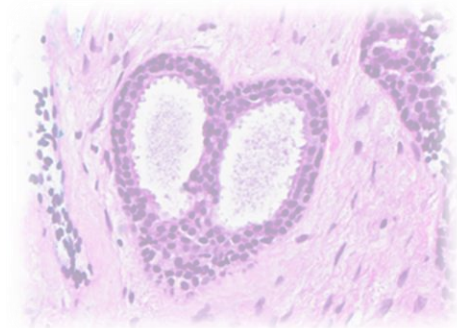
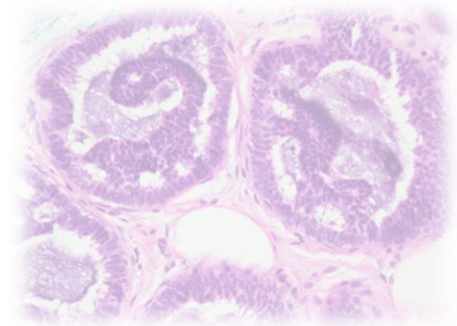
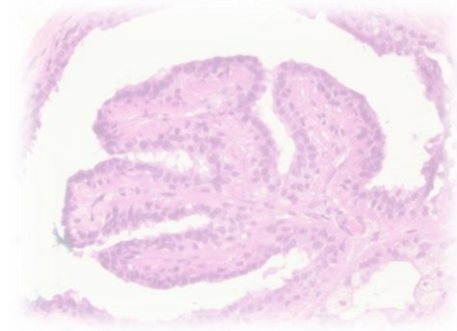
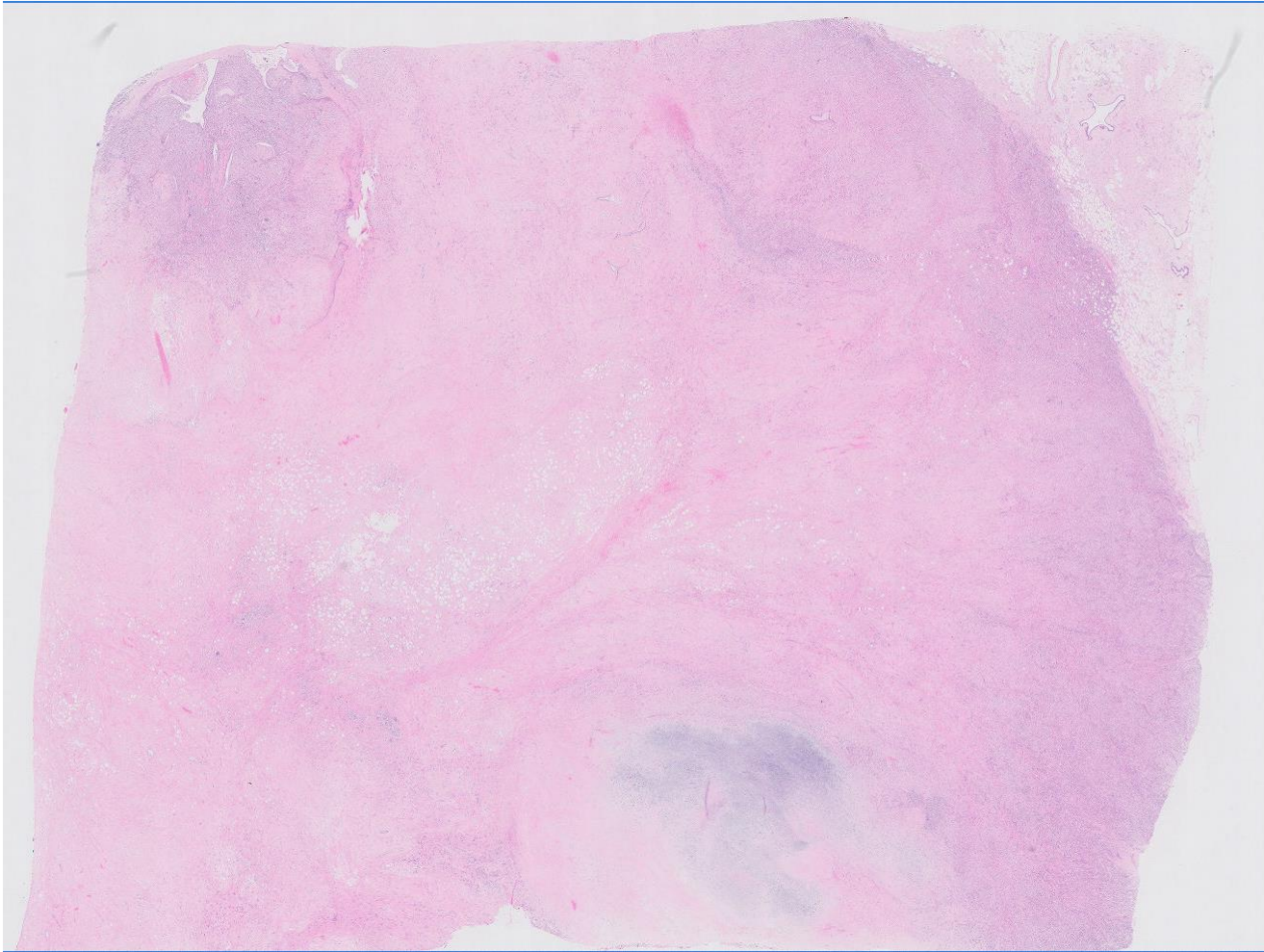


## Case 13

50 year old Chinese female.  
Left breast mastectomy for a 20cm  
mass.



