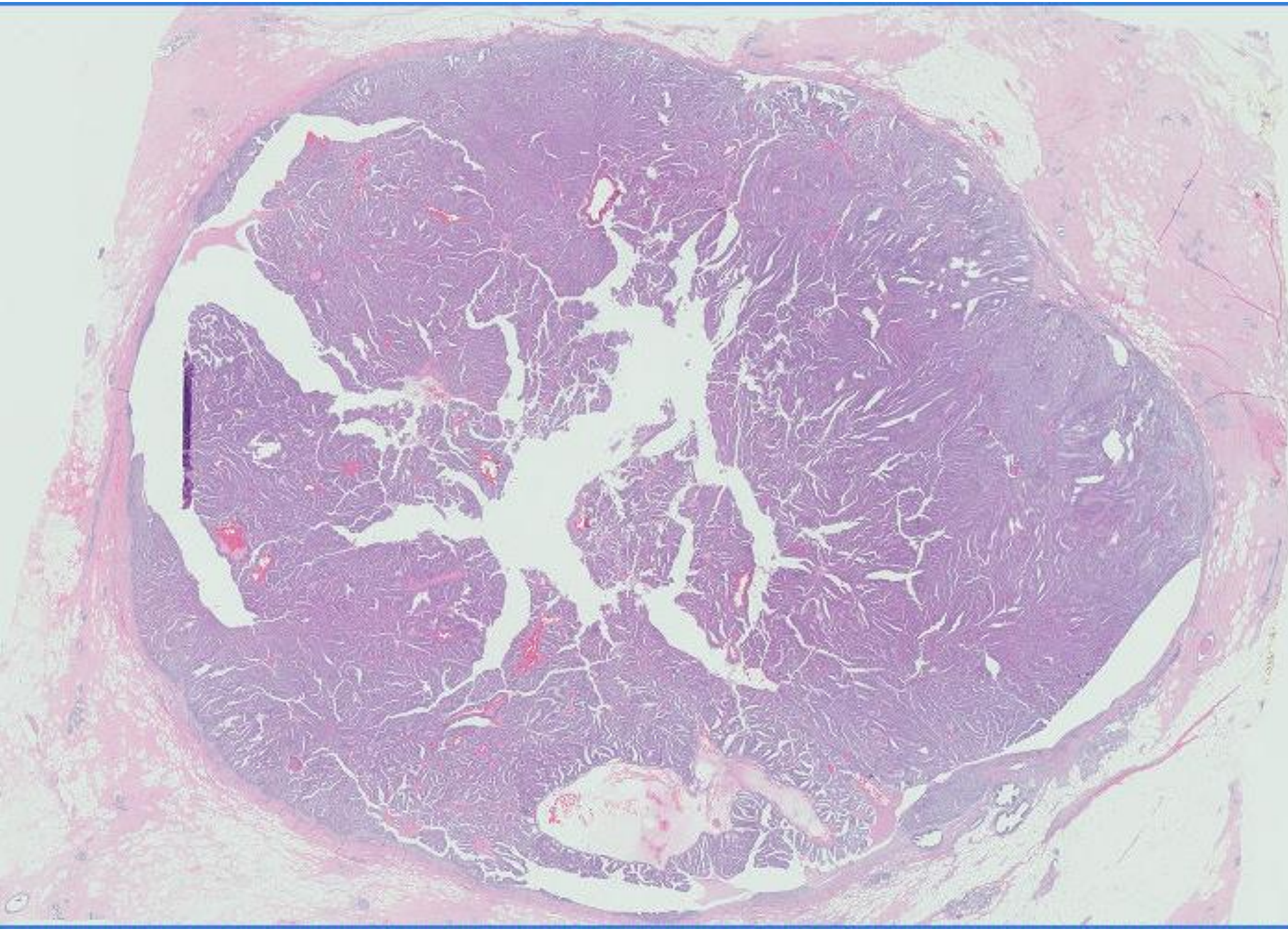
Breast Pathology Course 2016

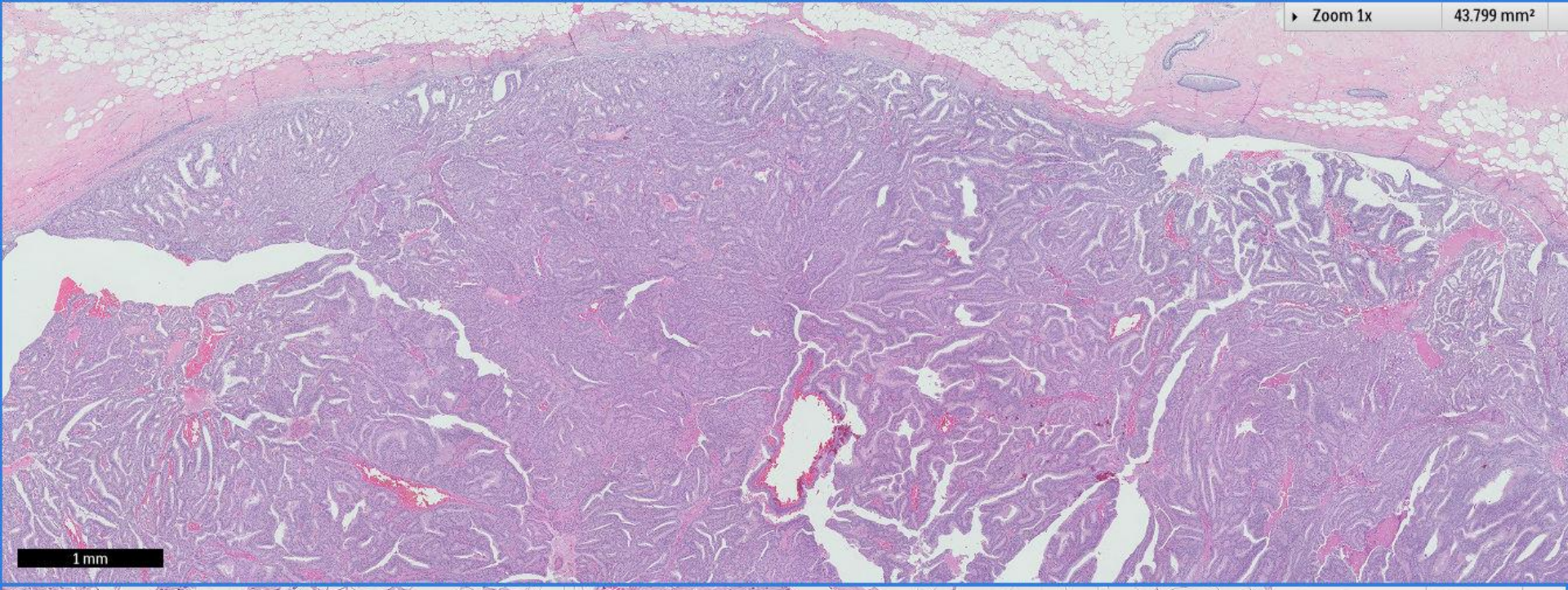
Case 35

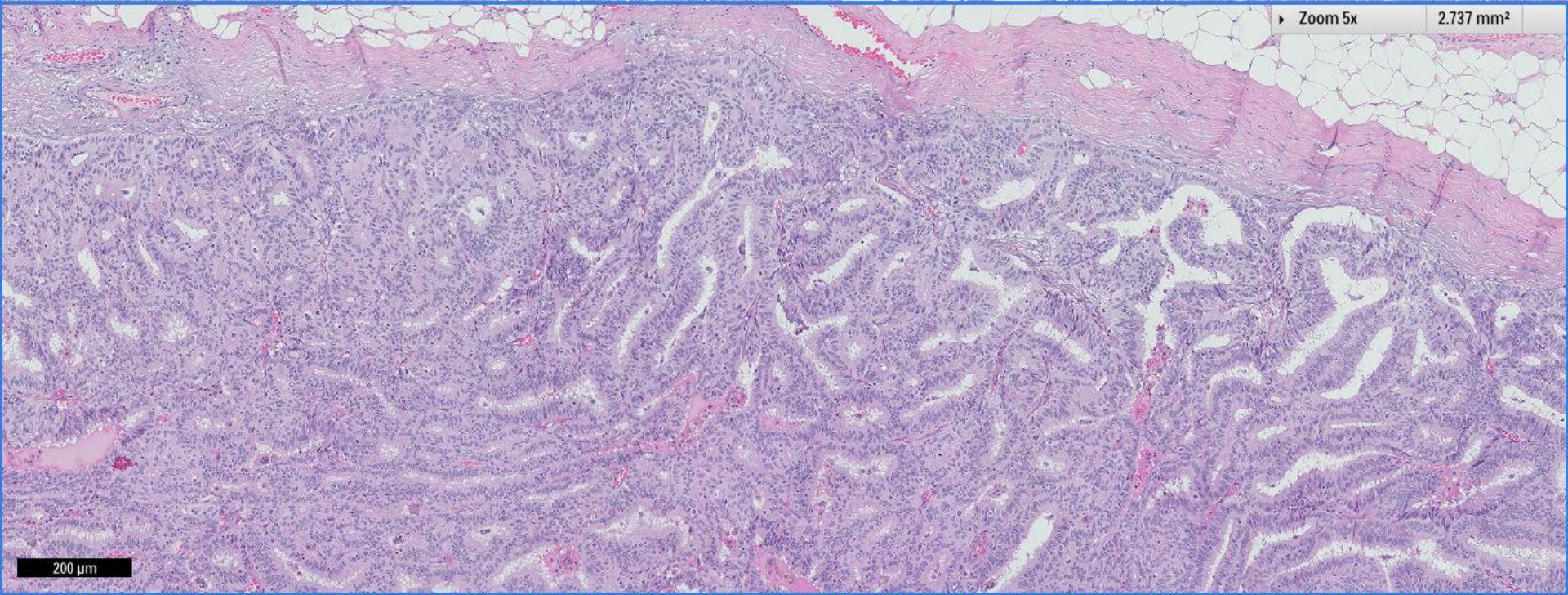
