

## Case 24

63 year old Chinese woman.

Right breast central wide excision was performed after a core biopsy diagnosed an invasive carcinoma.

Section from the right breast tumour.



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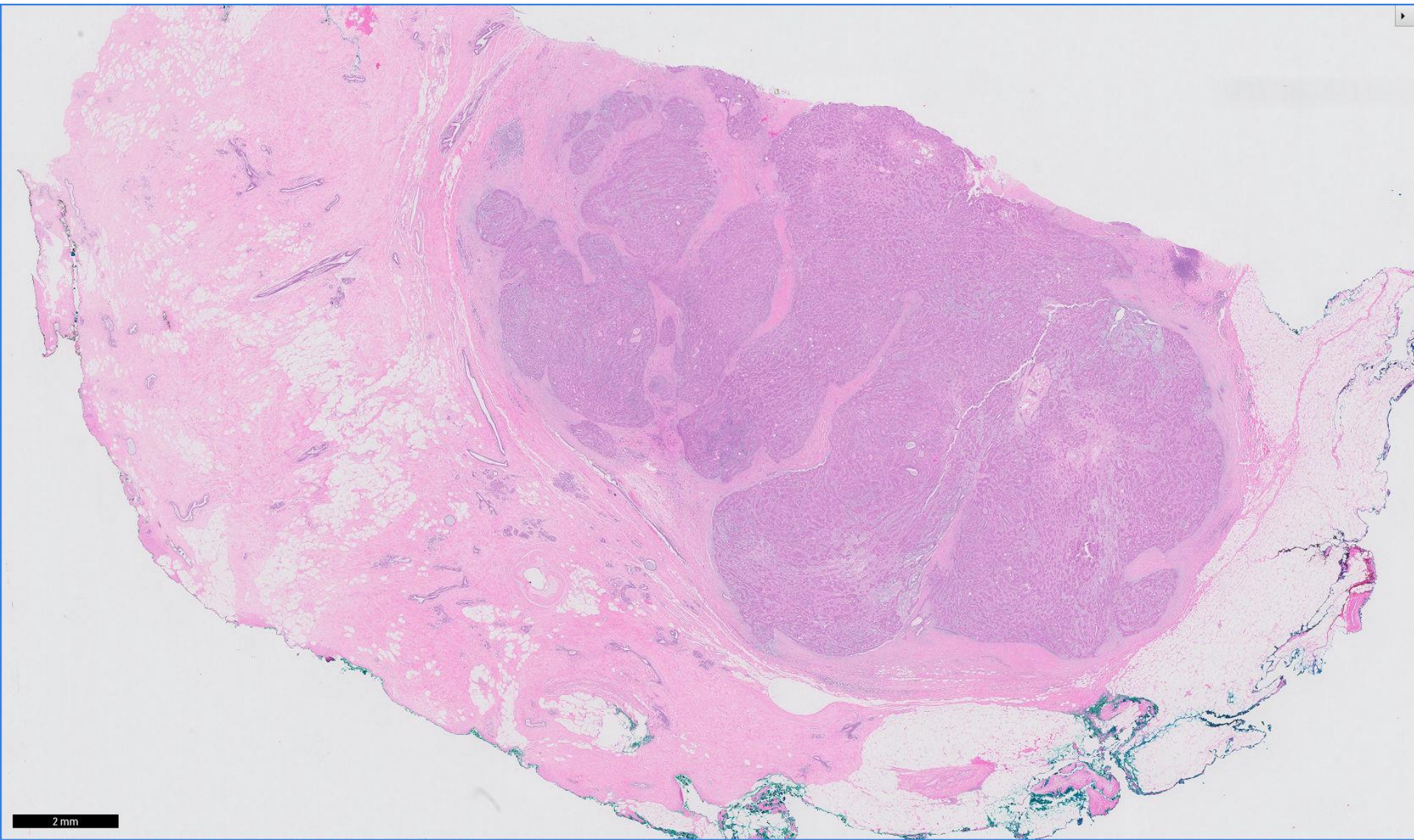
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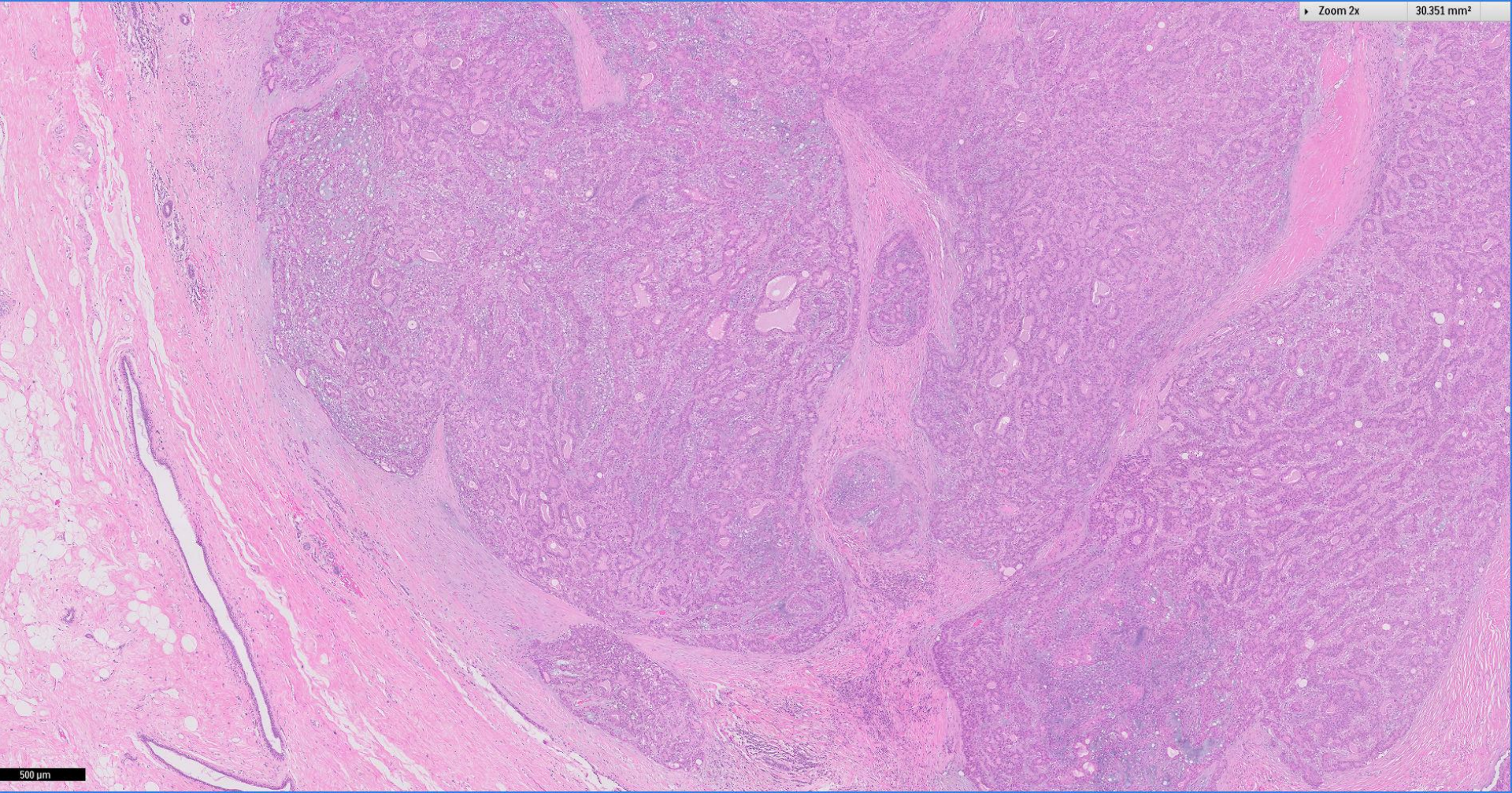


