

## Case 20

24 year old female.

Past history of leukaemia, currently in remission.

Presented with a left breast lump.

Core biopsy (A) and subsequent excision (B) of the left breast lump.



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**PATHOLOGY**

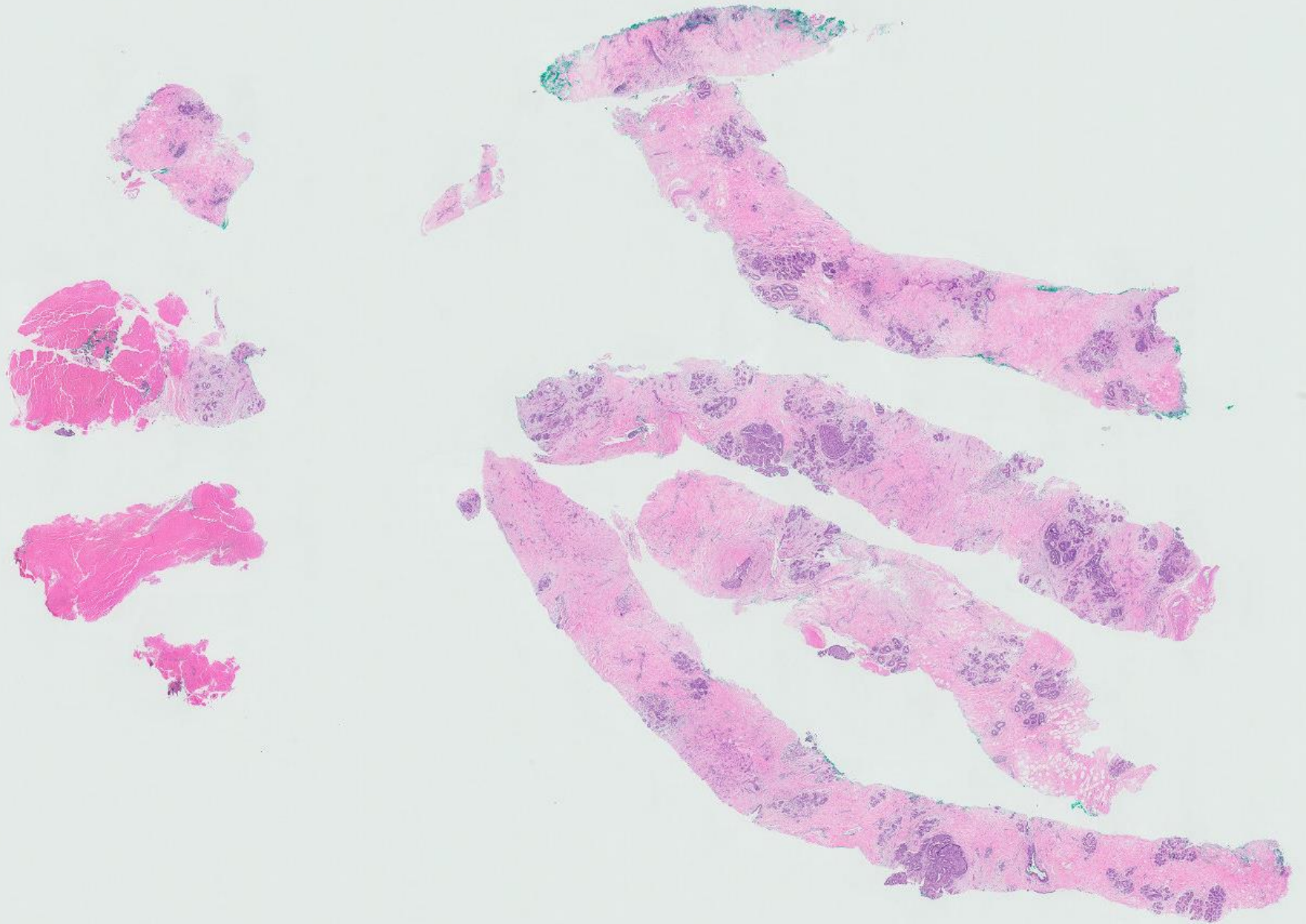
**IAP**

International Academy of Pathology  
Singapore Division



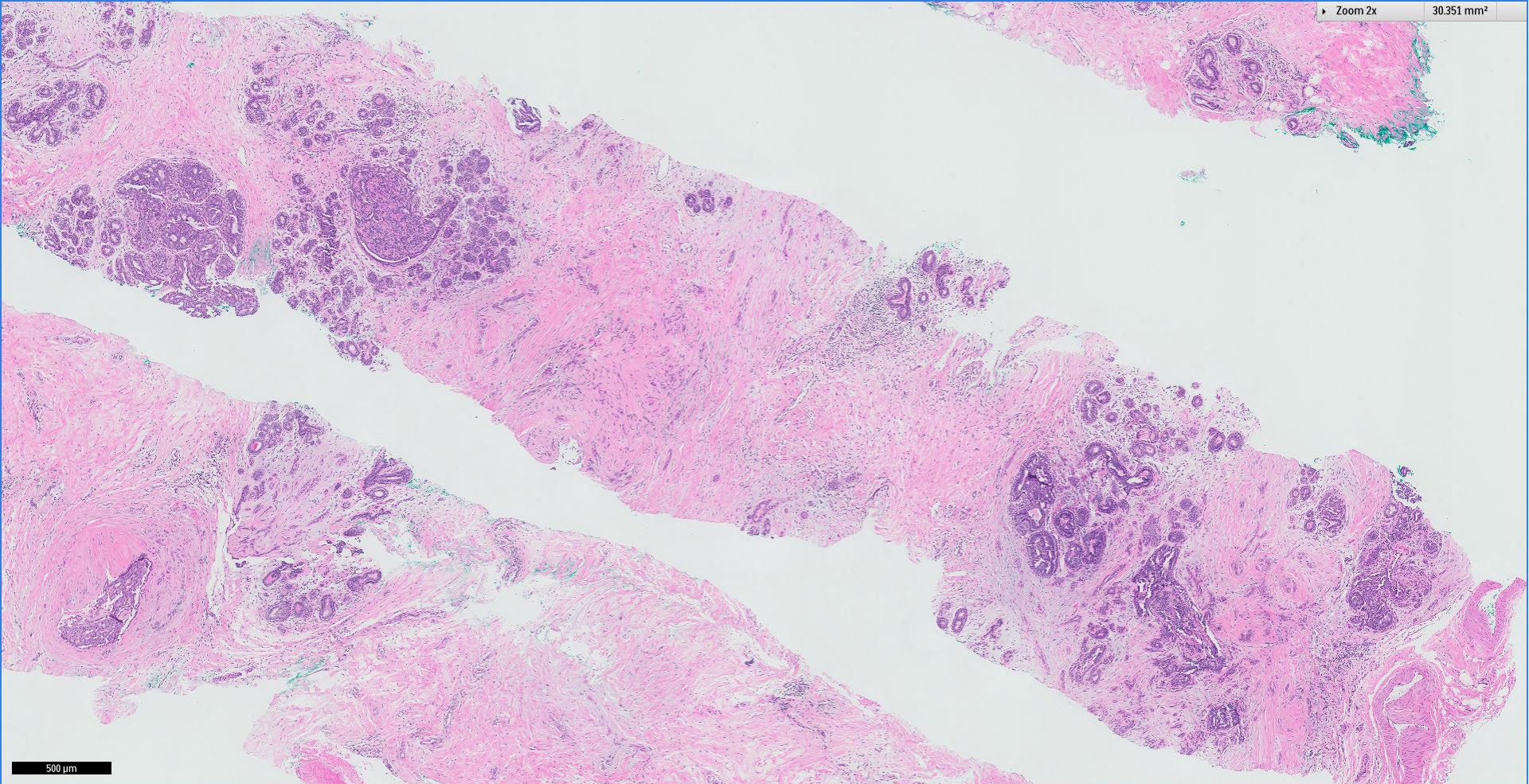
Ill-defined mass-like hypoechoic lesion at left 11 o'clock position.  
There is increased vascularity. *Courtesy of Dr Lester Leong*

