

# SGH CASE 11: 17RE117

- Clinical History:
  - 60+ years old. Male. Right chest wall lump for one year with multiple areas of skin thickening with hyperpigmentation. Axillary lymphadenopathy.
- Specimen:
  - Right axillary lymph node incisional biopsy.

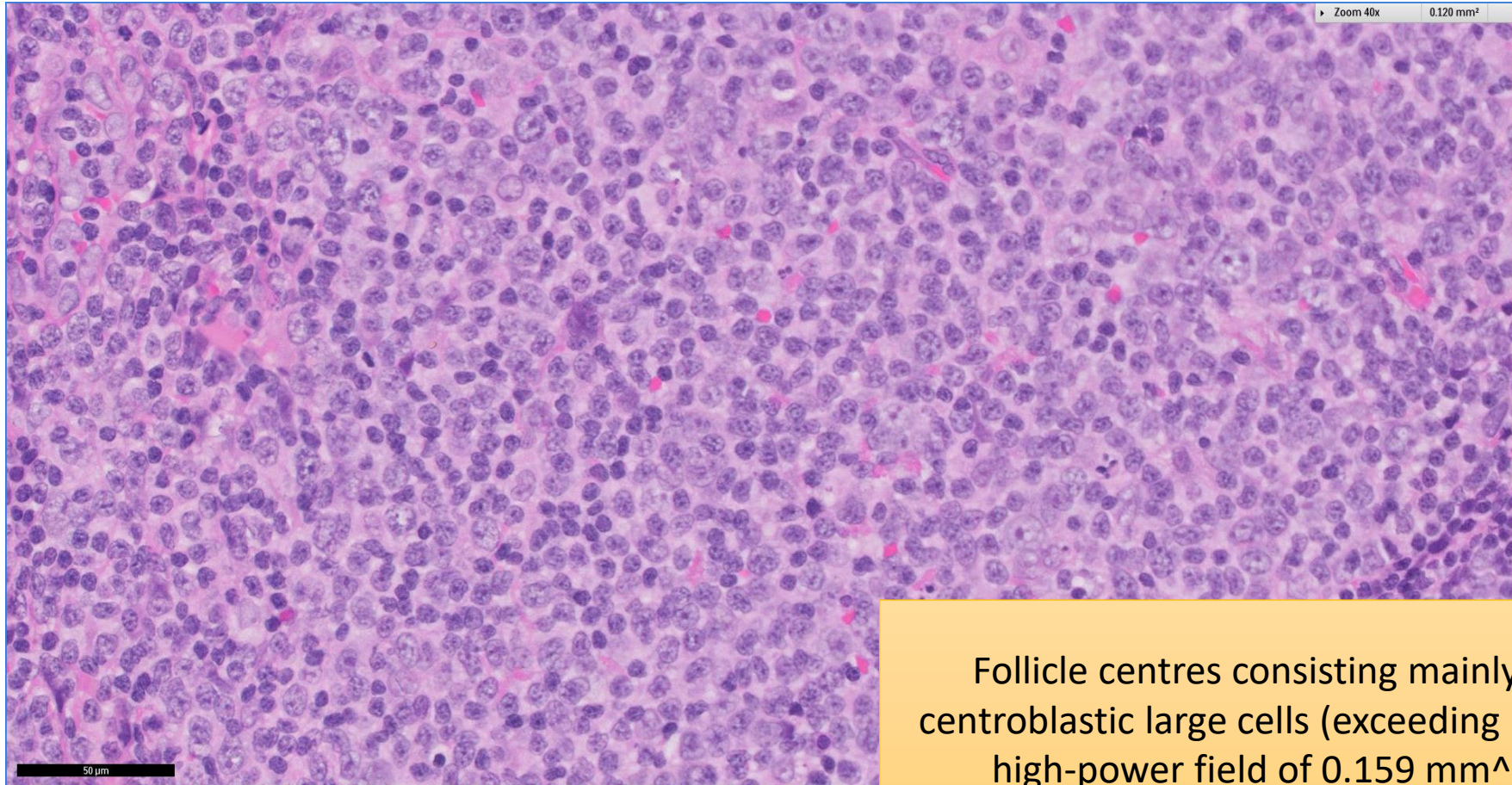
# SGH CASE 11: 17RE117 H&E



Nodular architecture with closely packed follicles, attenuated mantle zone. Extranodal infiltration into adjacent adipose tissue.



