

EM Quiz

University Medical Centre Utrecht
Thursday 22nd February 2018

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EM Quiz

52 questions

University Medical Centre Utrecht

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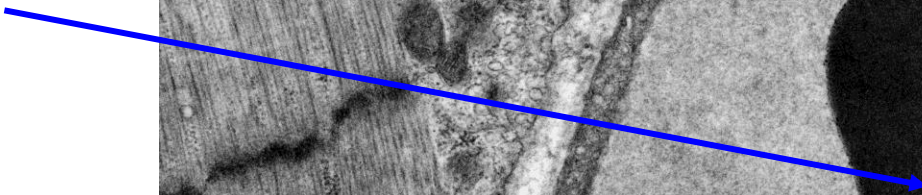
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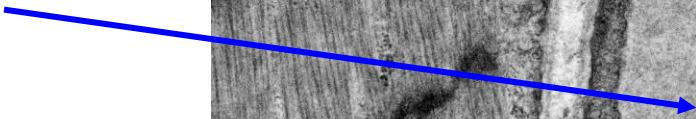
What organelle is this?



What cell is this?



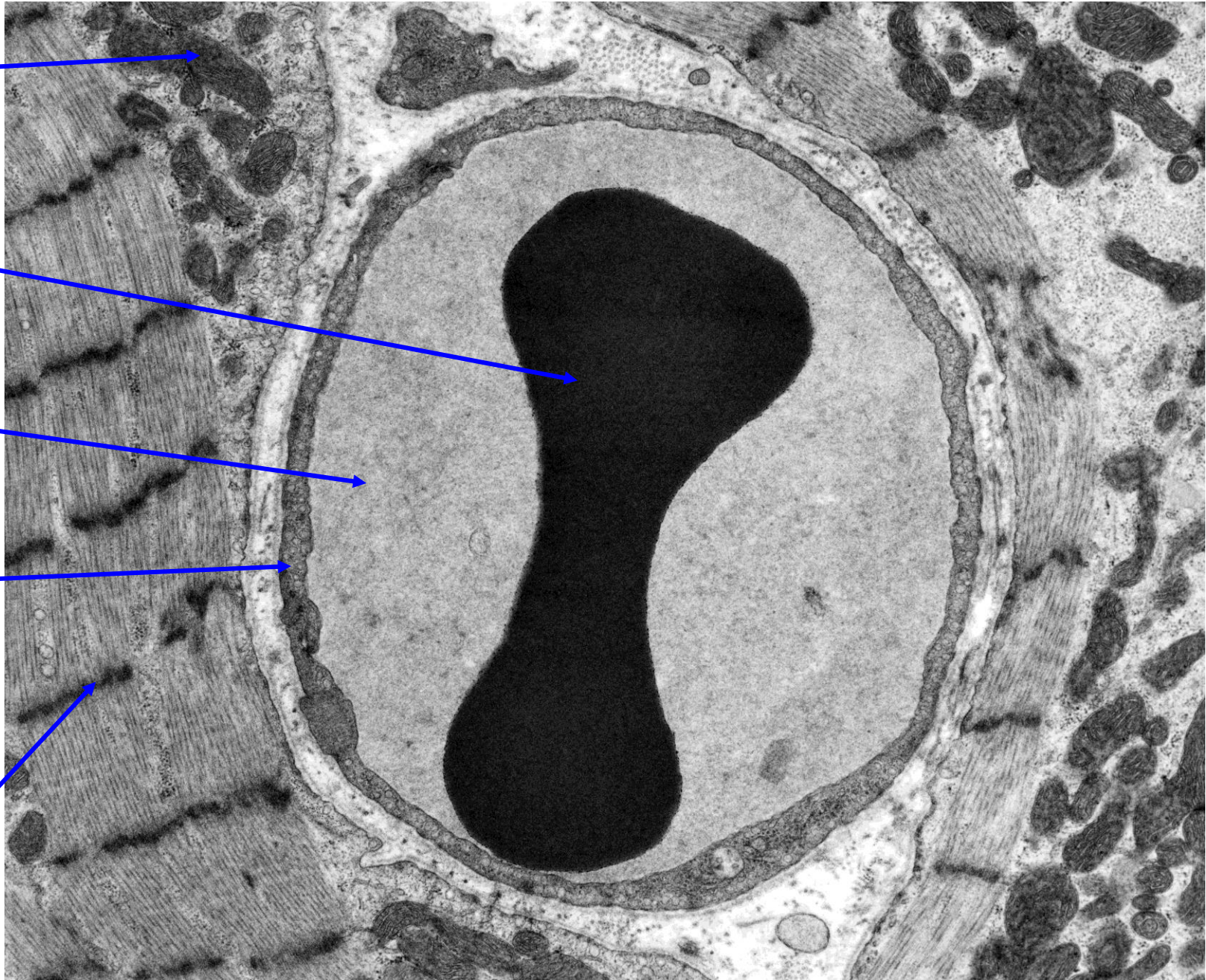
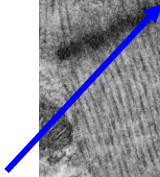
What is this?

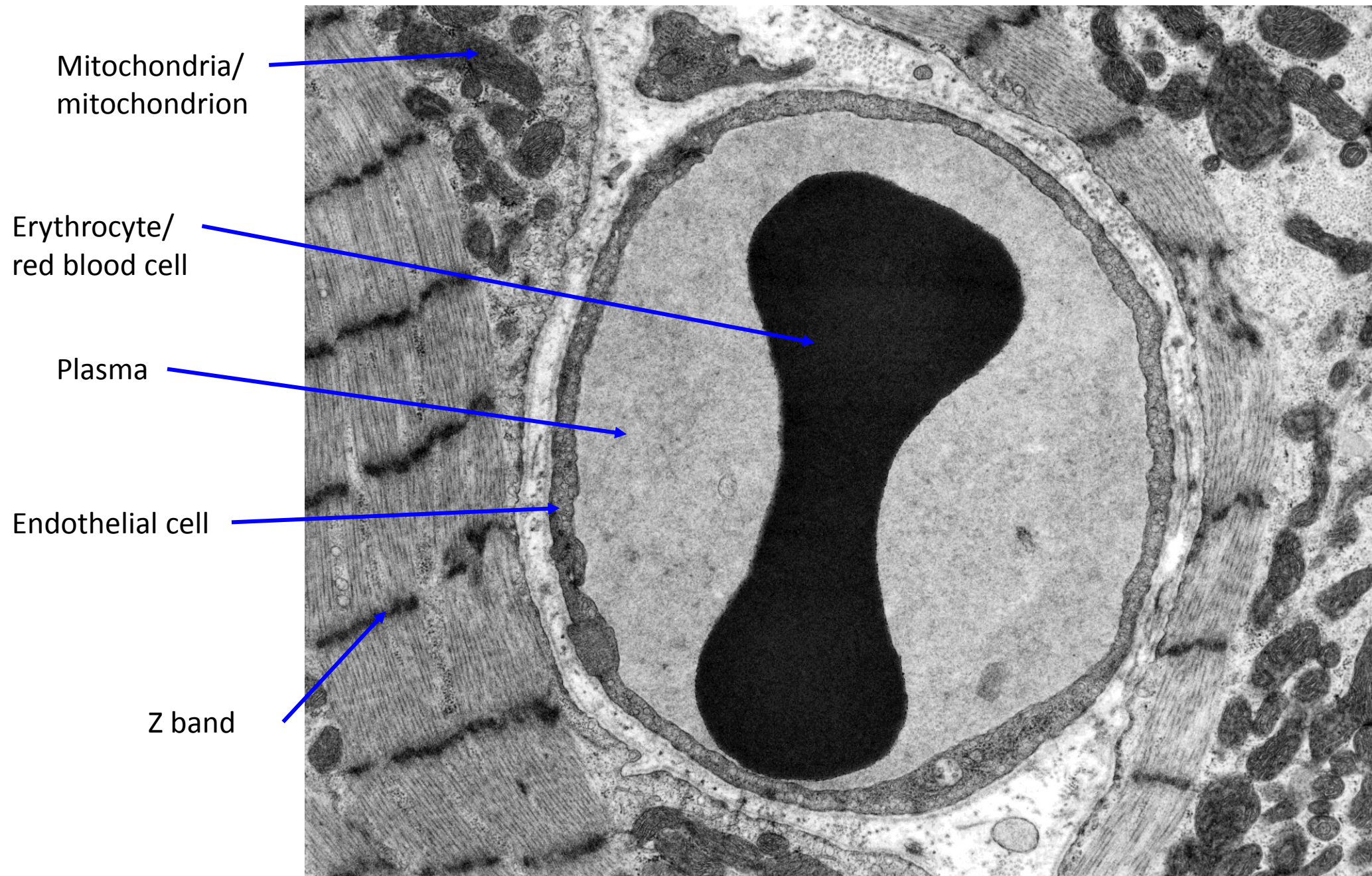


What cell is this?

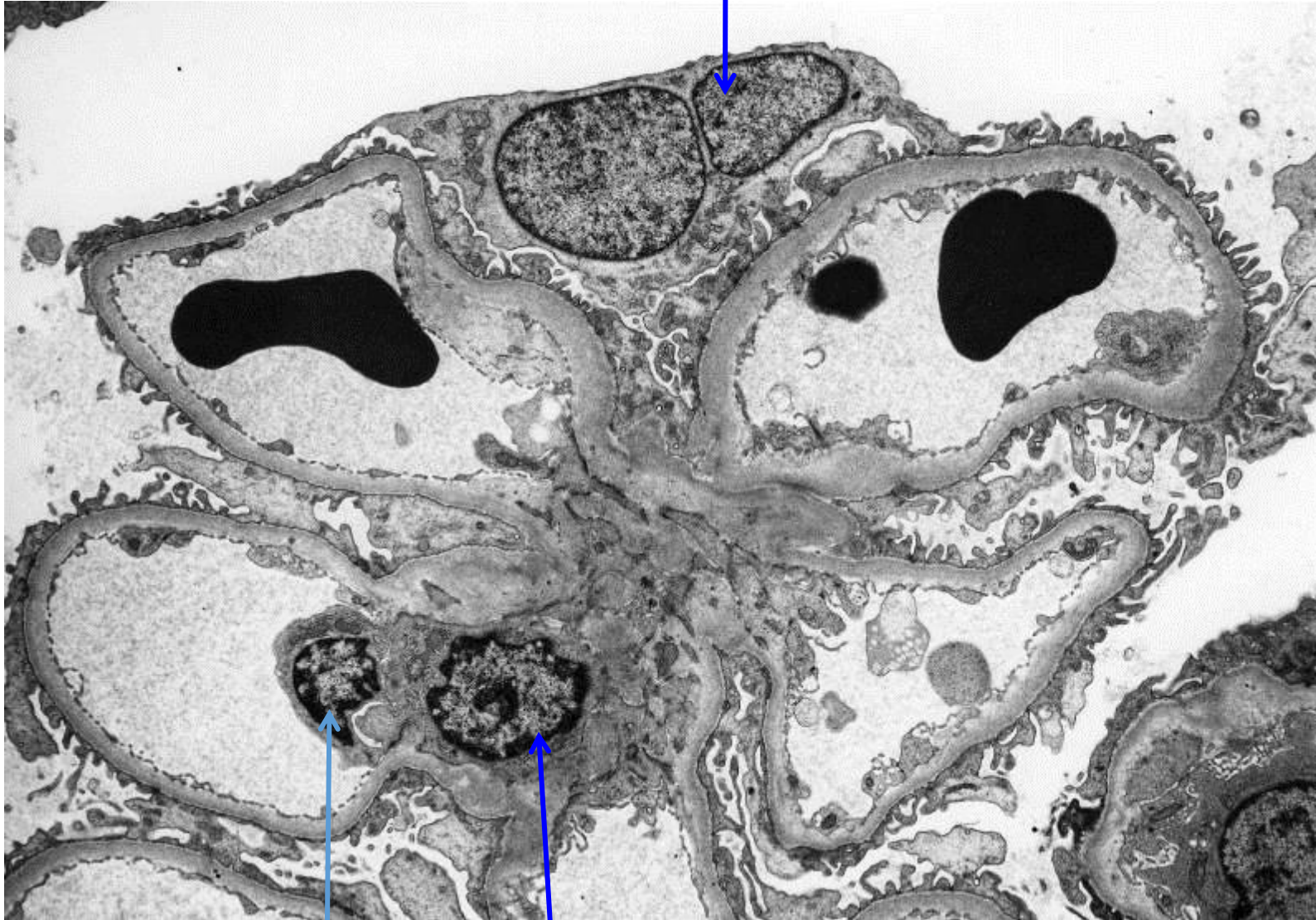


What is this band called?





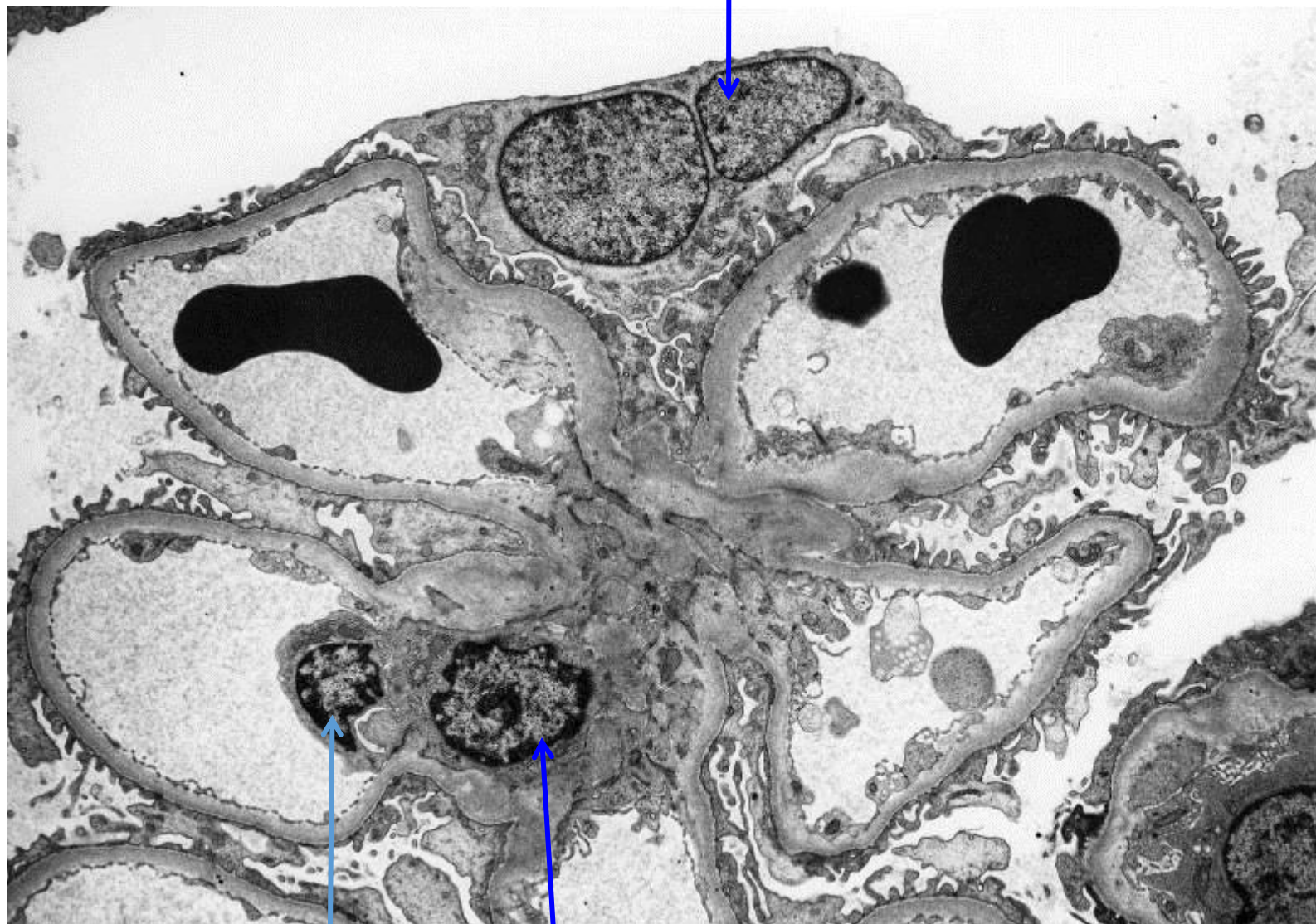
What is this cell?



What is this cell?

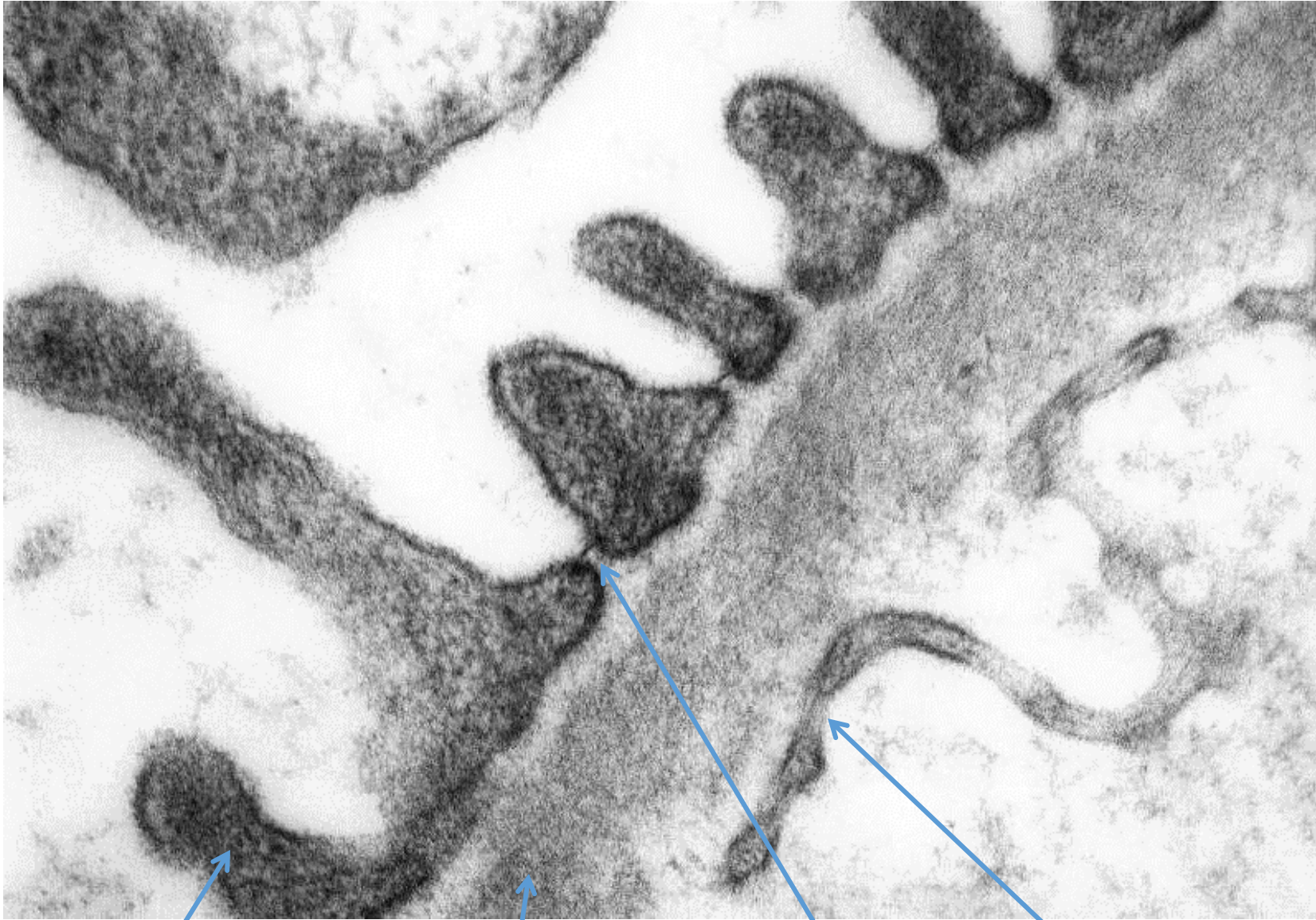
What is this cell?

Podocyte



Endothelial cell

Mesangial cell

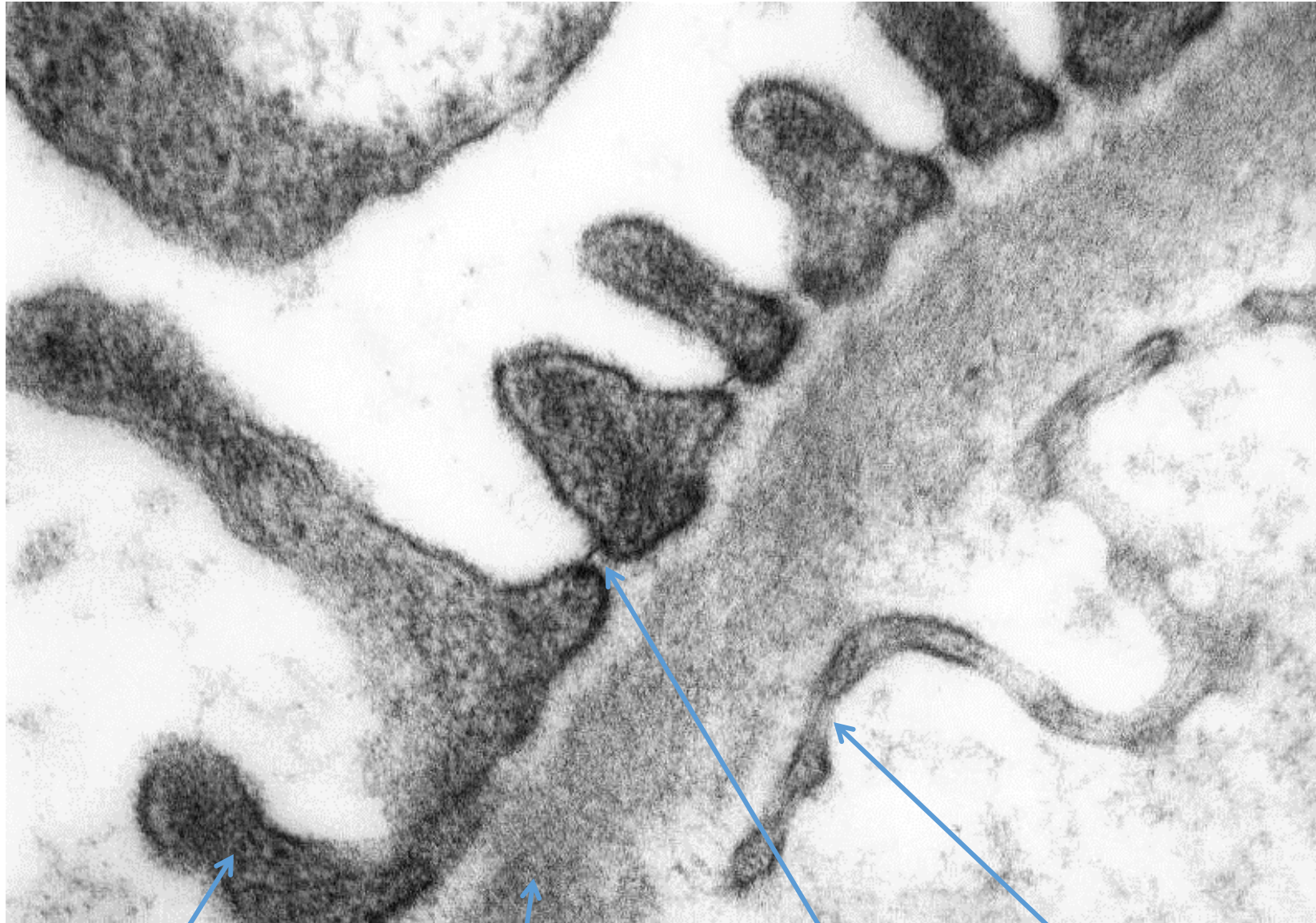


What is this called?

What is this called?

What is this called?

What type of endothelial cell is this?