# Core biopsy, A



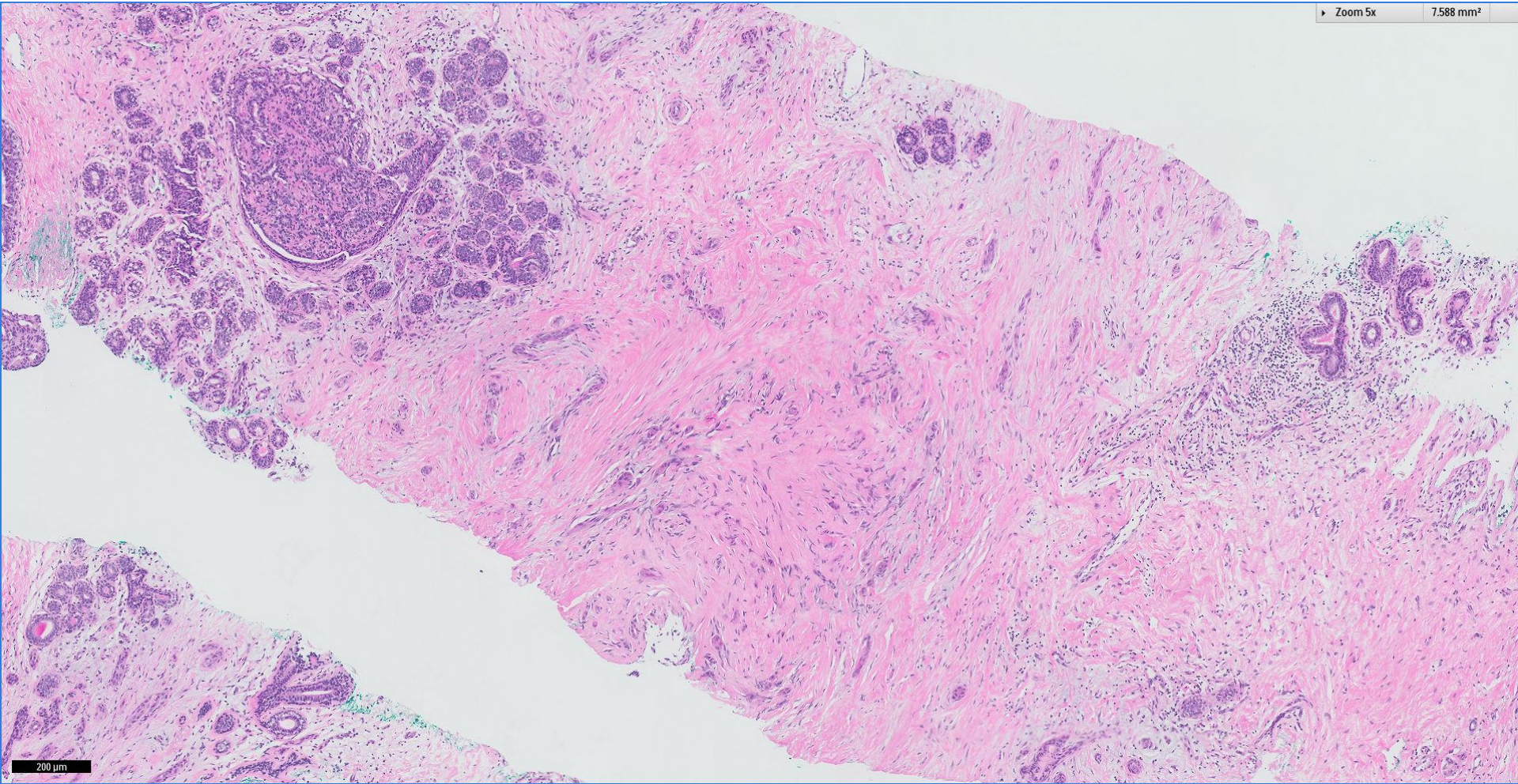


# Core biopsy, A



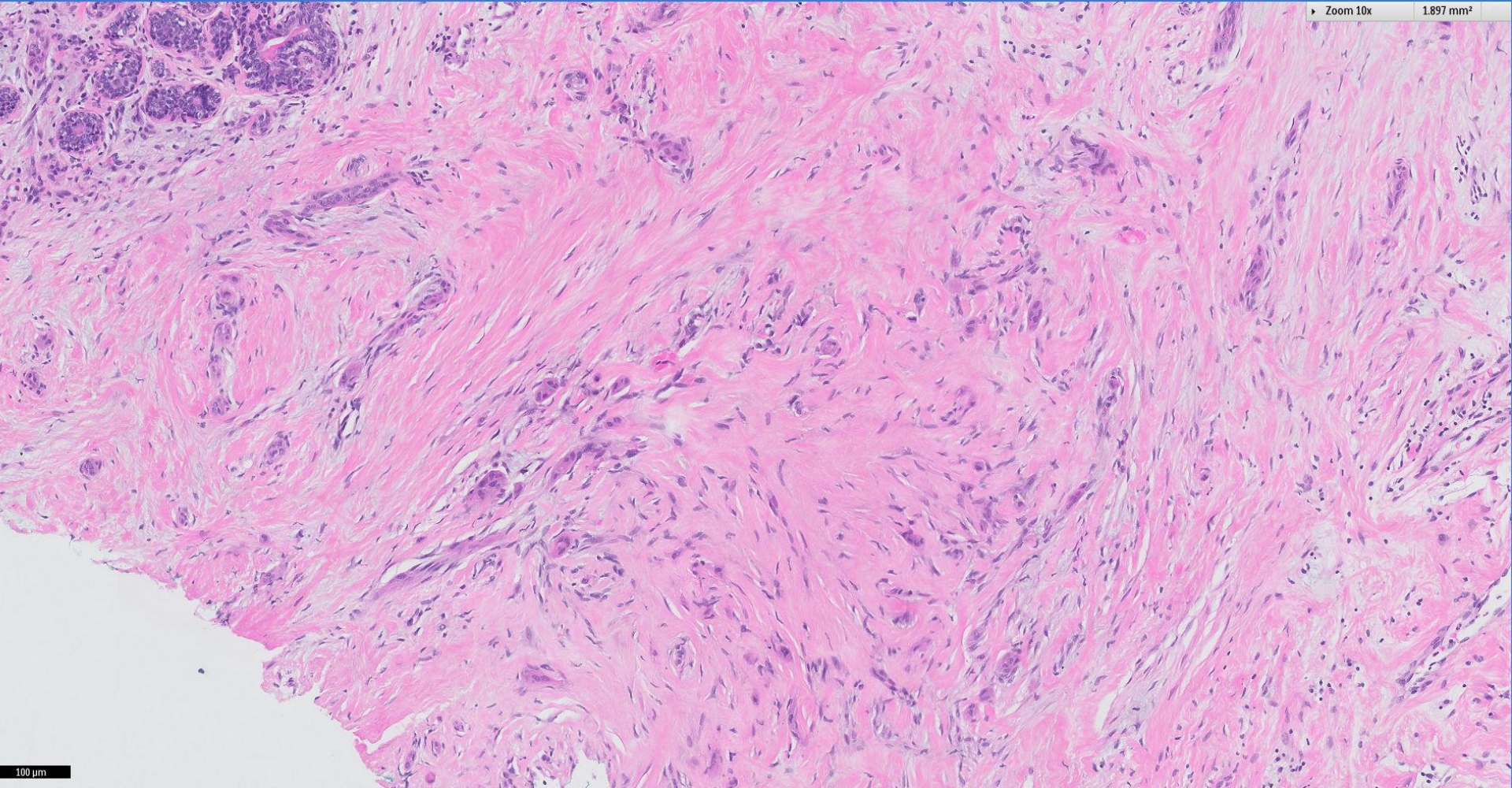


# Core biopsy, A



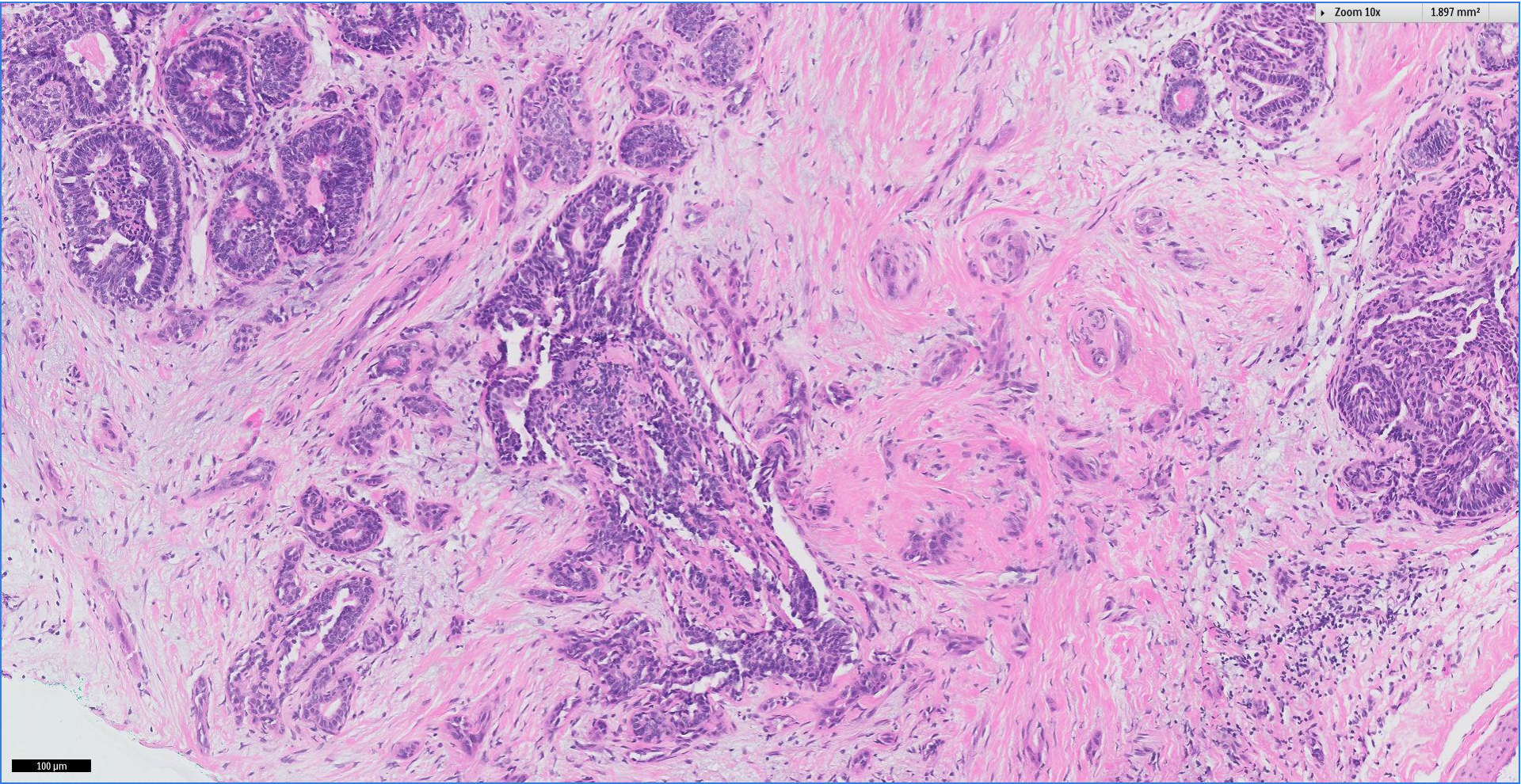


# Core biopsy, A



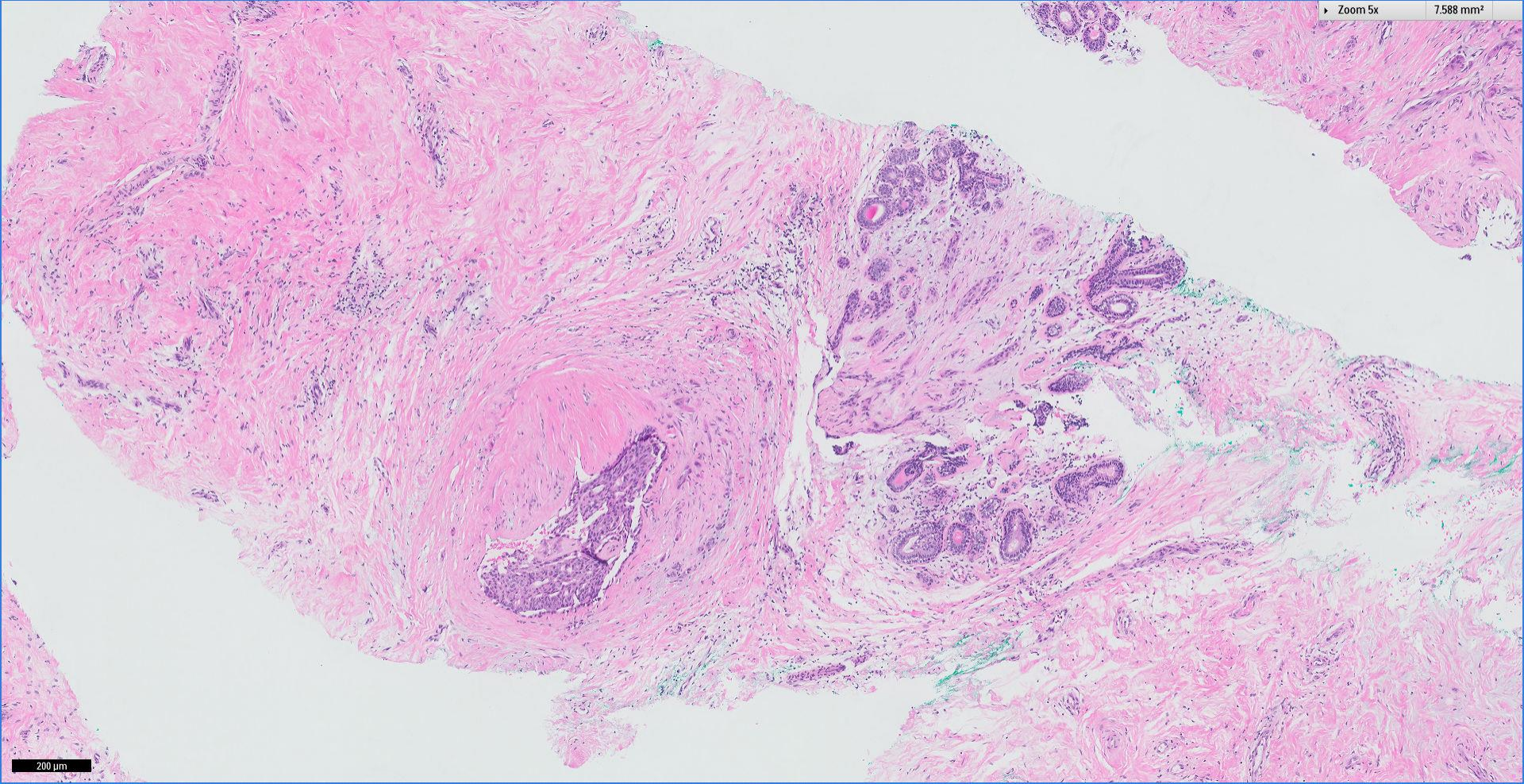


# Core biopsy, A



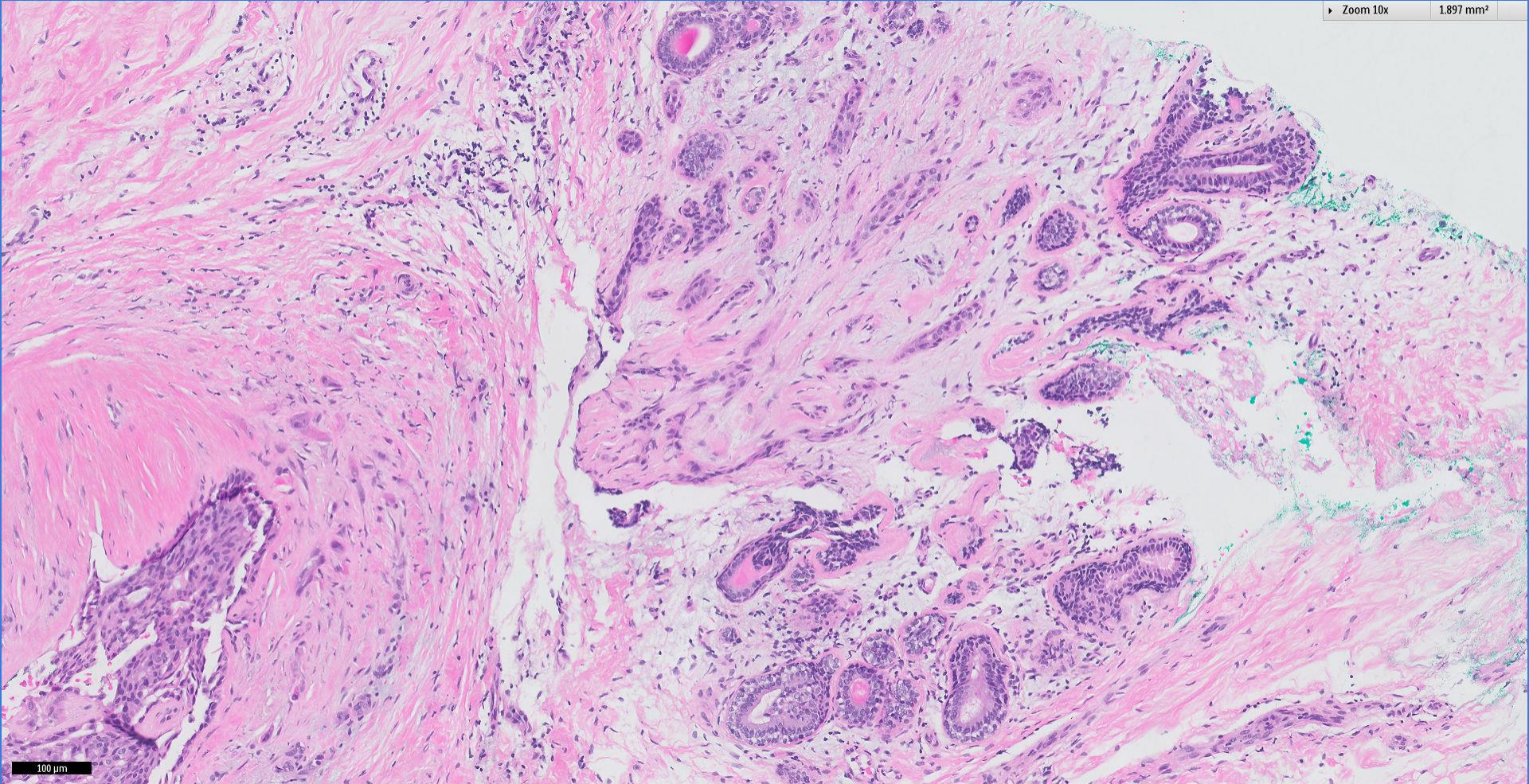


