

Case 13

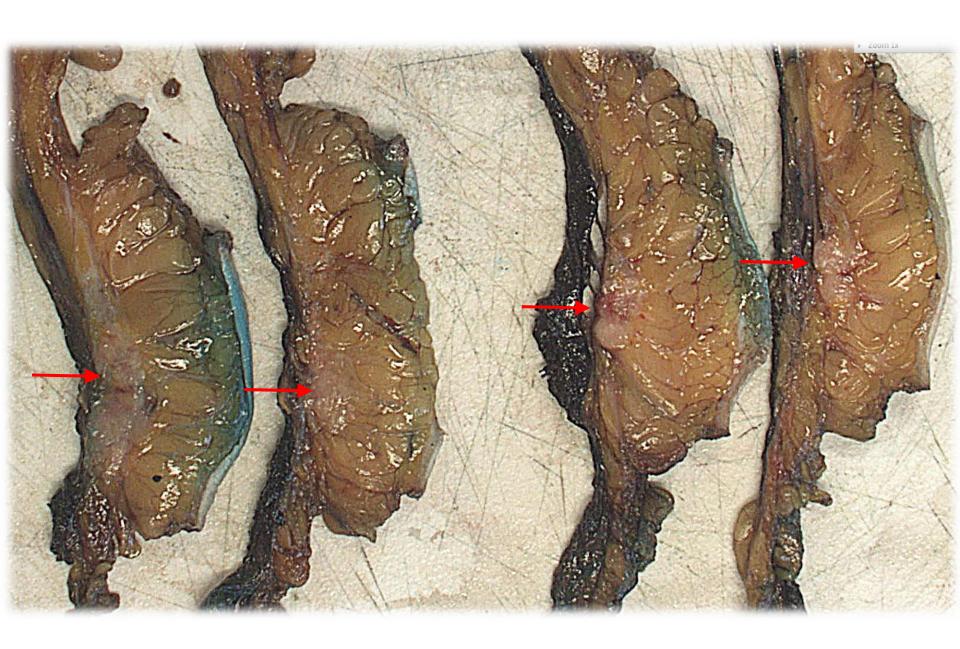
61 year old Chinese female.

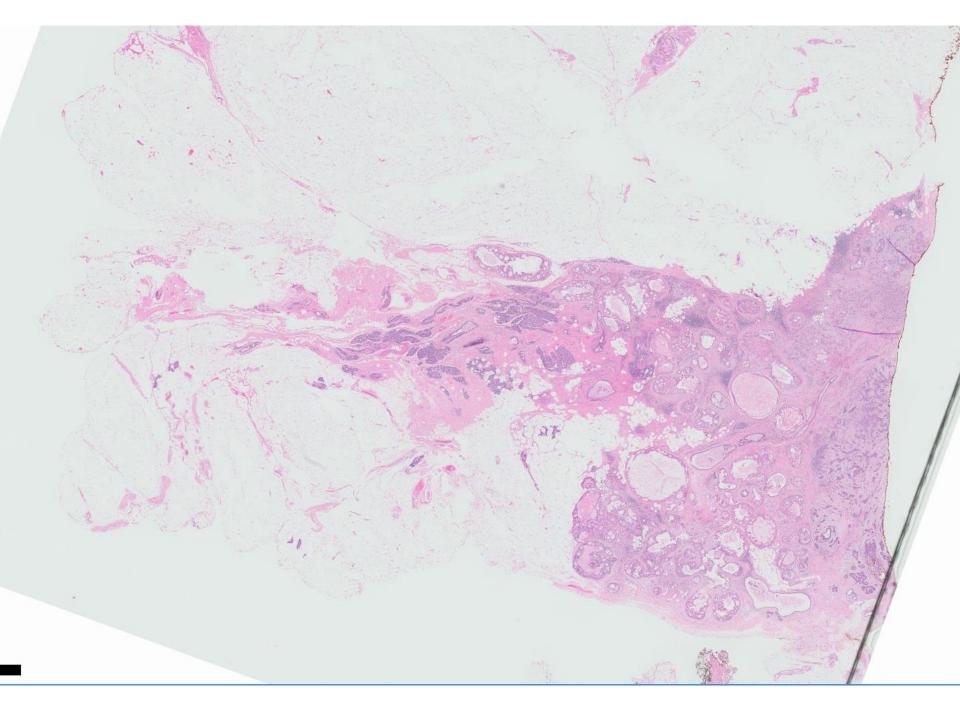
Left breast simple mastectomy and sentinel lymph node biopsy.

