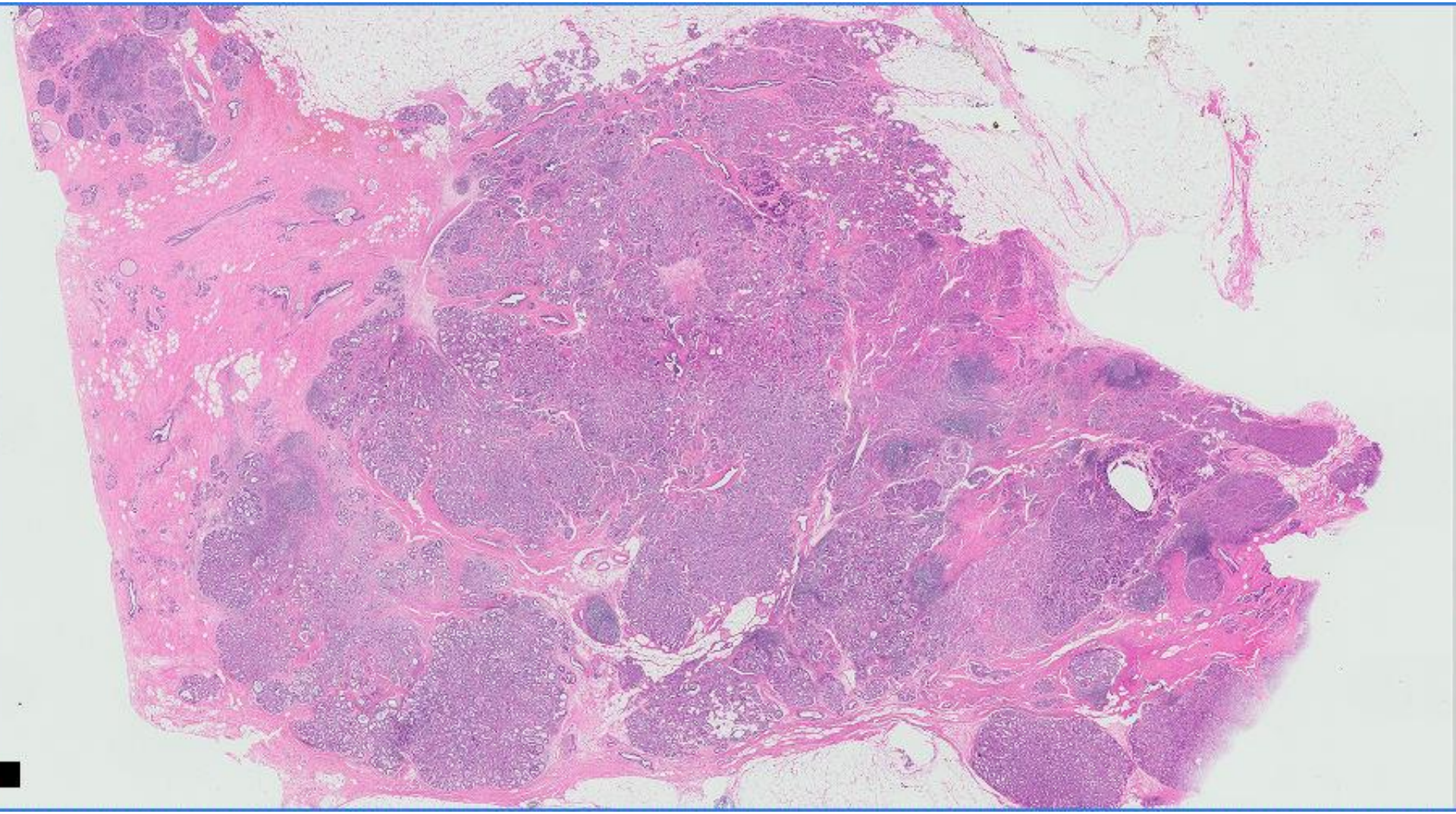
Breast Pathology Course 2016

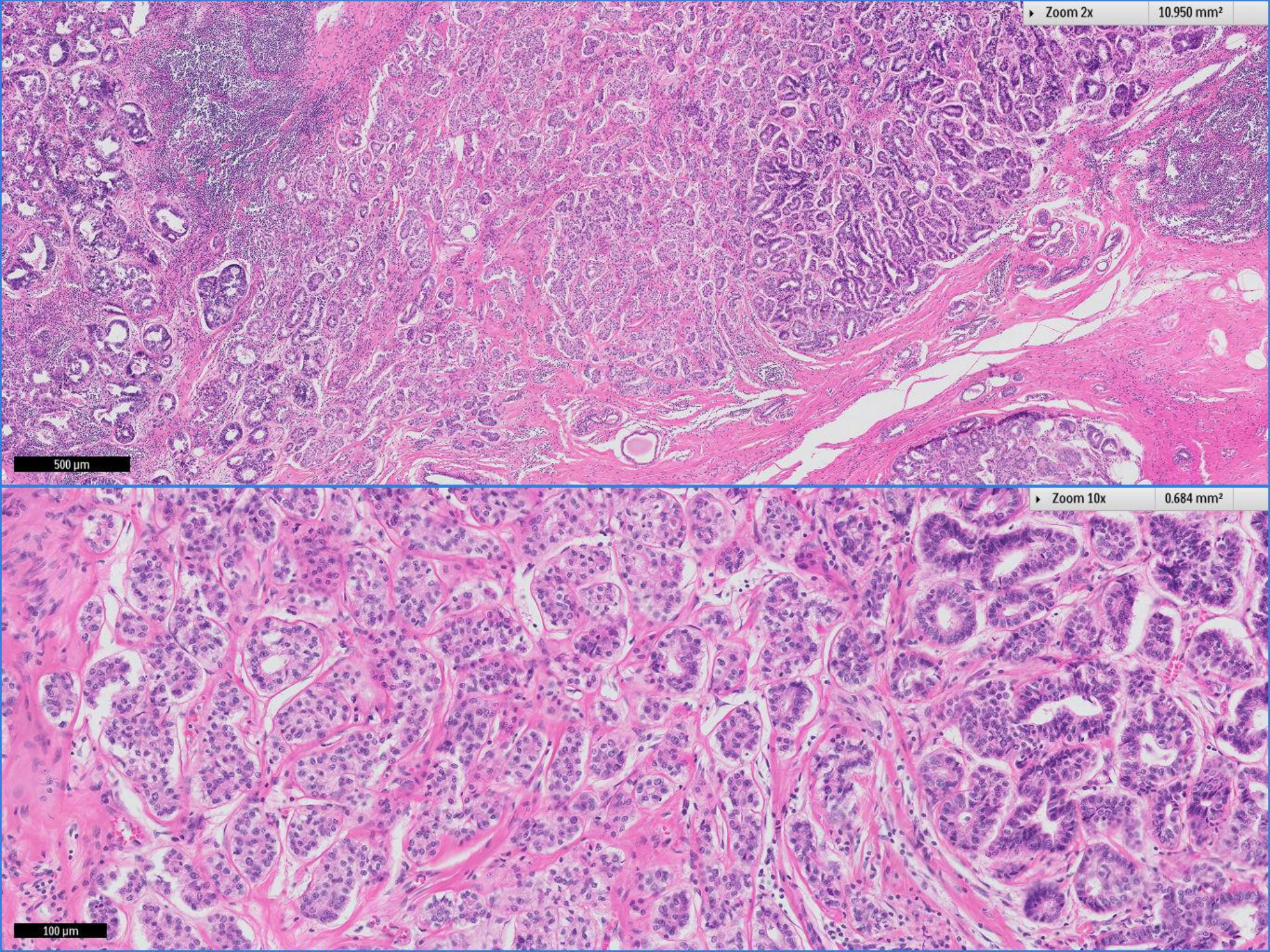
Case 32

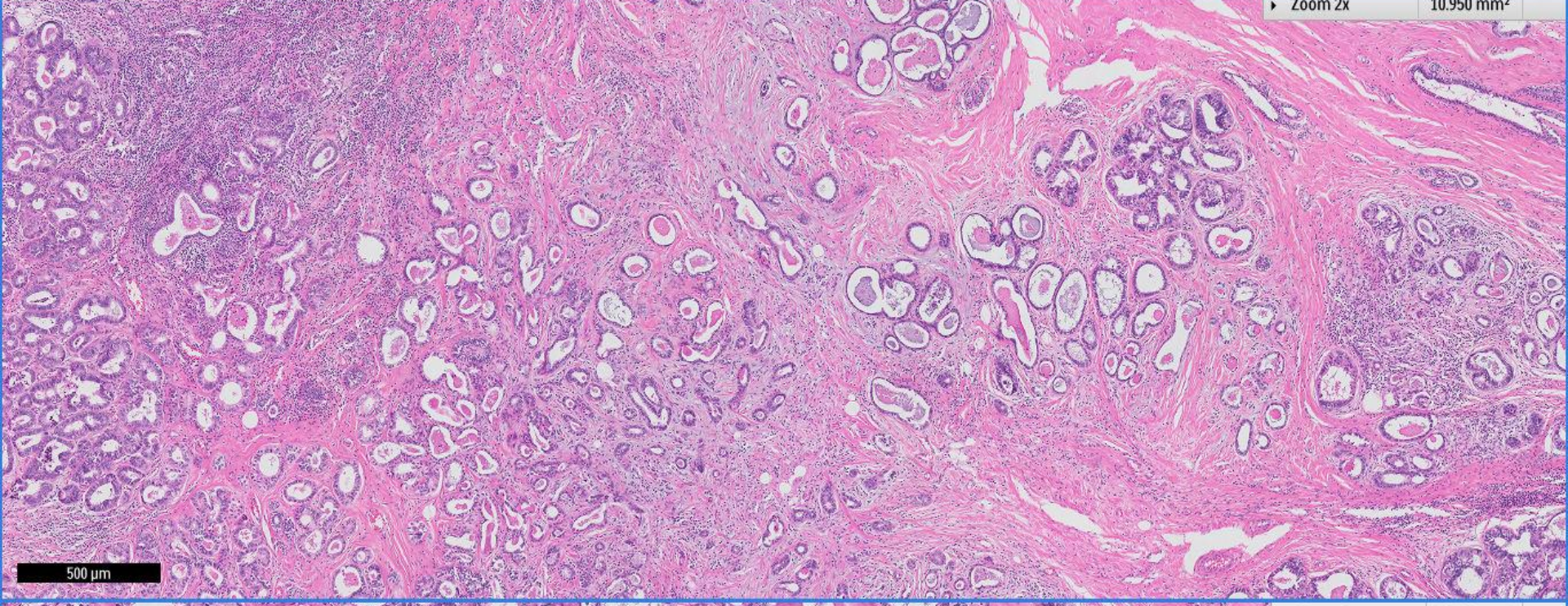
Adult woman with a breast mass.
Excision performed.

(Case contributed by Dr Chih-Jung Chen, Taiwan)