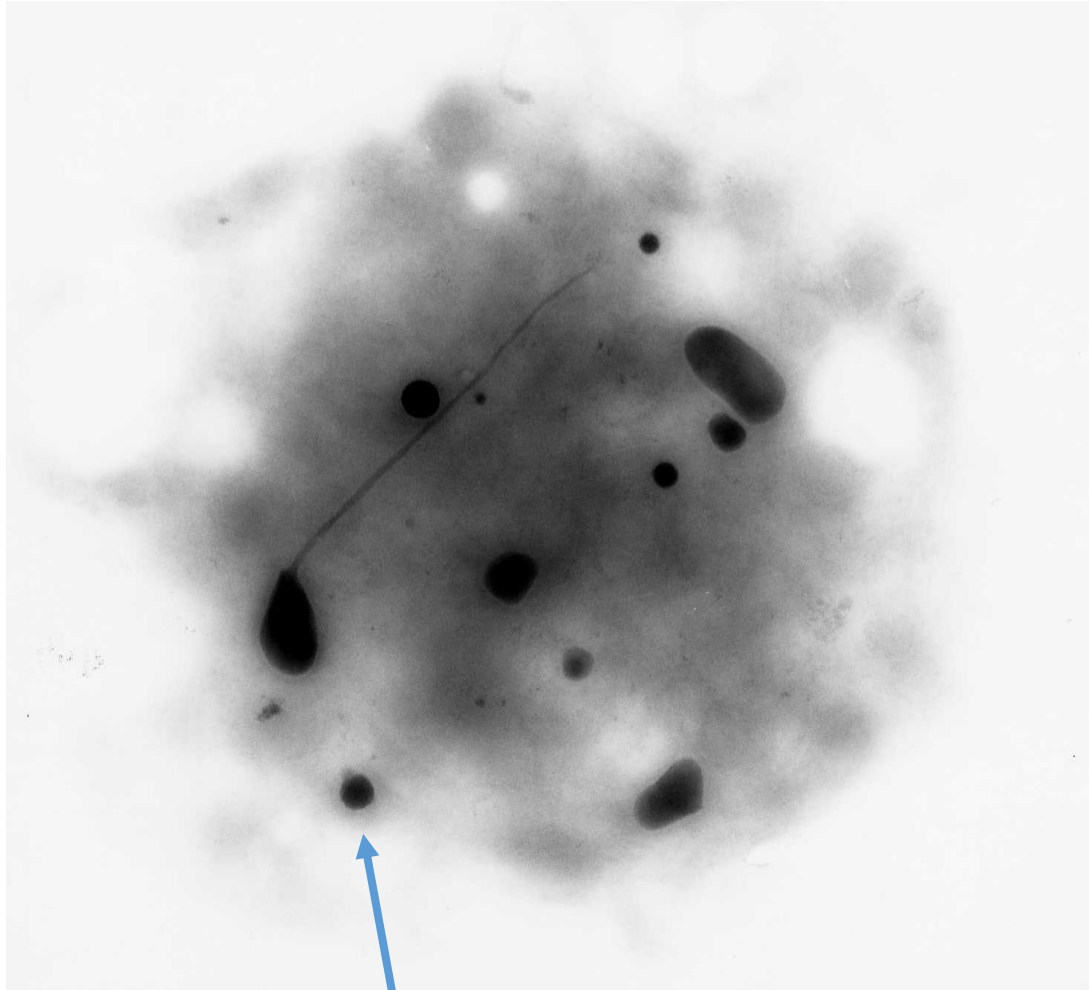


Podocyte foot process

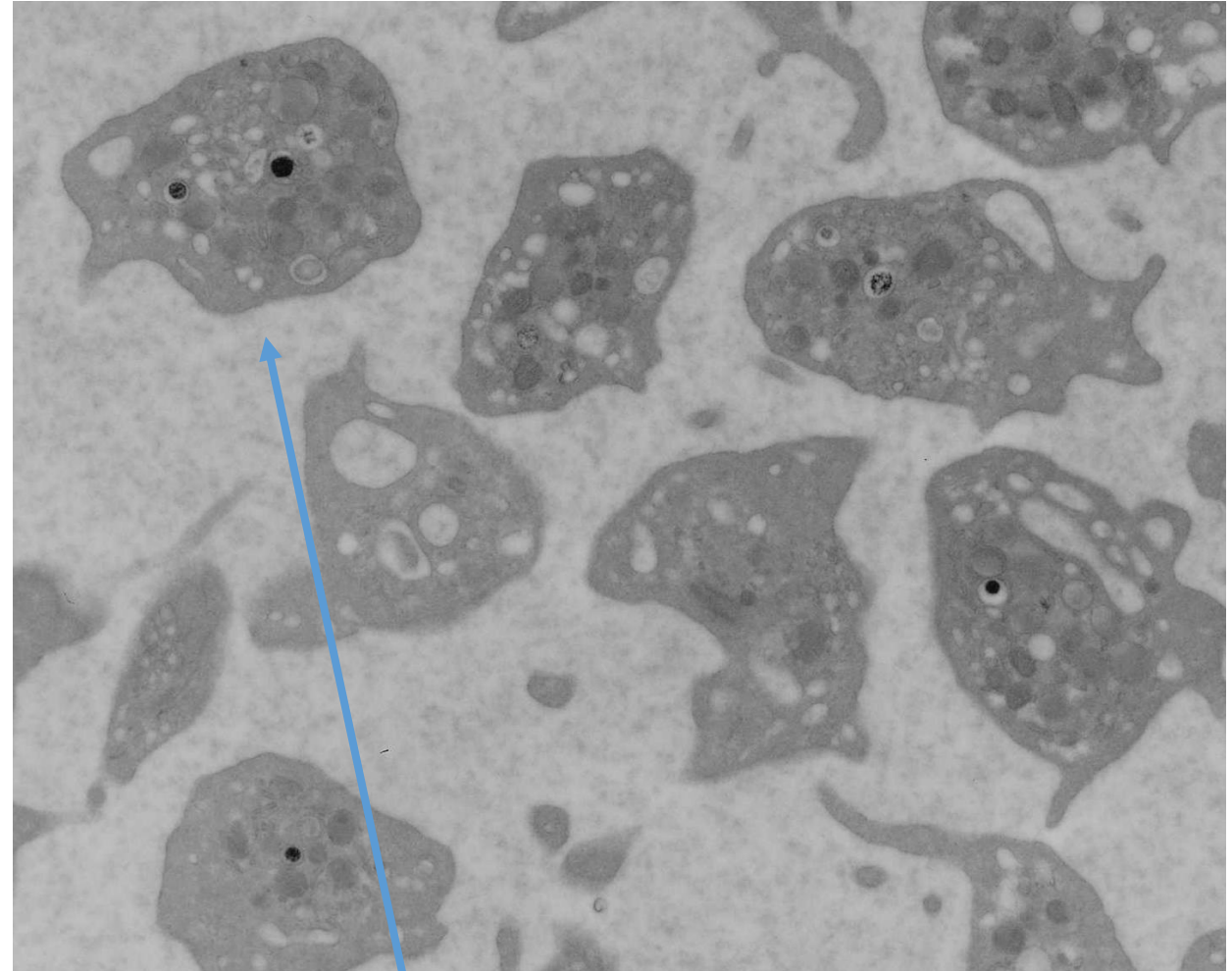
Glomerular basement membrane/
type IV collagen and laminin

Slit diaphragm/
nephrin

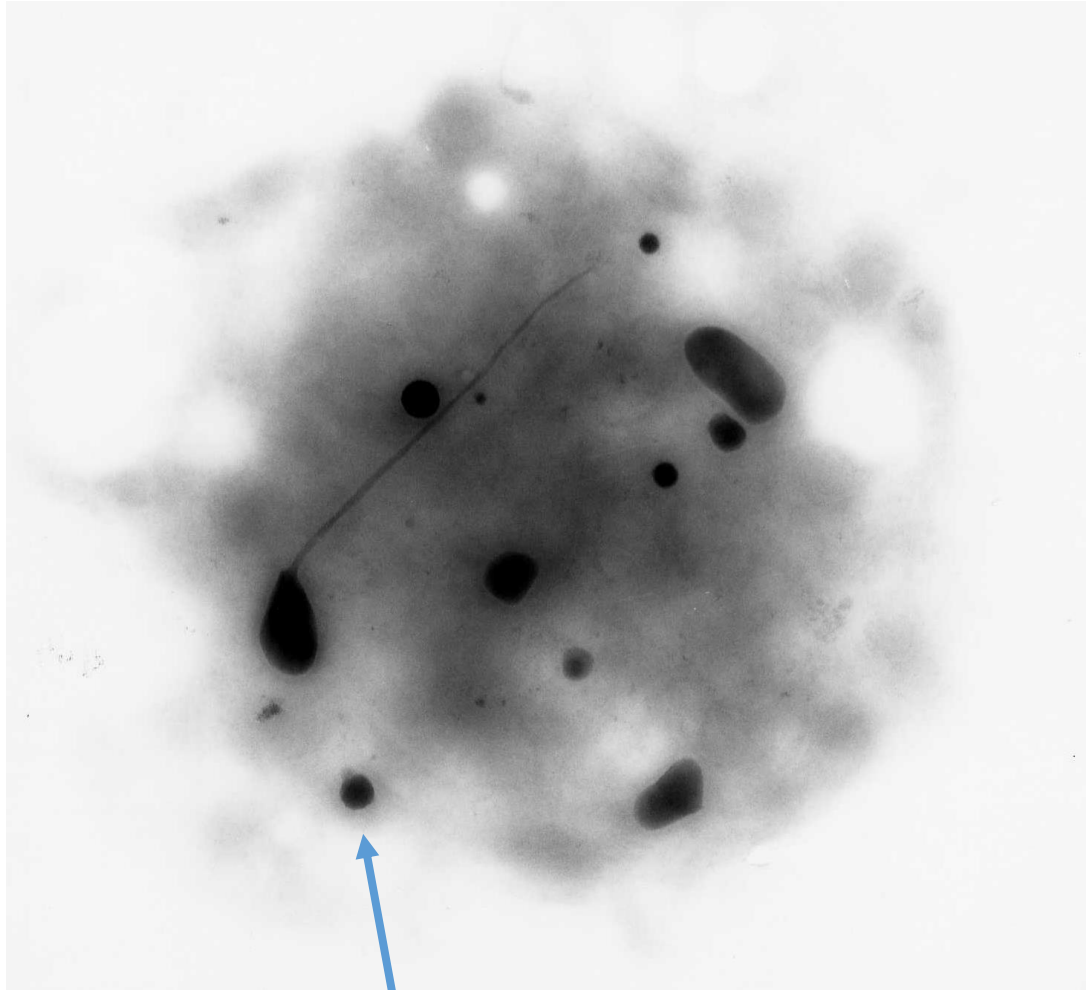
Fenestrated endothelium



What are these granules called?

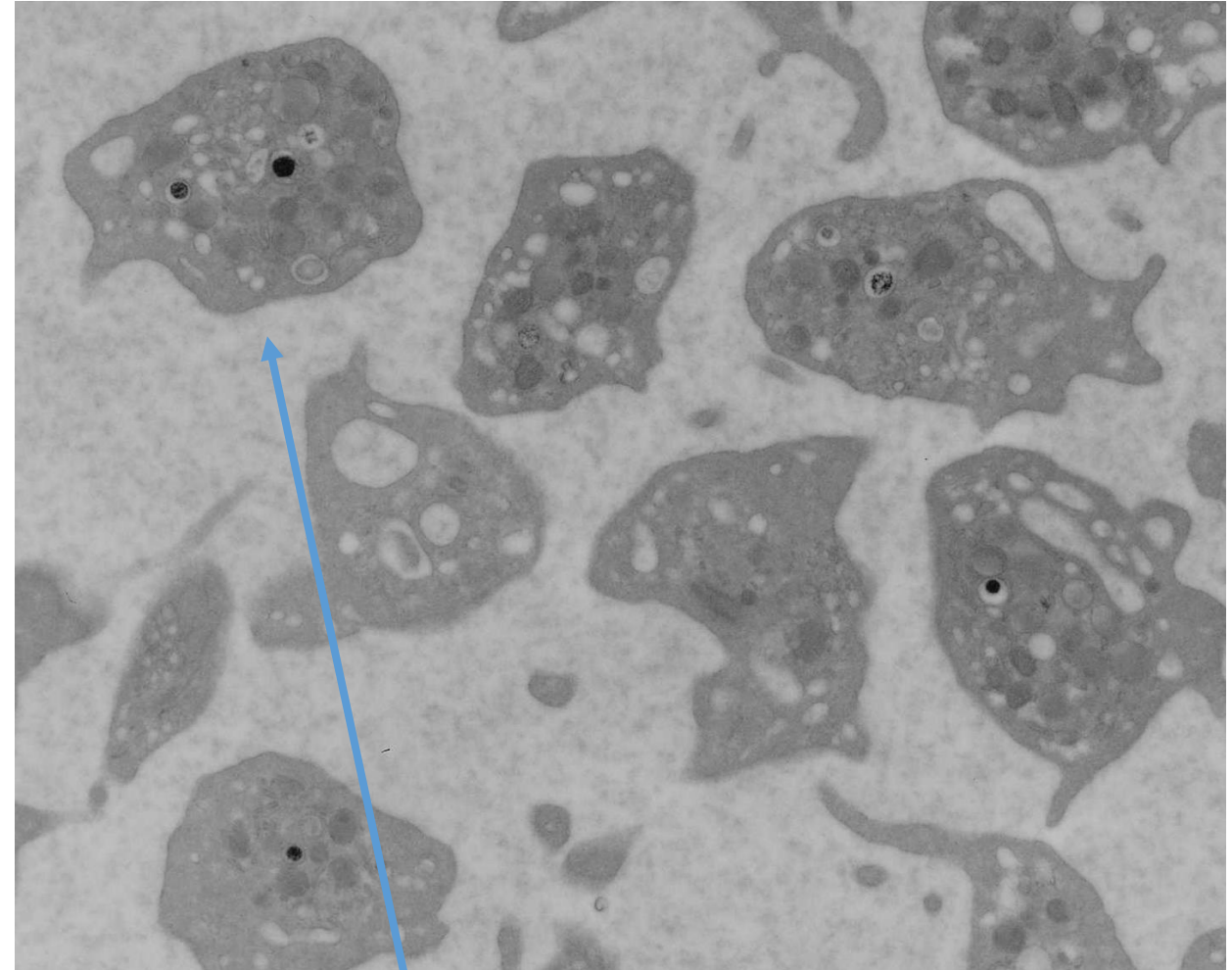


What are these cells?

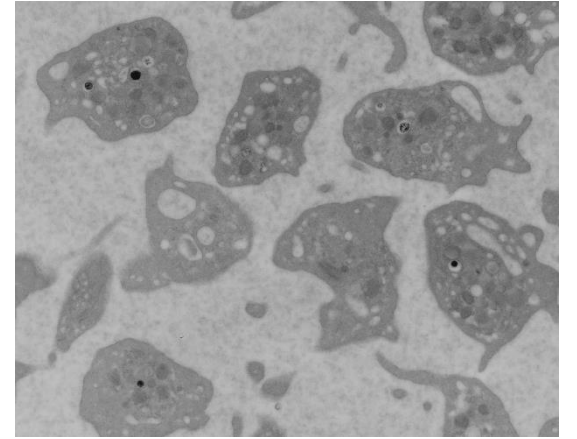
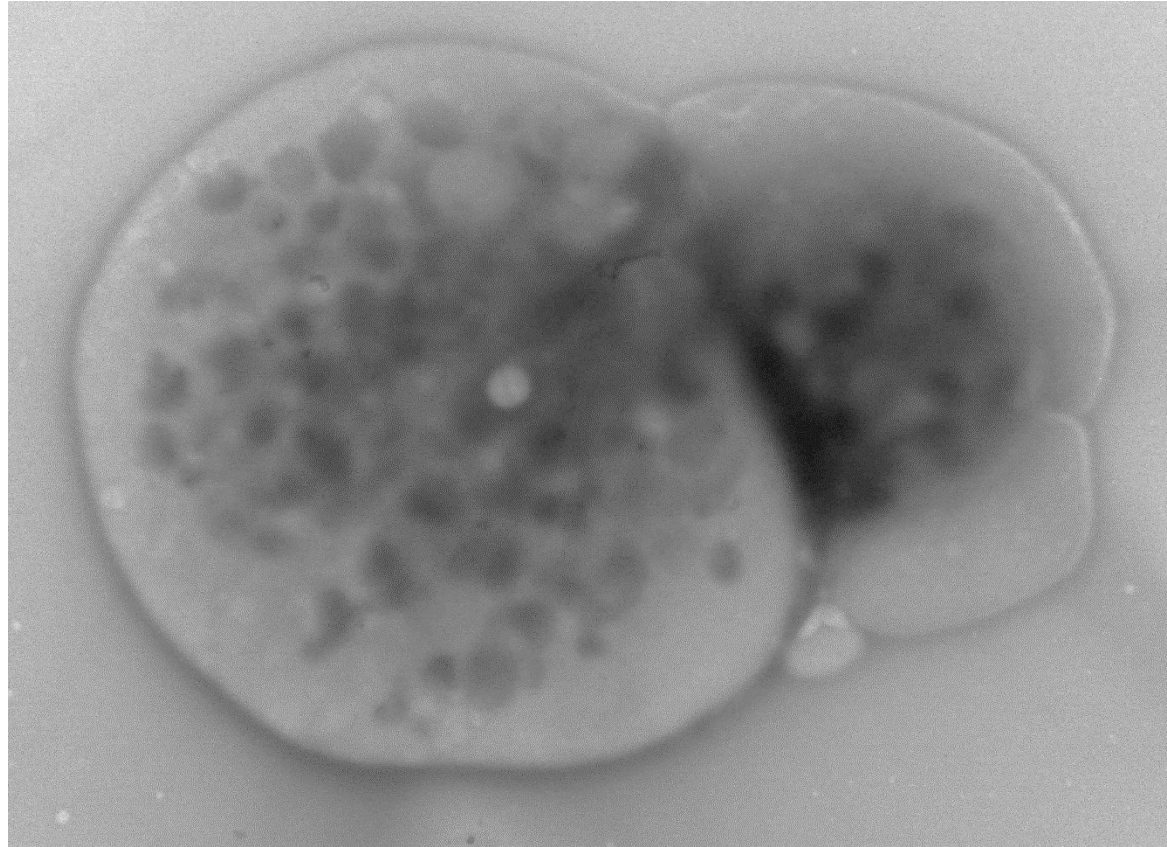
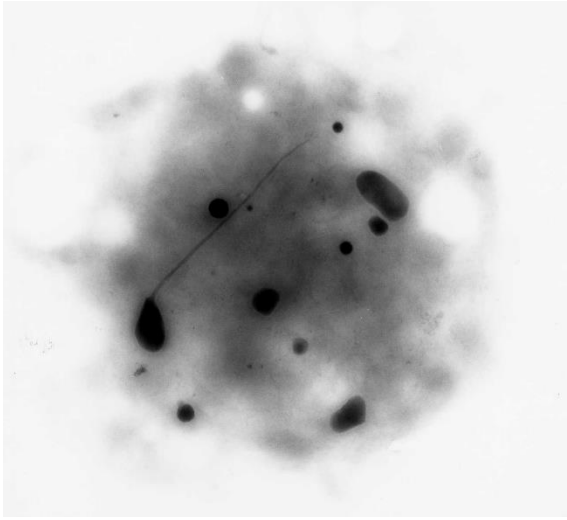


Dense core granules
(whole unstained platelets)

What is the name of the
syndrome where these
granules are deficient?



Platelets or thrombocytes
(calcium added to cacodylate buffered glutaraldehyde)
(unstained section)



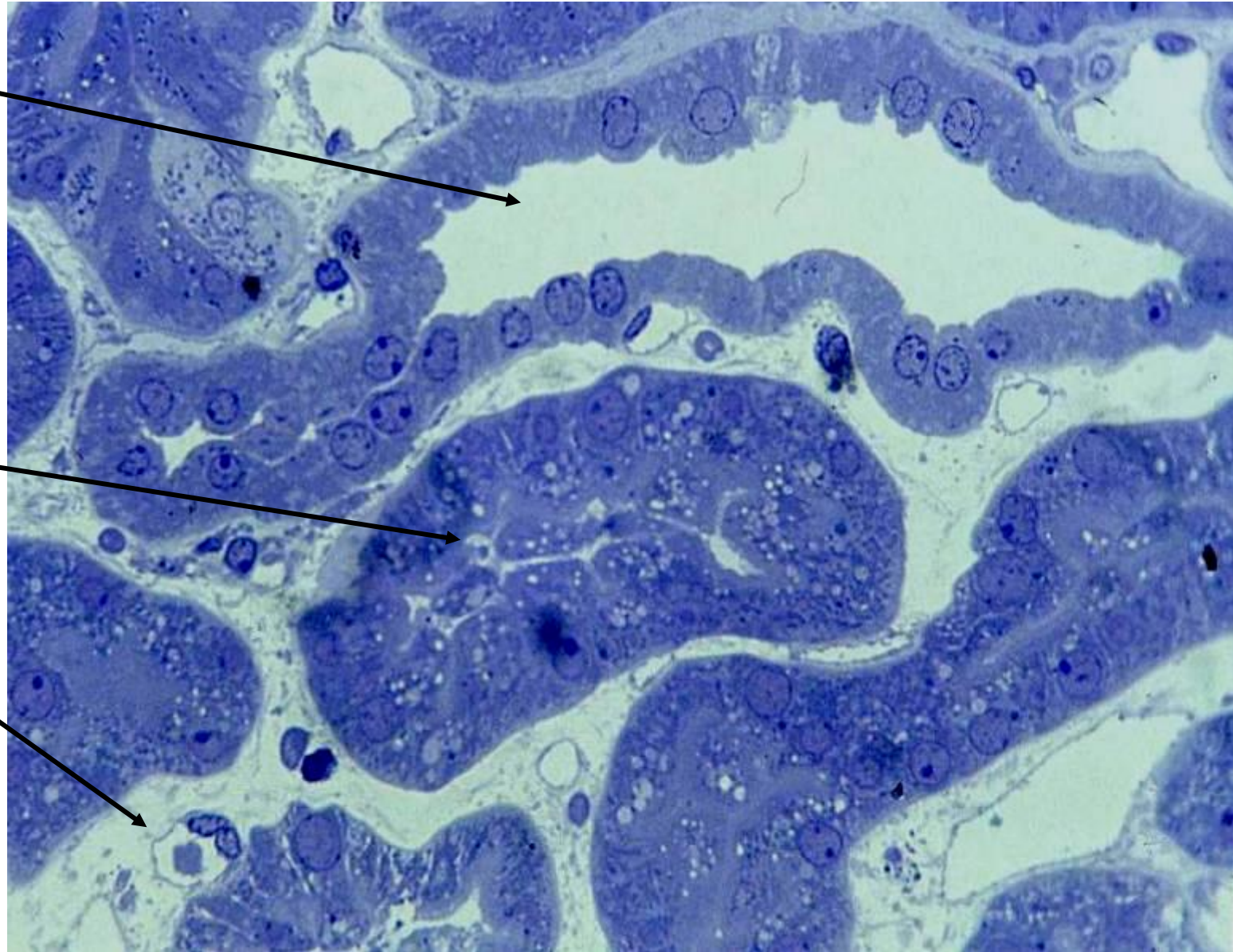
Hermansky-Pudlak

Toluidine blue stained plastic section of renal cortical tubules

Which part of the tubule is this?

Which part of the tubule is this?

What is this structure called?

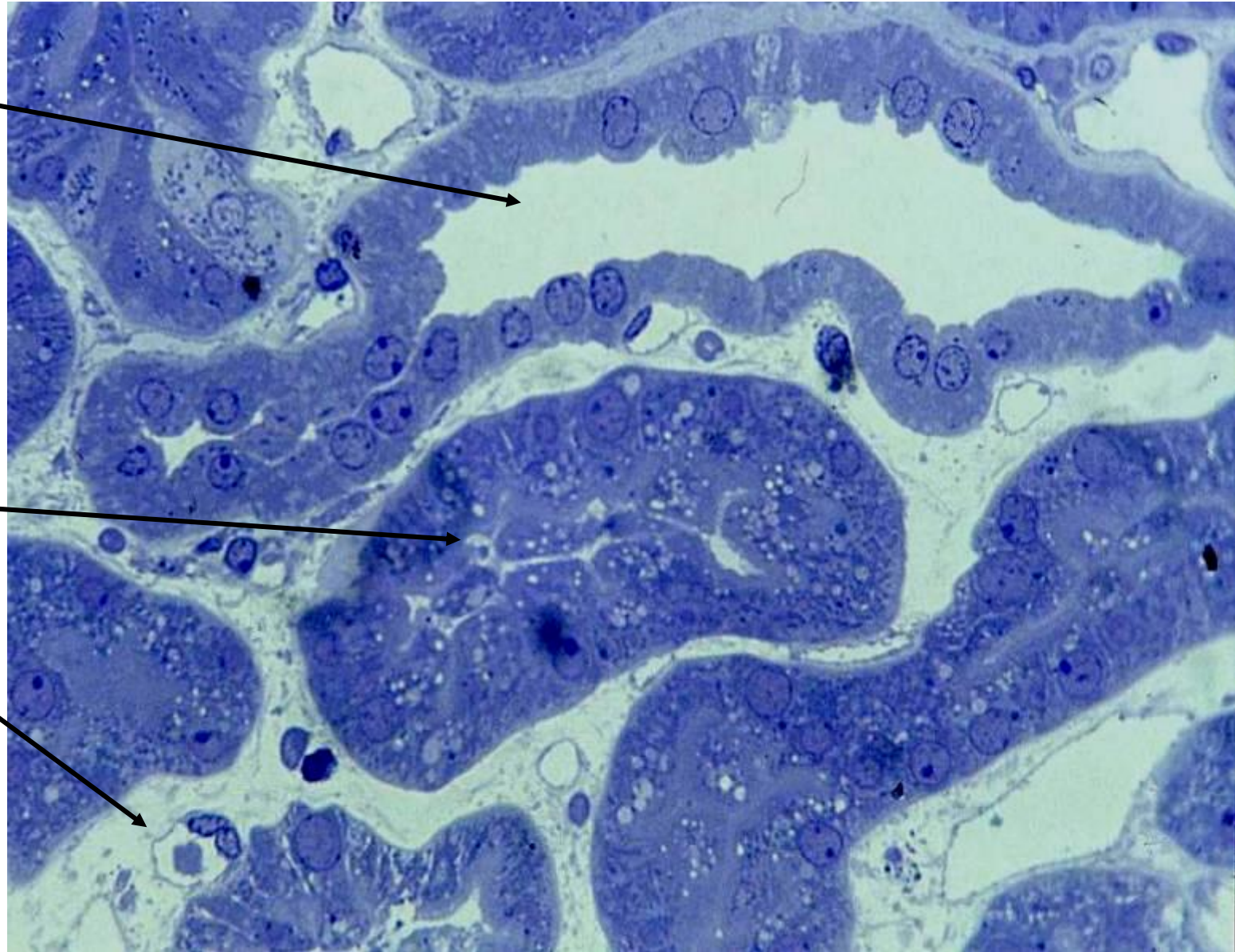


Toluidine blue stained plastic section of renal cortical tubules

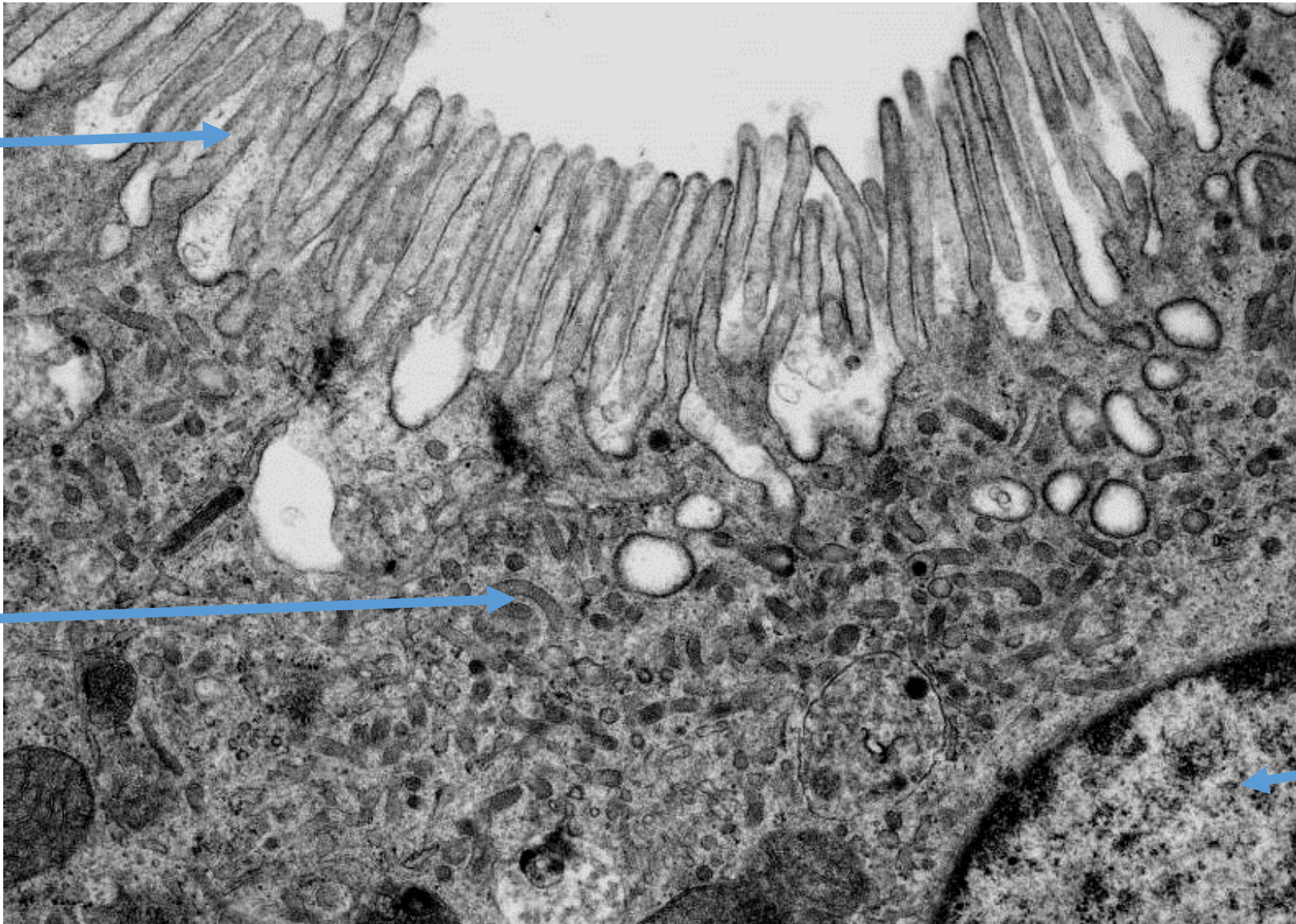
Distal convoluted tubule

Proximal convoluted tubule

Peritubular capillary



What are these?



