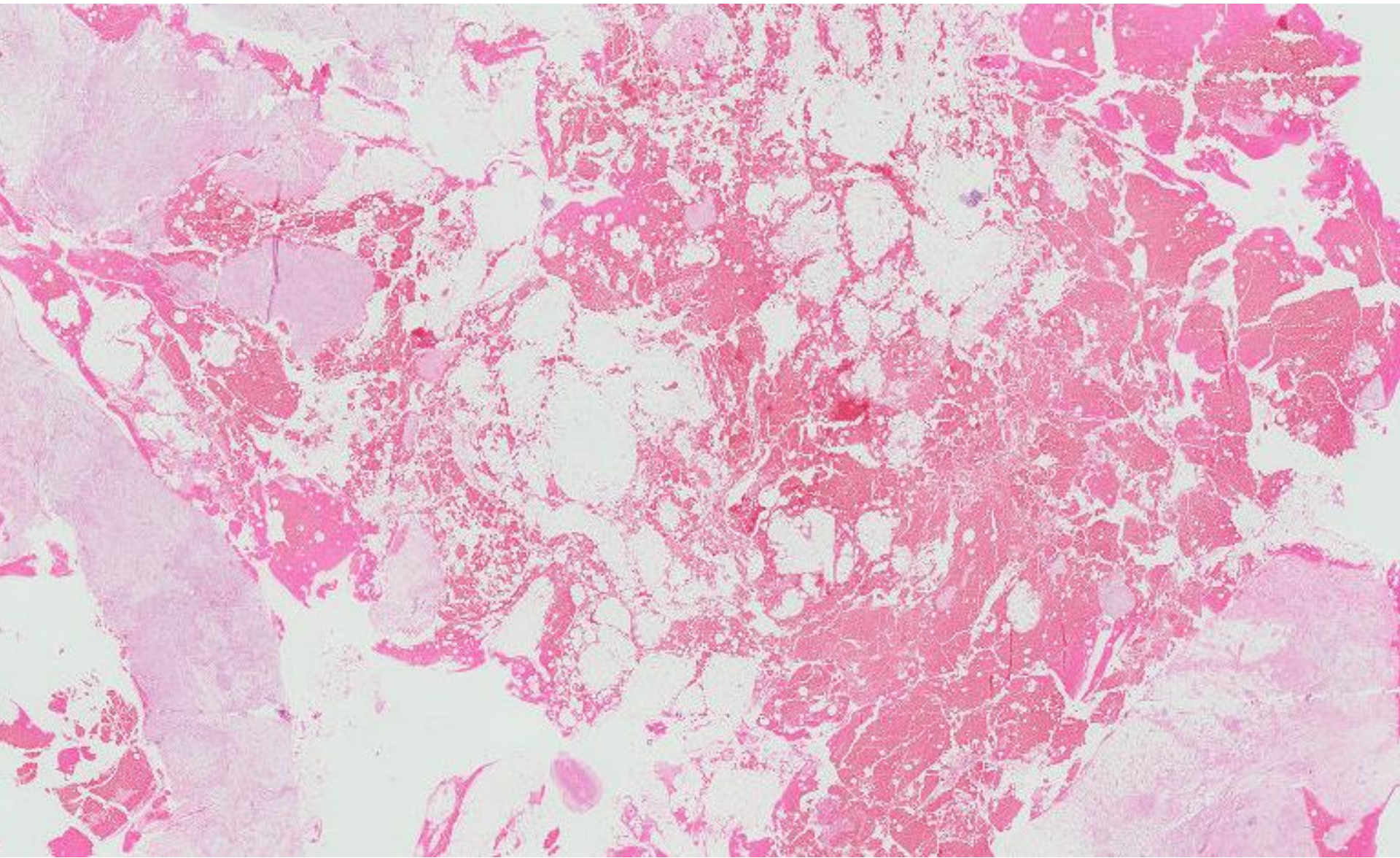
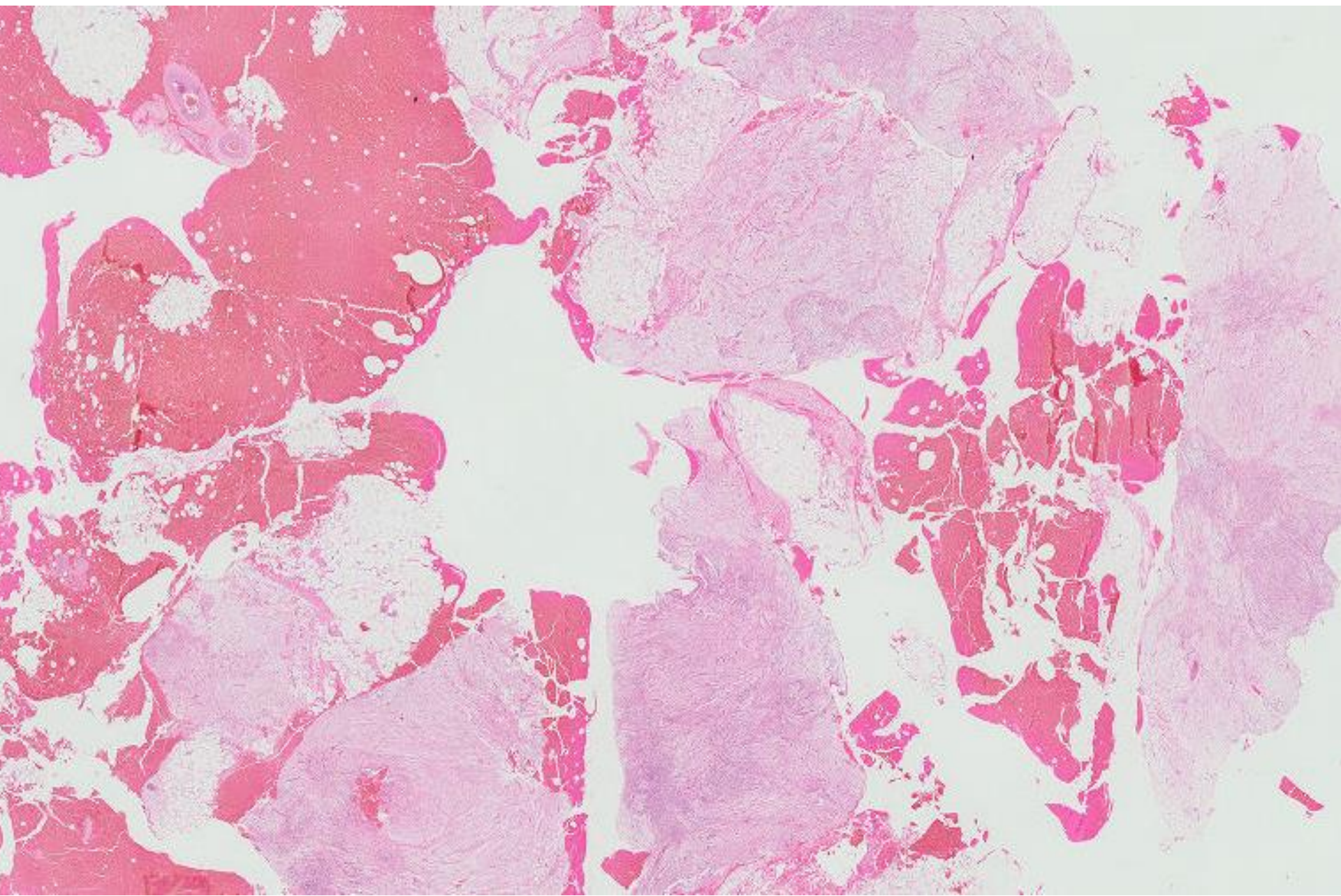