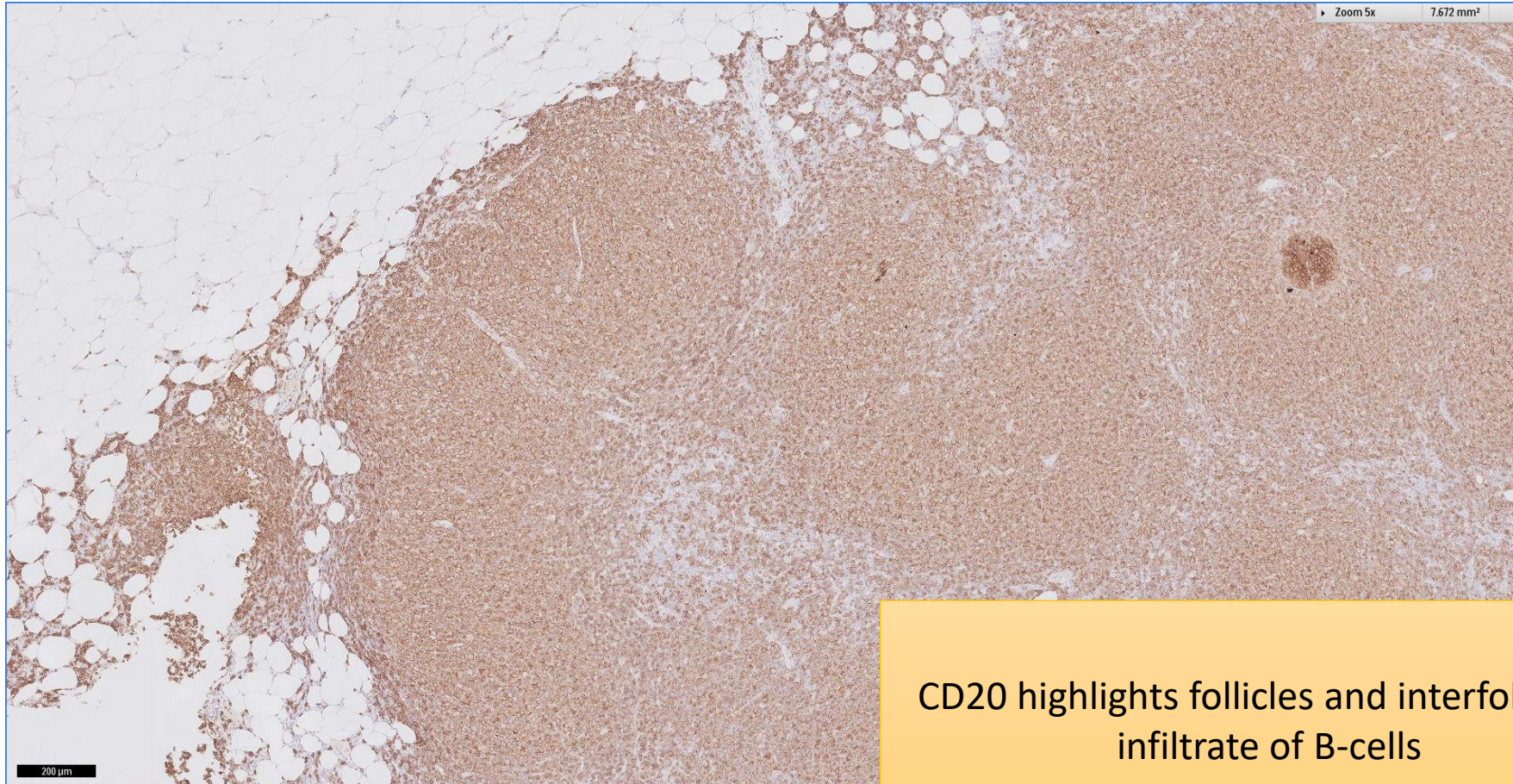
# SGH CASE 11: 17RE117 H&E



Follicle centres consisting mainly of centroblastic large cells (exceeding 15 per high-power field of 0.159 mm<sup>2</sup>)