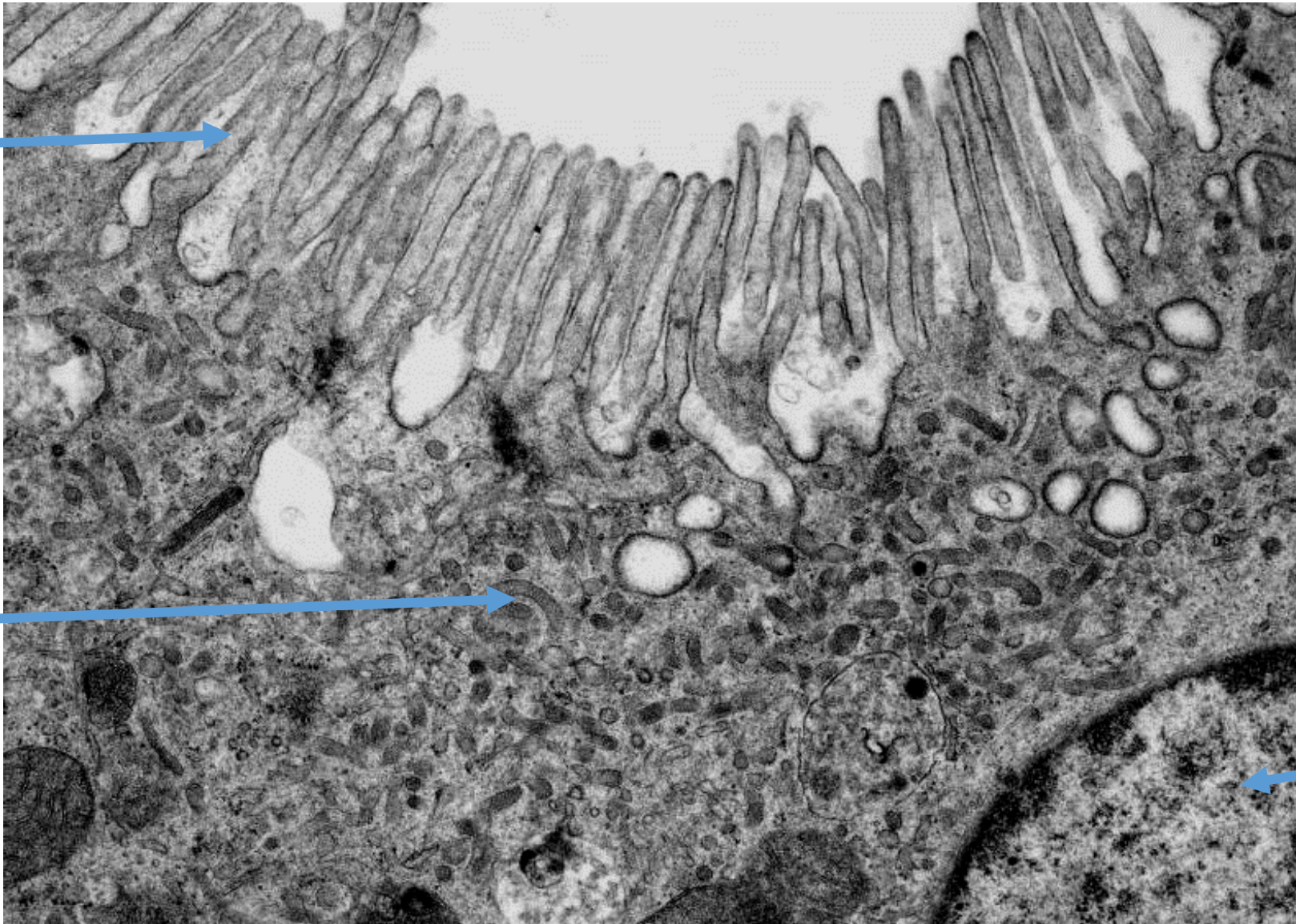
What are these?

What is this organelle?

Microvilli

Smooth
endoplasmic
reticulum

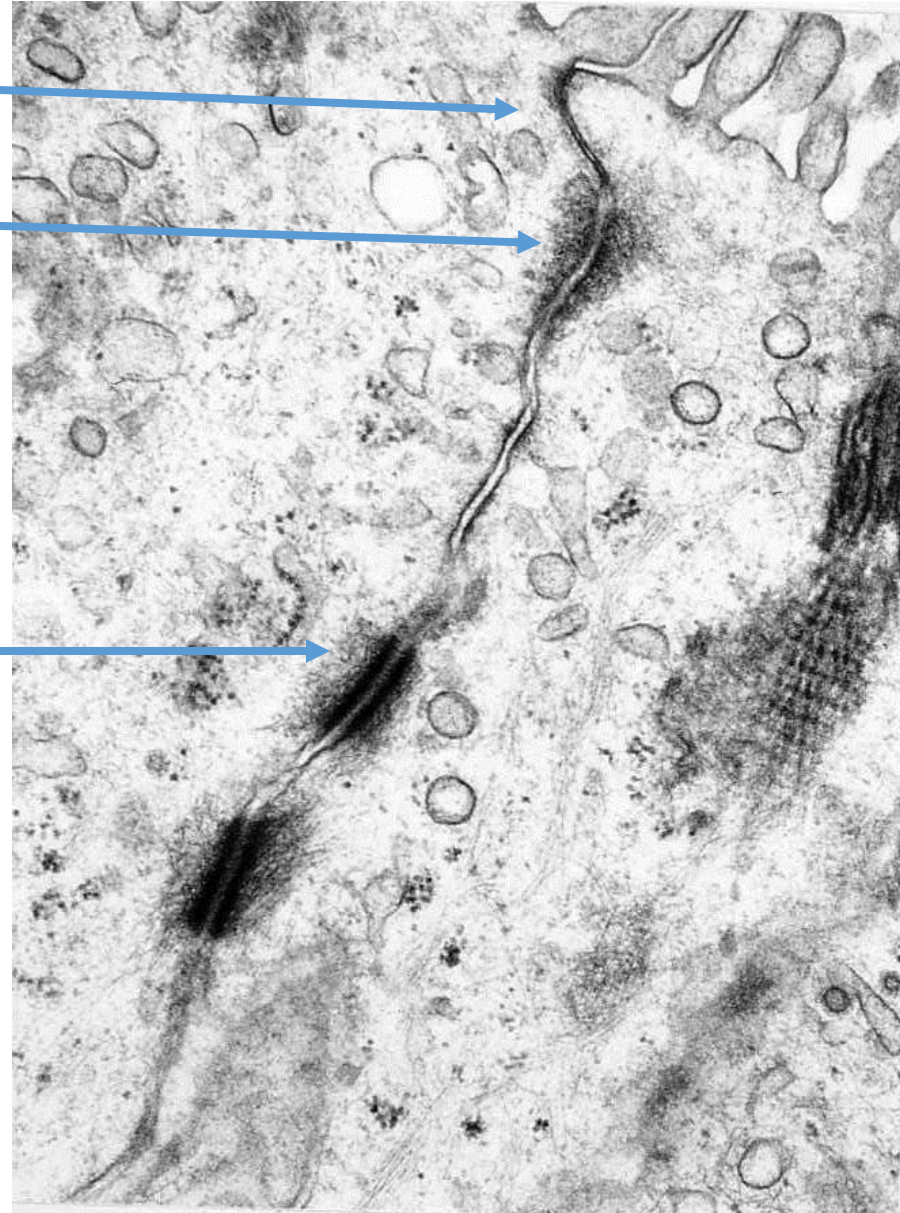
Nucleus



What is this?

What is this?

What is this?

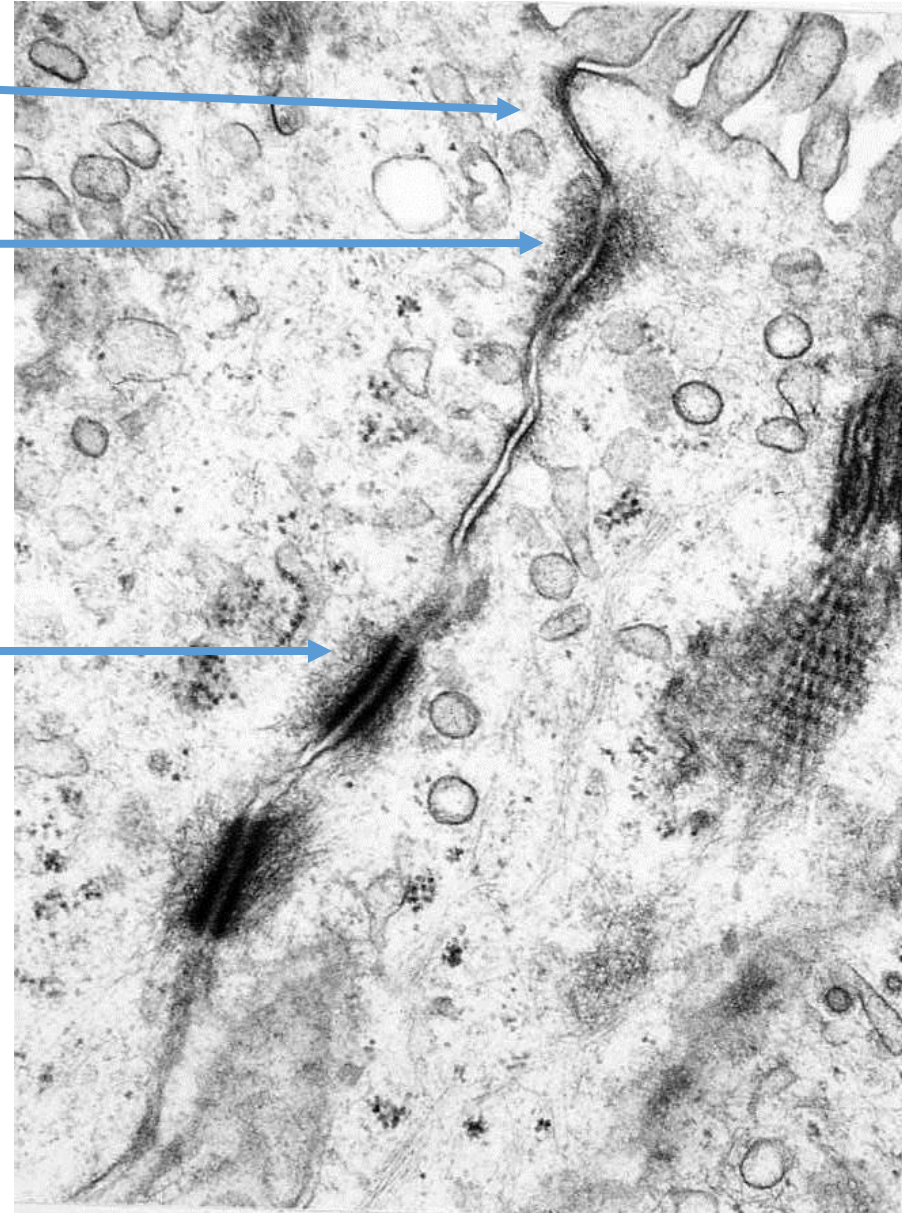


endocervix

Tight junction/
zonula occludens/
occludens junction

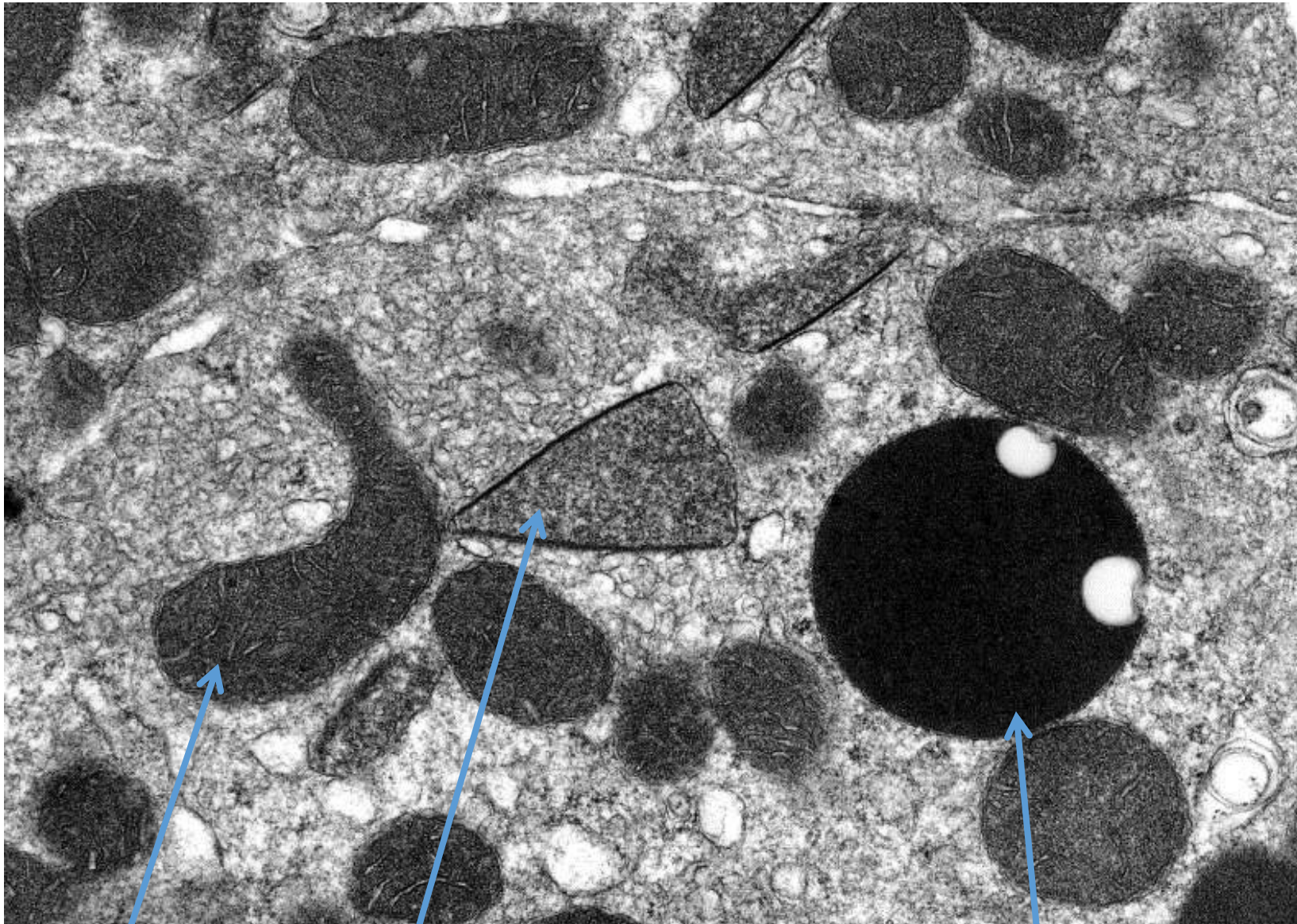
Intermediate junction/
Adherens junction/
zonula adherens/
belt desmosome

Desmosome/
macula adherens



Junctional complex - endocervix

Base of renal proximal convoluted tubular epithelial cell

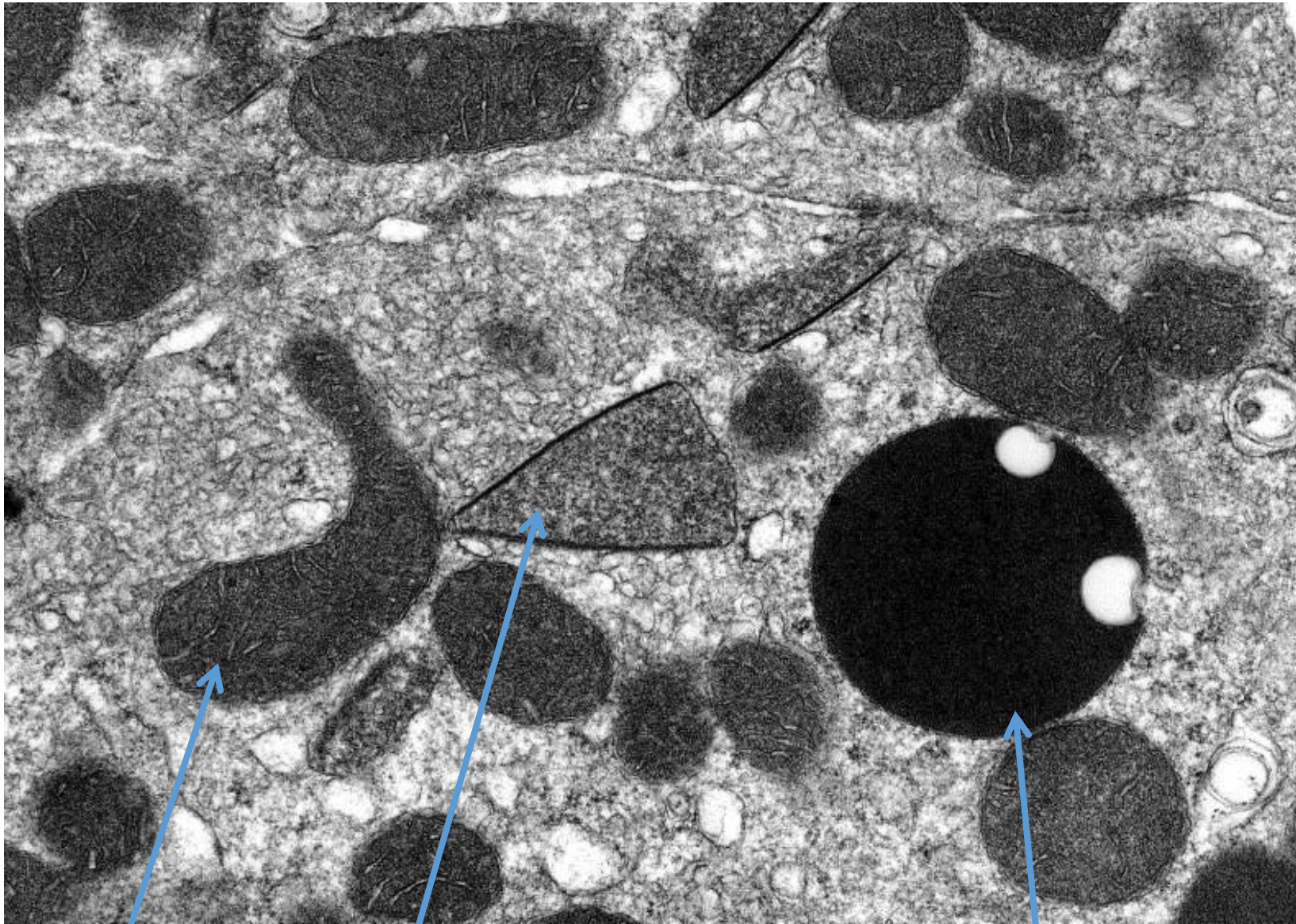


What is this?

What is this?

What is this?

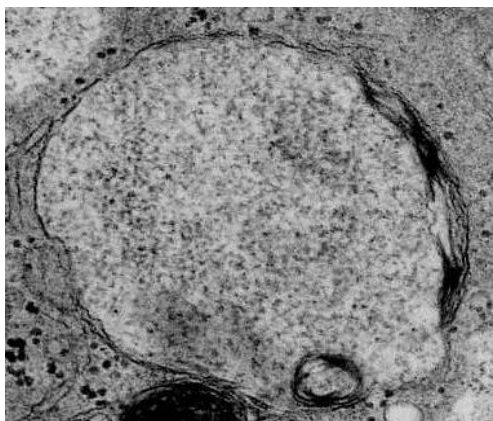
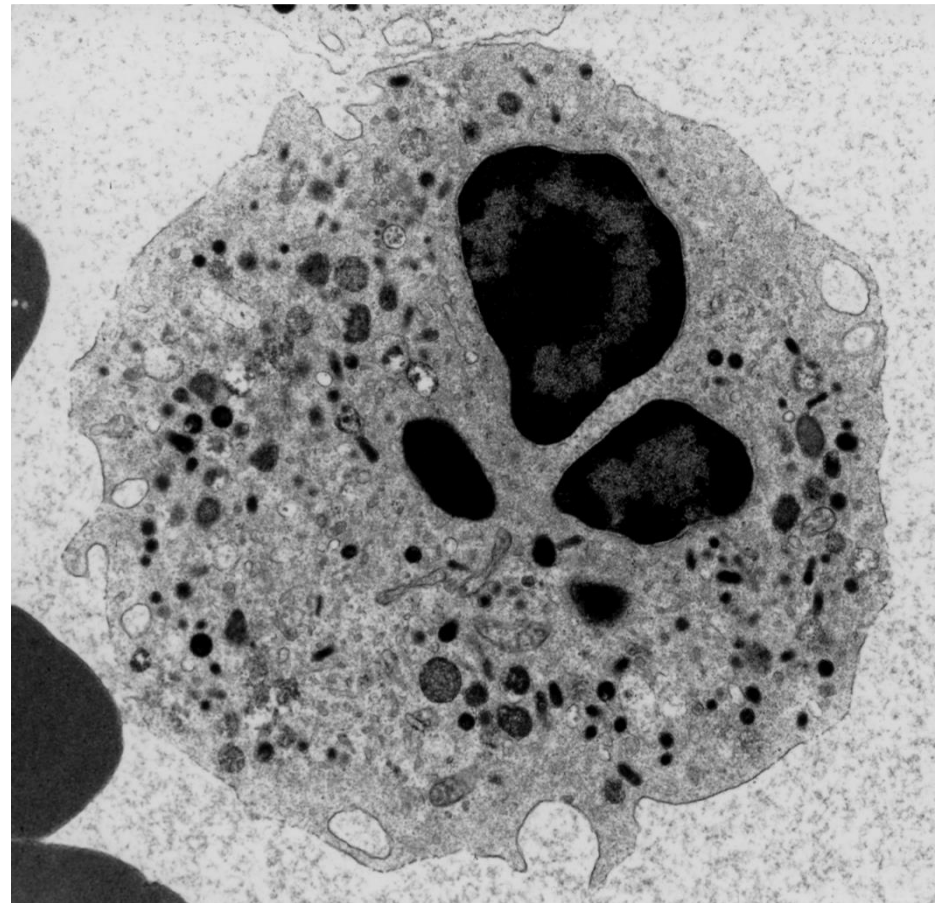
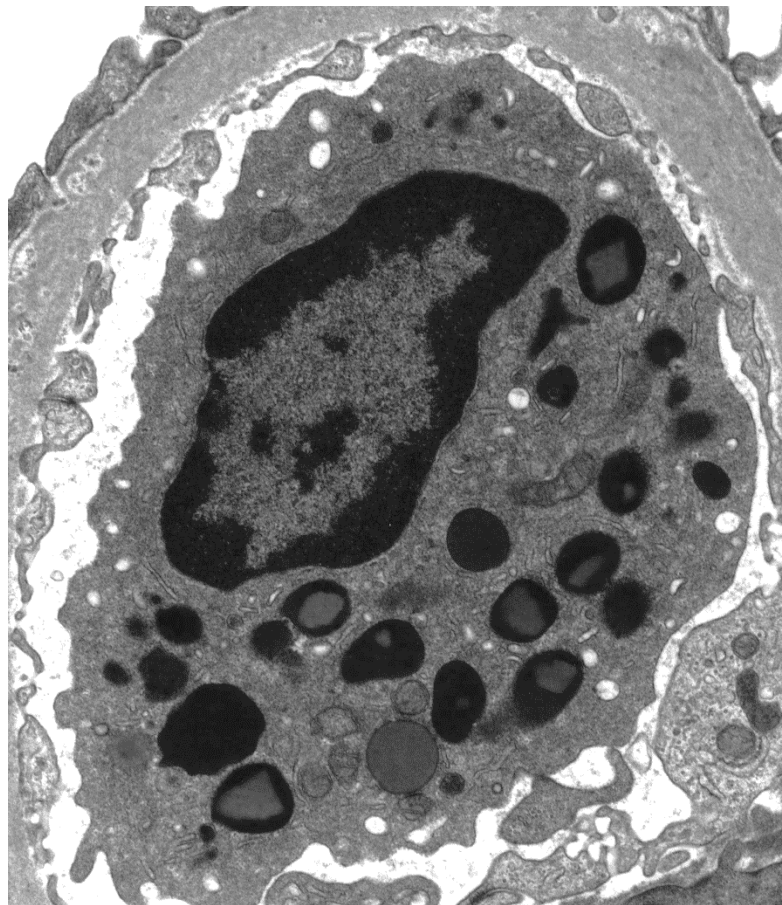
Base of renal proximal
convoluted tubular
epithelial cell