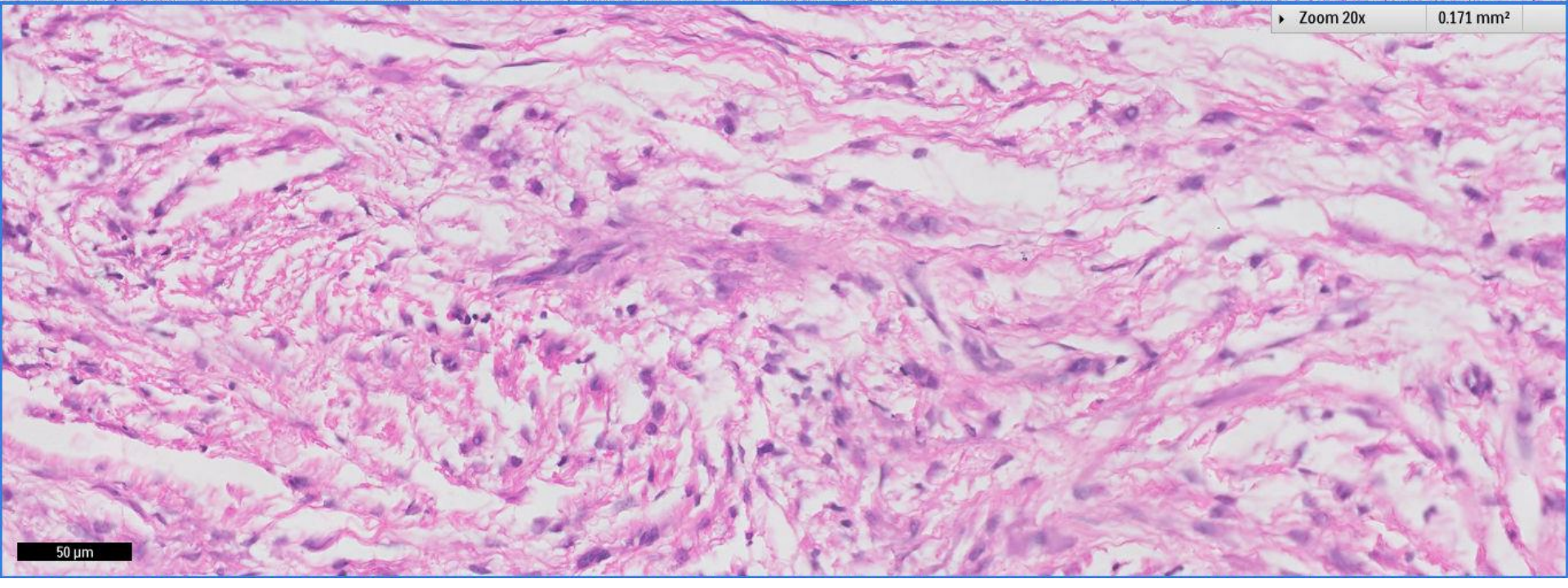
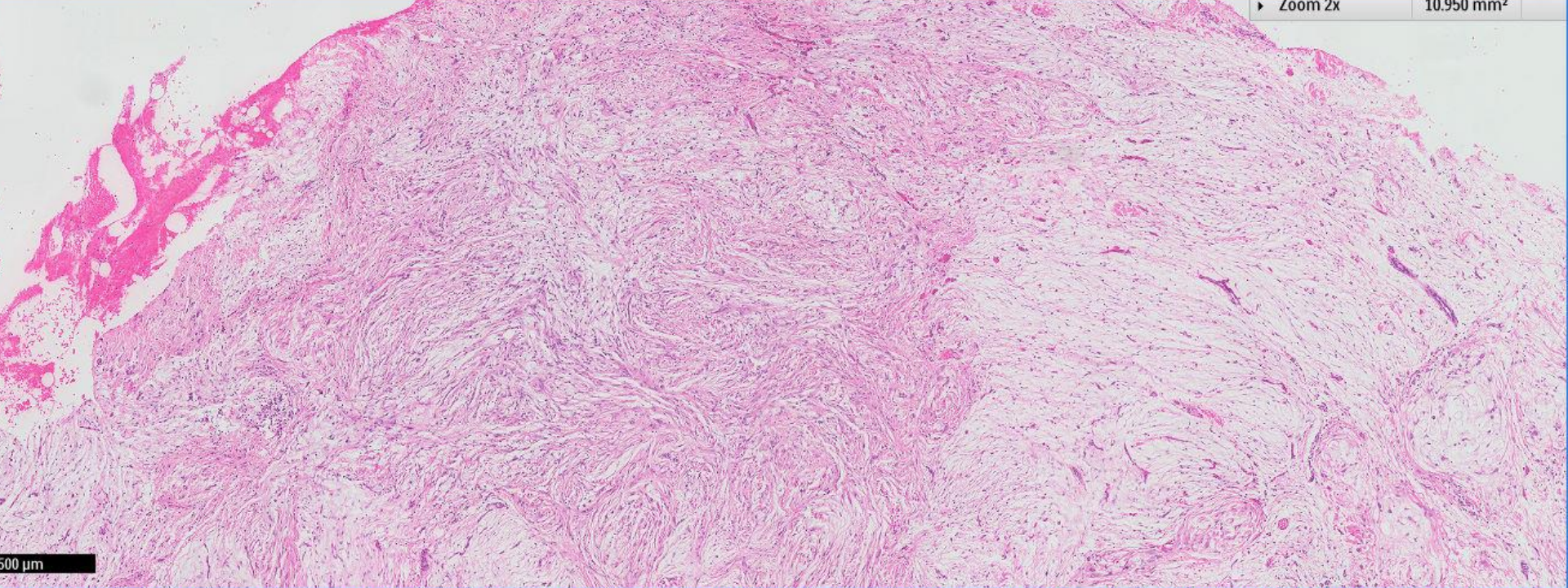
## Case 2

27 year old woman was found to have an 18mm lesion in the right breast, radiologically resembling a fibroadenoma but with a hyperechoic rim.

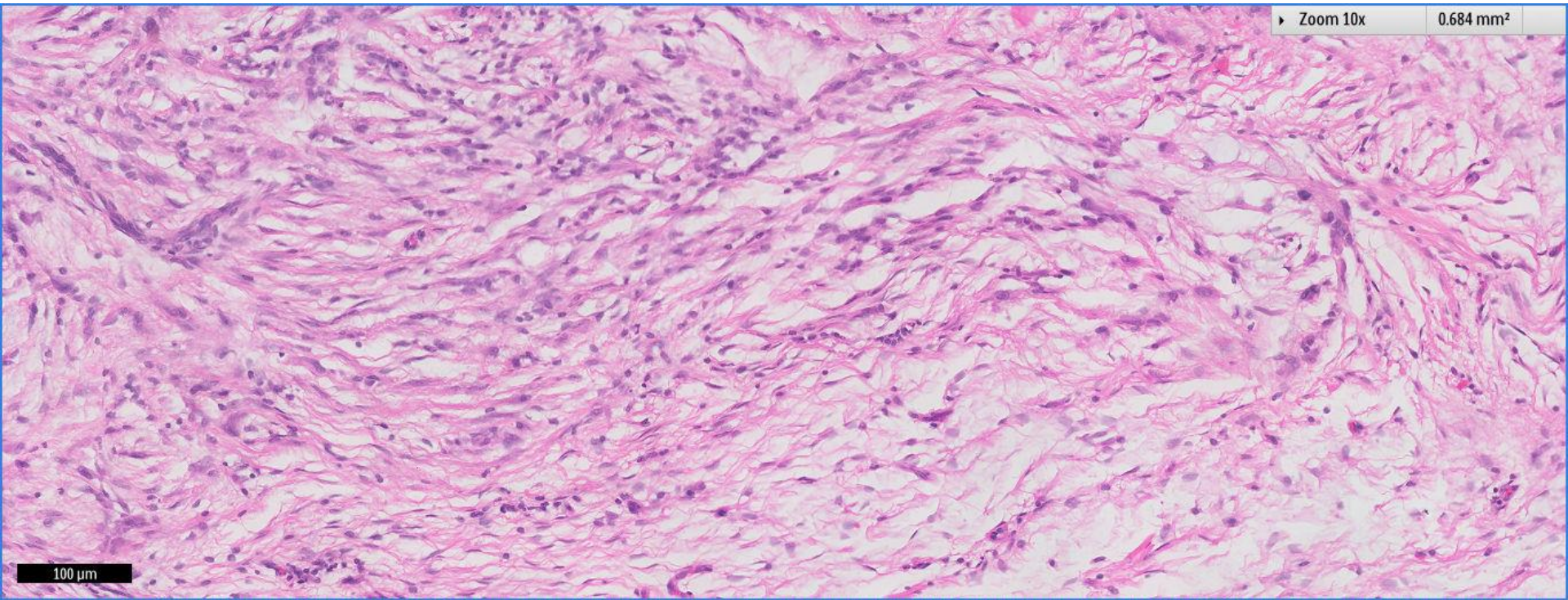
An ultrasound guided mammotome biopsy was performed that removed the lesion.





