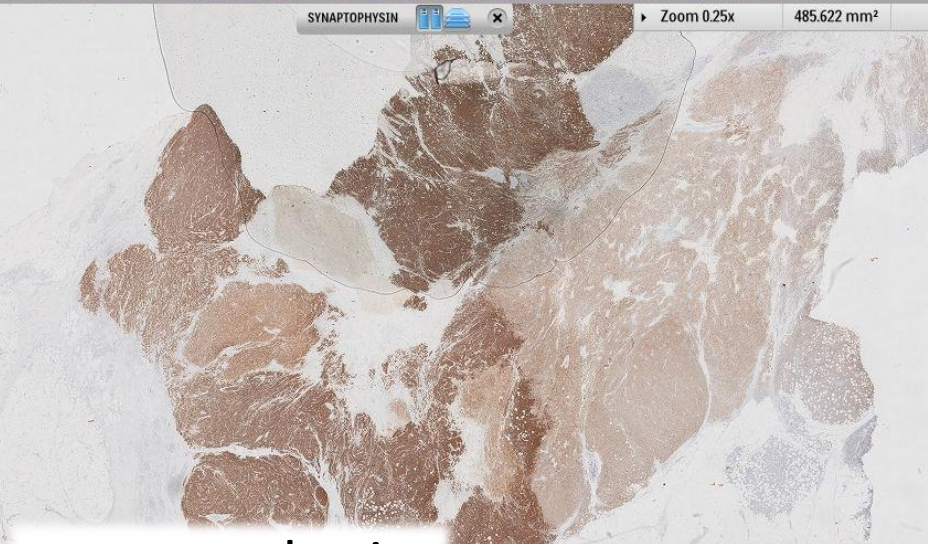
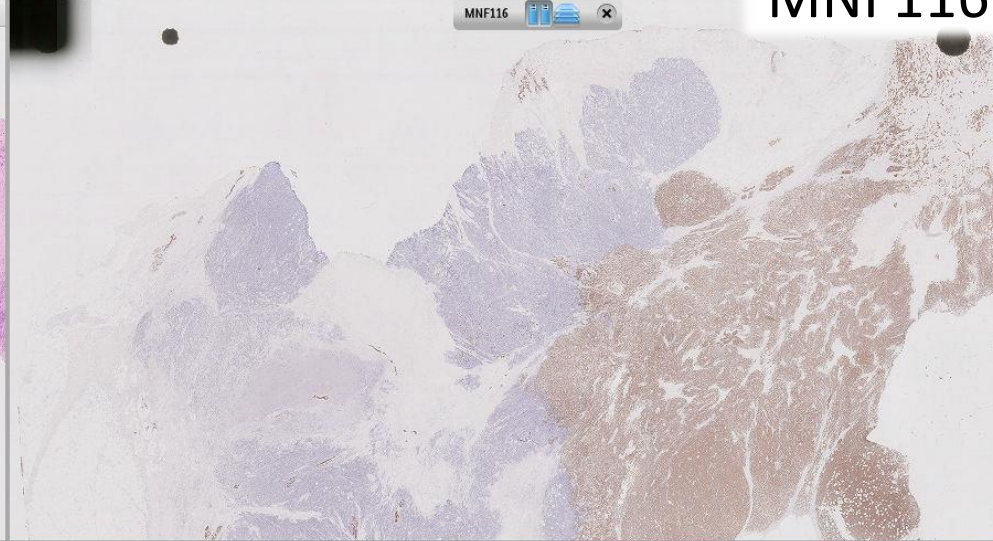
CD56