Adult woman underwent a left breast skin sparing mastectomy

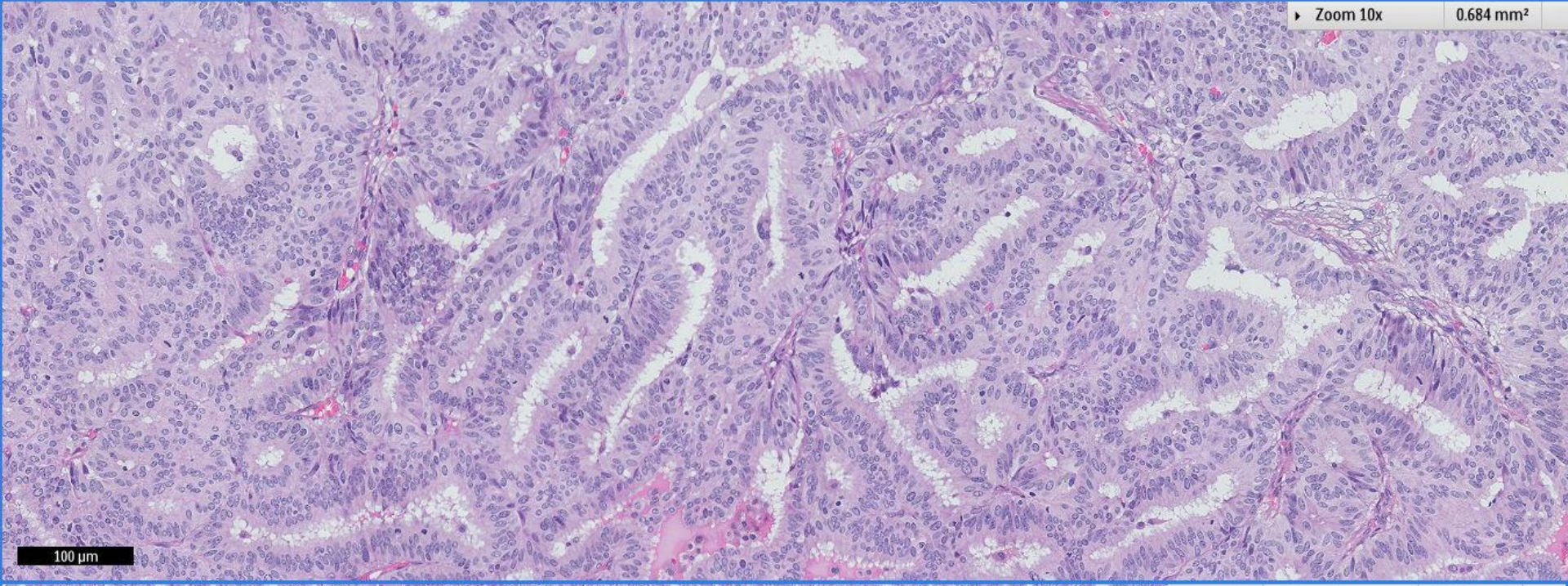
(Case contributed by Dr Mihir Gudi, KKH)

