

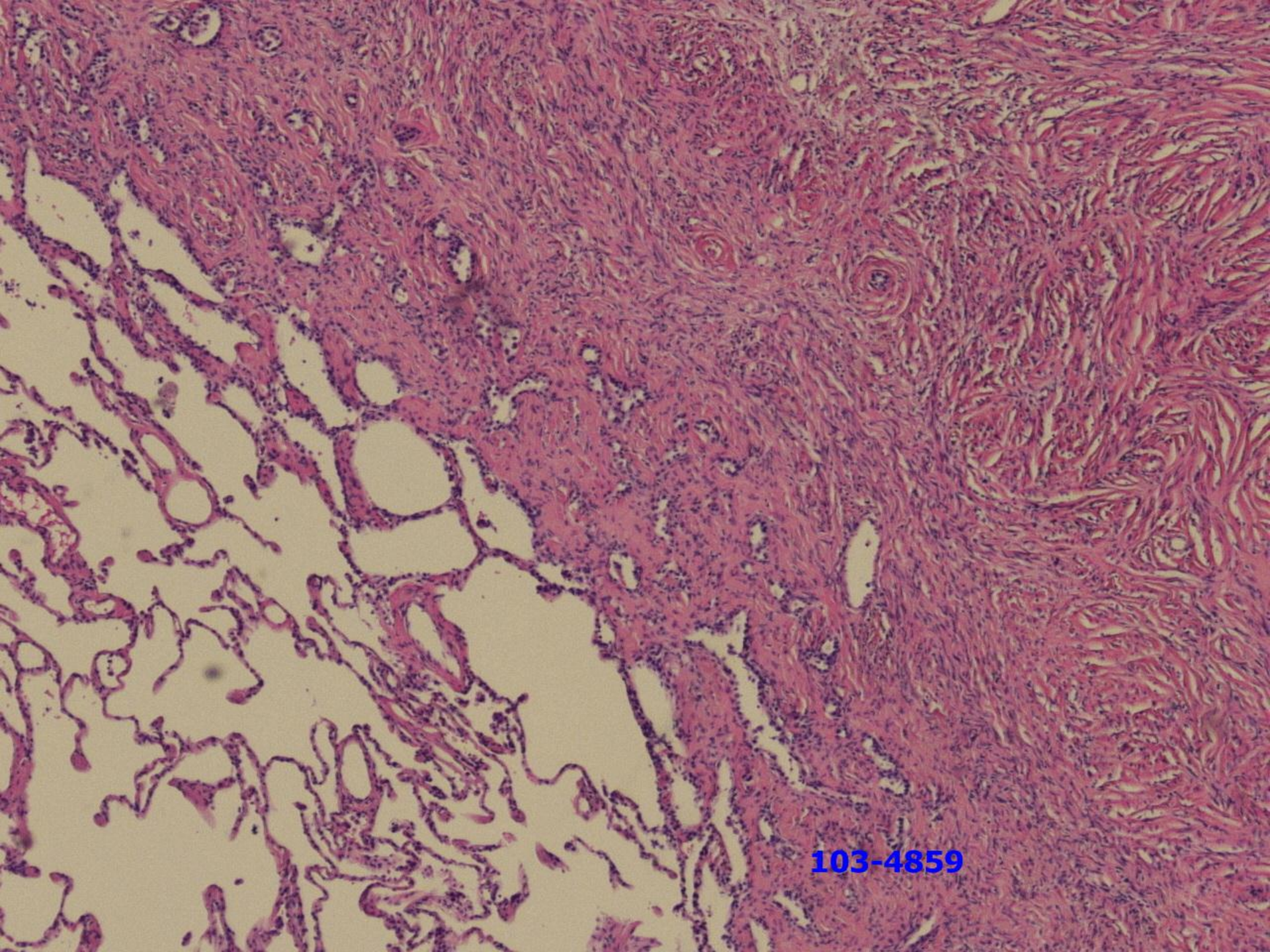


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