H&E



MNF116



synaptophysin

CD56

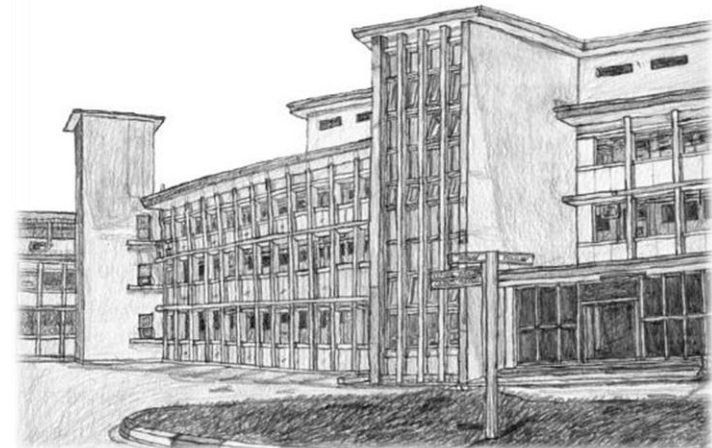
Negative immunostains

- Chromogranin
- Mammaglobin
- TTF1

Diagnosis

Left mastectomy, post-neoadjuvant
chemotherapy ~

**Mixed invasive lobular carcinoma and
small cell carcinoma, 95mm.**



Small cell carcinoma of the breast

- Poorly differentiated neuroendocrine carcinoma.
- Morphologically indistinguishable from its counterpart in the lung on the basis of histological and immunohistochemical features.
- Composed of densely packed hyperchromatic cells with scant cytoplasm and nuclear moulding.
- Infiltrative growth pattern.
- Brisk mitotic activity with karyorrhexis and areas of necrosis.
- An in situ component with the same cytological features may be detected.
- Lymphatic tumour emboli are frequently present.

Invasive breast carcinoma with neuroendocrine differentiation

- Neuroendocrine differentiation occurs (up to 30%) in invasive carcinoma NST and other special types, particularly mucinous carcinomas.
- Mucinous carcinomas, hypercellular variant, represent approximately one quarter of mammary carcinomas with neuroendocrine differentiation.
- Solid papillary carcinoma can show neuroendocrine differentiation in both the in situ and invasive components.



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Small cell carcinoma of the breast

- Metastases should be excluded before making a definite diagnosis.
- Presence of concurrent conventional invasive carcinoma and/or ductal carcinoma in situ (DCIS) with similar cytological features is supportive of origin in the breast.
- TTF1 positivity cannot be used to verify a lung origin because this marker is also expressed by many extrapulmonary small cell carcinomas.
- Positive immunohistochemical reactivity for hormone receptors, CK7, GATA3, gross cystic disease fluid protein 15 (GCDNF15), and mammaglobin support a primary breast origin.

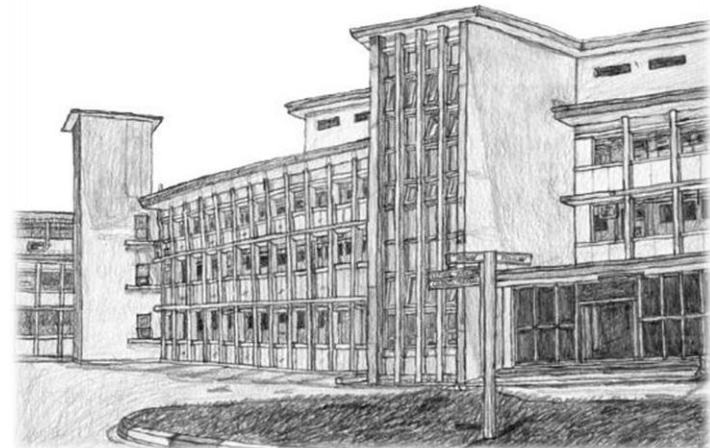
Neuroendocrine carcinoma of the breast

- Large cell neuroendocrine carcinoma, poorly differentiated, can also be encountered in the breast, usually classified as poorly differentiated invasive breast carcinoma with neuroendocrine differentiation.