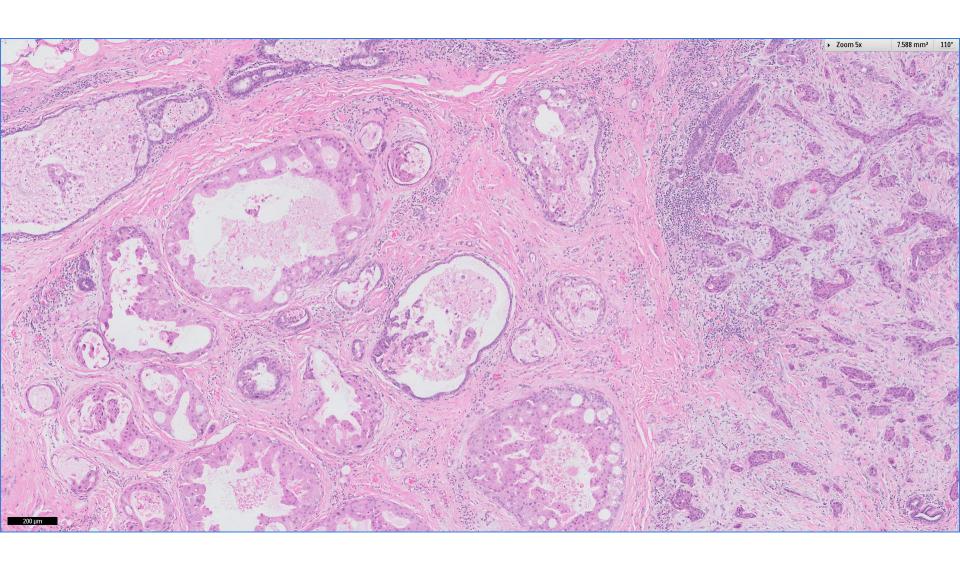


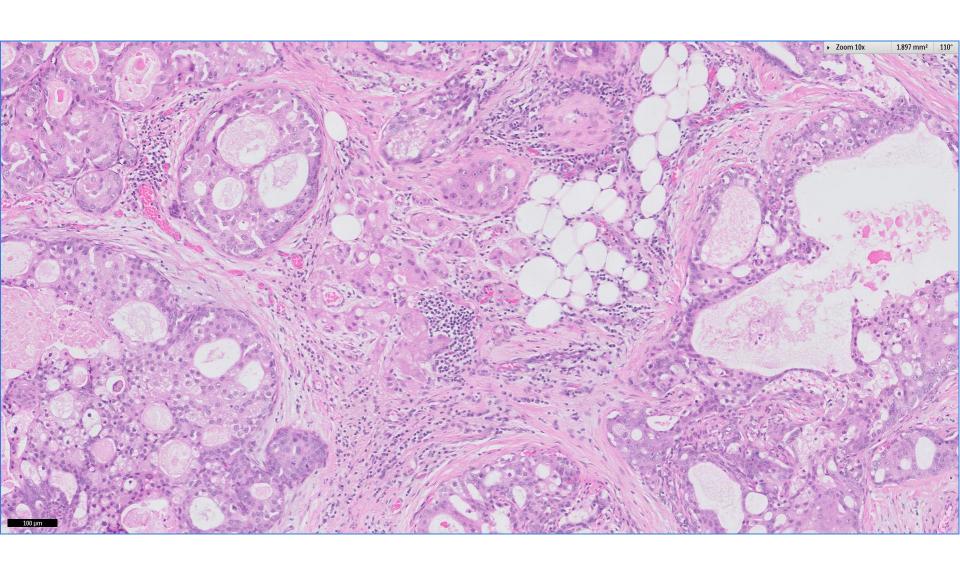


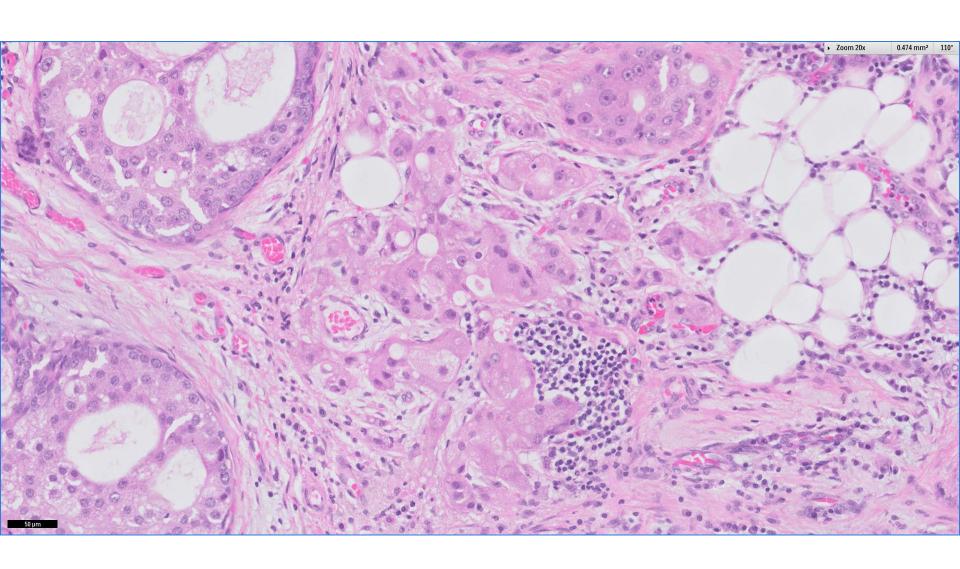


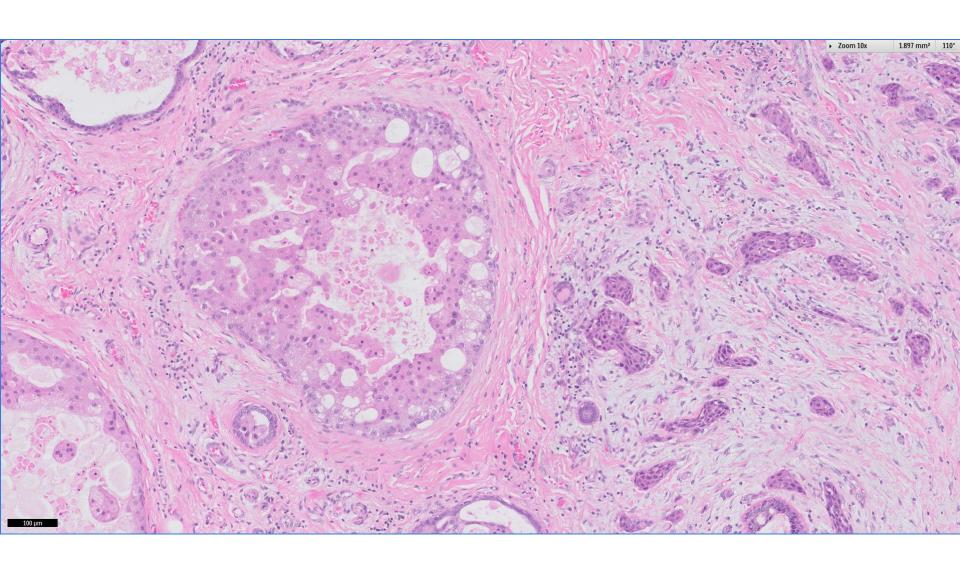


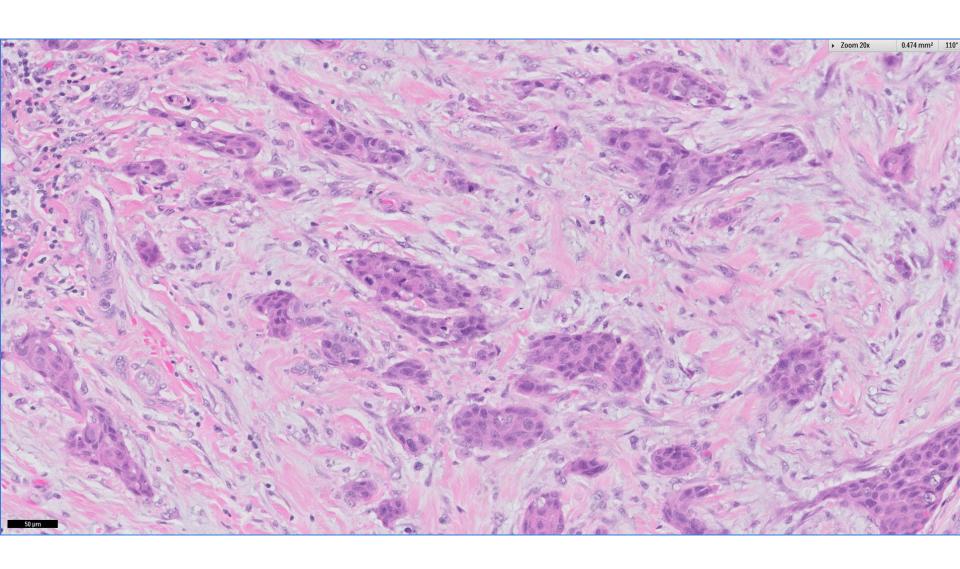


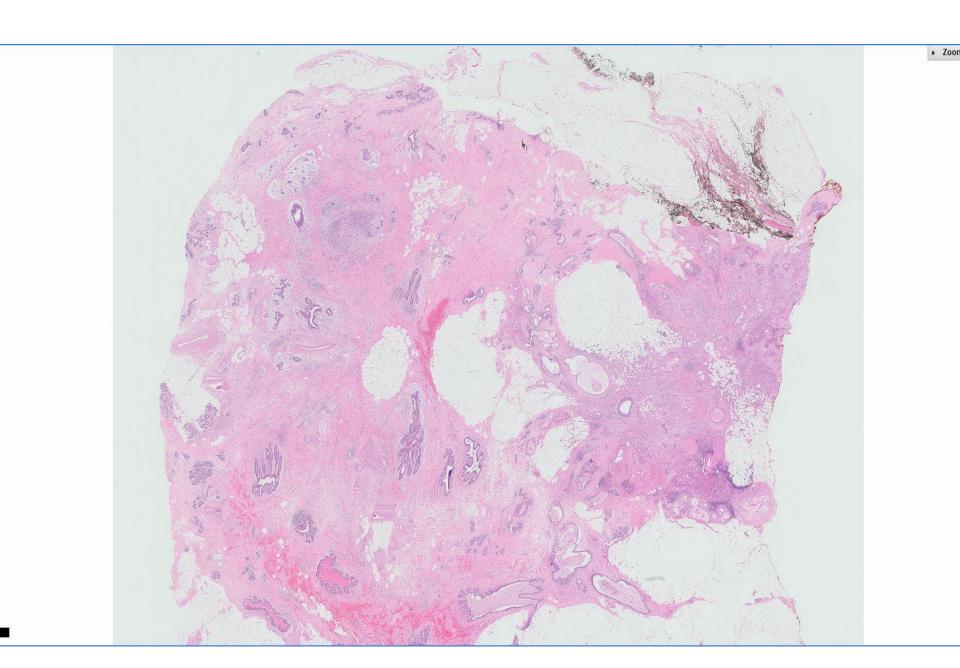