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 2x
10.950 mm²
500 µm
Zoom 10x
0.684 mm²
100 µm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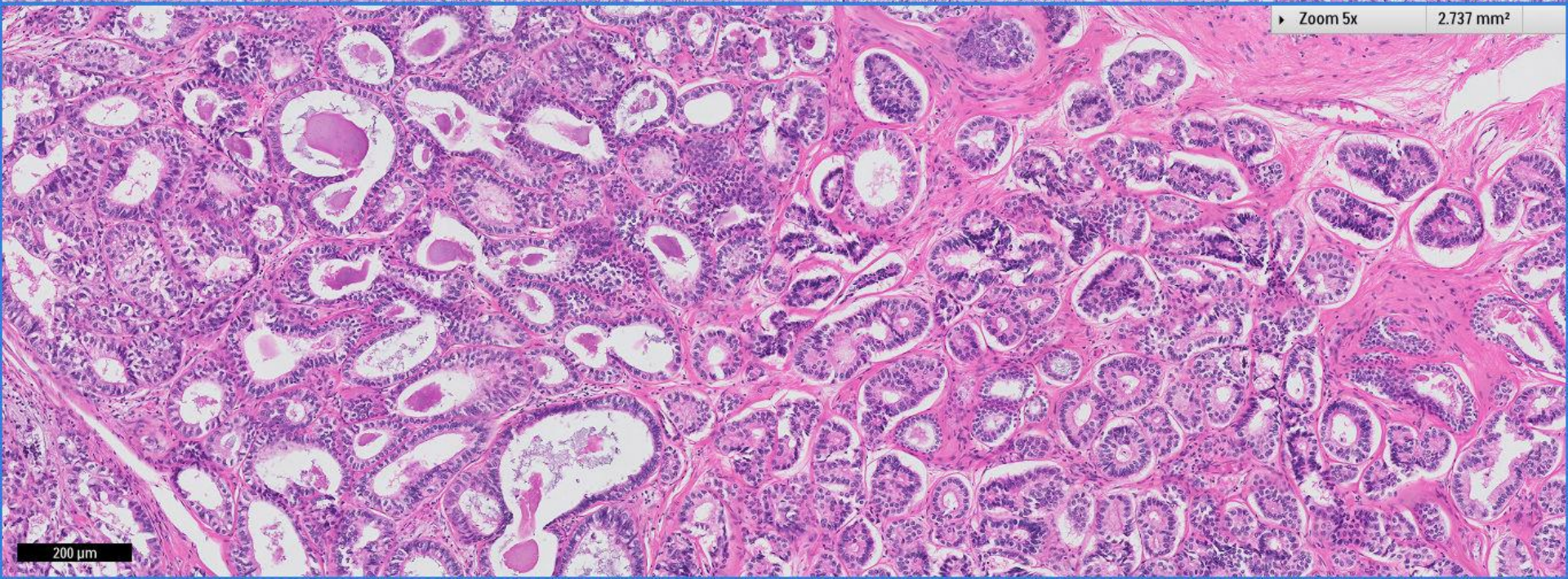
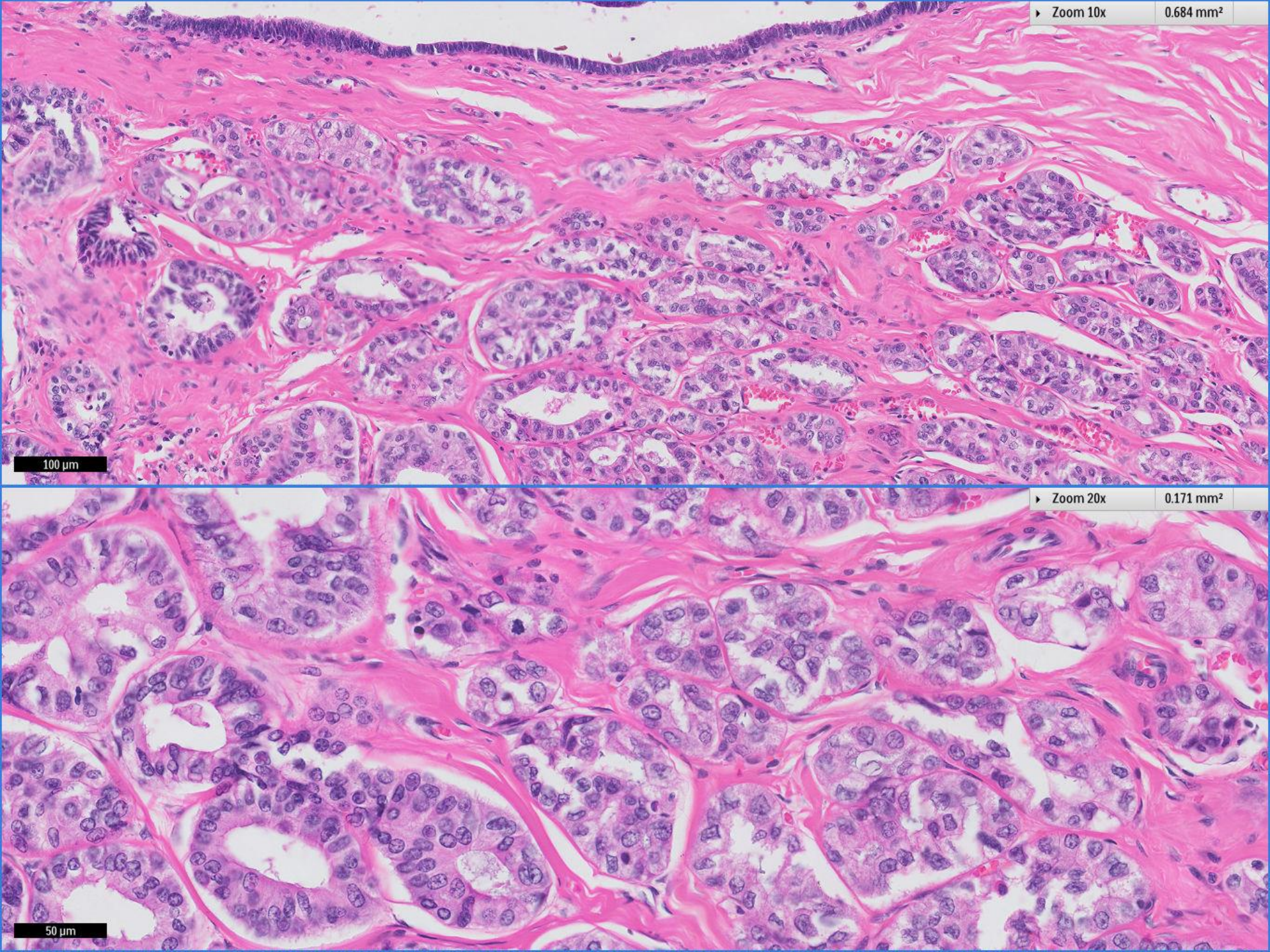
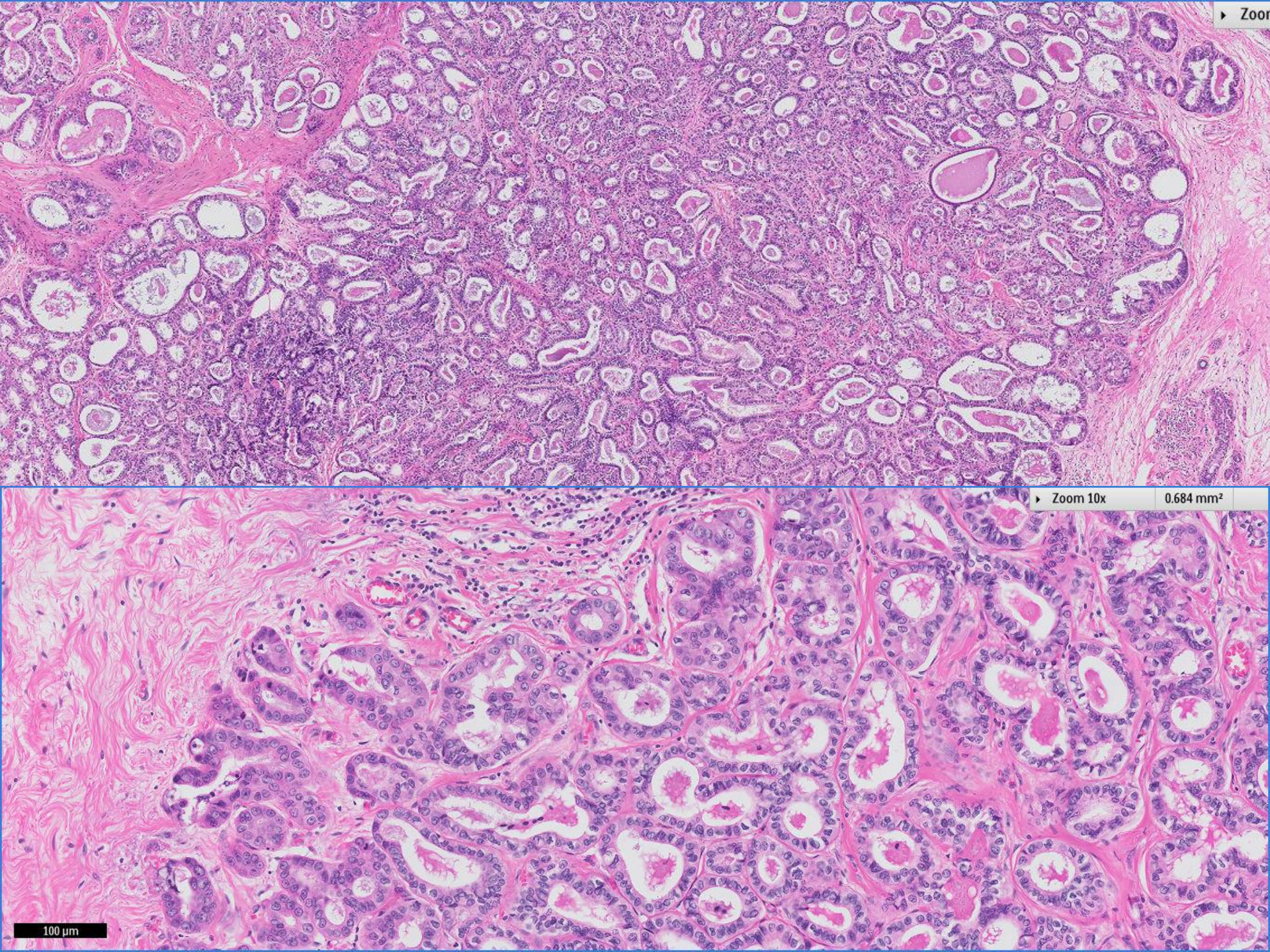
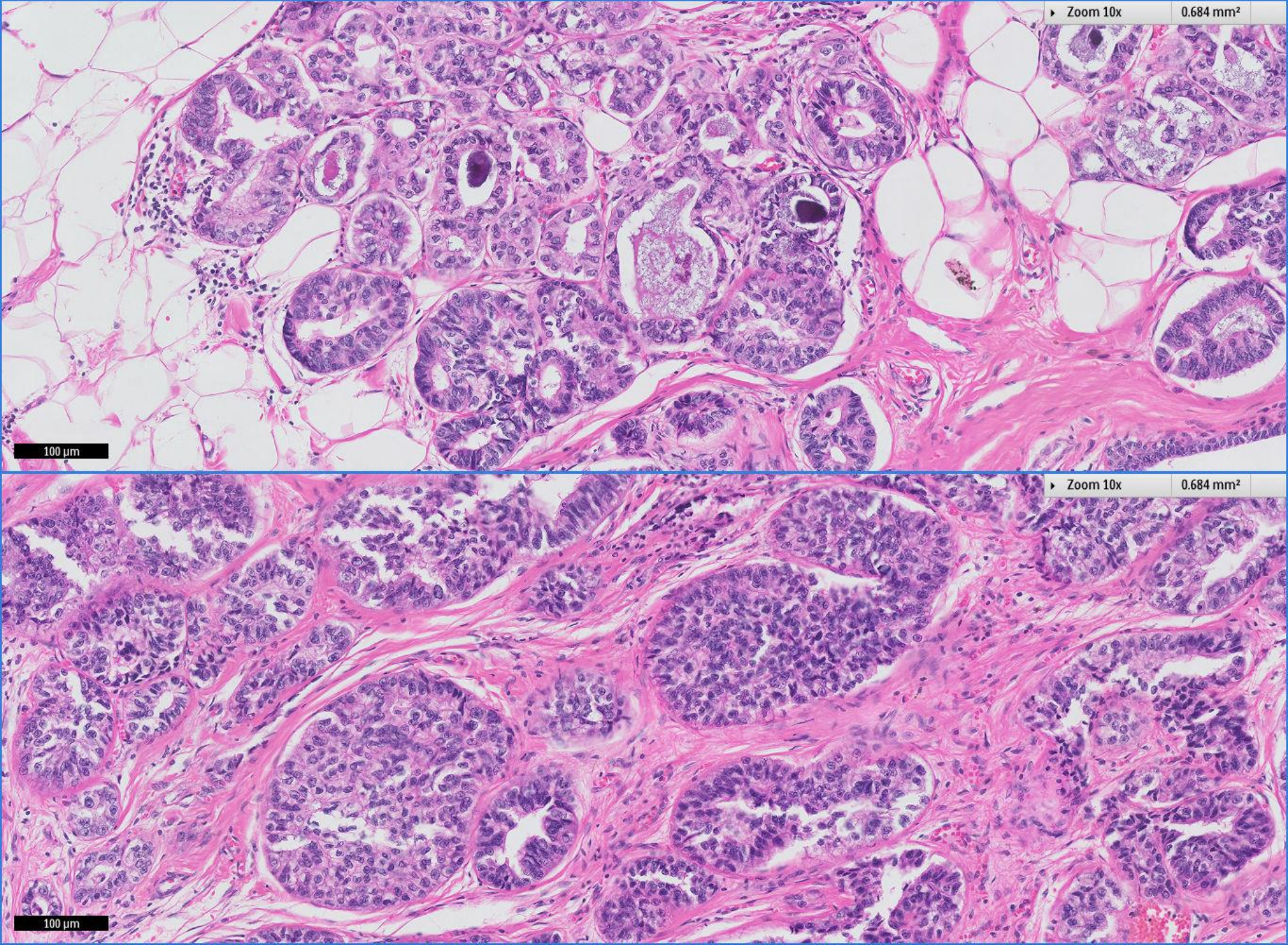