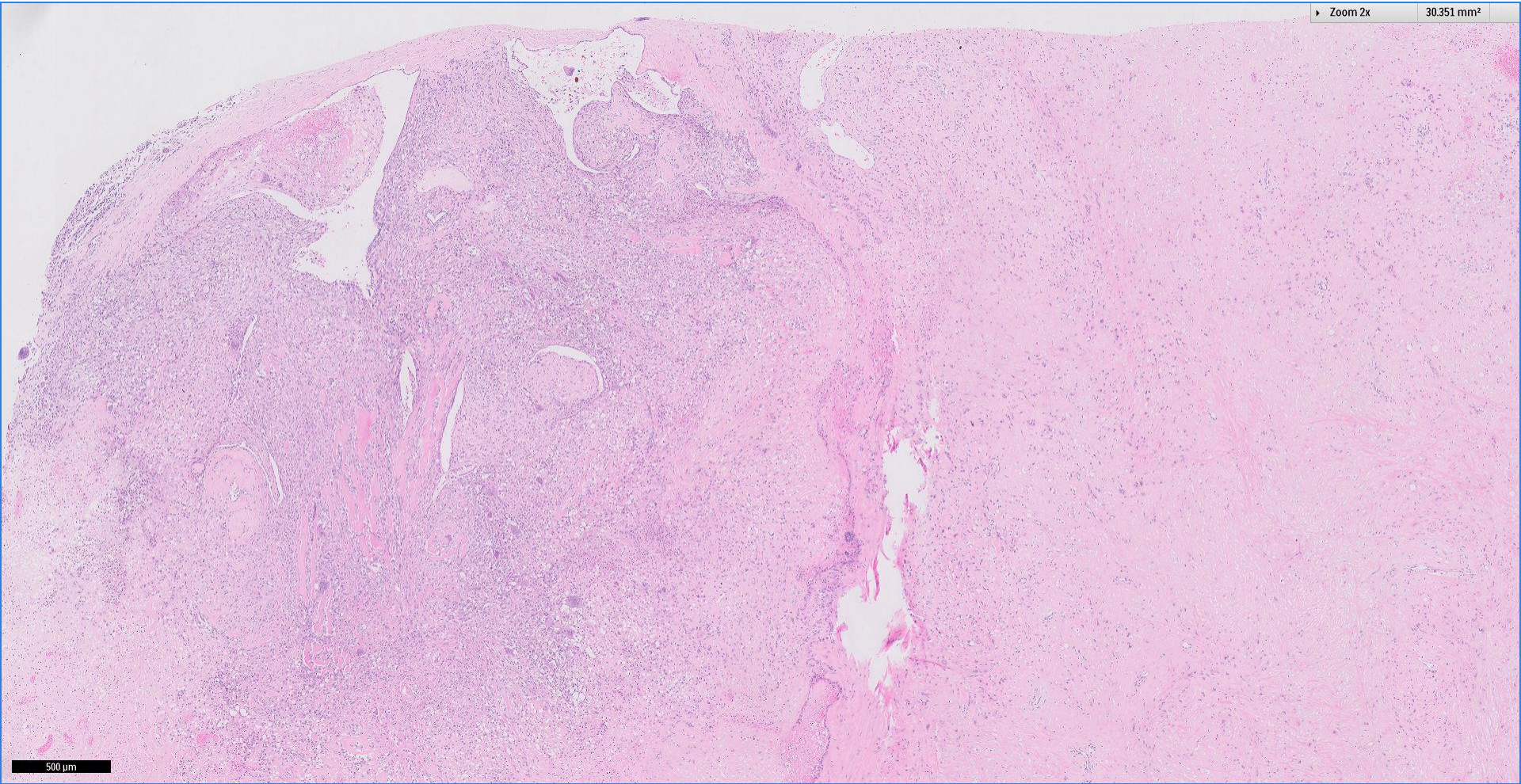


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Zoom 2x

30.351 mm<sup>2</sup>



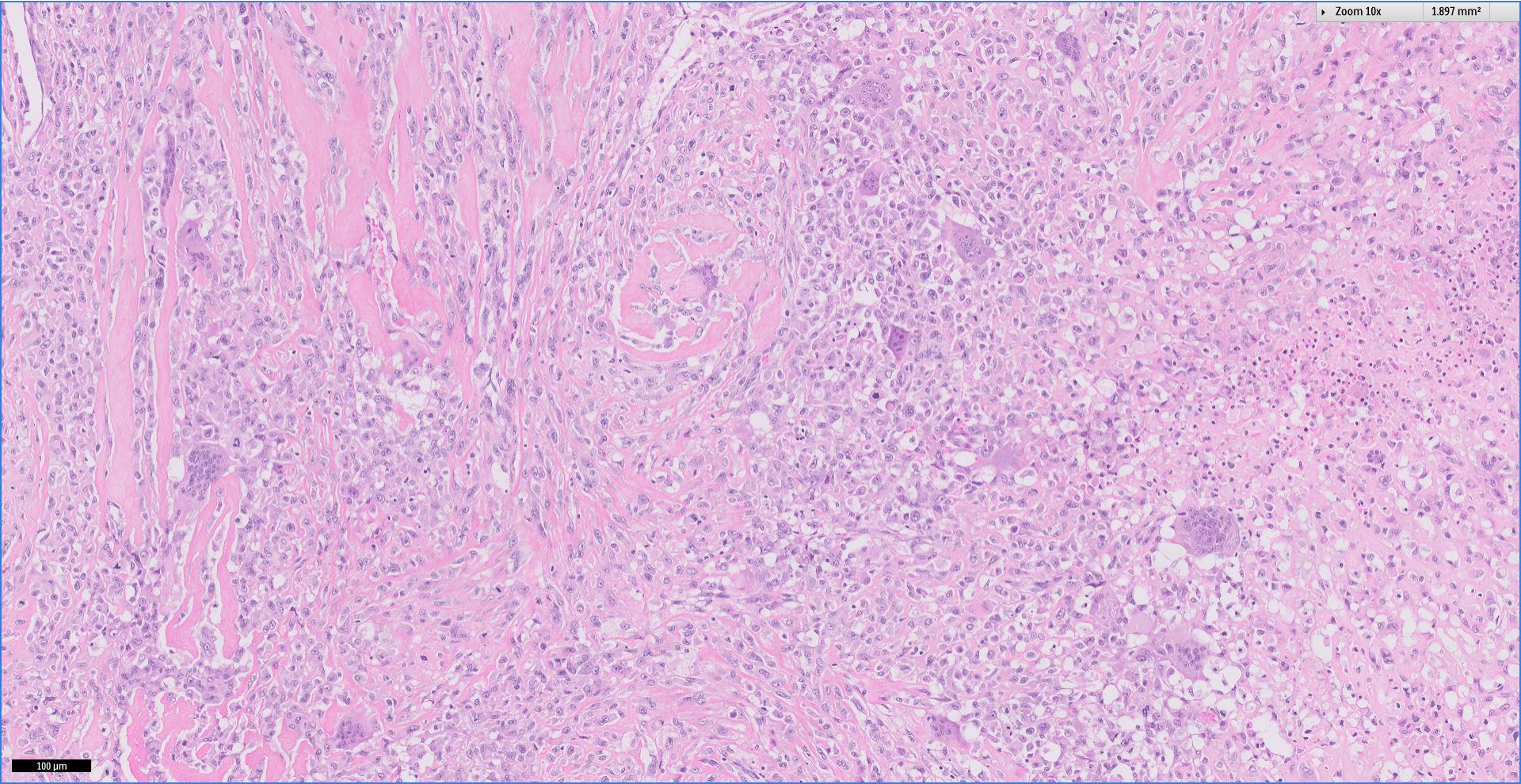
500 µm



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Zoom 10x 1.897 mm<sup>2</sup>