2 mm



Zoom 2x

30.351 mm<sup>2</sup>

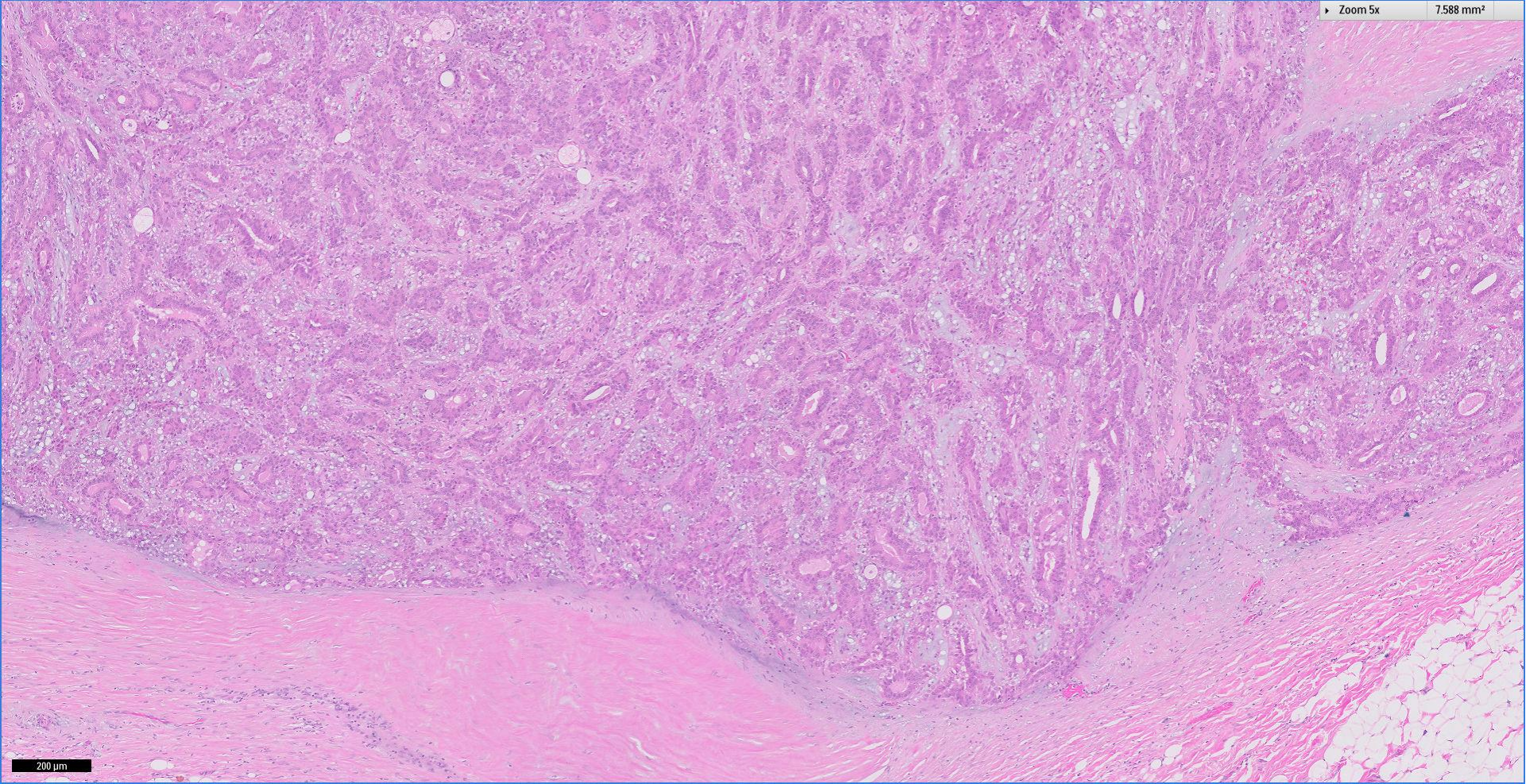


500  $\mu$ m



Zoom 5x

7.588 mm<sup>2</sup>