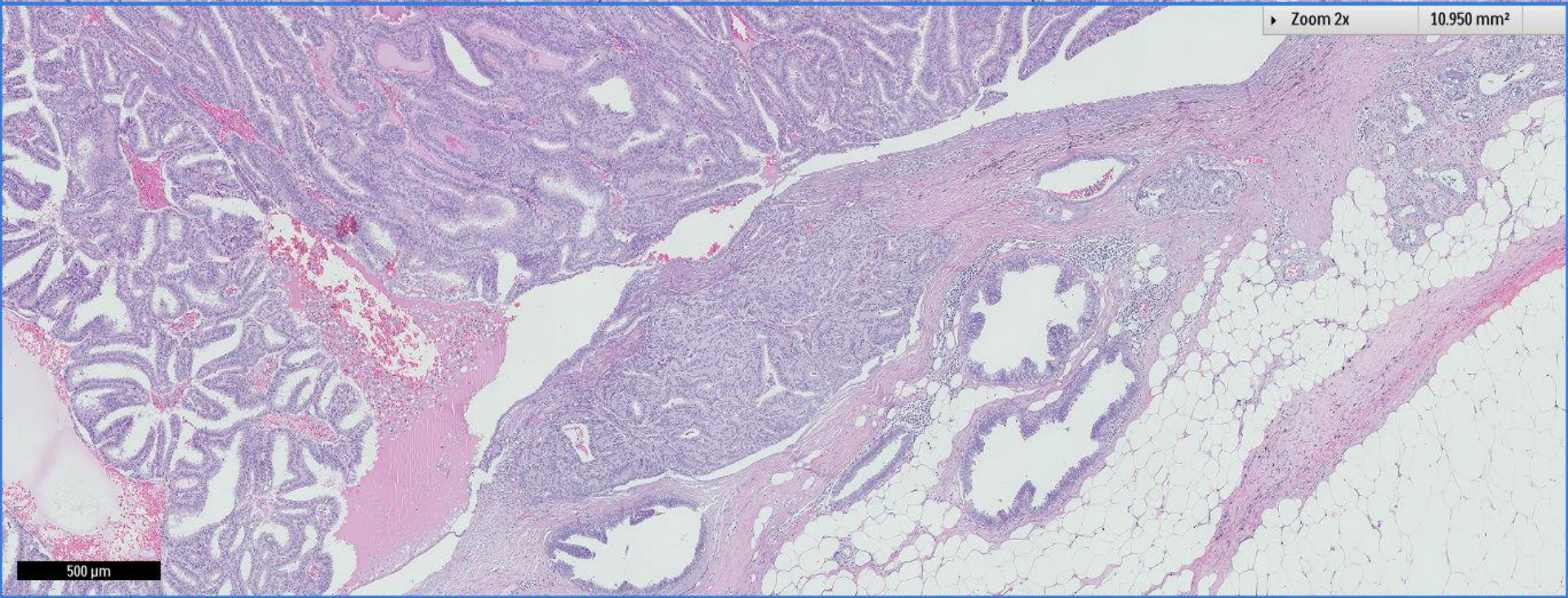
Singapore General Hospital
SingHealth
Division of Pathology
since 1821
195th Anniversary
SingHealth DukeNUS ACADEMIC MEDICAL CENTRE
PATHOLOGY
IAP International Academy of Pathology Singapore Division