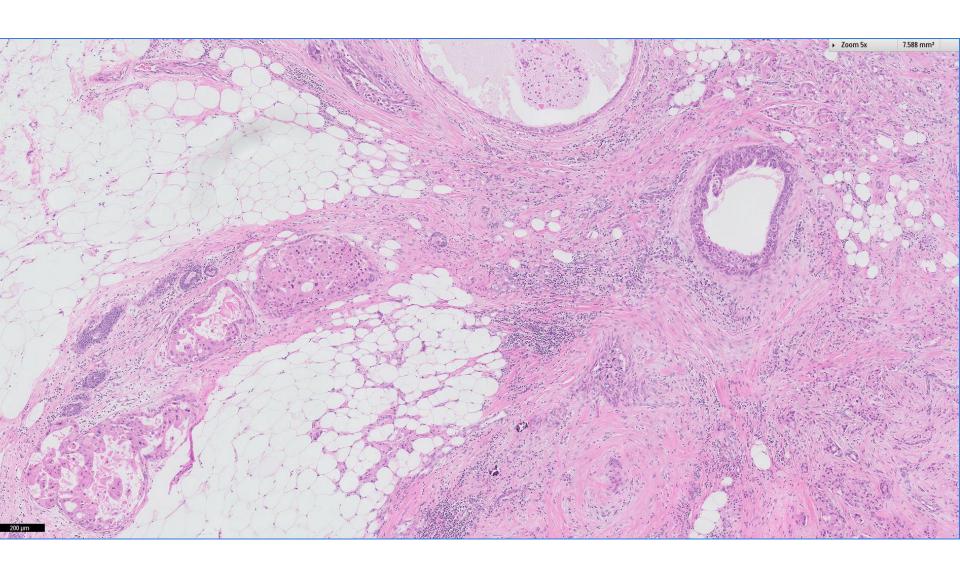


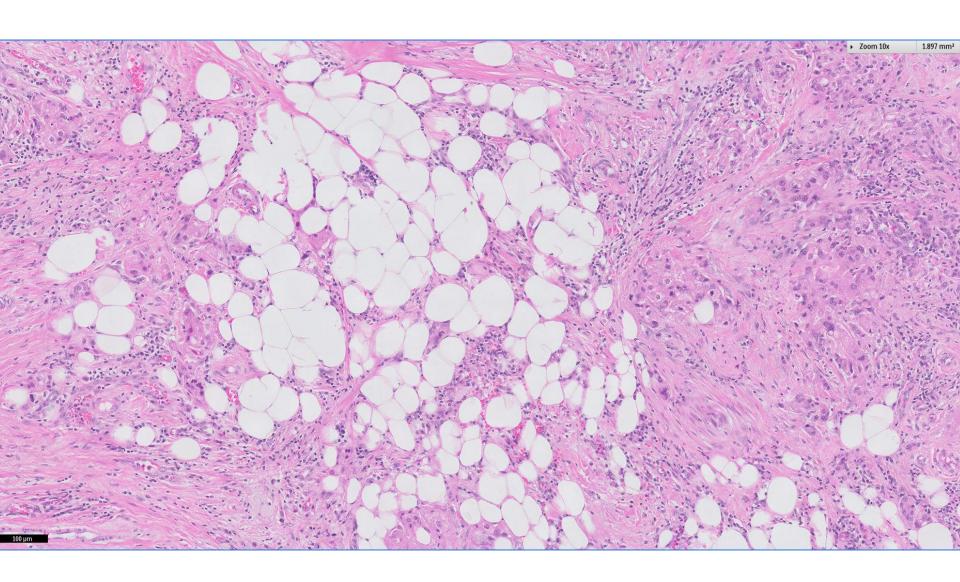


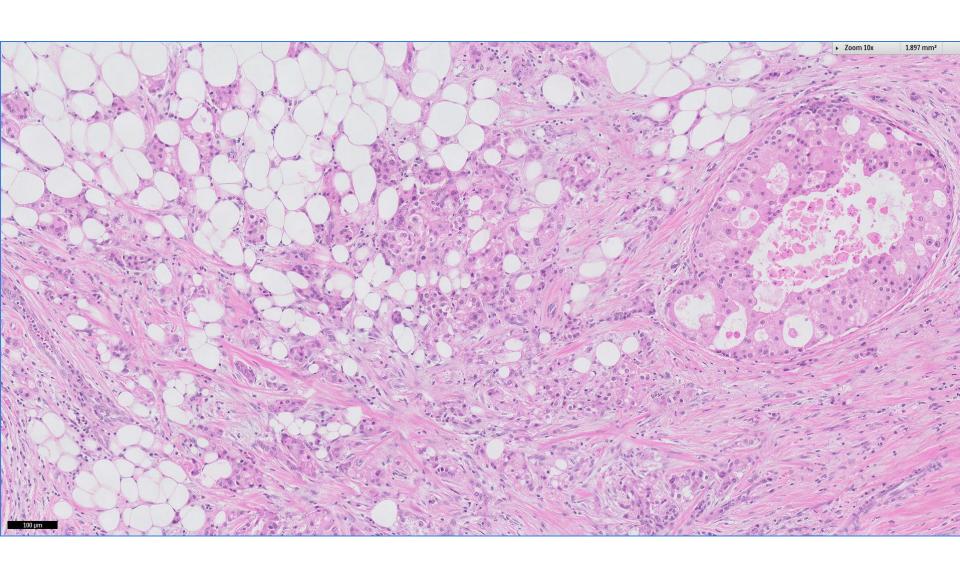


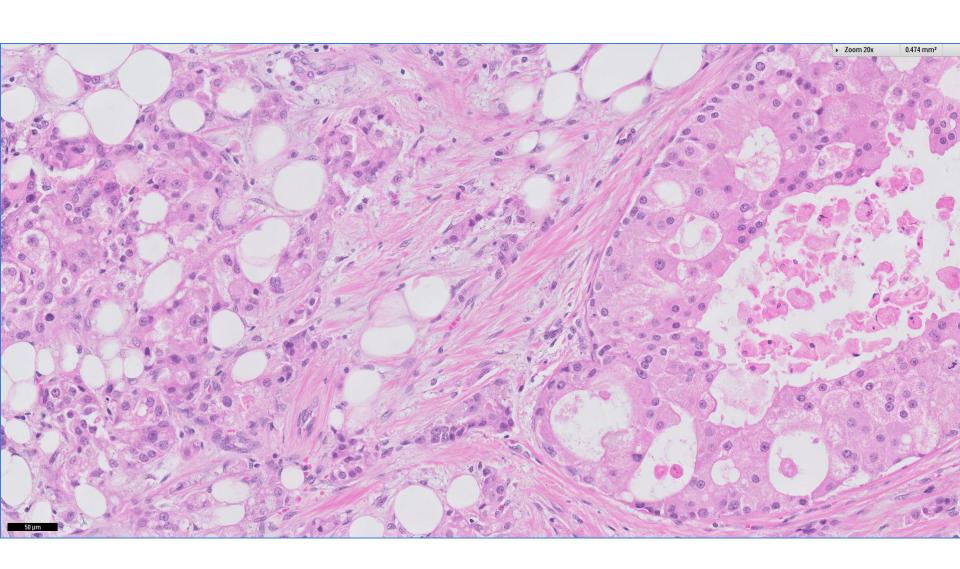


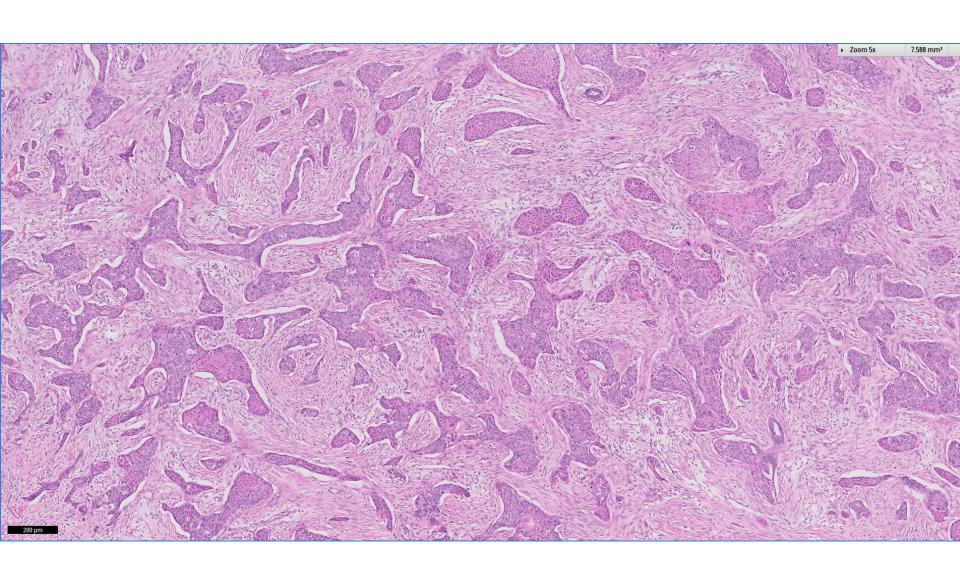


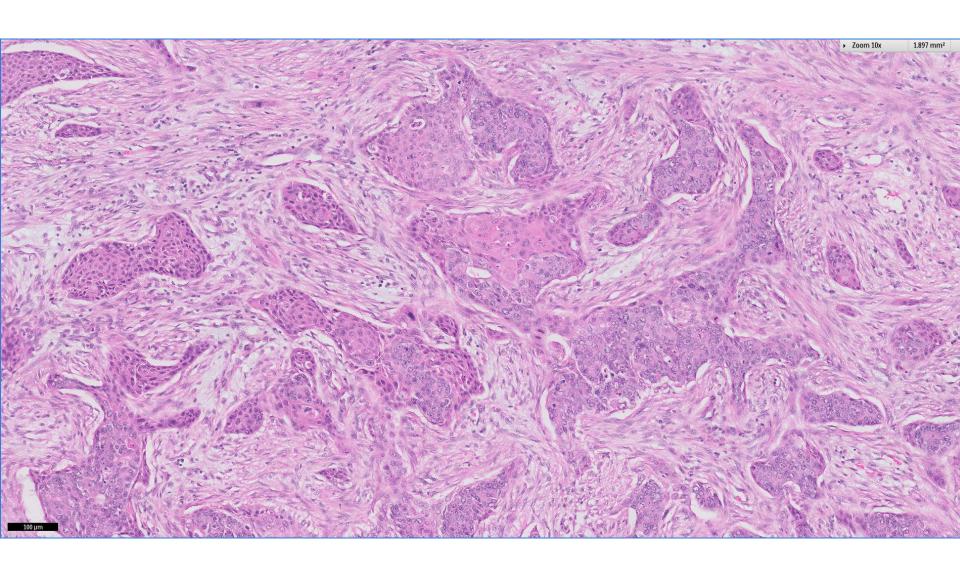