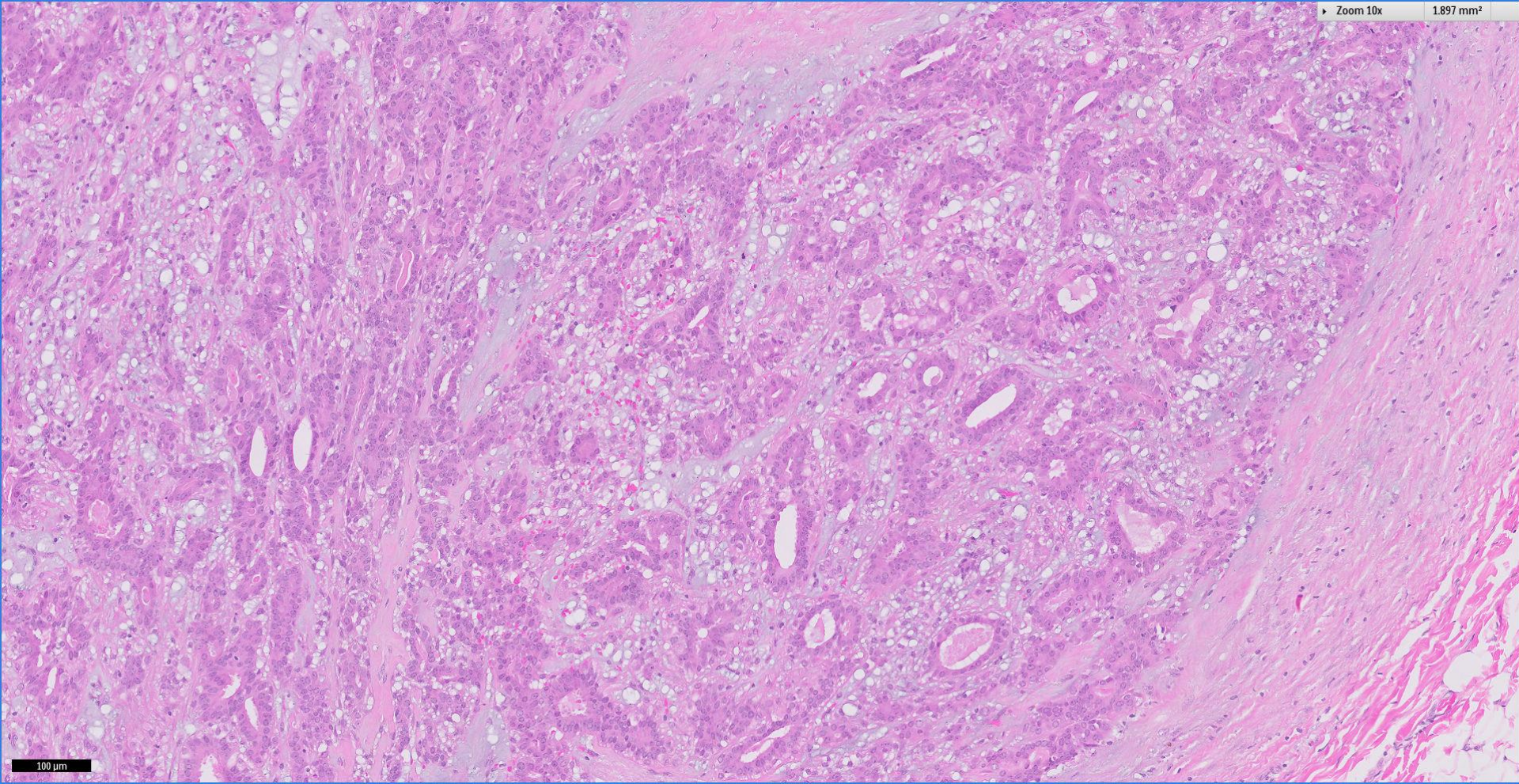


200  $\mu$ m



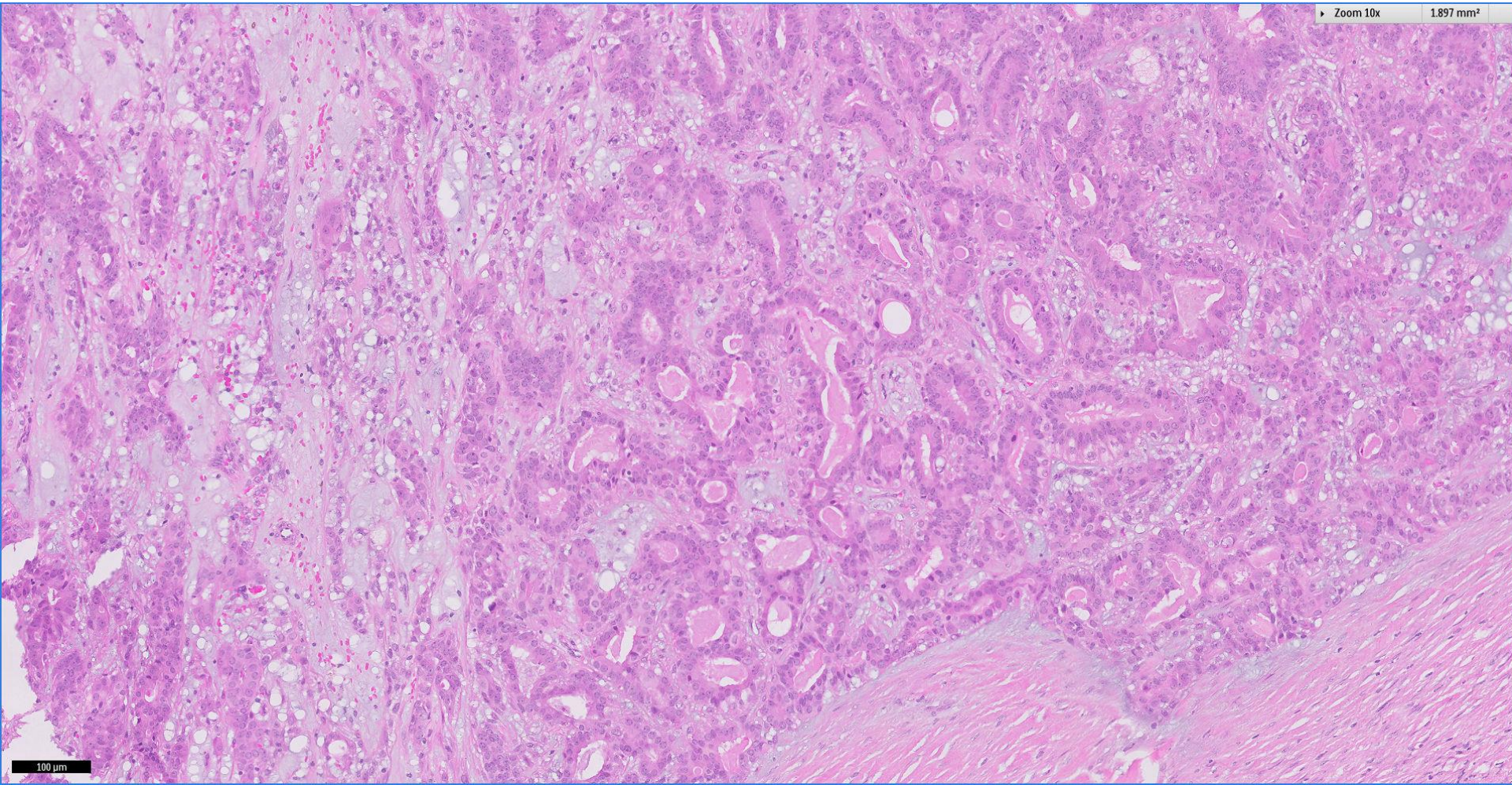
Zoom 10x

1.897 mm<sup>2</sup>



100 μm