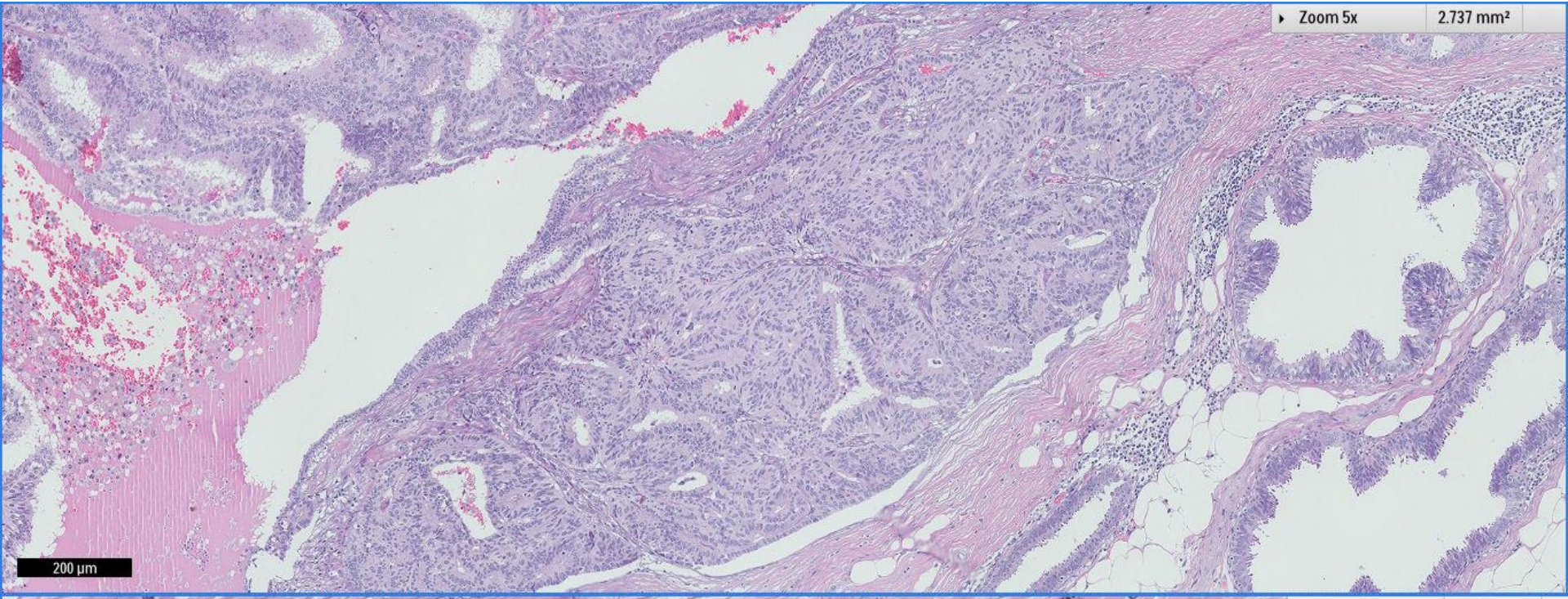


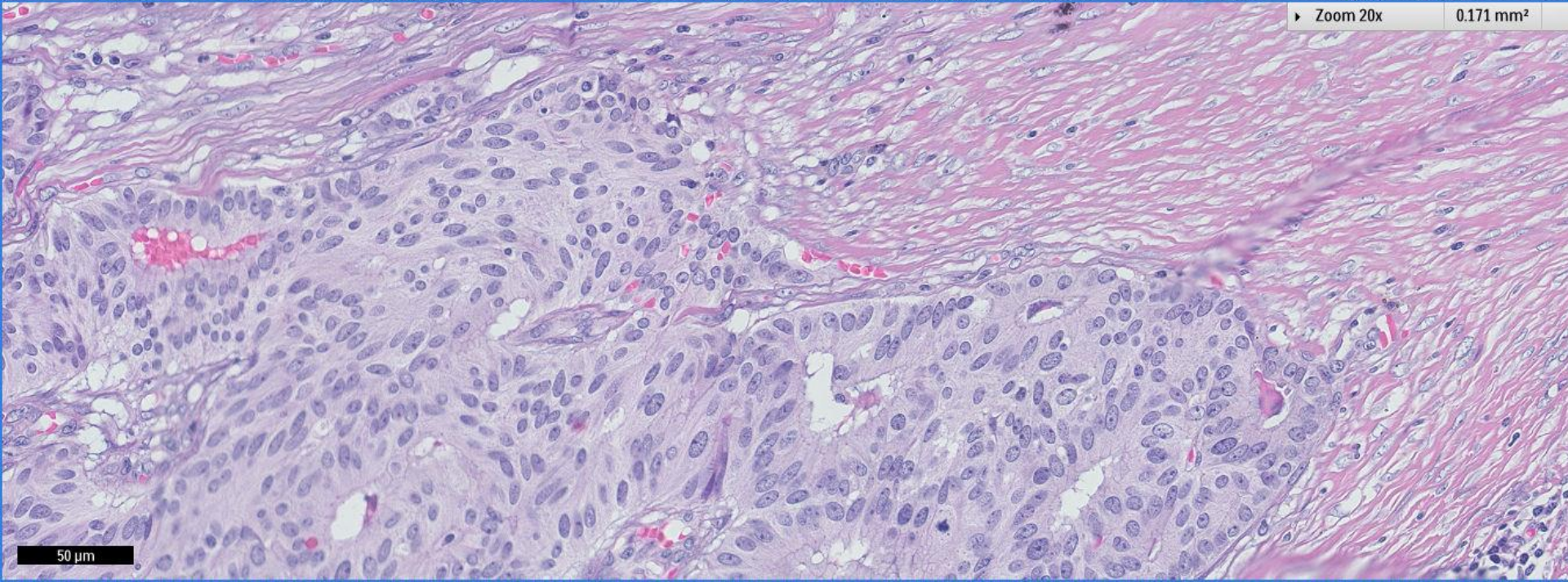

Zoom 1x
43.799 mm²
1 mm


Zoom 5x
2.737 mm²
200 µm

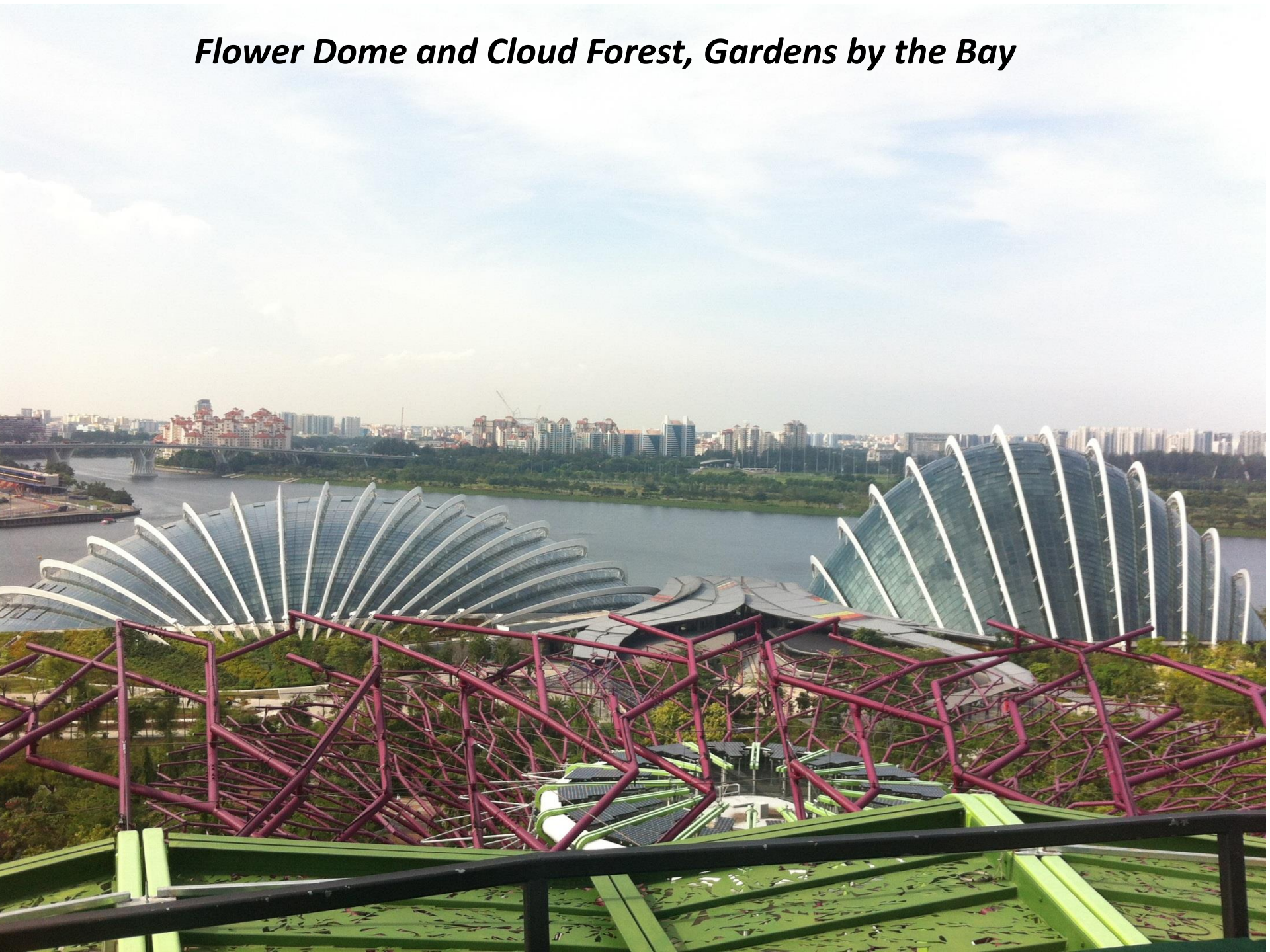

Zoom 10x
0.684 mm²
100 µm

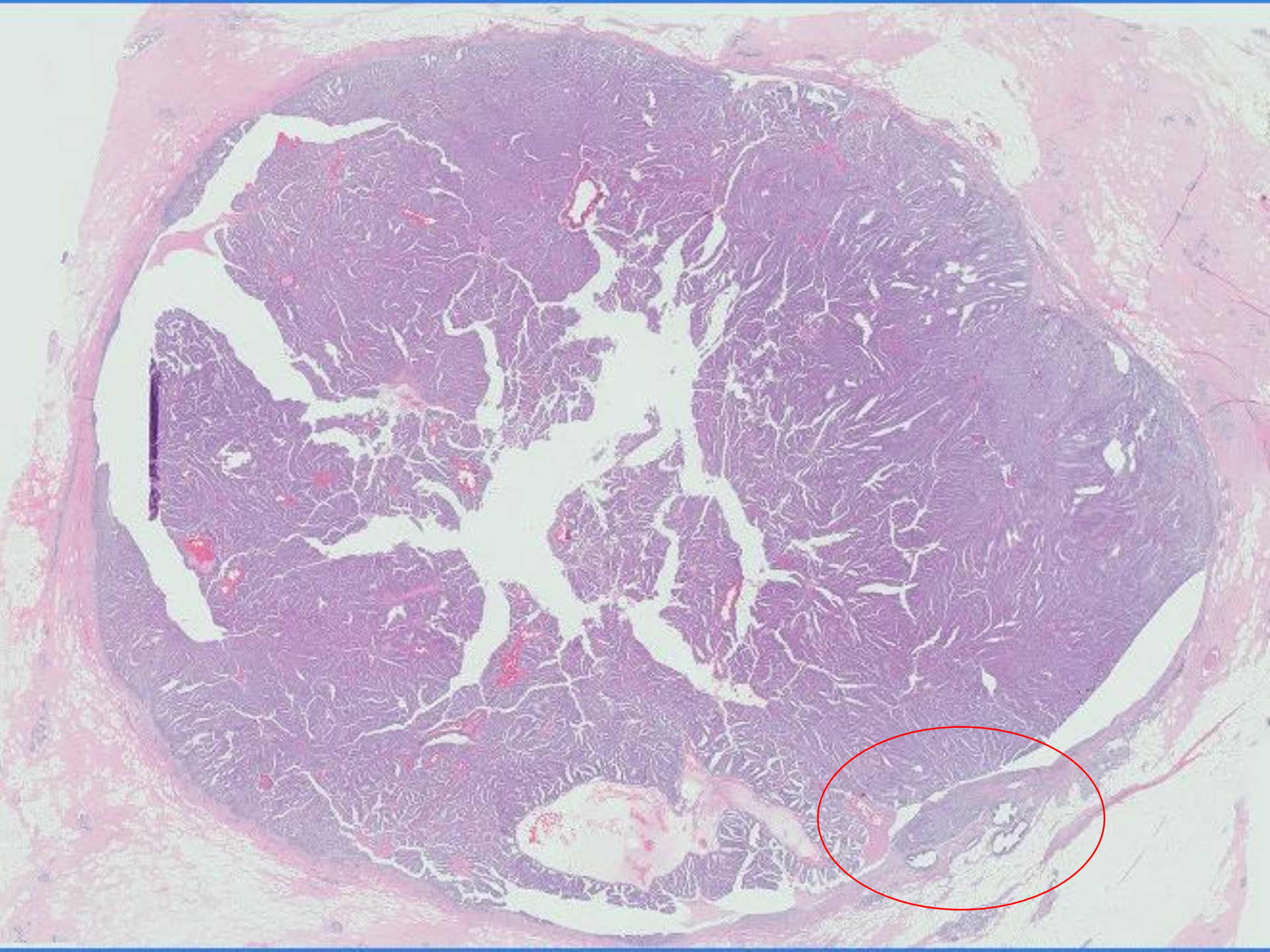

Zoom 2x
10.950 mm²
500 µm

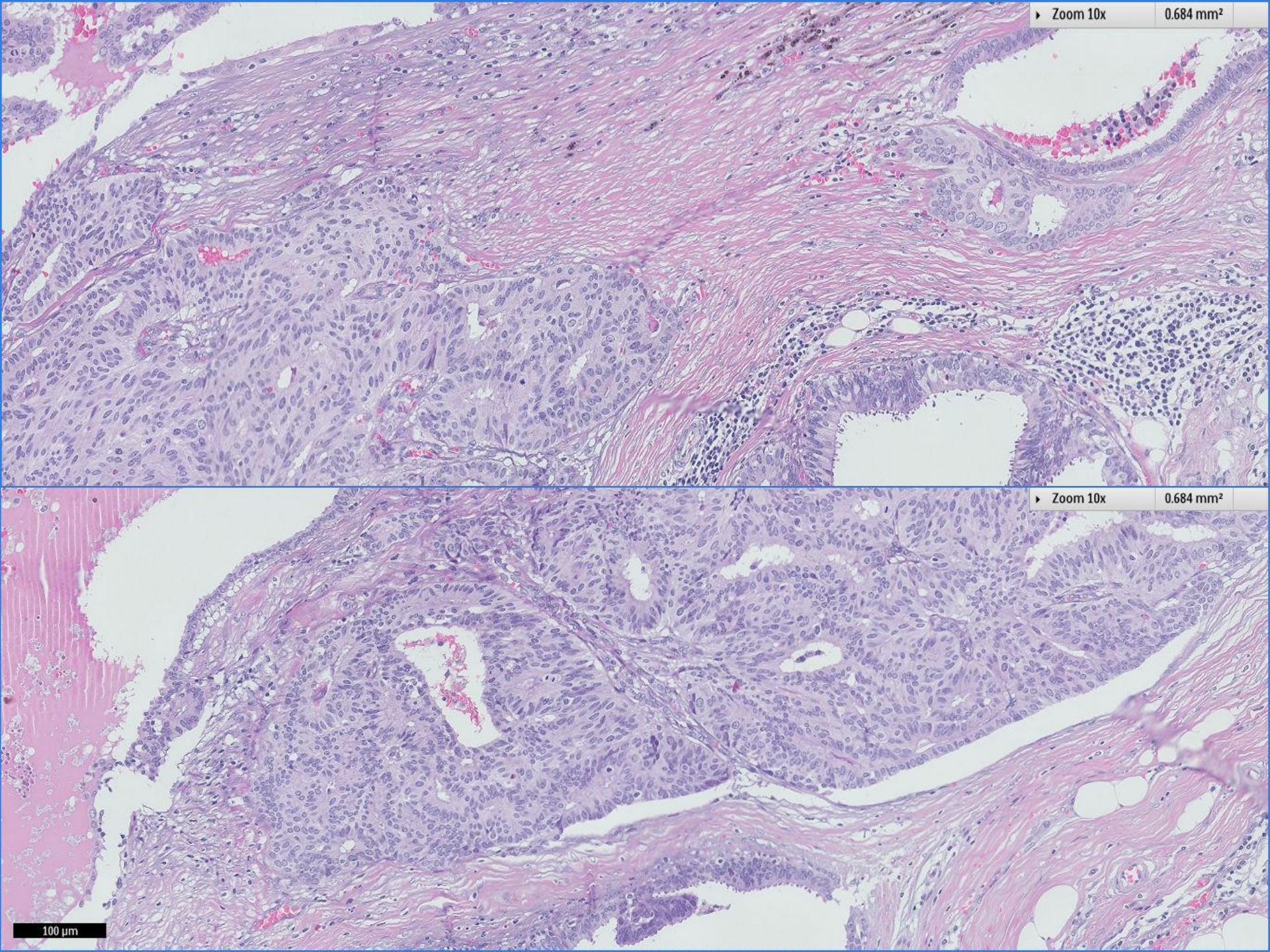

Zoom 5x
2.737 mm²
200 µm

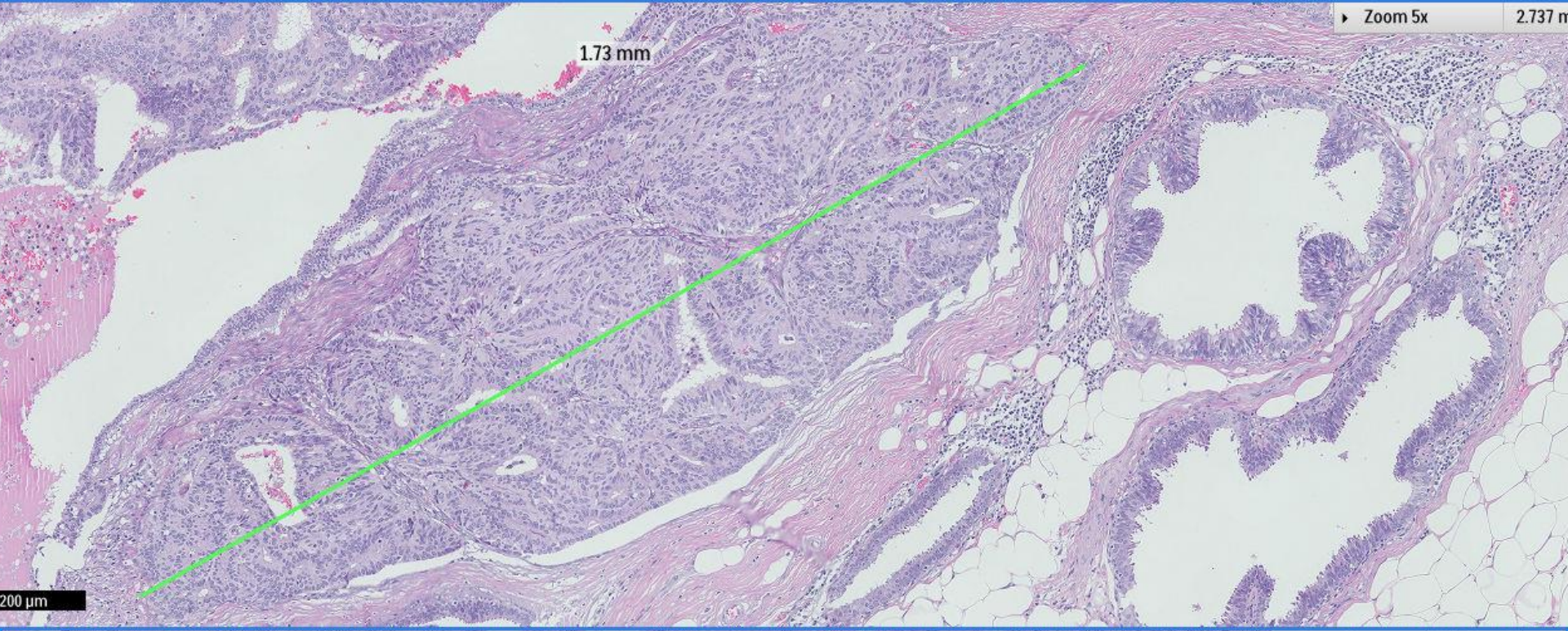

Zoom 20x
0.171 mm²
50 µm

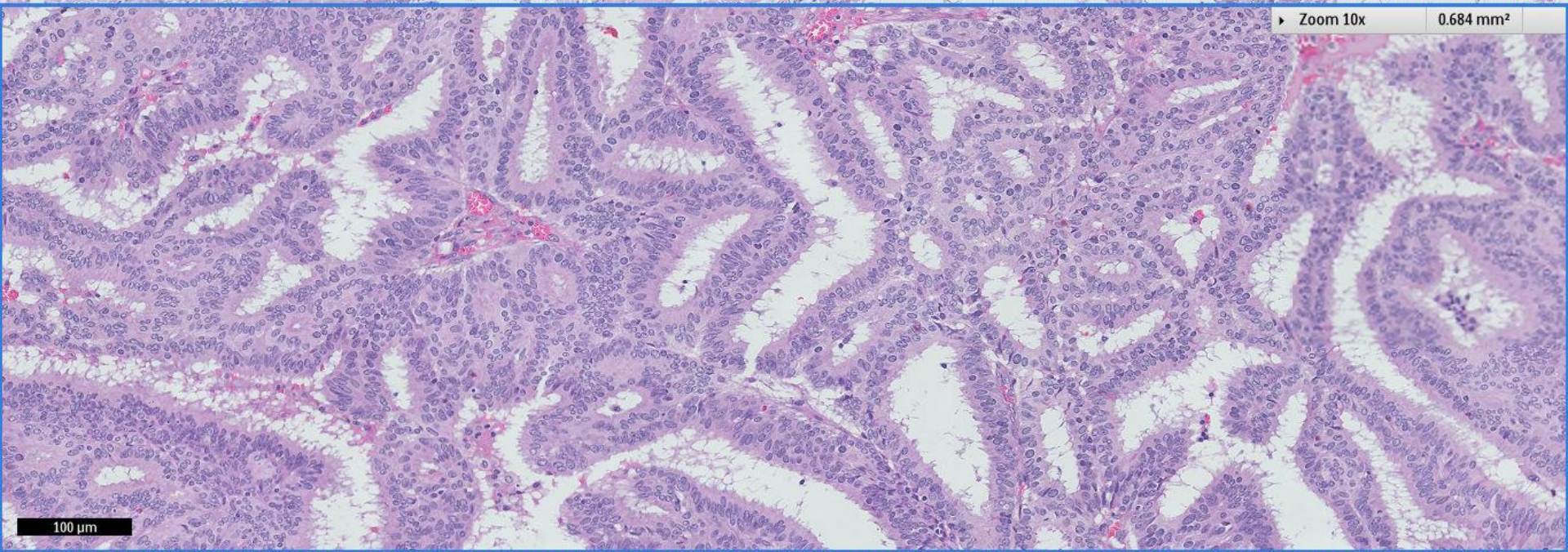
Flower Dome and Cloud Forest, Gardens by the Bay






Zoom 10x
0.684 mm²
Zoom 10x
0.684 mm²
100 µm


Zoom 5x
2.737 m