病理科-李大夫

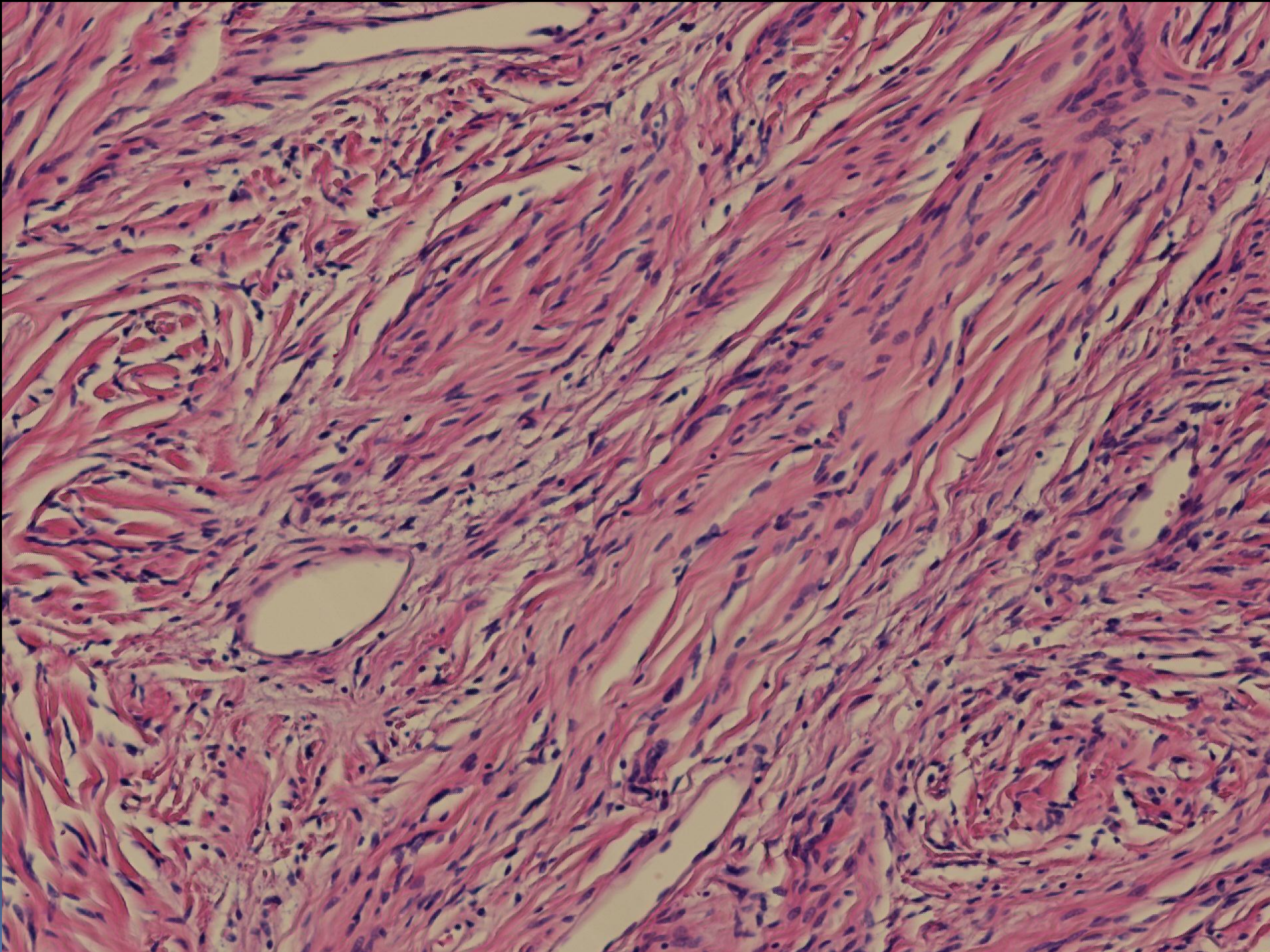