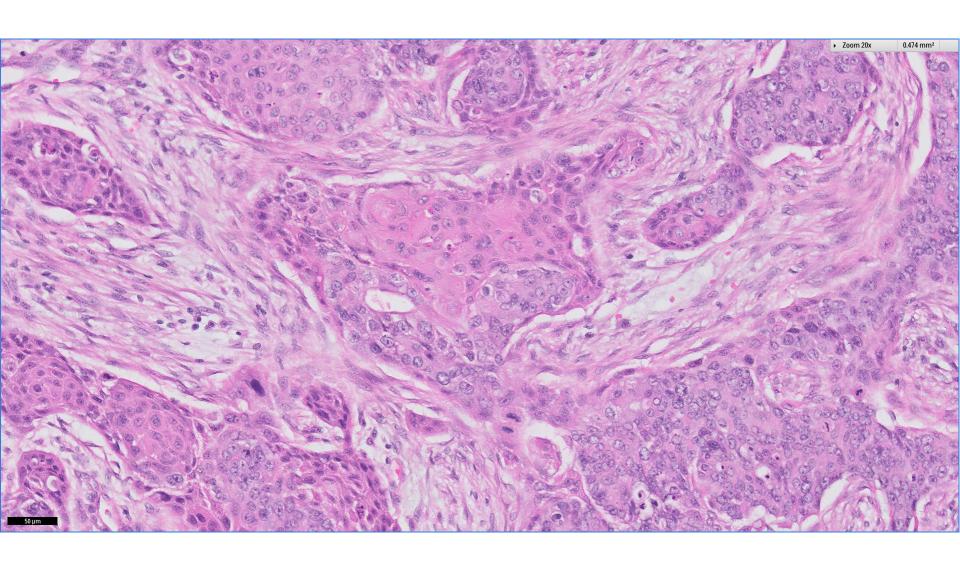


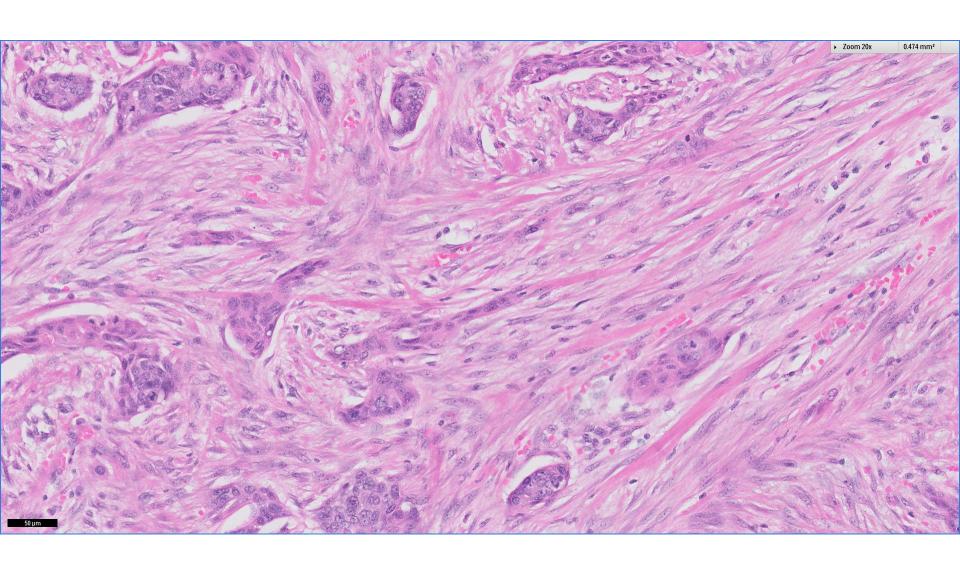


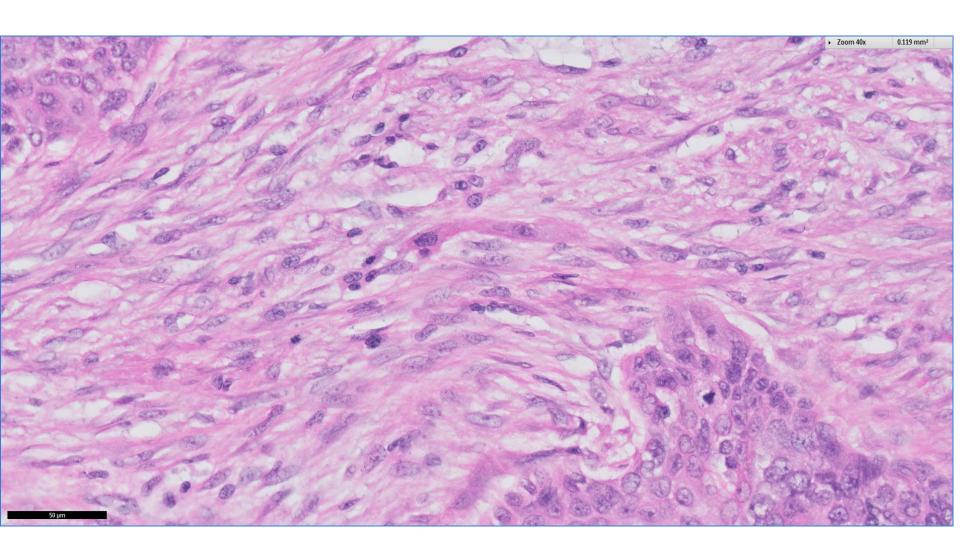


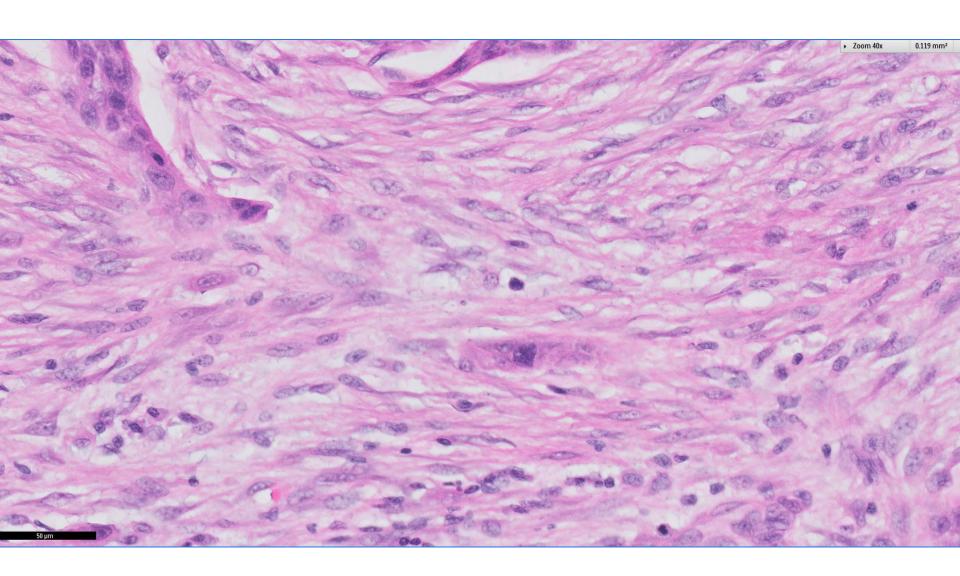


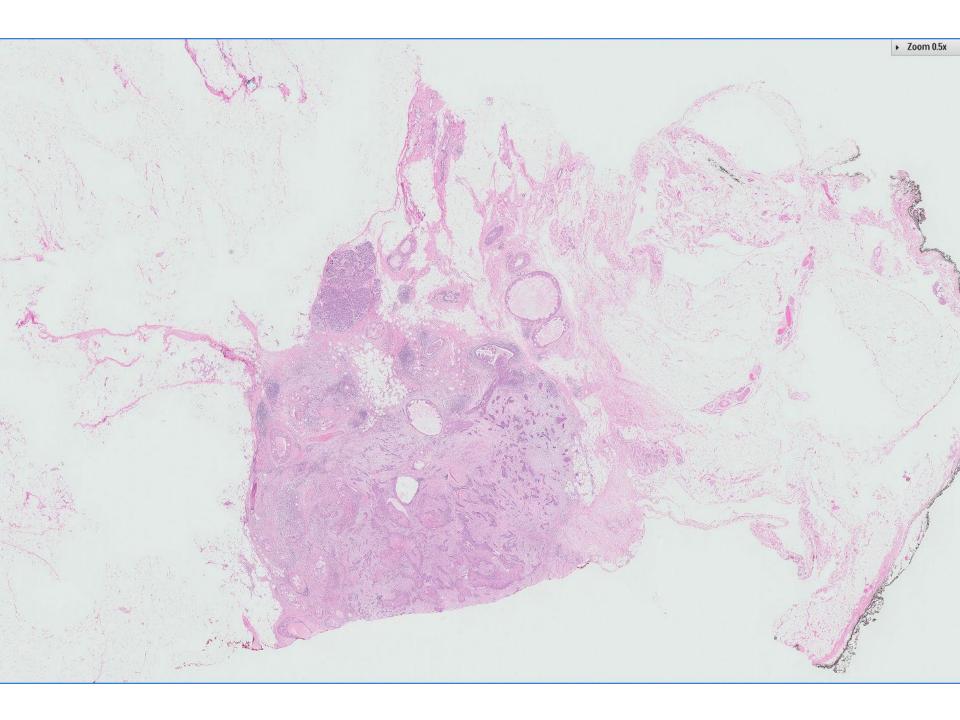


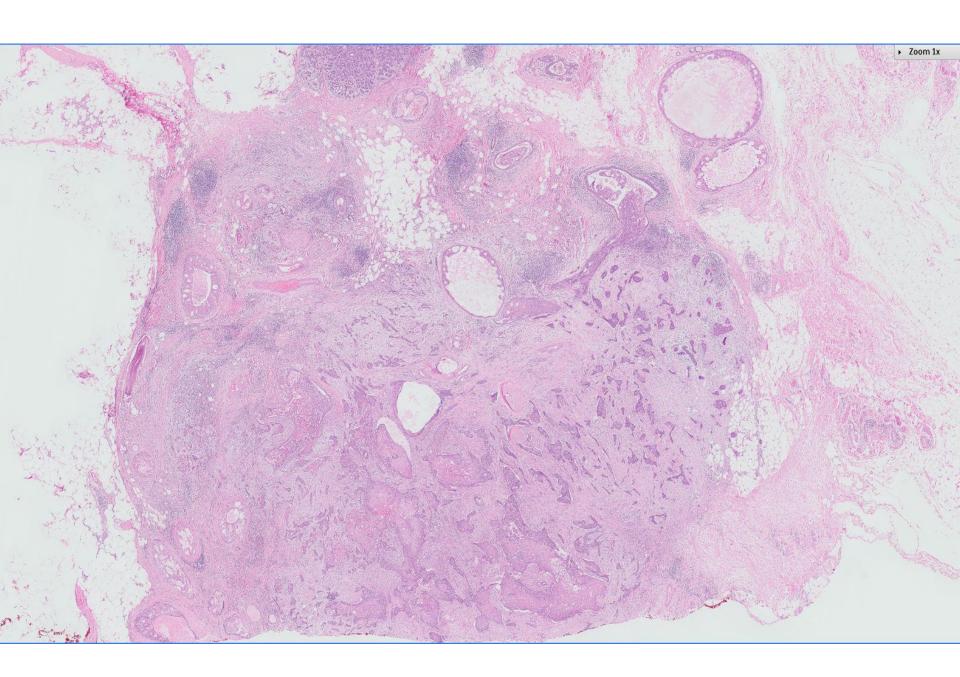