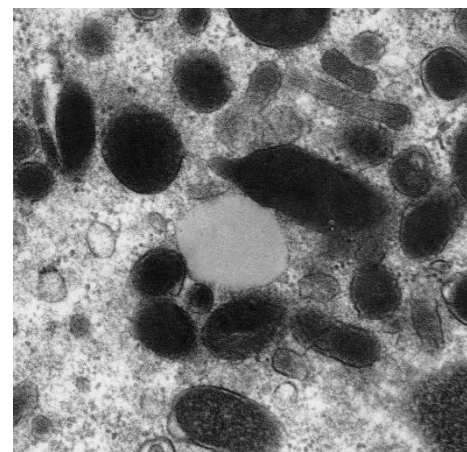
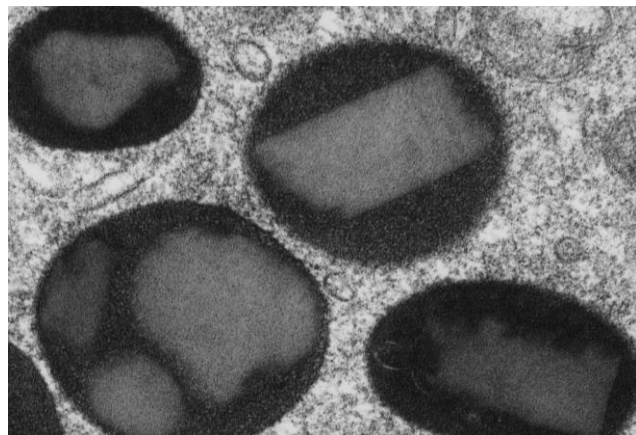
Mitochondrion

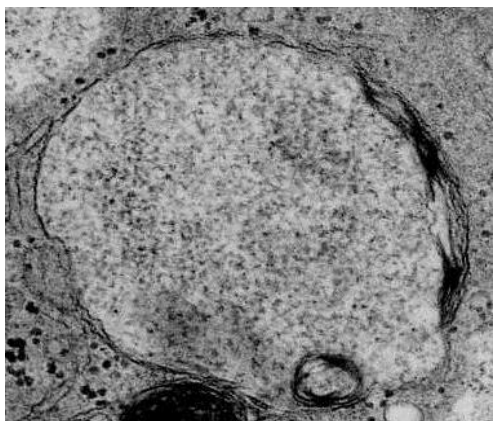
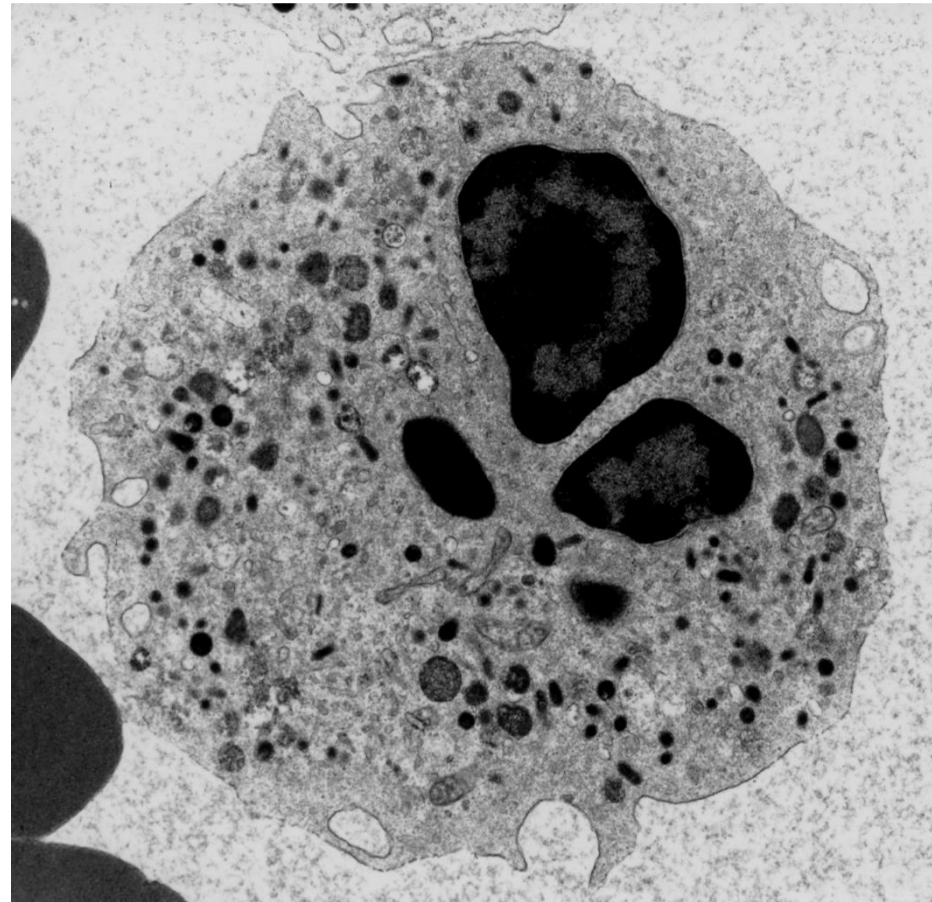
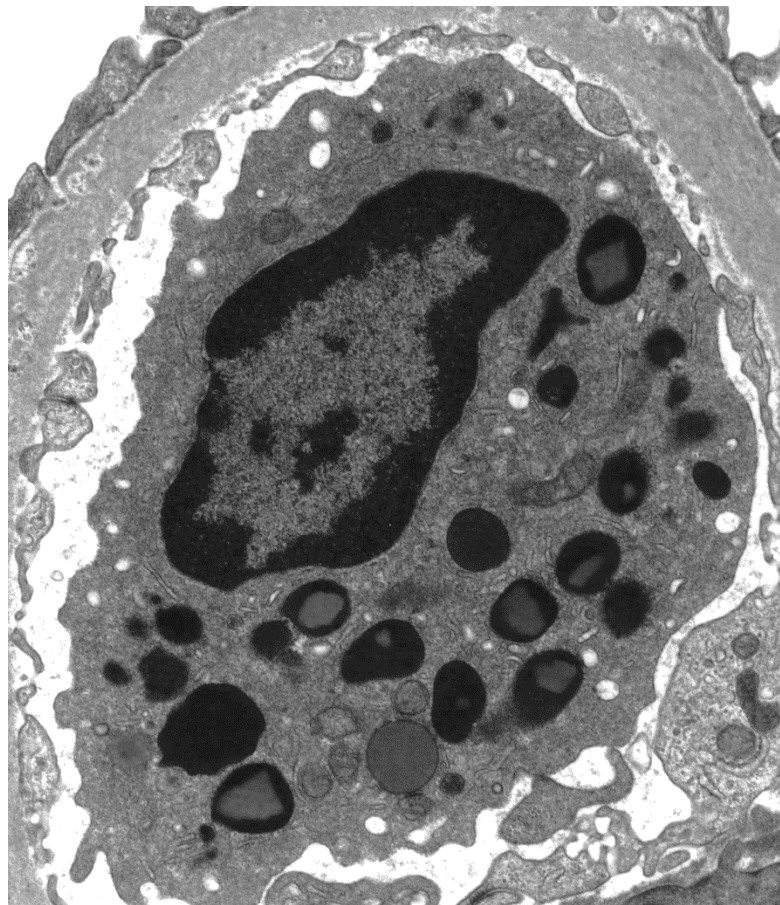
Peroxisome

Lysosome

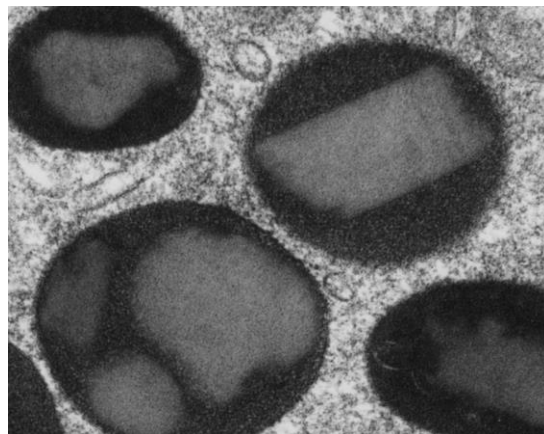


What are
these cells?

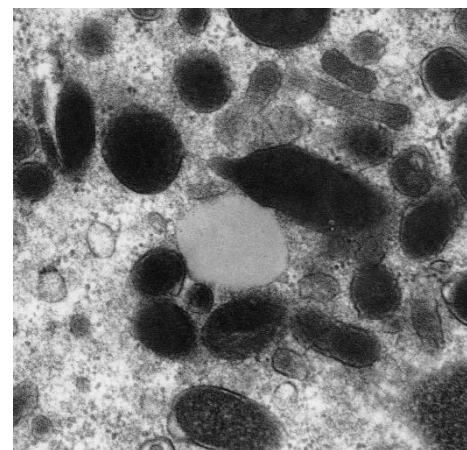




Basophil

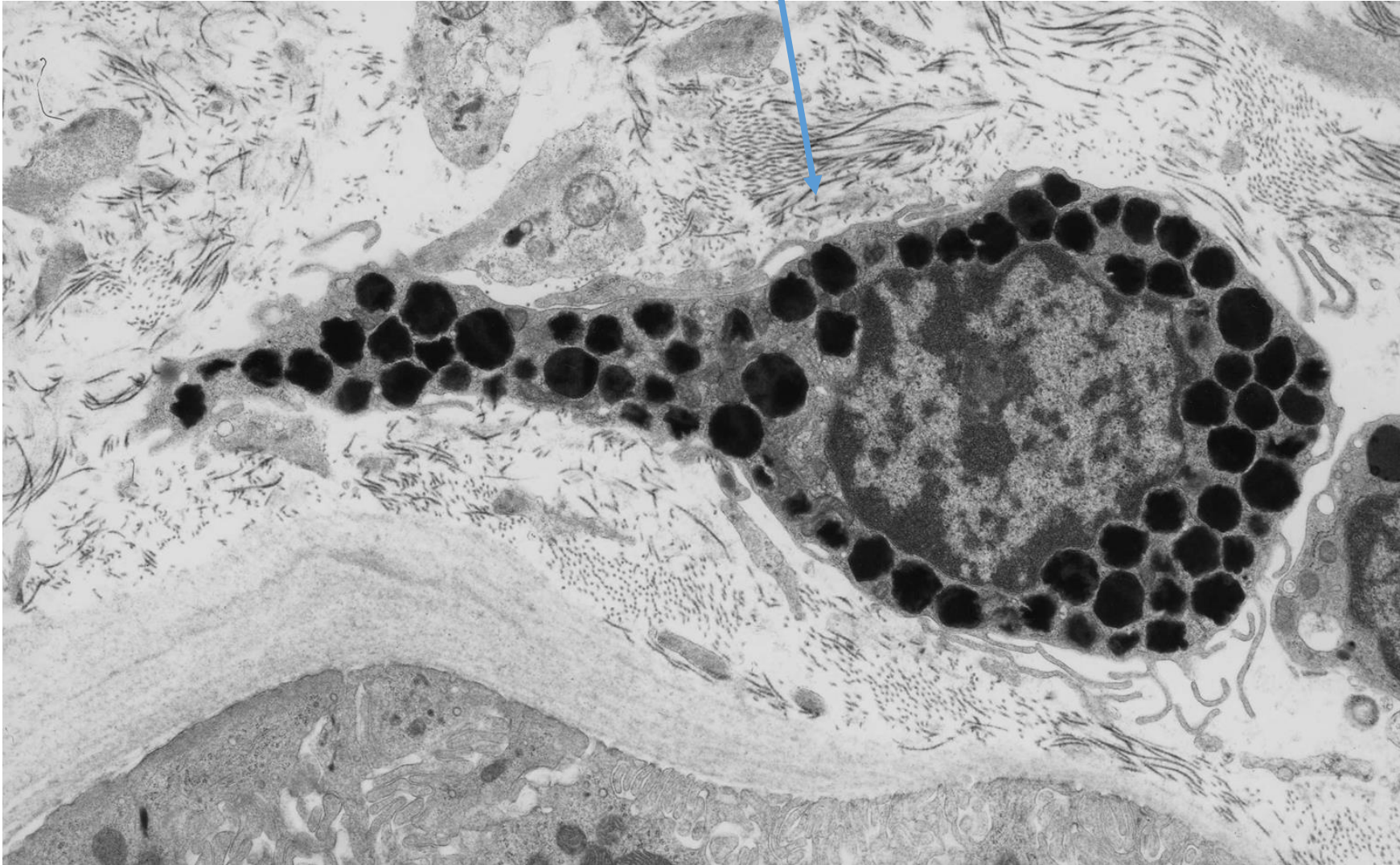


Eosinophil

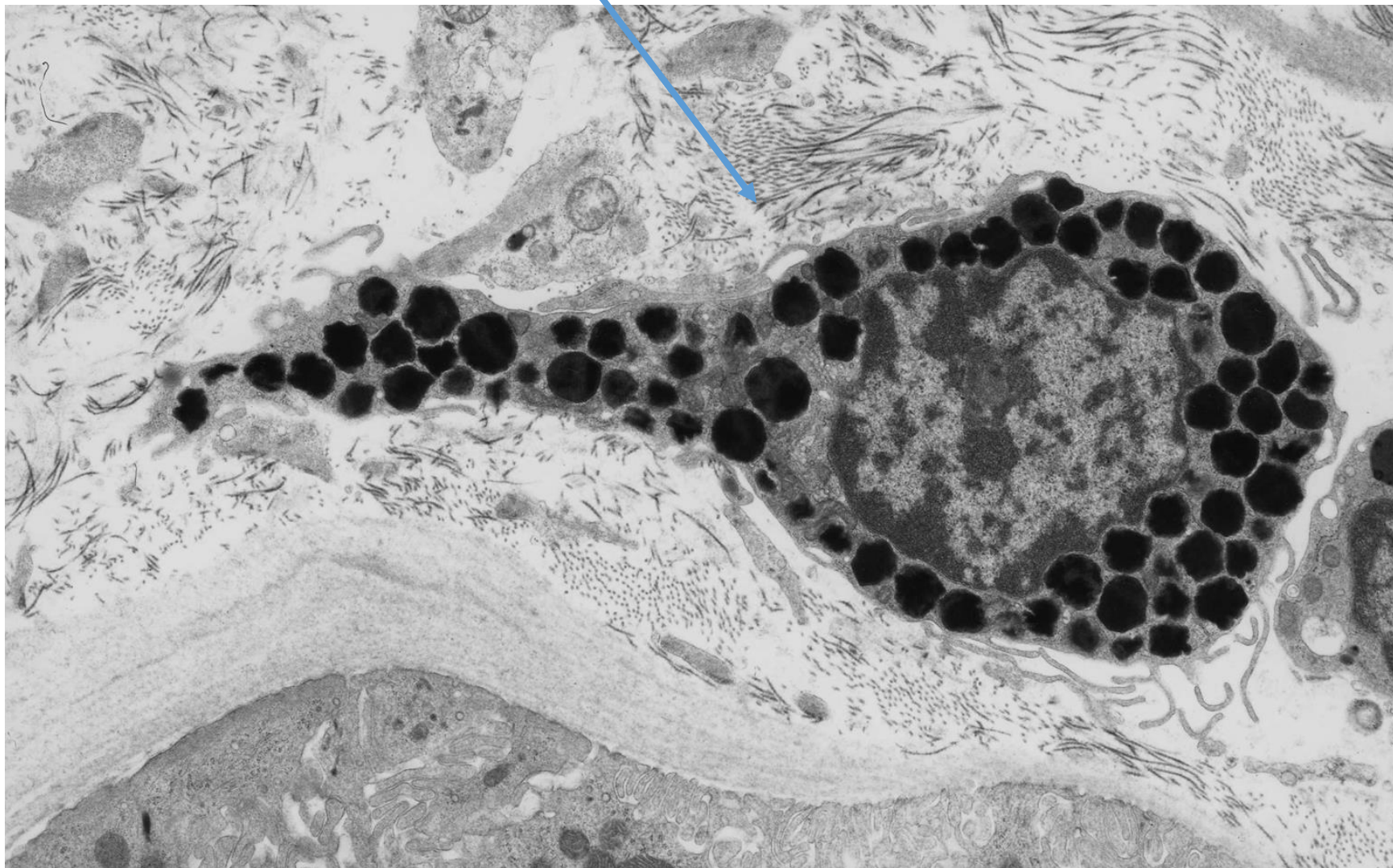


Neutrophil

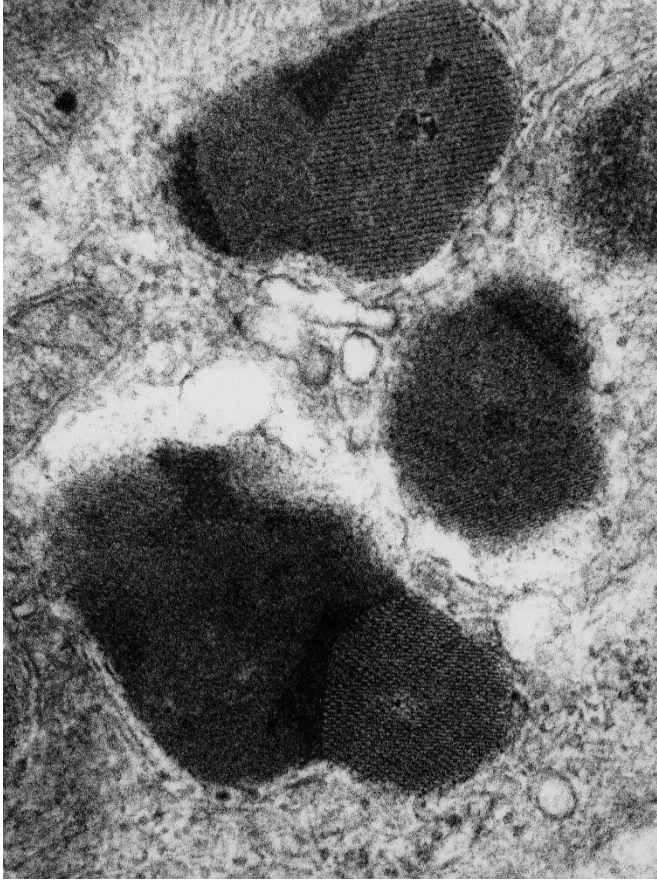
What is this cell?



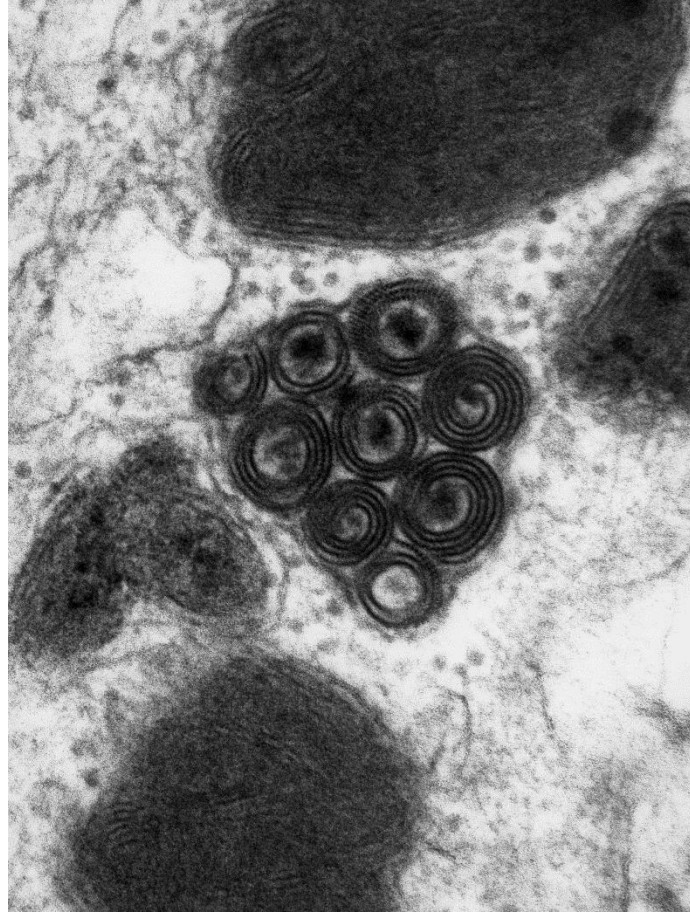
Mast cell



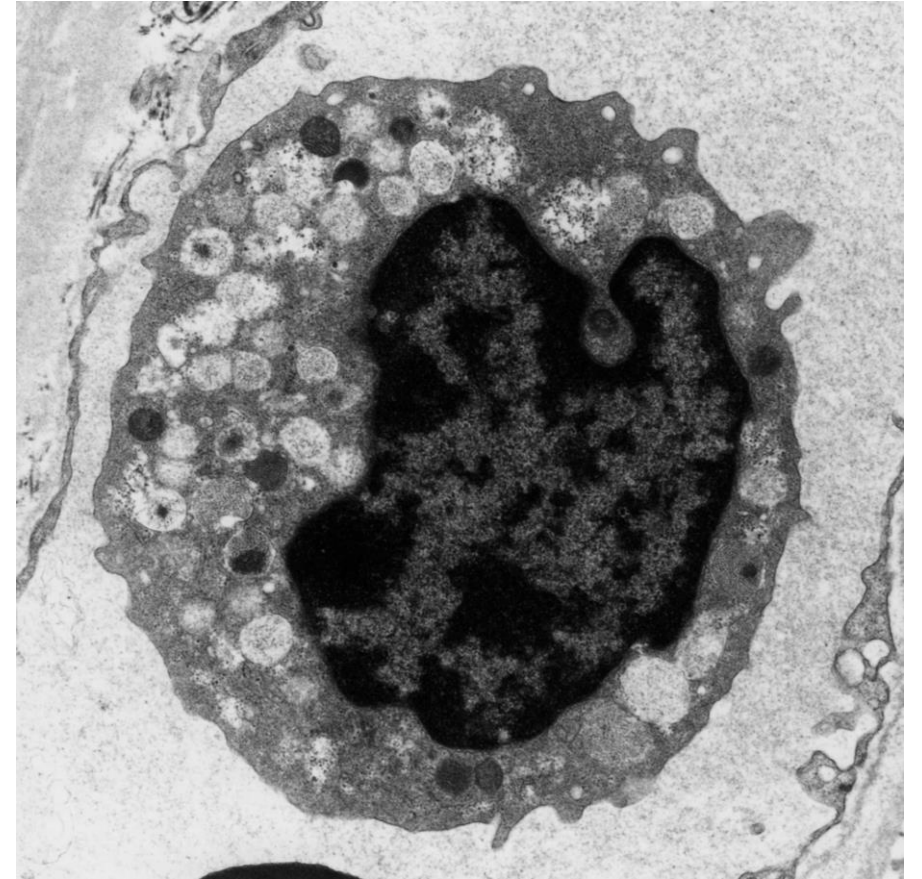
Mast cell granules



From which tissue?

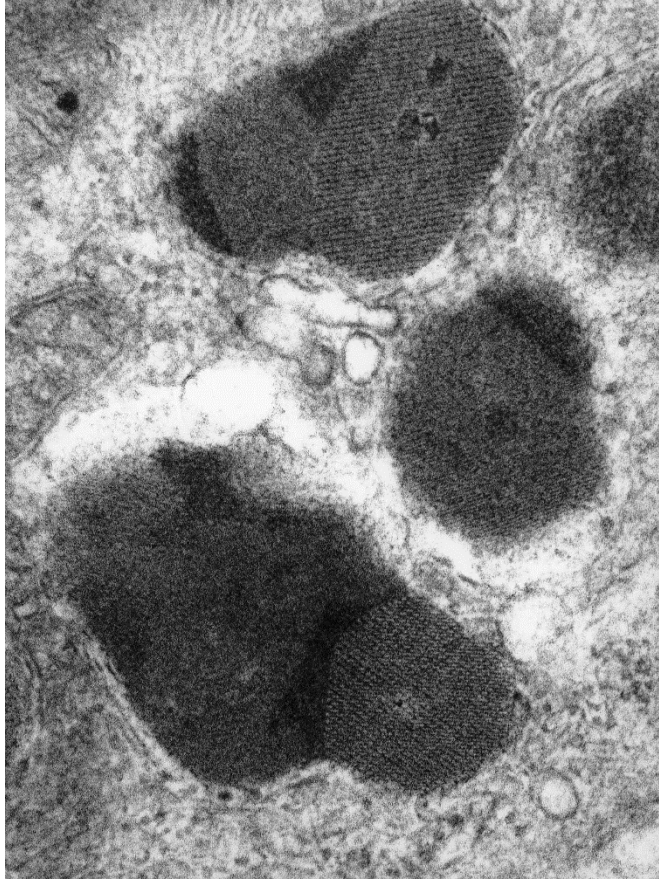


From which tissue?

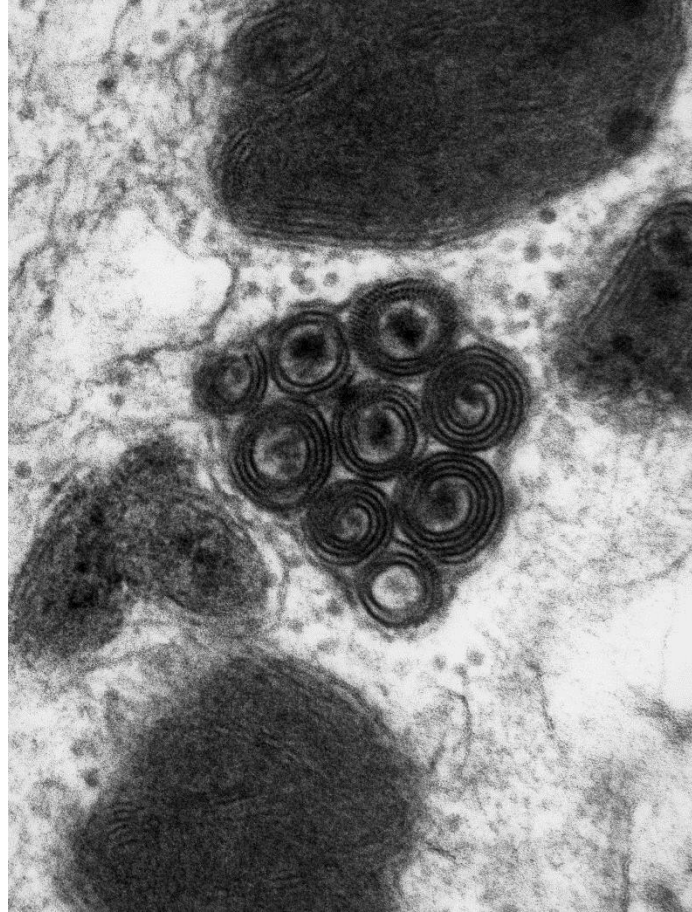


From which tissue?

