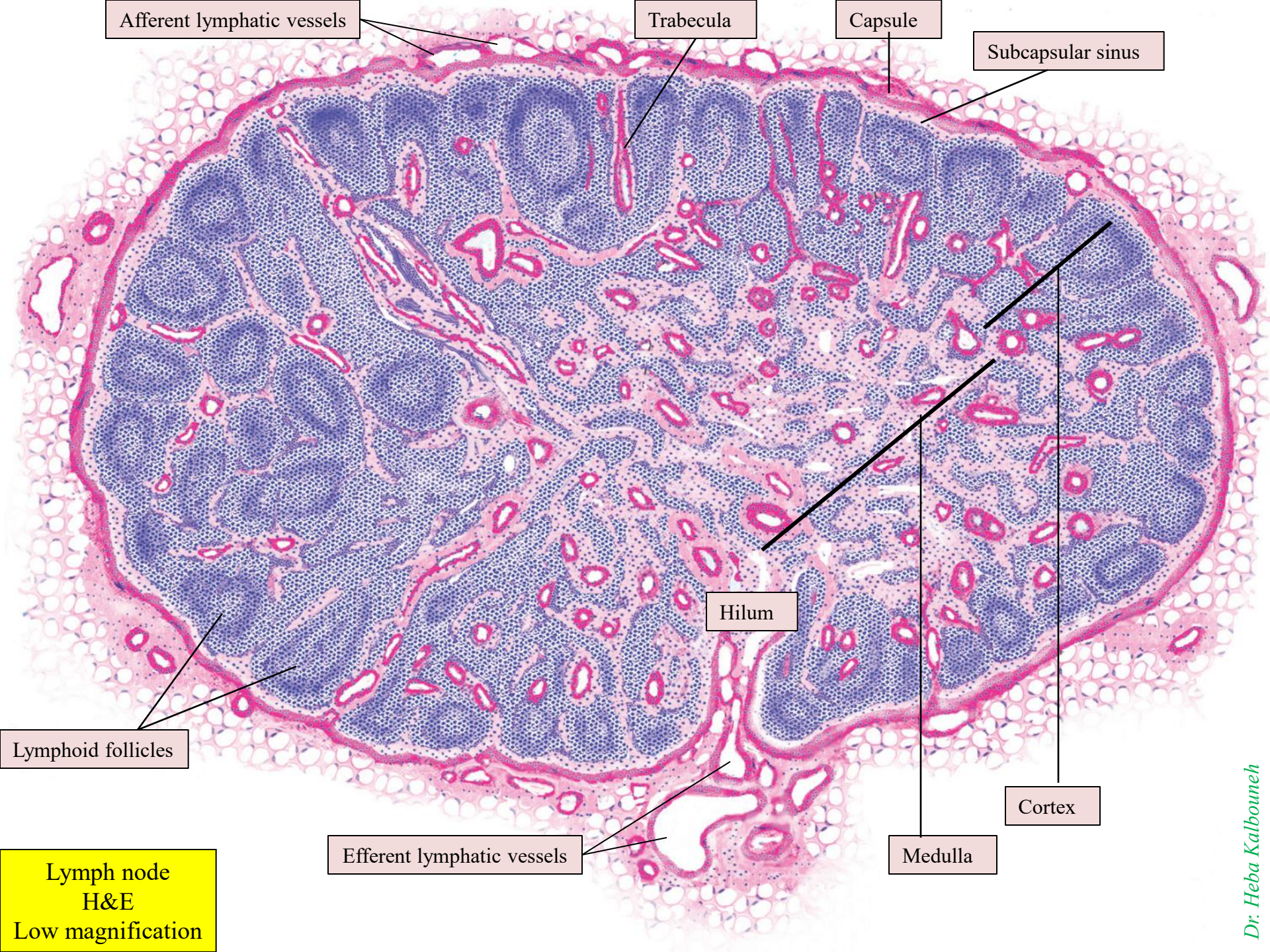
Hemato-lymphoid system

Lab 2

(Secondary Lymphatic Organs)