Zoom 5x
2.737 mm²
200 µm


Zoom 10x
0.684 mm²
100 µm
Zoom 20x
0.171 mm²
50 µm


Marina Bay


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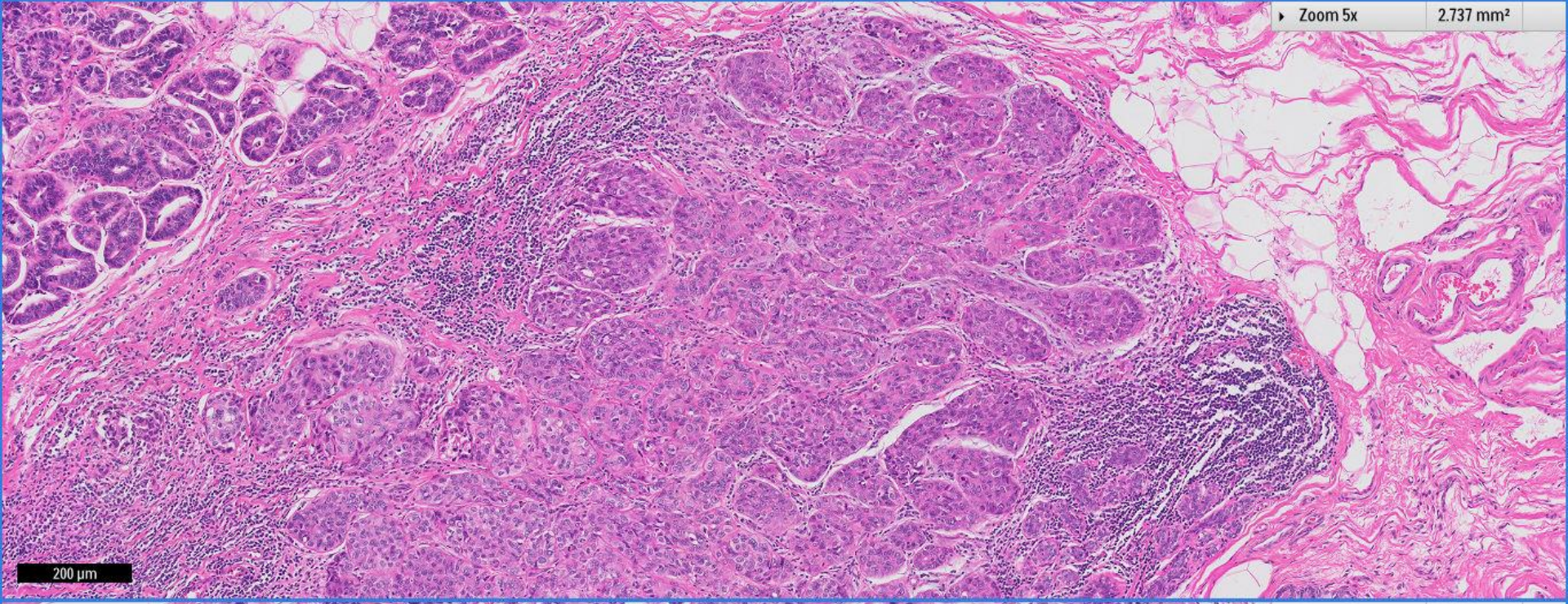
100 µm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