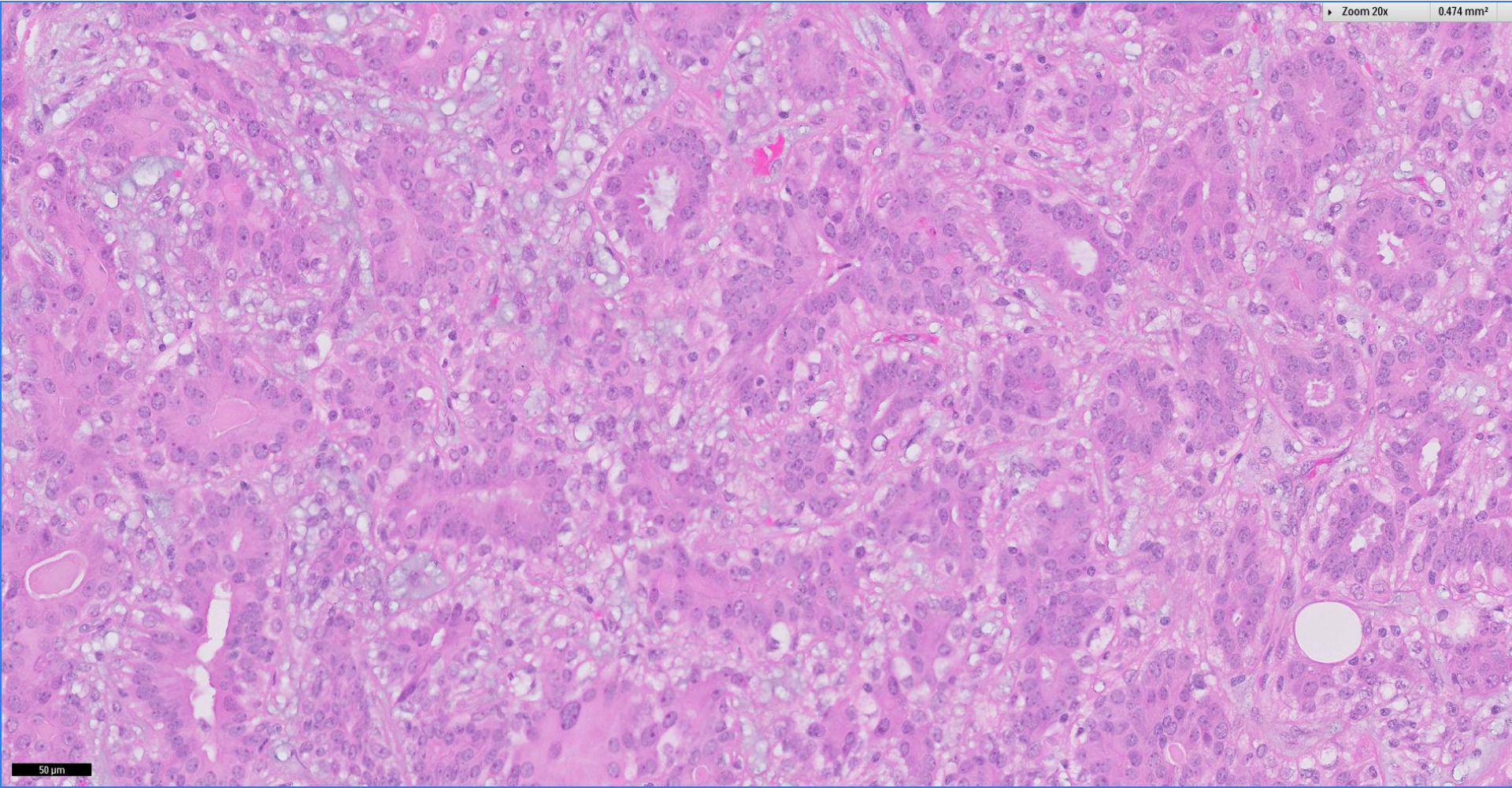






Zoom 20x

0.474 mm<sup>2</sup>

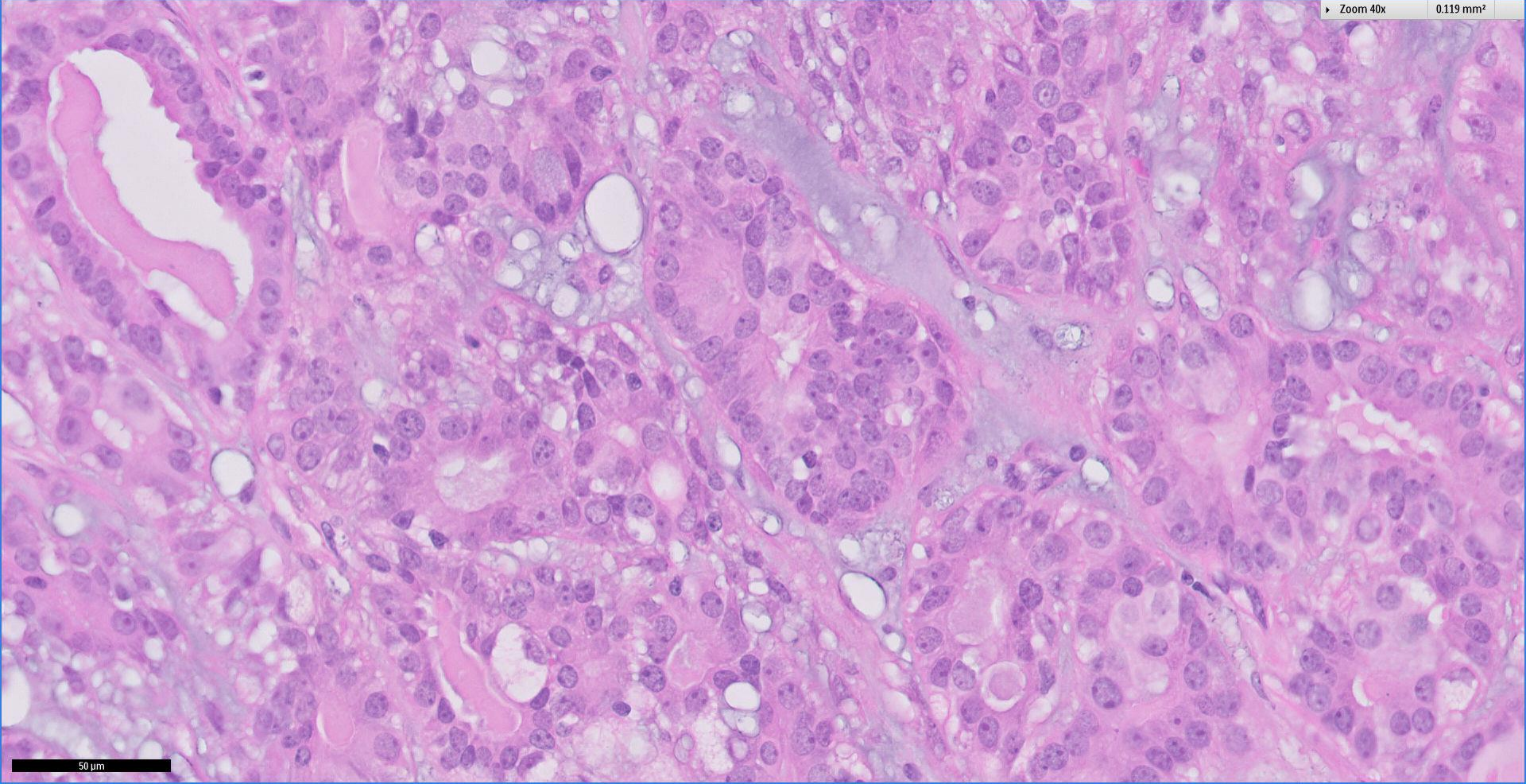


50 µm



Zoom 40x

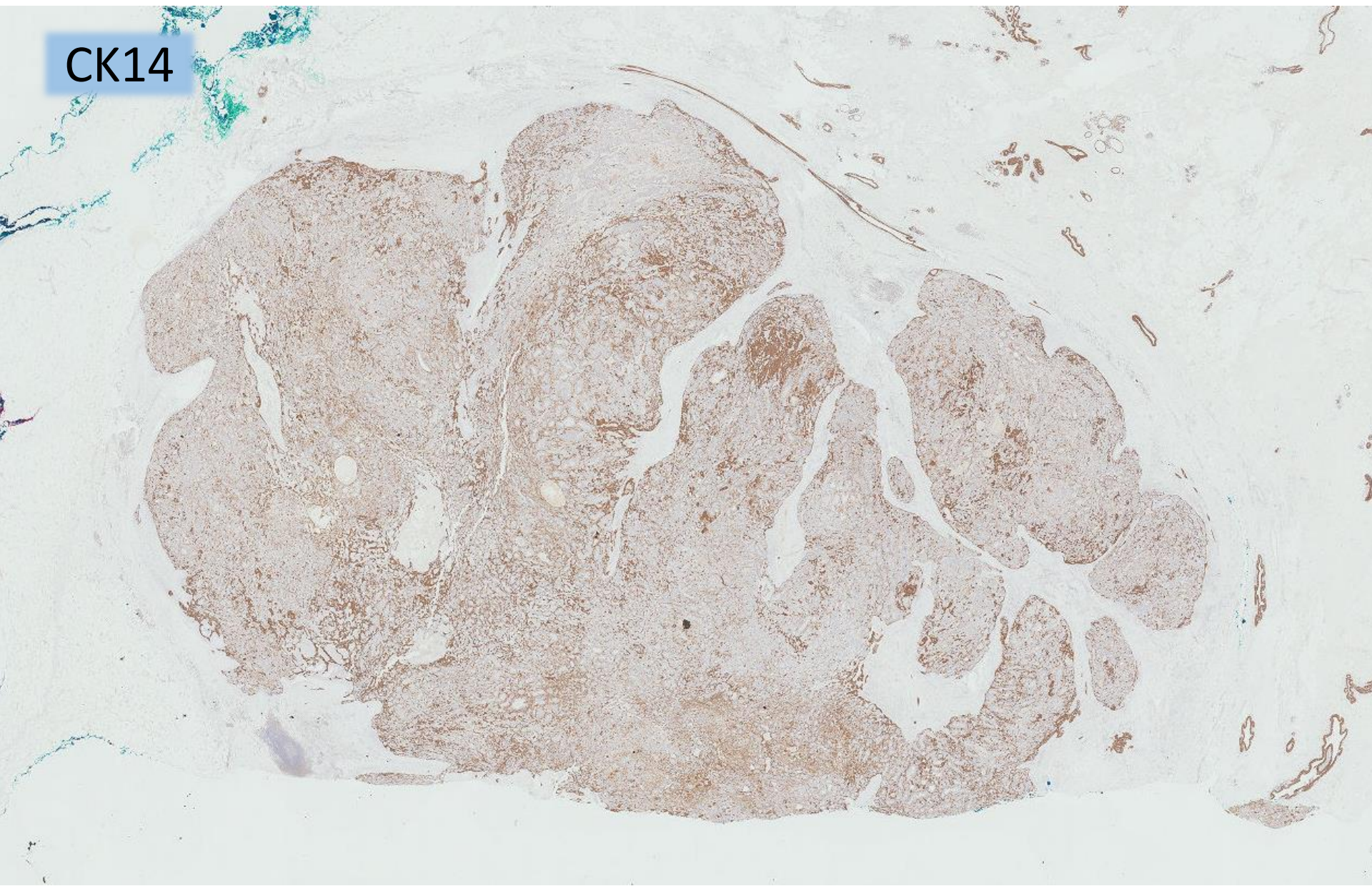