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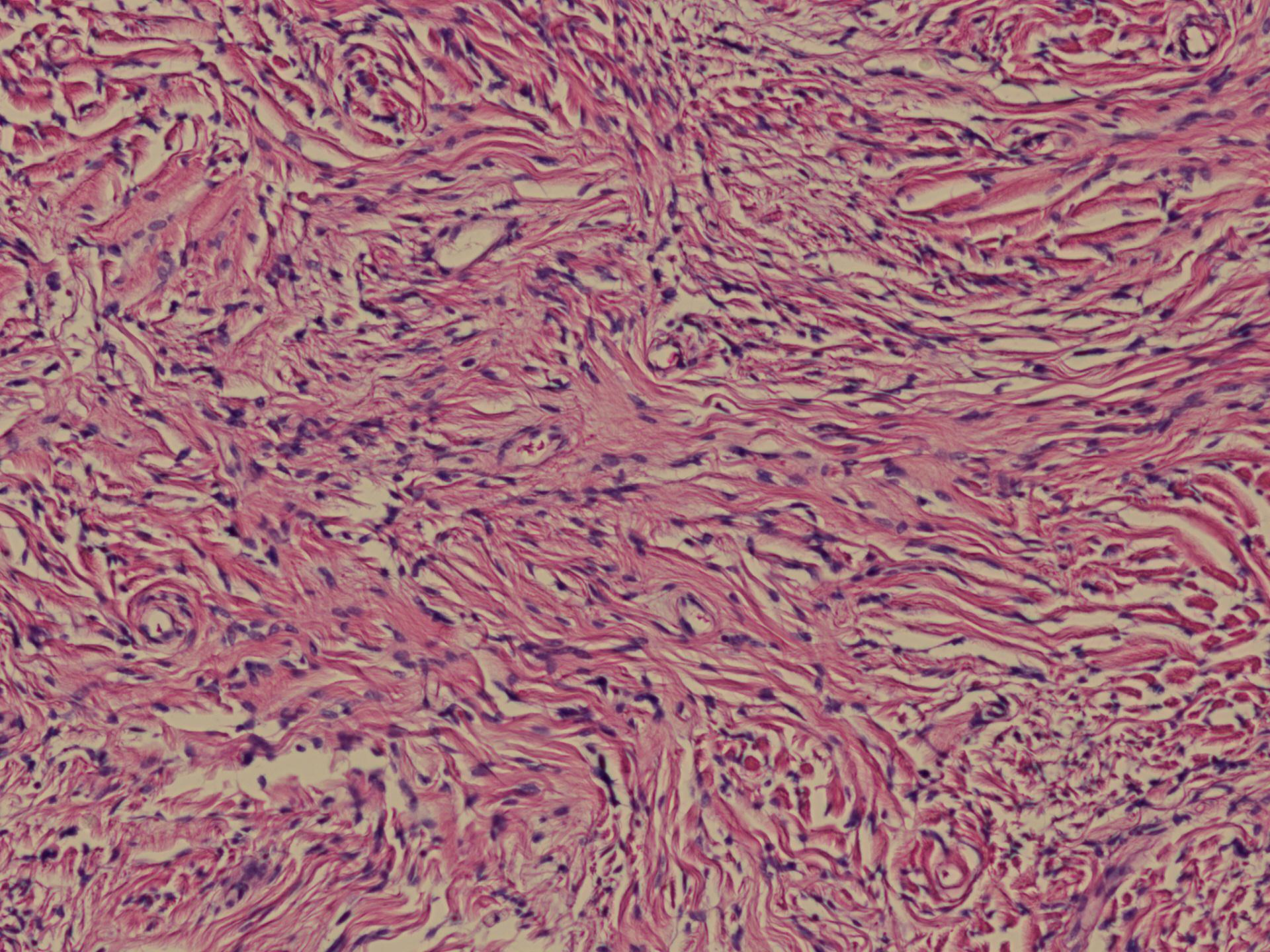