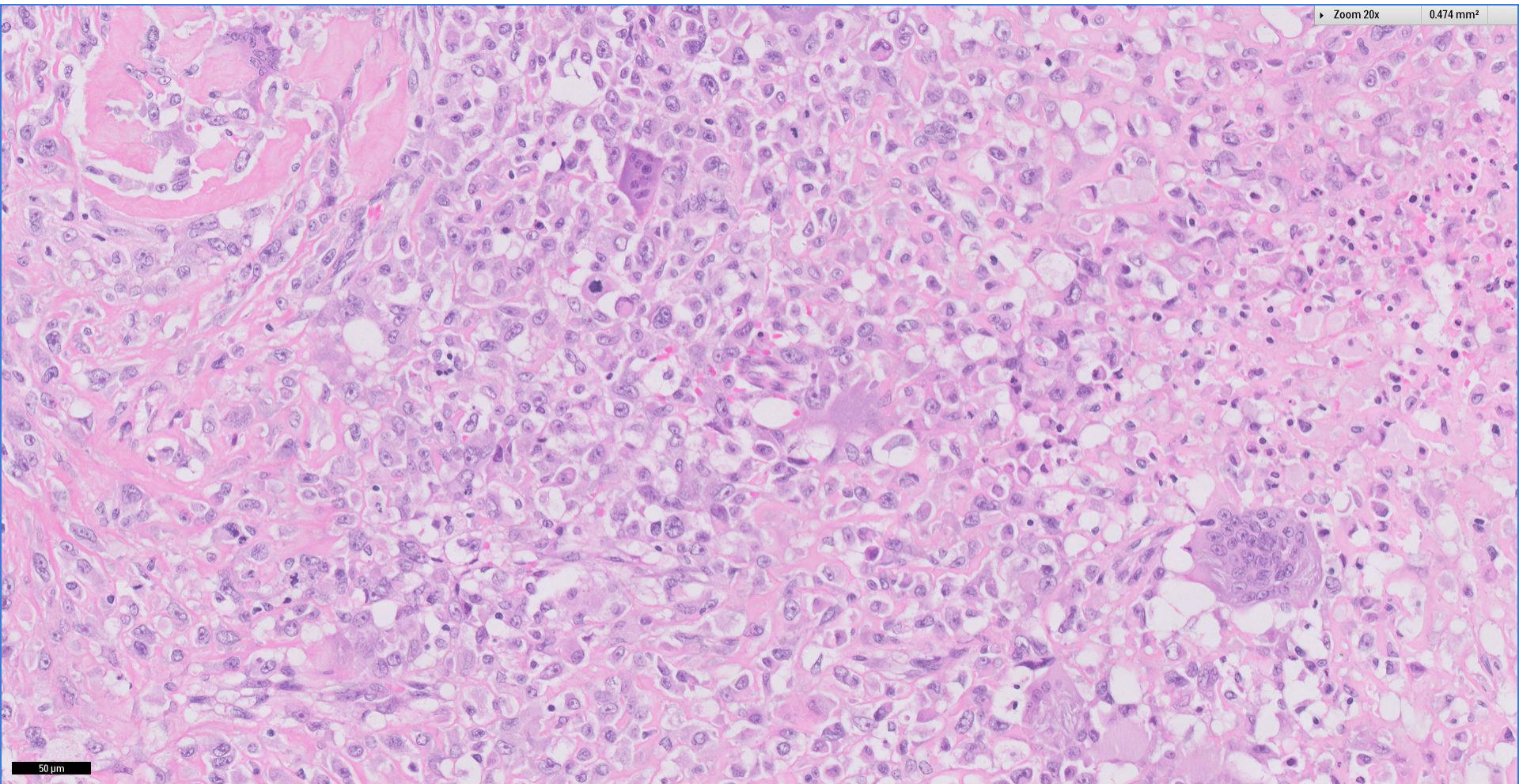


100 µm



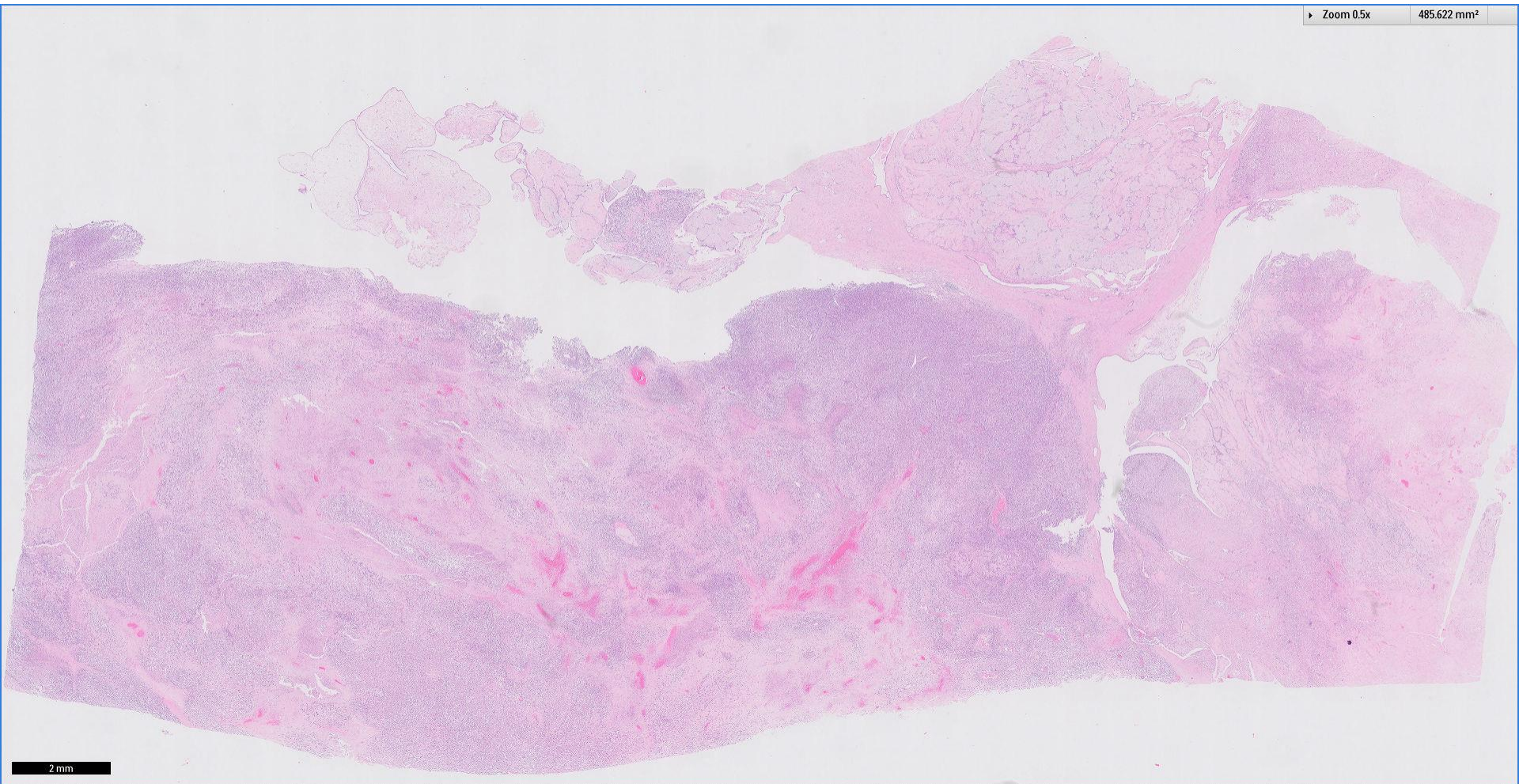
Division of Pathology  
Singapore General Hospital