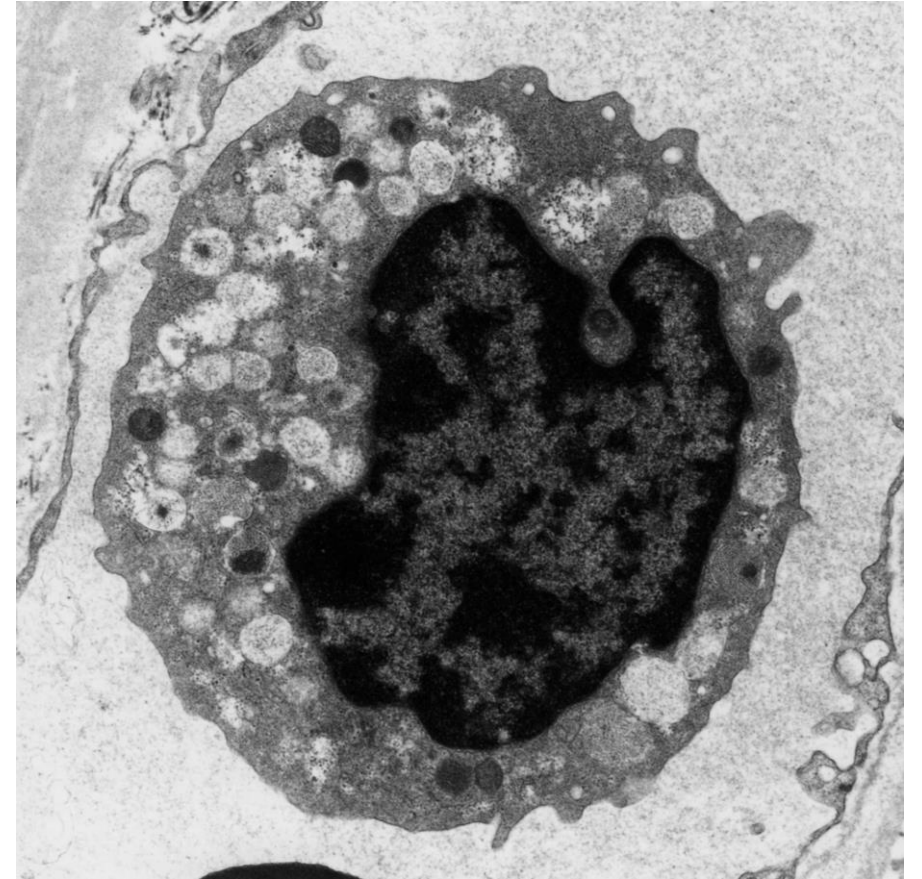
Mast cell granules



Skin

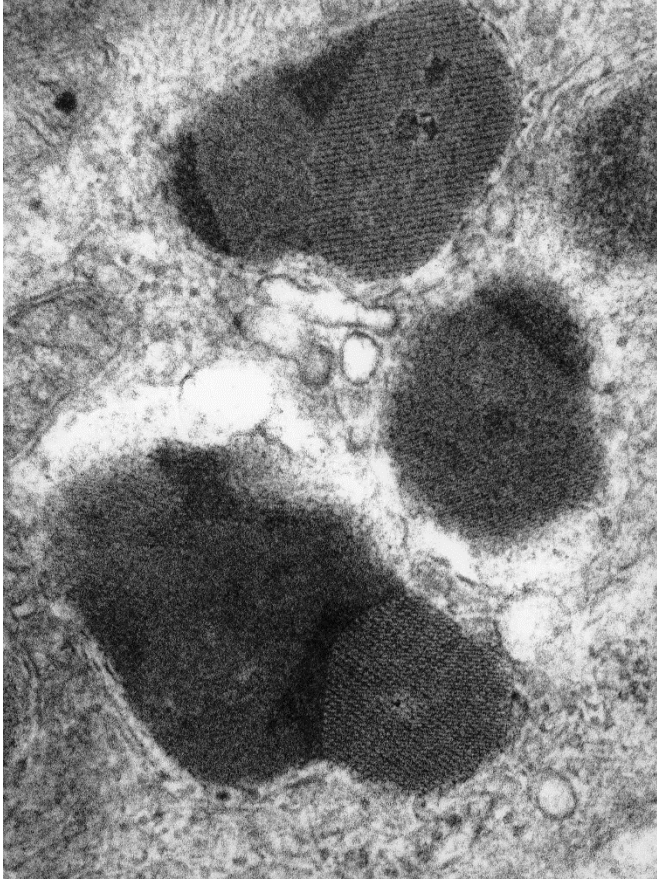


Stomach

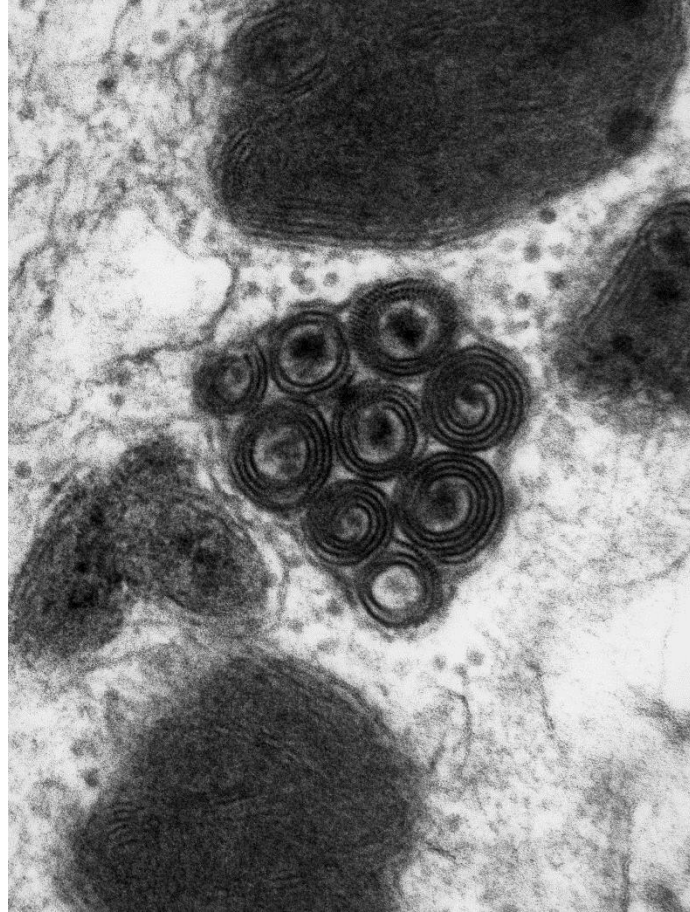


Blood

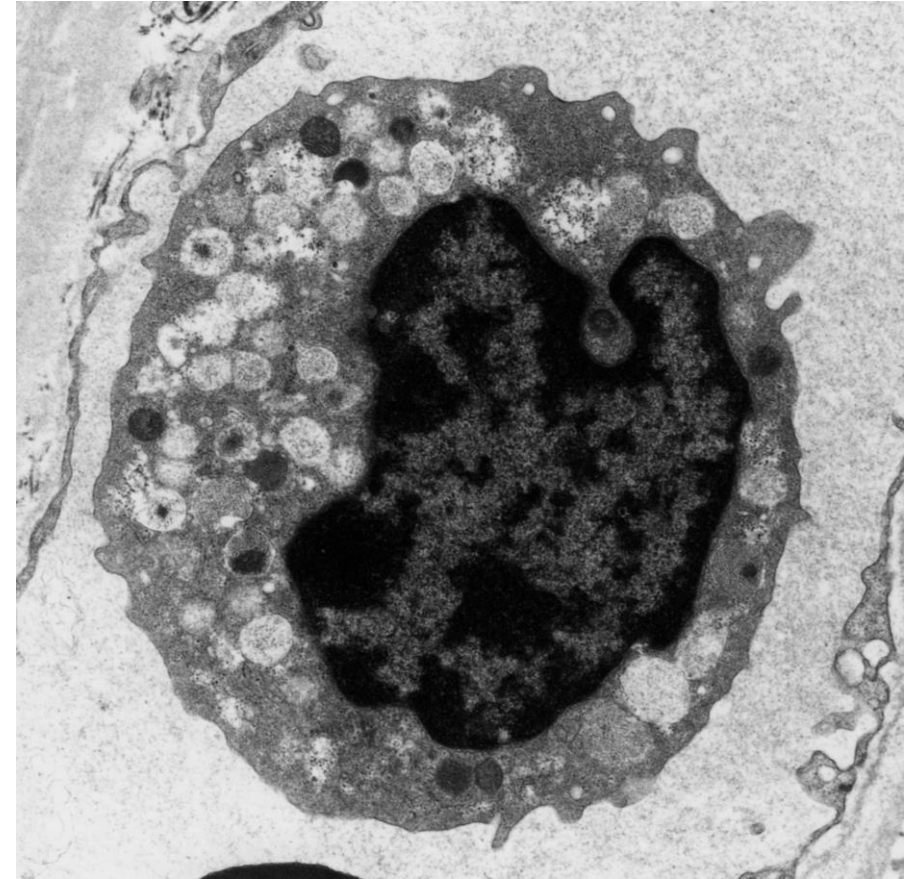
Mast cell granules



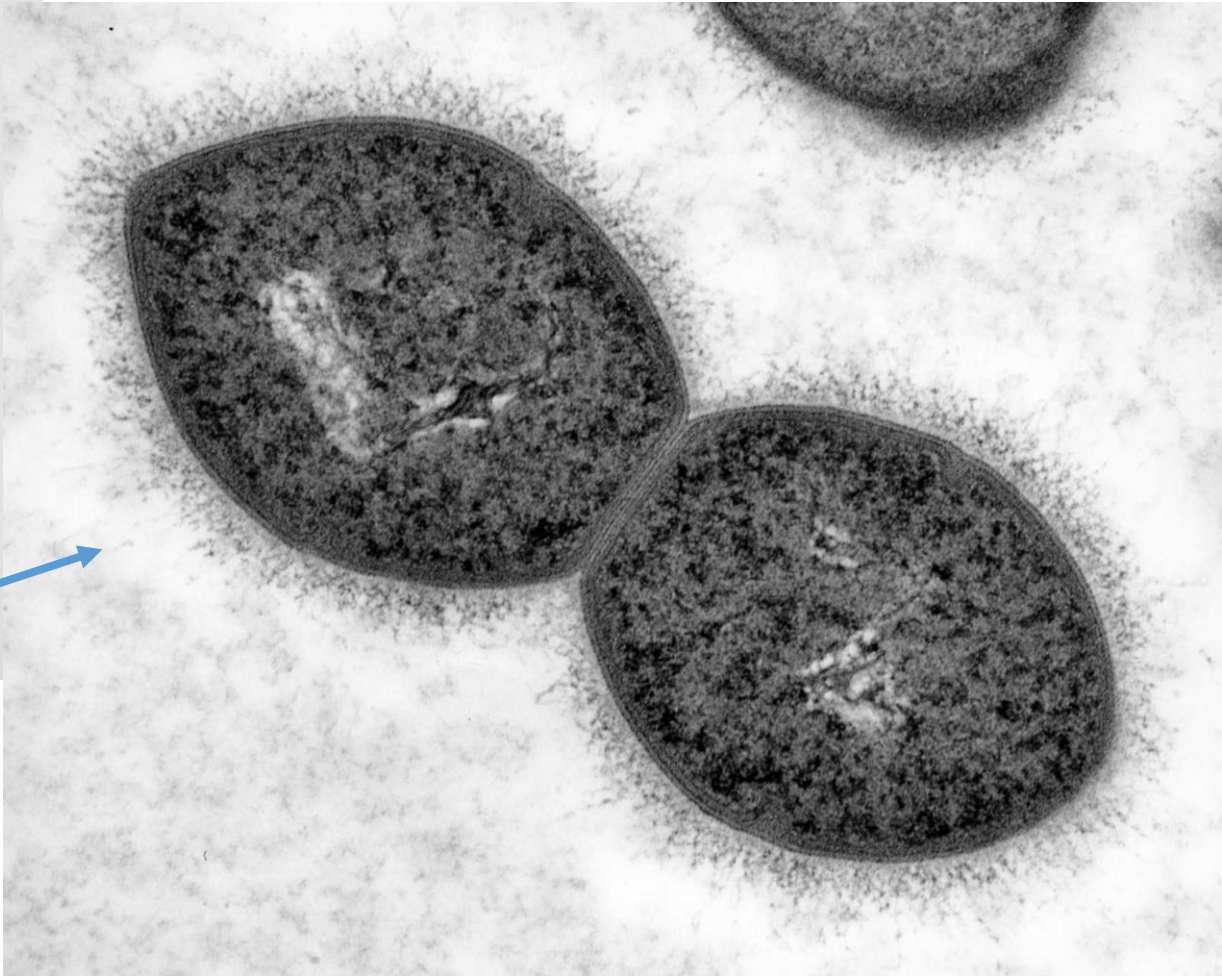
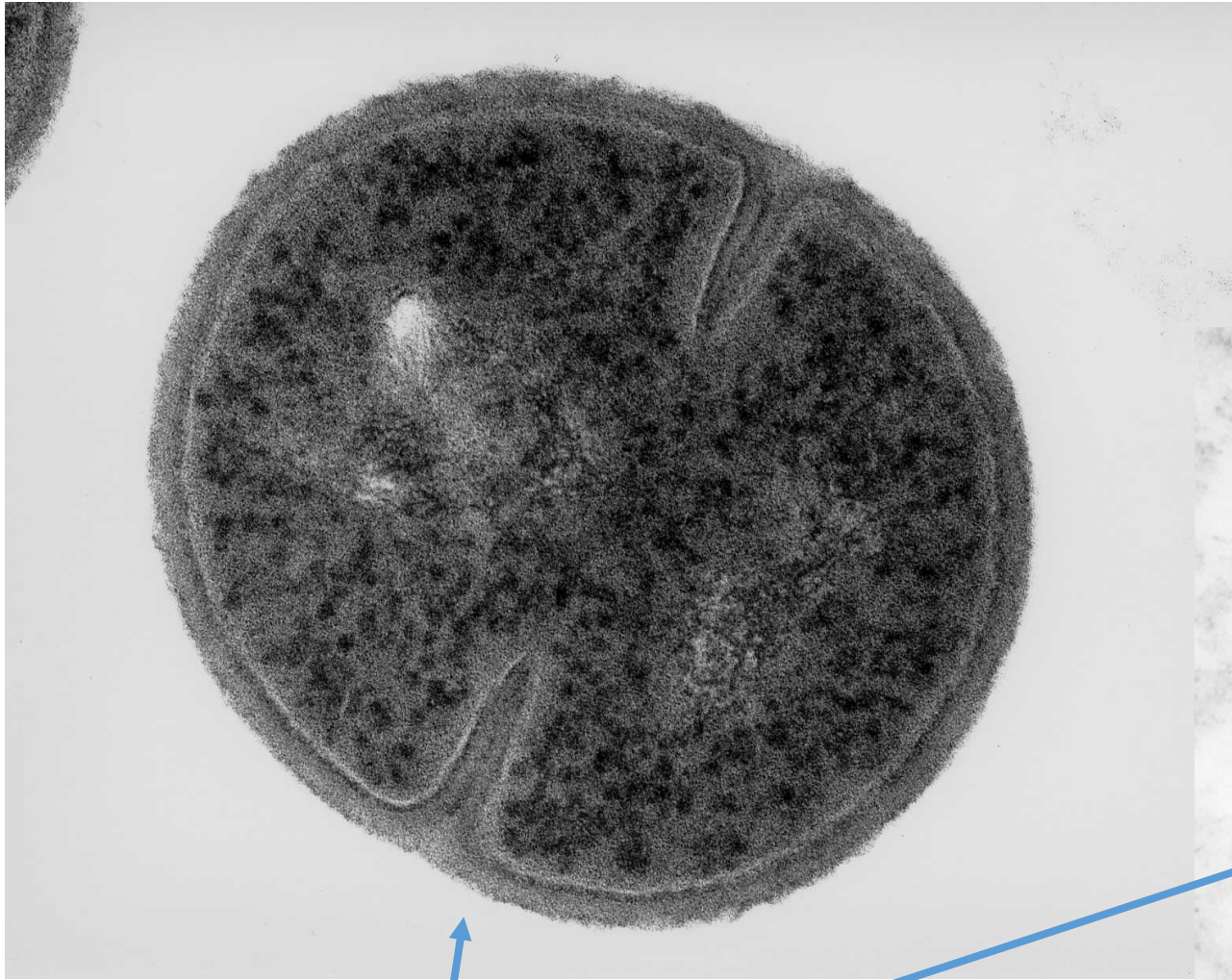
Skin MC (Tryptase Chymase)
& (Cathepsin G, Carboxypeptidase)



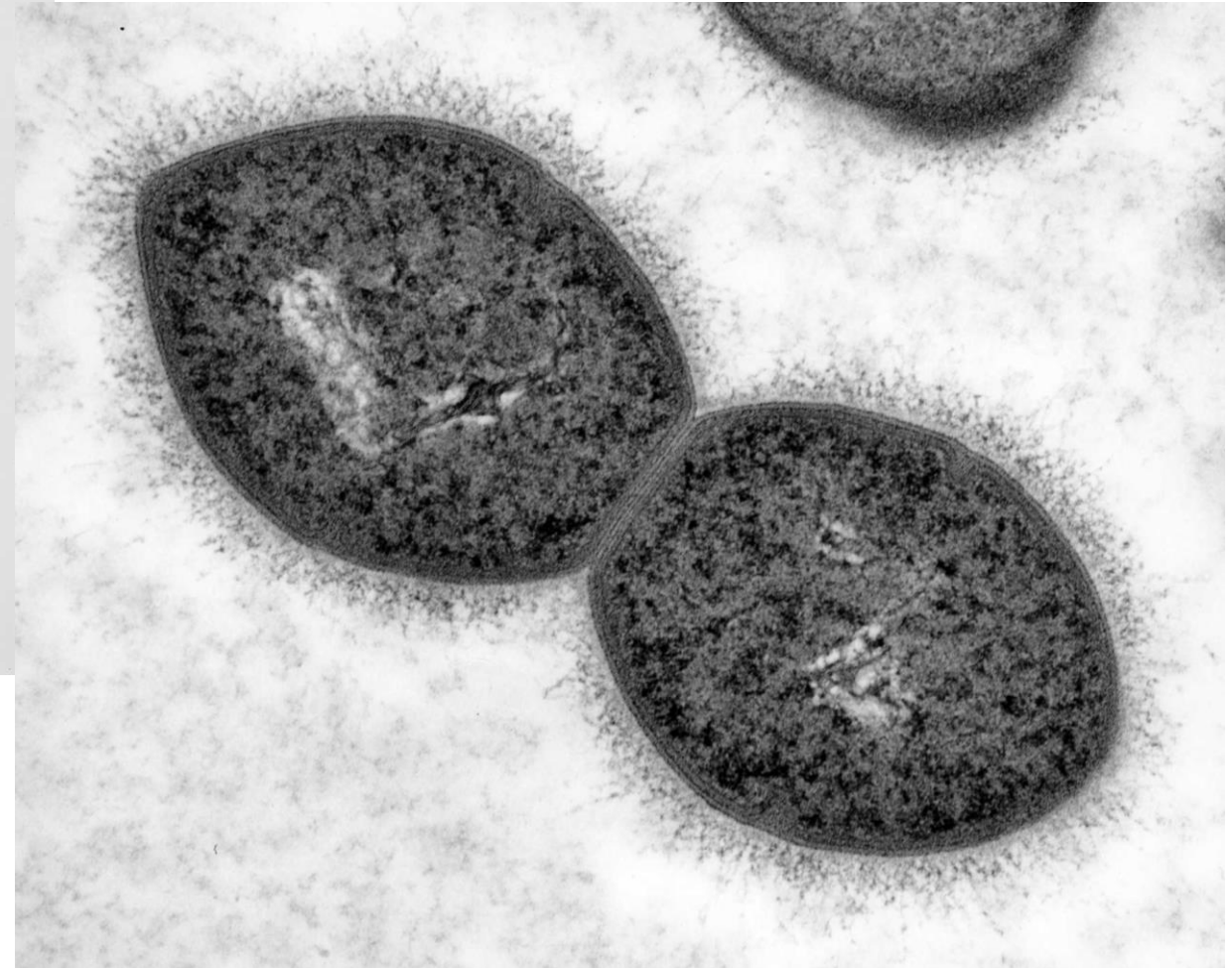
Stomach MC (Tryptase)



Blood (Immature)



What are these?

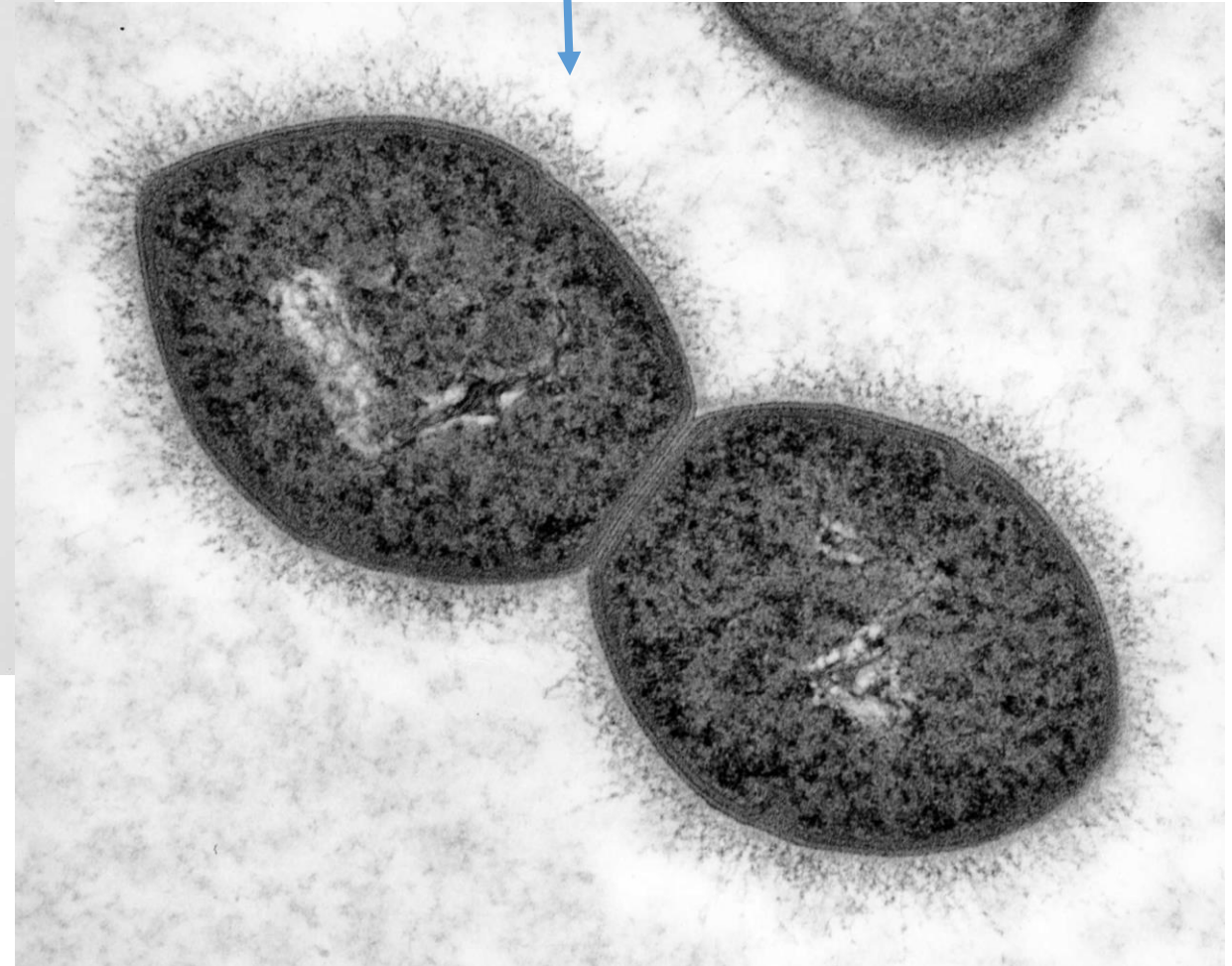


Bacteria.

They are both of the same type.
Can you tell which?



Which organism?



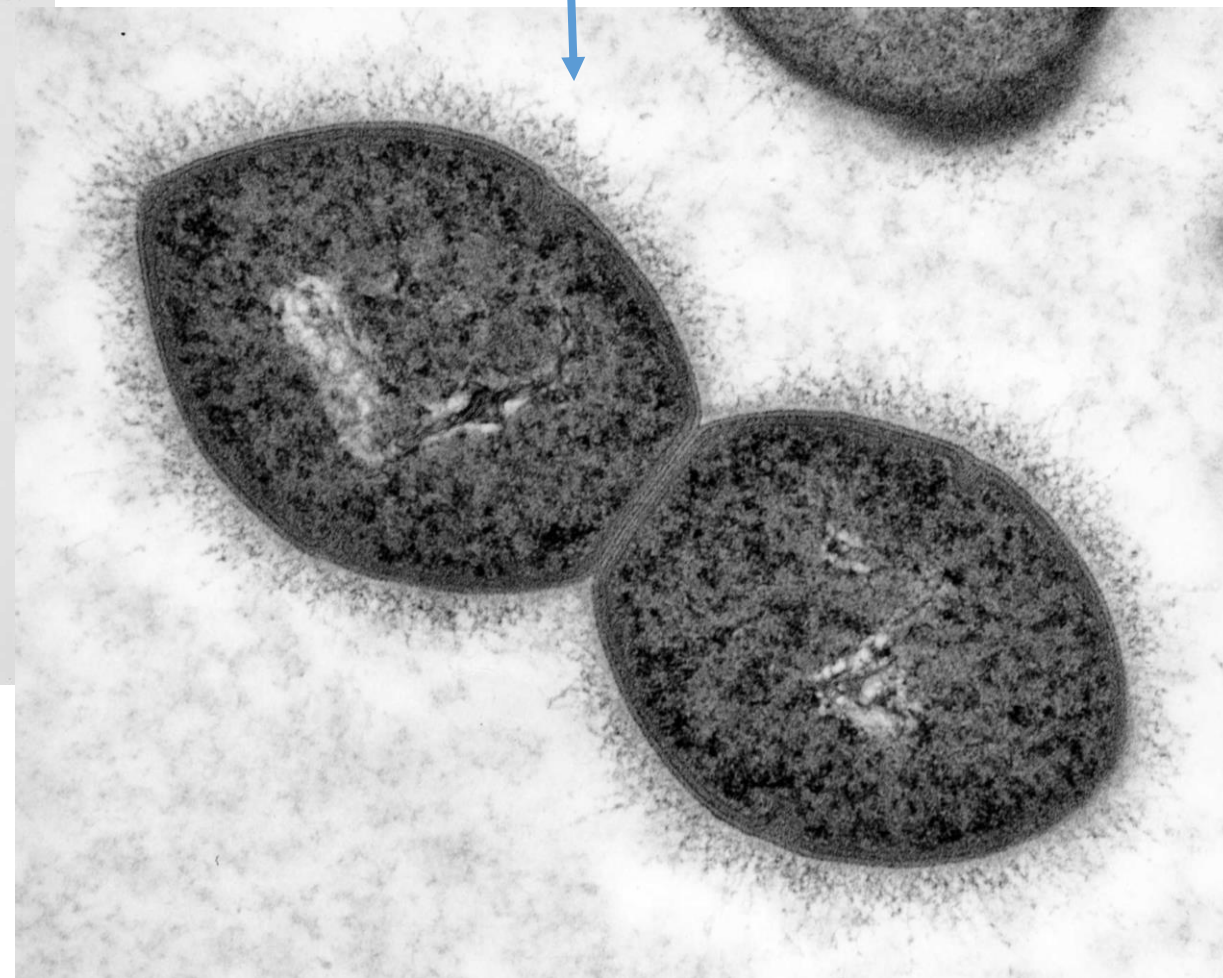
Which organism?