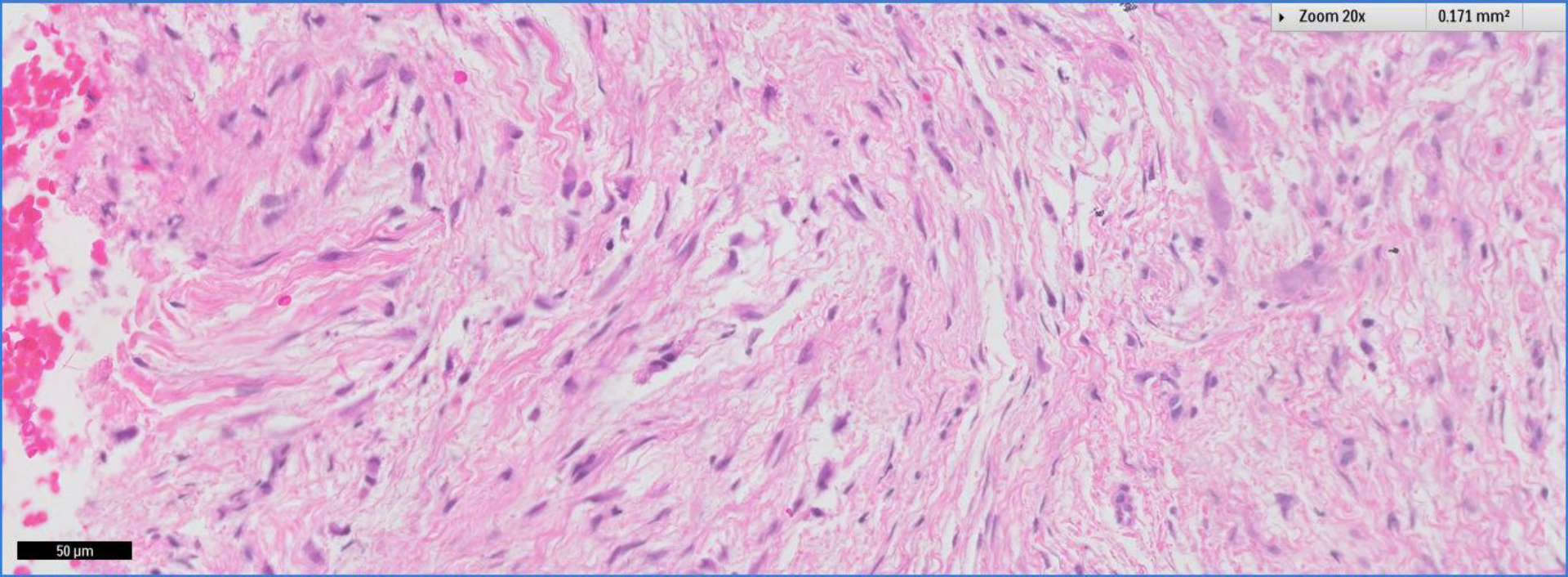


Zoom 10x 0.684 mm<sup>2</sup>

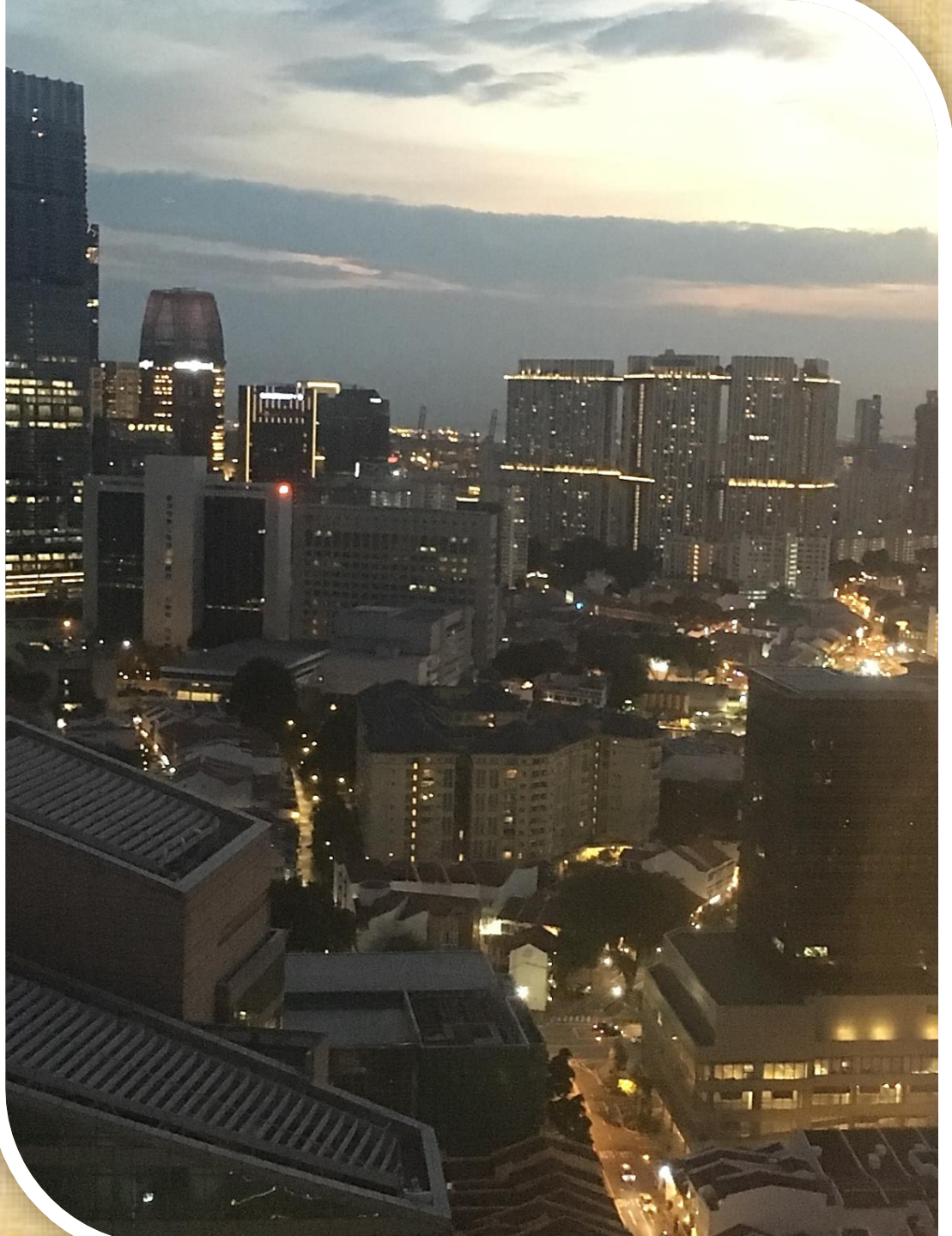


100 μm

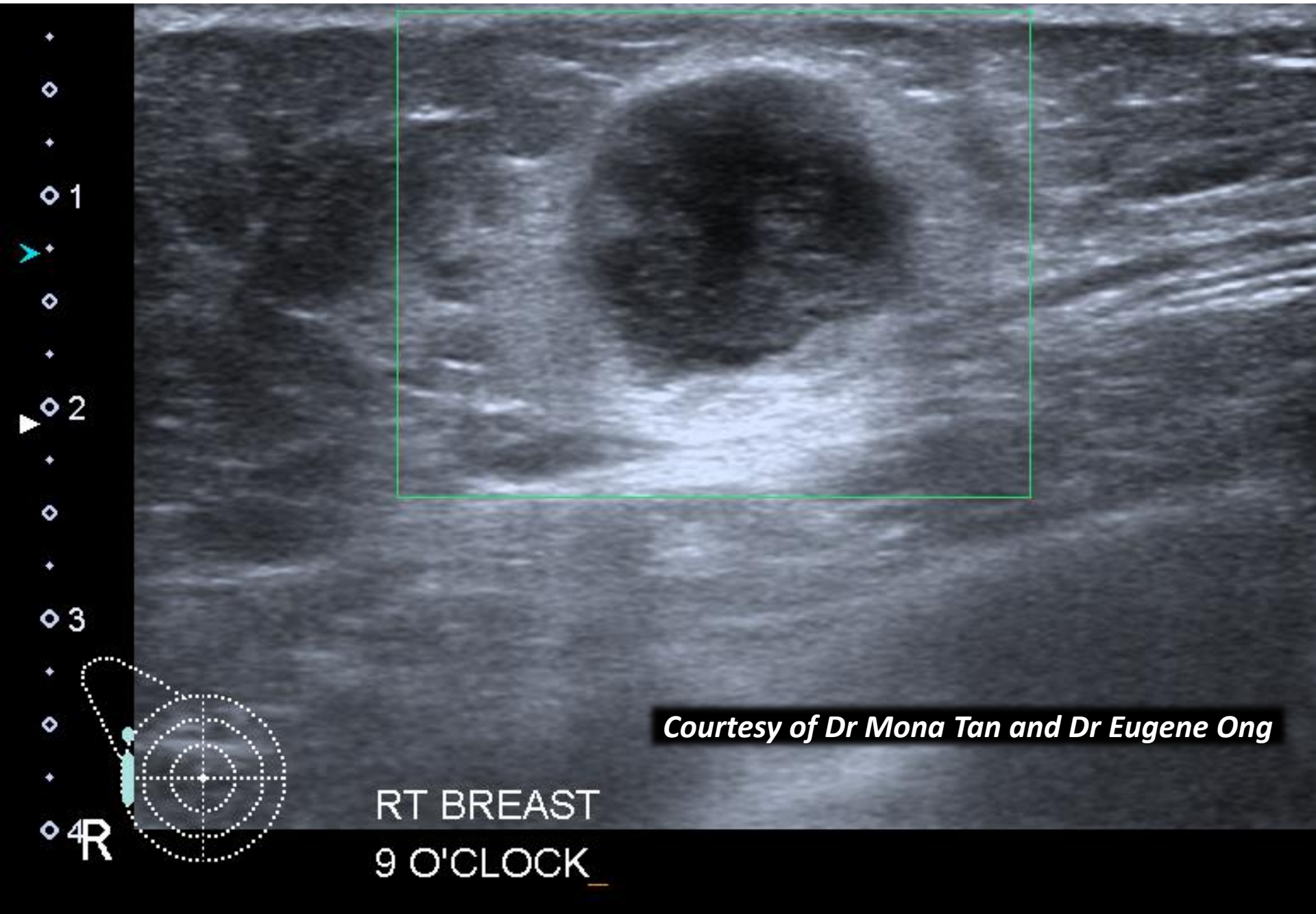