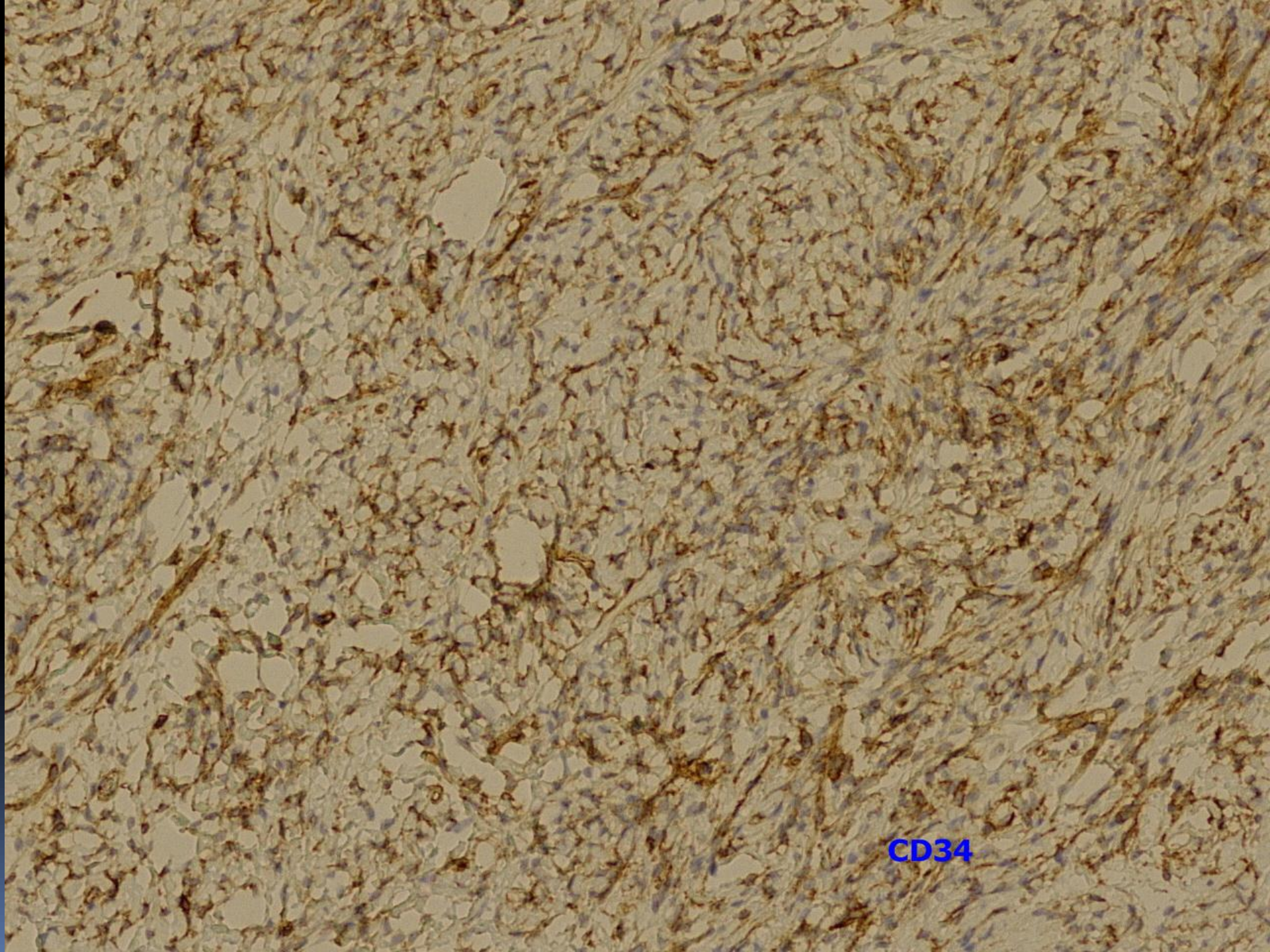