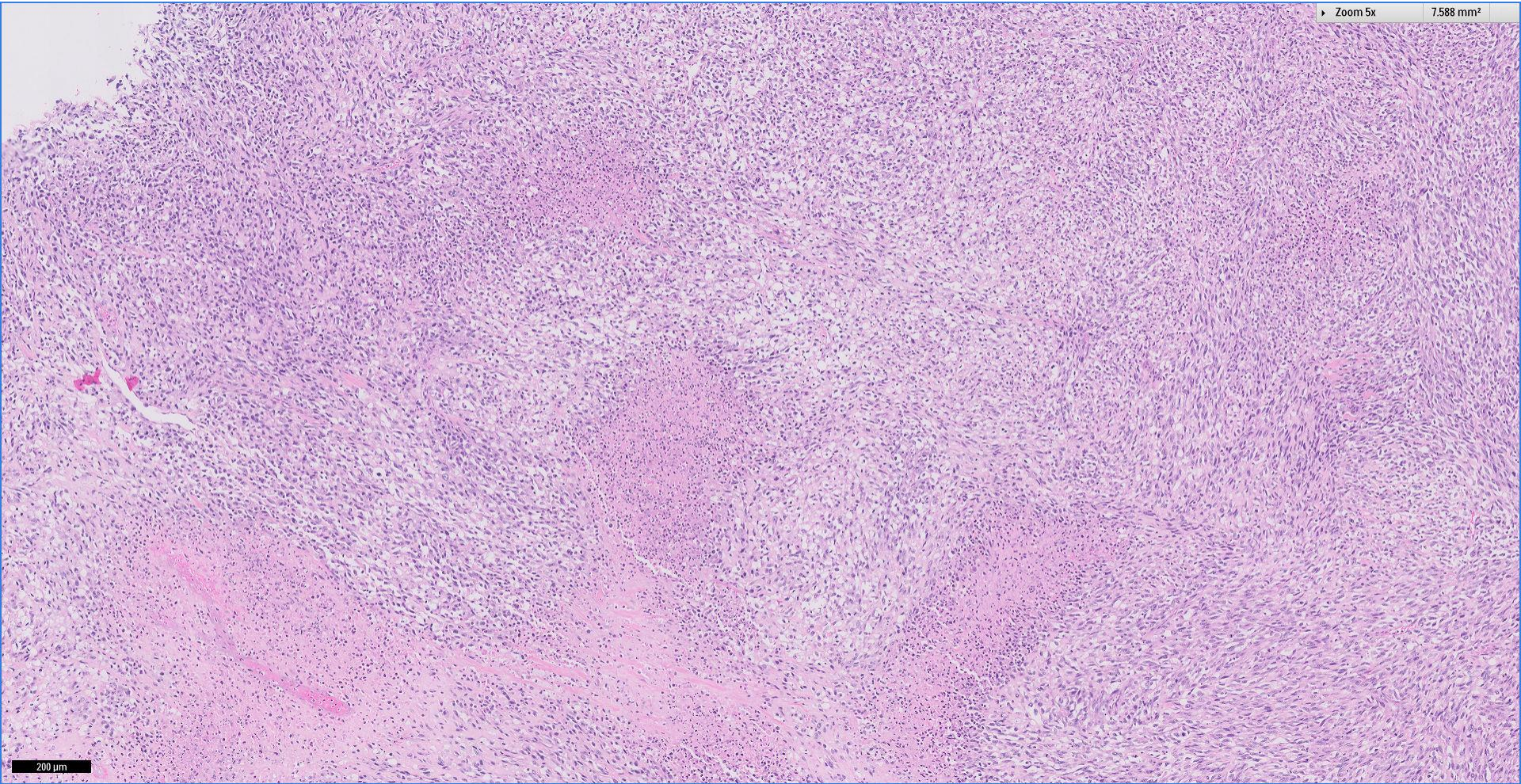




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Singapore General Hospital

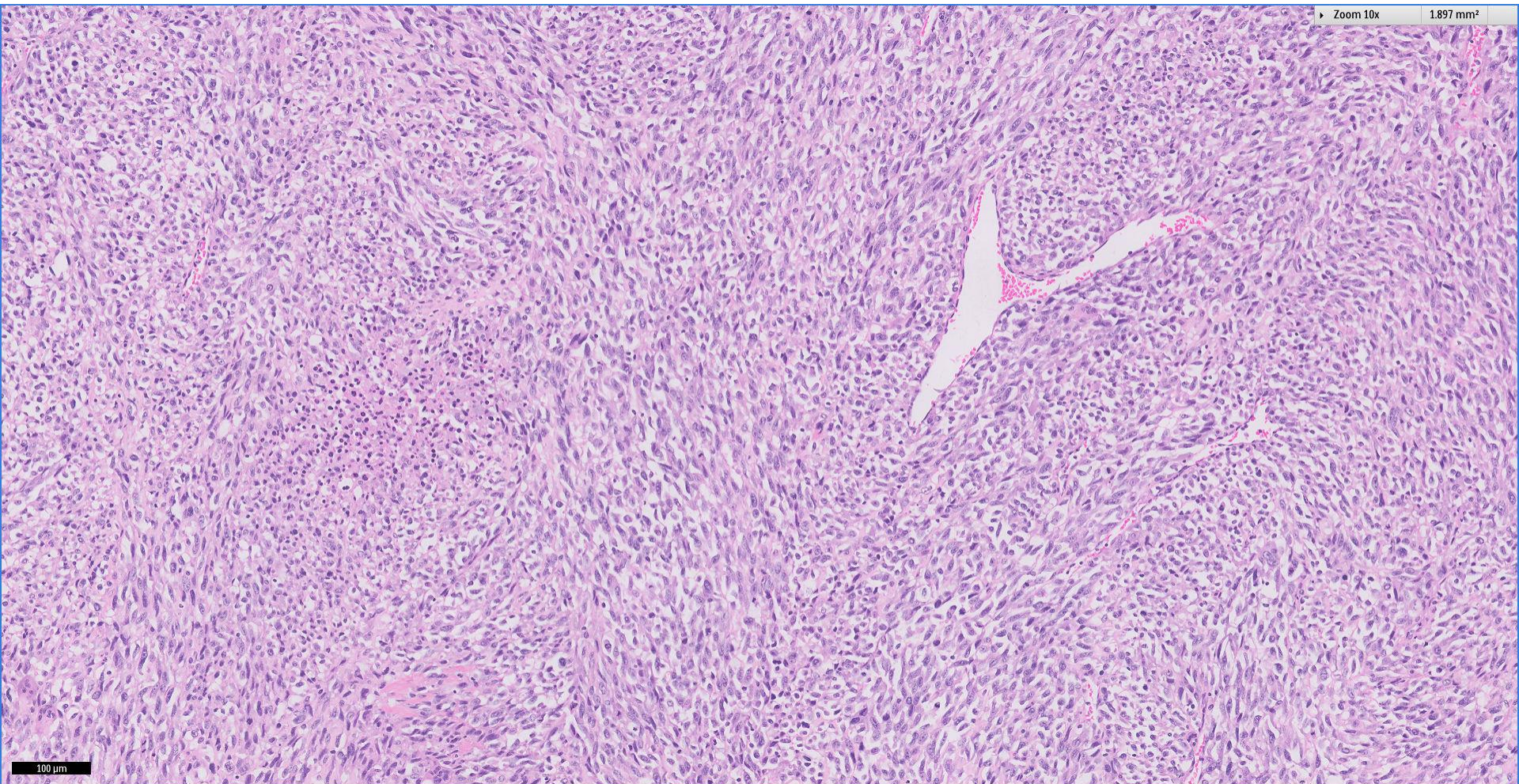






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