Zoom 20x 0.171 mm<sup>2</sup>



50 μm



***The Pinnacle @  
Duxton***



1

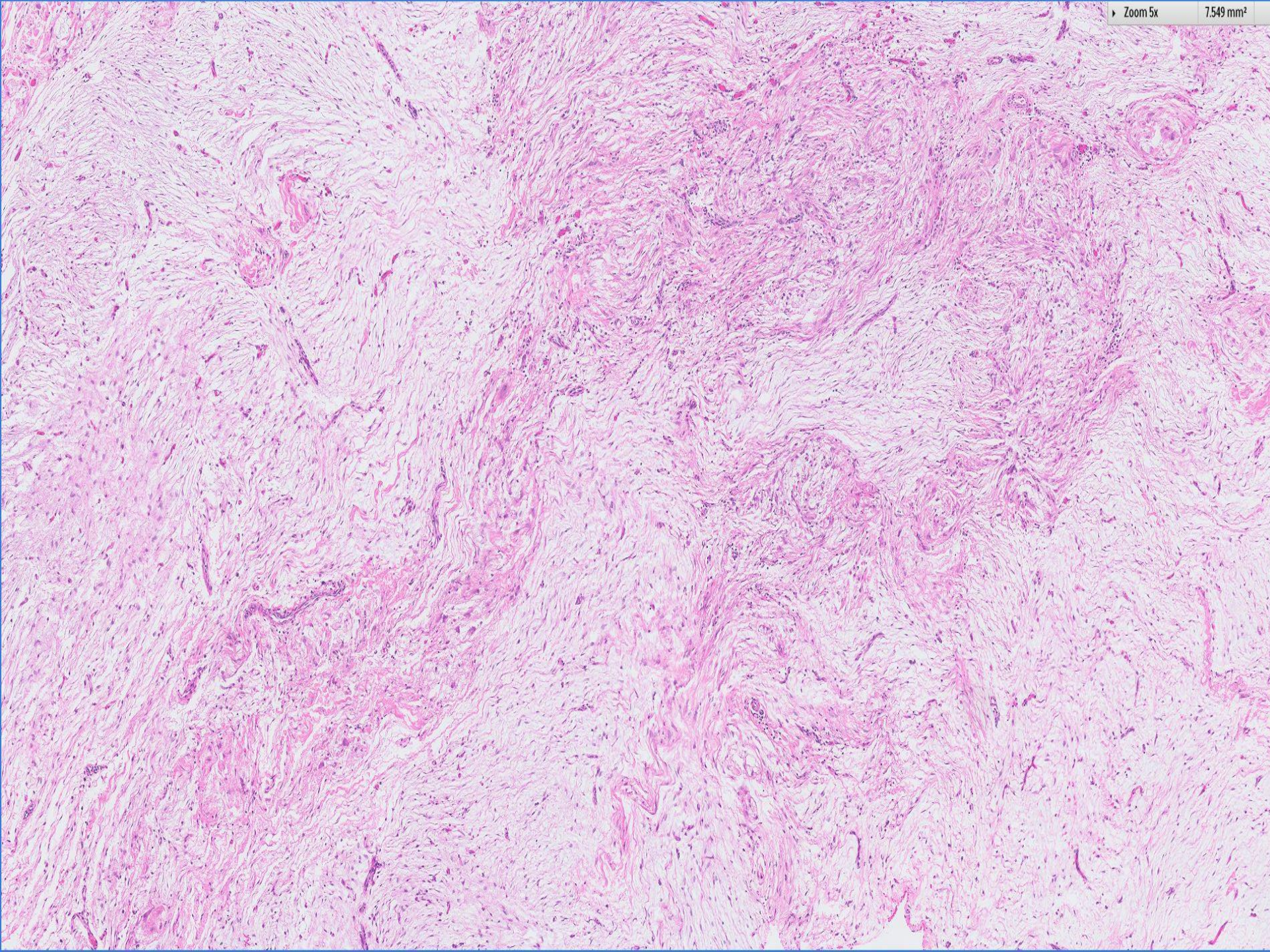
2

3

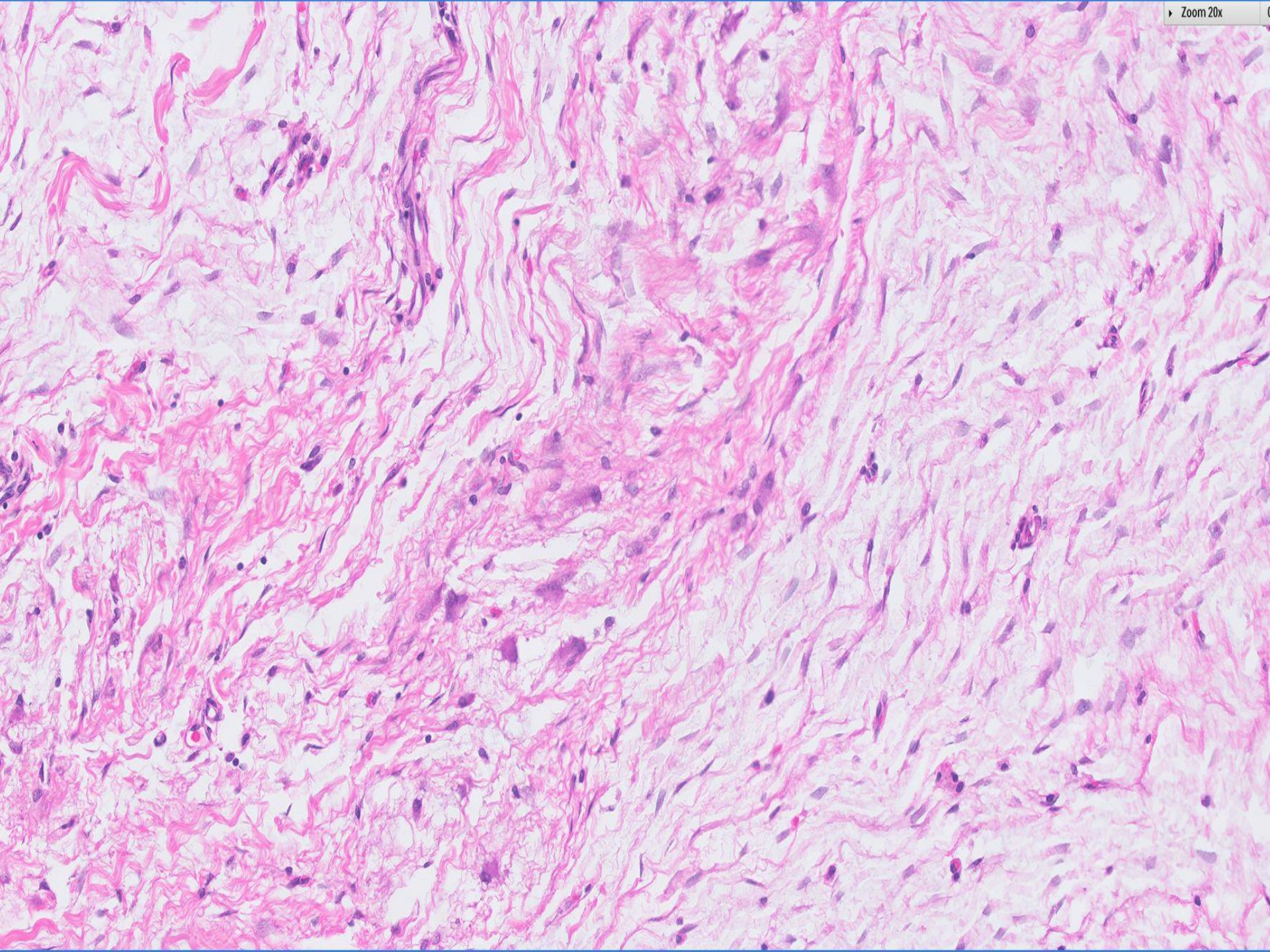