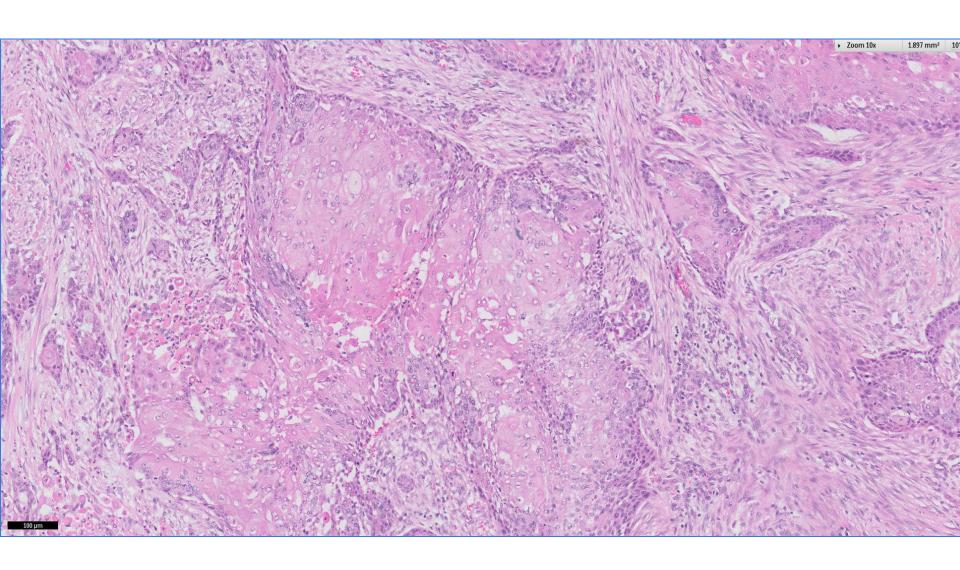


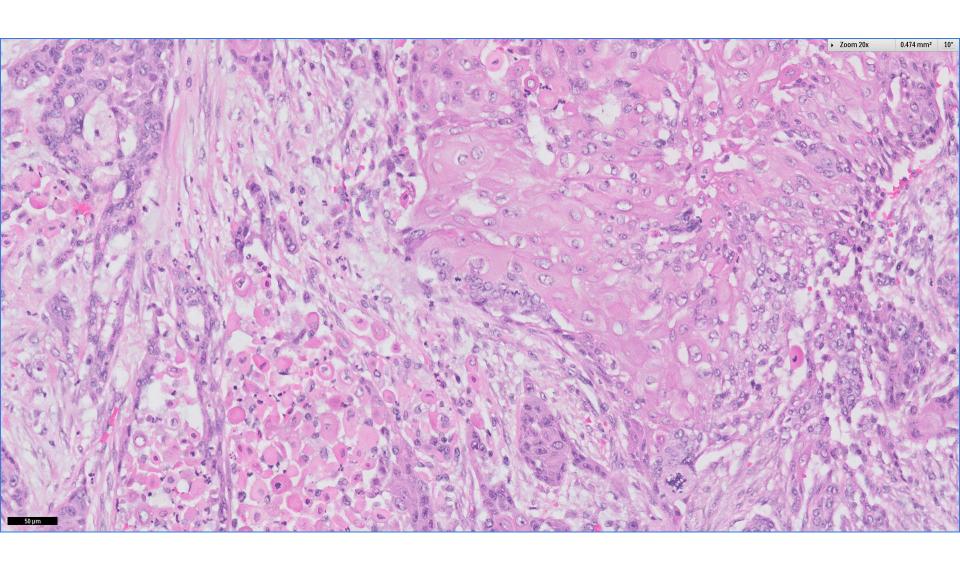


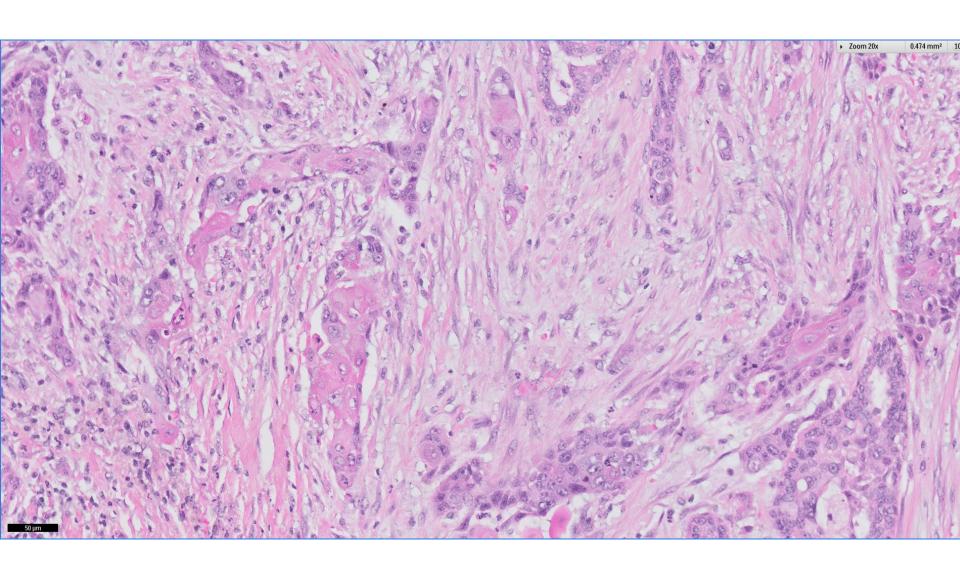


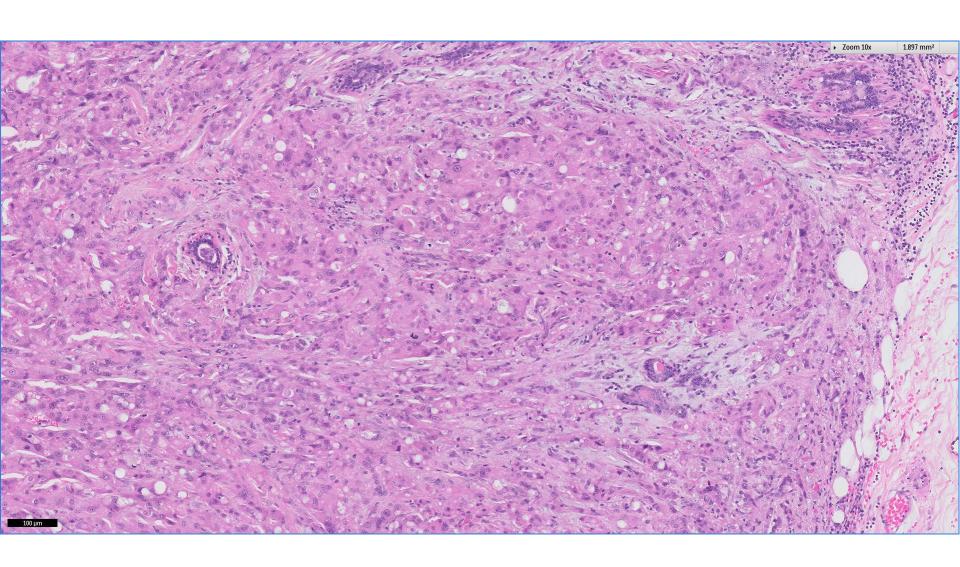


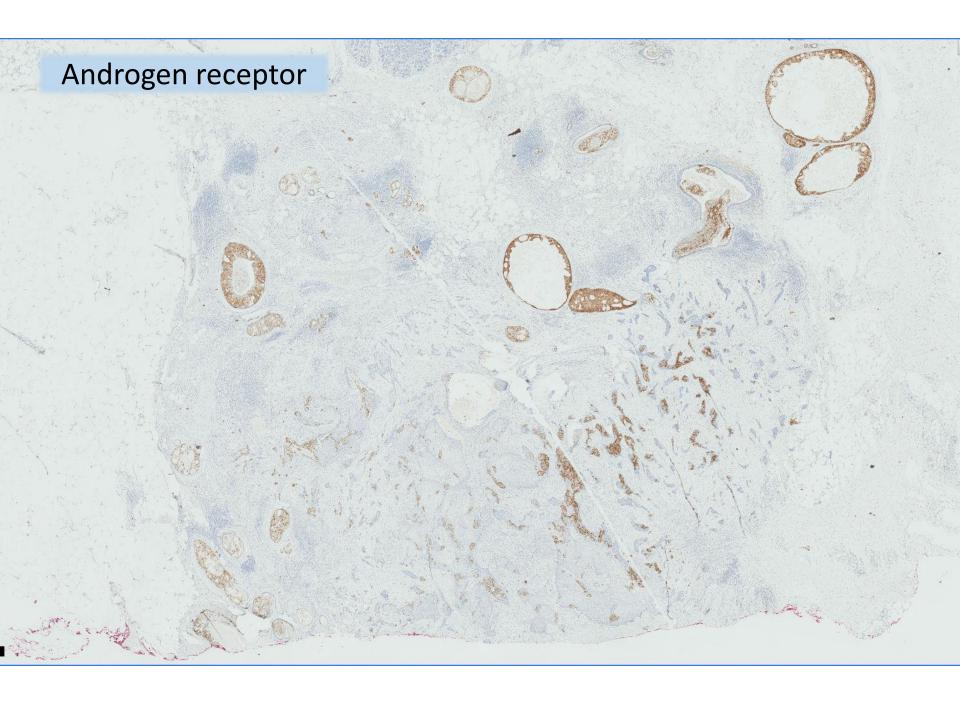




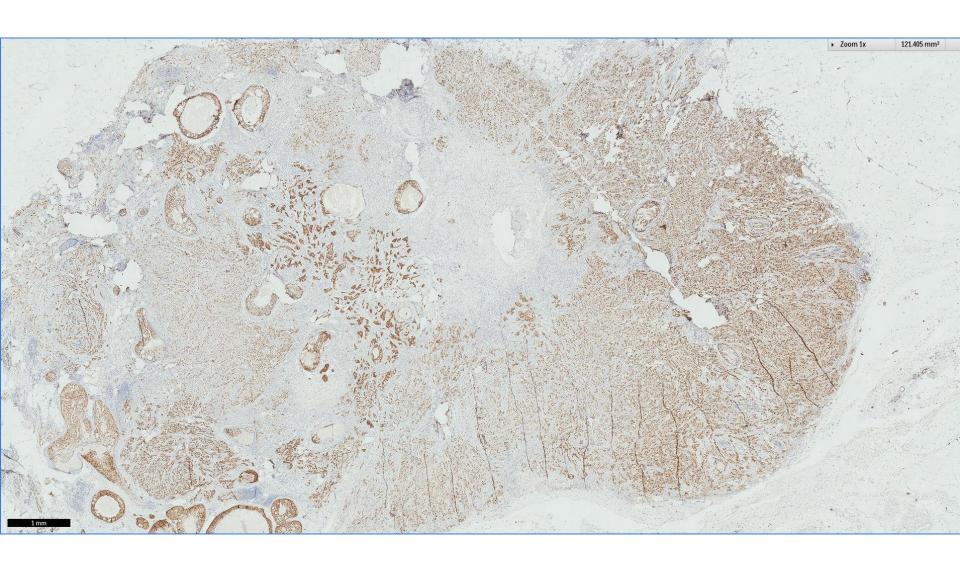