1.73 mm
200 µm


Zoom 10x
0.684 mm²
100 µm

Diagnosis

Left breast, skin sparing mastectomy ~

Encapsulated papillary carcinoma

Possible invasion

Sentinel lymph nodes negative

Encapsulated papillary carcinoma

- Variant of papillary carcinoma.
- Characterised by fine fibrovascular cores covered by low or intermediate nuclear grade neoplastic epithelial cells.
- Surrounded by a fibrous capsule.
- Usually no myoepithelial cells within papillae or at the periphery of the lesion.
- Synonyms:
  - Intracystic papillary carcinoma, encysted papillary carcinoma, intracystic carcinoma NOS.

Encapsulated papillary carcinoma vs intraductal papillary carcinoma

Histological feature	Encapsulated papillary carcinoma	Intraductal papillary carcinoma (Papillary DCIS)
Scanning magnification	Marked distension of affected duct with encapsulated solid-cystic mass	No mass-like distension of affected ducts
Myoepithelial cells	Absent along the distended duct wall Absent along the fibrovascular cores of papillae	Present along the duct wall Absent/diminished along the fibrovascular cores of papillae
Other DCIS patterns	May or may not be present in surrounding breast	Usually present

Solid papillary carcinoma vs encapsulated papillary carcinoma

Histological feature	Solid-papillary carcinoma	Encapsulated papillary carcinoma
Scanning magnification	Multinodular, solidified, expansile masses	Solid-cystic, usually single, circumscribed mass
Papillary structures	Inconspicuous	Readily identified
Myoepithelial cells	May be present at the periphery of the nodules	Absent within and at the periphery of the mass
Mucin	May be present in small or larger amounts	Usually absent
Neuroendocrine differentiation	Often present	Absent