0.119 mm<sup>2</sup>



50 μm

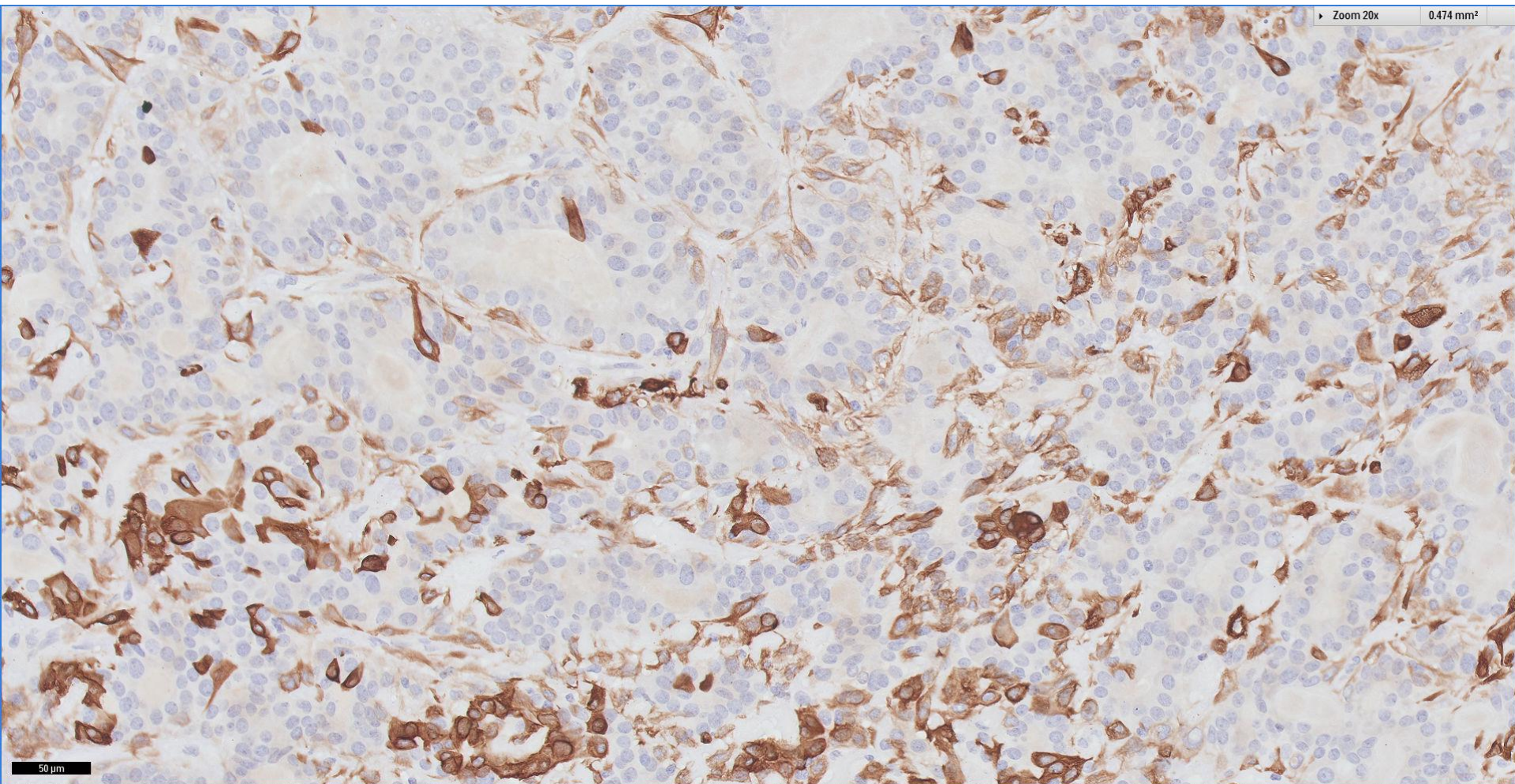


CK14



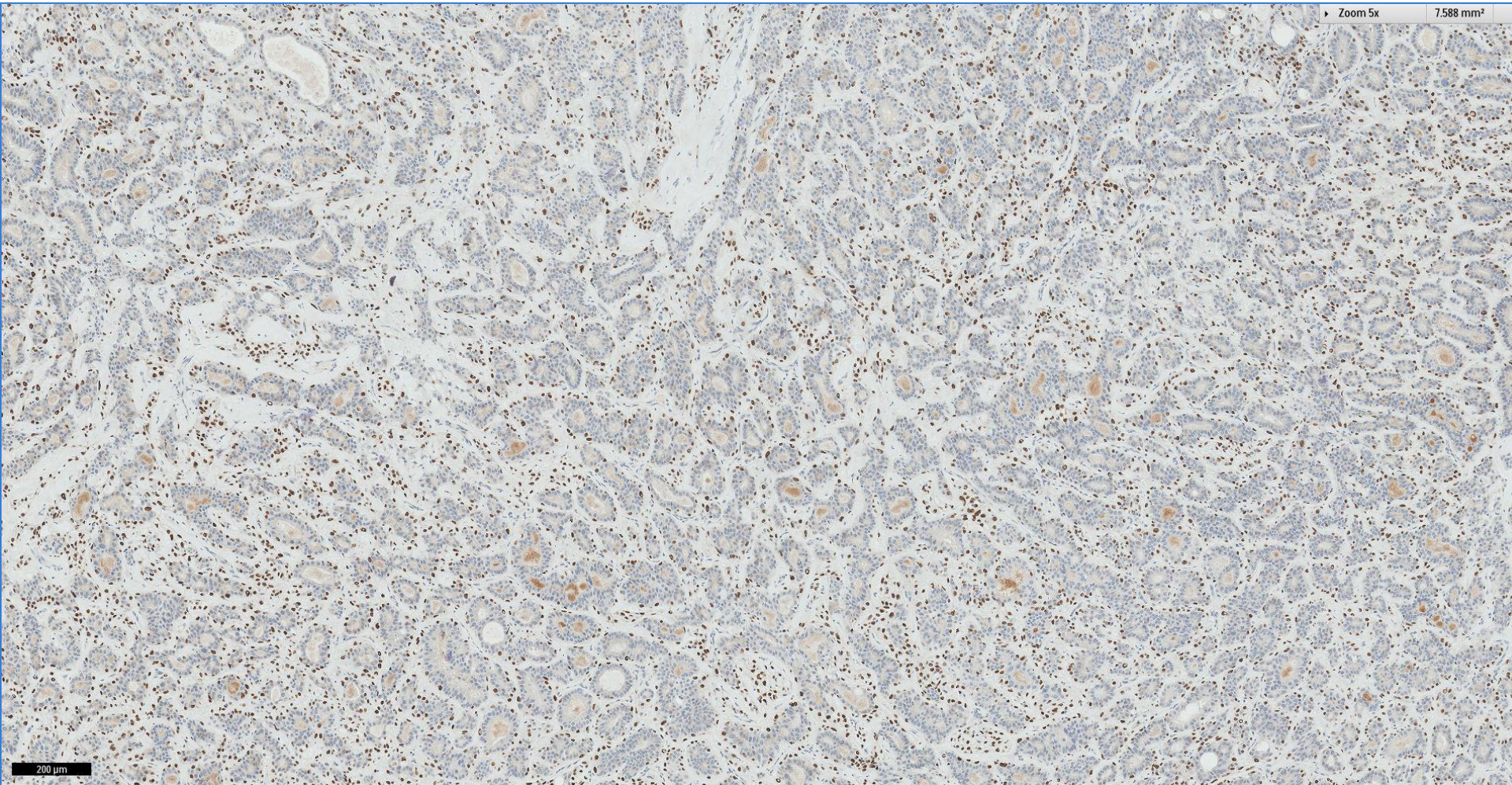