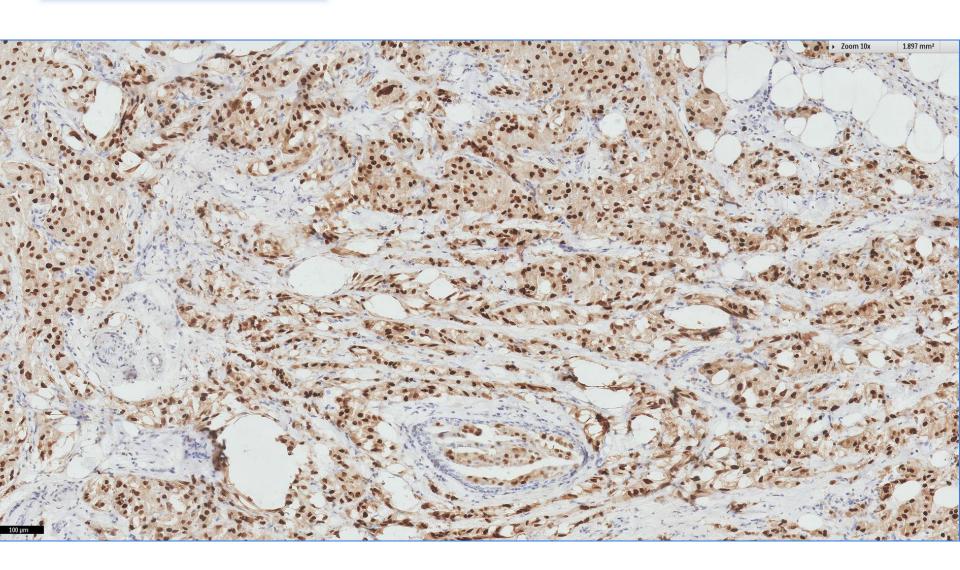




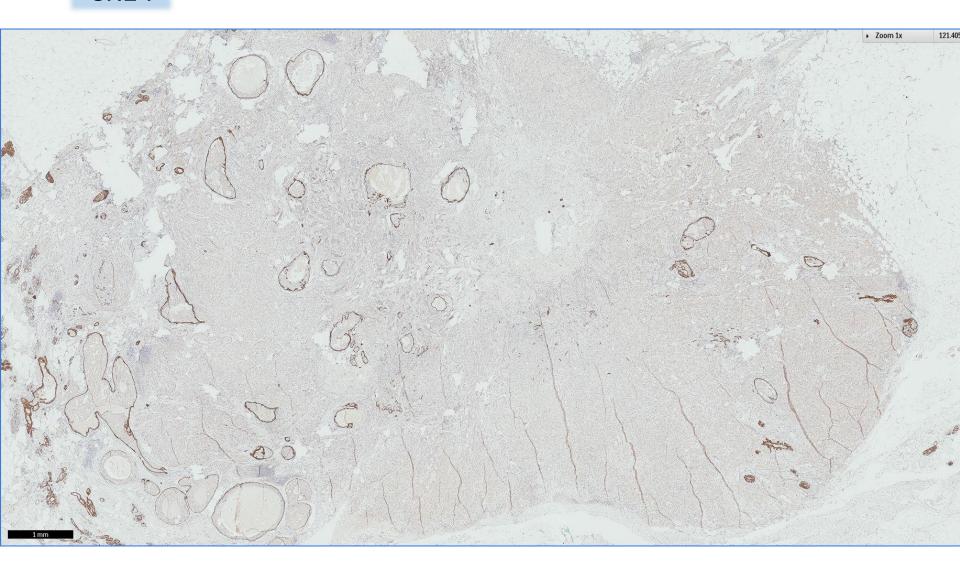
Androgen receptor



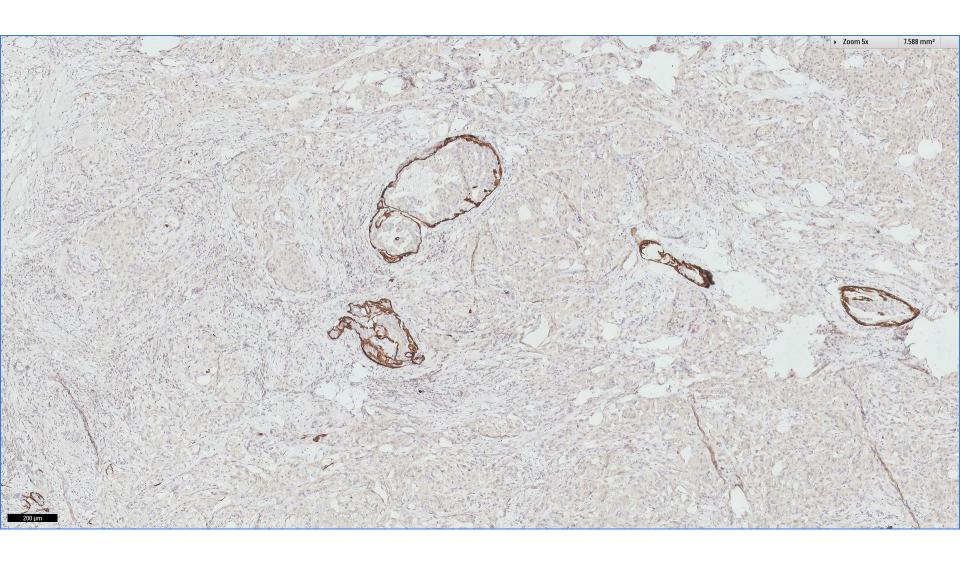
Androgen receptor



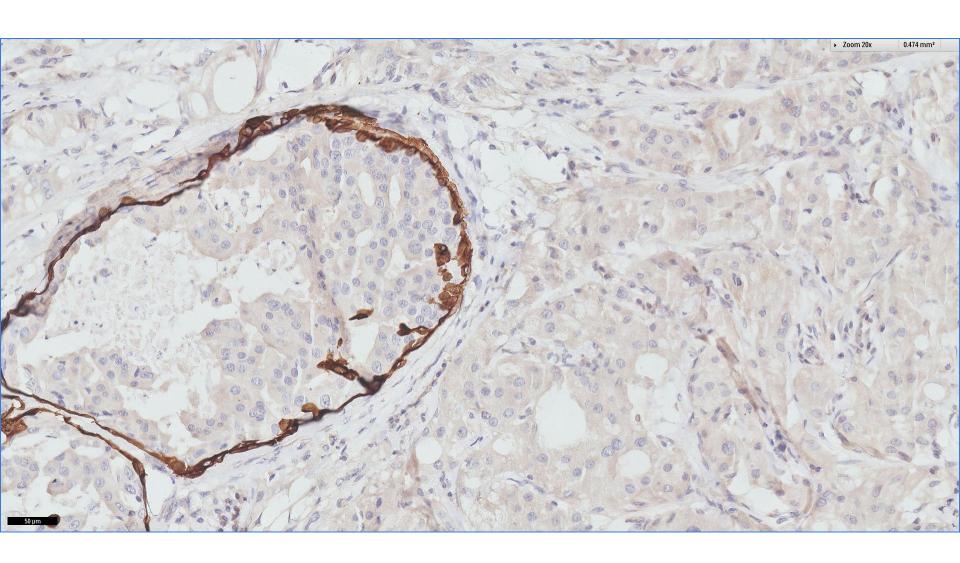
CK14

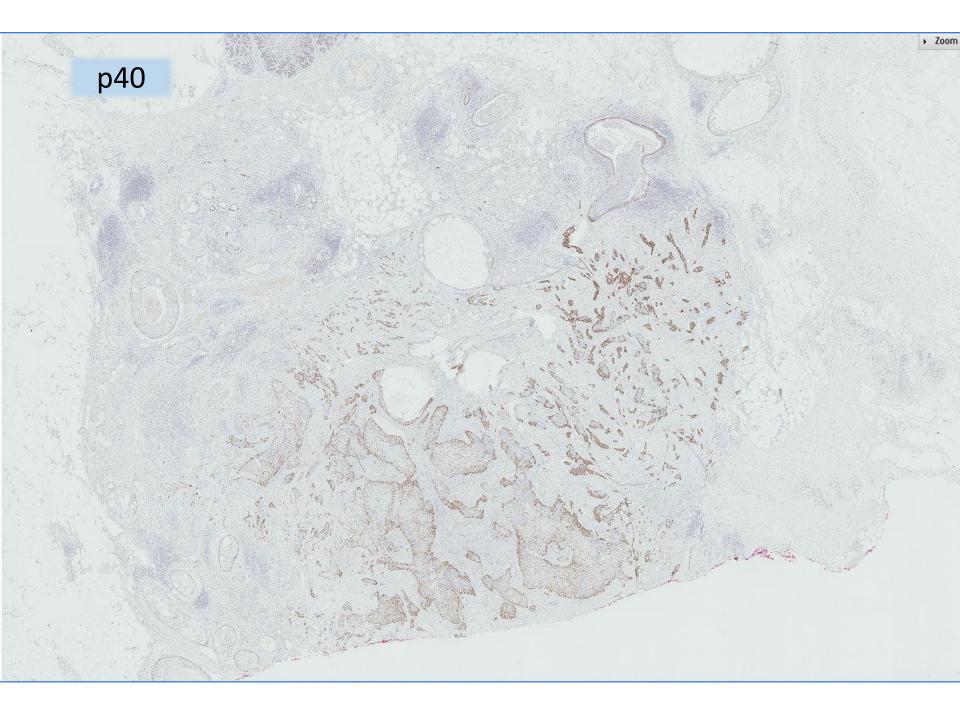