4R

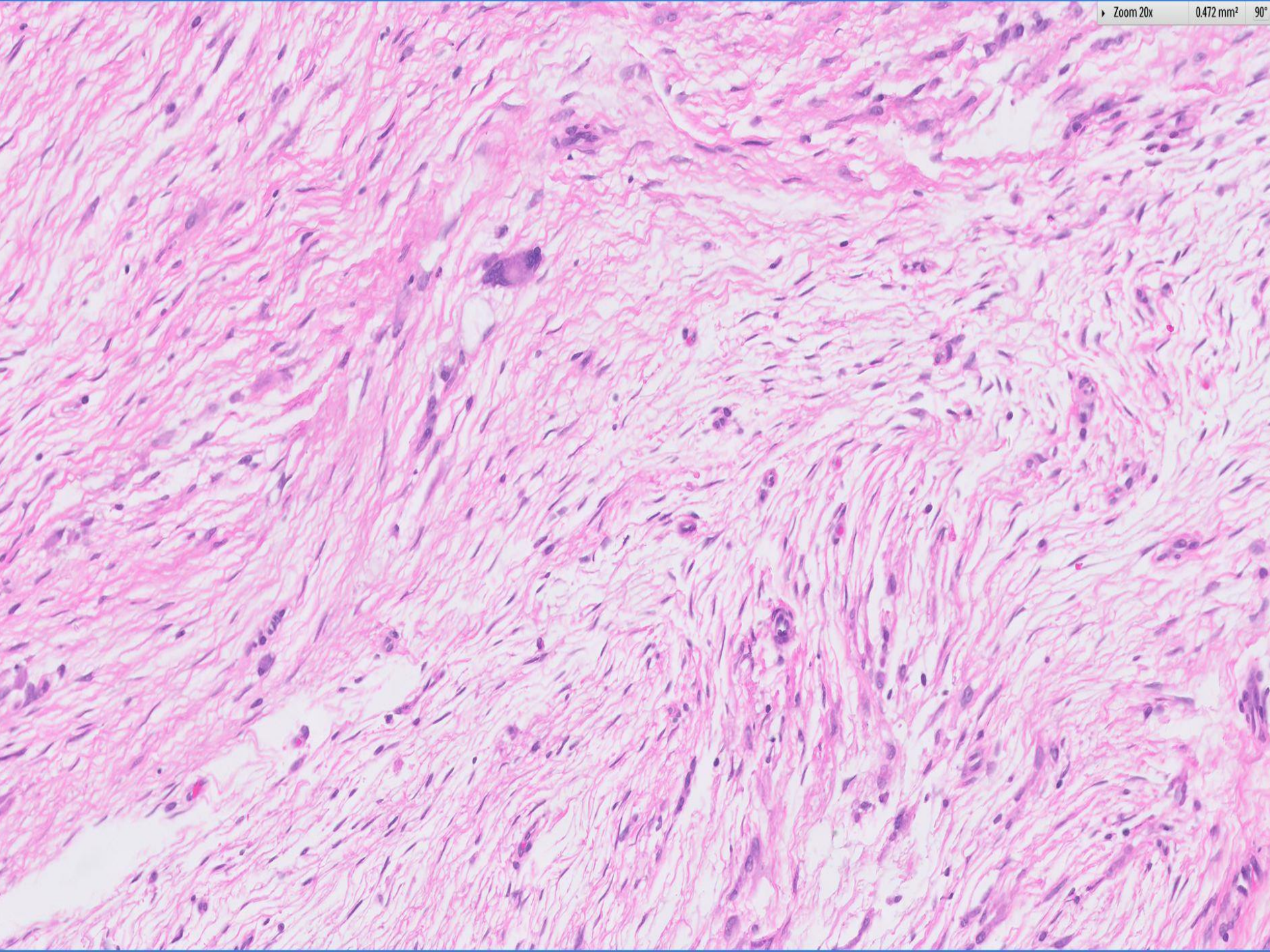
RT BREAST  
9 O'CLOCK

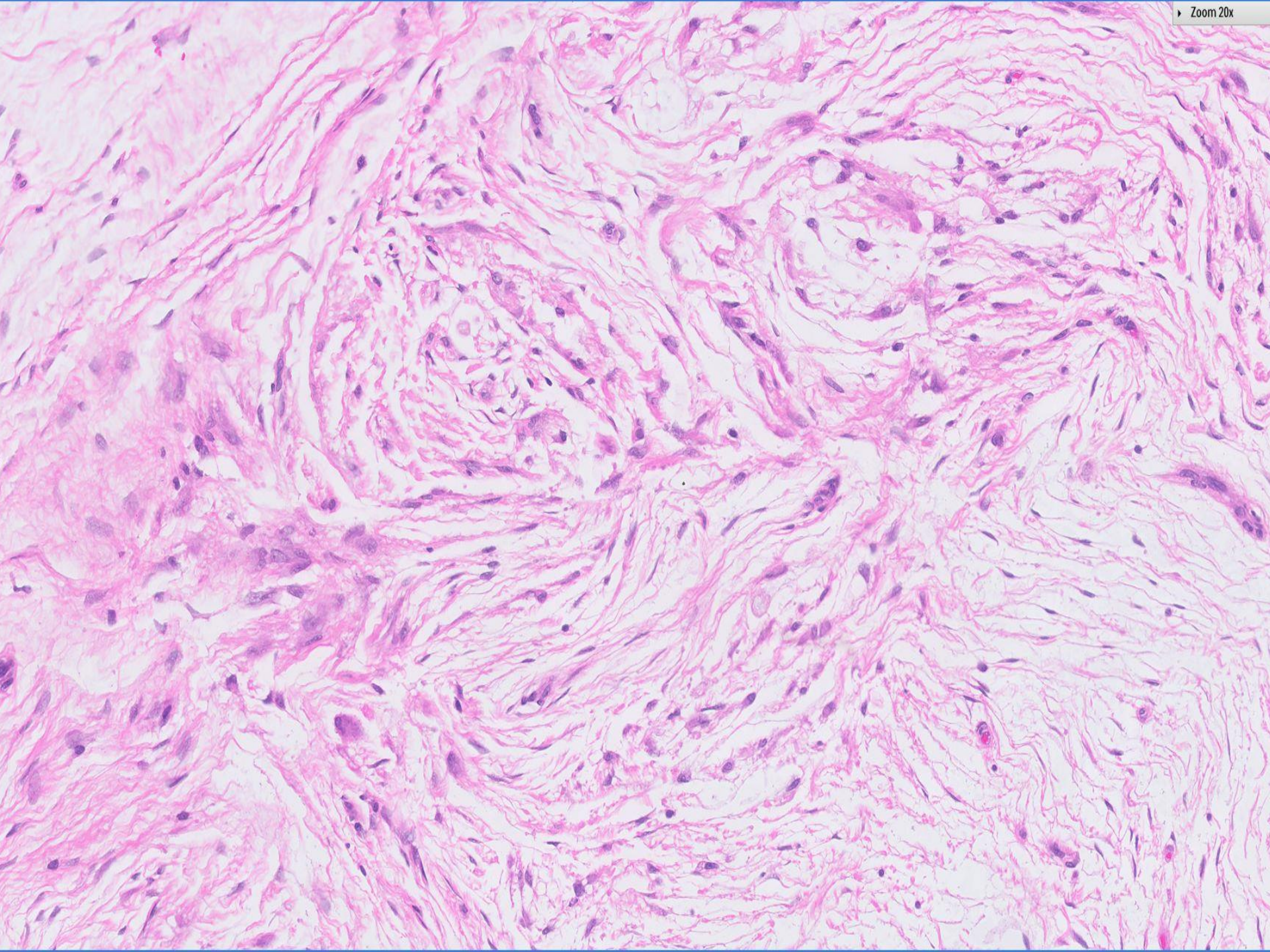
*Courtesy of Dr Mona Tan and Dr Eugene Ong*