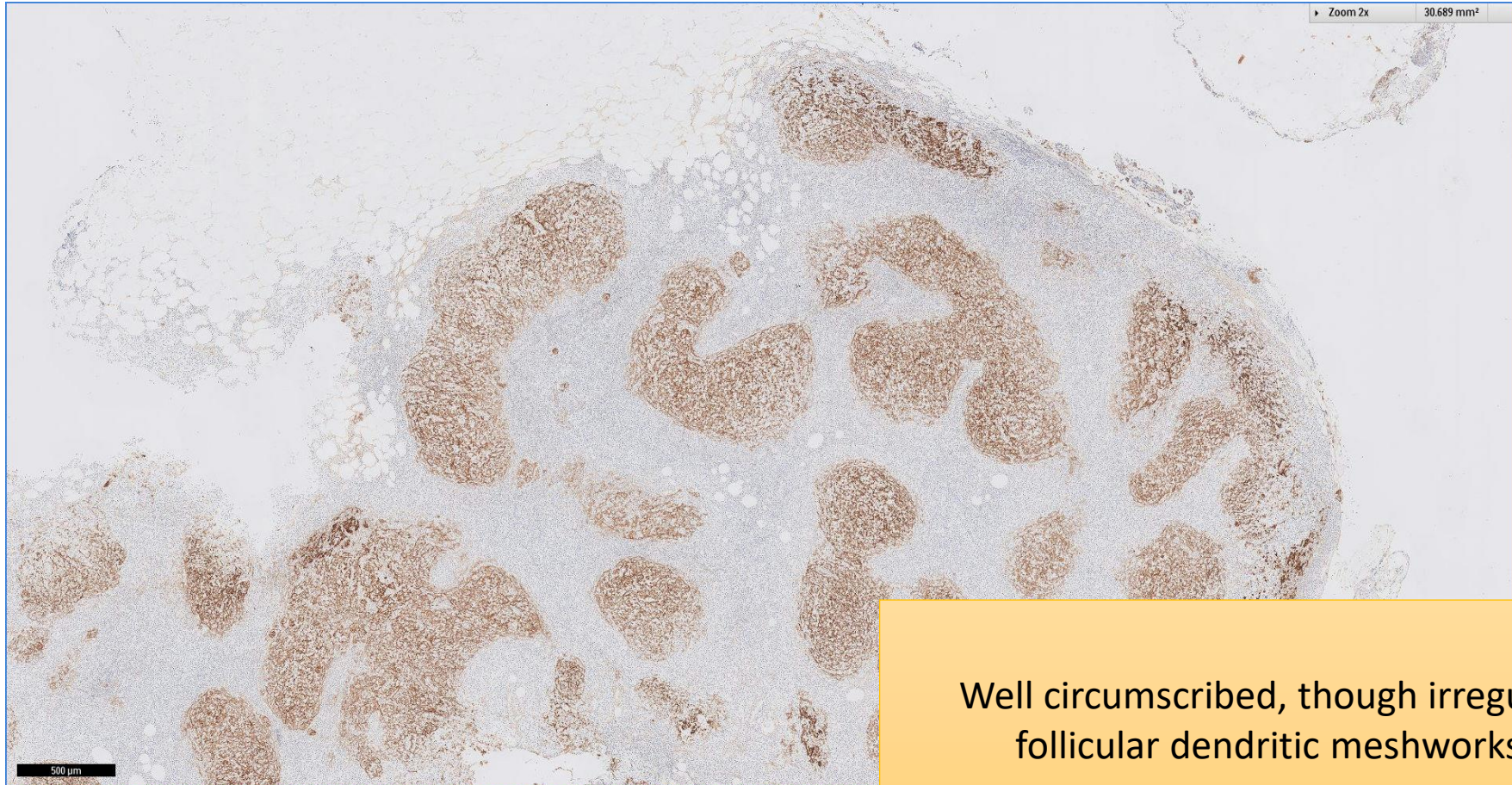
# SGH CASE 11: 17RE117 CD20



CD20 highlights follicles and interfollicular infiltrate of B-cells



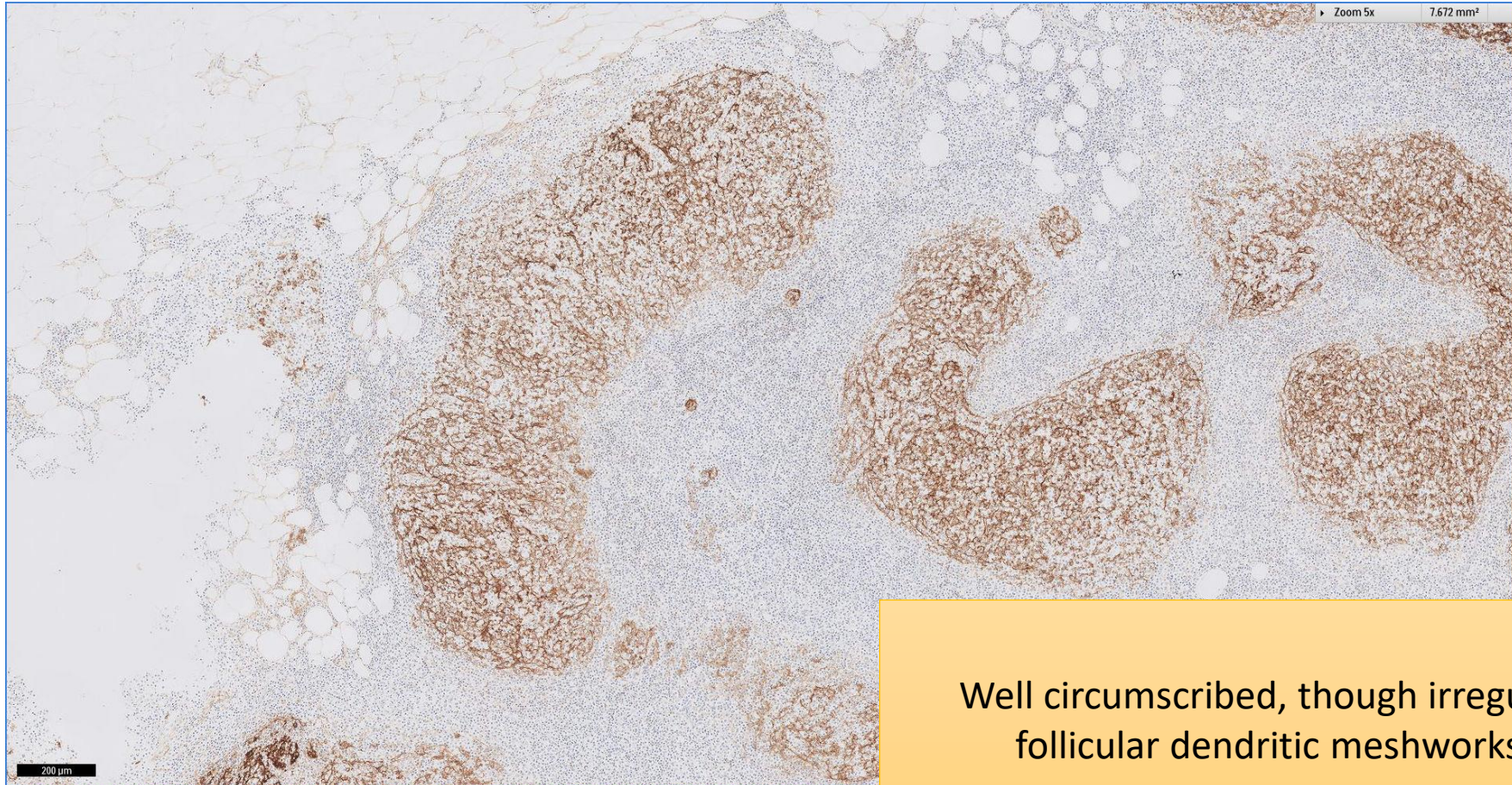
# SGH CASE 11: 17RE117 CD21



Well circumscribed, though irregular,  