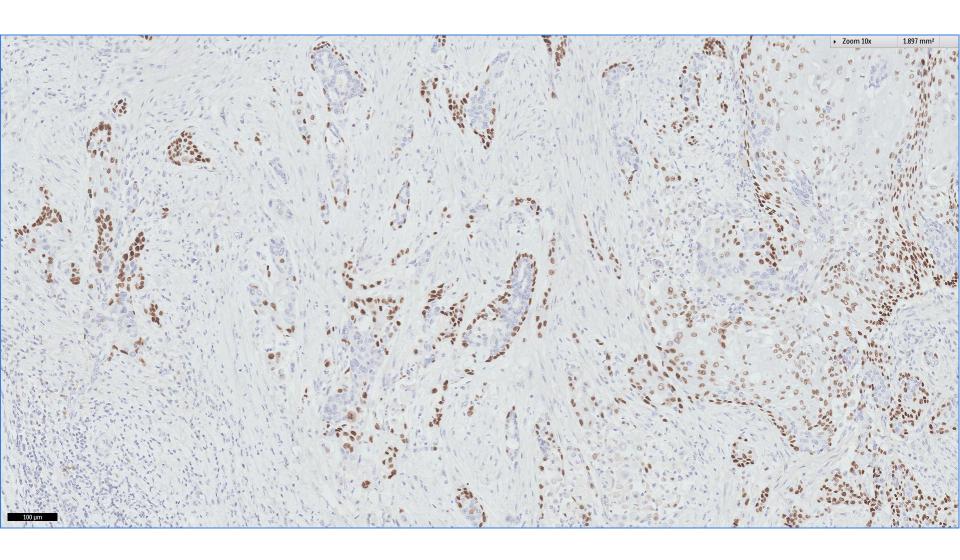
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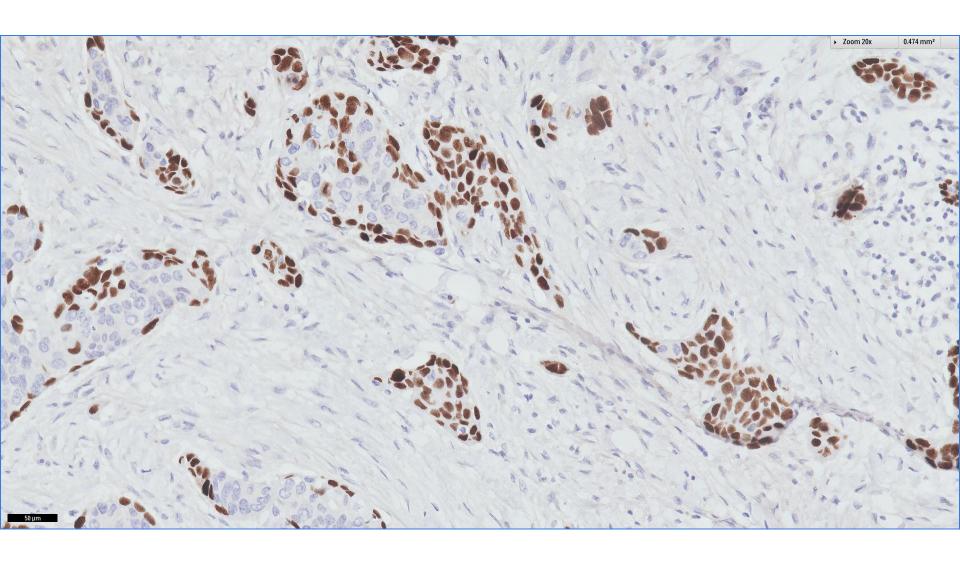


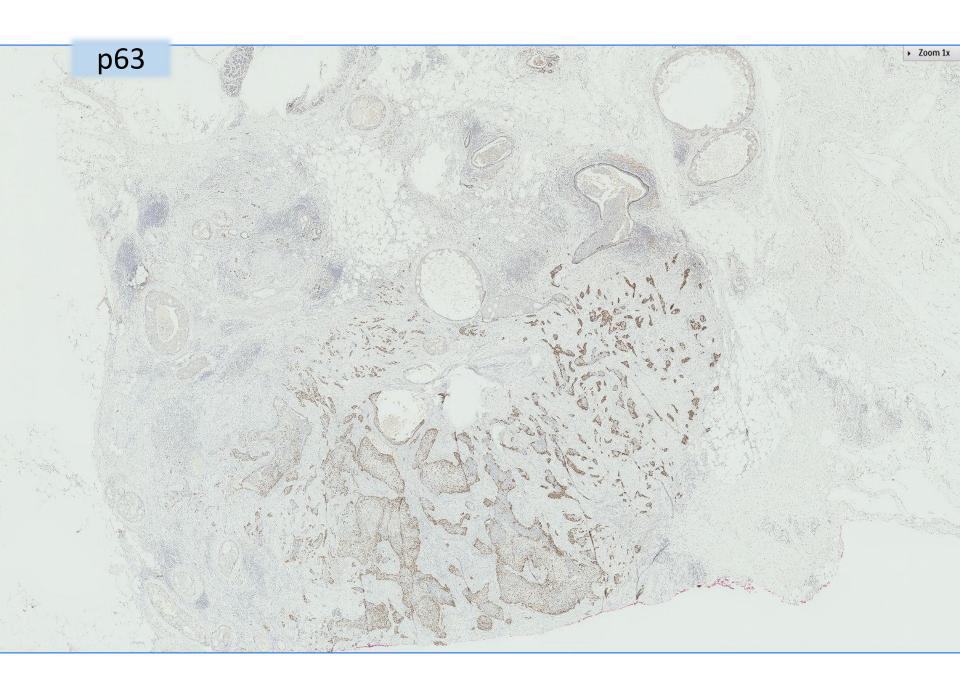
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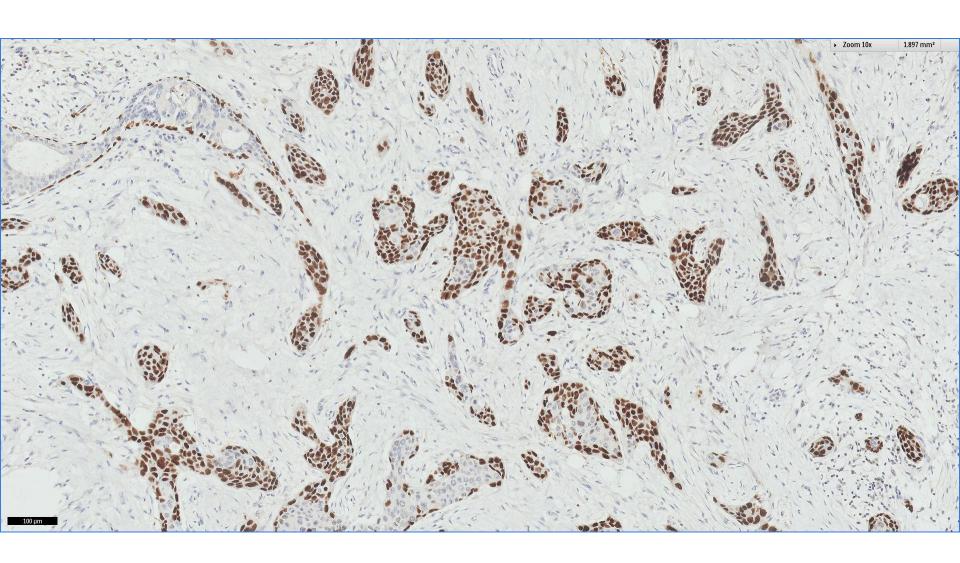