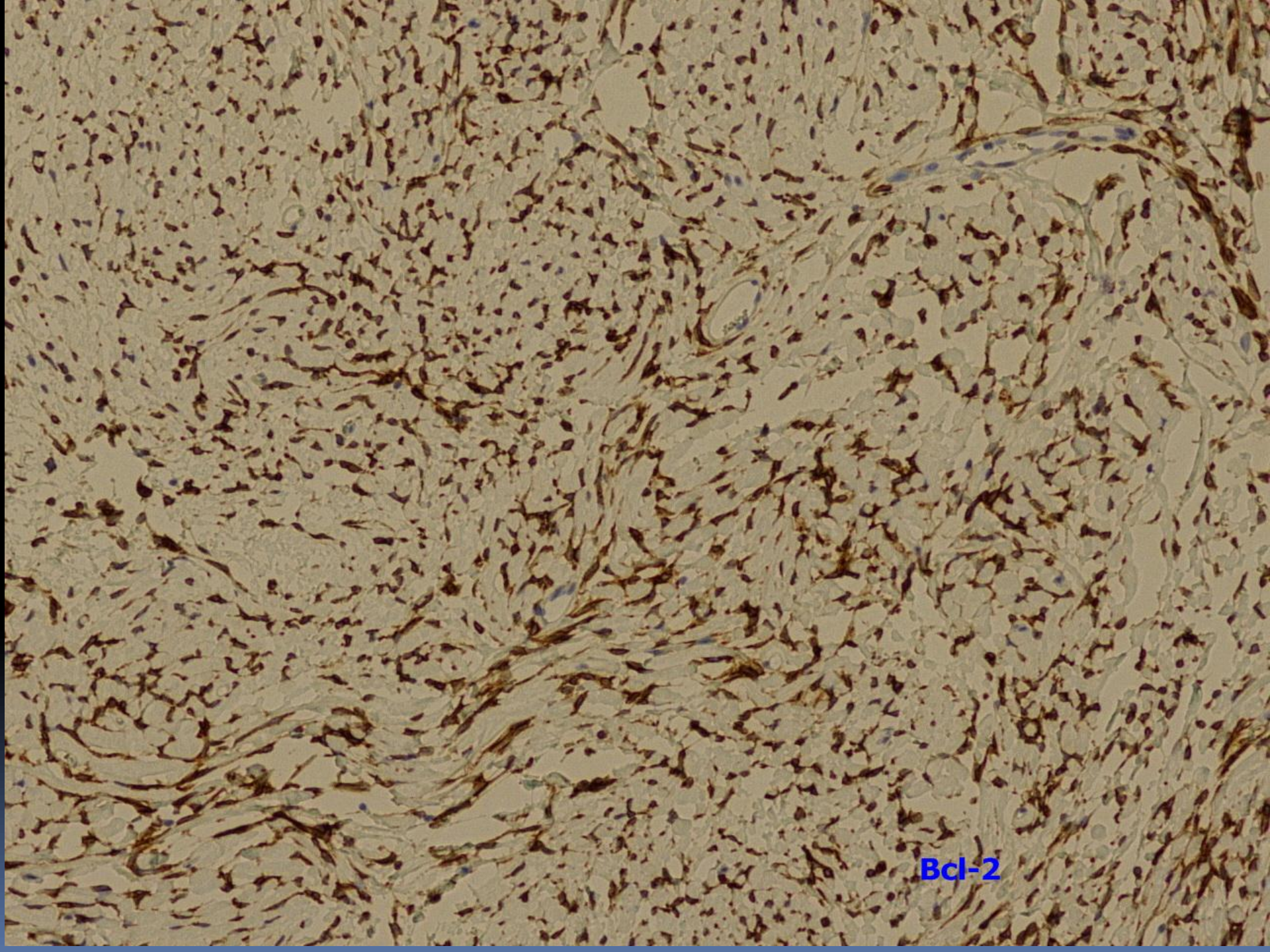
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