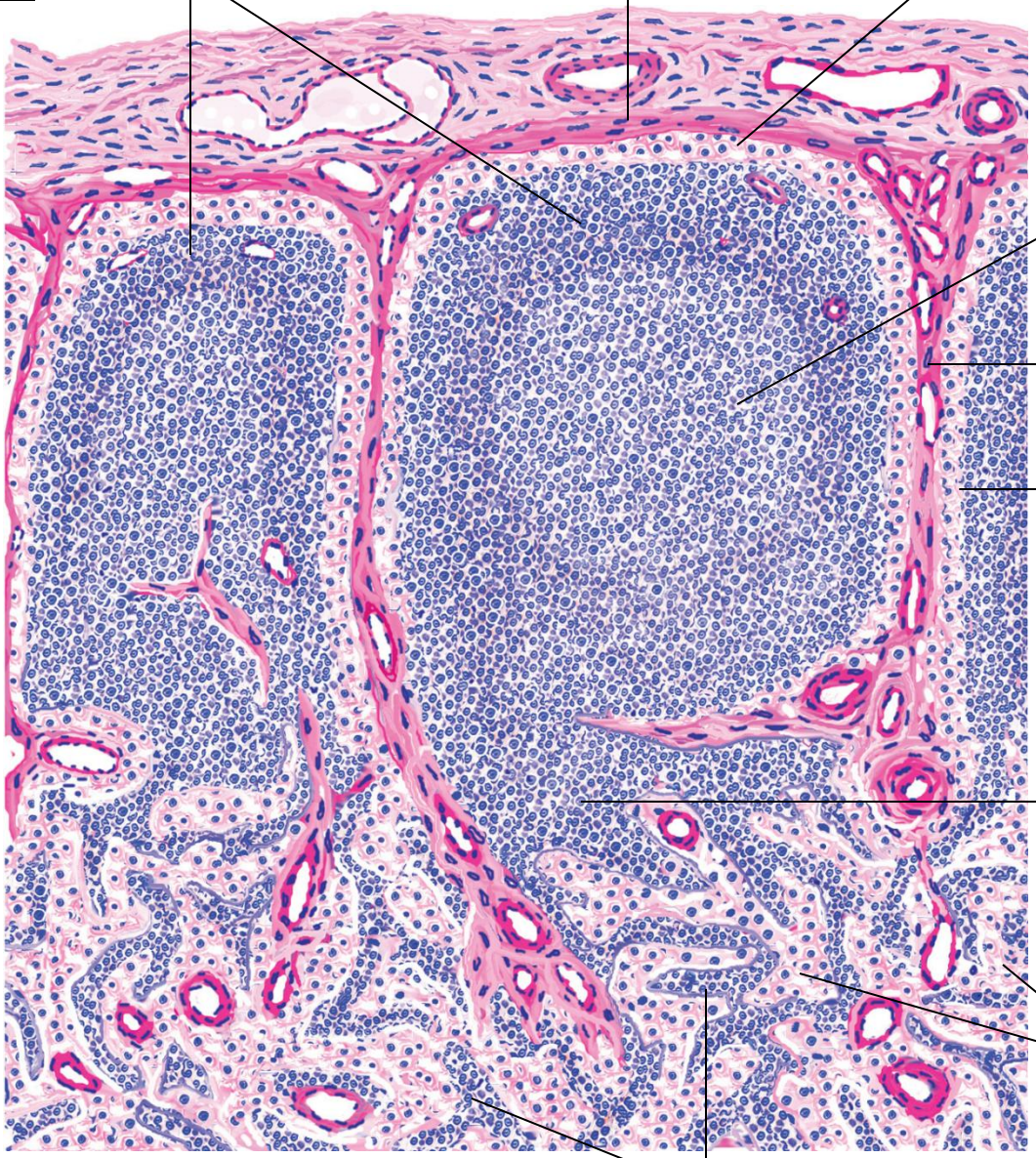
Dr. Heba Kalbouneh
DDS, MSc, DMD/PhD
Professor of Anatomy, Histology and Embryology



Lymph node
H&E
Low magnification

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Lymph node
H&E
Higher magnification