# Core biopsy, A



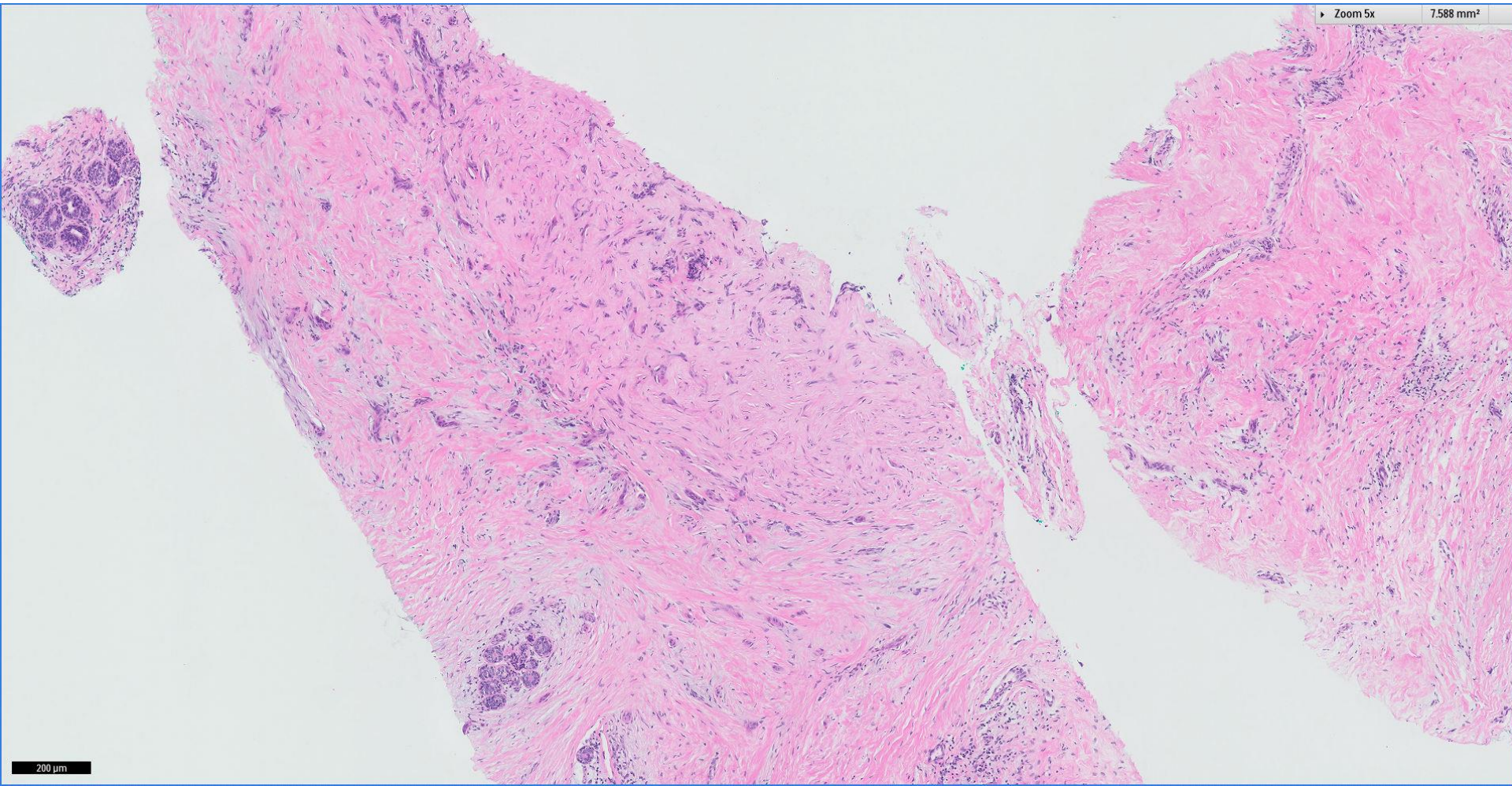


# Core biopsy, A



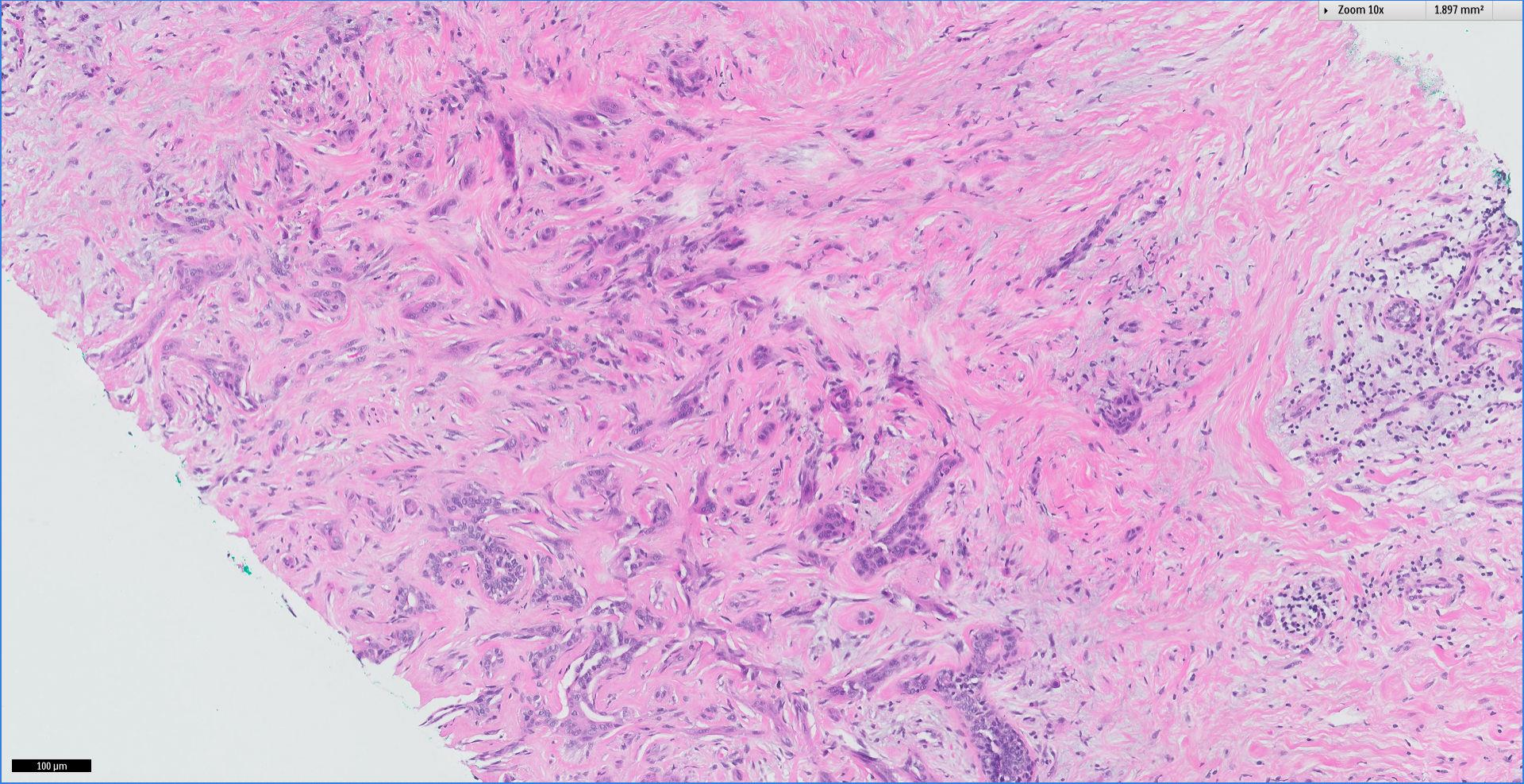


# Core biopsy, A





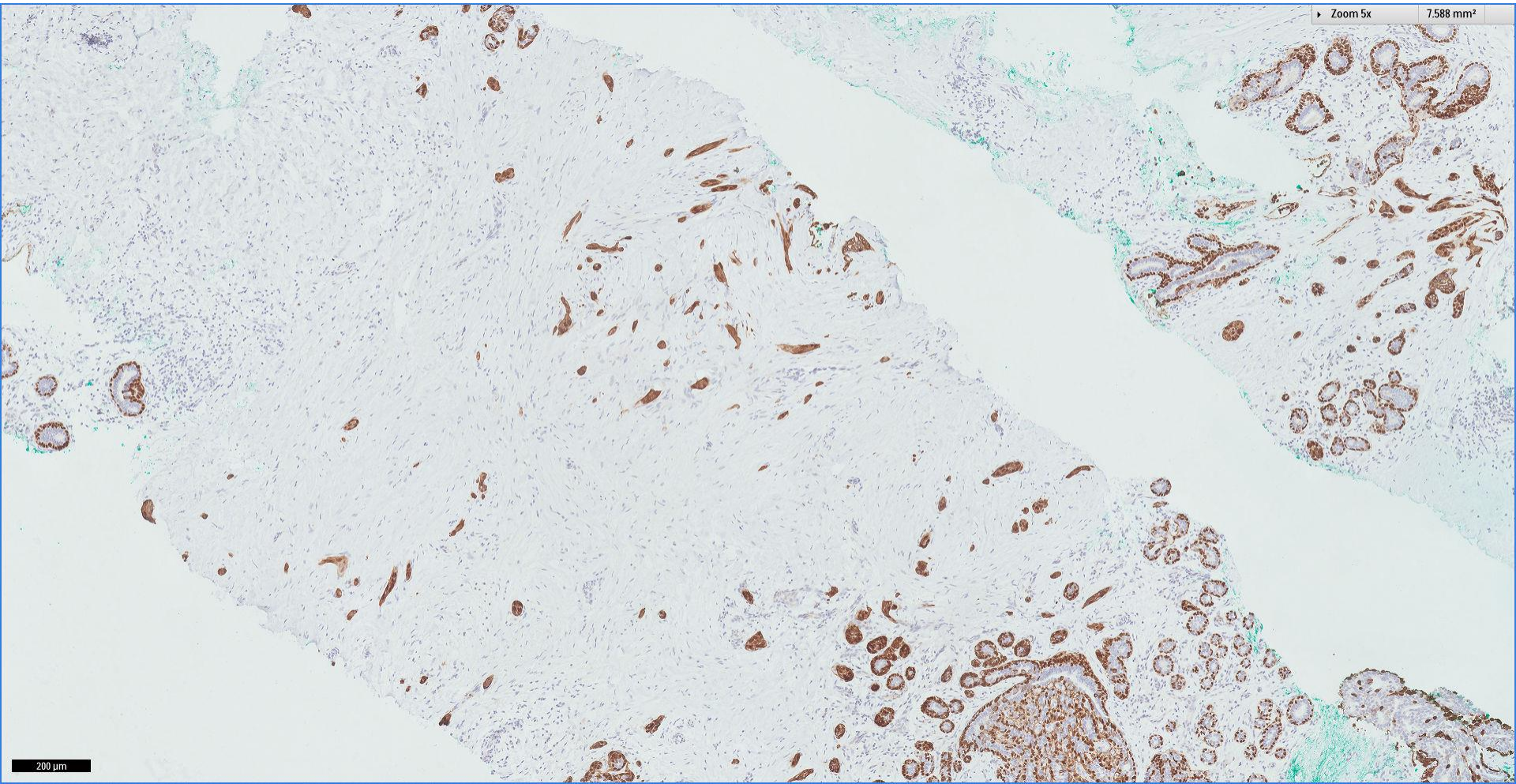
# Core biopsy, A





# Core biopsy, A

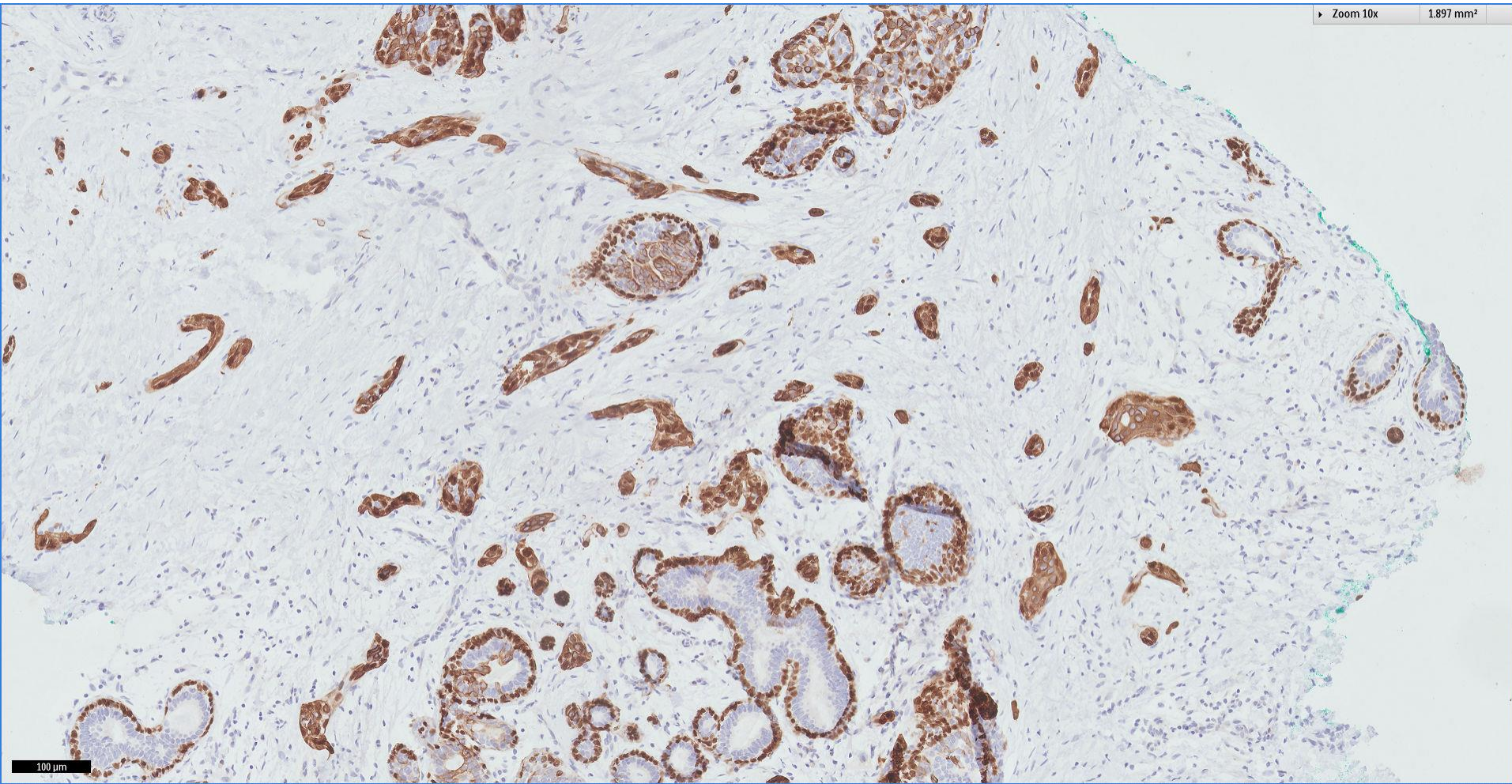
p63/CK14





# Core biopsy, A

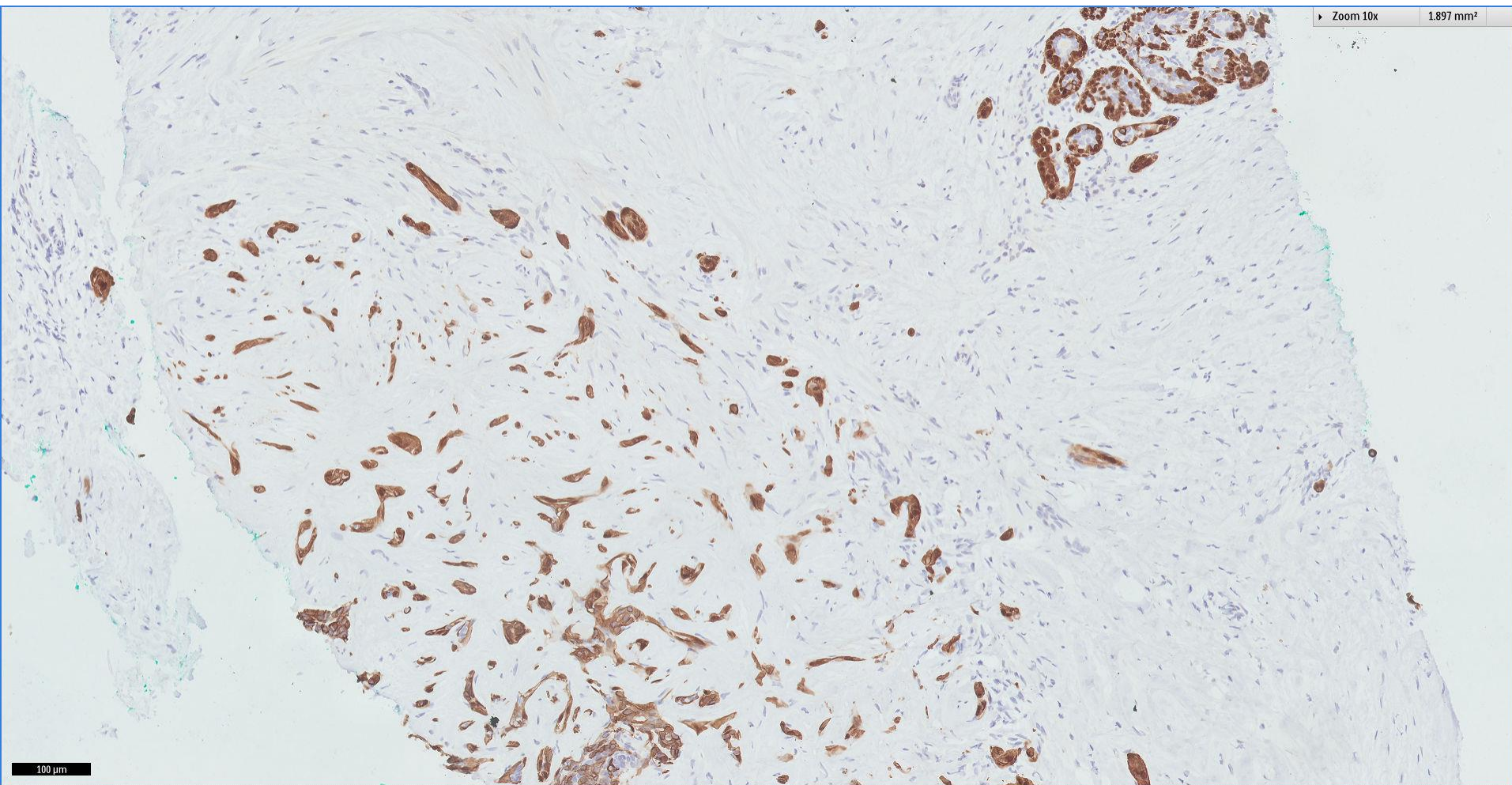
p63/CK14