follicular dendritic meshworks



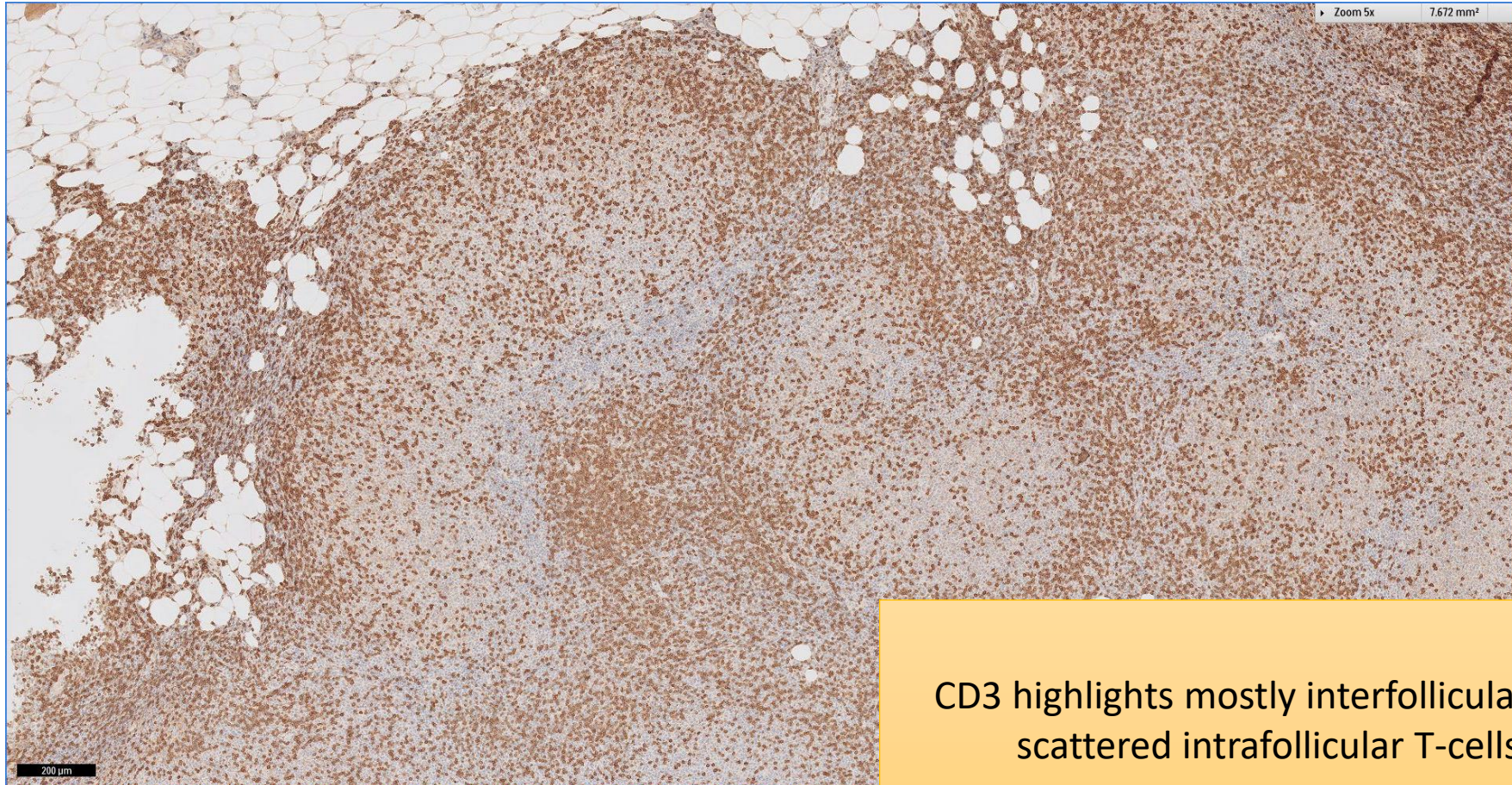
# SGH CASE 11: 17RE117 CD21



Well circumscribed, though irregular,  
follicular dendritic meshworks



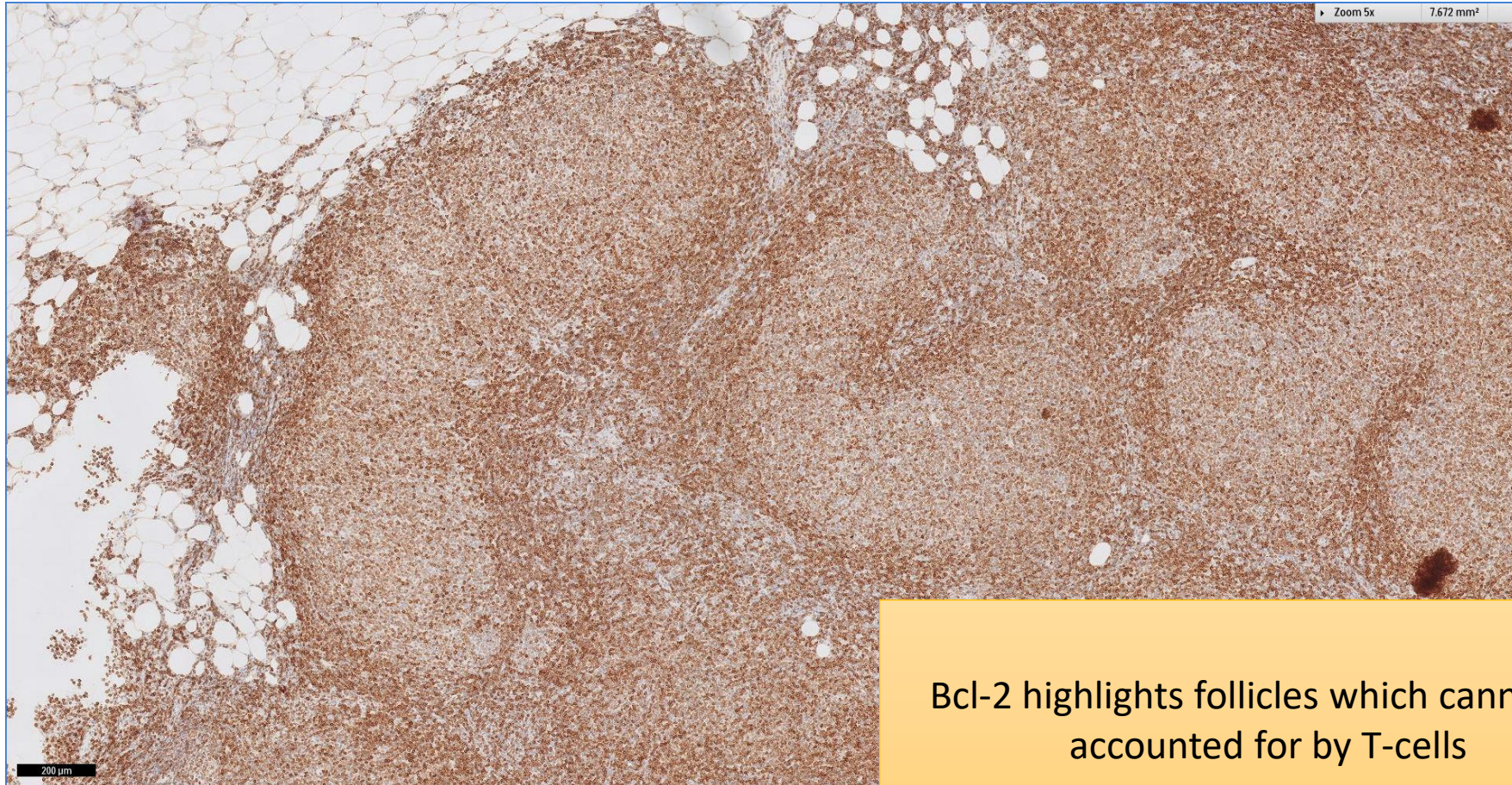