Lymphoid follicles

Capsule

Subcapsular sinus

Germinal center

Trabecula

Subtrabecular sinus

Cortex

Paracortex

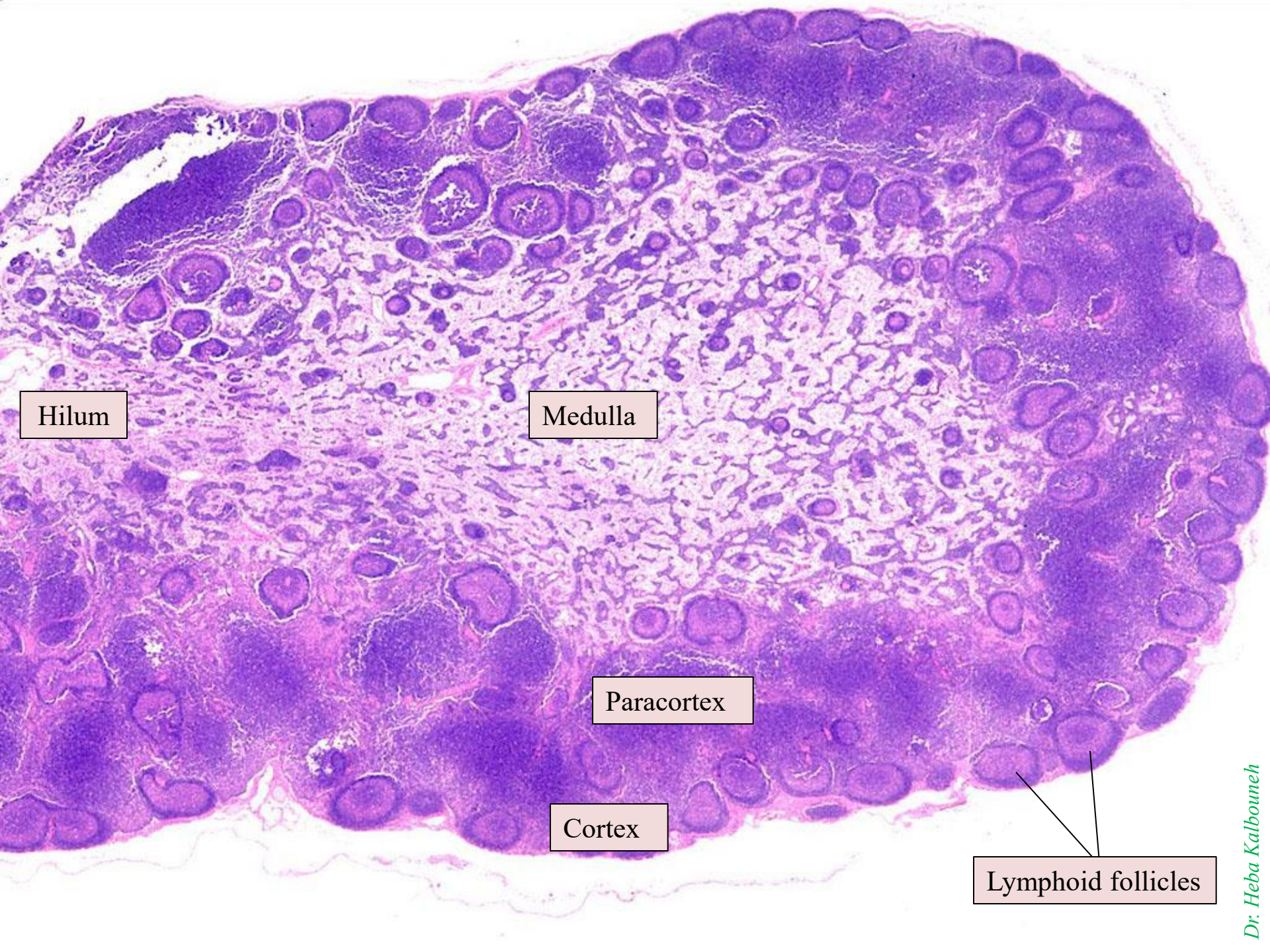
What type of cells would you expect to find in the paracortex?