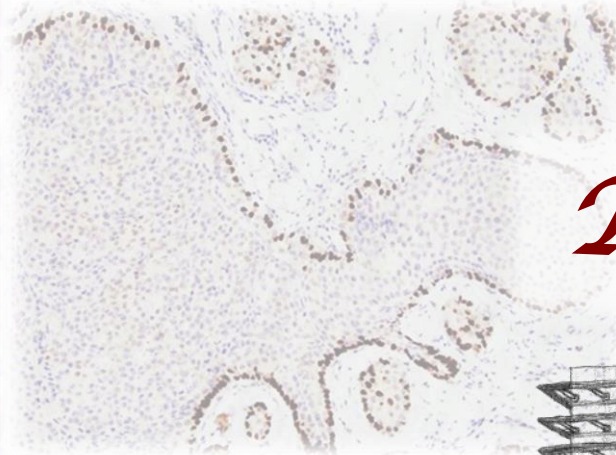
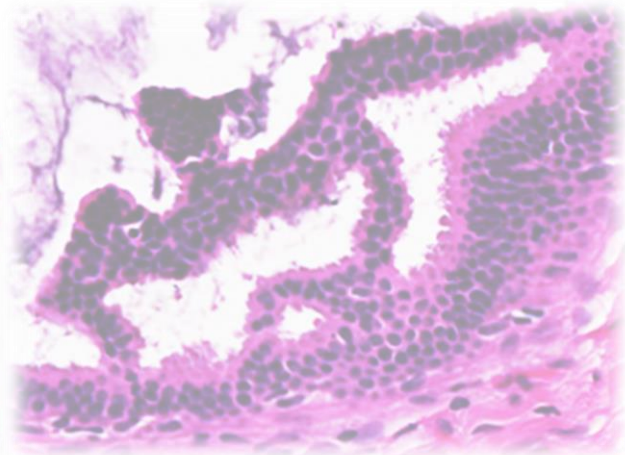
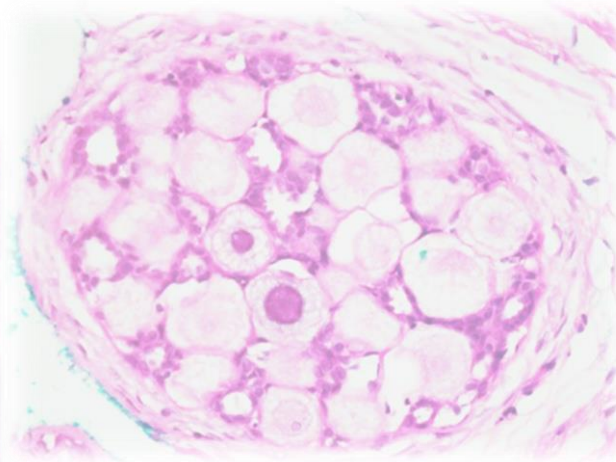
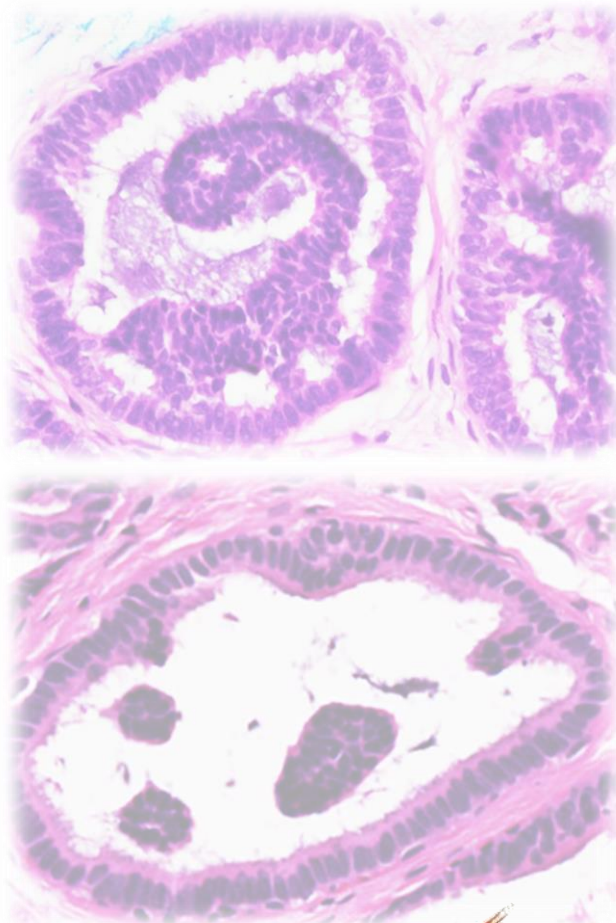


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Thank you!

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09.05.2014

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