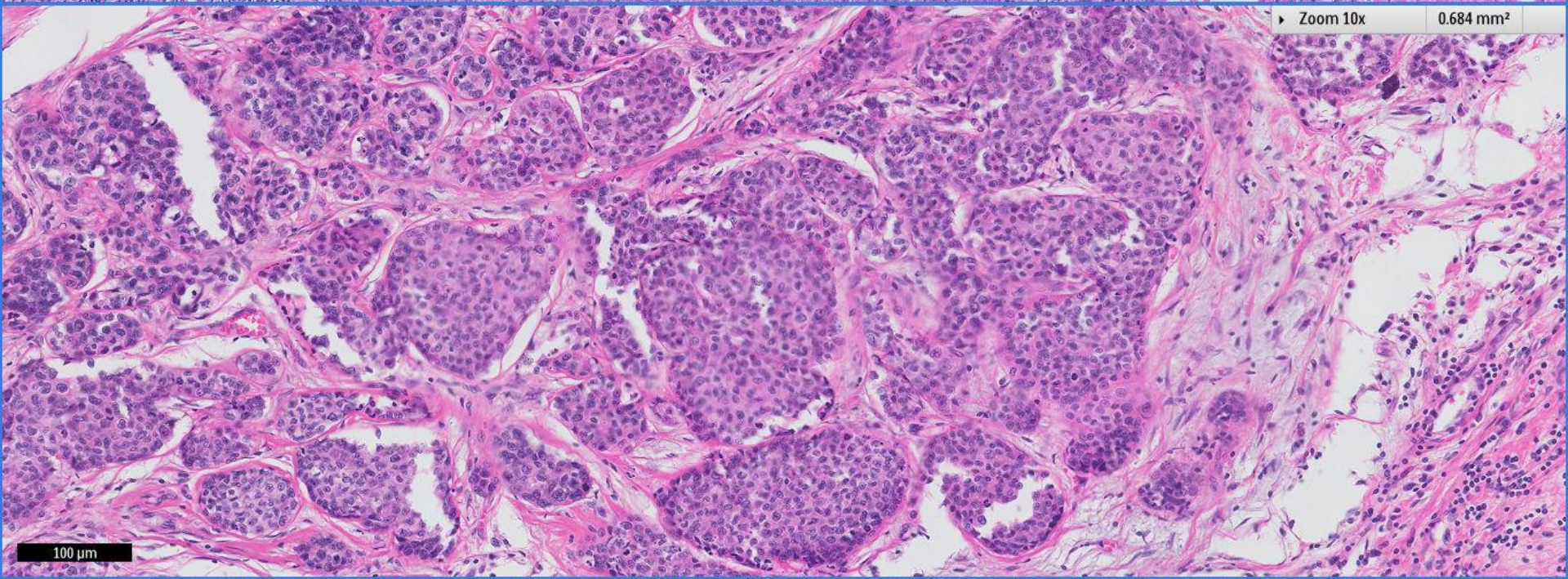
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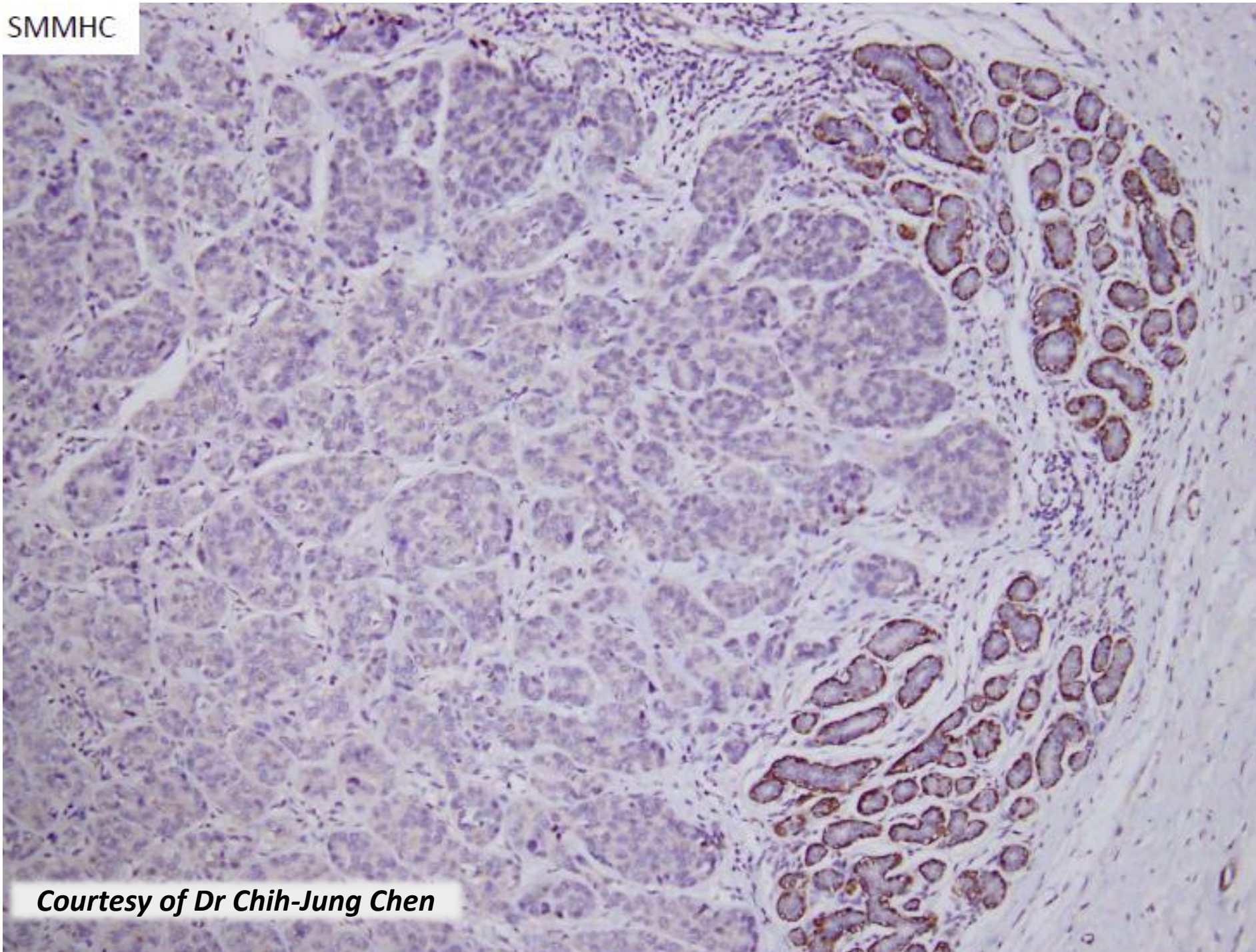
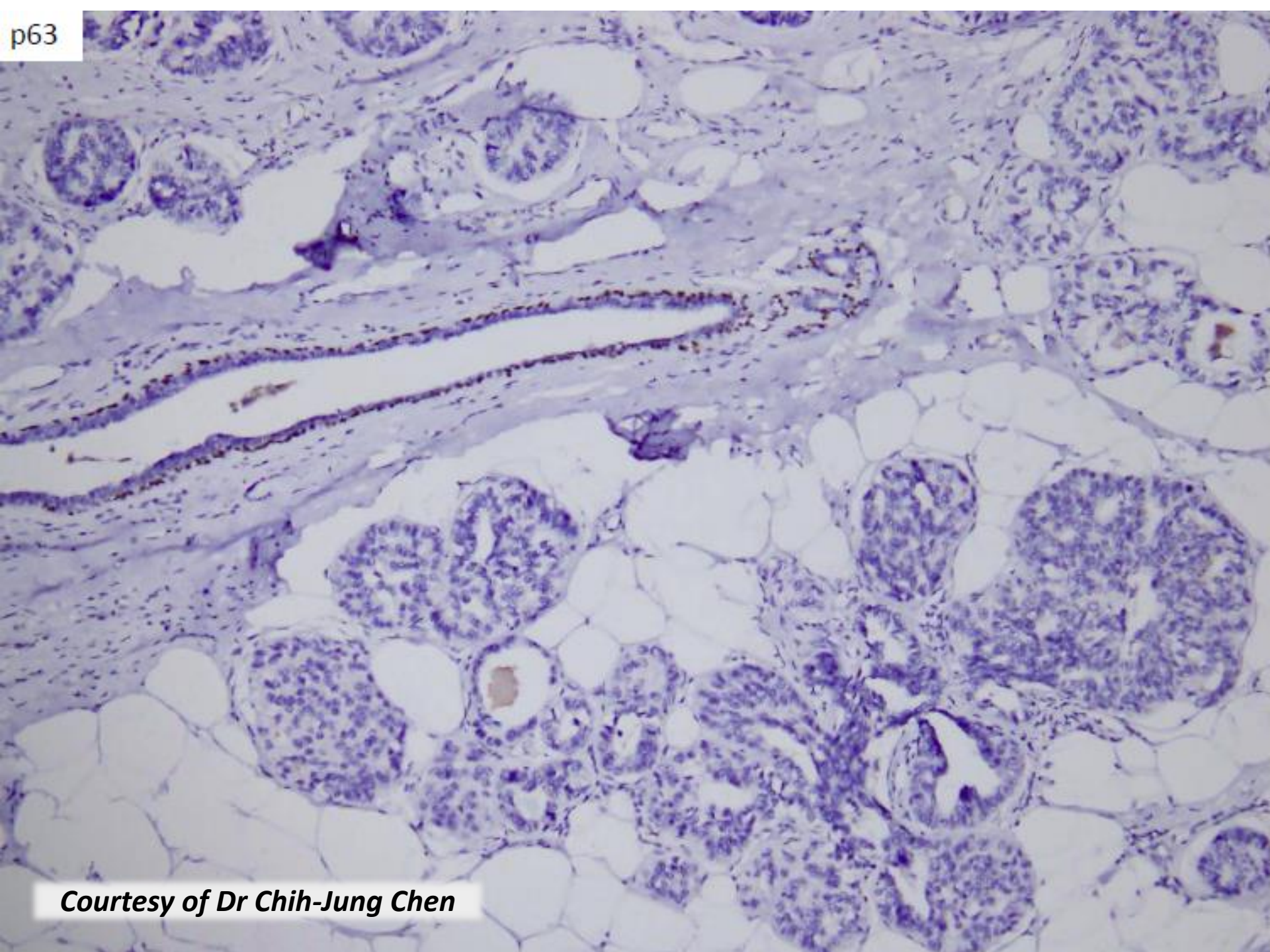
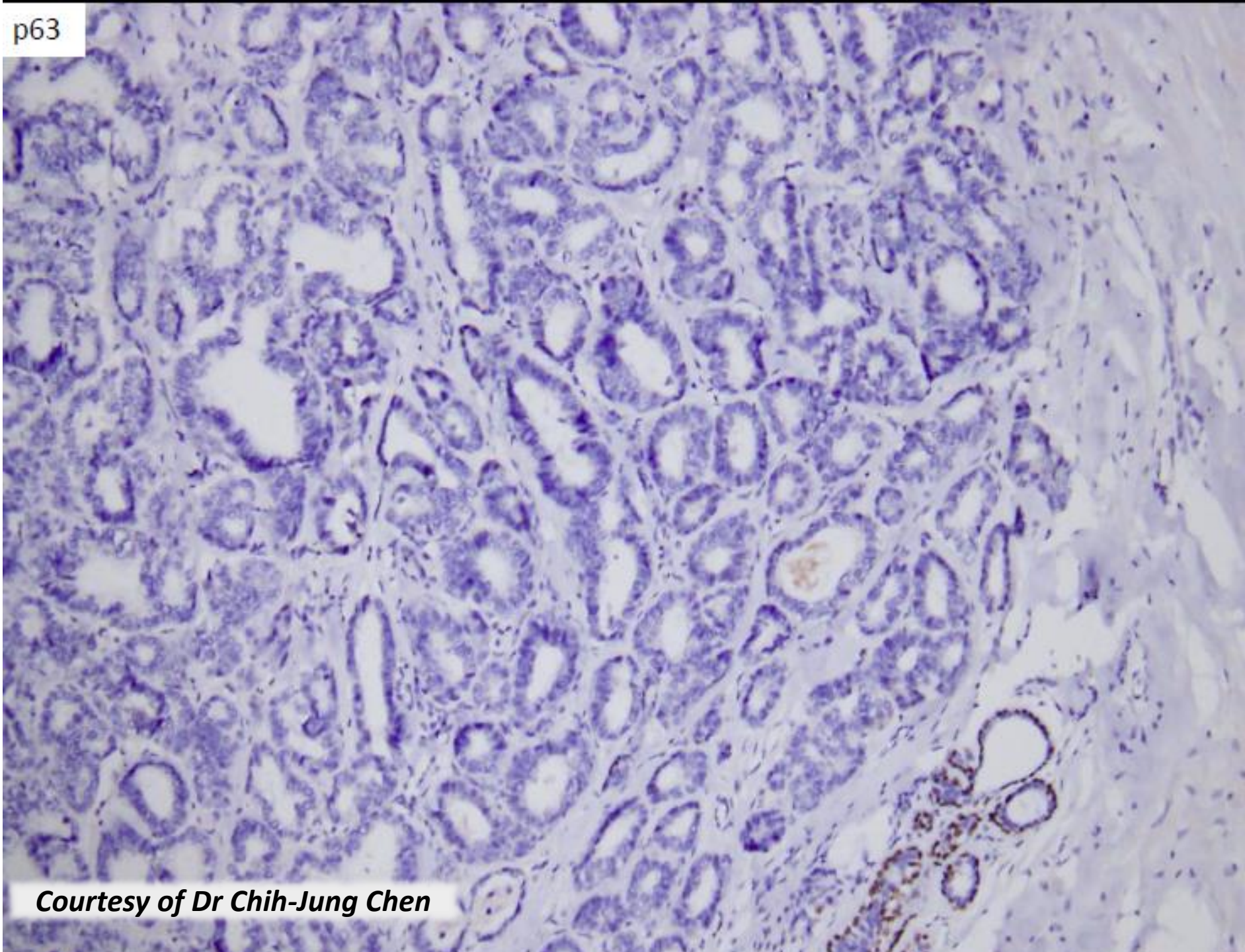
100 µm