Medulla

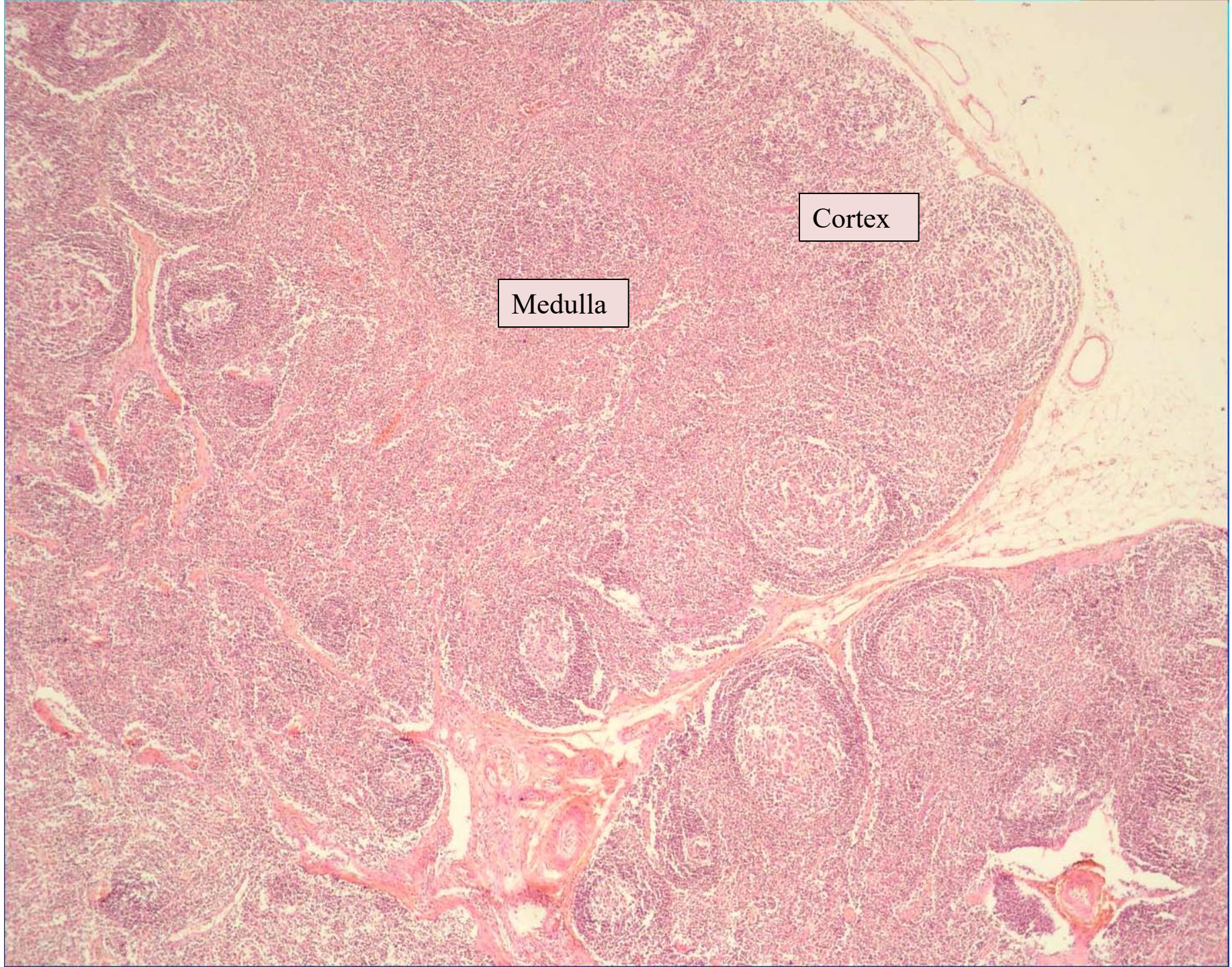
Medullary sinuses

Medullary cords

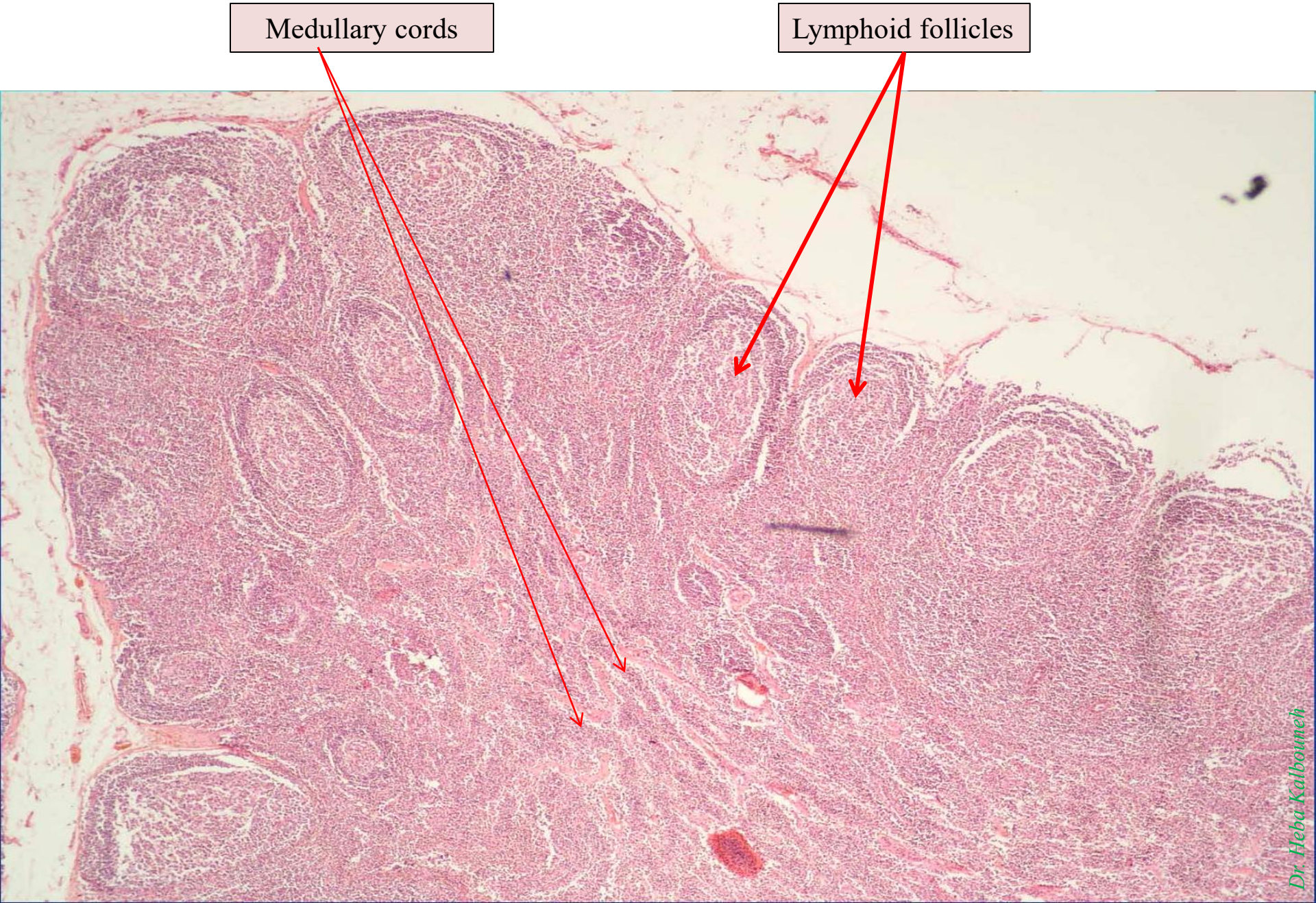