# CK14



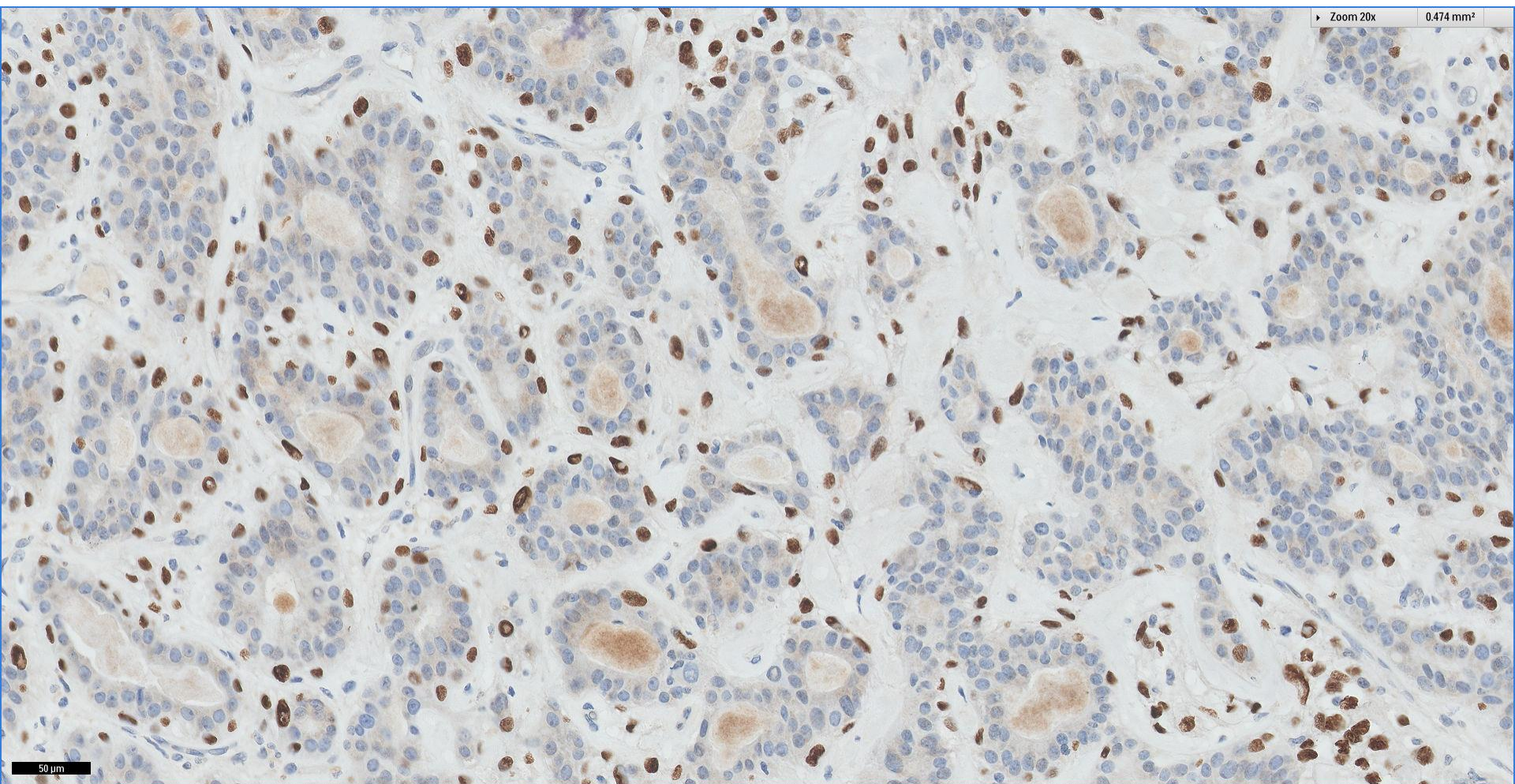


p63



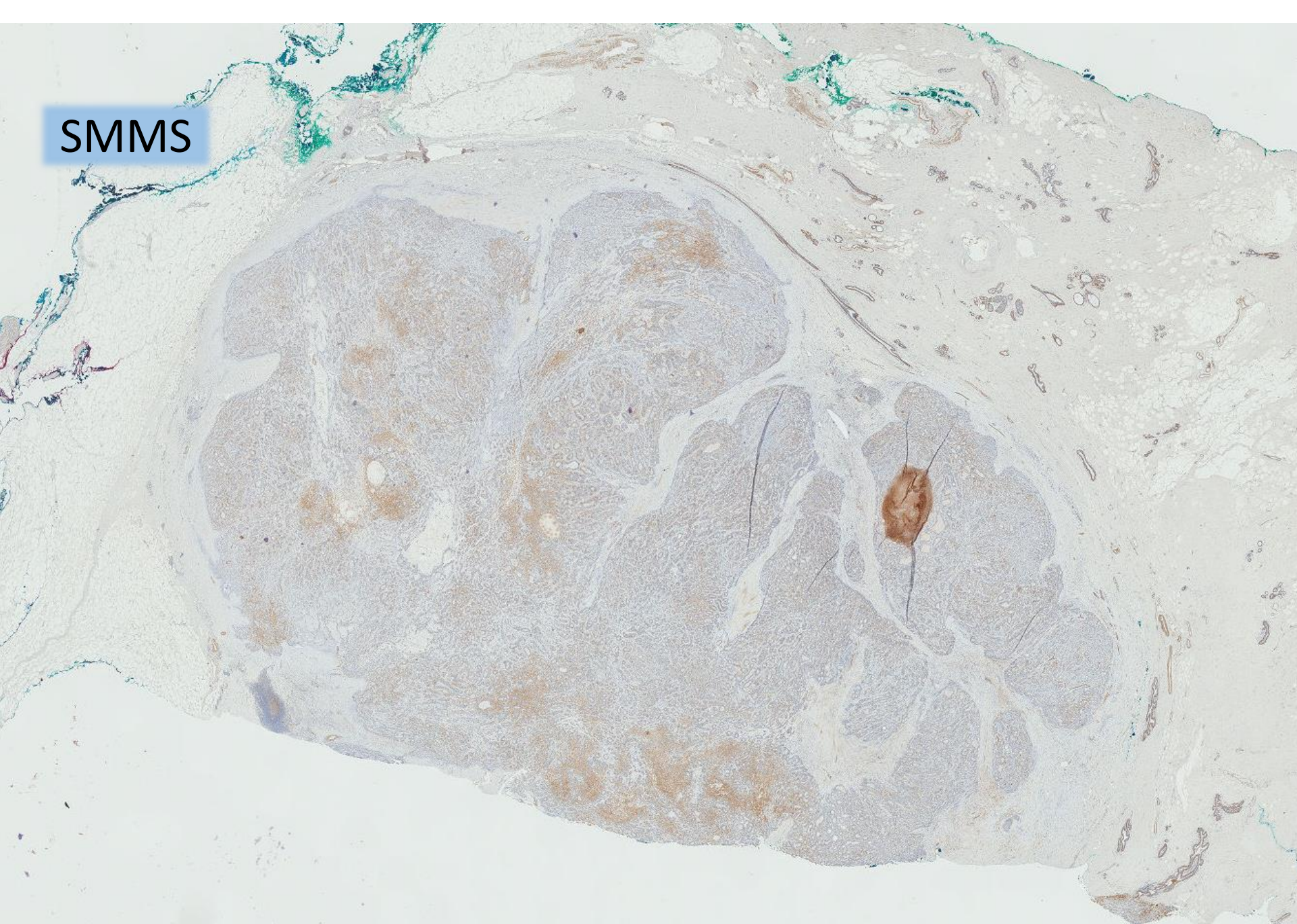


p63



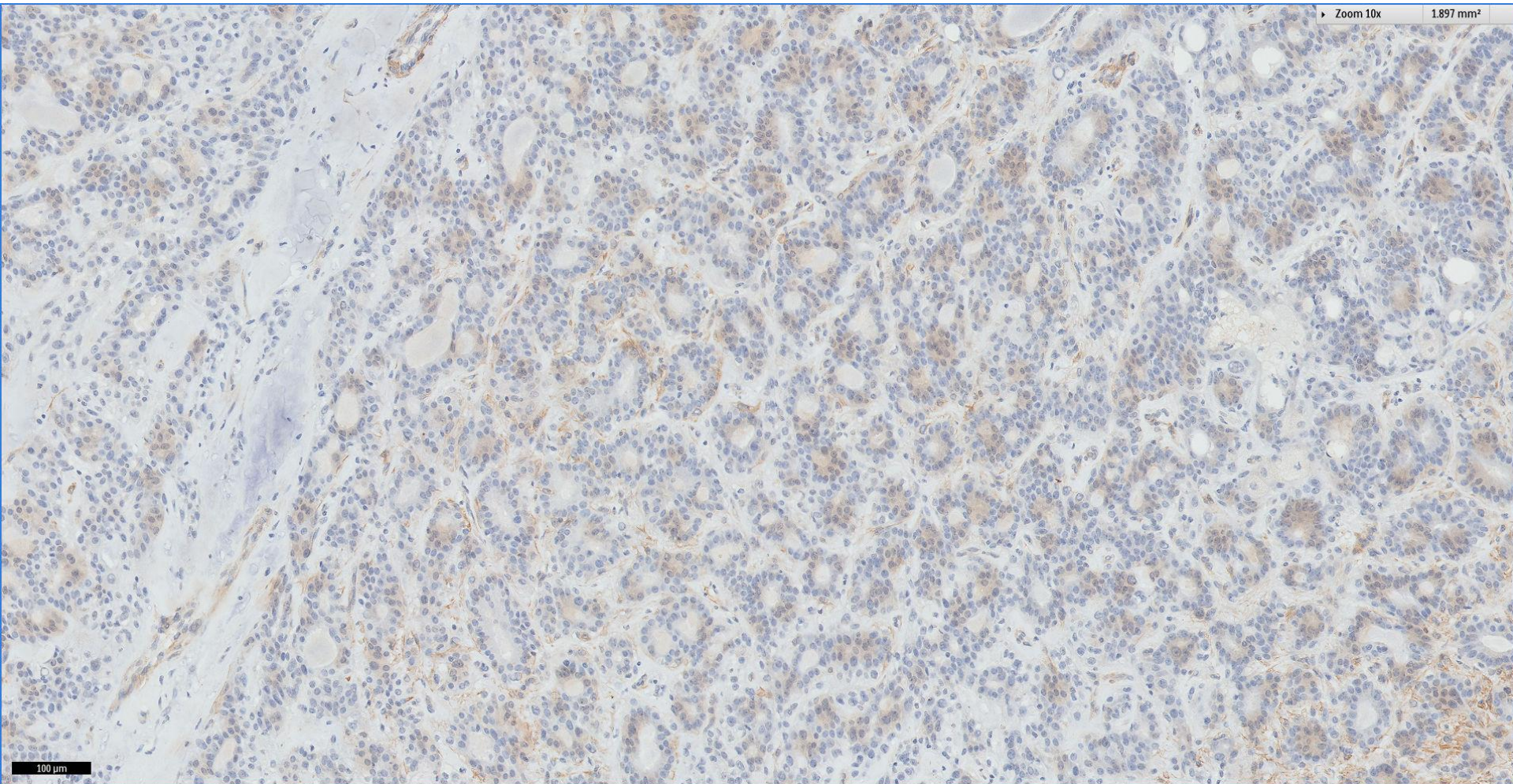