Bacteria.

Gram positive.



Staphylococcus aureus



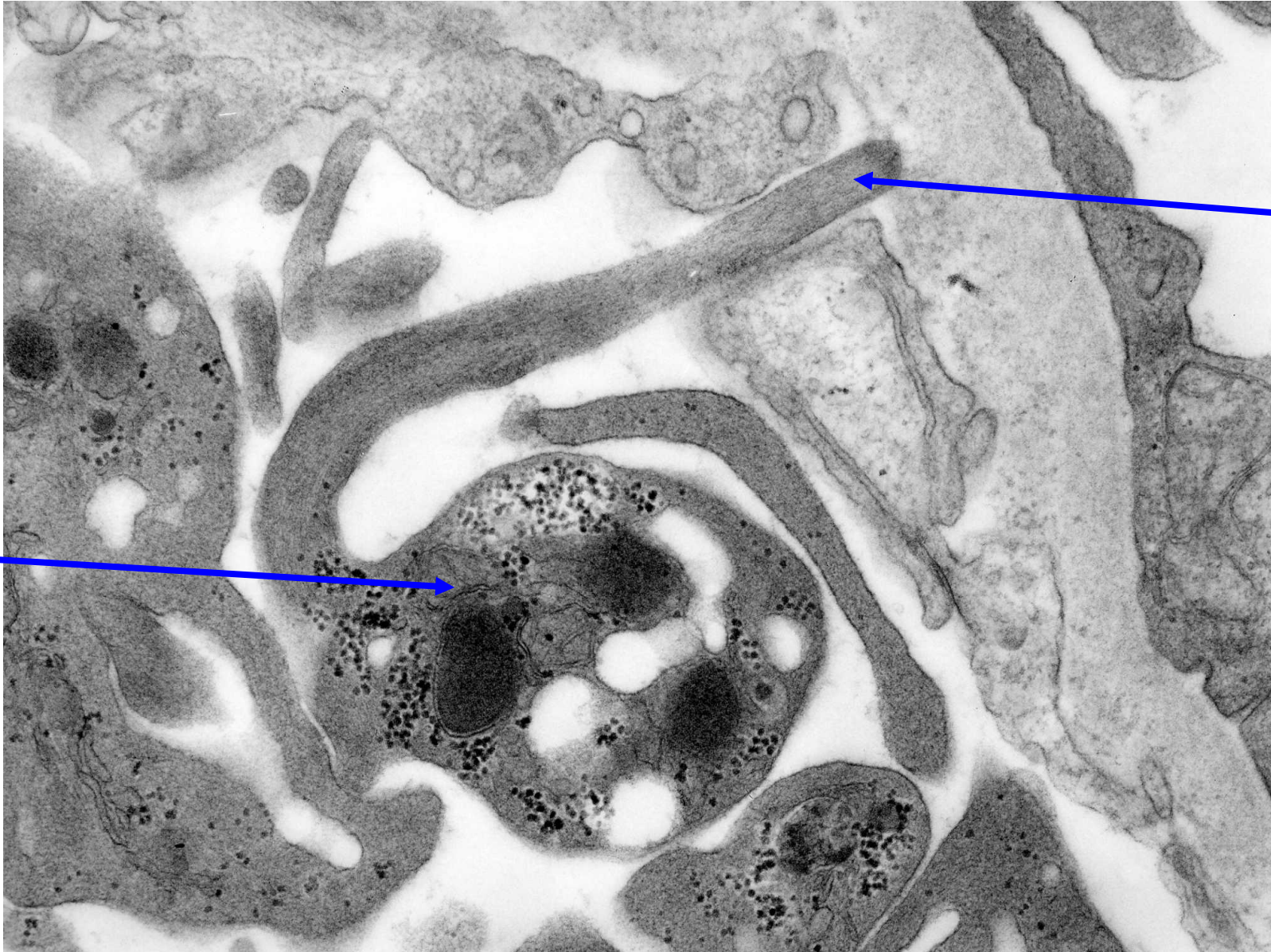
Streptococcus pneumoniae

Bacteria. Grown in vitro.

Gram positive.

Glomerular
capillary loop

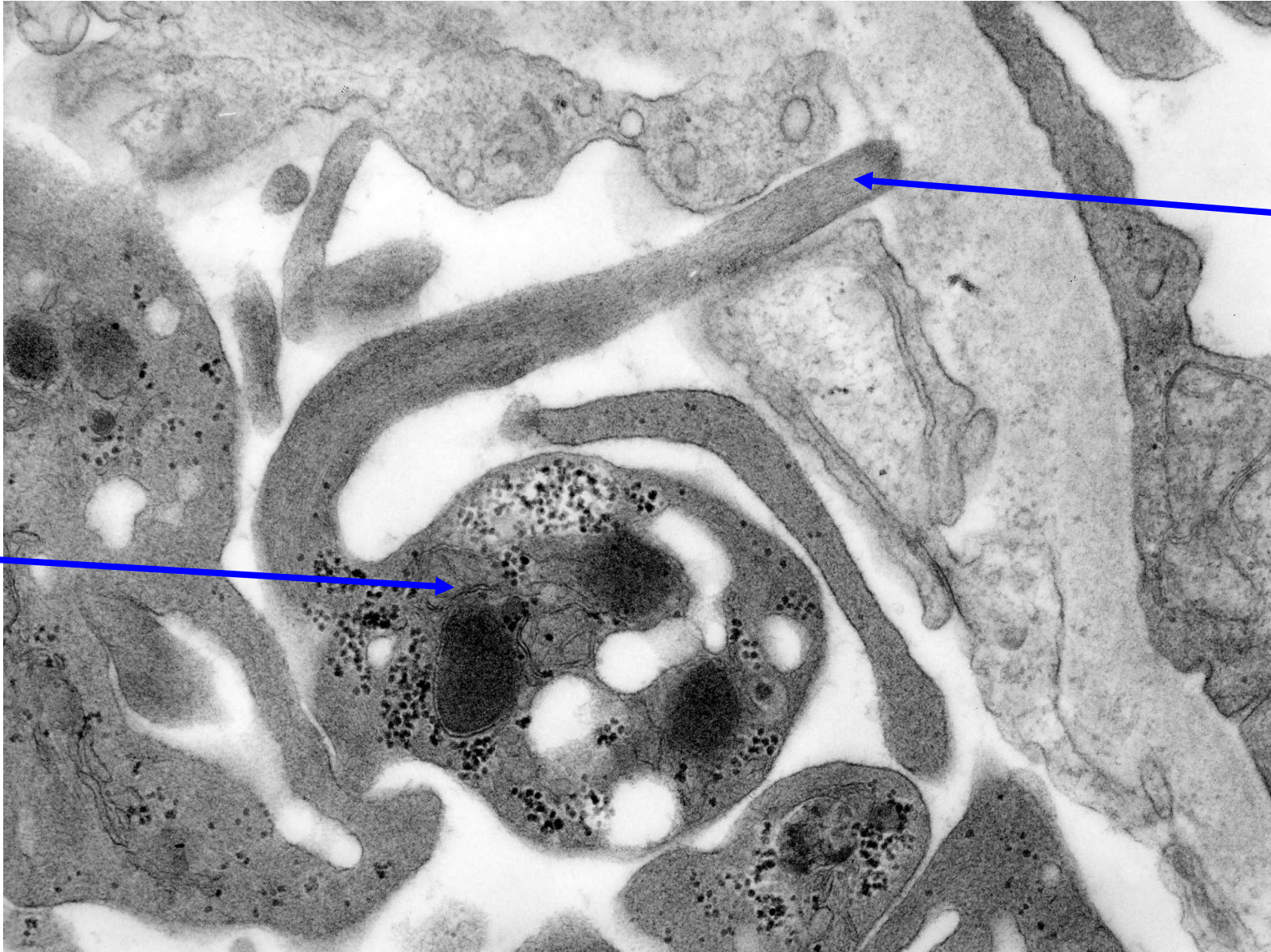
What is
this cell?



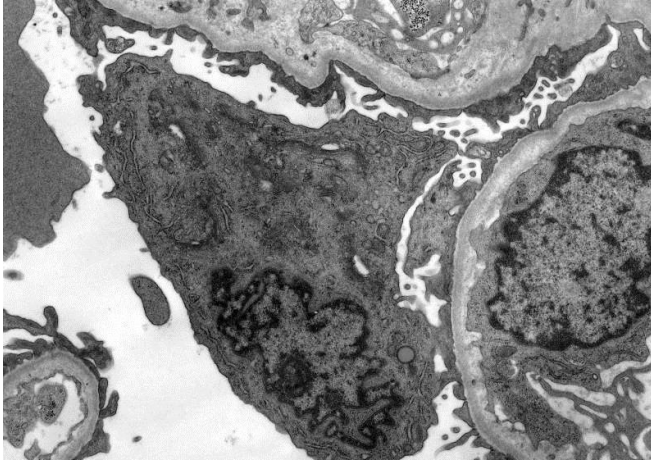
What is this
part called?

Glomerular
capillary loop

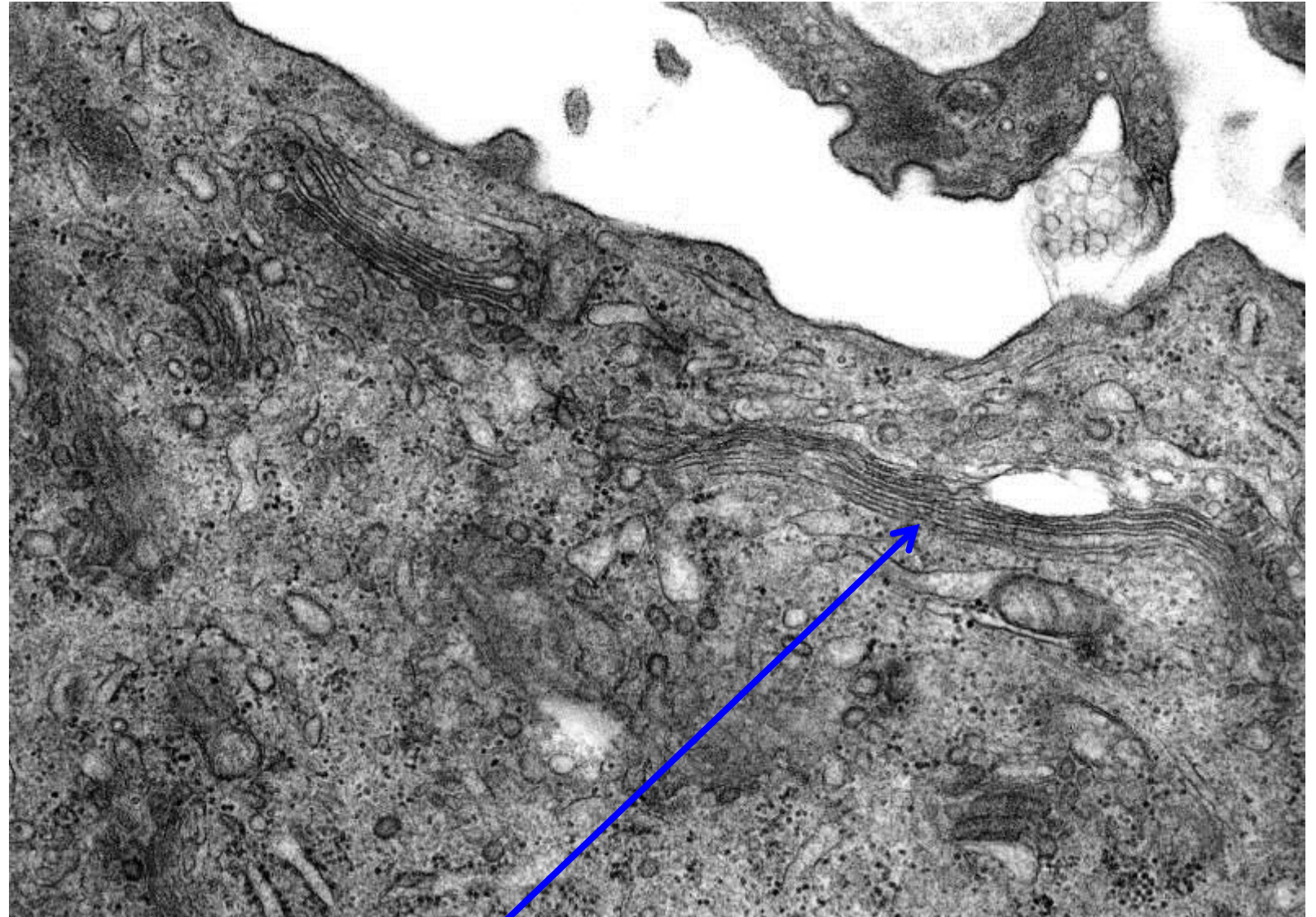
Platelet



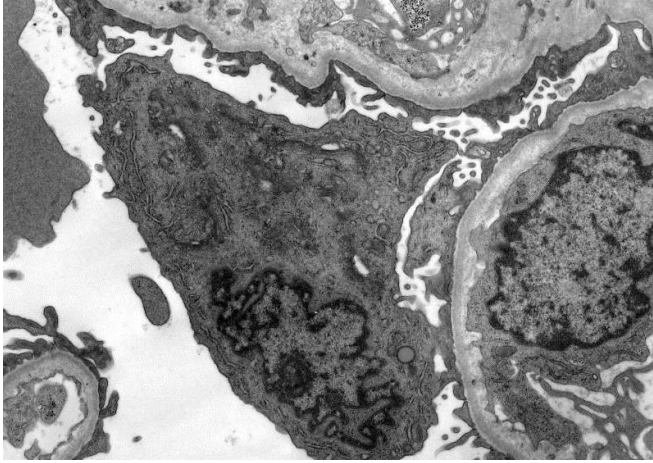
Pseudopodium



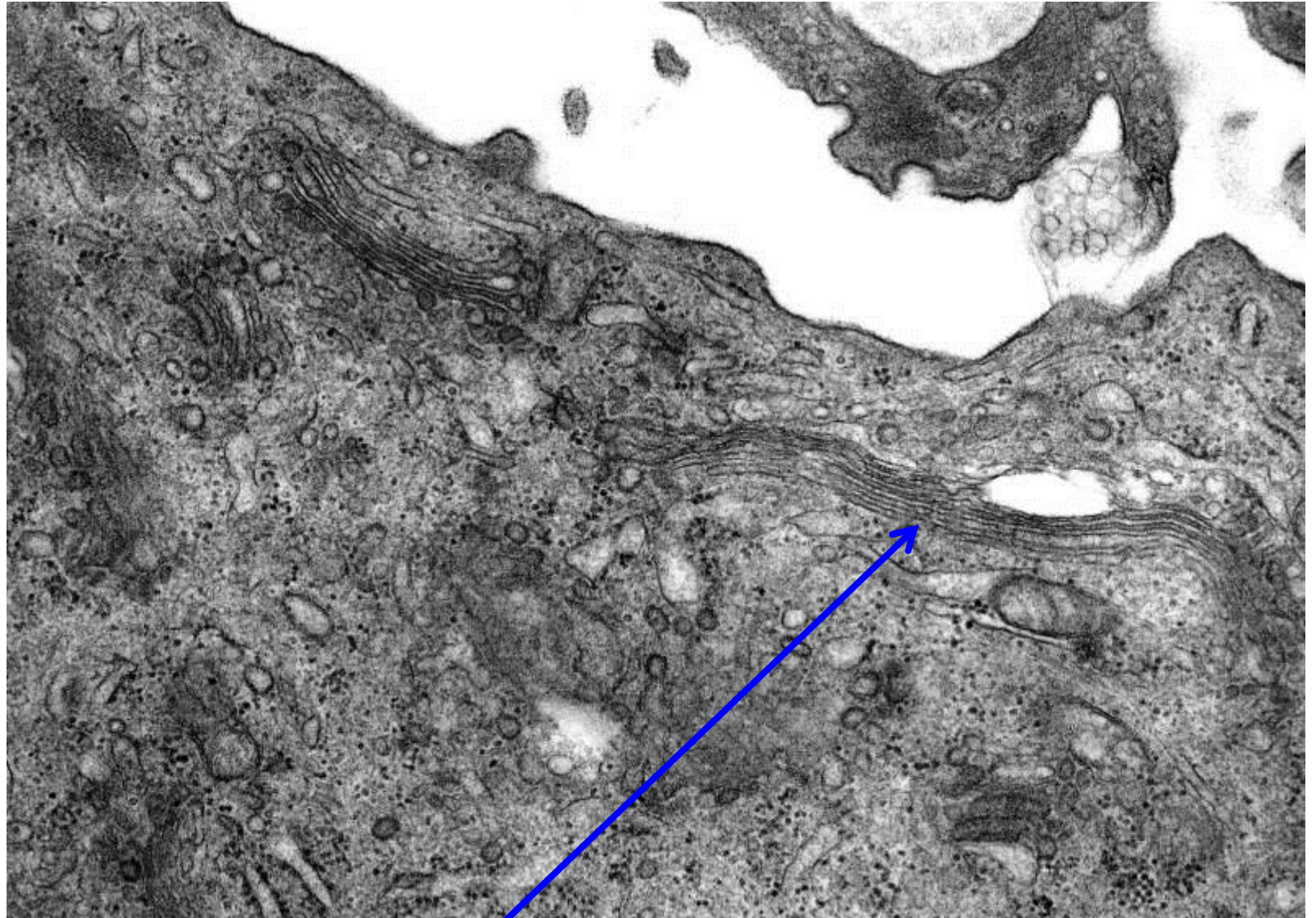
Podocyte



What organelle is this?



Podocyte



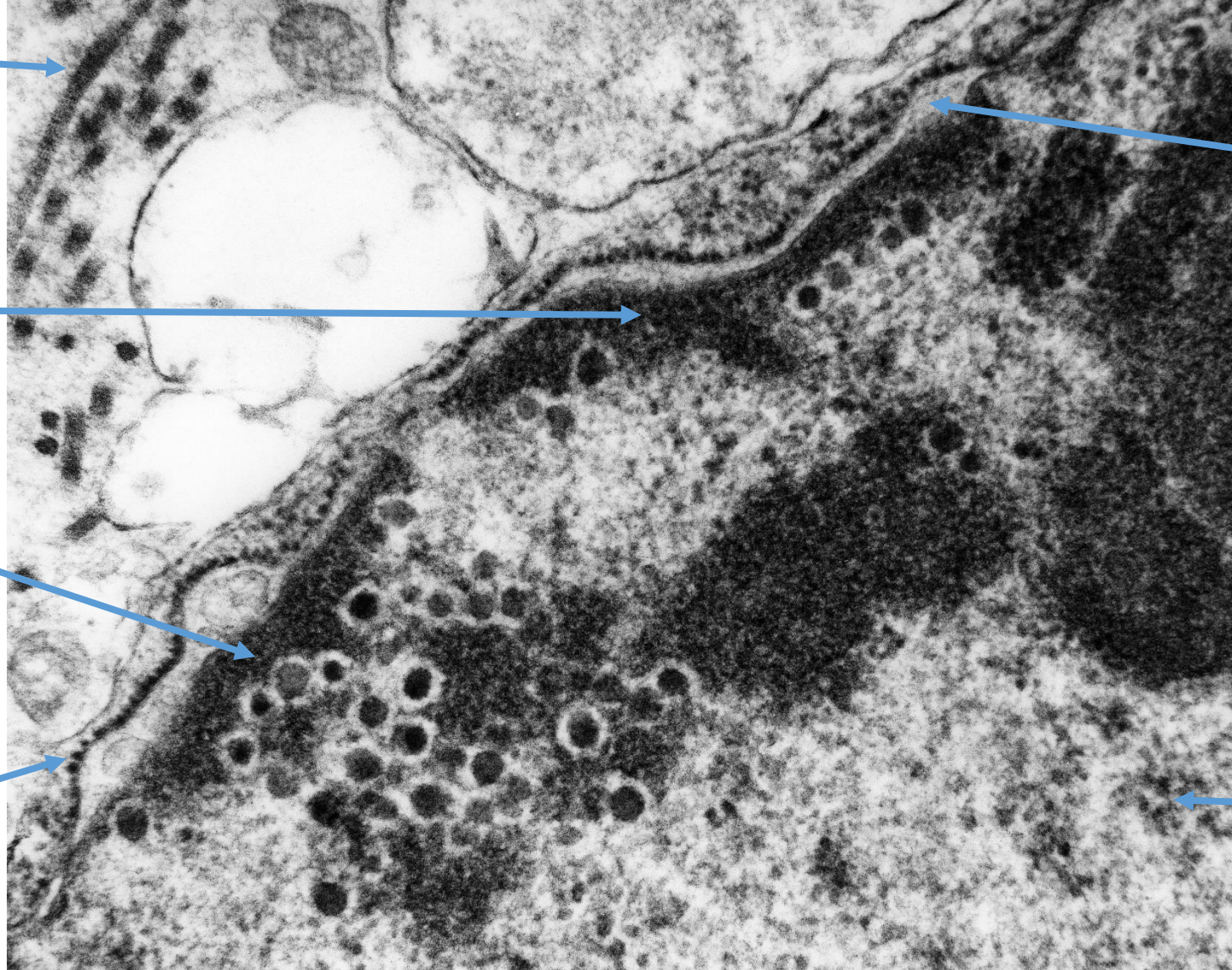
Golgi apparatus

What is this fibre made of?

What is this dense material called?

What are these round structures?

What are these small round structures?



What is this space called?

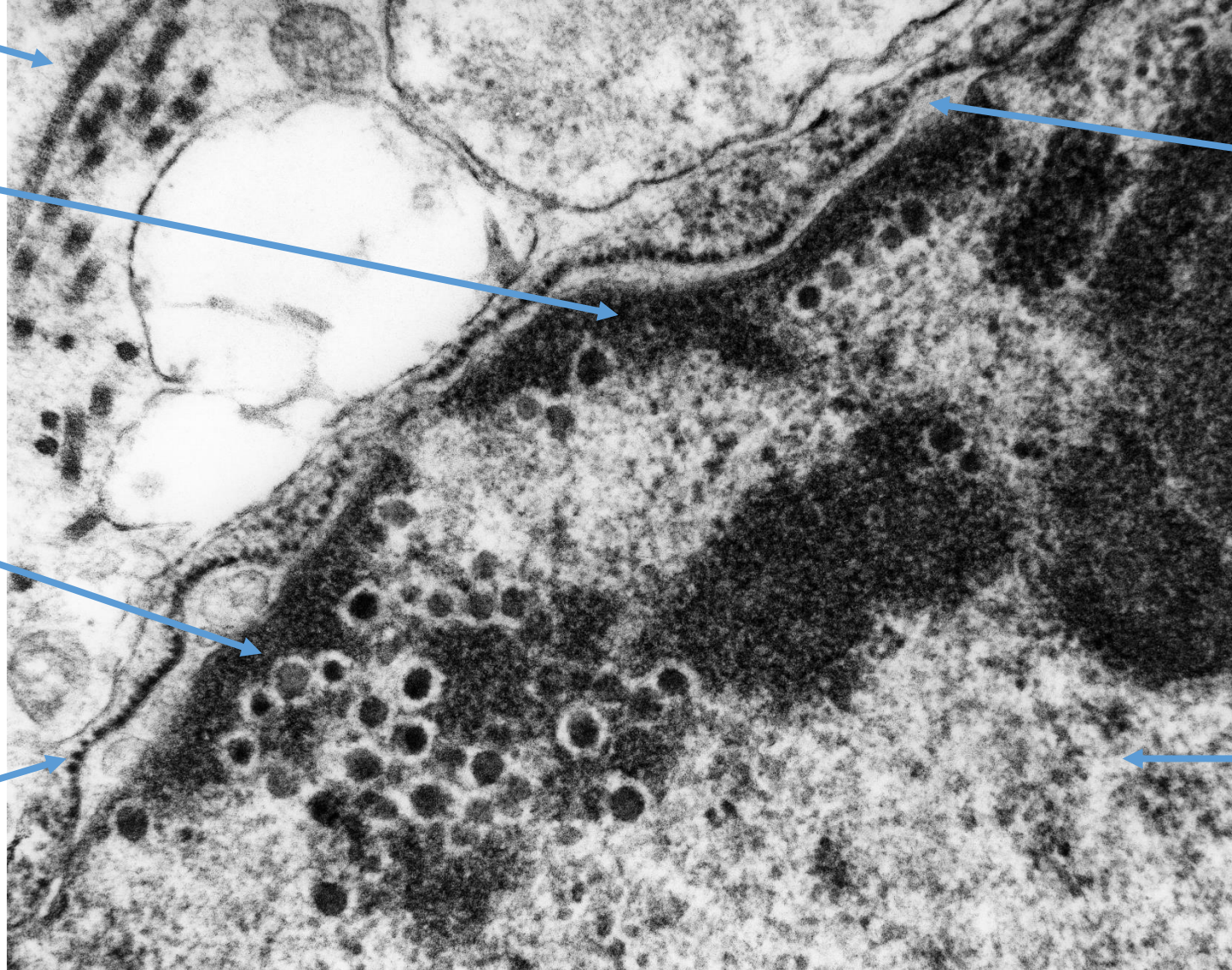
What is this loose material called?