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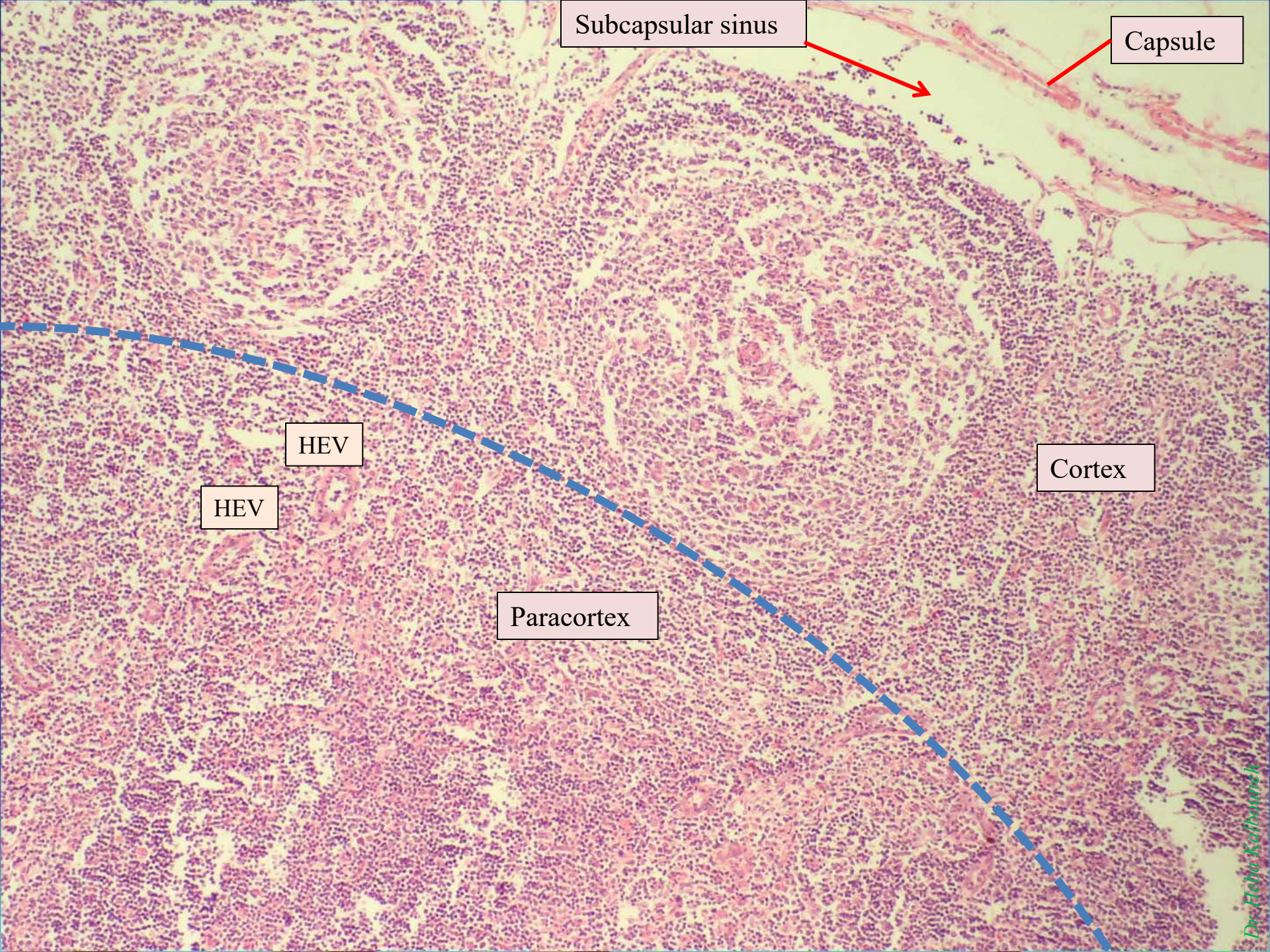