SMMS



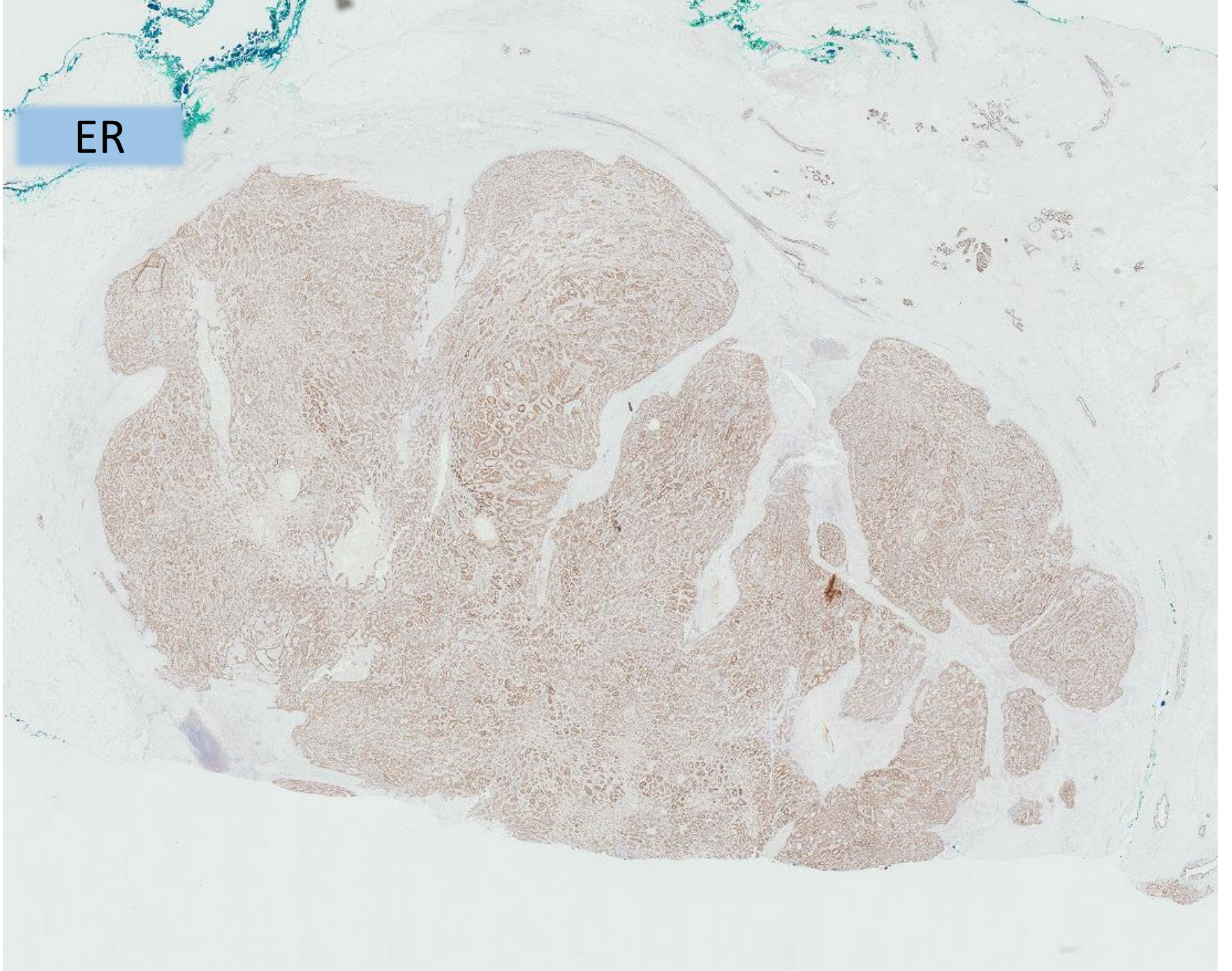


# SMMS



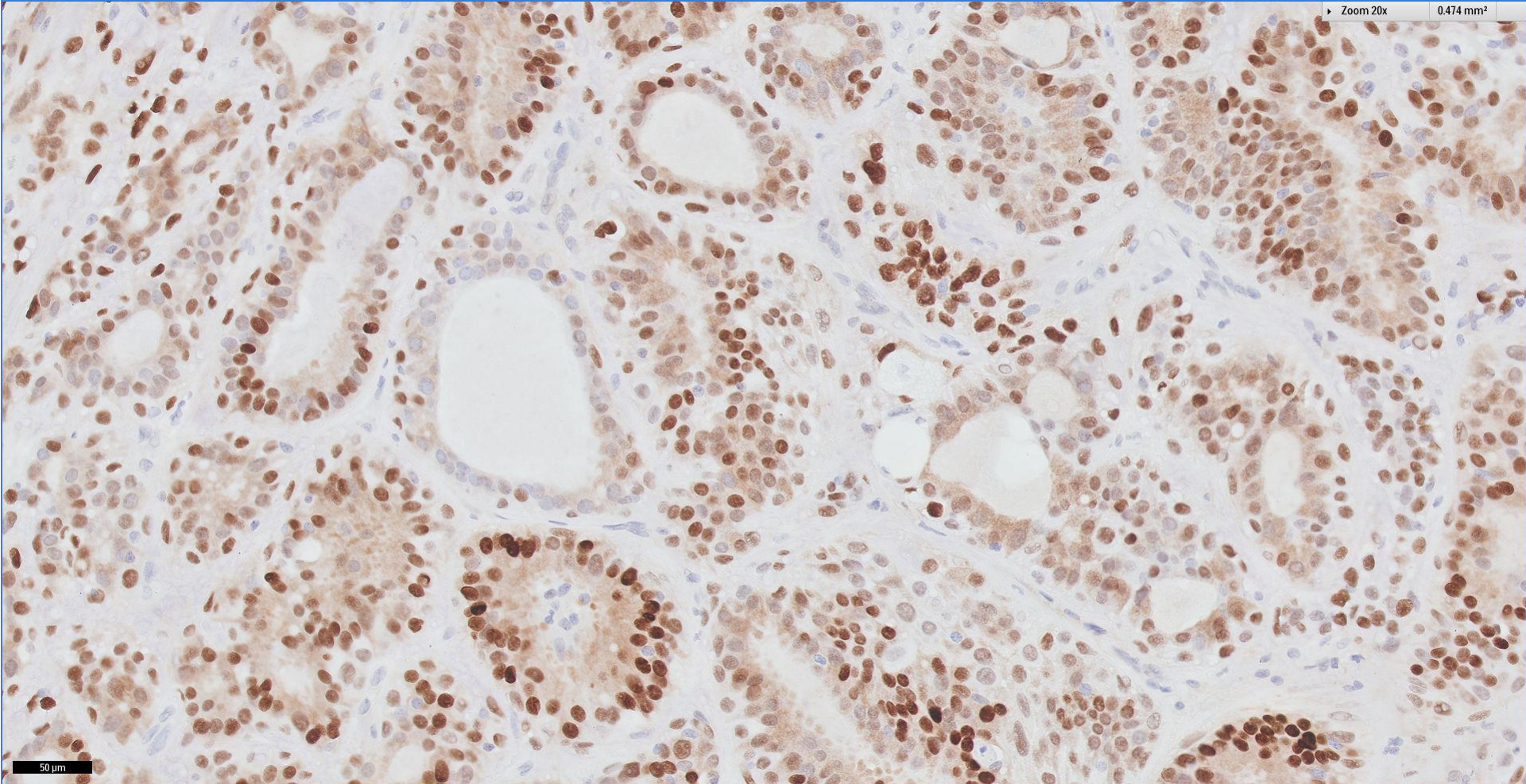
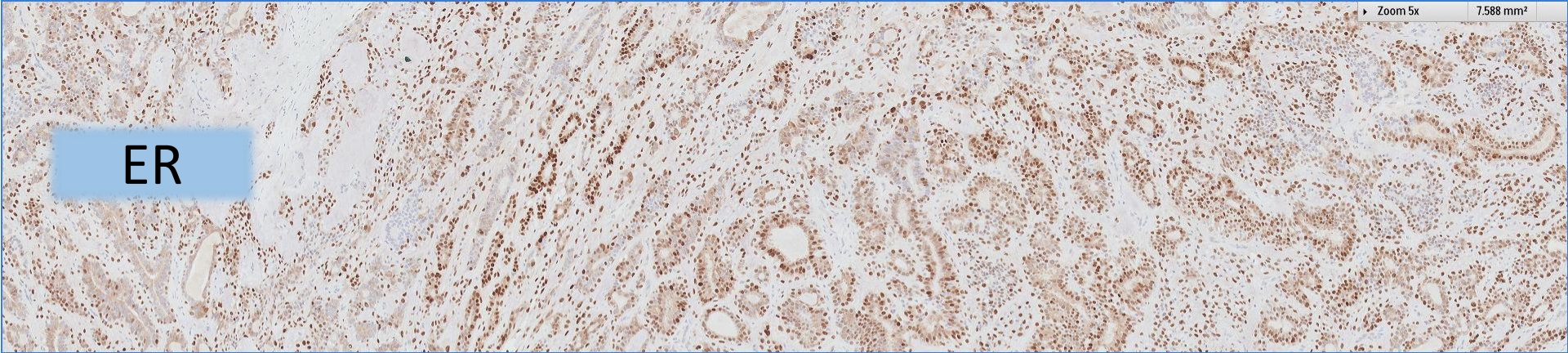


