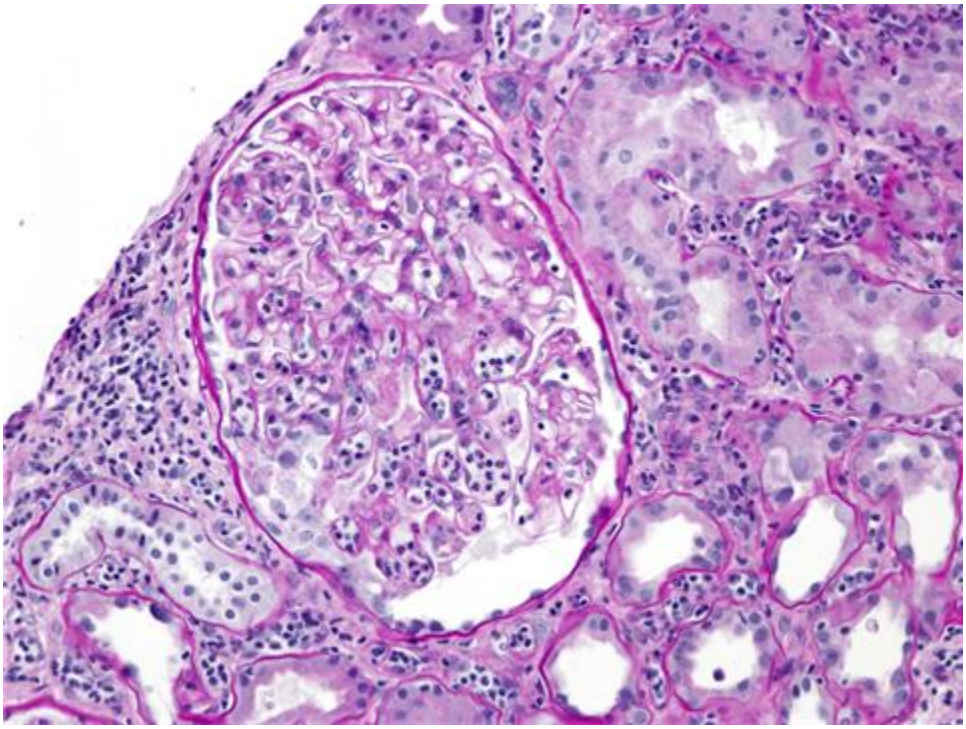
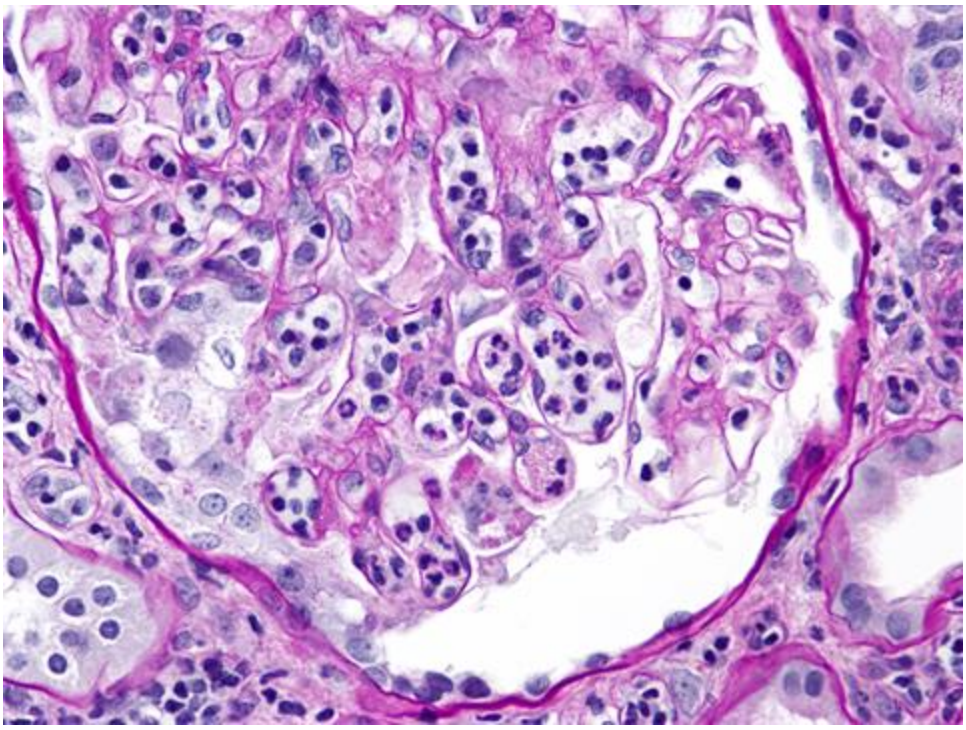
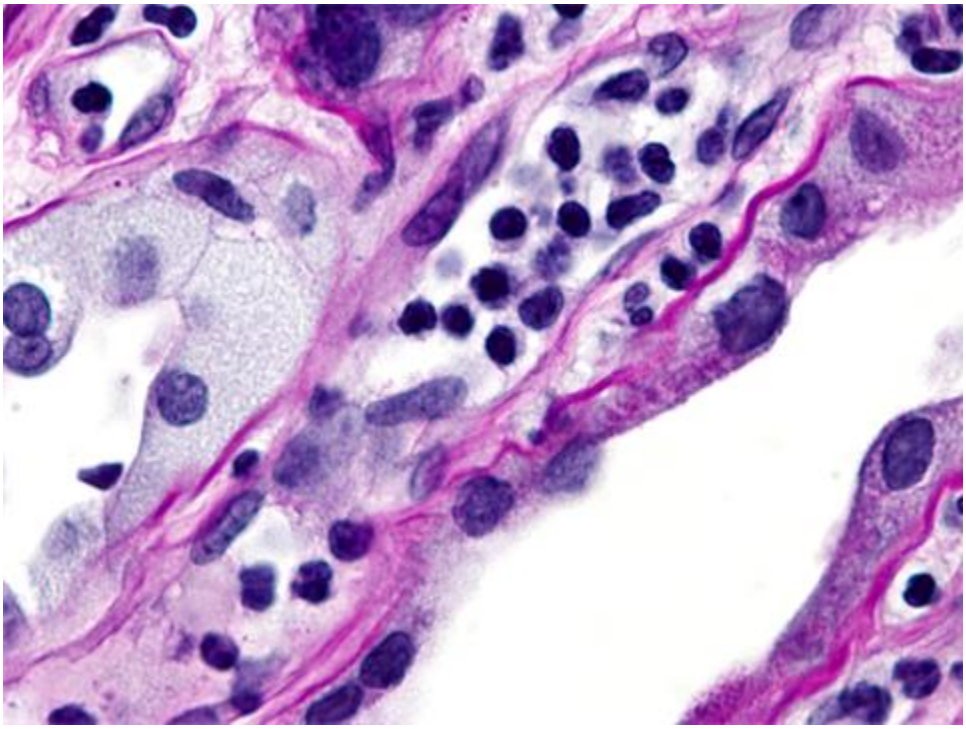
Case History: Dr. Michael Mengel

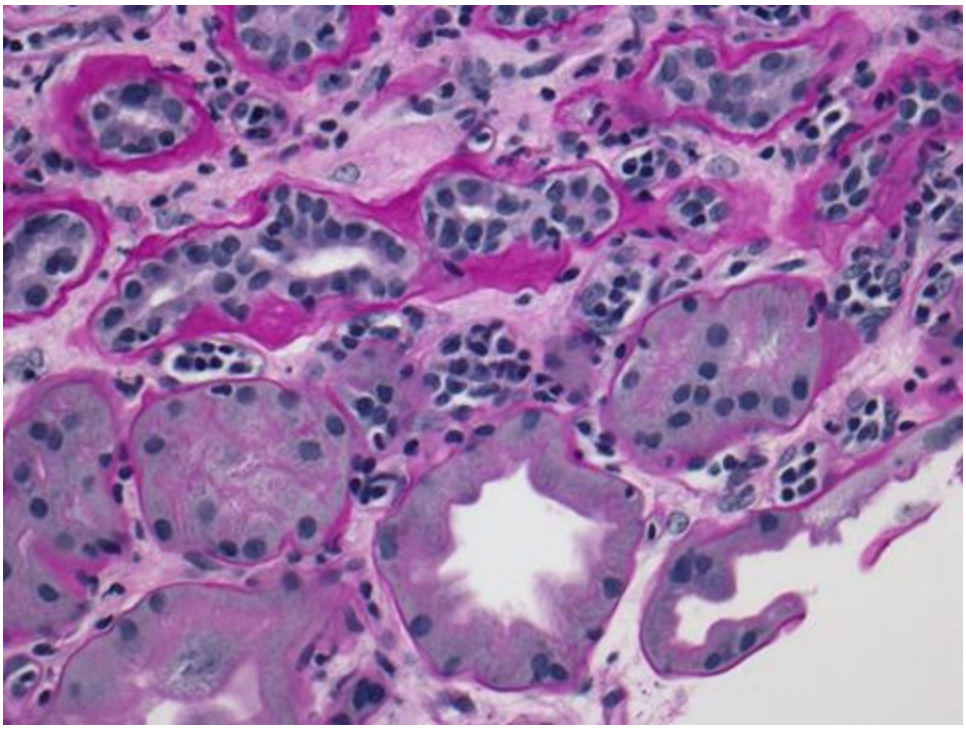
Case #1

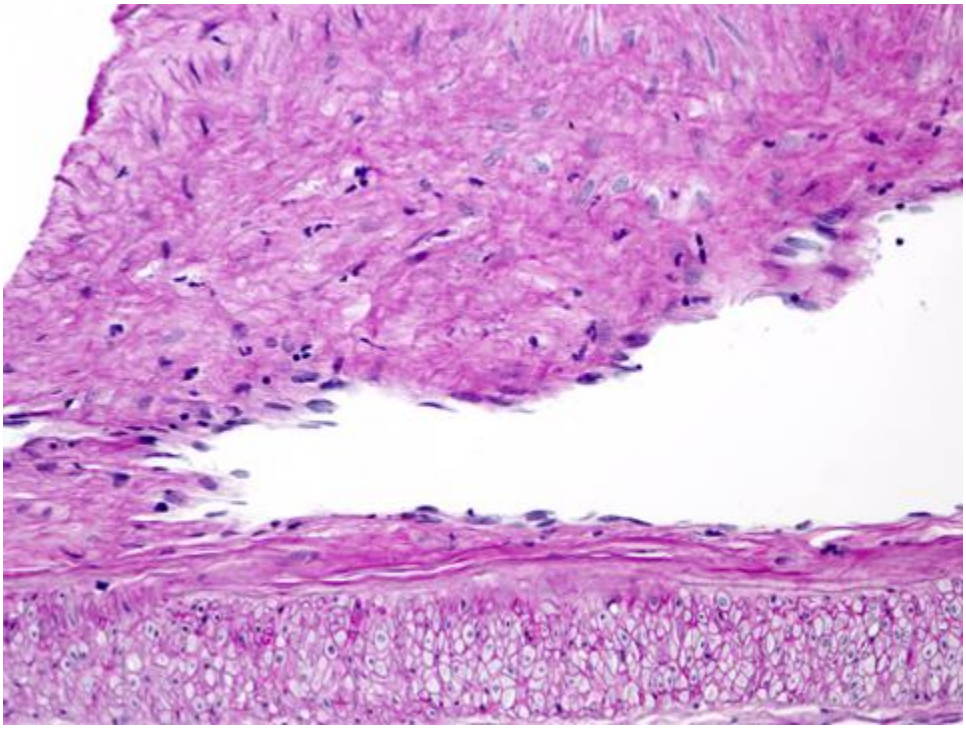
A now 41-year-old man received his first renal transplant in 1997 from a deceased donor. The transplant was done at a different transplant center. This allograft failed due to CAN in 2005. A second renal transplantation was performed in 2007 after living donation by his mother. In 2009, he relocated to a different transplant center, and recently (12 months ago) he again relocated and transferred to our transplant center. No comprehensive history regarding prior rejection episodes, compliance in regard to medication and regular clinic visits, or previous biopsy findings from his allografts and native kidney disease are available. Since his first presentation at our transplant center, he frequently missed scheduled appointments but over time presents with a continuous deterioration in allograft function. More recently, a new onset of increasing proteinuria is observed. A renal allograft biopsy was done on March 14, 2013.