SMMHC
Courtesy of Dr Chih-Jung Chen


p63
Courtesy of Dr Chih-Jung Chen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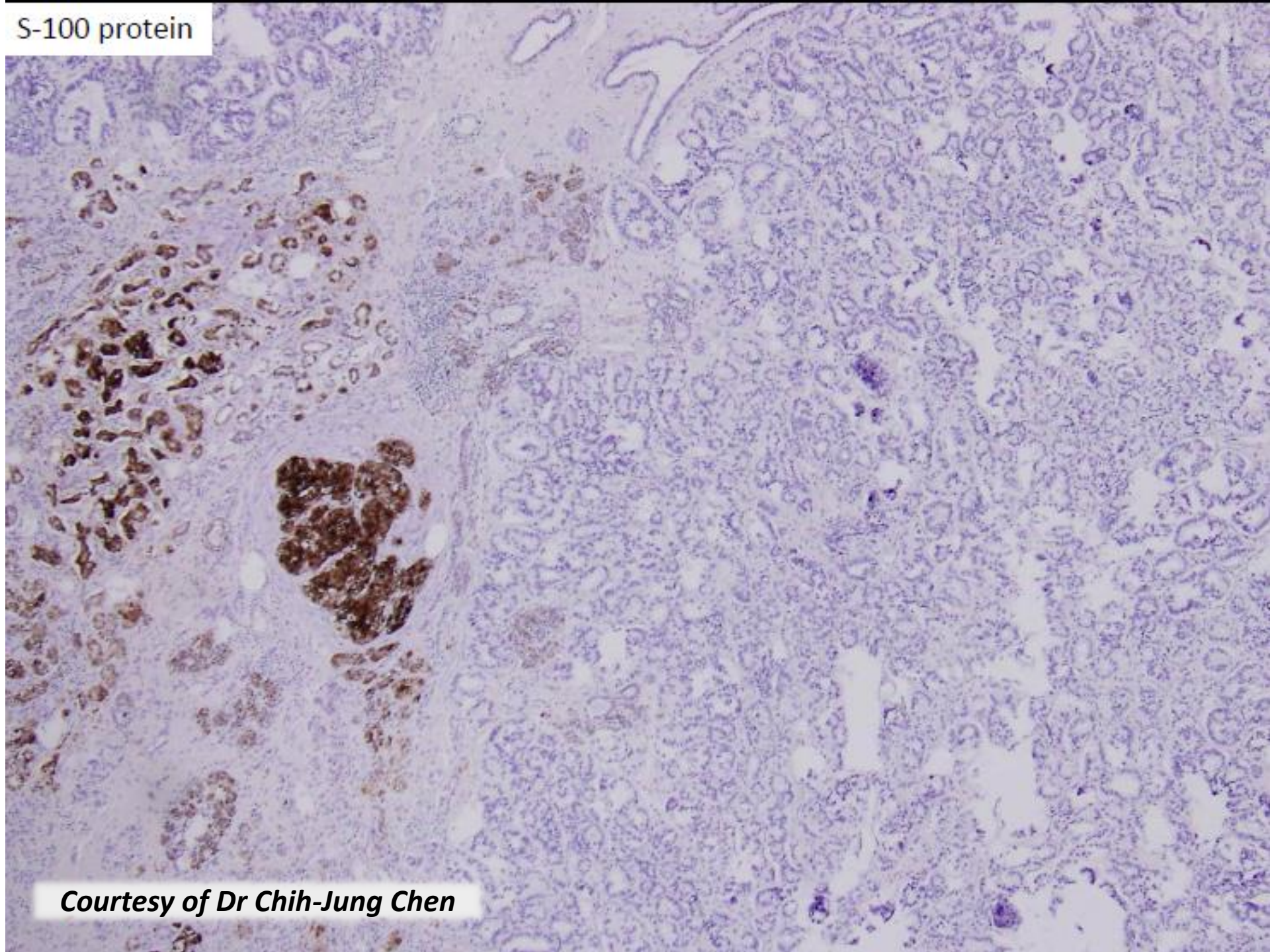
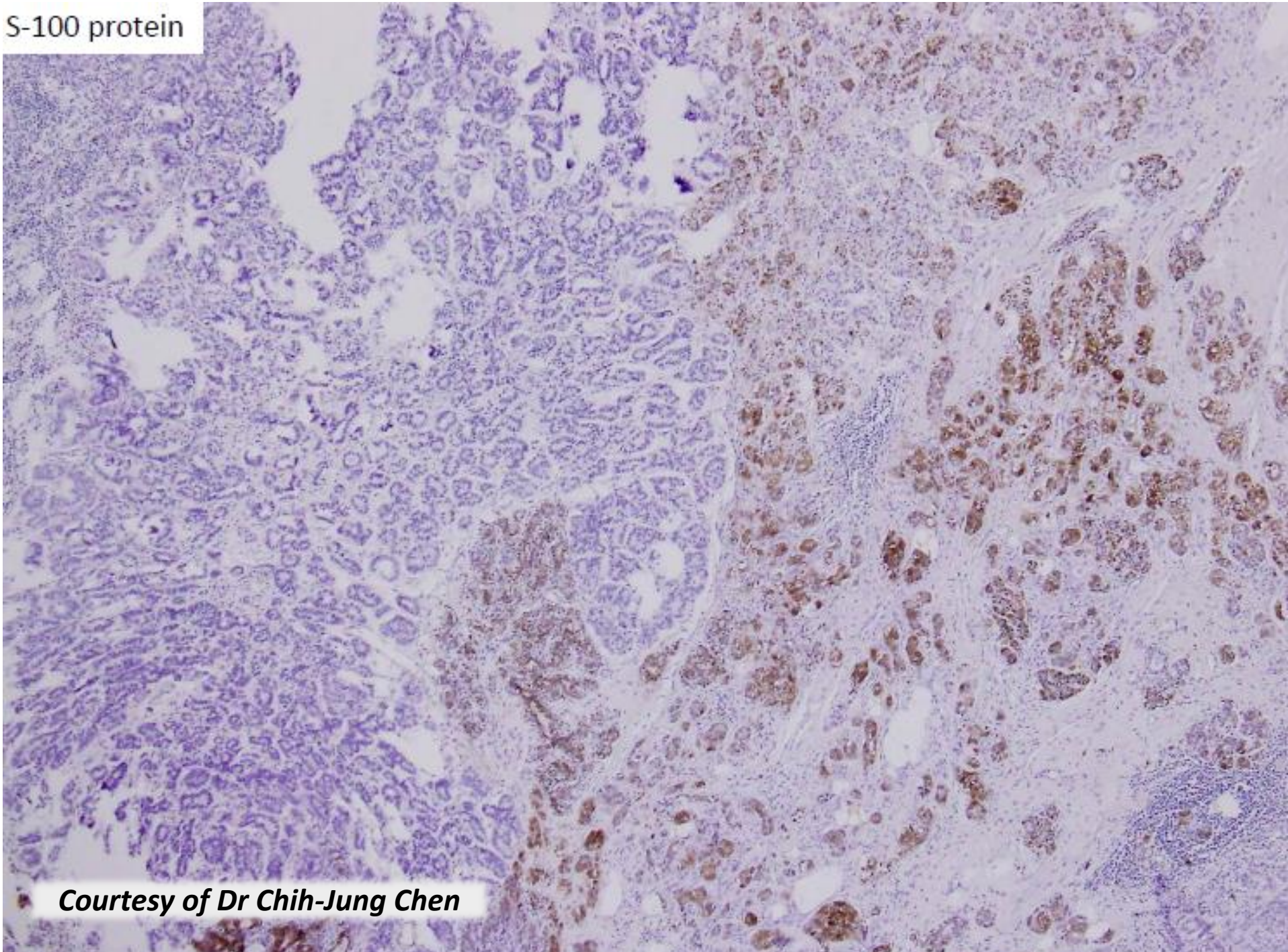
Courtesy of Dr Chih-Jung Chen