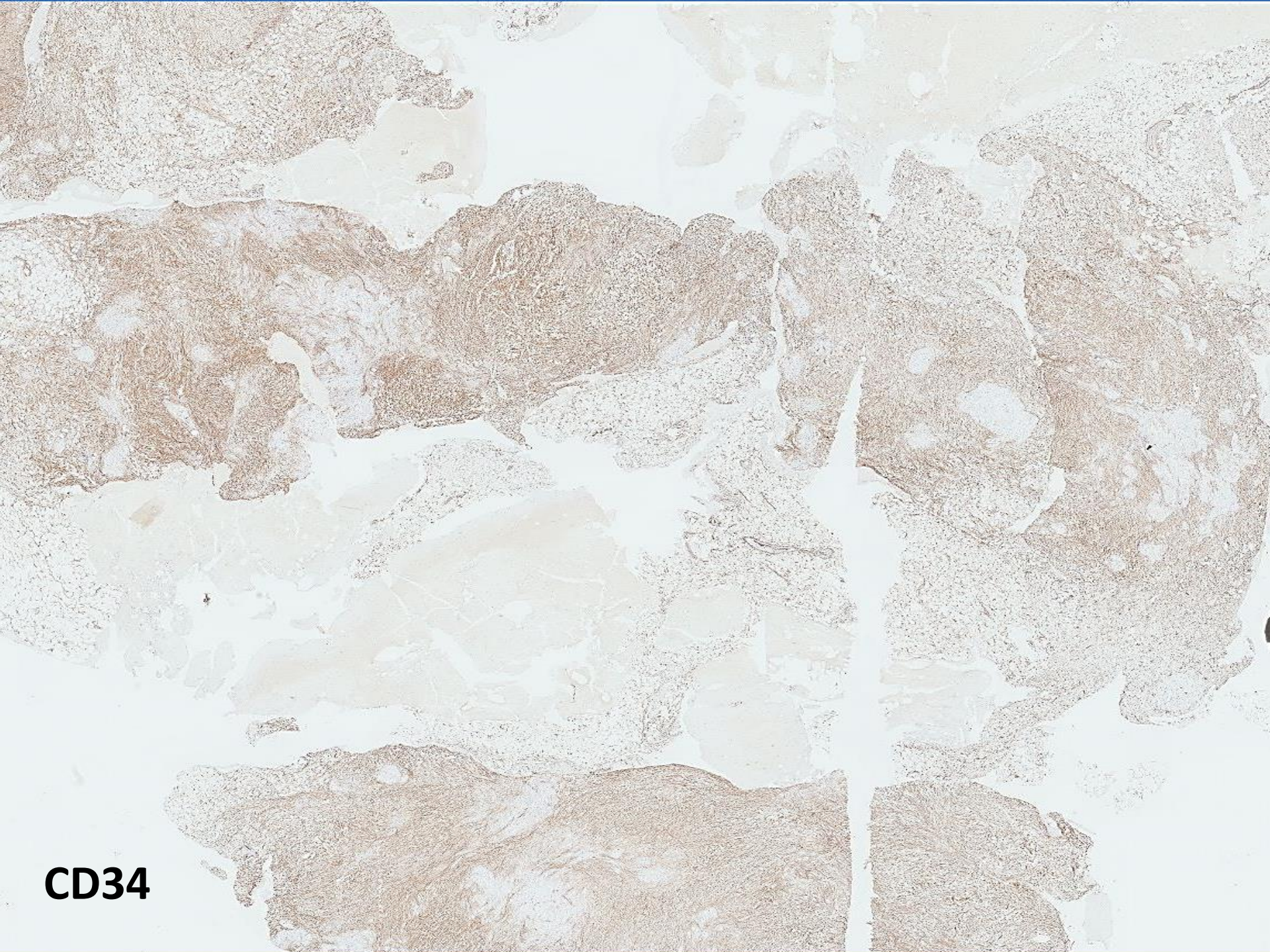




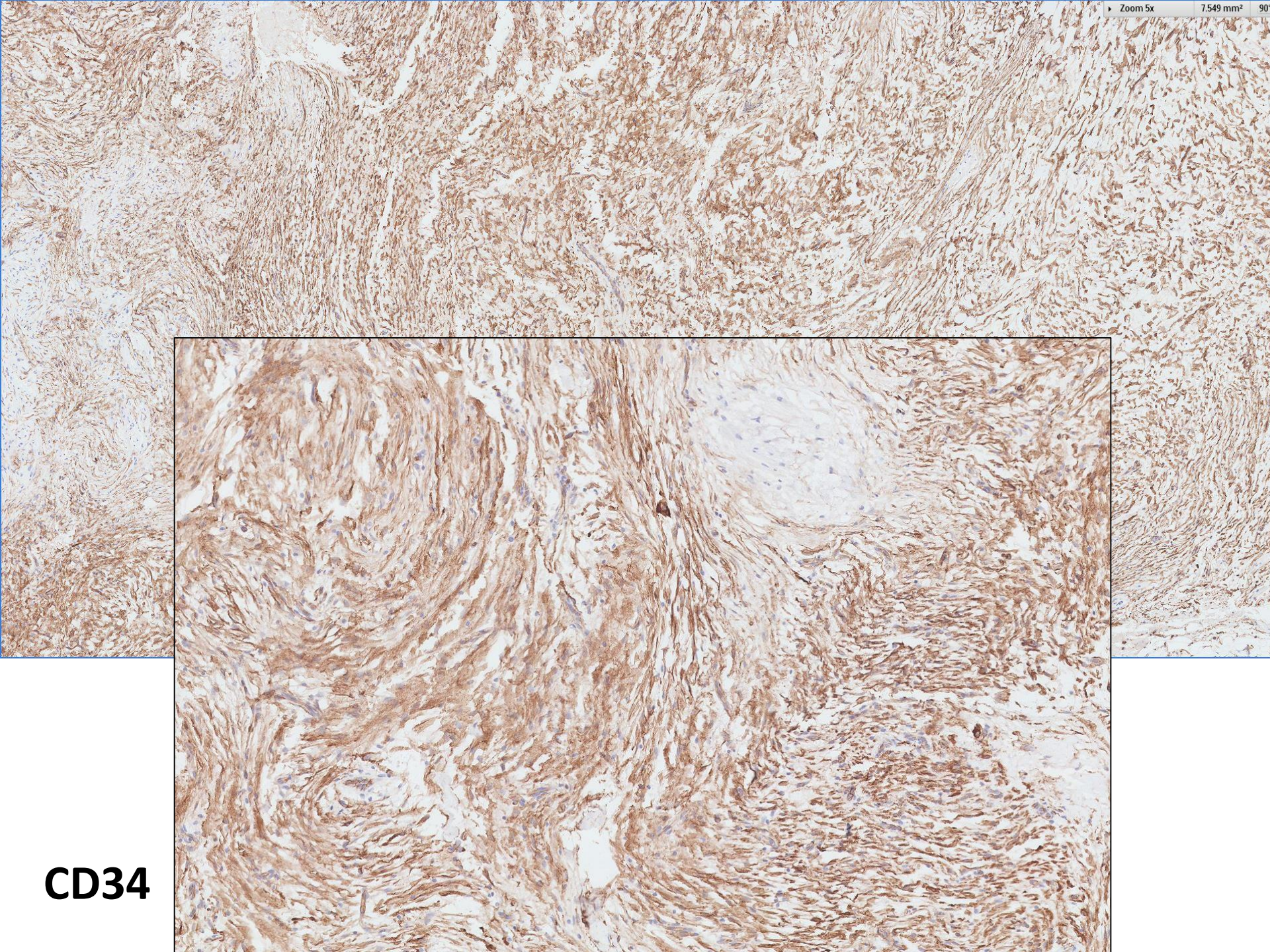






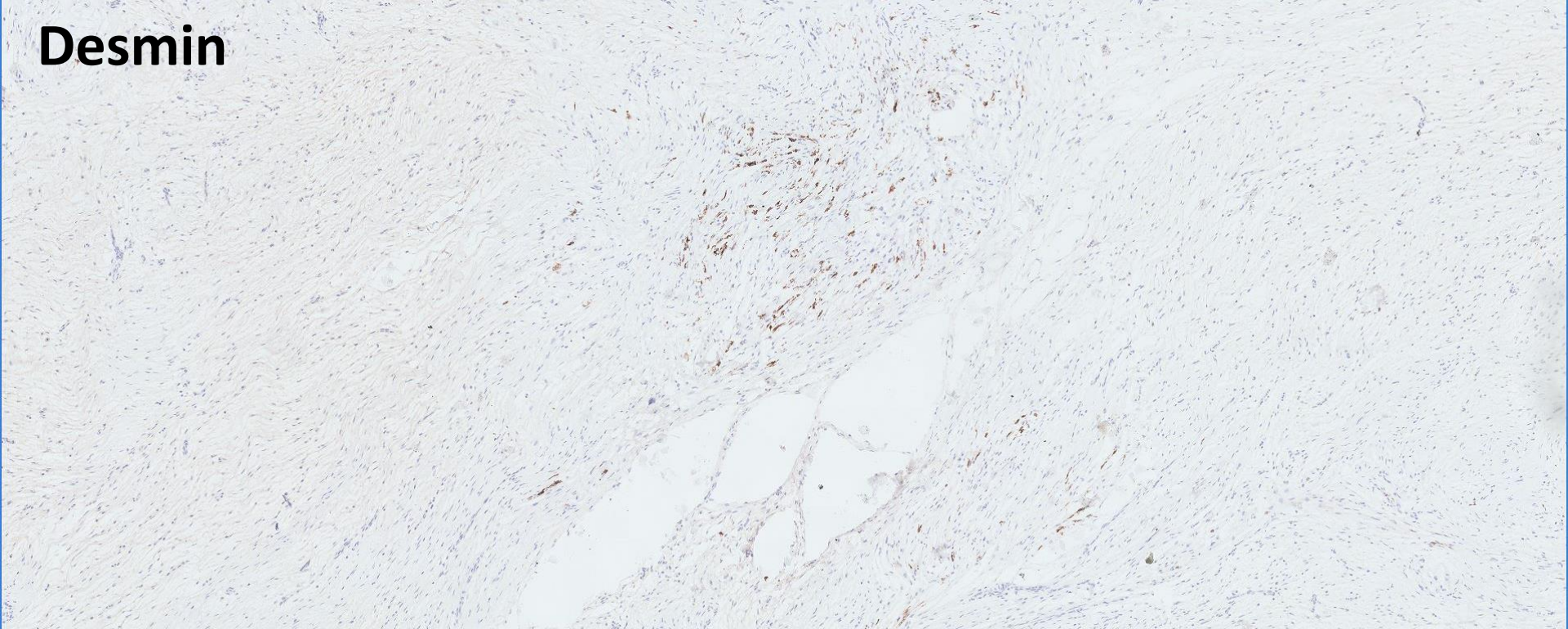


**CD34**

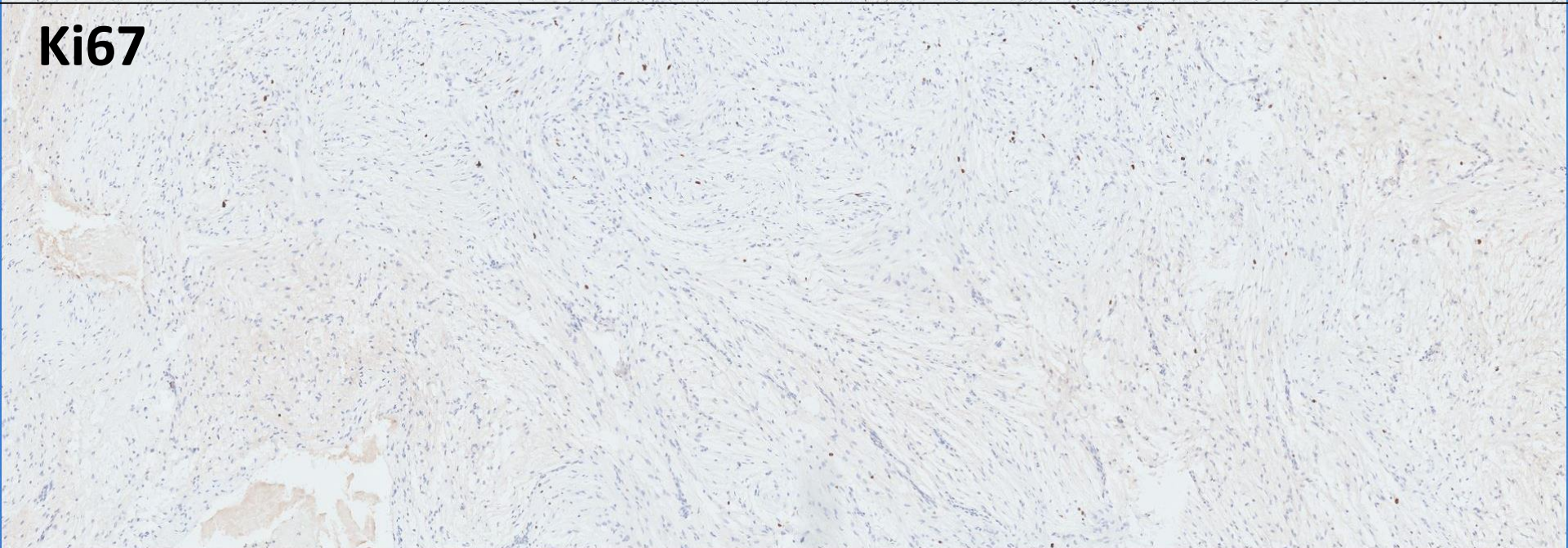


**CD34**

**Desmin**



**Ki67**



# Additional immunohistochemistry

Epithelial markers negative

S100 negative

ER negative

SMA ~ focal reactivity of spindle cells

Beta-catenin ~ no nuclear staining of spindle cells

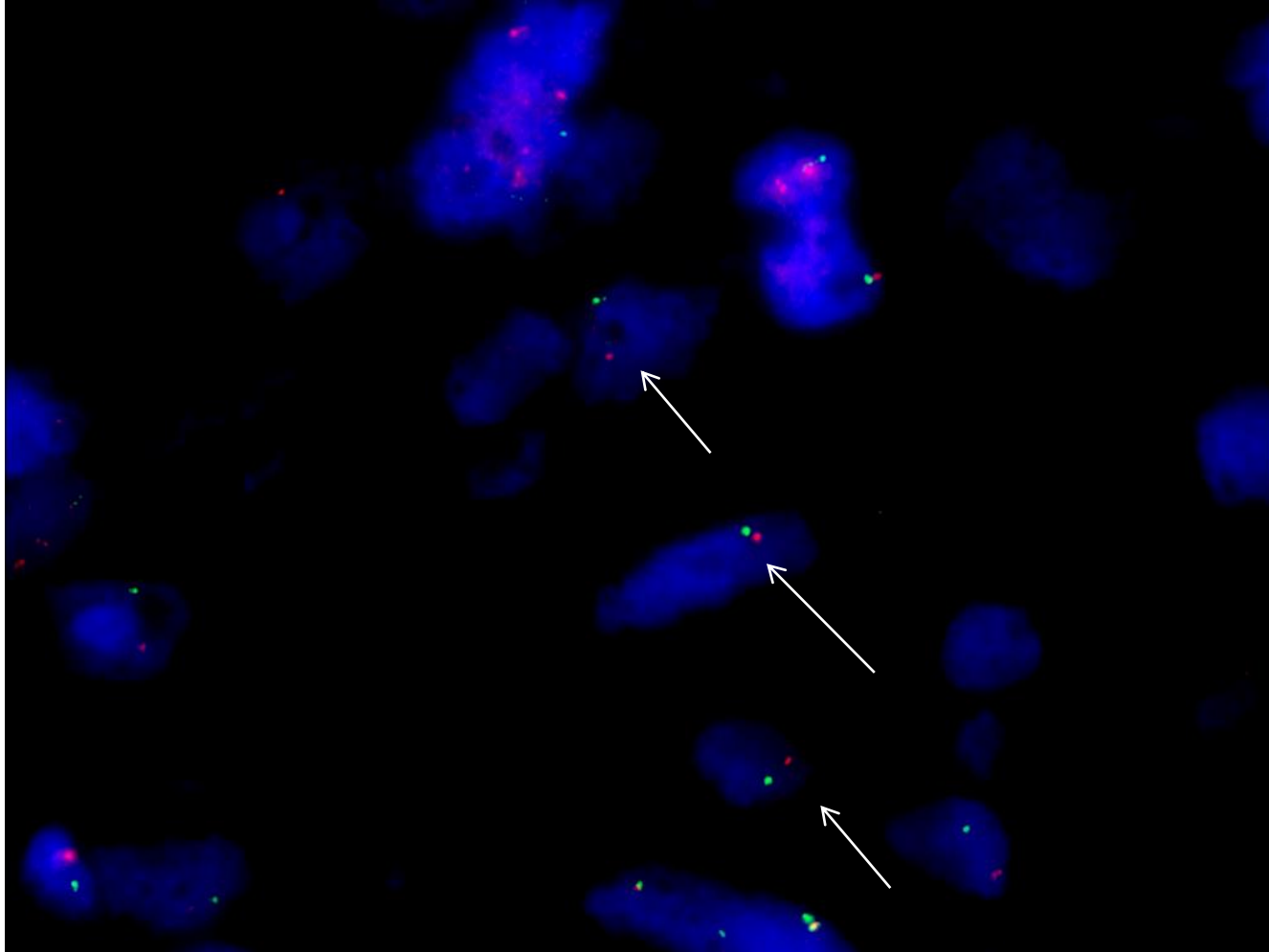


Singapore  
General Hospital  
SingHealth  
Division of Pathology

since  
**1821**  
195th Anniversary

 SingHealth DukeNUS  
ACADEMIC MEDICAL CENTRE  
**PATHOLOGY**





The LSI RB1 probe is labelled with SpectrumOrange fluorophore and is specific for the RB1 gene at 13q14. The