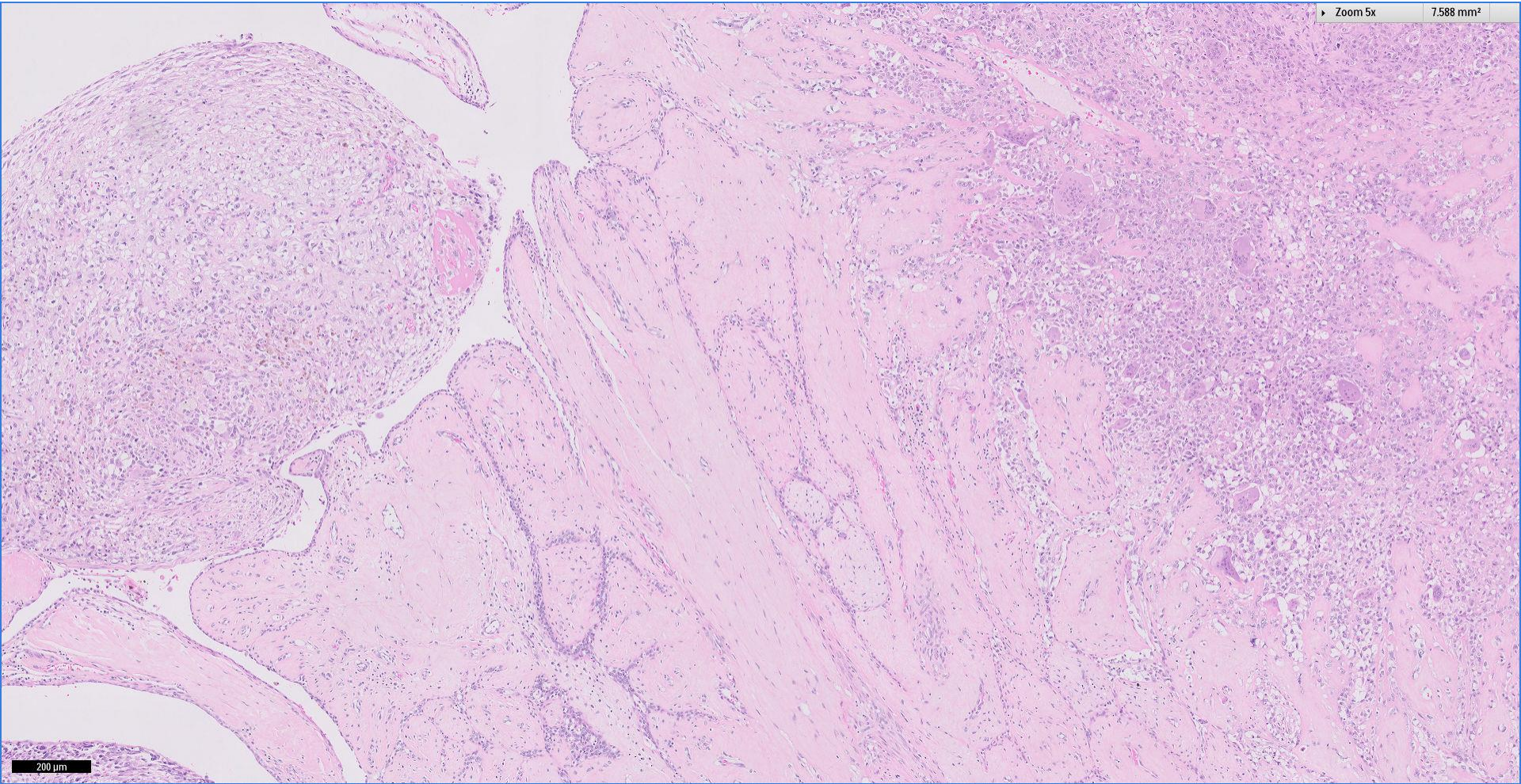




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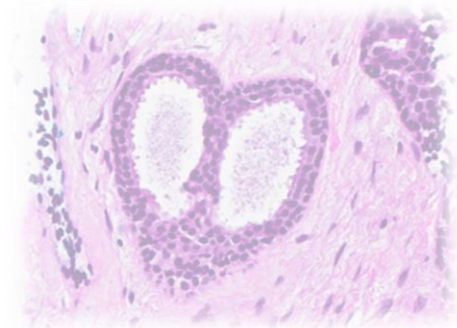
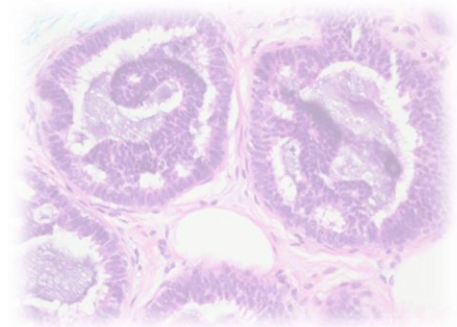
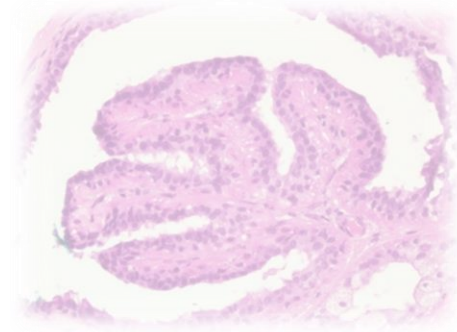