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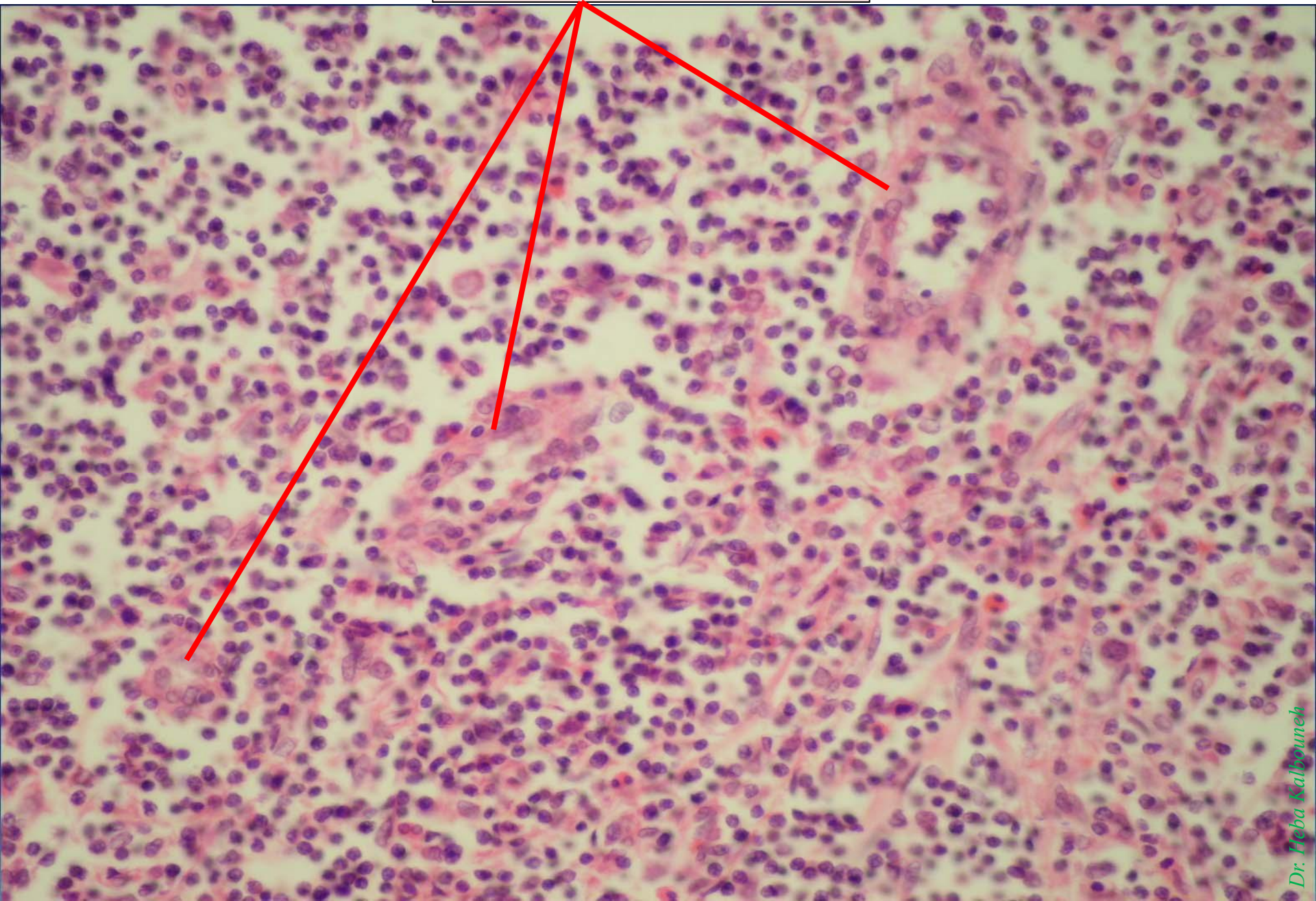


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Medullary cords
Lymphoid follicles
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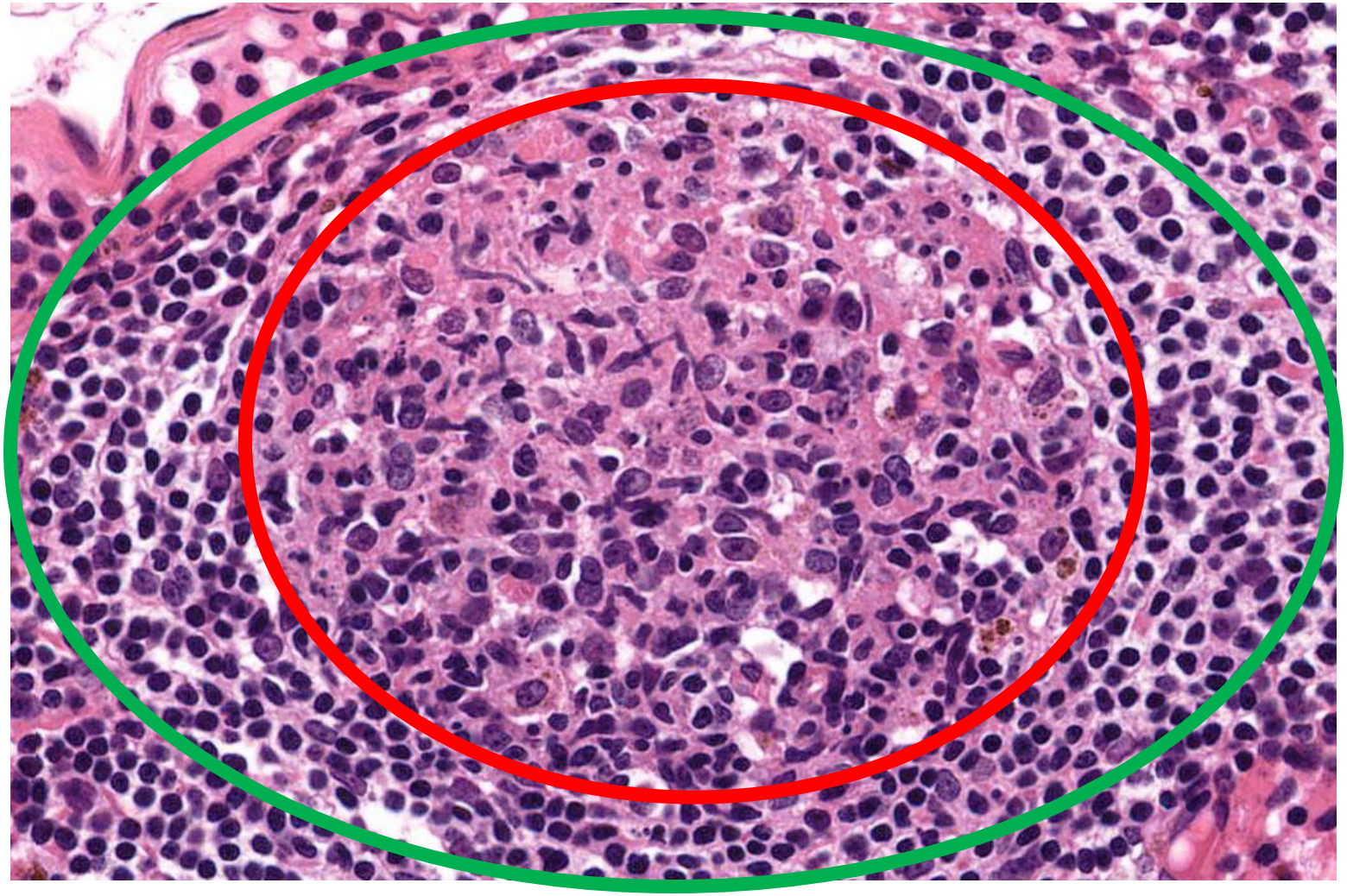