# SGH CASE 11: 17RE117 CD3



CD3 highlights mostly interfollicular and scattered intrafollicular T-cells



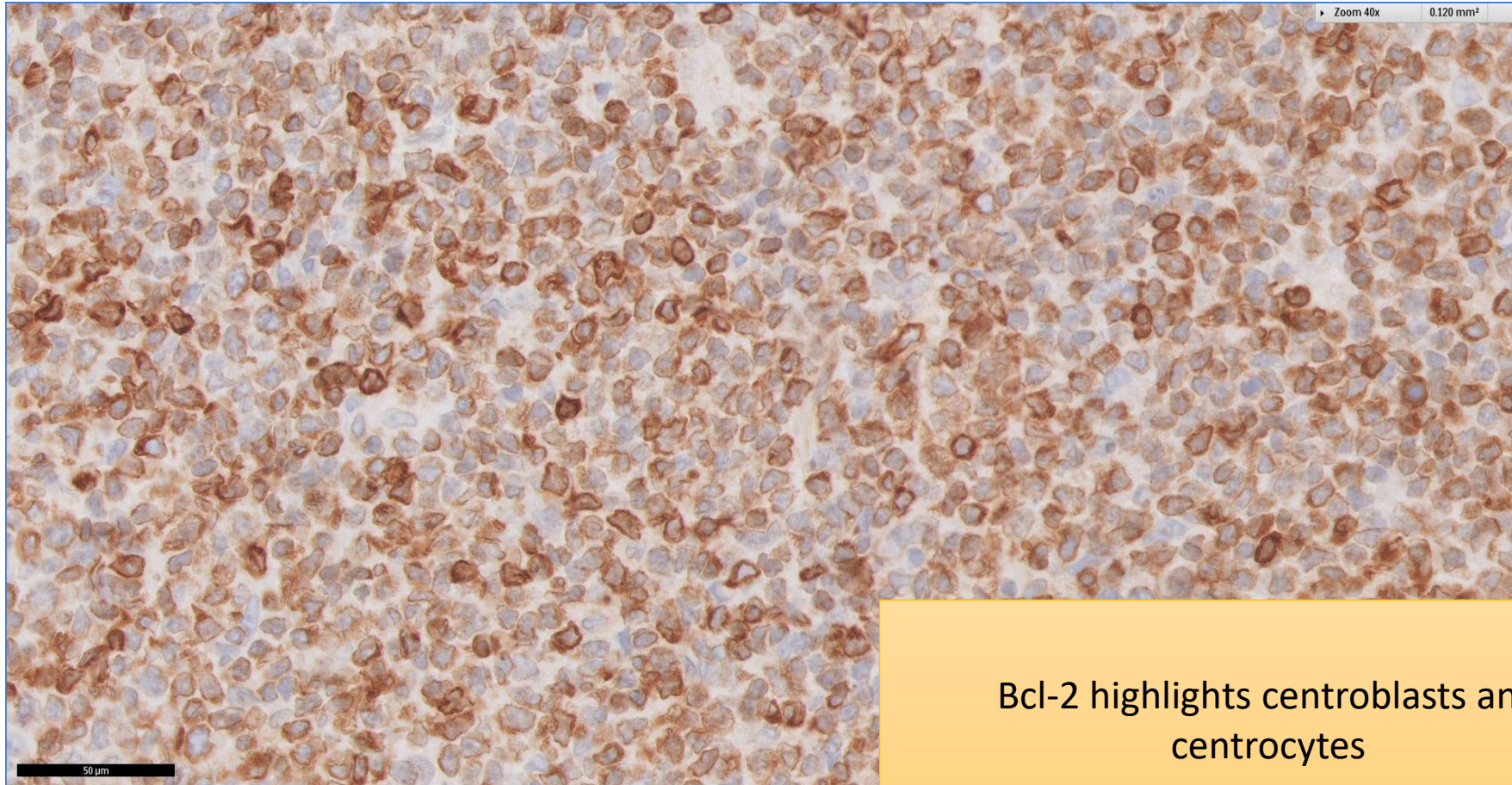
# SGH CASE 11: 17RE117 BCL2



Bcl-2 highlights follicles which cannot be accounted for by T-cells