# Core biopsy, A

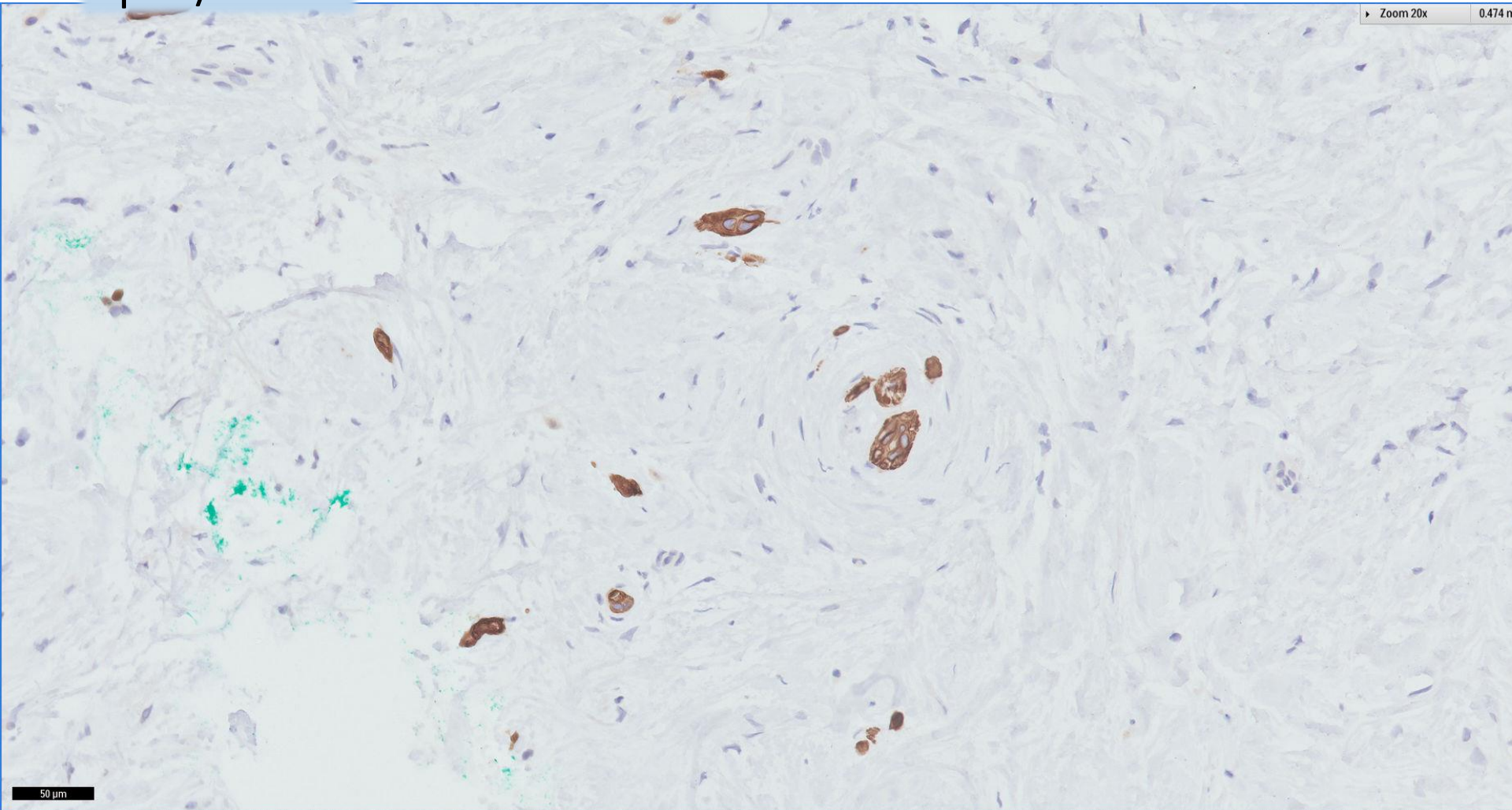
p63/CK14





# Core biopsy, A

p63/CK14





# Diagnosis

## Core biopsy, left breast lump ~

Atypical sclerosing epithelial lesion – need to rule out a low grade adenosquamous tumour.



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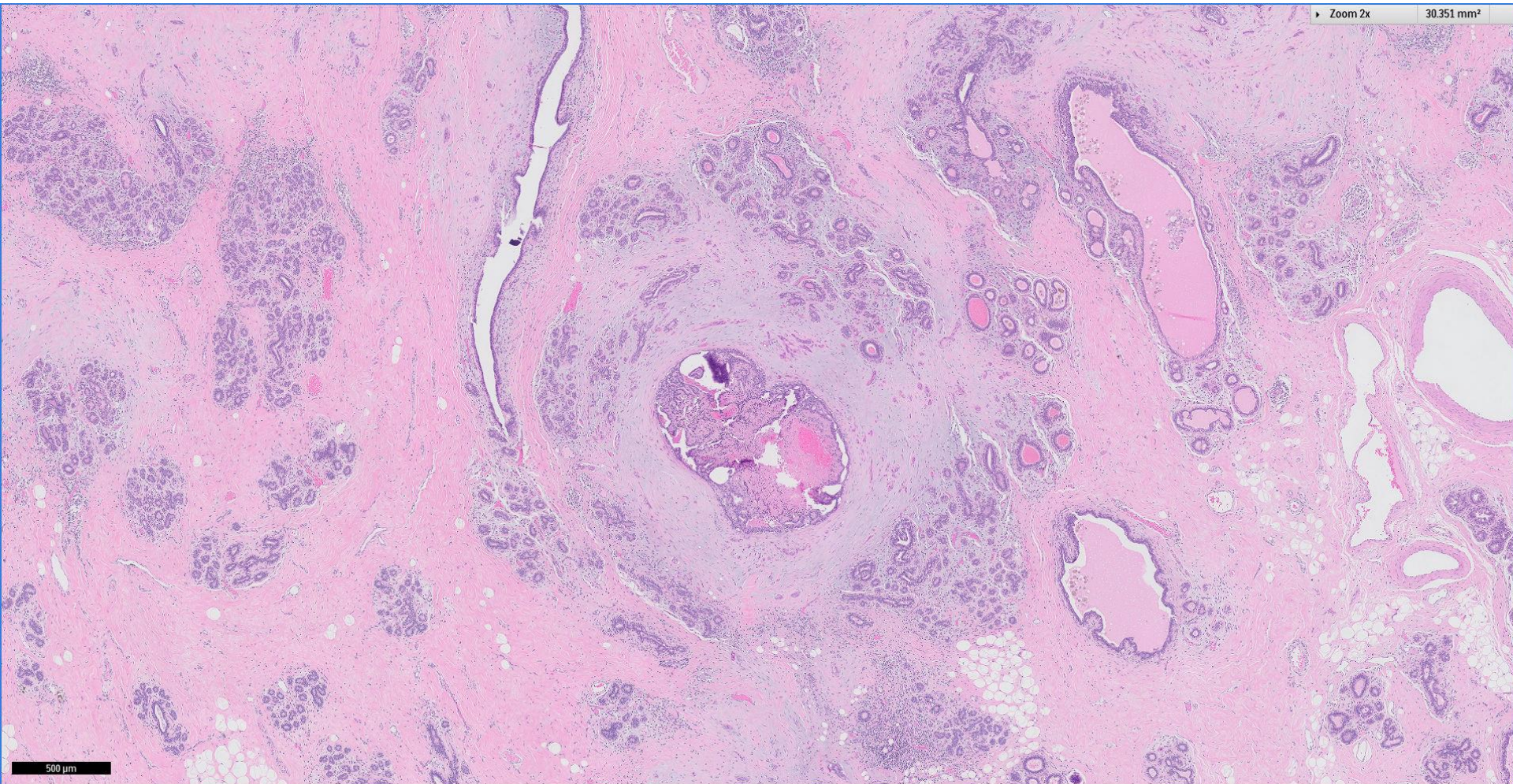
# Excision biopsy, B