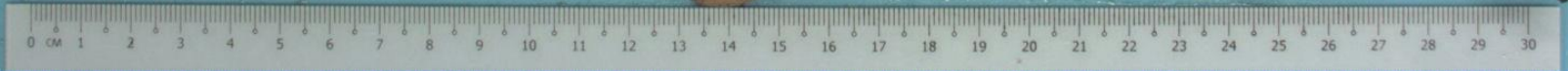
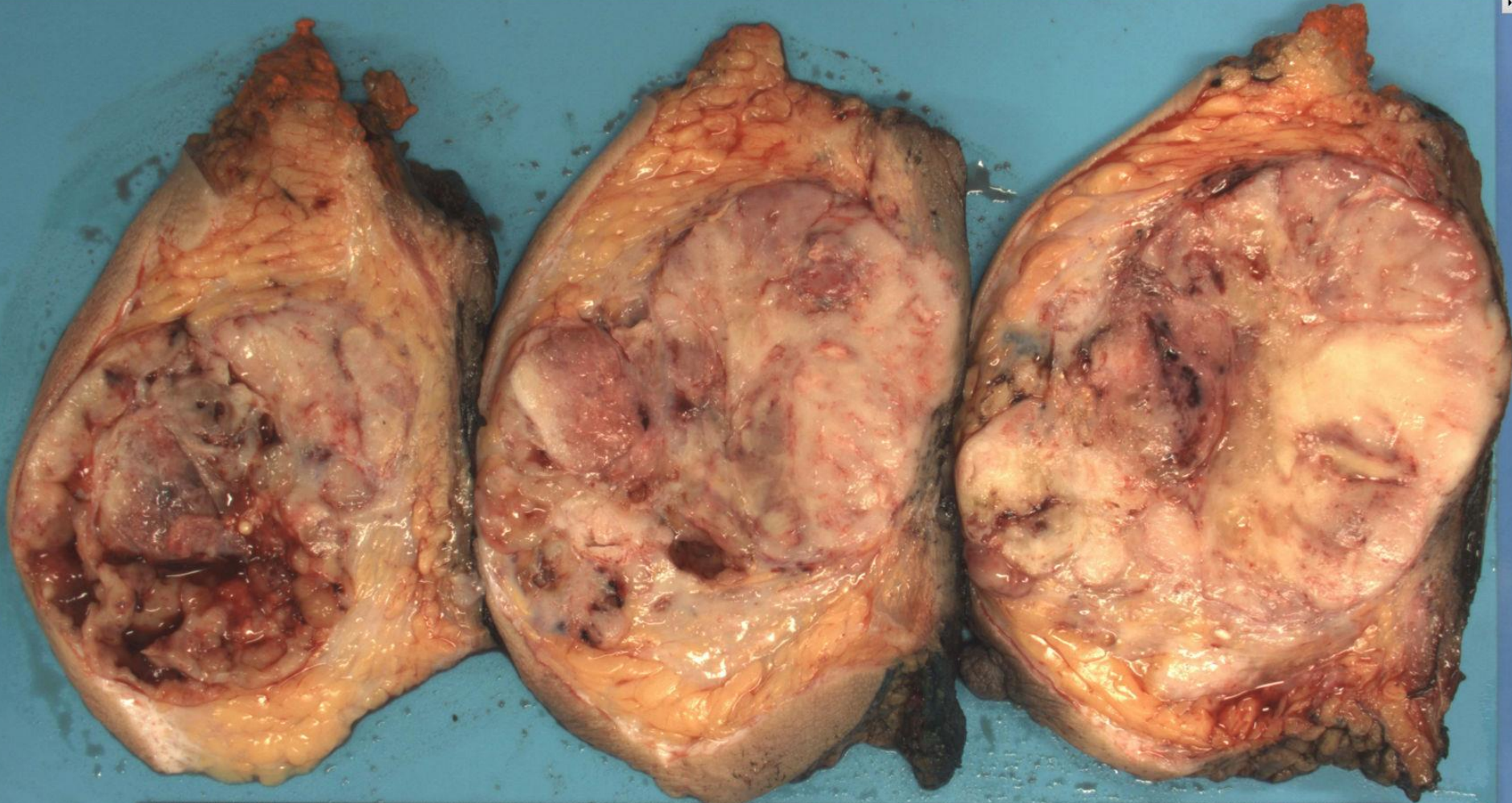
Division of Pathology  
Singapore General Hospital