Collagen

Hetrochromatin

Perichromatin
granules or
Messenger
RNA/nuclear
protein
complexes

Ribosomes

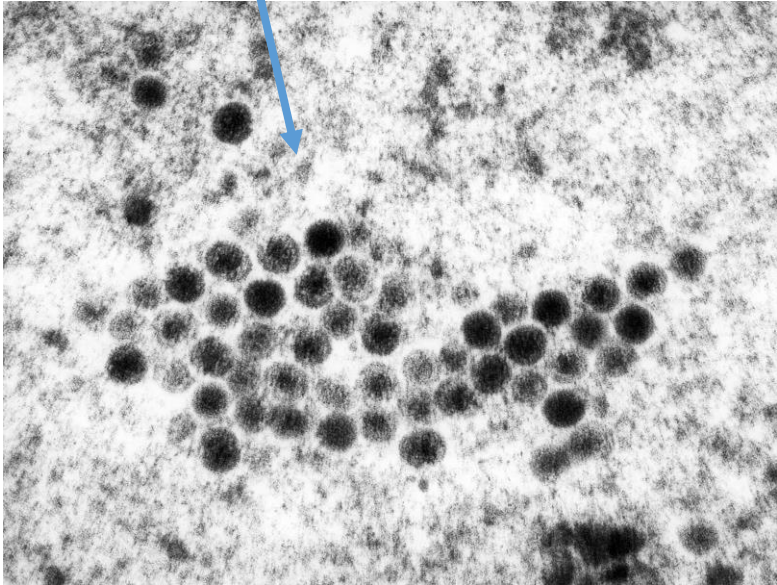
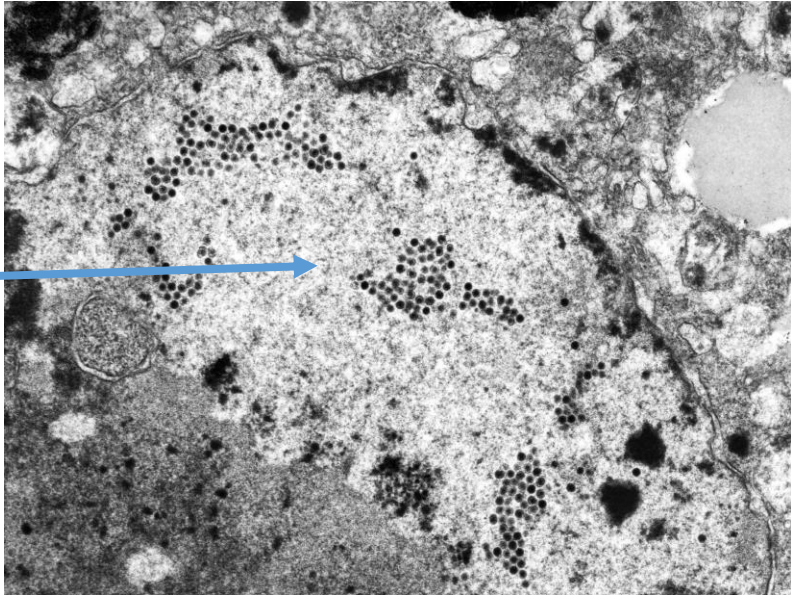


Nuclear
envelope

Euchromatin

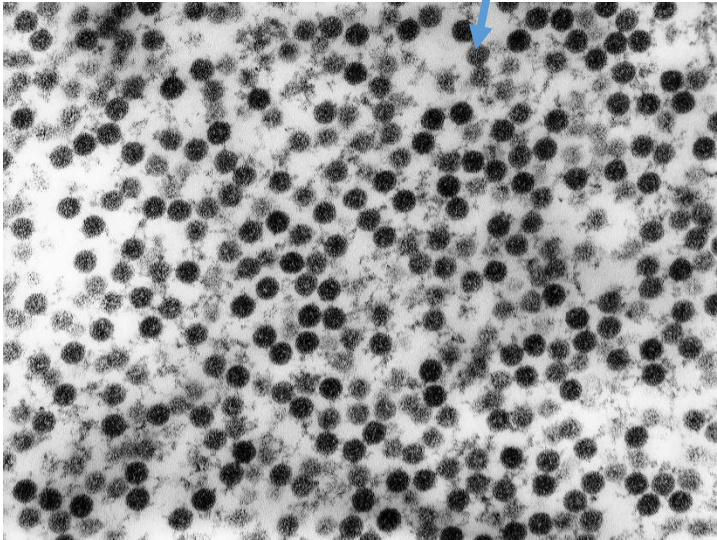
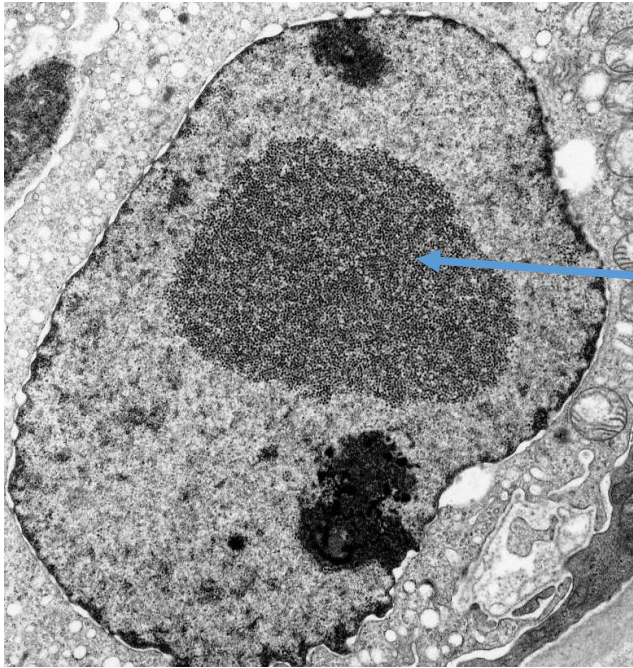
Liver biopsy

What are these likely to be?

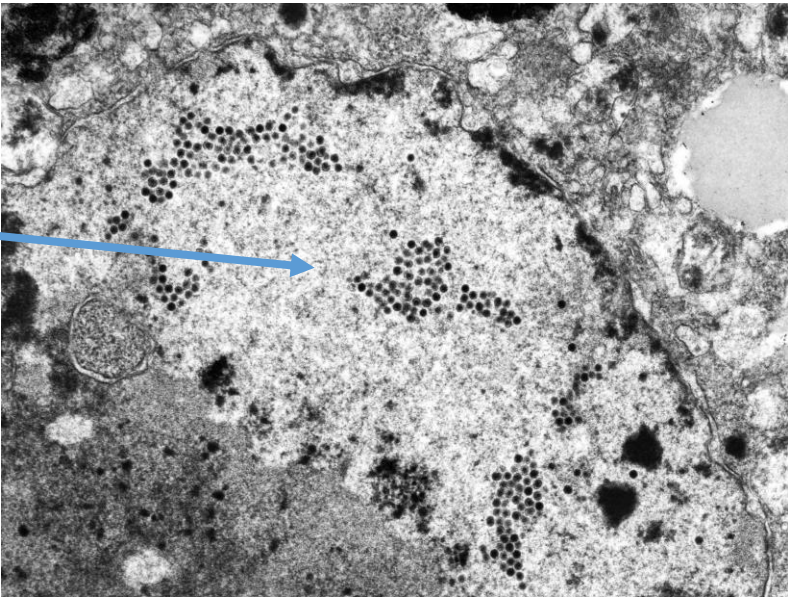


Renal biopsy

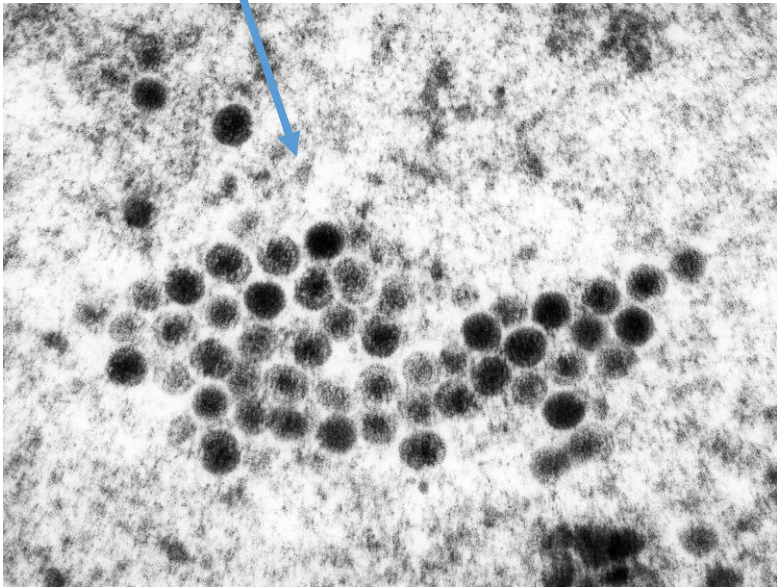
What are these likely to be?



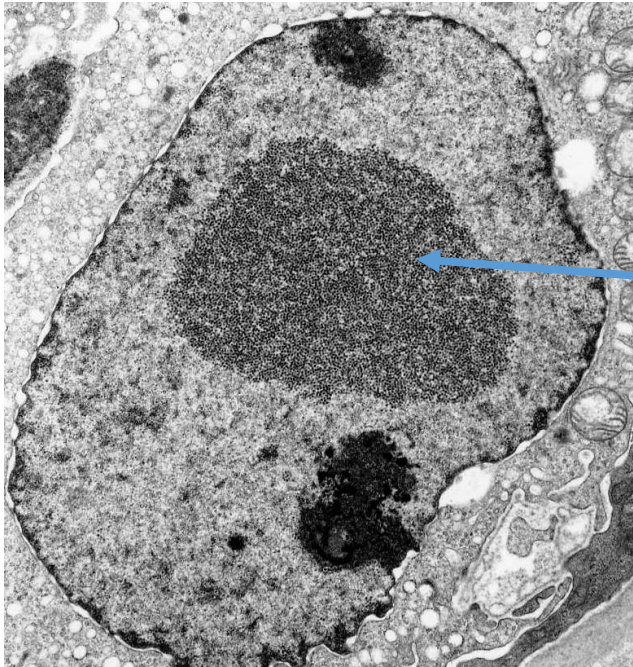
Liver biopsy



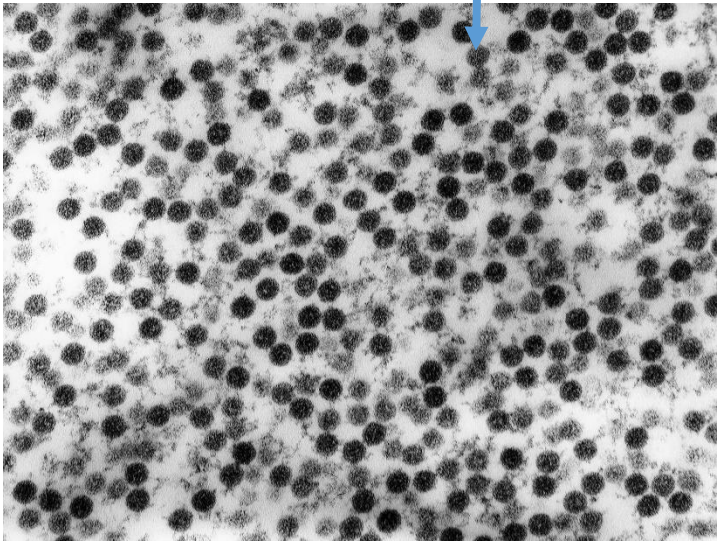
Adenovirus

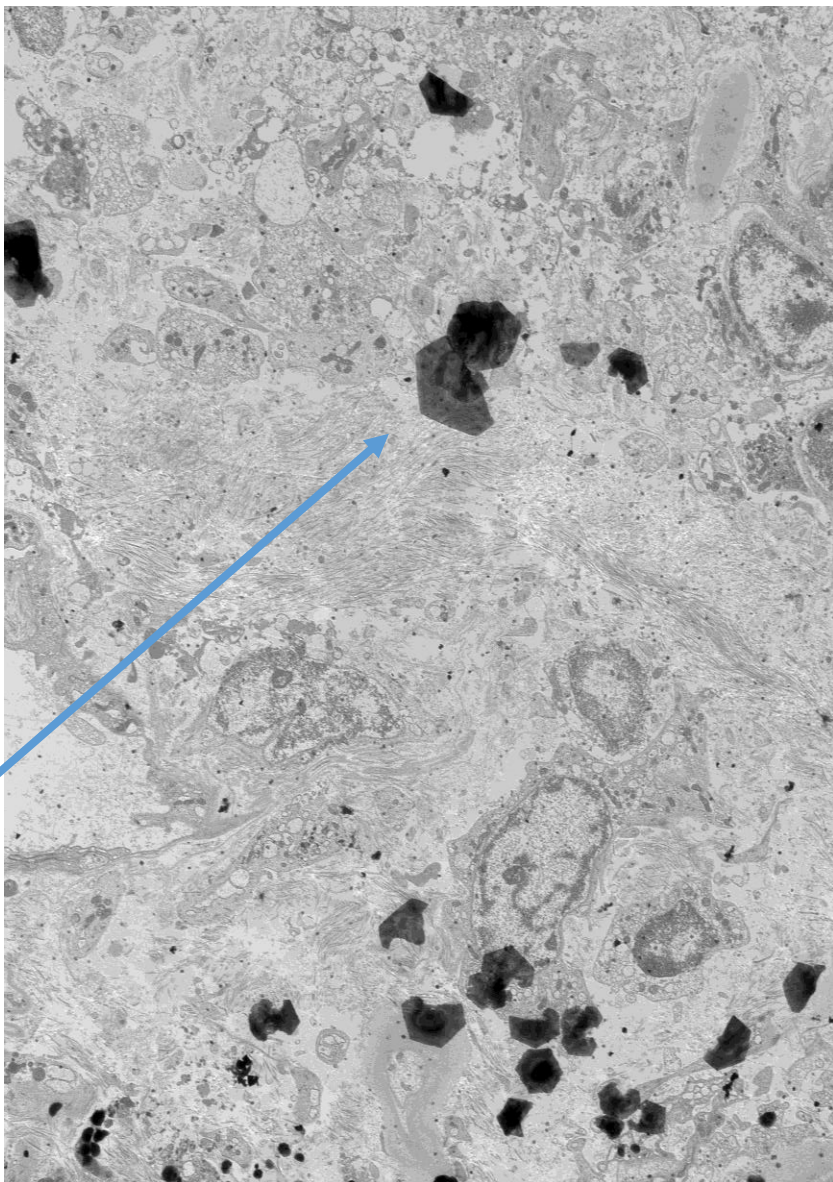


Renal biopsy

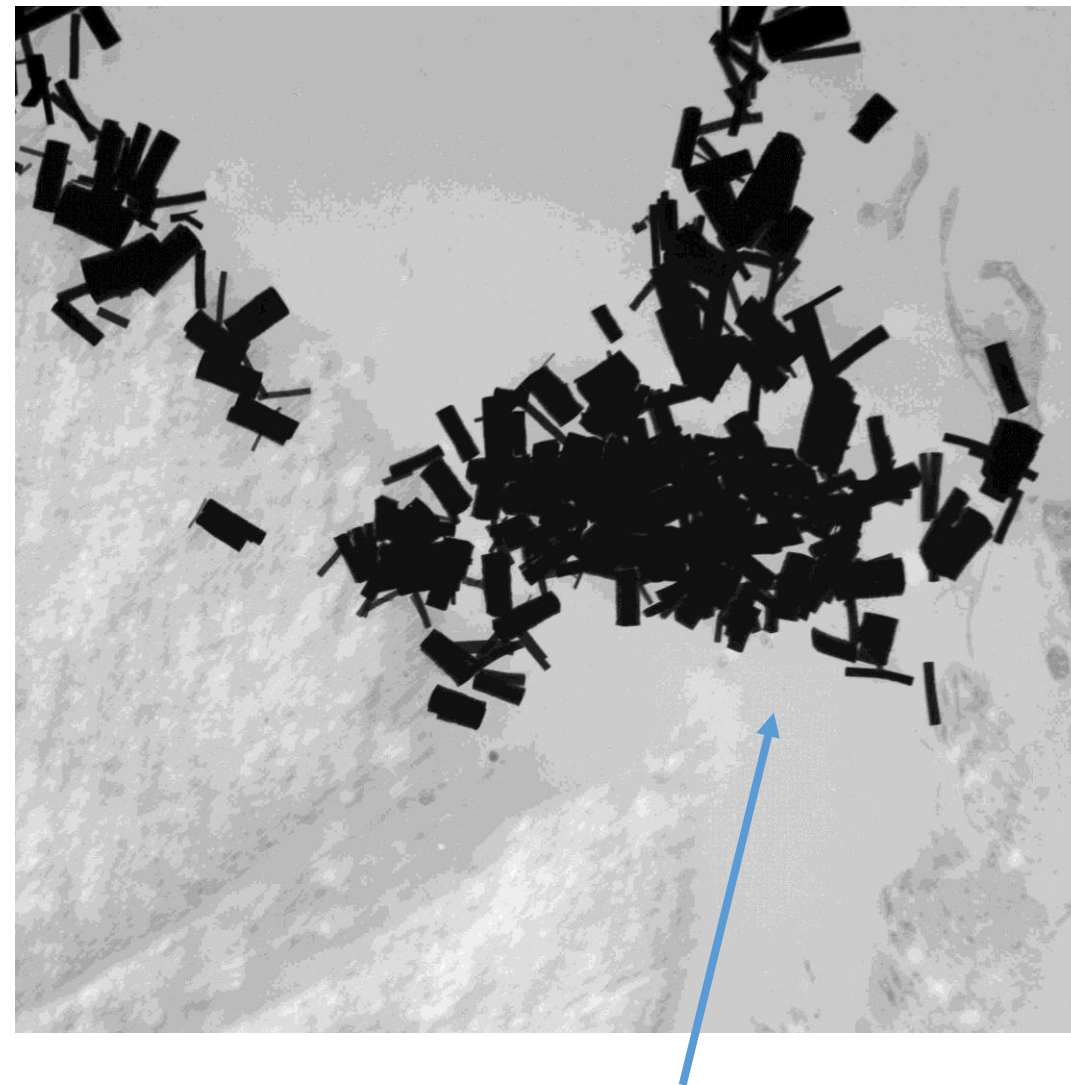


BK polyoma
virus



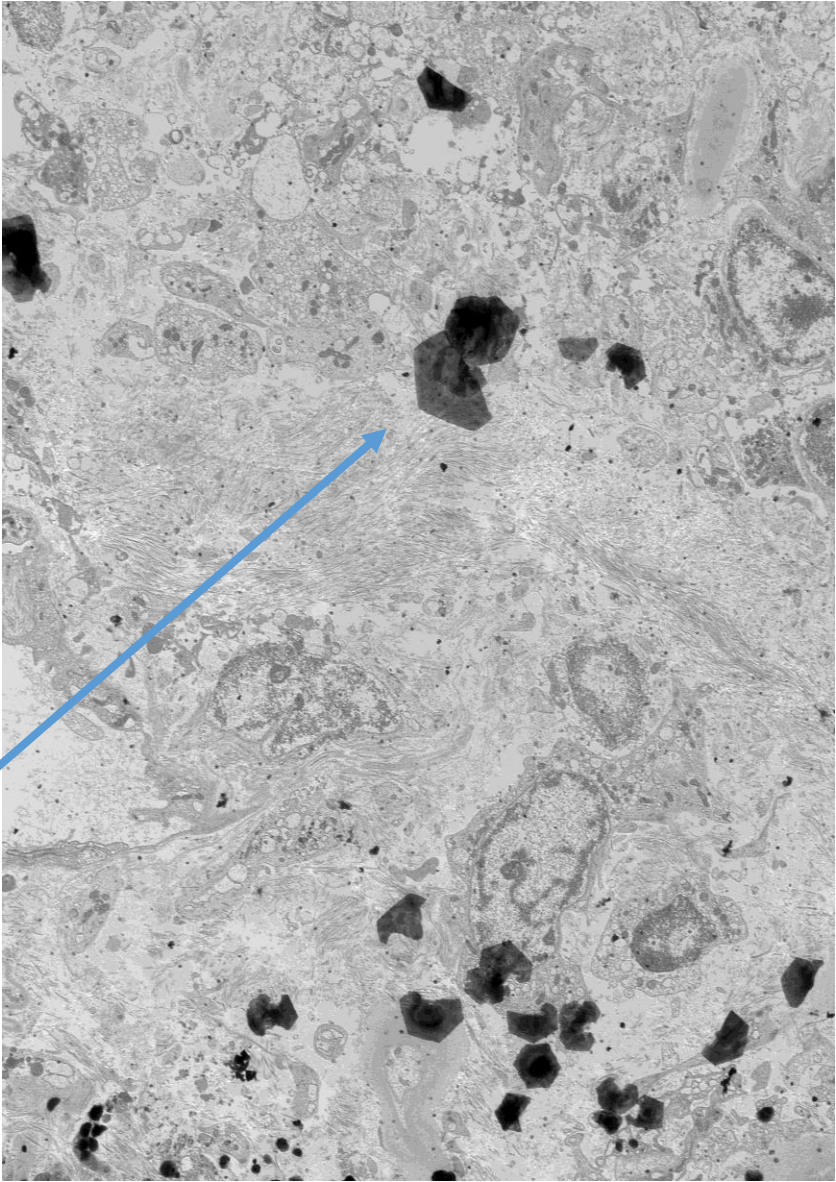


Which stain
has
precipitated?

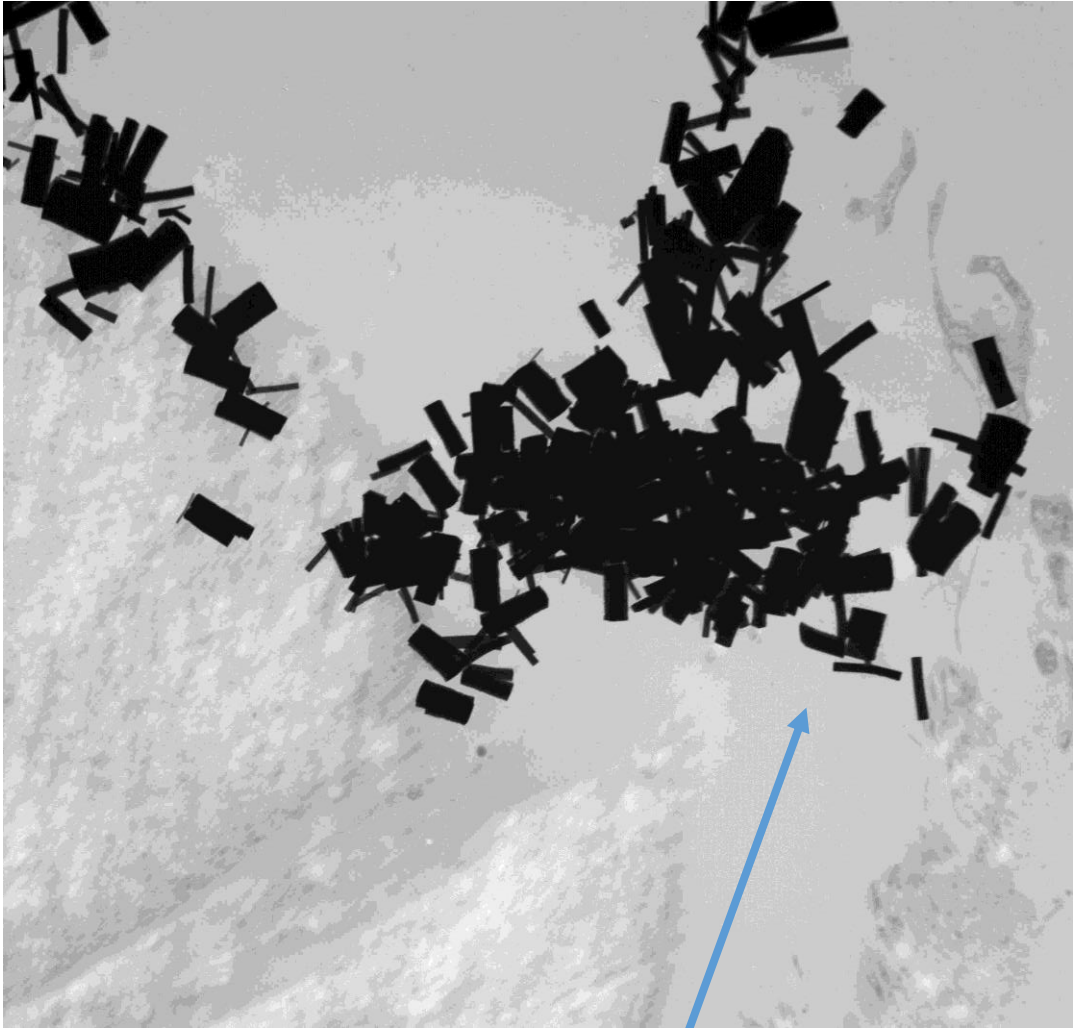


Which stain has
precipitated?