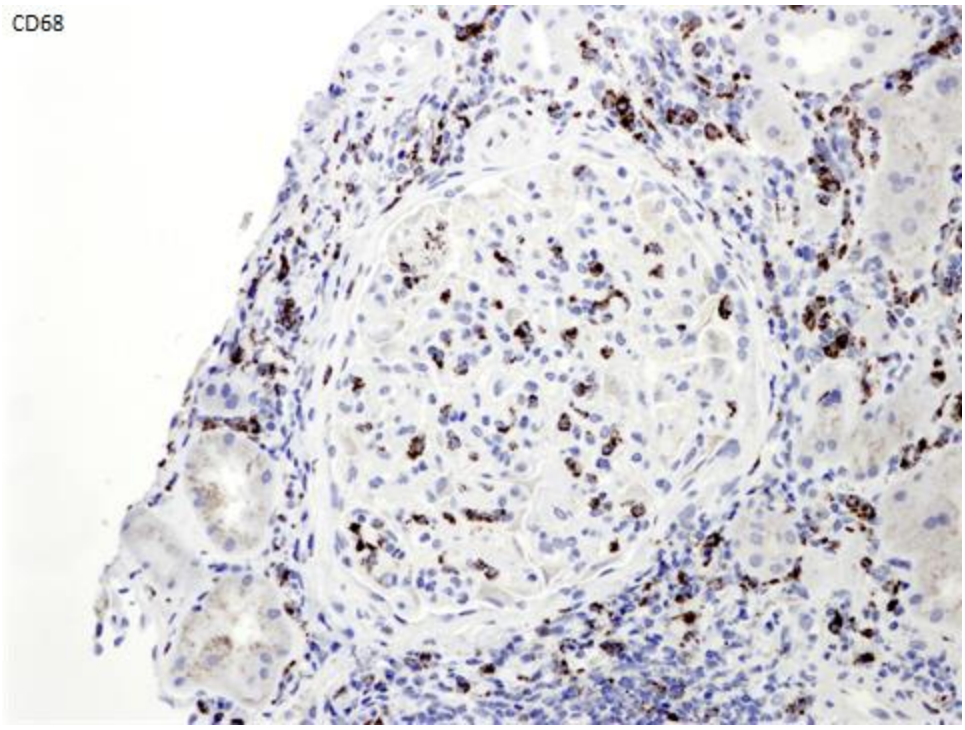


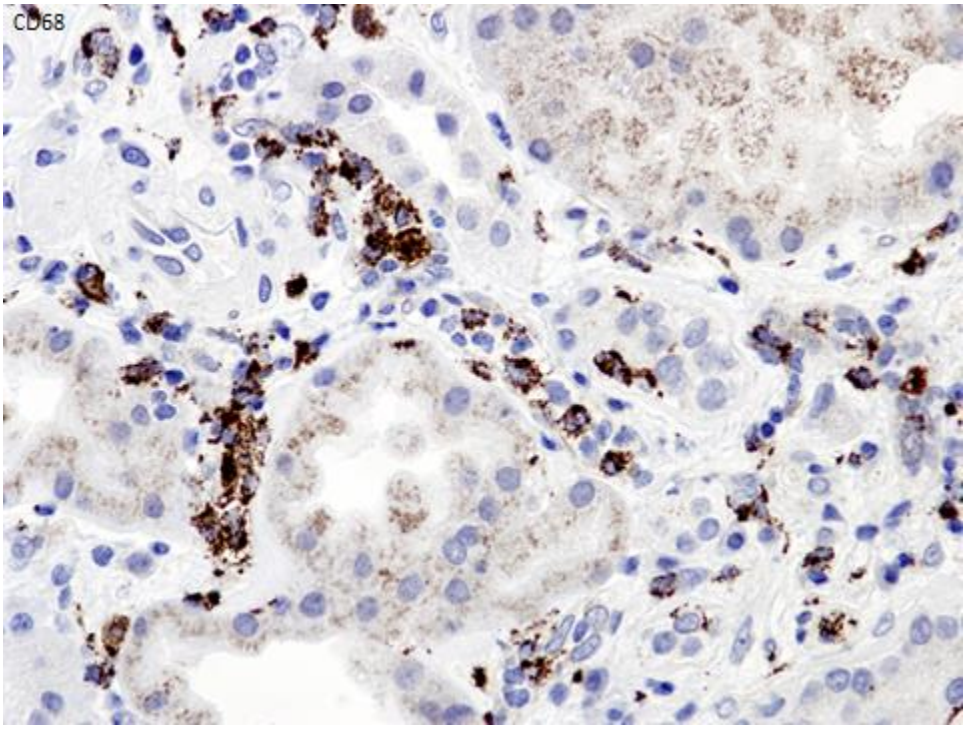









CD68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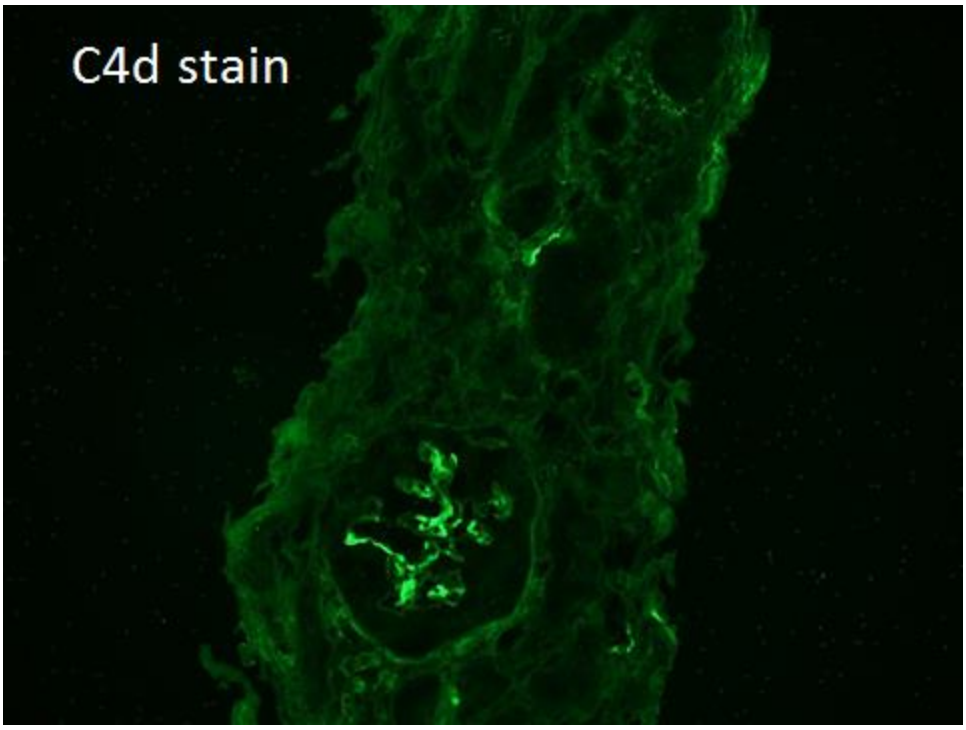
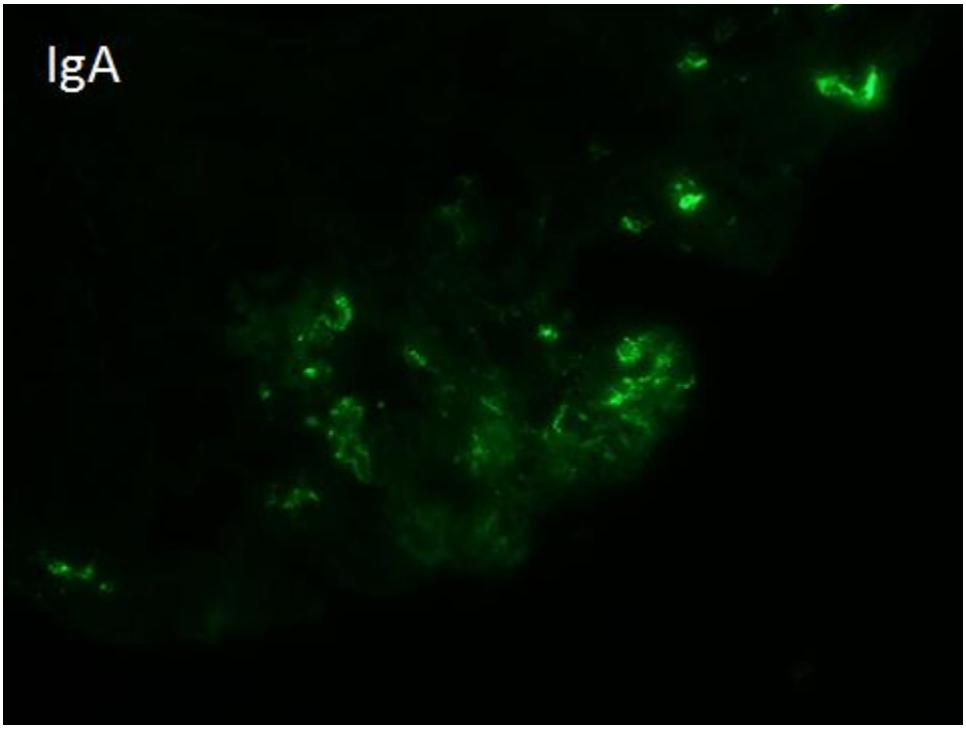
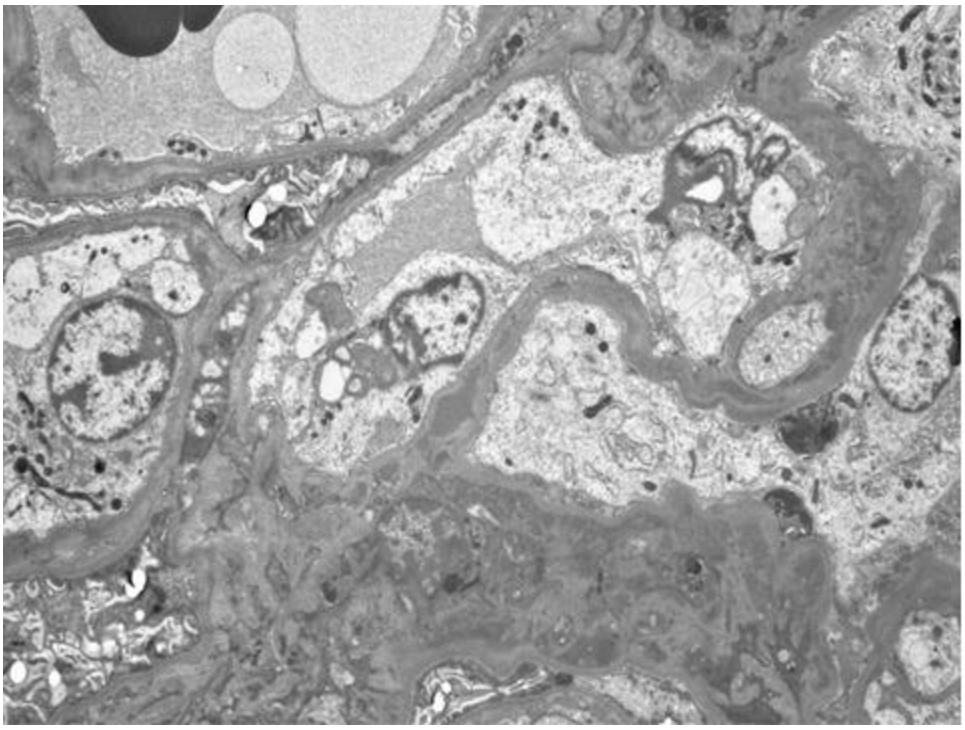
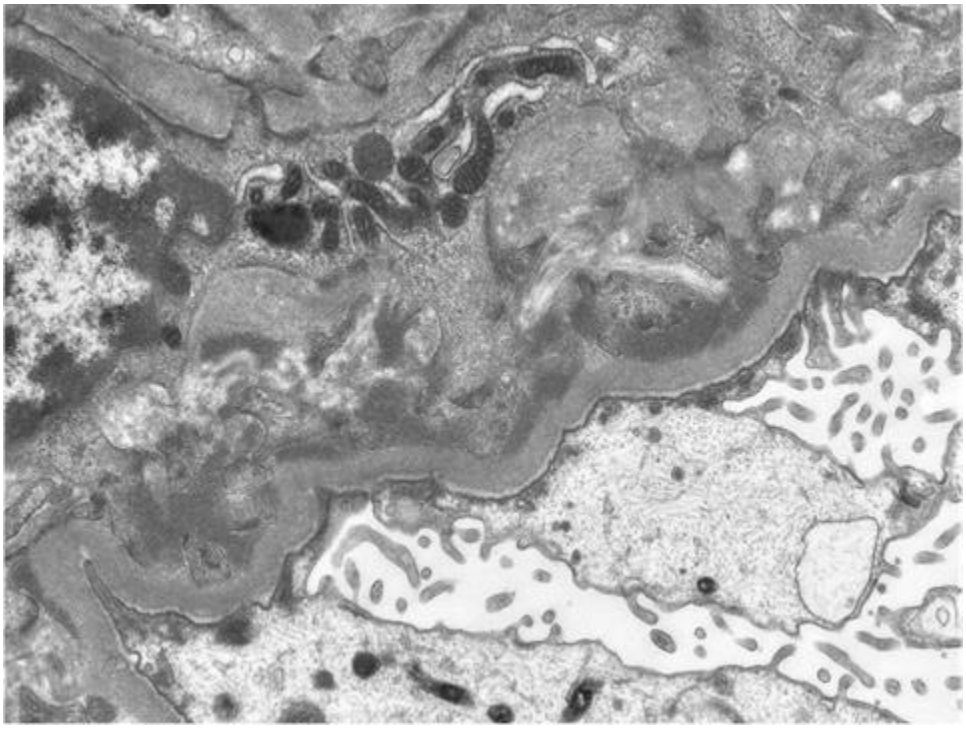