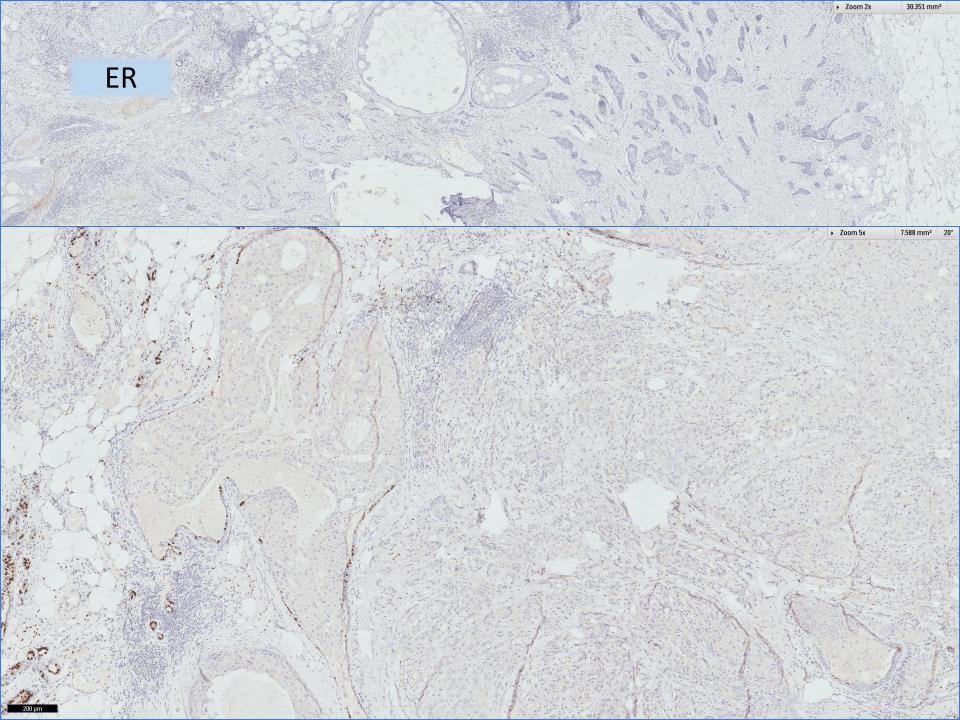


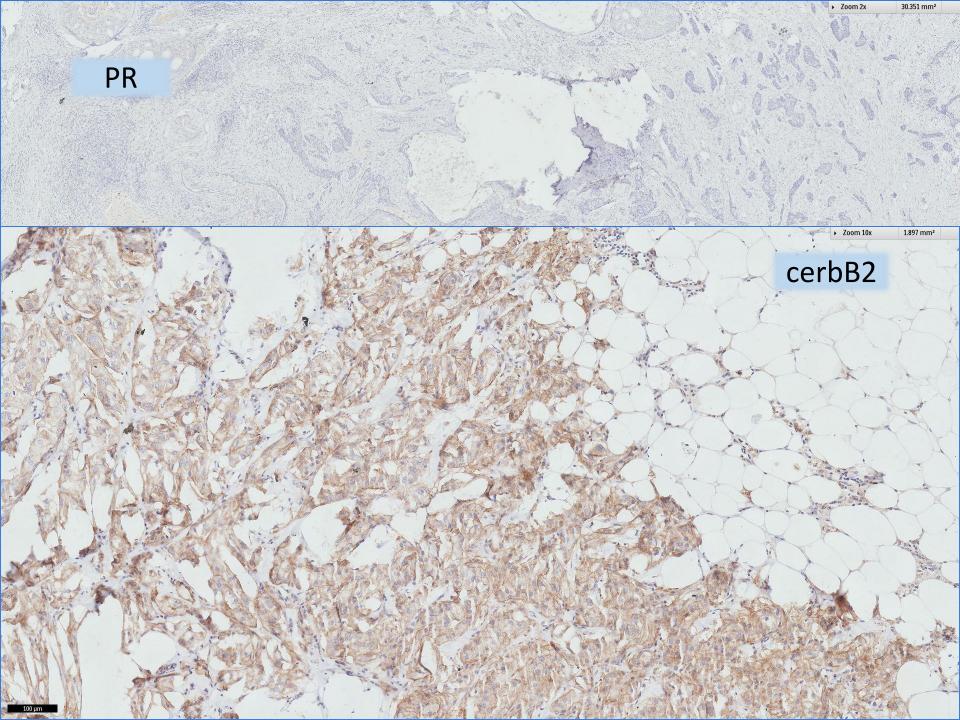


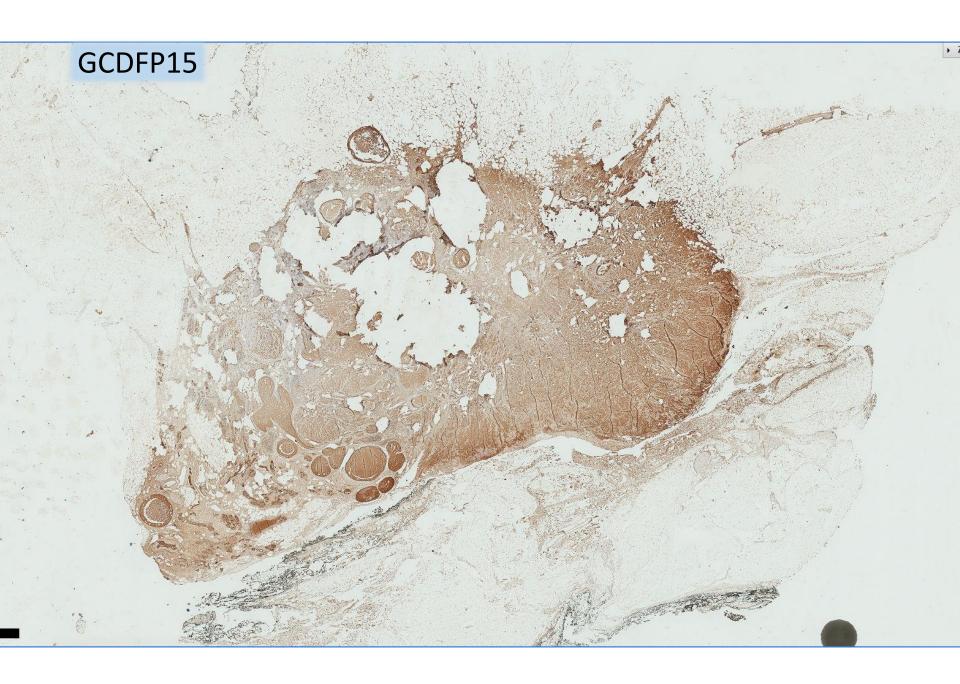




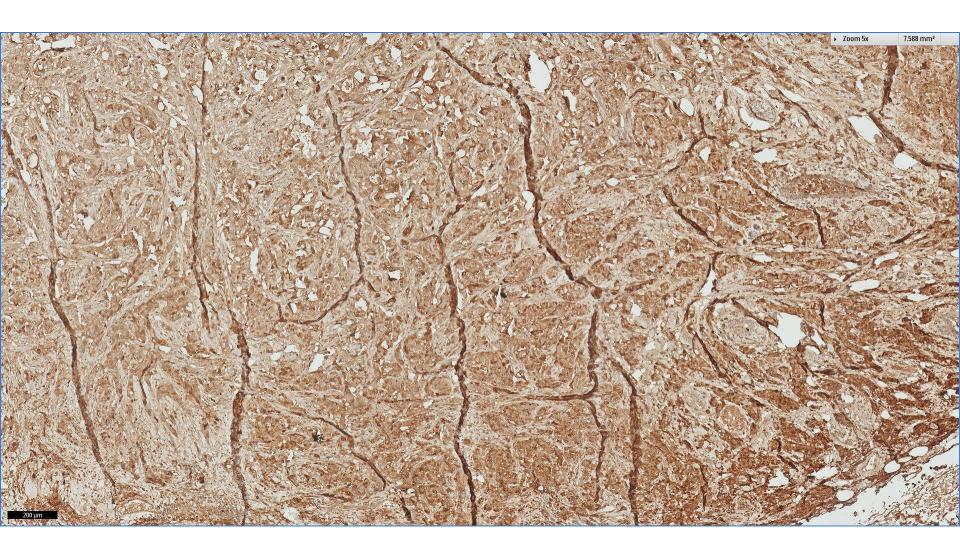








GCDFP15



Diagnosis:

Left breast simple mastectomy ~

Invasive ductal carcinoma with apocrine and squamous differentiation, grade 3, 3.2cm.

Left sentinel lymph nodes ~

2 lymph nodes show metastatic carcinoma with prominent apocrine differentiation.







Invasive apocrine carcinoma

- Generally regarded as a morphologic variant of invasive breast carcinoma not otherwise specified, rather than a special type of invasive cancer.
- Not clinically distinct from invasive carcinoma NOS.
- Incidence varies from <0.5 to 4 %.
- Variability in incidence is most likely due to the lack of welldefined diagnostic criteria to define apocrine carcinoma.
- In general, it is recommended that the term should be reserved for neoplasms in which almost all tumour cells show apocrine cytological features.
- In contrast, focal apocrine differentiation is quite common and has been reported in up to 60 % of invasive carcinomas NOS.







Table 7.1 Immunohistochemical profile of apocrine lesions of the breast

Marker	Benign Lesions, %	Carcinomas, %
Androgen receptor	>90	>80
Oestrogen receptor	0	<10
Progesterone receptor	0	<10
c-erbB-2	10ª	50
EGFR	0	50
p53	10	50
Bcl-2	0	50
E-cadherin	>90	80
GCDFP-15	>90	85

^{*}Immunohistochemistry positive, gene amplification negative EGFR epidermal growth factor receptor, GCDFP gross cystic disease fluid protein









Invasive carcinoma with squamous differentiation

- Classified as metaplastic carcinoma.
- Focal or extensive squamous differentiation can be seen in breast carcinomas.
- Pink cytoplasm of squamous cells may mimic apocrine differentiation.
- Presence of keratinization and intercellular bridges is helpful in identifying squamous differentiation.
- Squamous cells are typically p63 positive, which is helpful in the differential diagnosis.







Invasive carcinoma with squamous differentiation

- Invasive squamous cell breast carcinoma is usually of underlying ductal subtype, with variable extent of squamous differentiation.
- Histology shows pavemented tumour islands with squamous whorls, keratinisation, and intercellular bridges.
- Extensive squamous differentiation may be associated with cystic degeneration.
- A desmoplastic stromal response is seen.







Invasive carcinoma with squamous differentiation

- Sometimes foreign-body giant-cell reaction to keratinous debris can be observed.
- Often, squamous components merge with spindle cell elements.
- Acantholytic variant of squamous cell carcinoma can resemble angiosarcoma.
- Medullary carcinoma may sometimes disclose focal squamous areas.
- While primary squamous cell carcinoma of the breast has been described, its diagnosis requires exclusion of a primary skin lesion and metastases from elsewhere.