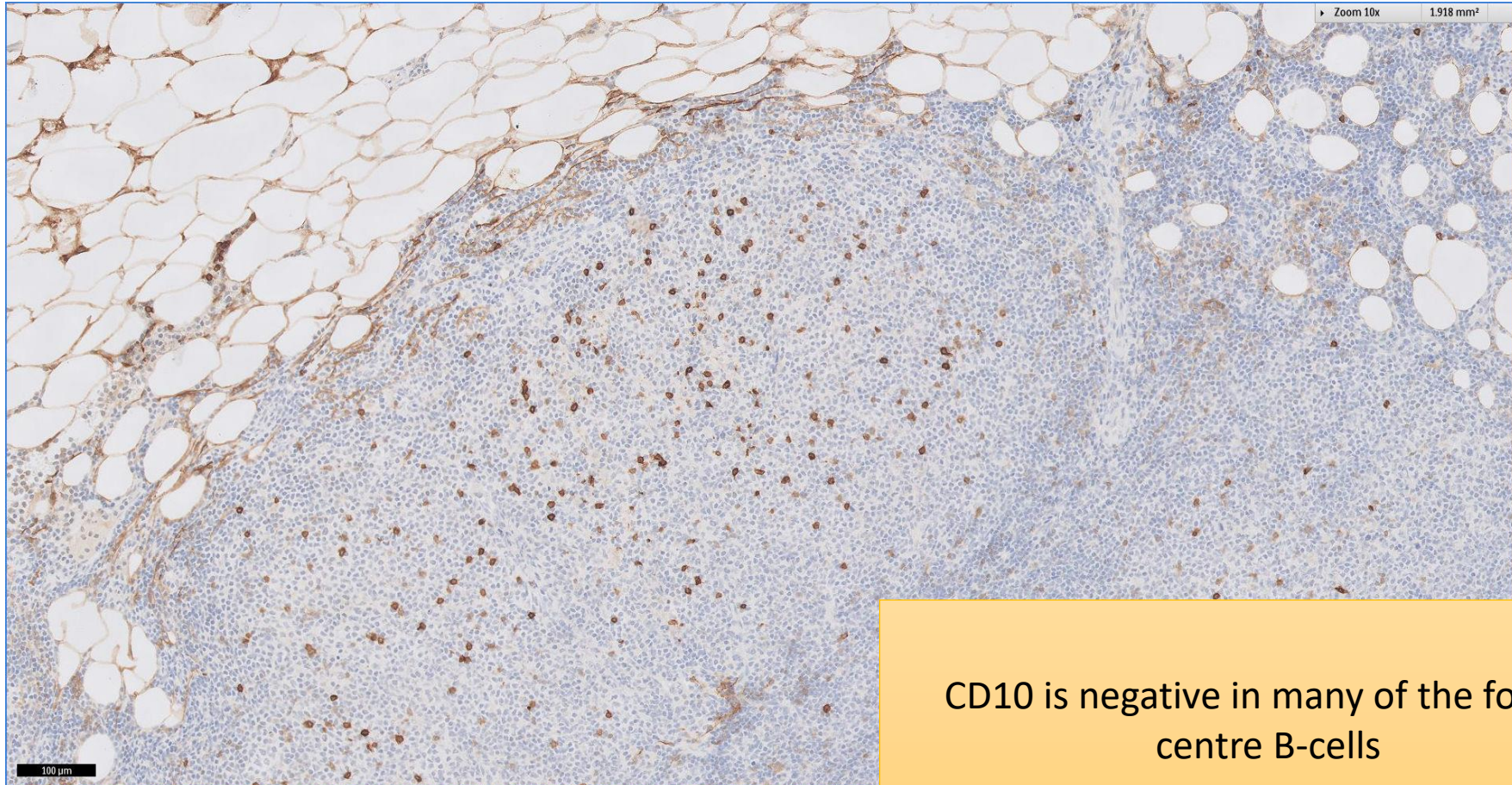
# SGH CASE 11: 17RE117 BCL2



Bcl-2 highlights centroblasts and centrocytes



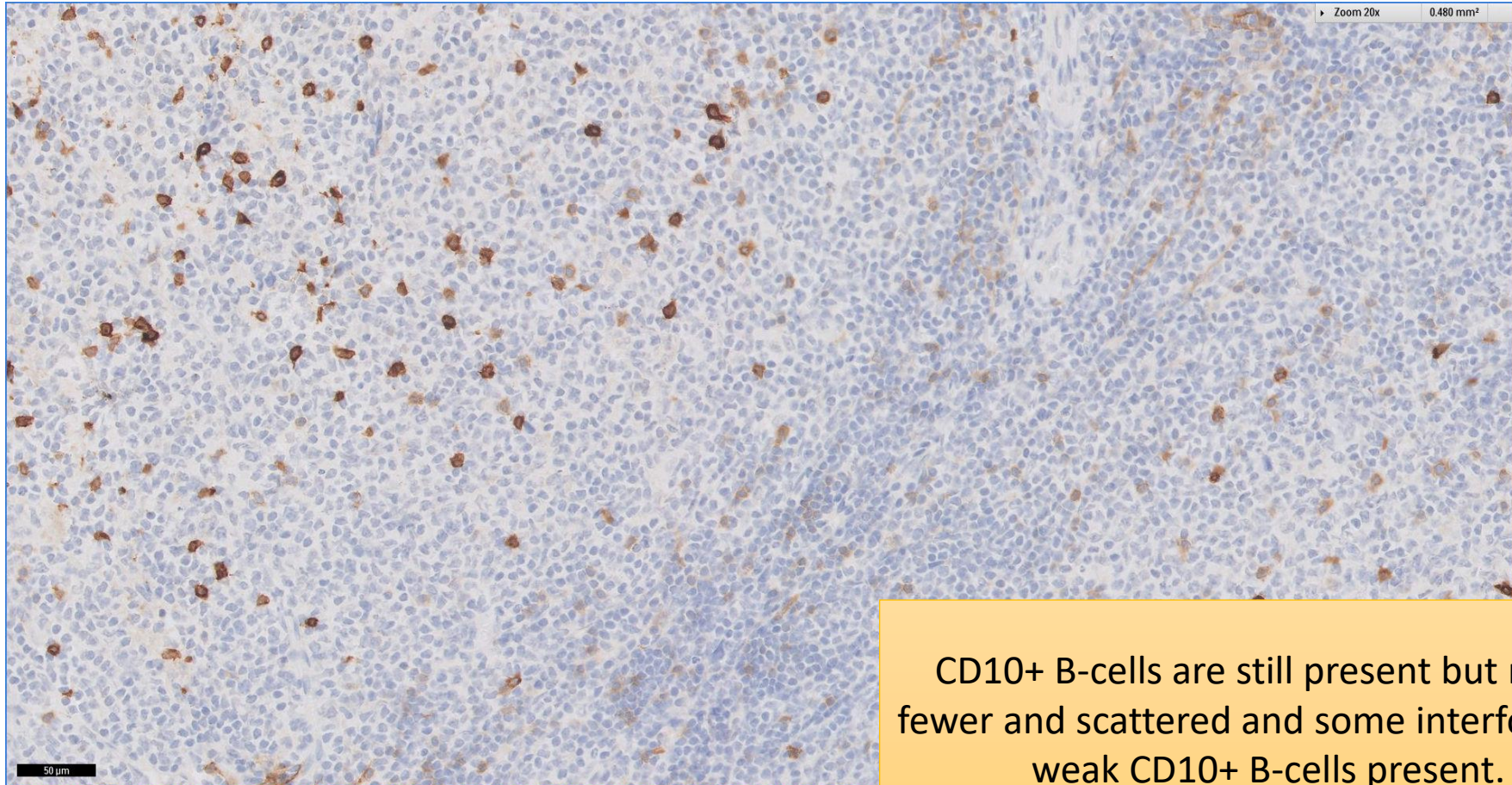
# SGH CASE 11: 17RE117 CD10



CD10 is negative