control probe LSI 13q34 is labelled with SpectrumGreen fluorophore and the probe is located near the telomere region of the q arm at 13q34 . FISH signals showed a 1 red and one green pattern, indicating monosomy 13 with loss of RB1 gene.

*Courtesy of Cytogenetics Laboratory, Molecular Pathology Department, Division of Pathology*



# Diagnosis

## *Myofibroblastoma*

# Myofibroblastoma

- Benign tumour of mammary stroma composed of fibroblasts and myofibroblasts.
- Occurs in both women and men, the latter occasionally associated with gynaecomastia.
- Well-circumscribed, slowly growing nodule.
- Part of spectrum with spindle cell lipoma, solitary fibrous tumour.

# Myofibroblastoma

- Histology:
  - Intersecting fascicles of oval to spindle cells.
  - Interspersed collagen.
  - Variable amount of adipose tissue.
  - Can be cellular, with sometimes atypia, permeative edges and epithelioid appearances.
  - Mitoses are infrequent.
  - Usually no benign breast lobules within the lesion.
  - Desmin, CD34 positive.
  - Hormone receptors, SMA, CD99 variable.
- Epithelioid variant can mimic invasive lobular carcinoma.

# Myofibroblastoma

- Challenges to diagnosis on core biopsy.
- Differential diagnostic spectrum of spindle cell lesions.
- Clinical-radiological-pathological correlation is important.
- Corroboration with molecular cytogenetics demonstrating deletion of 13q14.

 Breast  
Pathology  
Course 2016



*Pathology Building 1958-2013, by Ong Kim Seng*