P. Zoom 1x



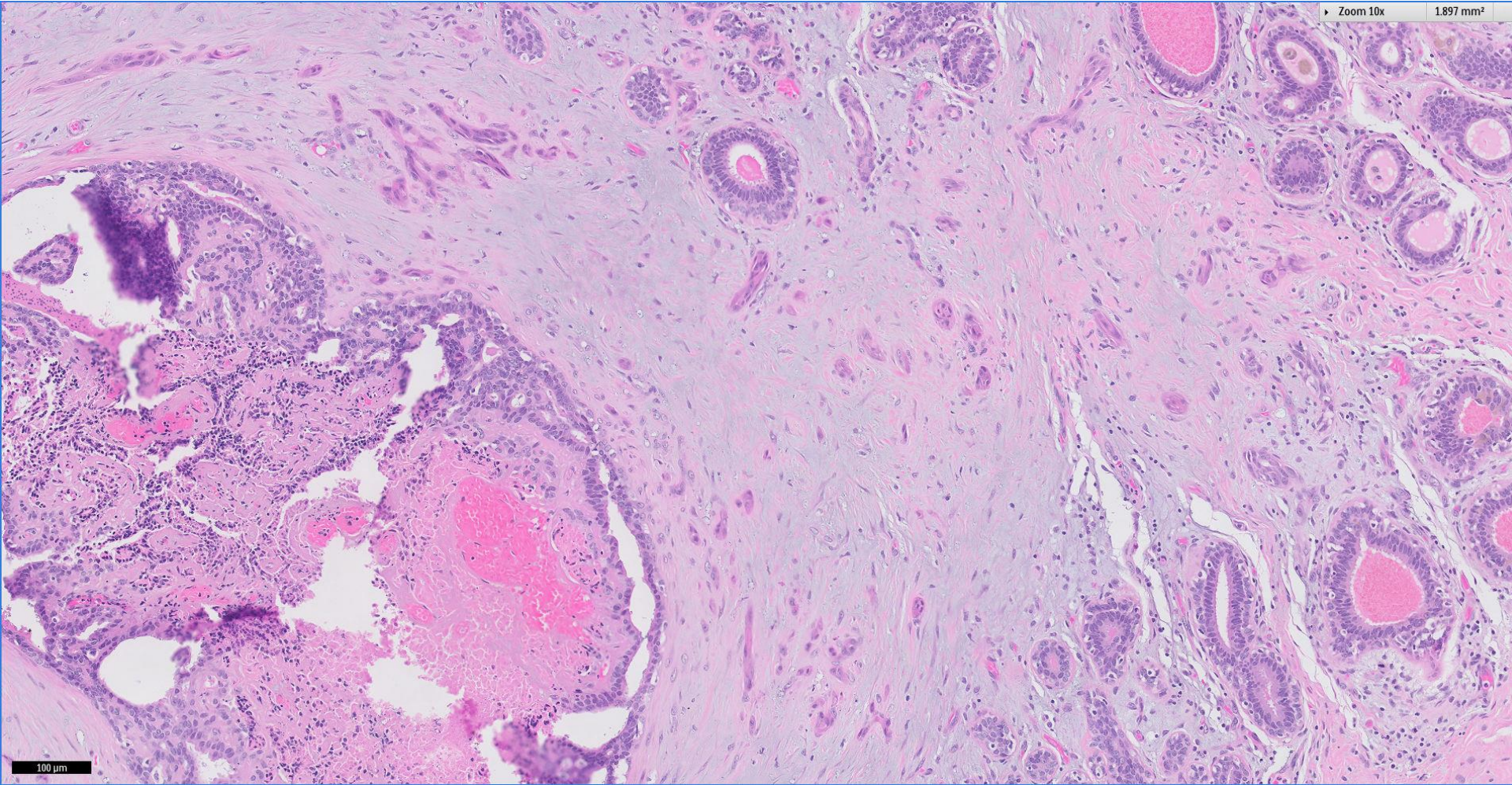


# Excision biopsy, B



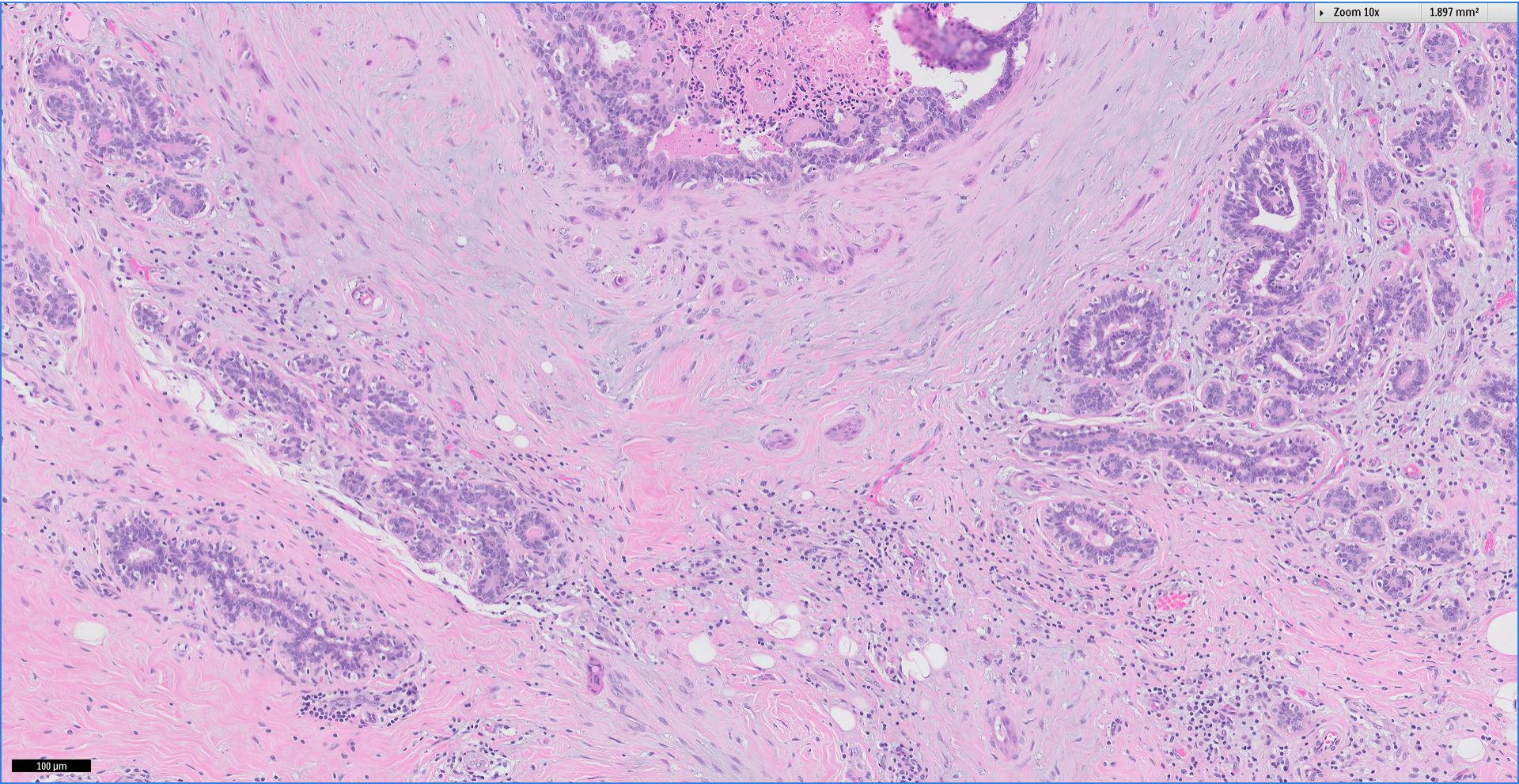


# Excision biopsy, B



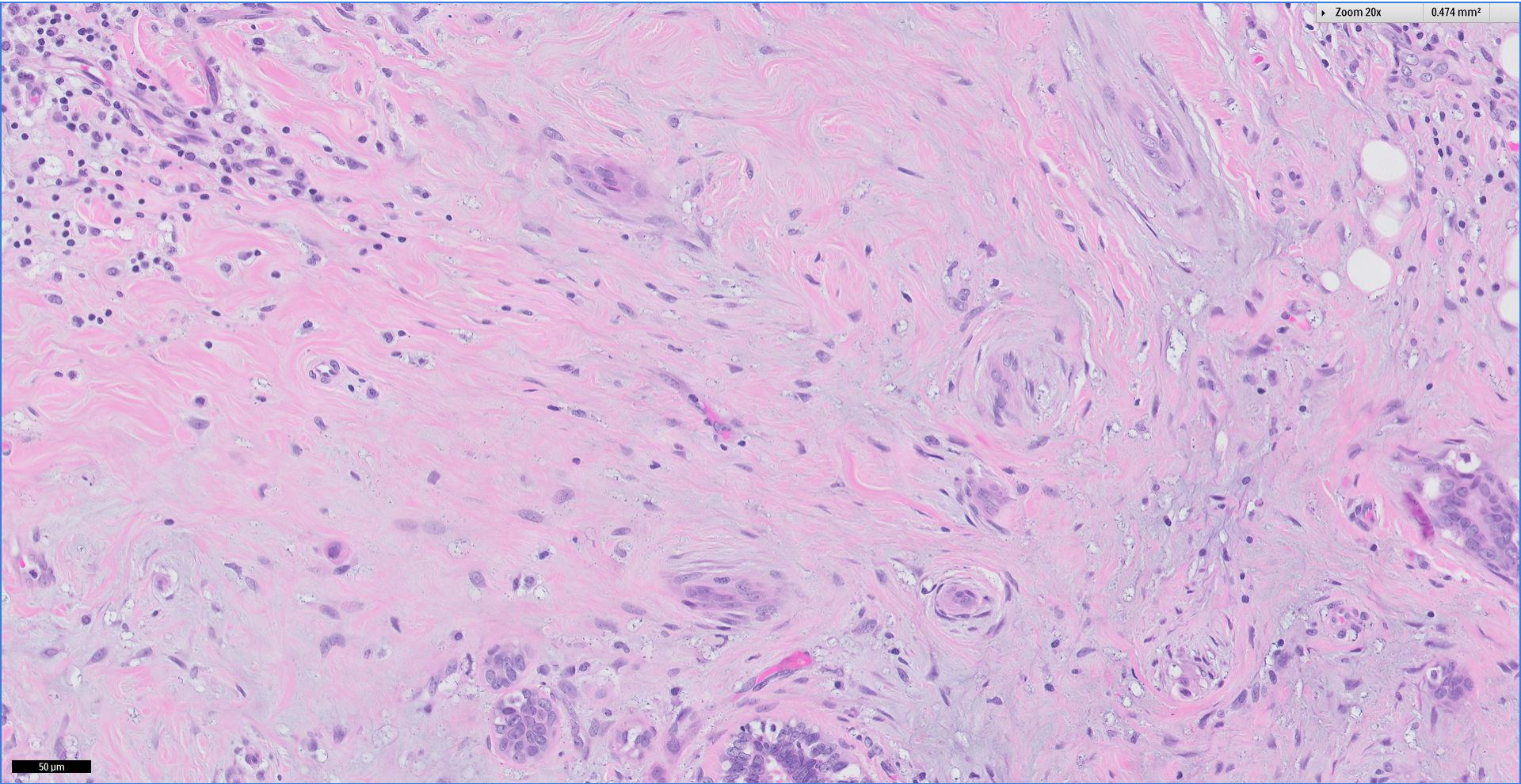


# Excision biopsy, B



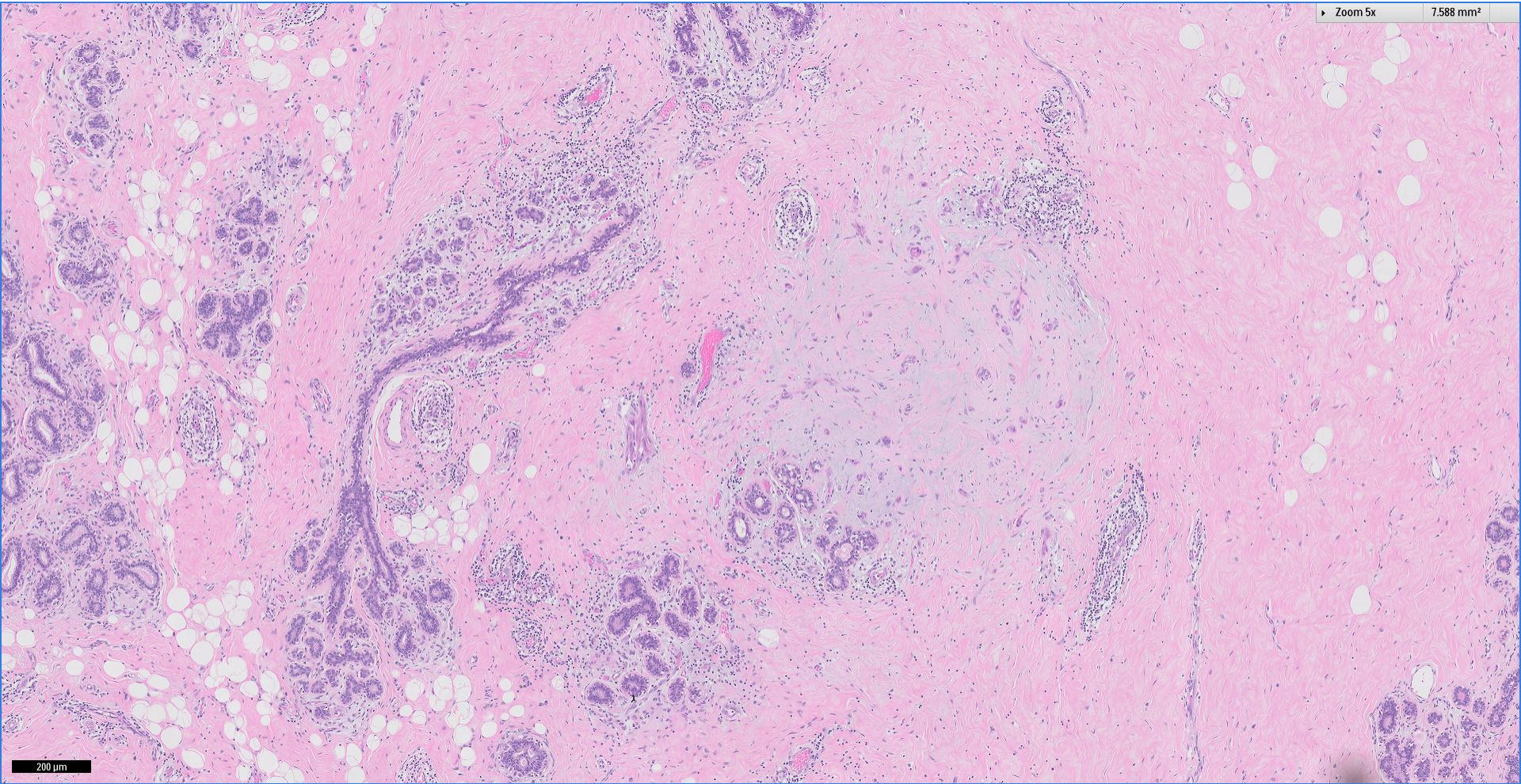


# Excision biopsy, B



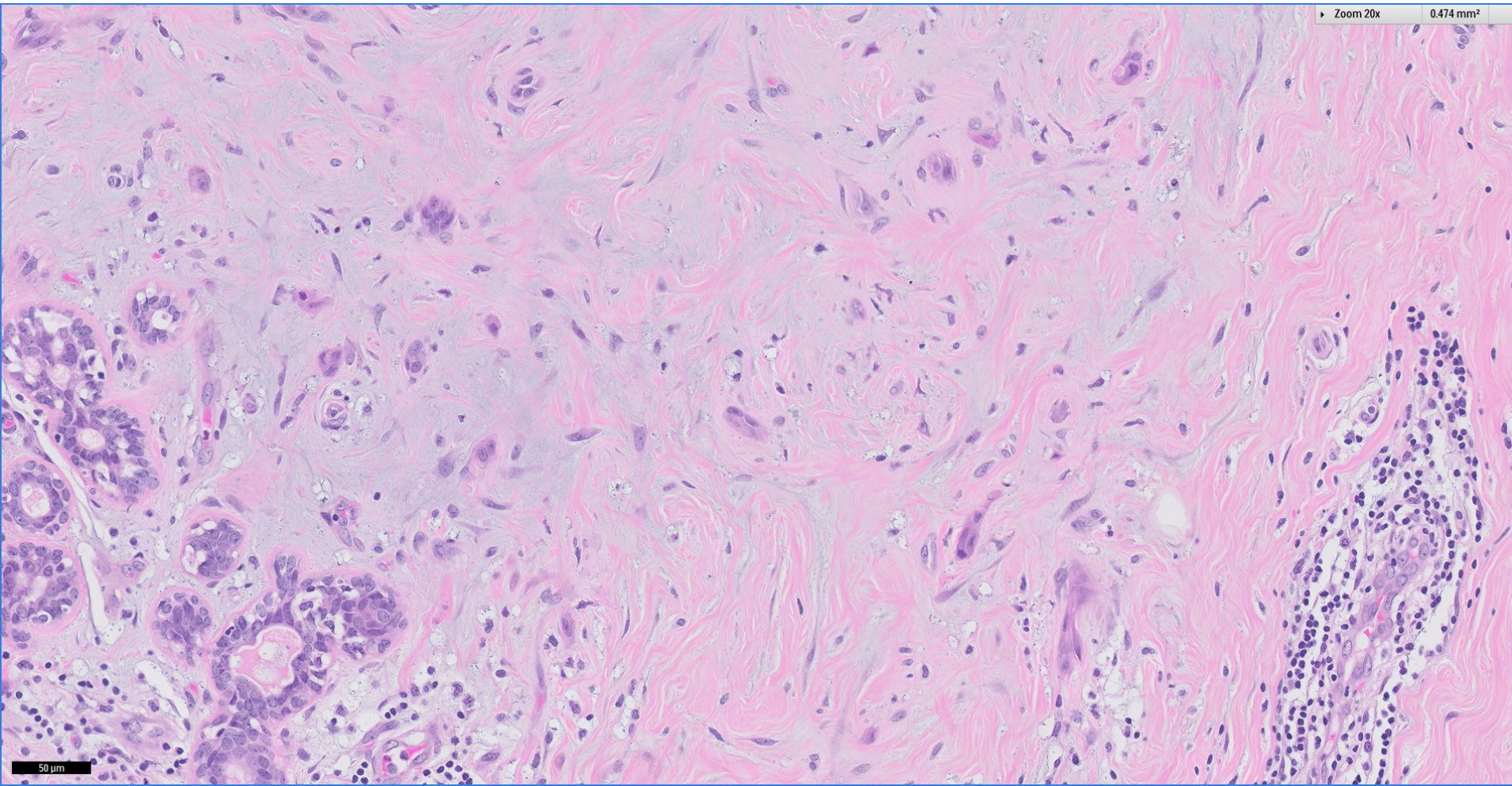


# Excision biopsy, B

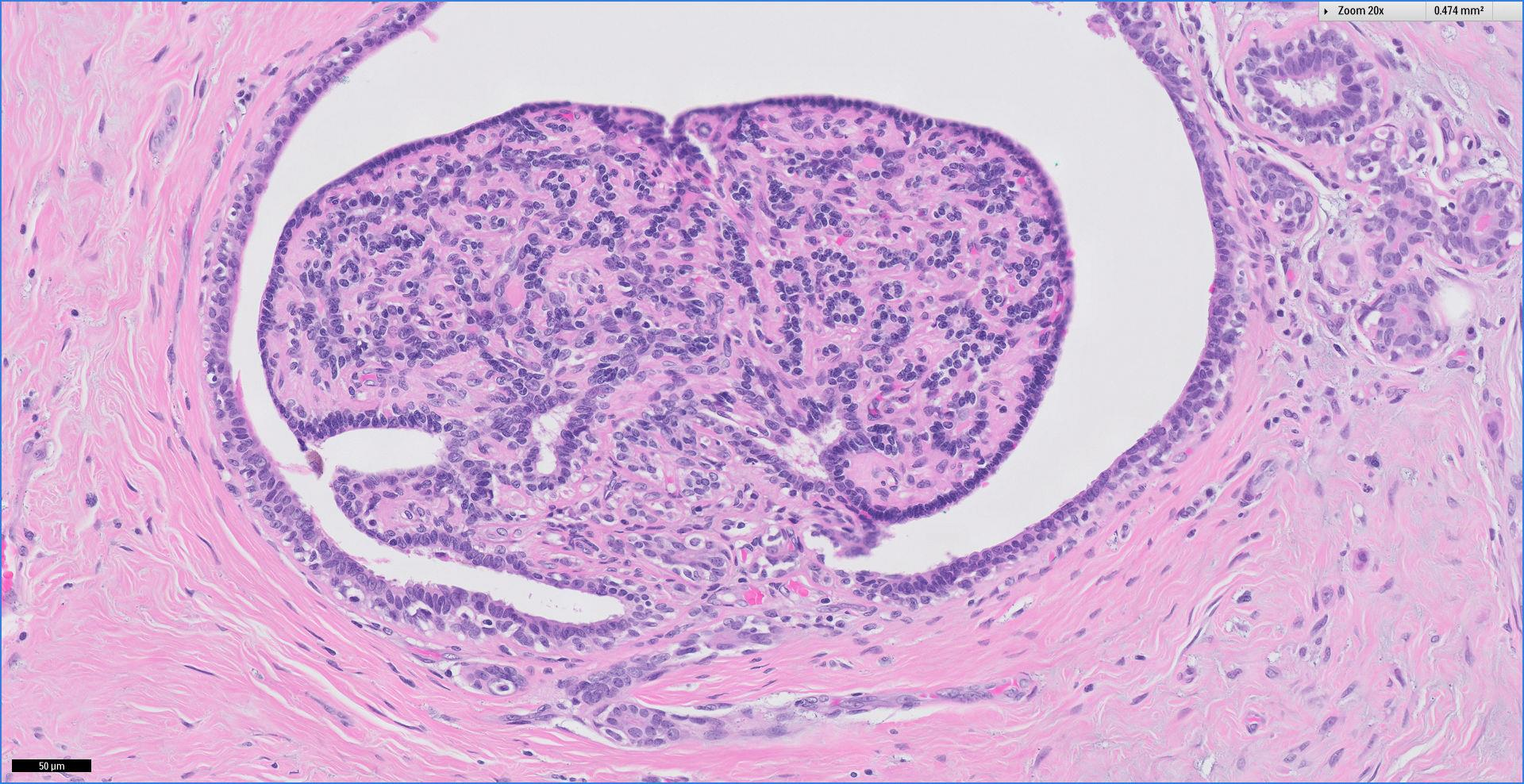
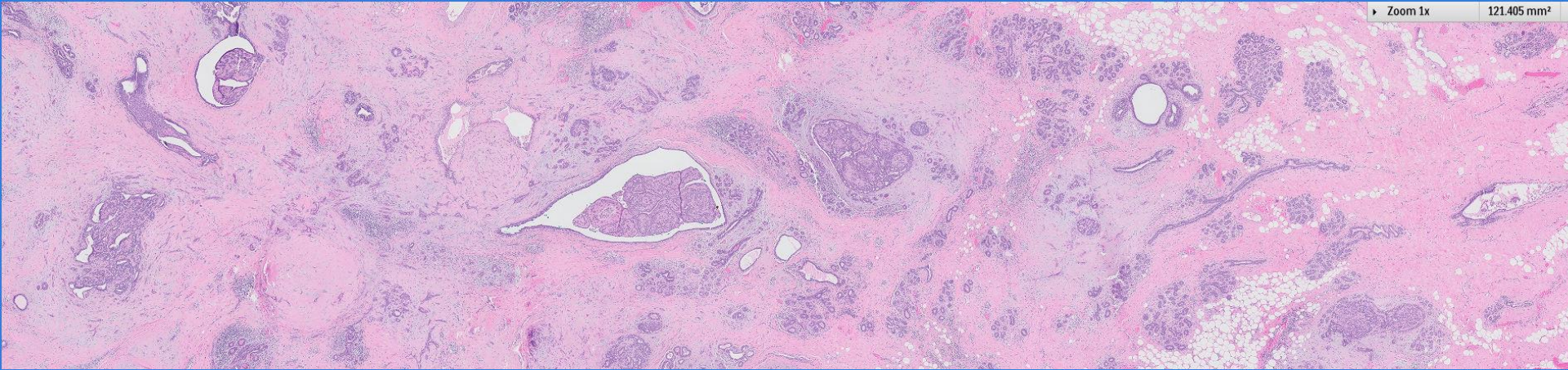