in many of the follicle centre B-cells



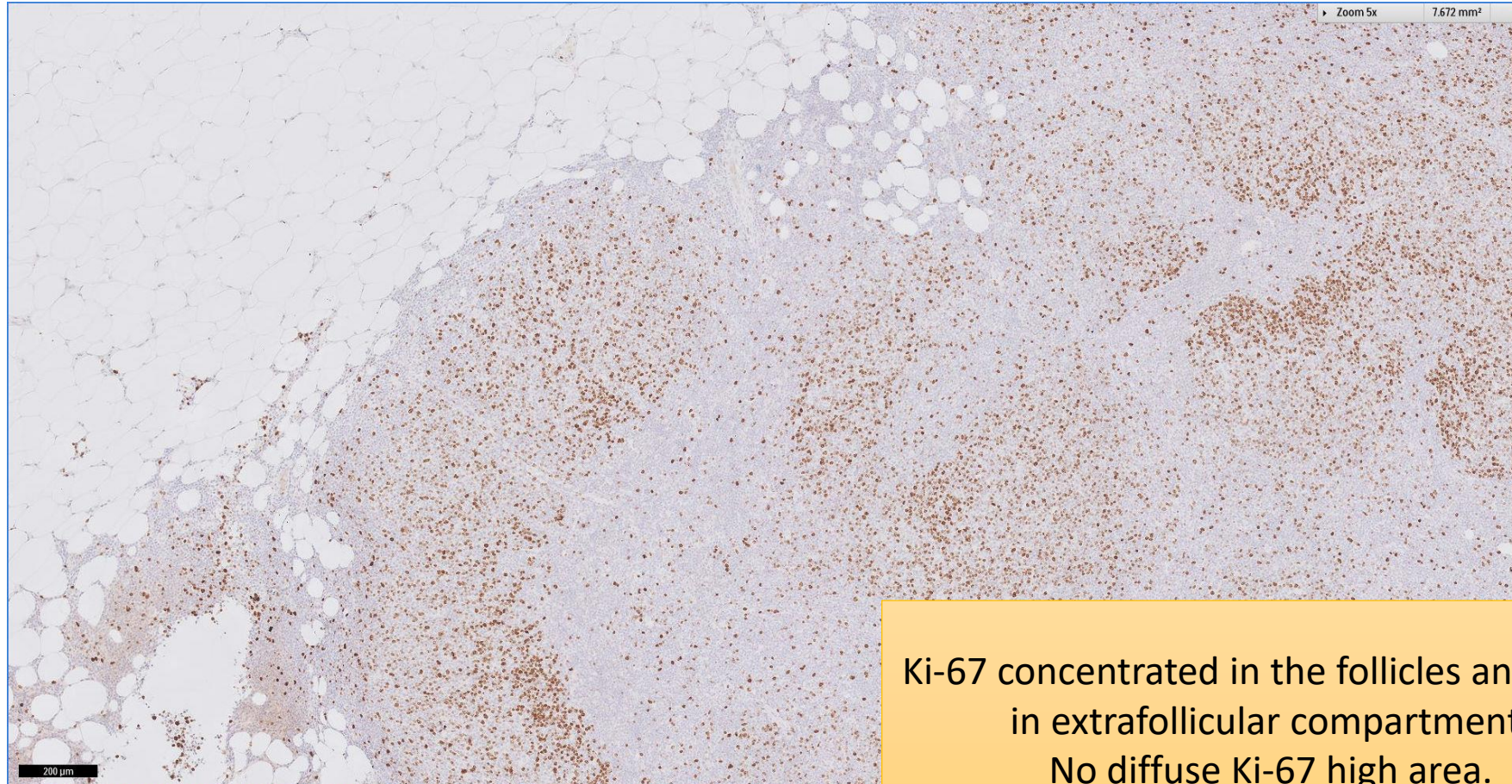
# SGH CASE 11: 17RE117 CD10



CD10+ B-cells are still present but much fewer and scattered and some interfollicular weak CD10+ B-cells present.