Subcapsular sinus
Capsule
HEV
HEV
Cortex
Paracortex
Dr. Heba Kalbouneh

HEVs in paracortex

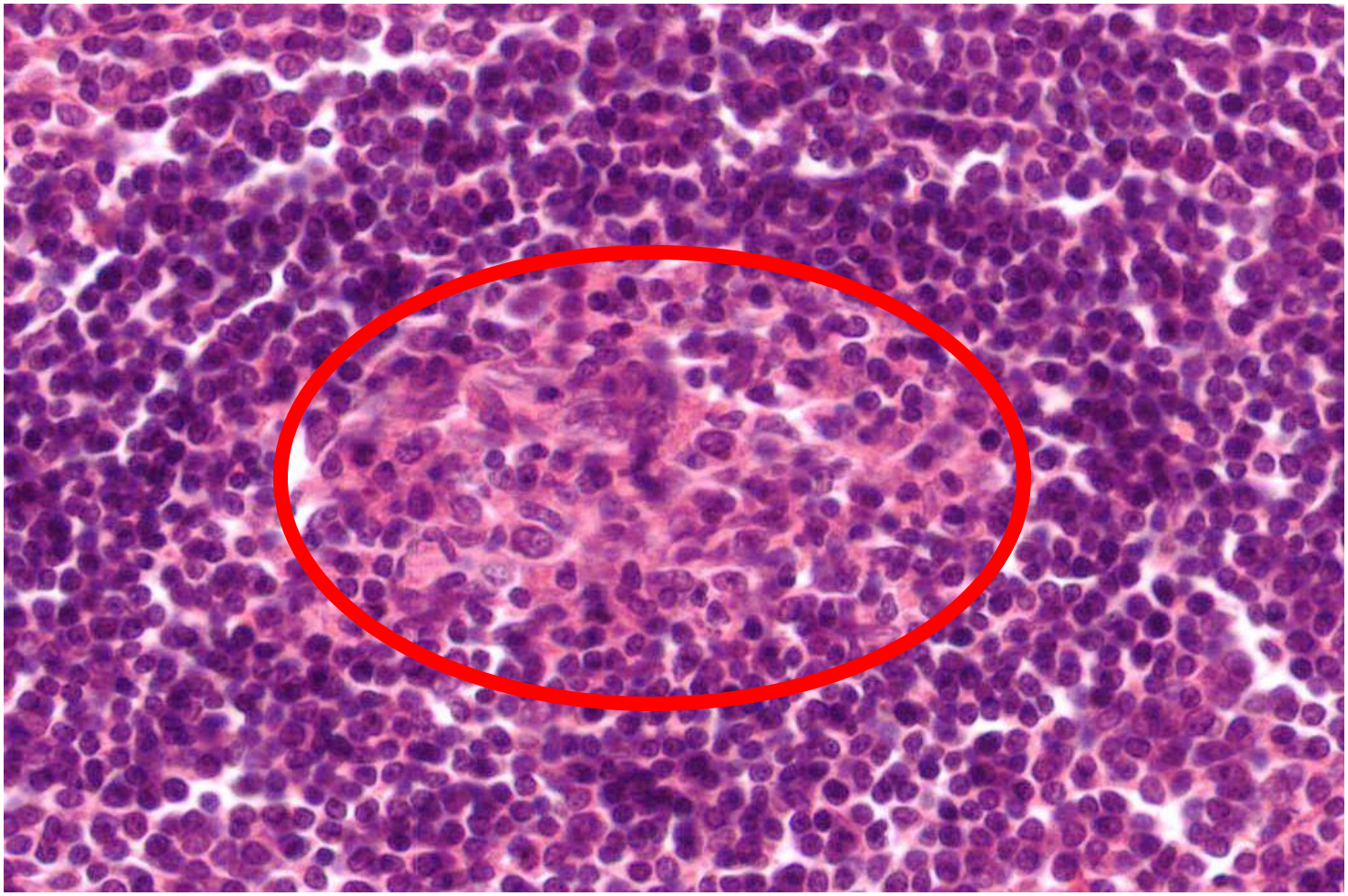