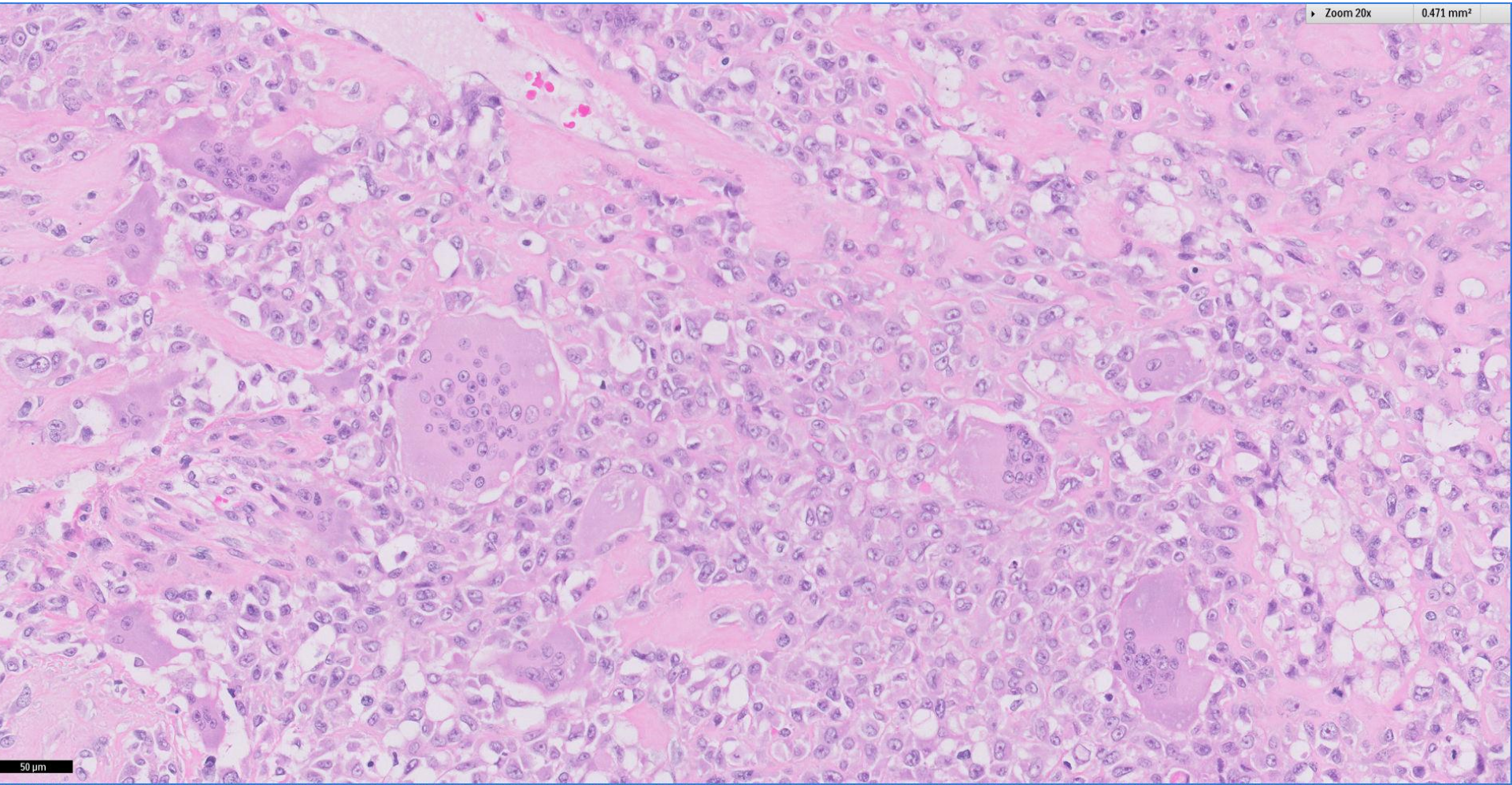
# *Additional pictures*

- Prior core biopsy ~
  - Reported as *‘atypical spindle cell lesion associated with mesenchymal differentiation, arising in association with a recognisable fibroepithelial lesional component’*.
- Immunohistochemistry ~
  - Focal positivity for MNF116, Cam5.2, p63.