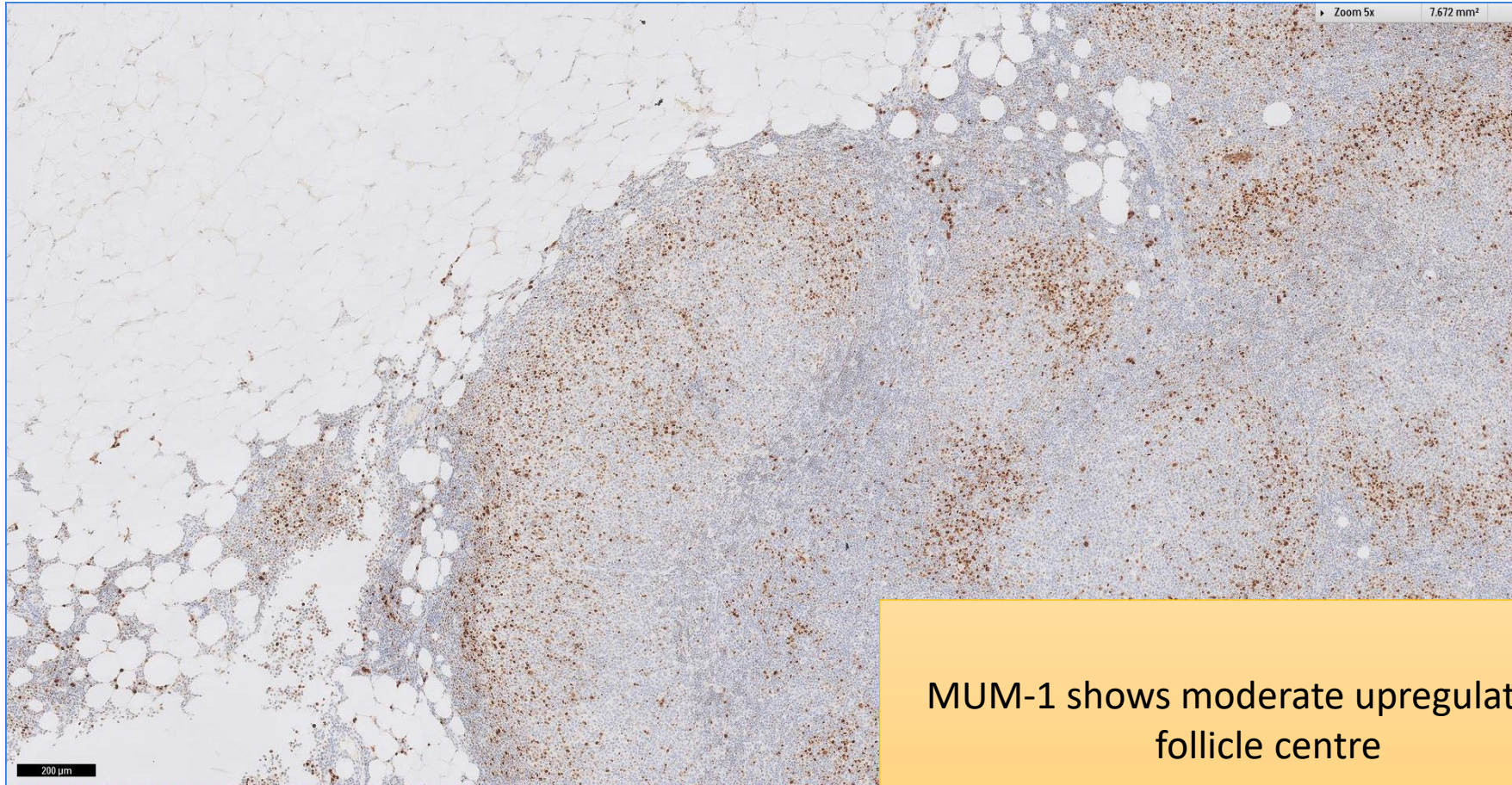
# SGH CASE 11: 17RE117 KI67



**Ki-67 concentrated in the follicles and lower  
in extrafollicular compartment.  
No diffuse Ki-67 high area.**



# SGH CASE 11: 17RE117 MUM1



MUM-1 shows moderate upregulation in follicle centre



# SGH CASE 11: 17RE117 Discussion (1)

- Summary of findings:
  - Follicular architecture with attenuated mantle zone and extranodal infiltration into adjacent adipose tissue.
  - Follicle centres consisting mainly of centroblastic large cells (exceeding 15 per high-power field of 0.159 mm<sup>2</sup>) but with some centrocytes present, hence qualifying for grade 3A.
  - Immunophenotype
    - CD20 and bcl-6 positive B-cell follicles with significant extrafollicular infiltrate of B-cells
    - Bcl-2+ in follicle centre B-cells but attenuated CD10 expression, though with minor population of interfollicular CD10+ cells.
    - Some upregulation of late-to-postgerminal centre-associated transcription factor MUM.1 in the follicles
    - Ki-67 proliferation is concentrated in the follicles, without diffuse large cell areas seen.
    - Cyclin D1 negative
  - Patient also has focal skin involvement by low grade FL (not shown)



# SGH CASE 11: 17RE117 Discussion (2)

- CD10 negative FL may be encountered
  - More commonly high grade.
  - May be negative for bcl-2 translocation and instead display bcl-6 translocation
  - The other morphologic and immunophenotypic features are consistent with FL
- Our case shows attenuated CD10 but there is still a very minor population of lymphomatous B-cells with CD10 expression.
- Final Diagnosis:
  - Follicular lymphoma, Grade 3A.



# Reference

- Marafioti T, Copie-Bergman C, Calaminici M, Paterson JC, Shende VH, Liu H, Baia M, Ramsay AD, Agostinelli C, Brière J, Clear A, Du MQ, Piccaluga PP, Masir N, Nacheva EP, Sujobert P, Shanmugam K, Grogan TM, Brooks SP, Khwaja A, Ardeshtna K, Townsend W, Pileri SA, Haioun C, Linch D, Gribben JG, Gaulard P, Isaacson PG. Another look at follicular lymphoma: immunophenotypic and molecular analyses identify distinct follicular lymphoma subgroups. *Histopathology*. 2013 May;62(6):860-75.