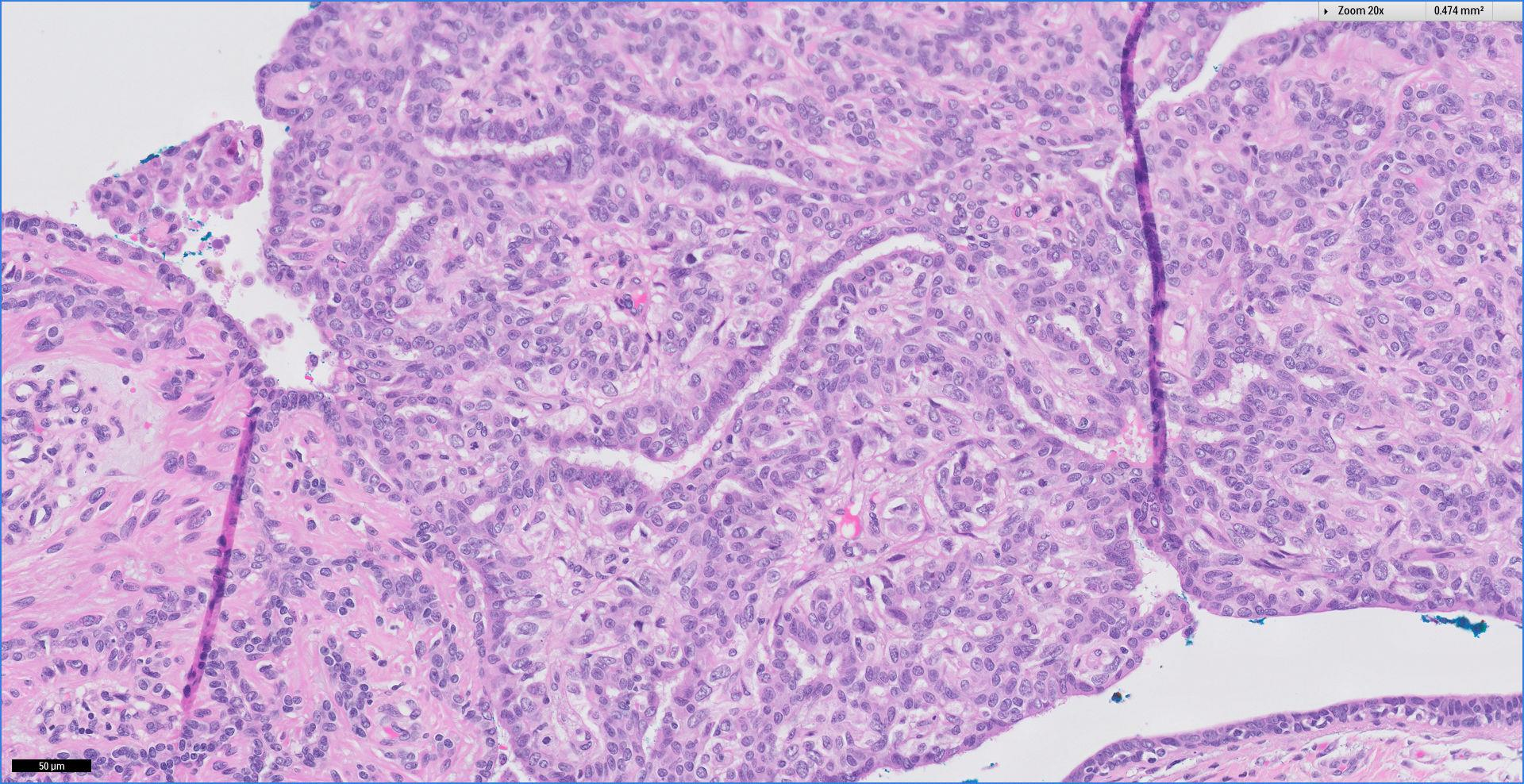
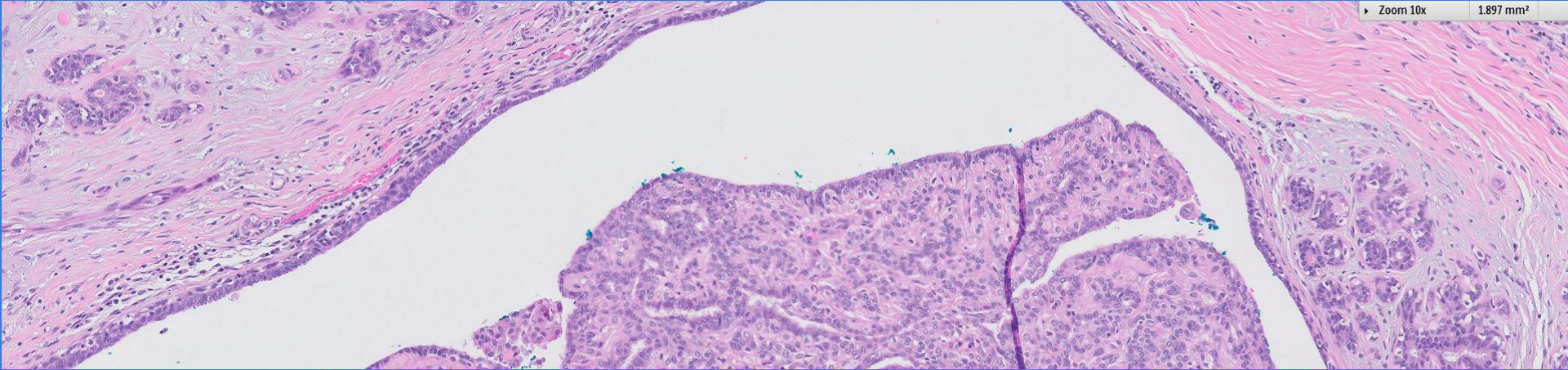
# Excision biopsy, B