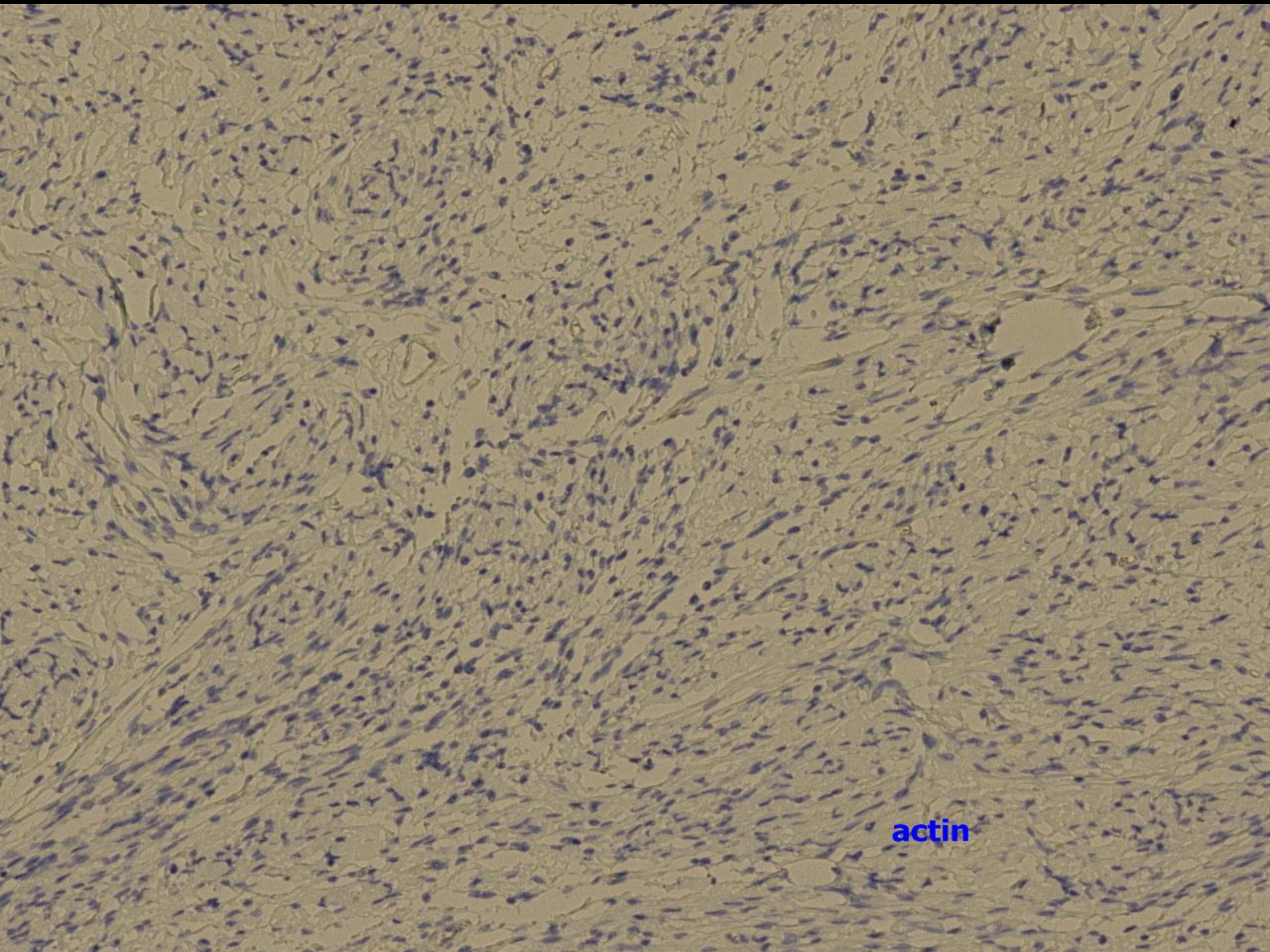