Zoom 20x

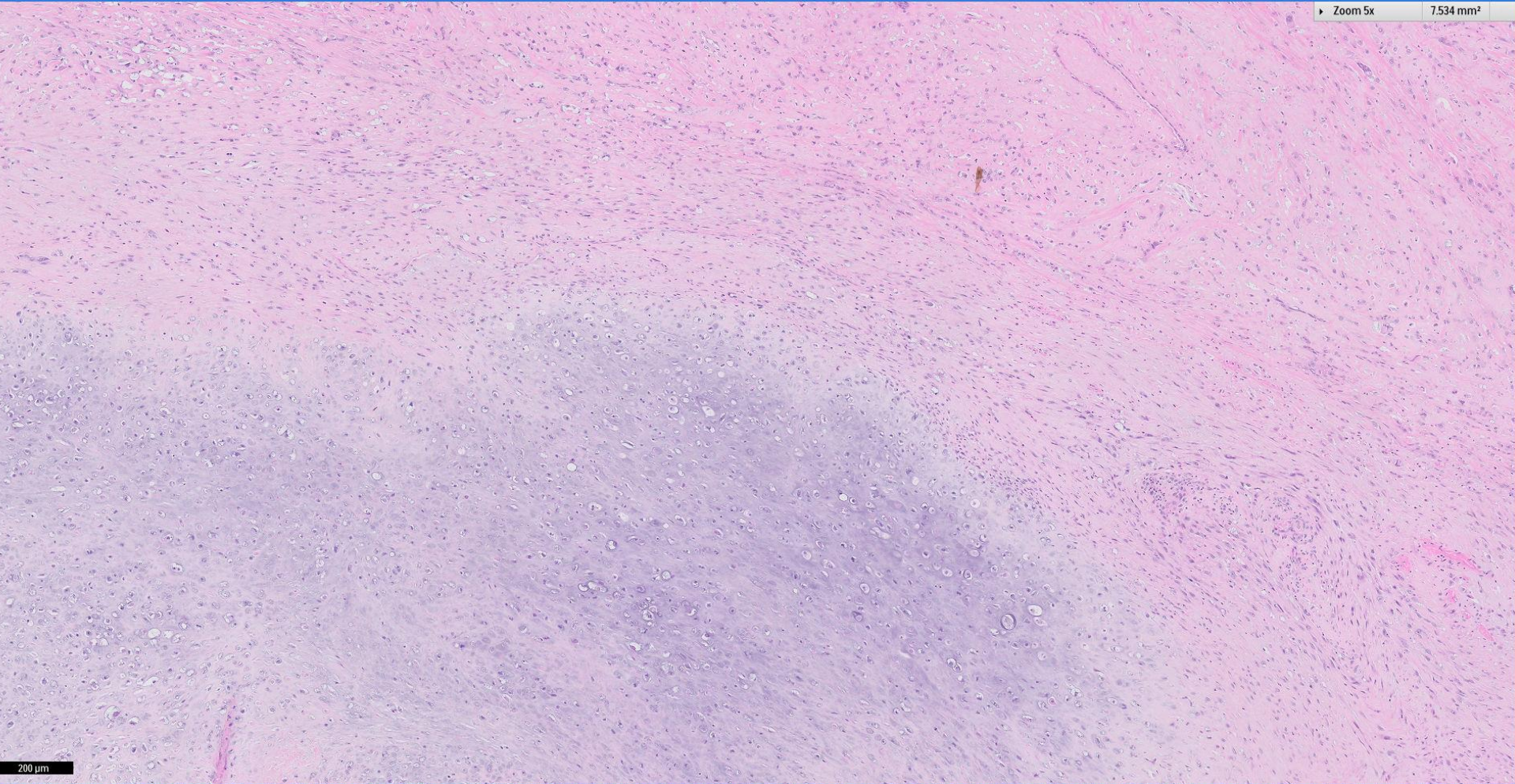
0.471 mm<sup>2</sup>



50 μm

Zoom 5x

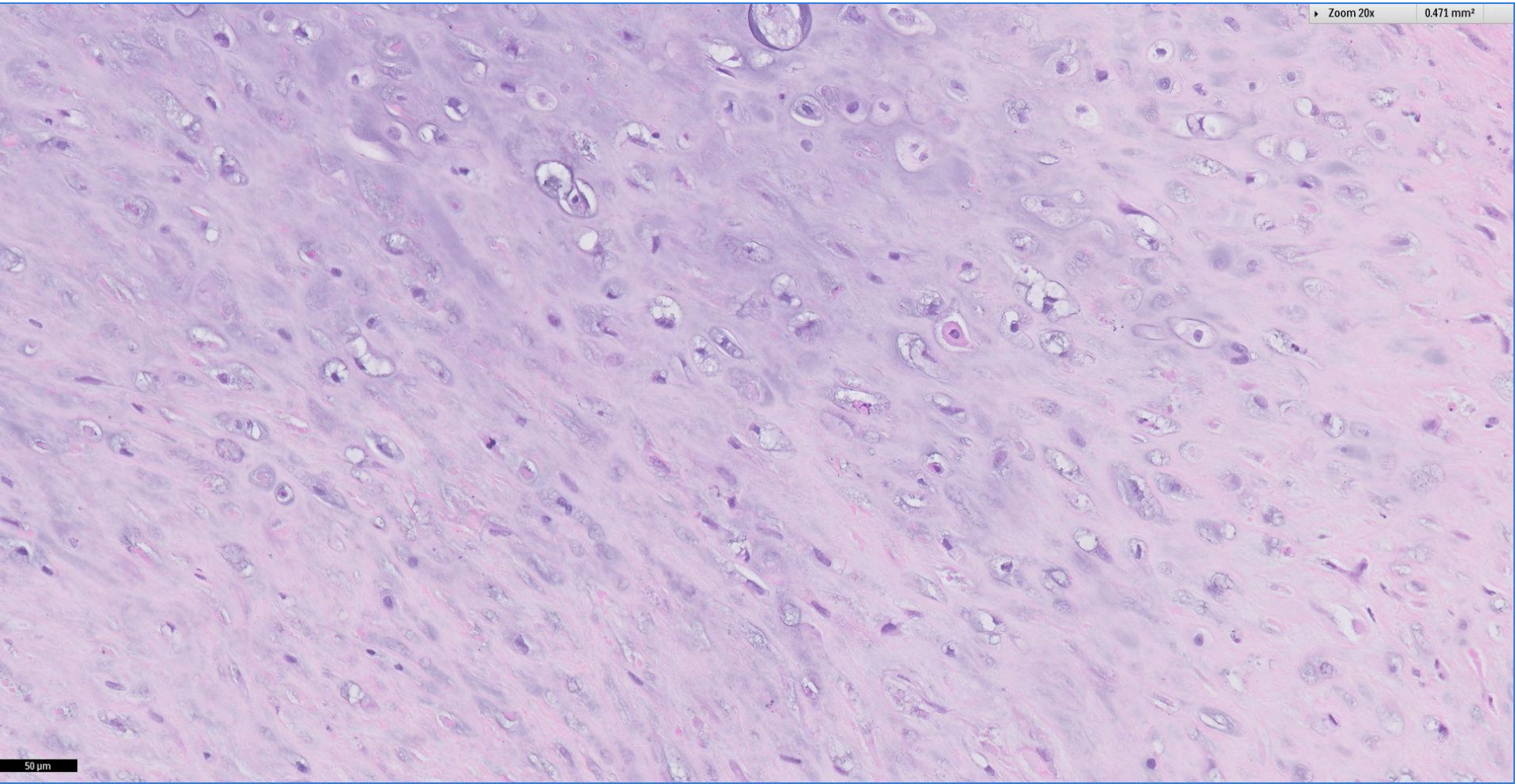
7.534 mm<sup>2</sup>



200 μm

Zoom 20x

0.471 mm<sup>2</sup>



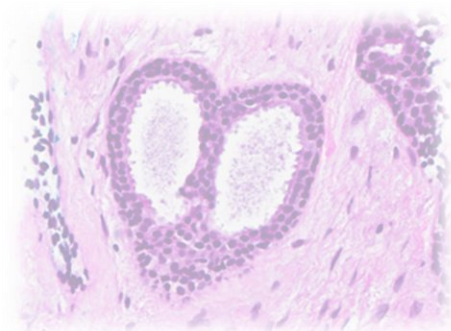
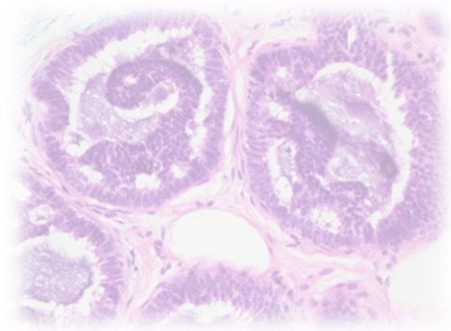
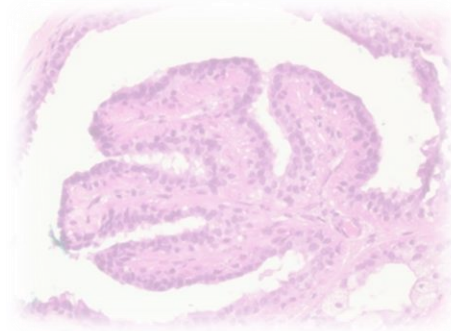
50 μm

# Diagnosis, case 13

- Left breast, mastectomy and axillary clearance:

Malignant phyllodes tumour, 20cm, with heterologous osteochondrosarcomatous differentiation.

15 benign lymph nodes.





# *Malignant phyllodes tumour*

- Diagnosed when all of the following features are present:
  - marked stromal nuclear pleomorphism;
  - stromal overgrowth, defined by the absence of epithelial elements in one low-power microscopic field (40× magnification: 4× objective and 10× eyepiece) containing only stroma;
  - increased mitoses ( $\geq 5$  mitoses/mm<sup>2</sup>;  $\geq 10$  mitoses per 10 high-power fields of 0.5 mm<sup>2</sup>);
  - increased stromal cellularity, which is usually diffuse;
  - infiltrative border.

# *Malignant phyllodes tumour*

- Because of sarcomatous overgrowth, the epithelial component may only be identified after diligent sampling of the tumour.
- Malignant phyllodes tumours are also diagnosed when malignant heterologous elements are present even in the absence of other features.
- Although liposarcoma was traditionally regarded as a malignant heterologous component, there is evidence to suggest that metastatic risk is low when well-differentiated liposarcoma occurs as the sole heterologous element in a phyllodes tumour.

# Malignant phyllodes tumour

- These abnormal adipocytes within phyllodes tumours lack *MDM2* or *CDK4* amplifications, in contrast to extramammary well-differentiated liposarcoma.
- Therefore, it is recommended that a diagnosis of malignant phyllodes tumour is not made based purely on the finding of well-differentiated liposarcoma, but also on the basis of other stromal features.
- Rare pleomorphic liposarcomas in phyllodes tumours have shown more-adverse outcomes.
- Although myxoid liposarcoma has been described in phyllodes tumours, the lack of associated characteristic molecular aberrations calls into question its true existence within phyllodes tumours.

*Thank You*