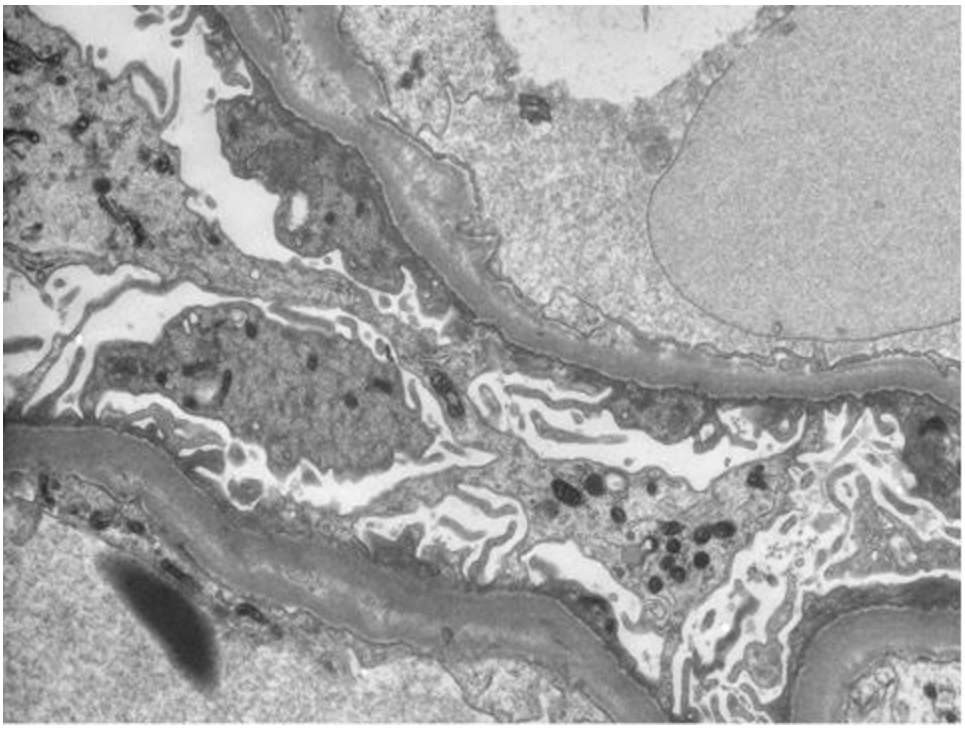
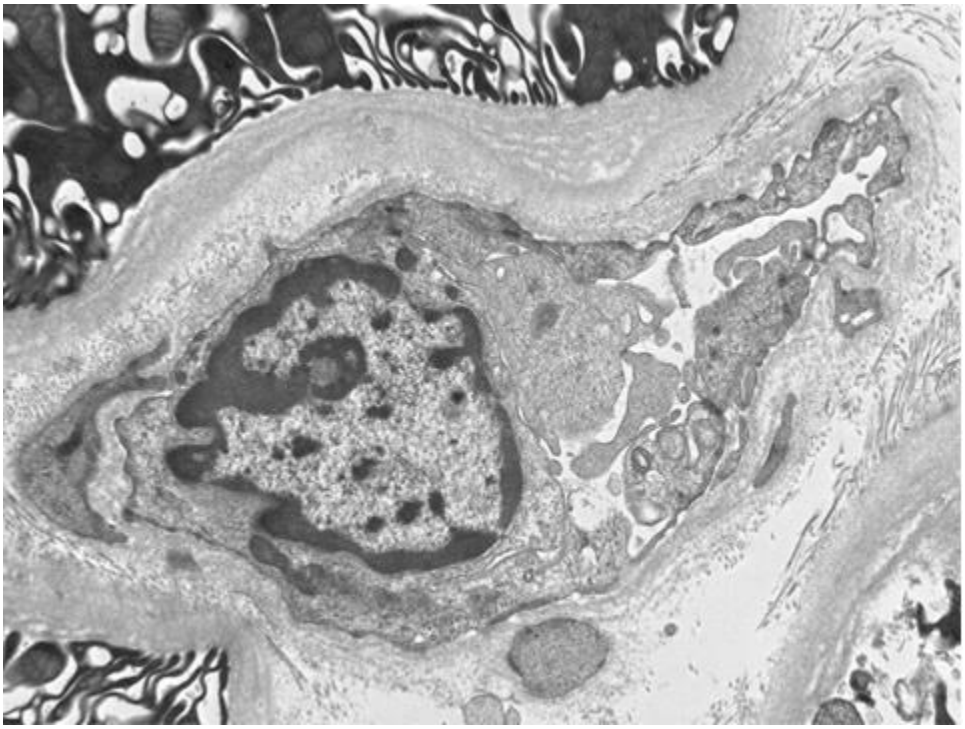

C4d stain


IgA









1. **What is your histological diagnosis according to the current Banff classification?**
   A. T cell–mediated rejection
   B. Antibody-mediated rejection
   C. Suspicious for antibody-mediated rejection
   D. Mixed T cell– and antibody-mediated rejection
   E. Recurrent/de novo GN

2. **Which additional laboratory test result would request to further corroborate your diagnosis? (multiple answers are possible)**
   A. C4d stain
   B. Luminex screening for donor-specific antibodies (DSAs)
   C. Polyomavirus screening in serum and urine
   D. Electron microscopy
   E. Immunofluorescence panel: IgG, IgM, IgA, C3, C1q, albumine
   F. Immunohistochemistry panel for CD3, CD20, CD45, Foxp3, CD31, CD68, CD56
   G. Gene expression analysis for endothelial transcripts, T-cell transcripts, NK-cell transcripts

3. **What is the relevance of inflammation in areas of fibrosis and atrophy in this case?**
   A. Nonspecific epiphenomenon
   B. Part of a T cell–mediated rejection
   C. Part of an antibody-mediated rejection
   D. A feature of viral infection
   E. A specific feature of a nonrejection disease process
   F. Cannot be determined