ER





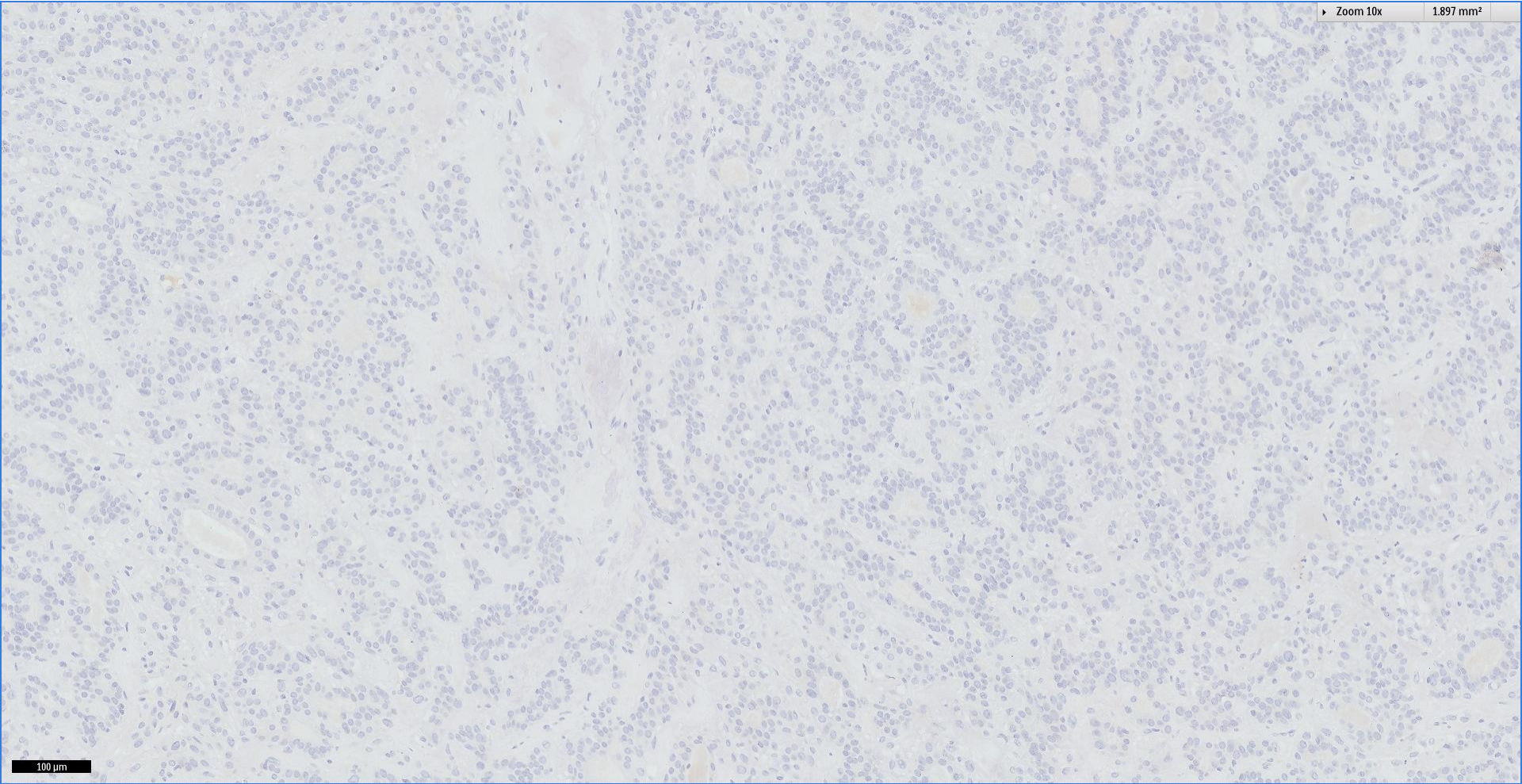
ER





PR

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





# Diagnosis

**Right breast, central wide excision ~  
Adenomyoepithelioma.**

*(Review of previous core biopsy showed features consistent with part of an adenomyoepithelioma)*



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# Adenomyoepithelioma (AME)

- Benign epithelial-myoepithelial tumour.
- Usually comprises a balanced proliferation of both luminal epithelial and myoepithelial cells throughout the lesion, although there are lesions composed predominantly of myoepithelial cells in which the luminal epithelial component may be obscured.
- Rarely, one or both components of AME become malignant (AME with carcinoma).
- Lobular, papillary, tubular and mixed architectural patterns.



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**Table 9.01** Classification of myoepithelial and epithelial–myoepithelial lesions

	Myoepithelial lesions	Epithelial–myoepithelial lesions
Benign	Myoepithelial hyperplasia Collagenous spherulosis	Pleomorphic adenoma Adenomyoepithelioma
Malignant	Myoepithelial carcinoma <sup>a</sup>	Adenomyoepithelioma with carcinoma - Carcinoma derived from luminal epithelium - Carcinoma derived from myoepithelium - Epithelial–myoepithelial carcinoma (carcinoma derived from both luminal epithelium and myoepithelium) Adenoid cystic carcinoma

<sup>a</sup> Myoepithelial carcinoma (malignant myoepithelioma) is classified under metaplastic carcinoma.

**WHO 2012**



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# Adenomyoepithelioma (AME)

- Mostly multilobulated architecture on scanning magnification.
- Microscopic satellite nodules may occur at the periphery of the tumour.
- Sclerosis and necrosis of the central area can be present – may be pitfall on core biopsy.
- Relatively uniform admixture of small ducts and surrounding myoepithelial cells.
- Myoepithelial cells can show spindle, epithelioid, and glycogen-rich clear cells.
- Apocrine, squamous metaplasia, and sebaceous differentiation can be seen in the glandular elements.
- Mitotic activity is usually low (< 2 per 10 high-power fields).



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# Adenomyoepithelioma (AME)

- Local recurrence may occur, likely related to multinodular growth or intraductal extension of the lesion.
- Rare cases have metastasized.
- AME with carcinoma has greater potential to recur locally and has significant metastatic potential, probably related to the grade of the transformed component and the tumour size.
- Metastases typically occur in patients who have high-grade malignant transformation and with tumours of  $\geq 2$  cm.

**WHO 2012**



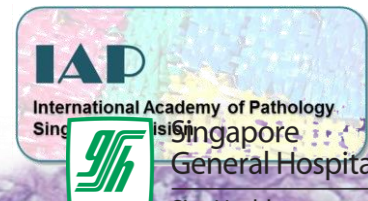
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