S-100 protein
Courtesy of Dr Chih-Jung Chen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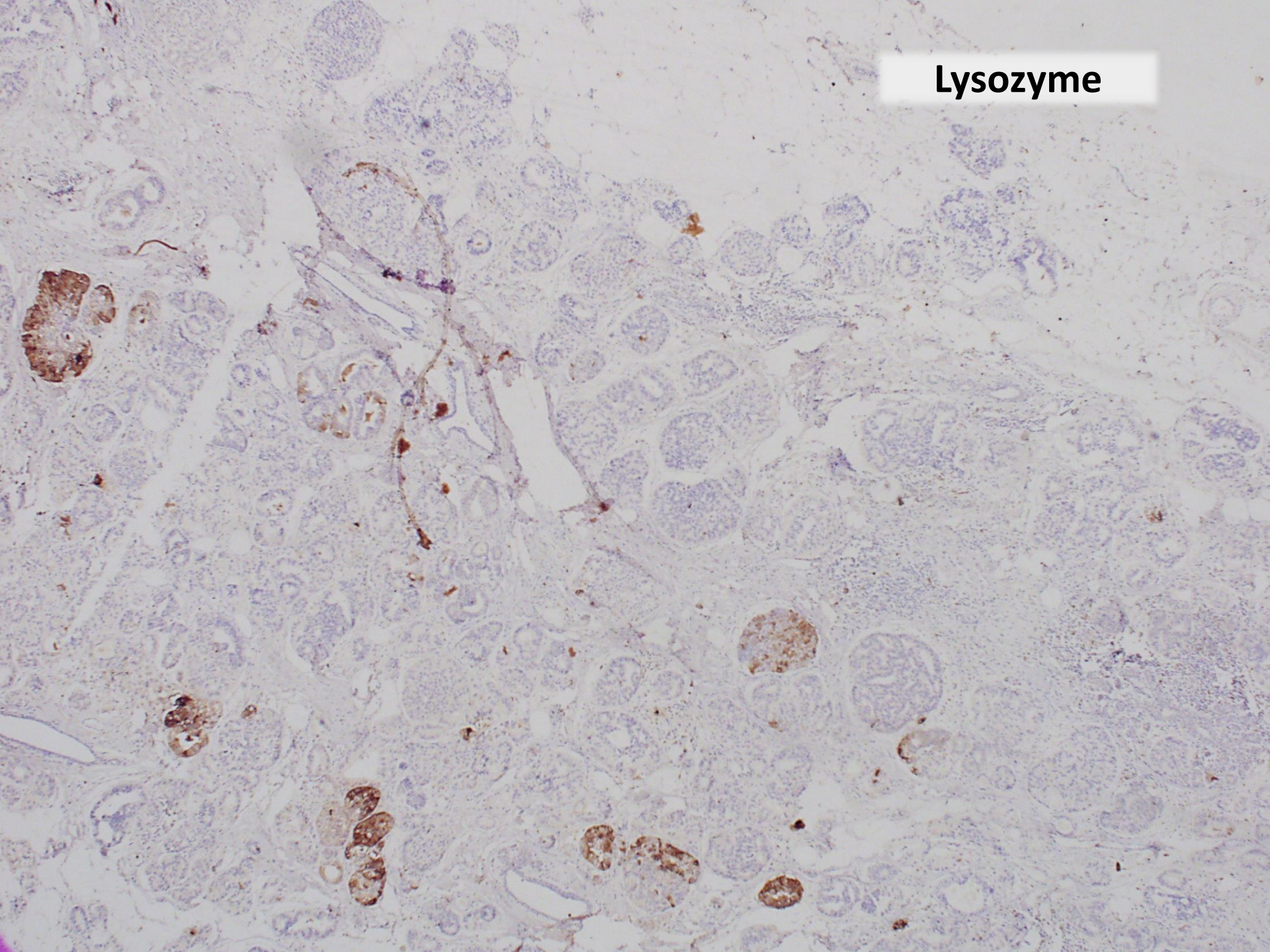
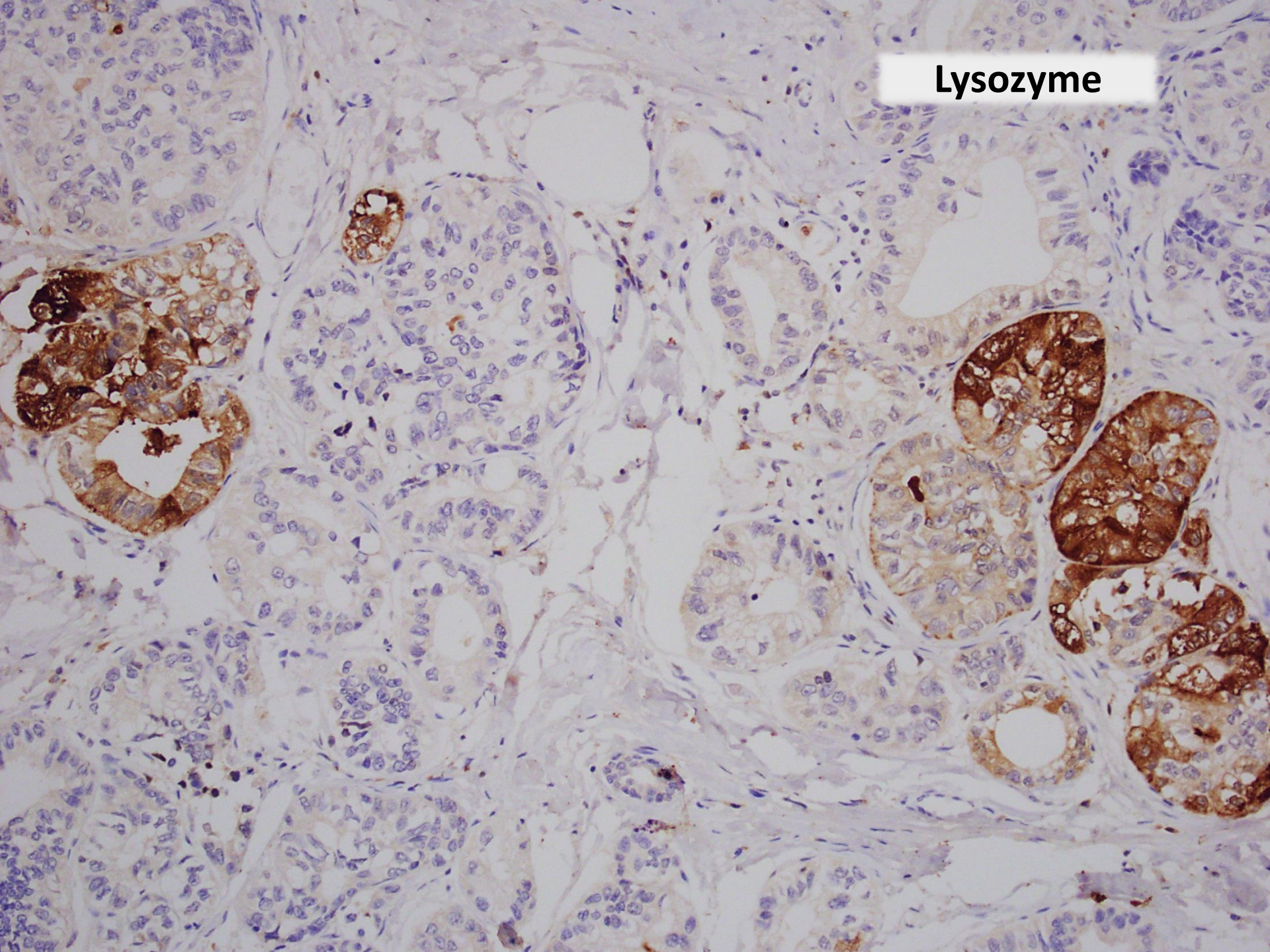
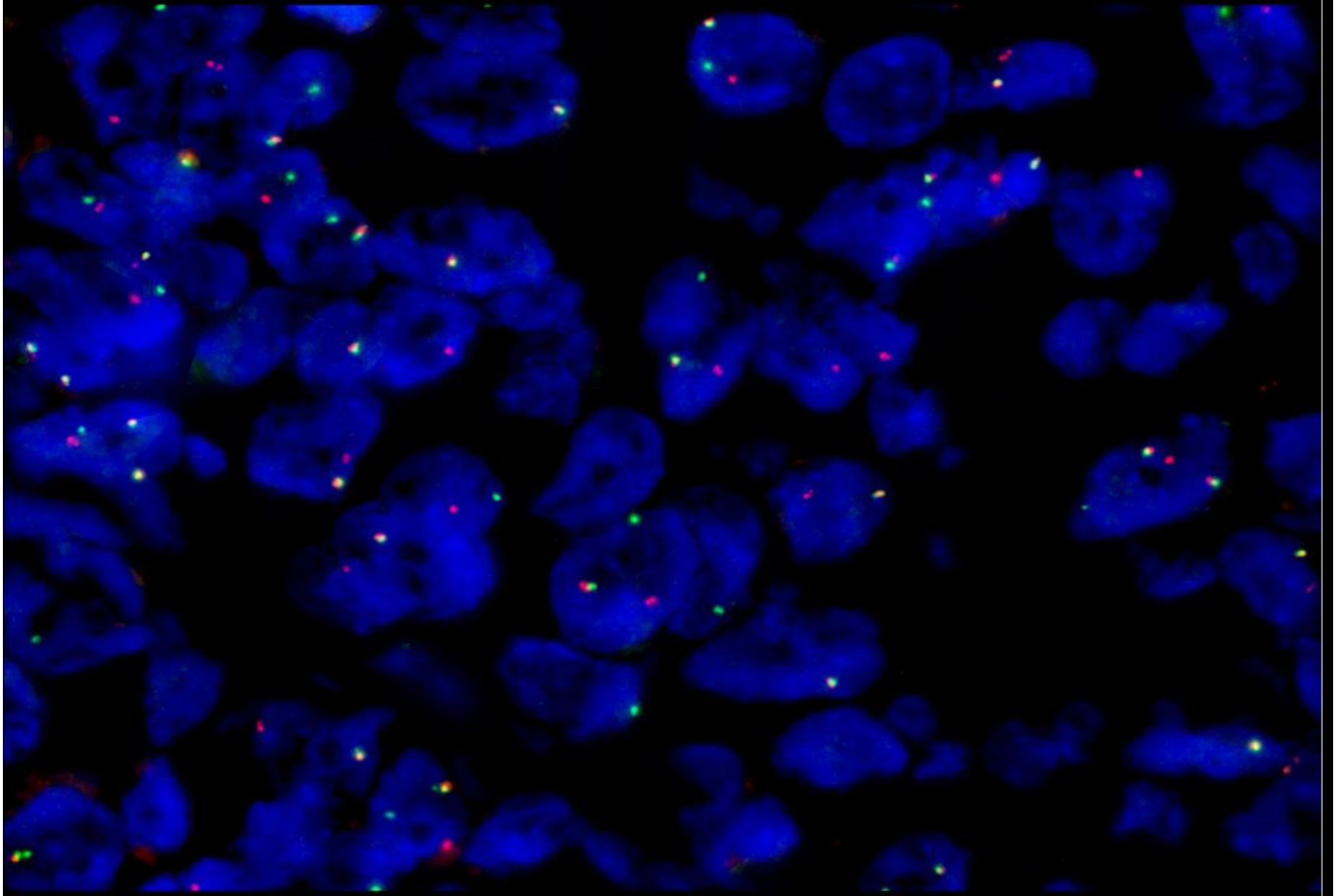