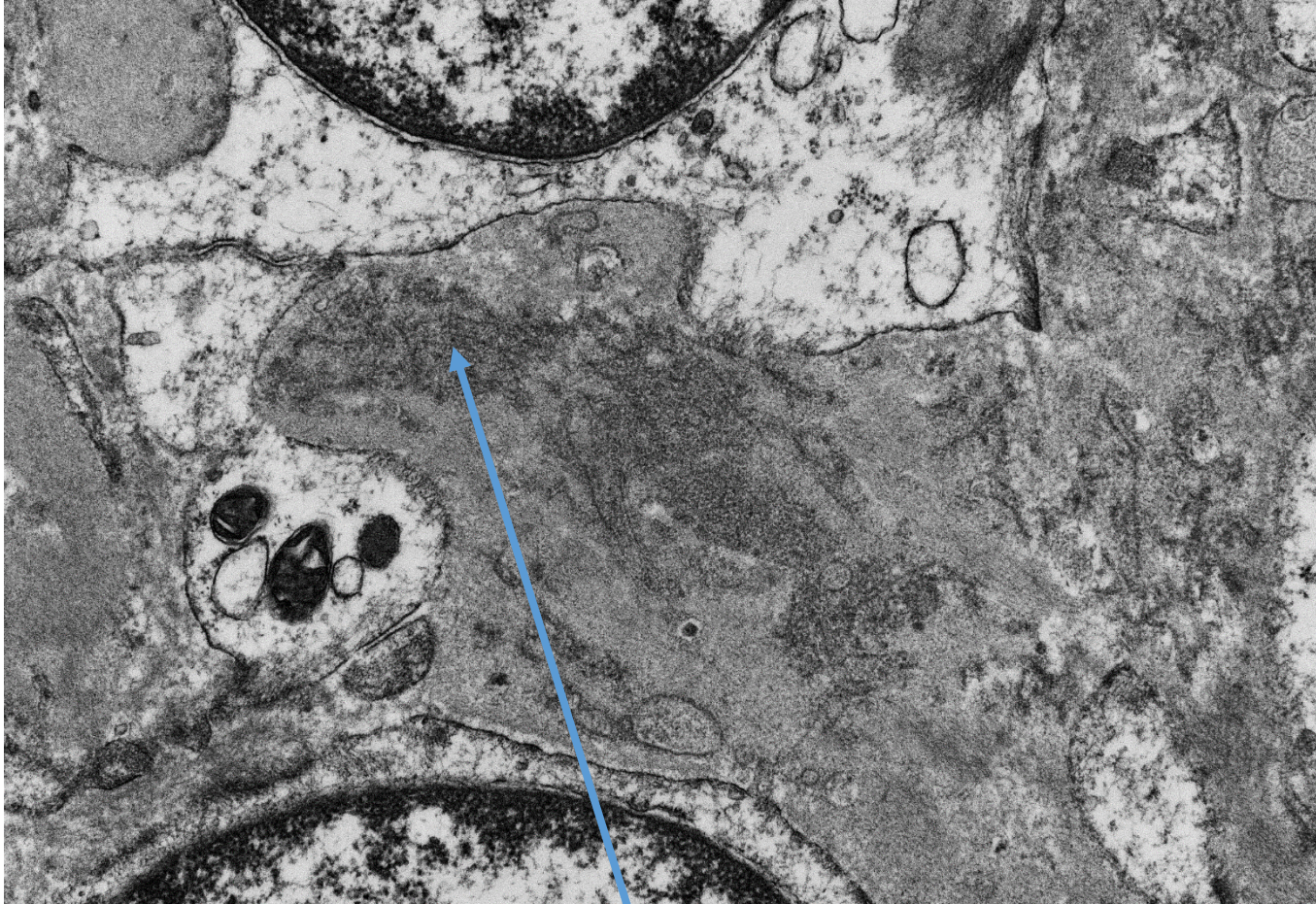
Lead citrate



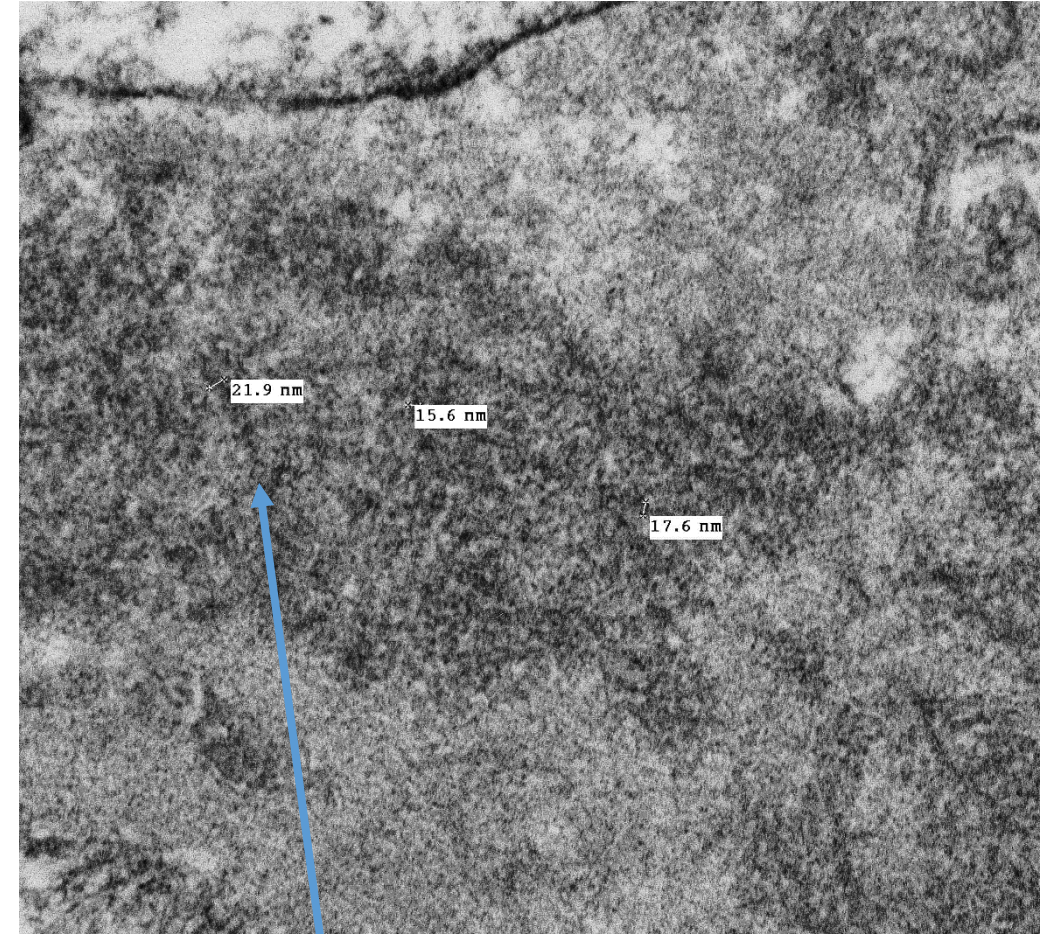
Uranyl acetate



Native kidney biopsy



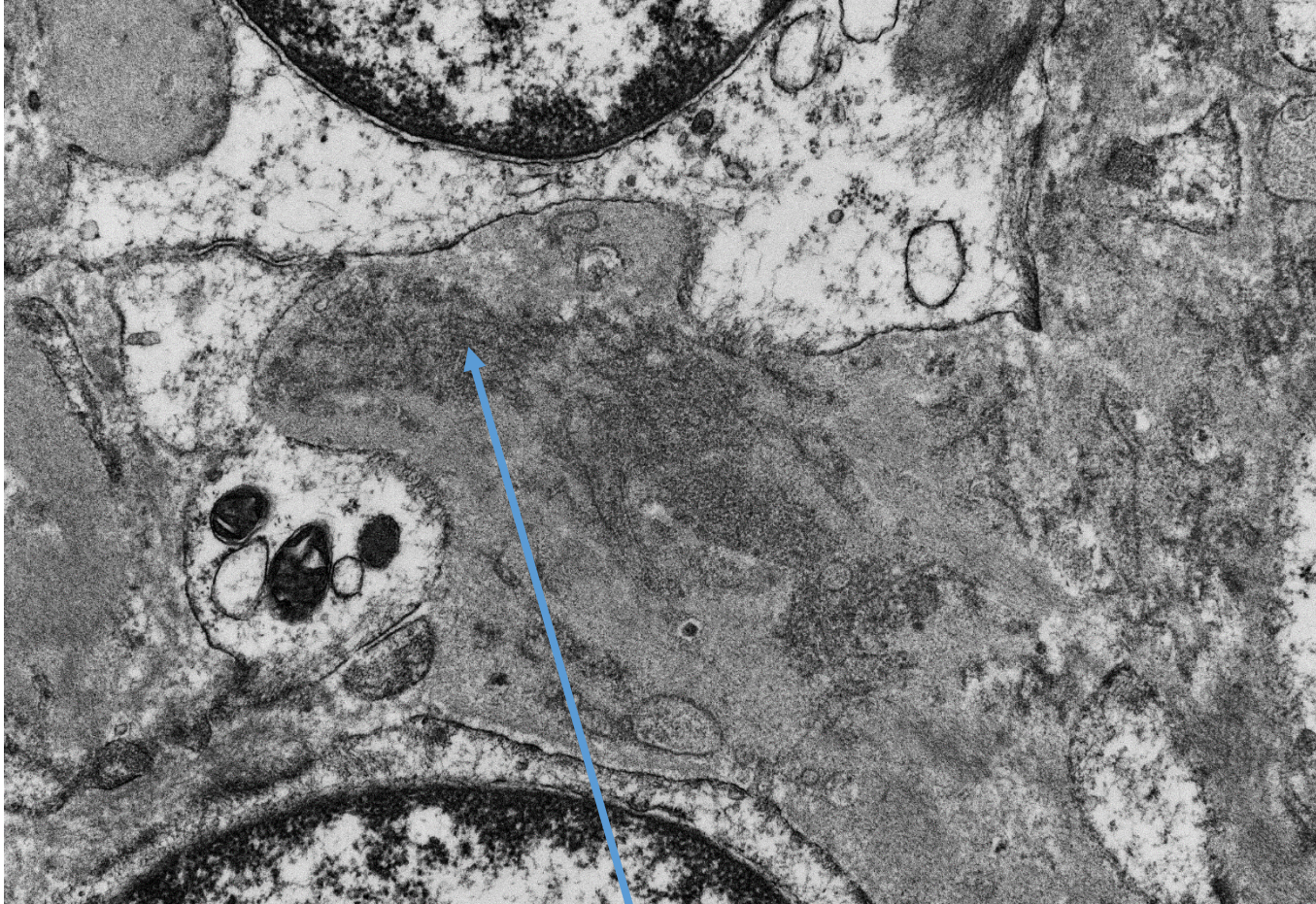
IgG +ve by immunofluorescence



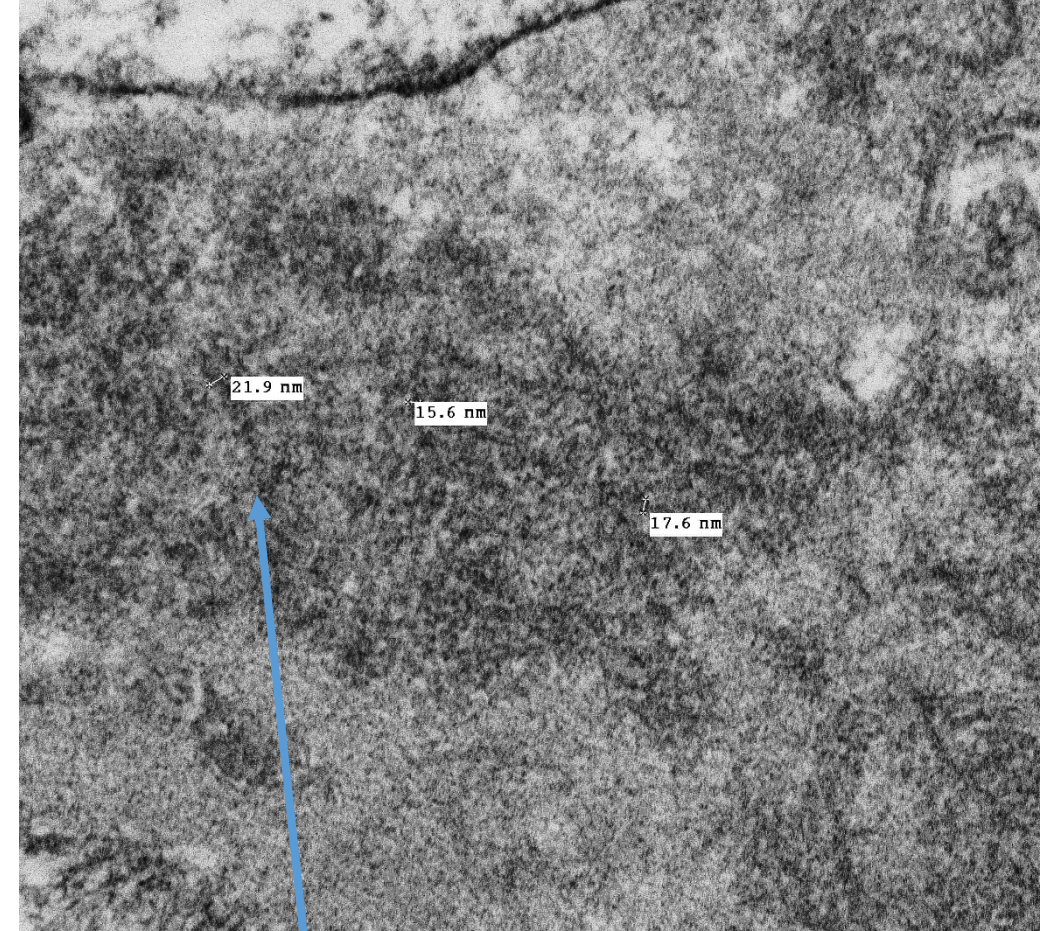
15 – 21nm diameter fibrils

What is the diagnosis?

Native kidney biopsy

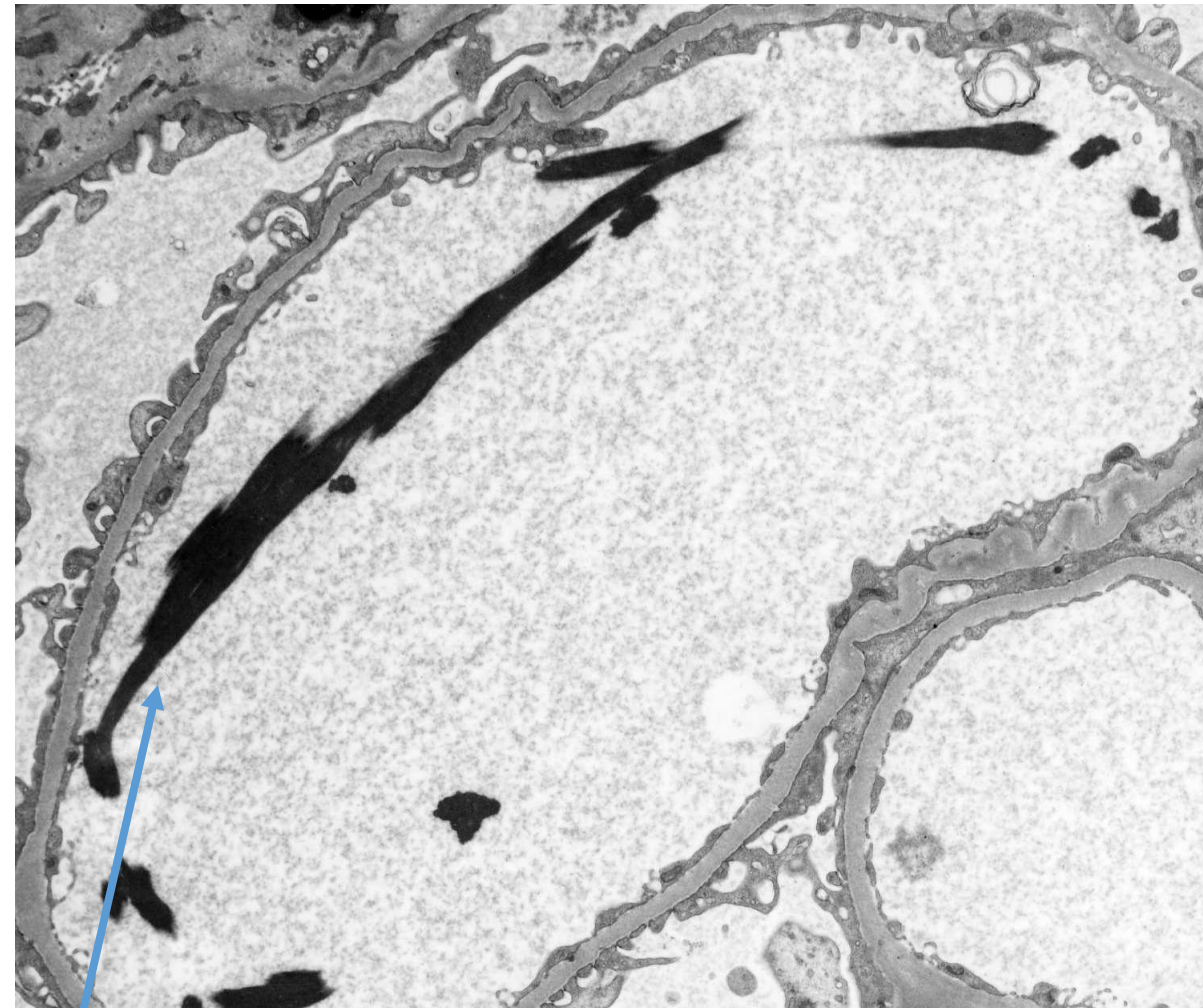
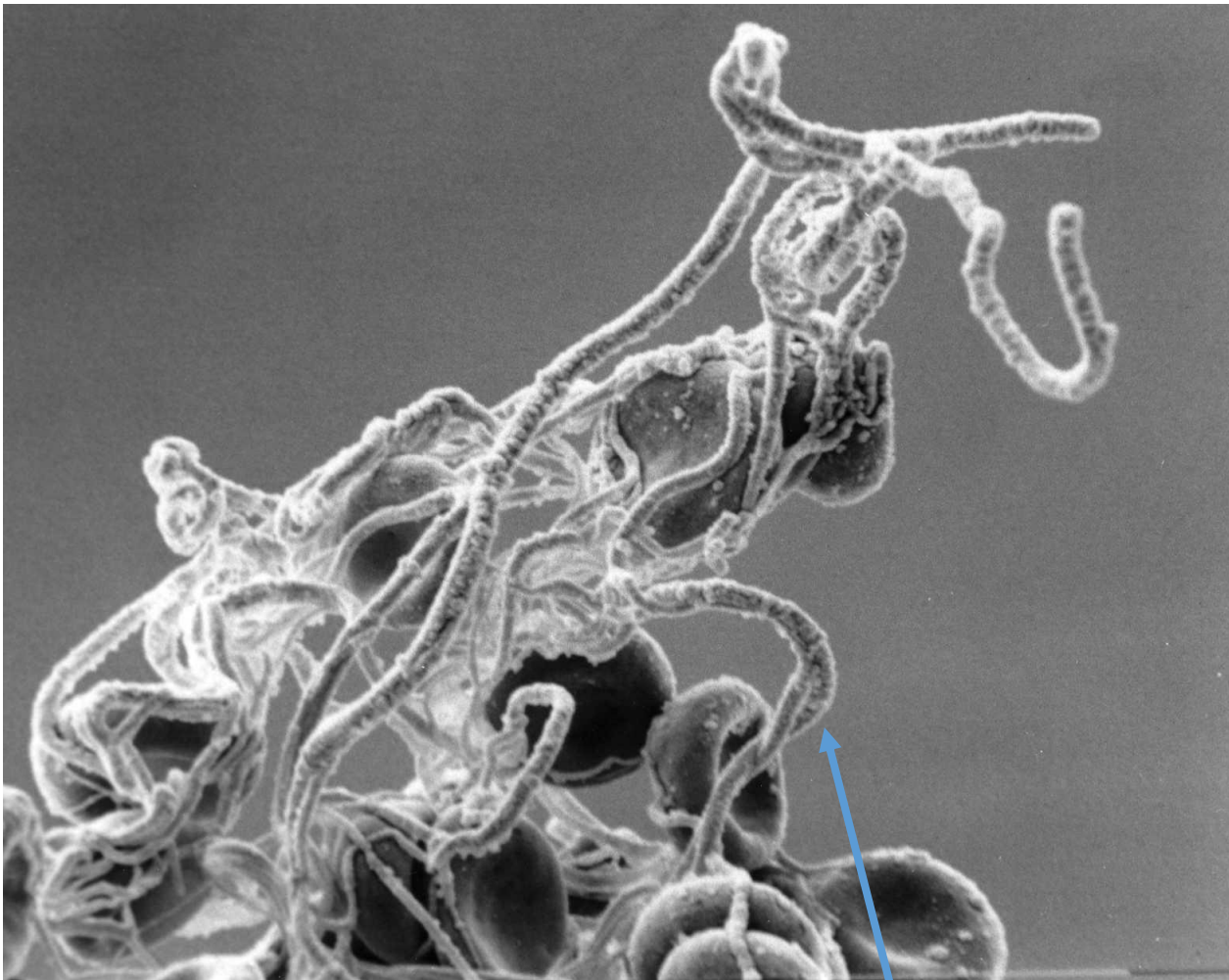


IgG +ve by immunofluorescence

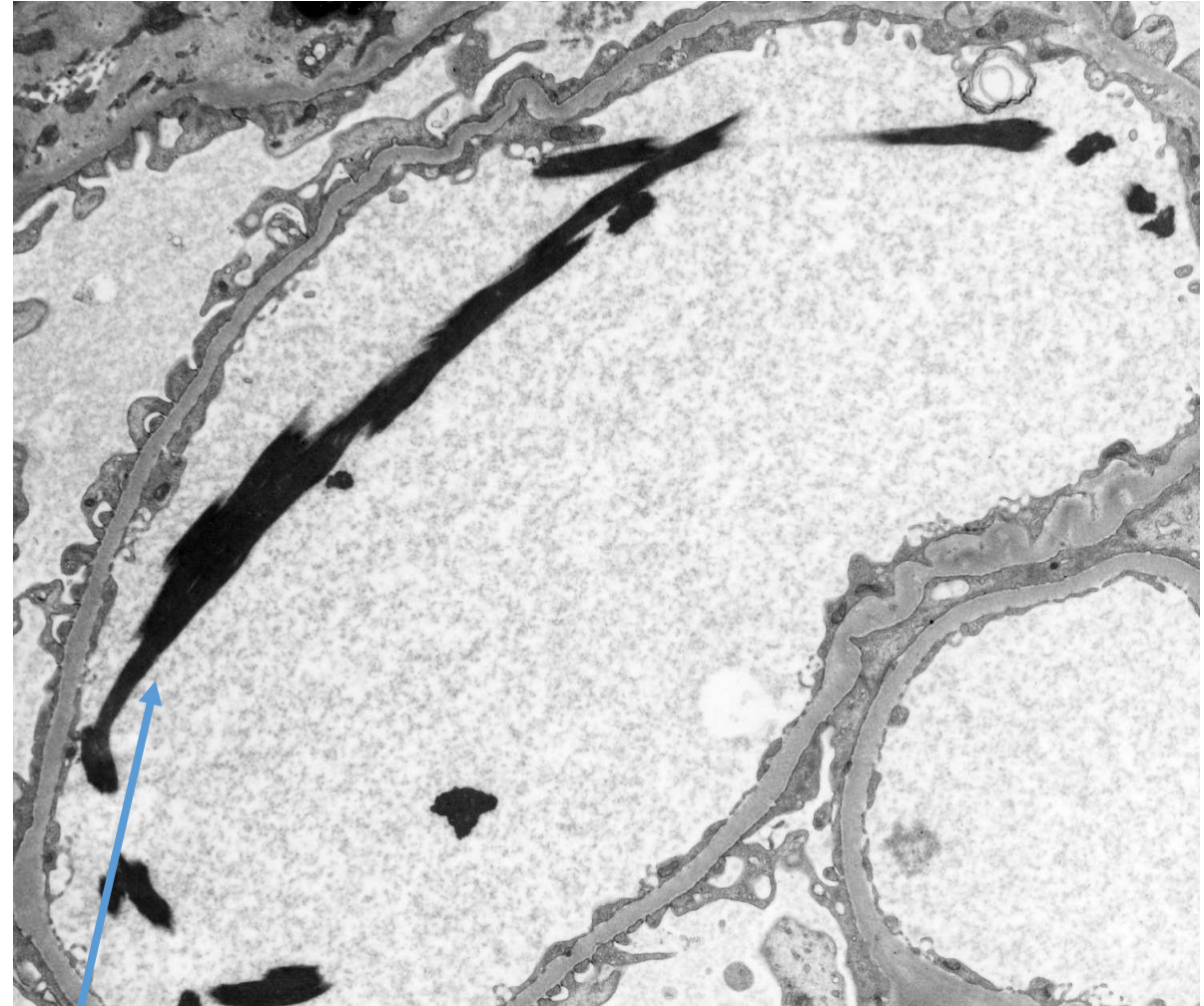
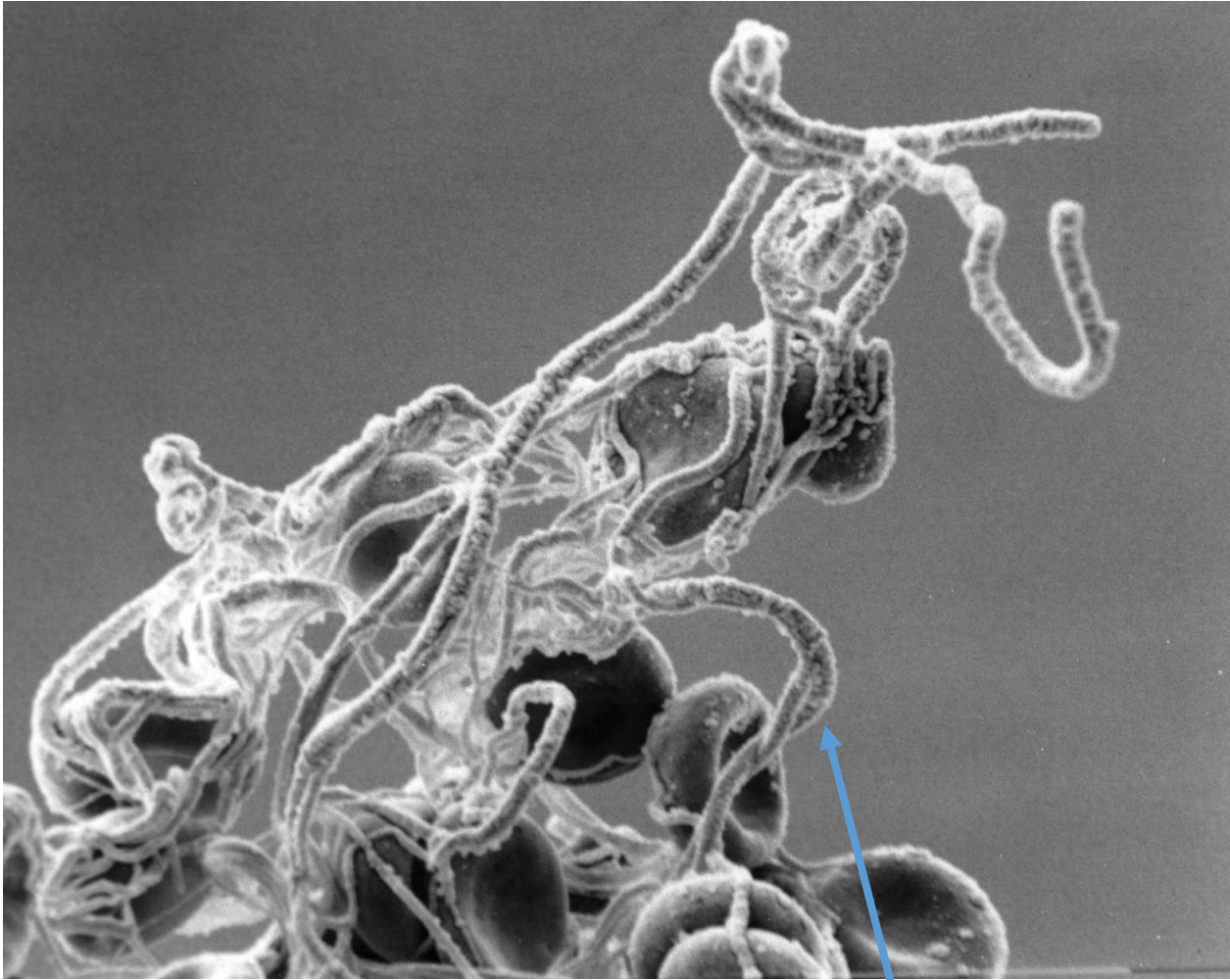


15 – 21nm diameter fibrils

Fibrillary Glomerulonephritis



What is this?



Fibrin

Last question..

Who gets the chocolate?