CD34



**Bcl-2**



actin






# Solitary Fibrous Tumor (SFT)

# Solitary Fibrous Tumor

- An uncommon spindle-cell mesenchymal tumor of probable fibroblastic derivation that often presents a prominent hemangiopericytoma-like vascular pattern, but may exhibit other histologic patterns.
- A morphologically identical tumor occurs in numerous other extrathoracic sites




# Etiology

- No etiologic agent has been identified, in particular there is no link with asbestos exposure
- 




# S/S

- Most often: cough, chest pain, and dyspnea
  - Some: hypertrophic osteoarthropathy
  - Rare: symptomatic hypoglycemia
  - Incidental findings
- 




# Gross

- Most tumors arise in the visceral pleura, but they may also originate in the lung parenchyma and mediastinum
  - Well-circumscribed but unencapsulated
  - Rubbery, whorled, tan-white cut surface
  - Myxoid change, hemorrhage, and necrosis may occasionally be seen
- 




# Micro

- SFT typically exhibits a patternless architecture characterized by the coexistence of hypo- and hypercellular areas separated by fibrous stroma having hemangiopericytoma-like branching blood vessels.
  - Hypercellular areas: bland spindle cells in short intersecting fascicles
  - Hypocellular areas: highly collagenized or, less frequently, present myxoid changes
- 




# Malignant SFT

- Greater cellularity with an infiltrative growth pattern, moderate to marked cellular atypia, high mitotic activity ( $> 4/10$  HPF mitoses), necrosis
- 



# IHC

- CD34 (+), Bcl-2 (+), CD99 (+)
  - CK(-), S-100 (-), muscle markers
- 
- Malignant SFT may not always express CD34 and bcl-2
- 





# D.D.

- Pleura: Sarcomatoid mesothelioma  
(Ck(+), calretinin (+))
- Soft tissue tumor:
  - Leiomyoma (SMA (+), CD34 (-), Bcl-2 (-))
  - Low-grade fibrosarcoma  
(more monomorphic, CD34 (-))
  - Monophasic synovial sarcoma (high grade cytology, scant vascularity and absence of stromal fibrosis, focal CK(+), EMA (+), CD34 (-), t (X; 18) in > 85% cases)




# Prognosis

- The prognosis is generally good, although recurrences and local spread have been reported.
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- 
- Tumor with markedly collagenous stroma and irregularly distributed thick walled vessels
  - common at many sites; may be intrapulmonary and not pleural
  - Peaks at ages 50-69 years
  - Larger tumors (> 7 cm) associated with hypoglycemia, pleural effusion, pulmonary osteoarthropathy
  - Even bland tumors may have aggressive behavior



# Gross

- Firm, rounded, lobulated
  - Variable cysts, hemorrhage, necrosis
- 

# Micro

- Markedly collagenous stroma (ropey collagen) with irregularly distributed thick walled vessels and cellular bland spindle cells
- May have myxoid stroma
- Low grade: <5 mitoses per 10 HPF with bland spindle cells, no atypia
- Often has malignant features (pleomorphism, tumor giant cells, mitotic figures)
- Patterns: adenofibroma ([Int J Surg Pathol 2005;13:79](#)), fibrosarcoma, hemangiopericytoma, MFH-like, neural

# IHC

- CD34, CD99, BCL2 ([Am J Surg Pathol 2012 Oct 26 \[Epub ahead of print\]](#))
- Vimentin, nuclear and cytoplasmic beta catenin ([Arch Pathol Lab Med 2006;130:1503](#))
- p53 expression related to prognosis ([Am J Surg Pathol 2008;32:1627](#))
- D2-40 (usually, [Appl Immunohistochem Mol Morphol 2010;18:411](#)), smooth muscle actin