Lysozyme


Lysozyme

ETV6 gene rearrangement is observed in small discrete clusters.



Diagnosis

Breast tumour excision ~

Invasive carcinoma with microglandular adenosis-like areas, acinic and secretory differentiation

ER negative, PR negative, cerbB2 negative

Secretory carcinoma

- A rare, low-grade, translocation-associated invasive carcinoma that shows solid, microcystic and tubular architectures.
- Synonym: *juvenile breast carcinoma*.
- Accounts for <0.15% of all breast cancers.
- Affects both males and females.
- Median age of presentation is 25 years (range, 3–87 years).
- Clinically well-circumscribed & mobile masses, often located near the areola, especially in men and children.

Secretory carcinoma

- Epithelial membrane antigen (EMA), alpha lactoalbumin and S100 protein are frequently expressed.
- Estrogen receptor (ER), progesterone receptor (PR), HER2 and p63 are negative
- E-cadherin, keratins 8 and 18, CD117, and alpha-smooth-muscle actin can be expressed.

Secretory carcinoma

- Associated with a characteristic balanced translocation, t(12;15), that creates a *ETV6-NTRK3* gene fusion.
- Differential diagnosis with acinic carcinoma is based on the absence of the *ETV6-NTRK3* translocation in acinic carcinomas.

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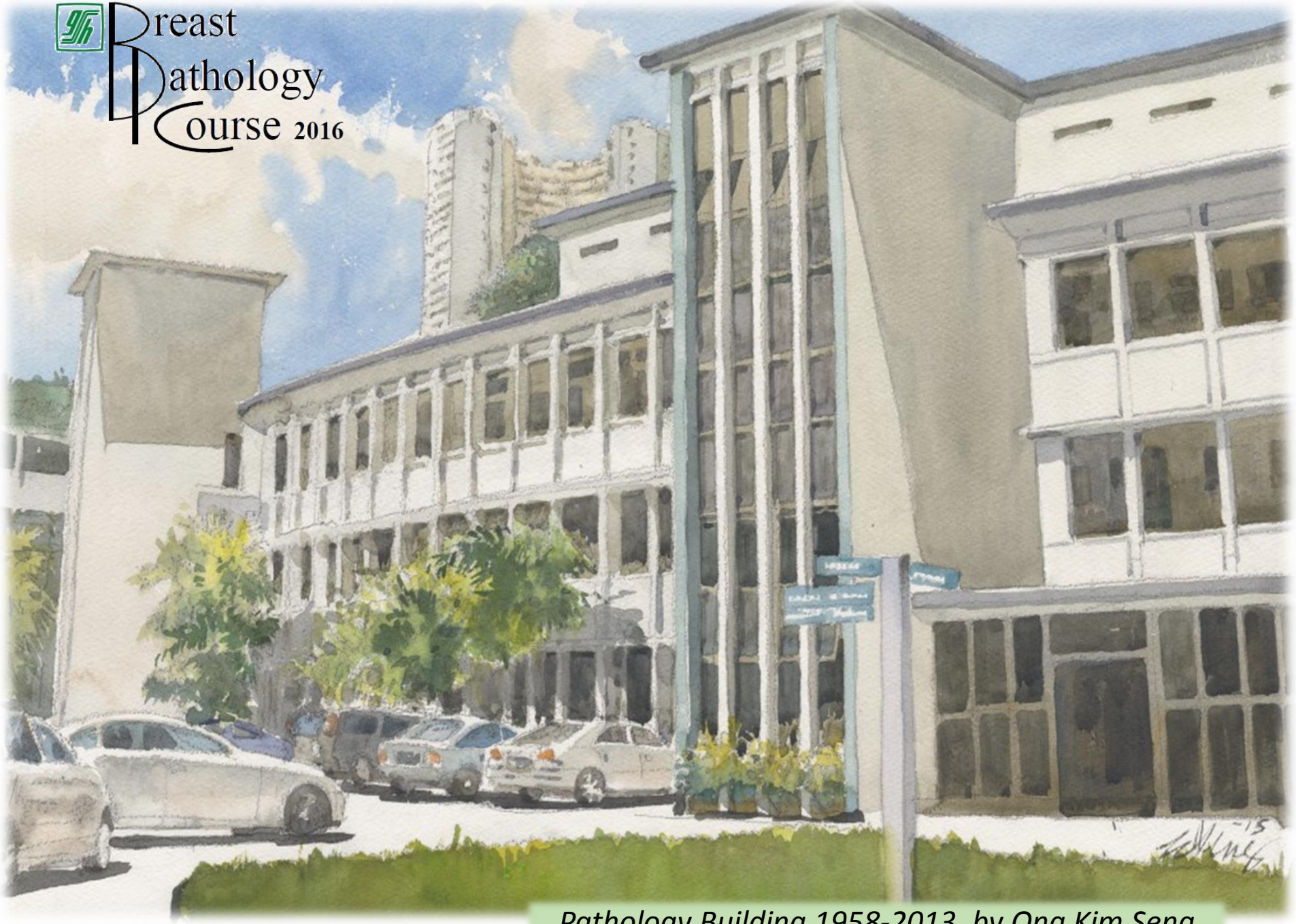

Pathology Building 1958-2013, by Ong Kim Seng