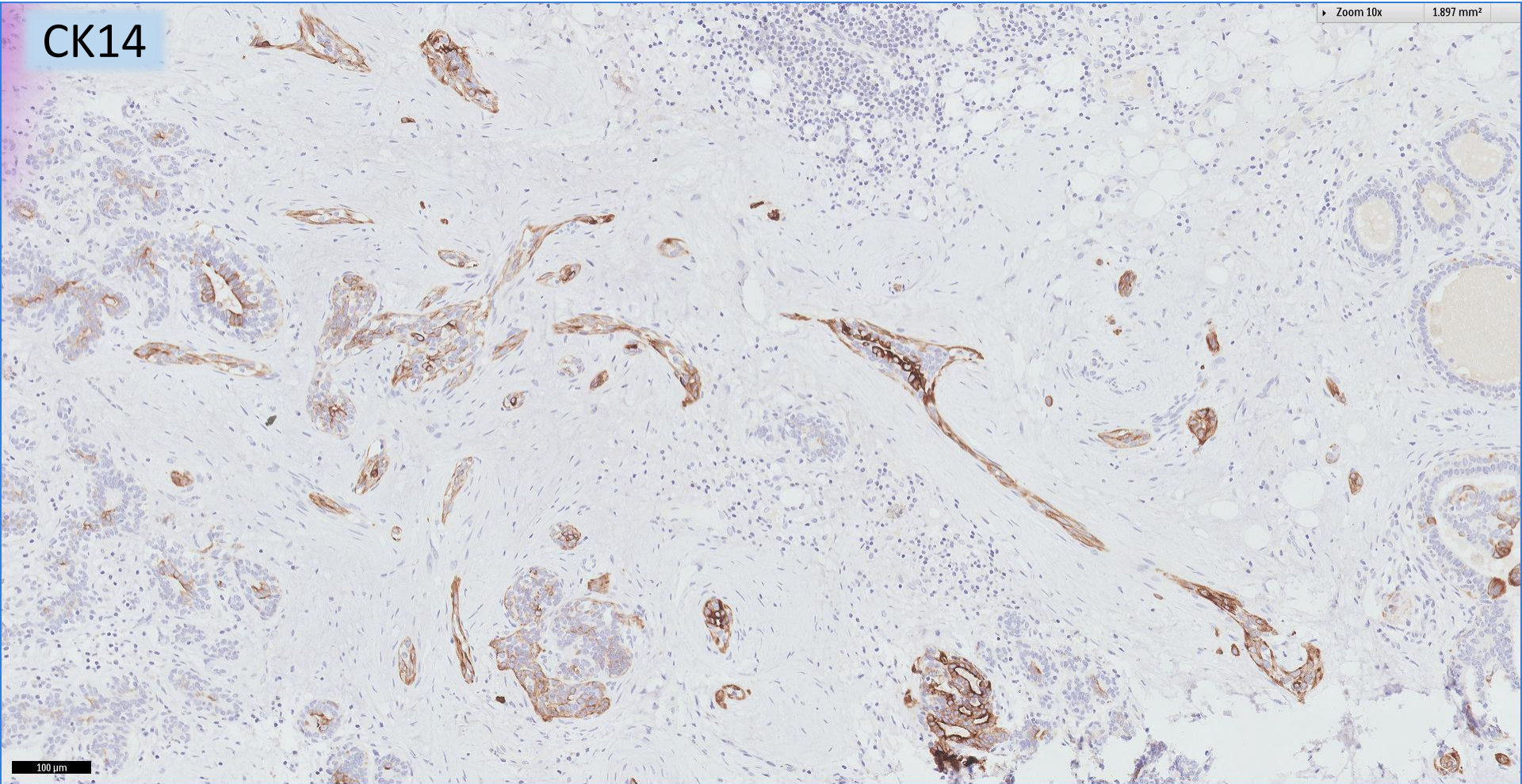




# Excision biopsy, B

CK14

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

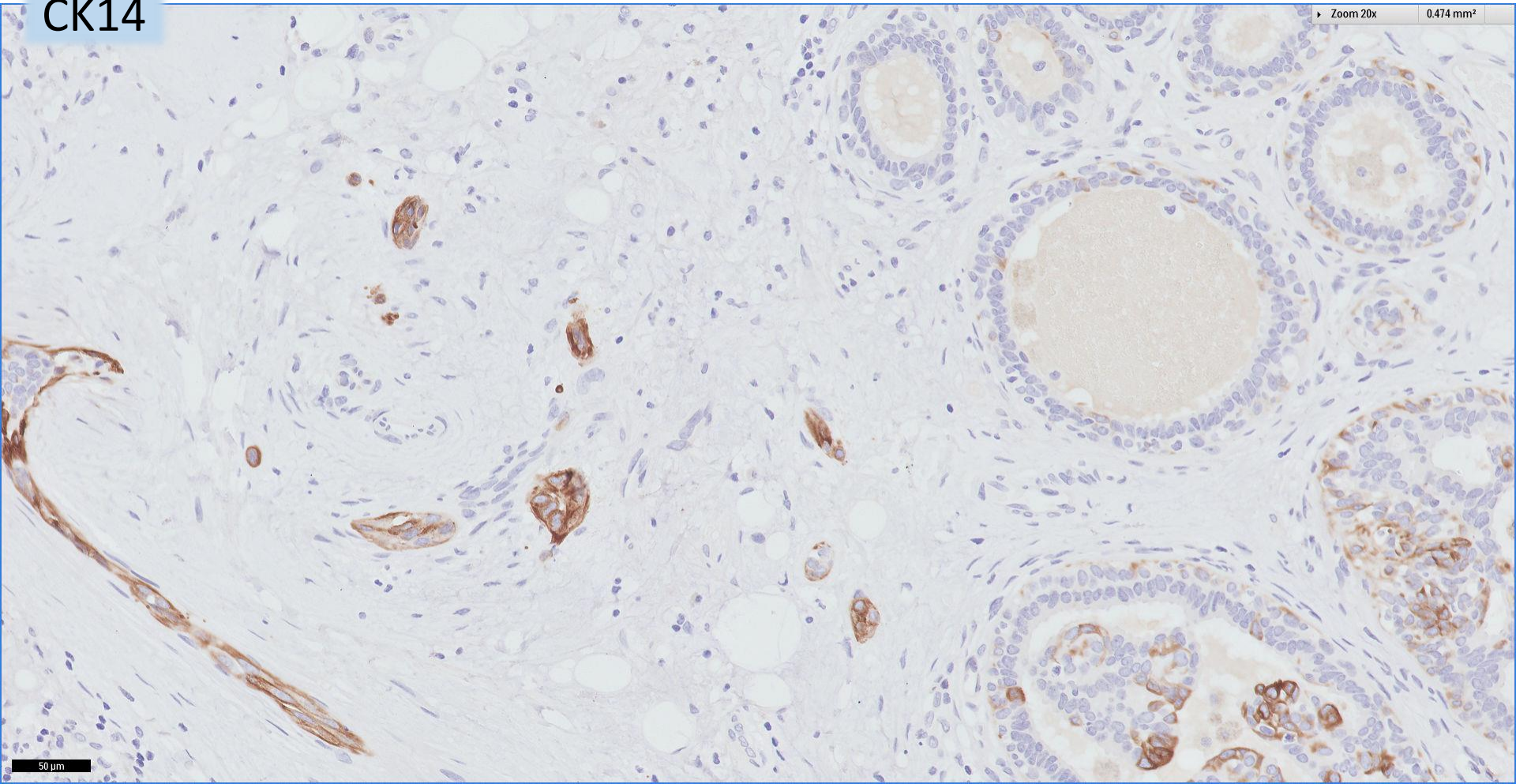


100  $\mu$ m



# Excision biopsy, B

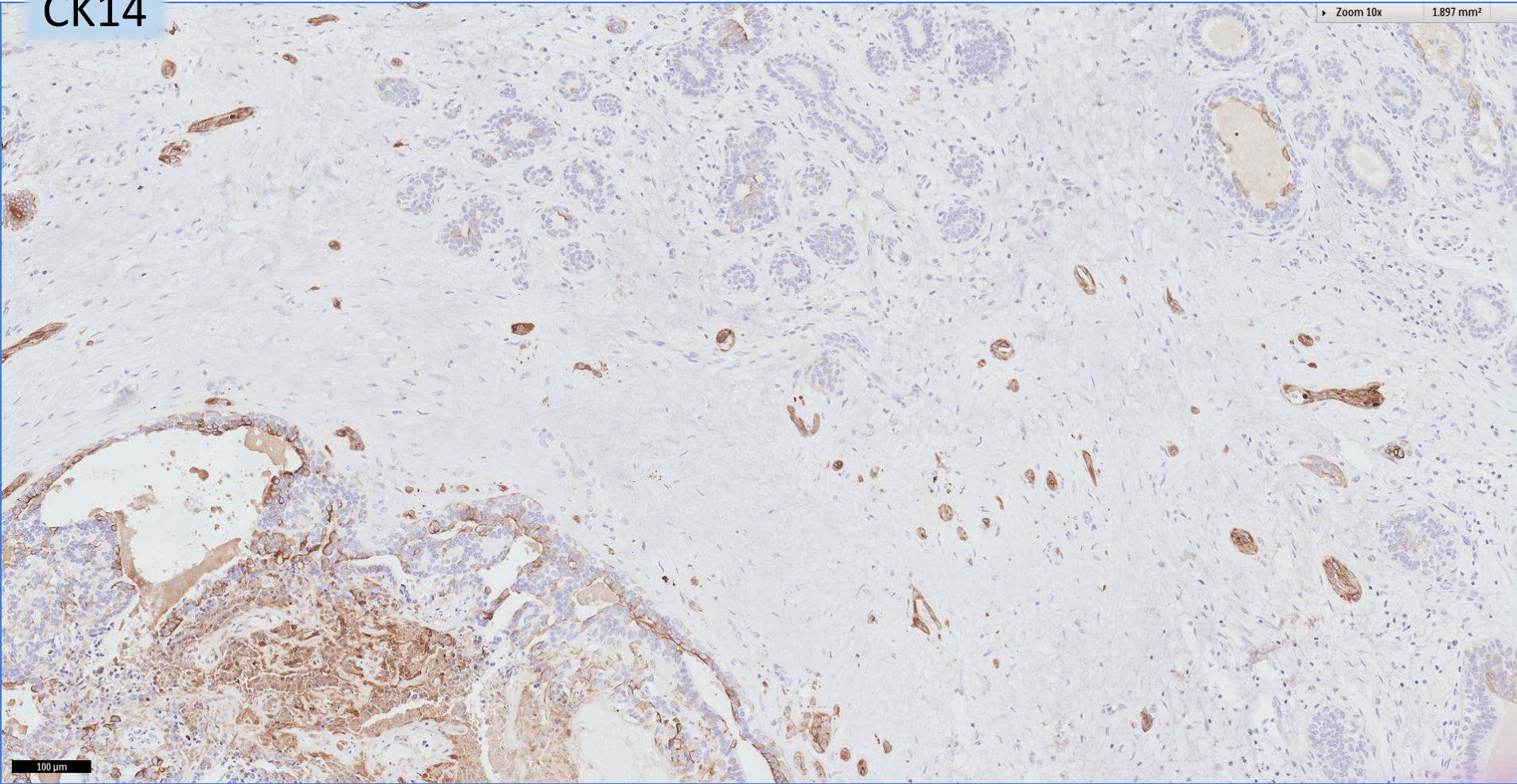
CK14





# Excision biopsy, B

CK14

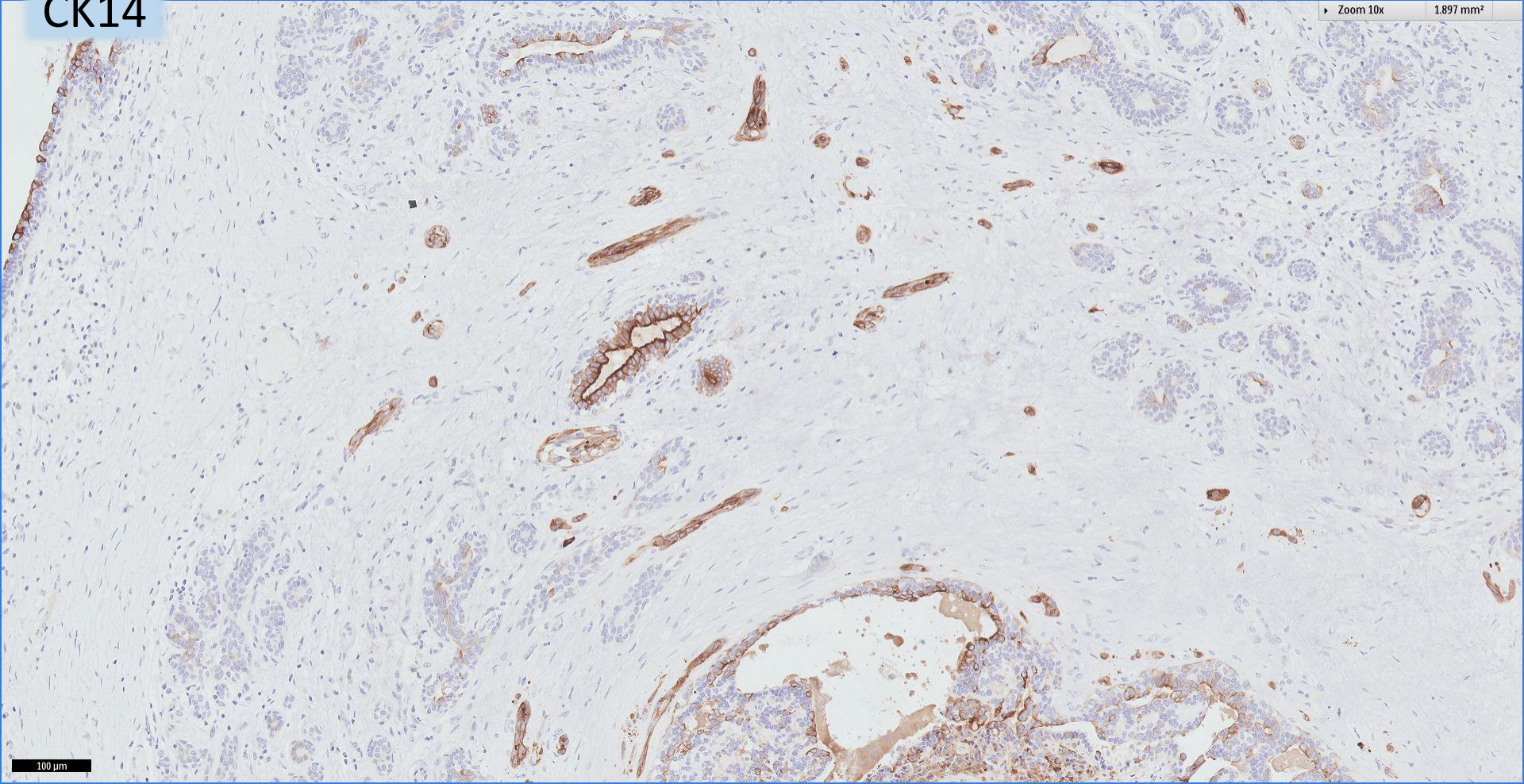




# Excision biopsy, B

CK14

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

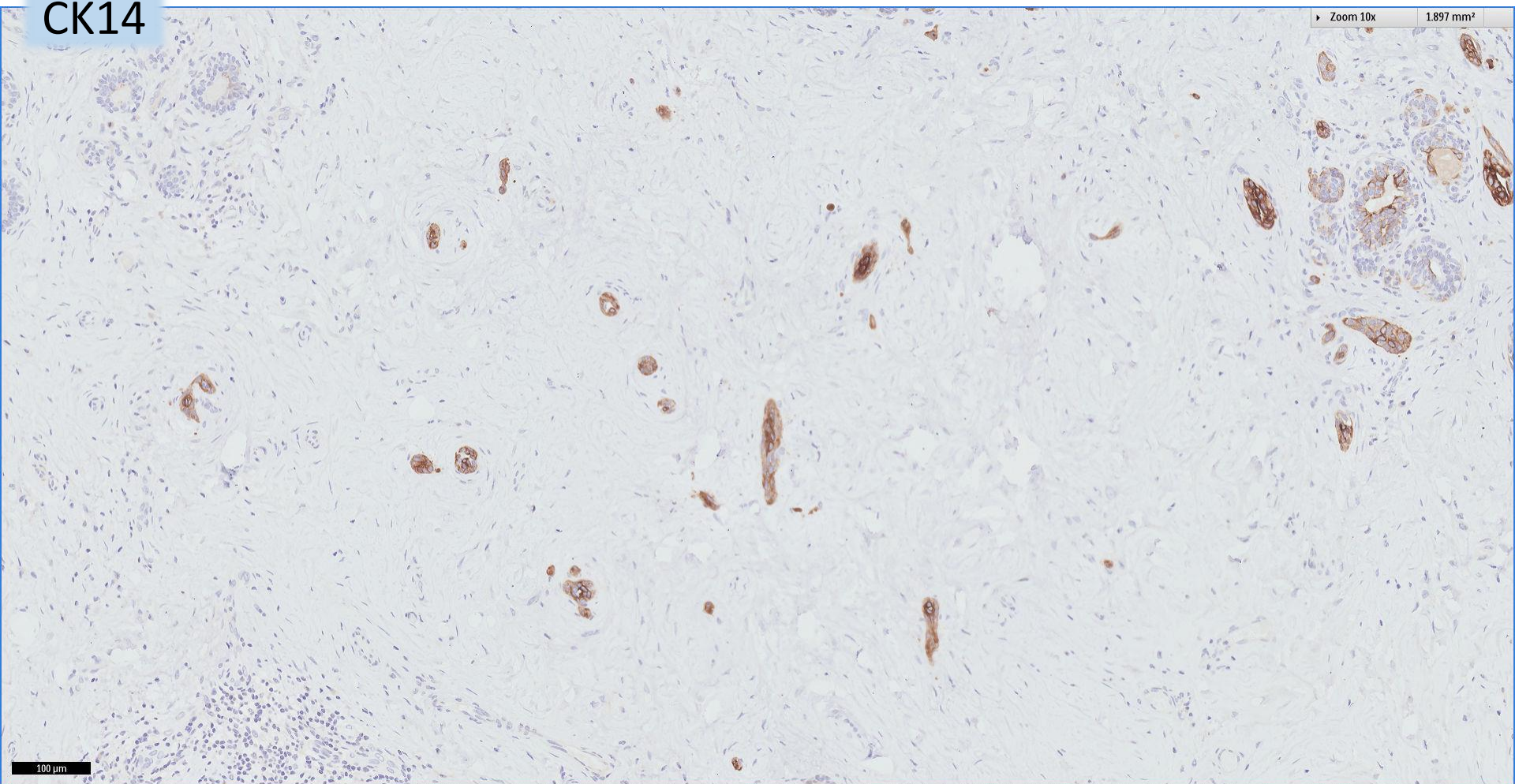


100 μm



# Excision biopsy, B

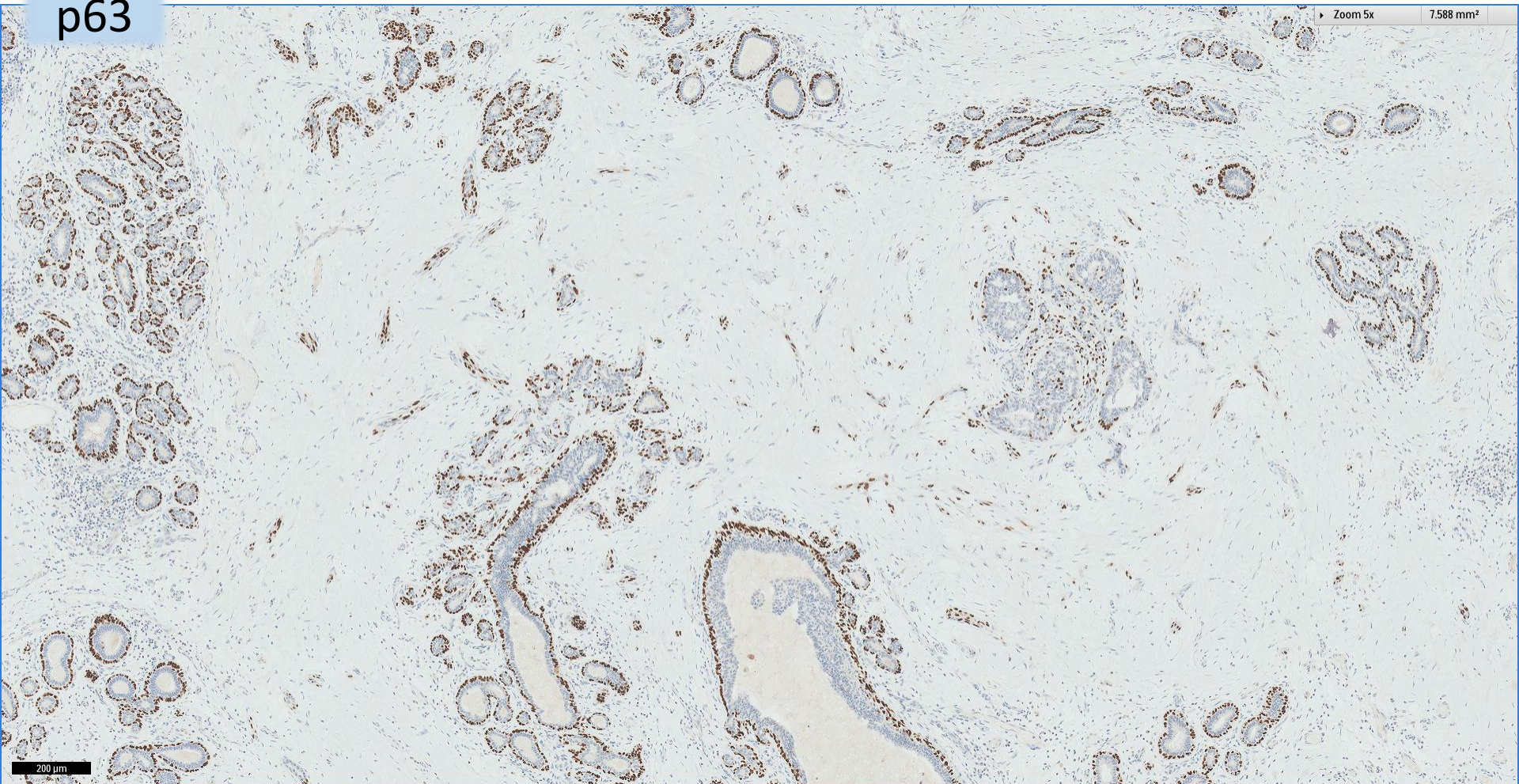
CK14





# Excision biopsy, B

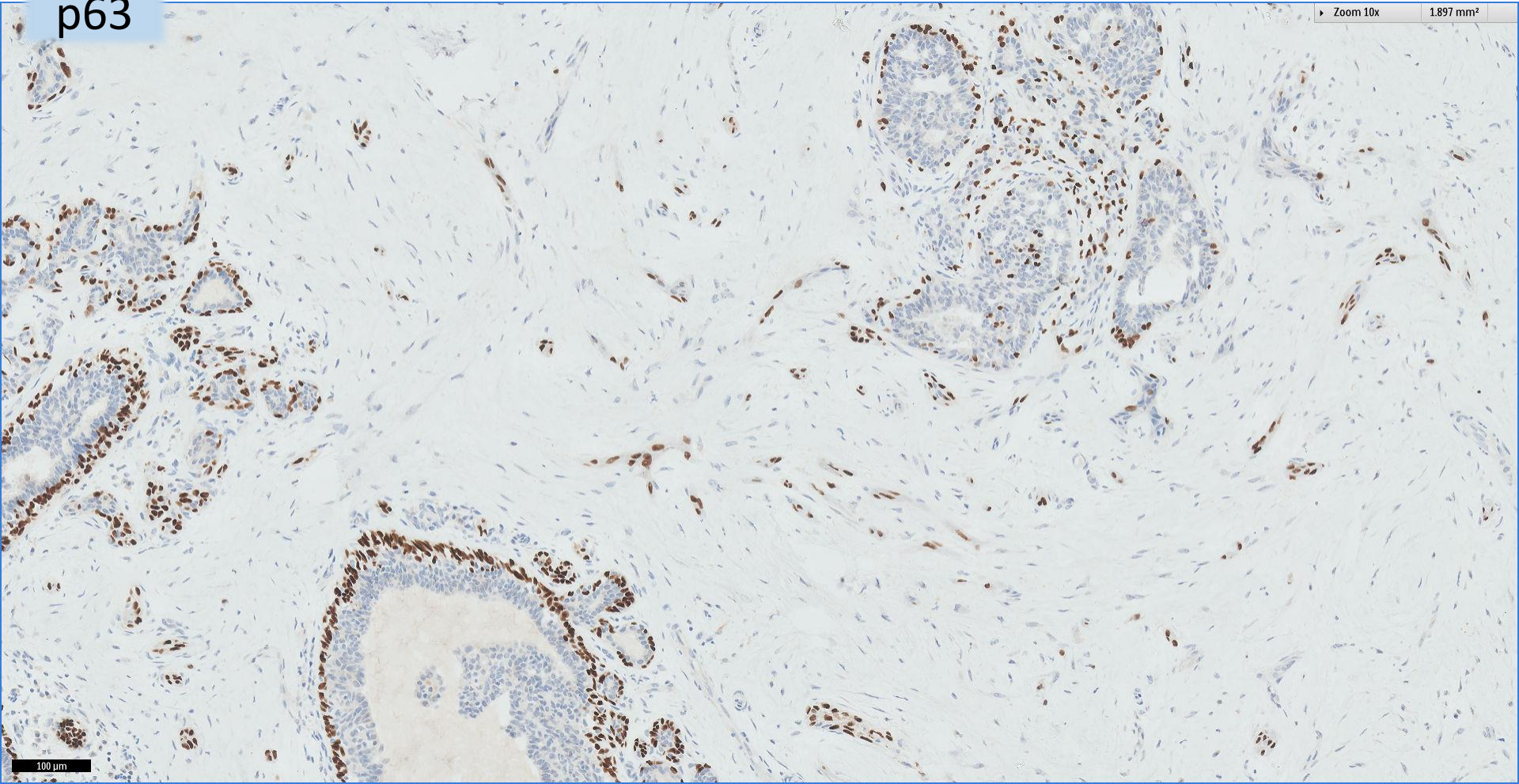
p63





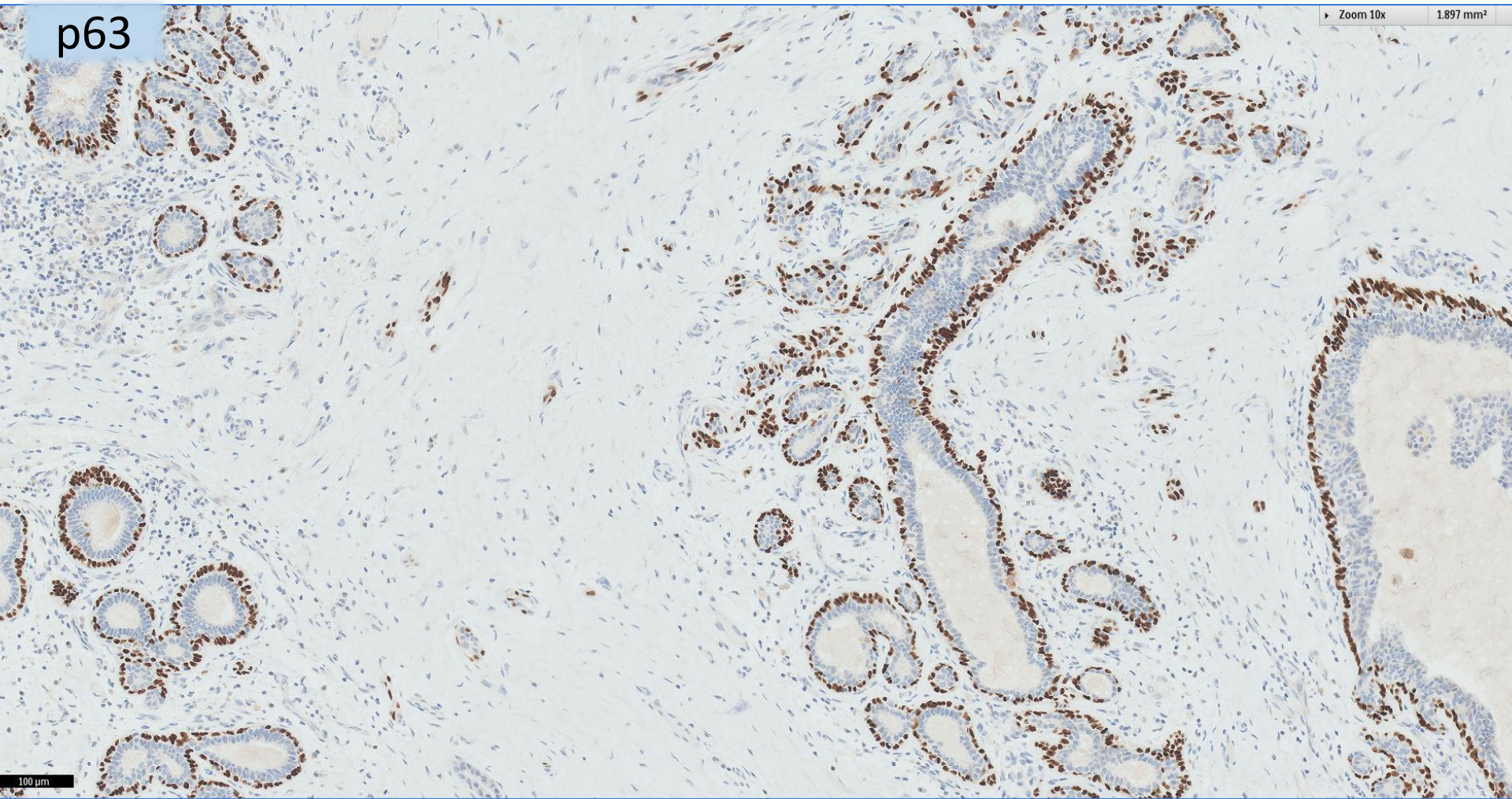
# Excision biopsy, B

p63





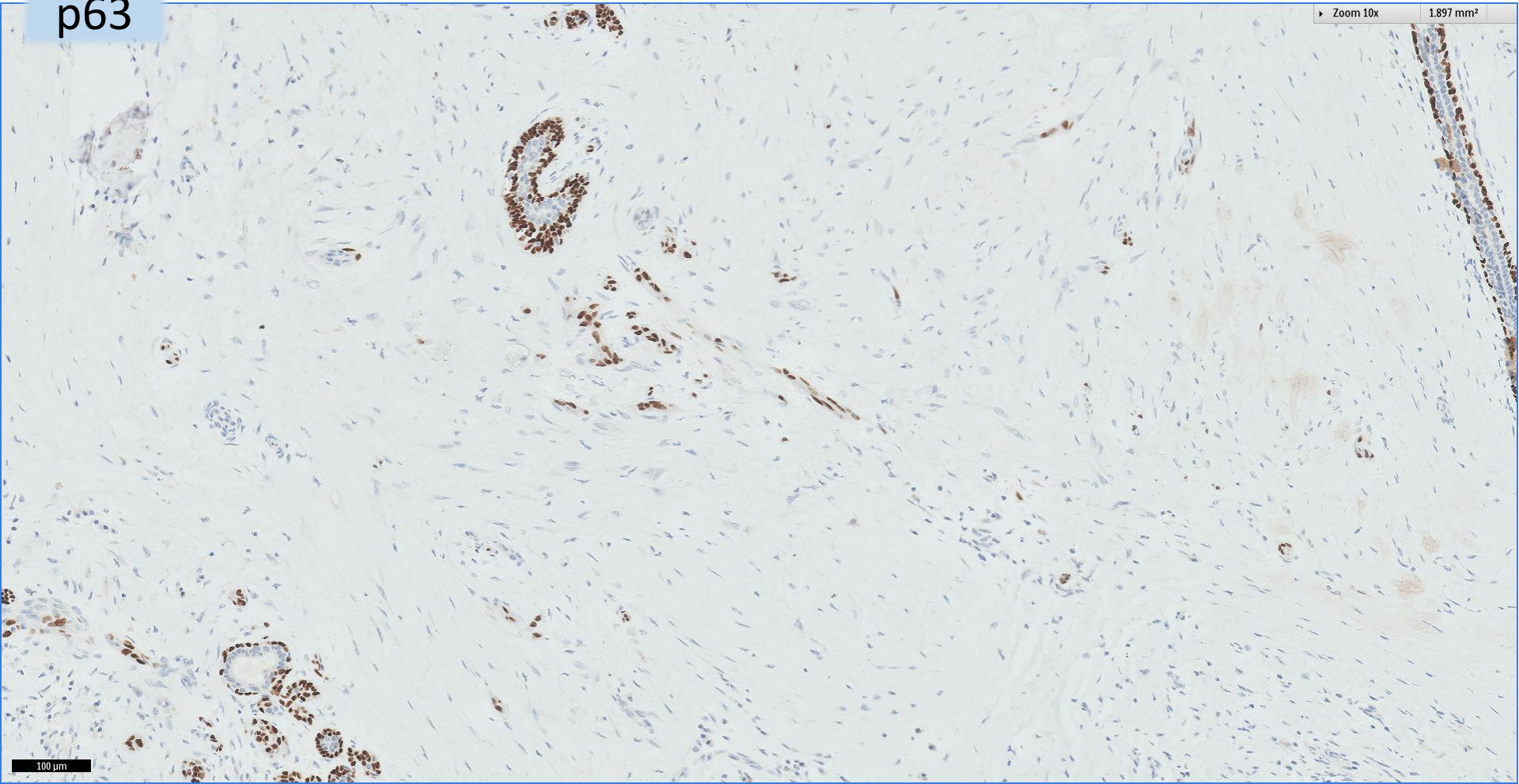
# Excision biopsy, B





# Excision biopsy, B

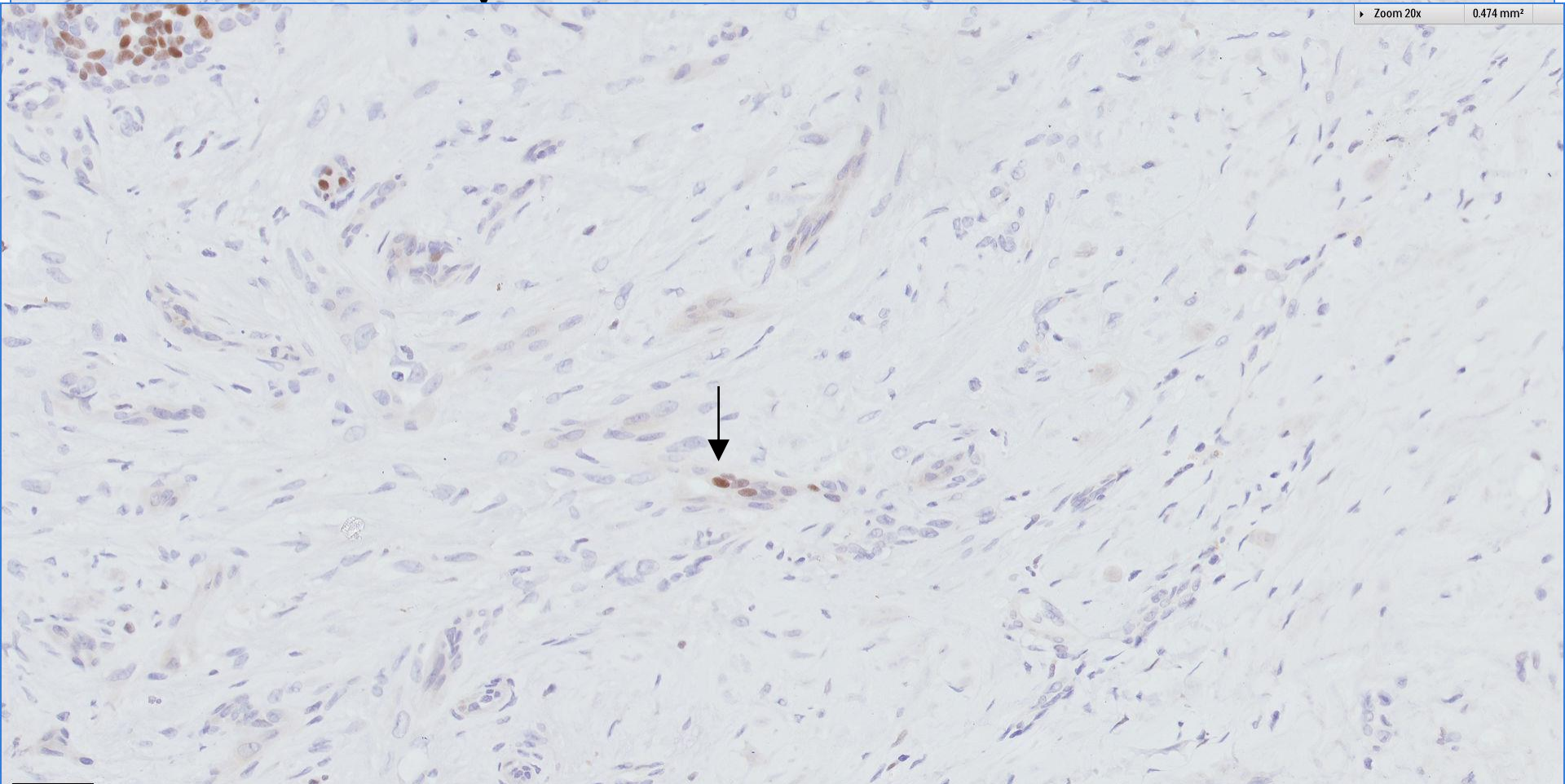
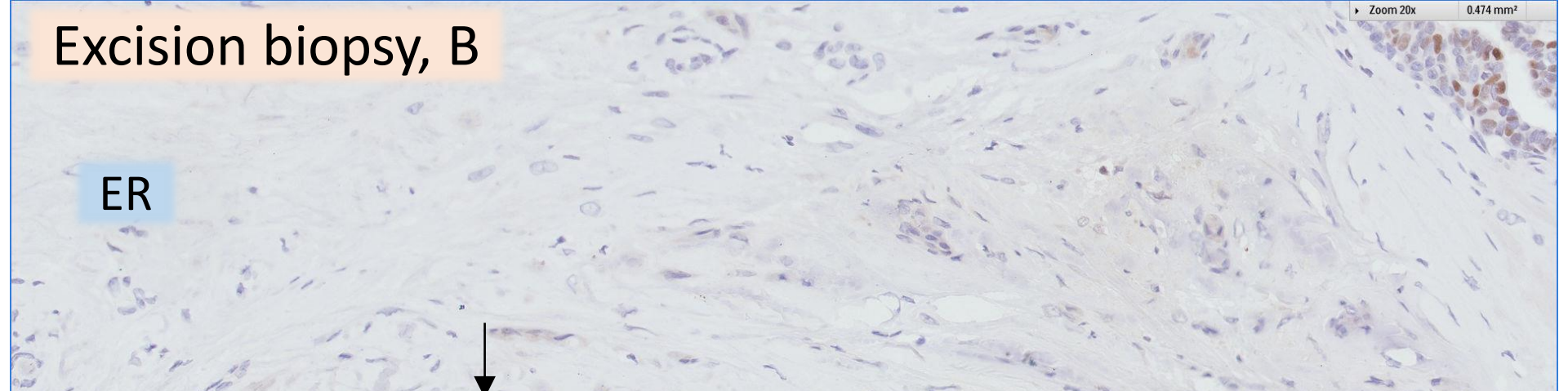
p63





# Excision biopsy, B

ER





# Diagnosis

## Wide excision, left breast lump ~

Low grade adenosquamous carcinoma, grade 1, 31mm, arising in association with intraductal papillomas with focal adenomyoepitheliomatous component.

ER weakly and focally positive.

PR and cerbB2 negative.



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**Histopathology. 2006 Dec;49(6):603-11.**

**Preoperative and intraoperative diagnosis of low-grade adenosquamous carcinoma of the breast: potential diagnostic pitfalls.**

Ho BC, Tan HW, Lee VK, Tan PH.

**AIMS:** Low-grade adenosquamous carcinoma (LGAC), a rare variant of metaplastic breast cancer, may mimic benign or other low-grade malignant lesions histologically. Diagnostic difficulty may be encountered when evaluating breast cytology, core needle biopsy or intraoperative frozen section specimens.