Encapsulated papillary carcinoma

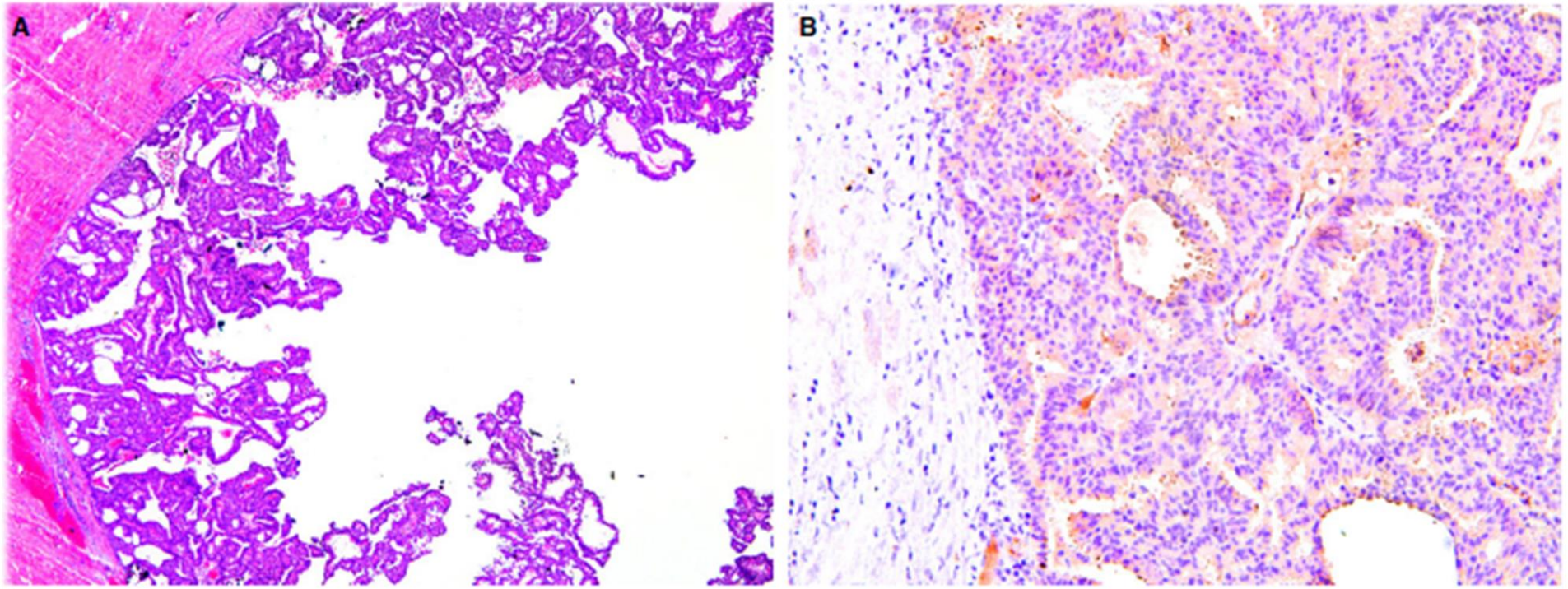


Figure 3. A, Encapsulated papillary carcinoma with a rounded fibrous wall enclosing anastomosing papillary fronds projecting into a cystic space. B, Immunohistochemistry for the myoepithelial marker p63 shows an absence of myoepithelial cells in the wall of the lesion.

Histopathology. 2015 May;66(6):761-70.

Encapsulated papillary carcinoma

- Evolving concepts:
  - Minimally invasive, low-grade or indolent form of invasive carcinoma rather than an in situ lesion.
  - Carcinoma 'in transition' between in situ and invasive carcinoma.
  - Currently still regarded as Tis disease by WHO.
- Diagnosis of invasion:
  - Neoplastic epithelial elements infiltrate beyond the fibrous capsule.
  - Need to distinguish from entrapped epithelial nests in fibrous capsule, epithelial displacement in biopsy site.

Encapsulated papillary carcinoma

- Prognosis and predictive factors:
  - Staging is controversial, without universal agreement.
  - If conventional invasive carcinoma is present, staging is accomplished based on the size of the invasive component.
  - Consensus by WHO working group is to regard encapsulated papillary carcinoma as **Tis** disease.

High-grade encapsulated papillary carcinoma of the breast: an under-recognized entity.

Rakha EA, Varga Z, Elsheik S, Ellis IO. *Histopathology. 2015 Apr;66(5):740-6.*

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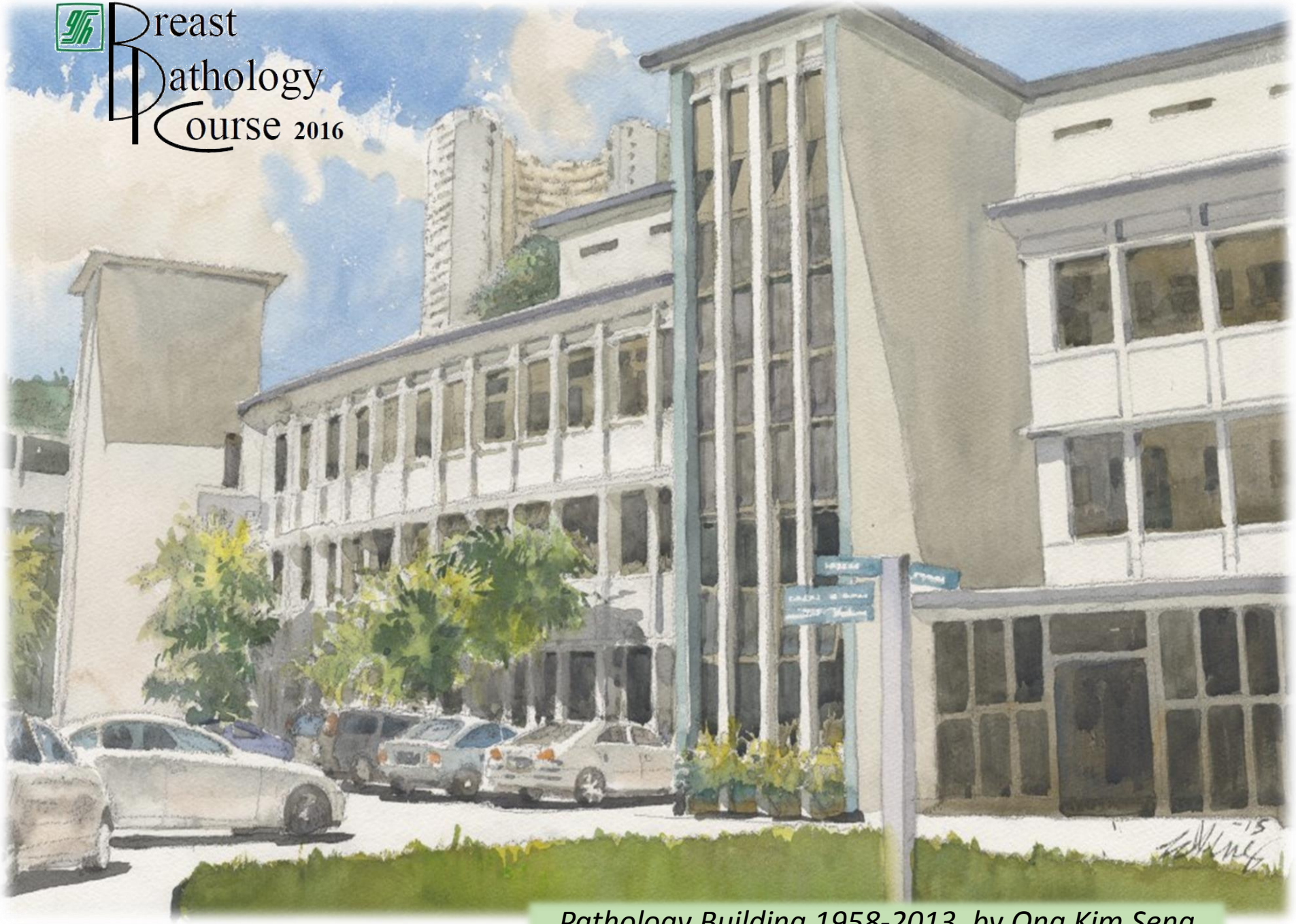

Pathology Building 1958-2013, by Ong Kim Seng