**METHODS AND RESULTS:** Pathology reports, cytology aspirates and histological slides of LGAC diagnosed at the Department of Pathology, Singapore General Hospital, were reviewed. Four cases of LGAC were analysed. Cytology from the first case showed atypical cells and the subsequent surgical excision specimen showed a complex sclerosing lesion with LGAC. The second and third cases were investigated by core needle biopsies: the preoperative histological features were suggestive of but not diagnostic of LGAC, until further excision biopsies were performed. The fourth case entailed a frozen section specimen, for which definitive diagnosis was deferred to paraffins. The patients remained well with no evidence of recurrent disease to date.

**CONCLUSIONS:** **When limited material, in the form of needle aspirates, core biopsy specimens or frozen sections, is submitted for histology, making a diagnosis of LGAC is not only challenging, but may be impossible.** In difficult cases, careful pathological assessment, clinicopathological correlation and follow-up or complete excision biopsy may prove invaluable in establishing a definitive diagnosis.



# Low grade adenosquamous carcinoma

- Categorized as a metaplastic carcinoma.
- Histologically composed of small, solid nests and irregular, angulated epithelial tubules associated with squamous differentiation, which may be subtle, appearing as squamous whorls formed by polygonal cells with hardened eosinophilic cytoplasm, or may appear as more obvious squamous islands with keratinization.
- Epithelial islands permeate the stroma between breast lobules and may merge with abnormal spindle cells.
- A lymphocytic infiltrate is often found at the tumour periphery.
- Immunohistochemical positivity for p63 and HMWK.
- Hormone receptors and cerbB2 usually negative.
- Association with radial sclerosing lesions, papilloma, and adenomyoepithelioma.



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