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Germinal center

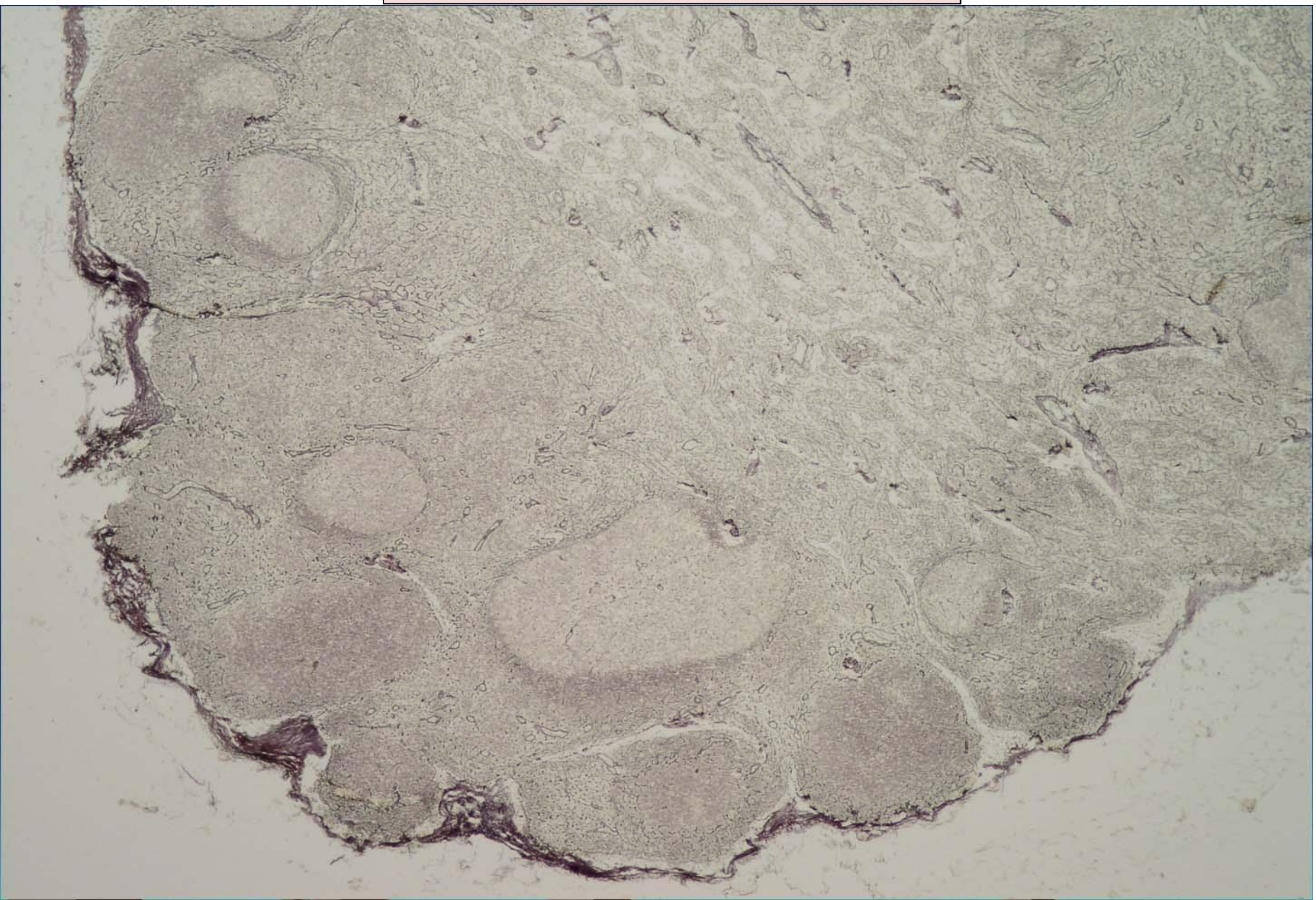


Germinal center



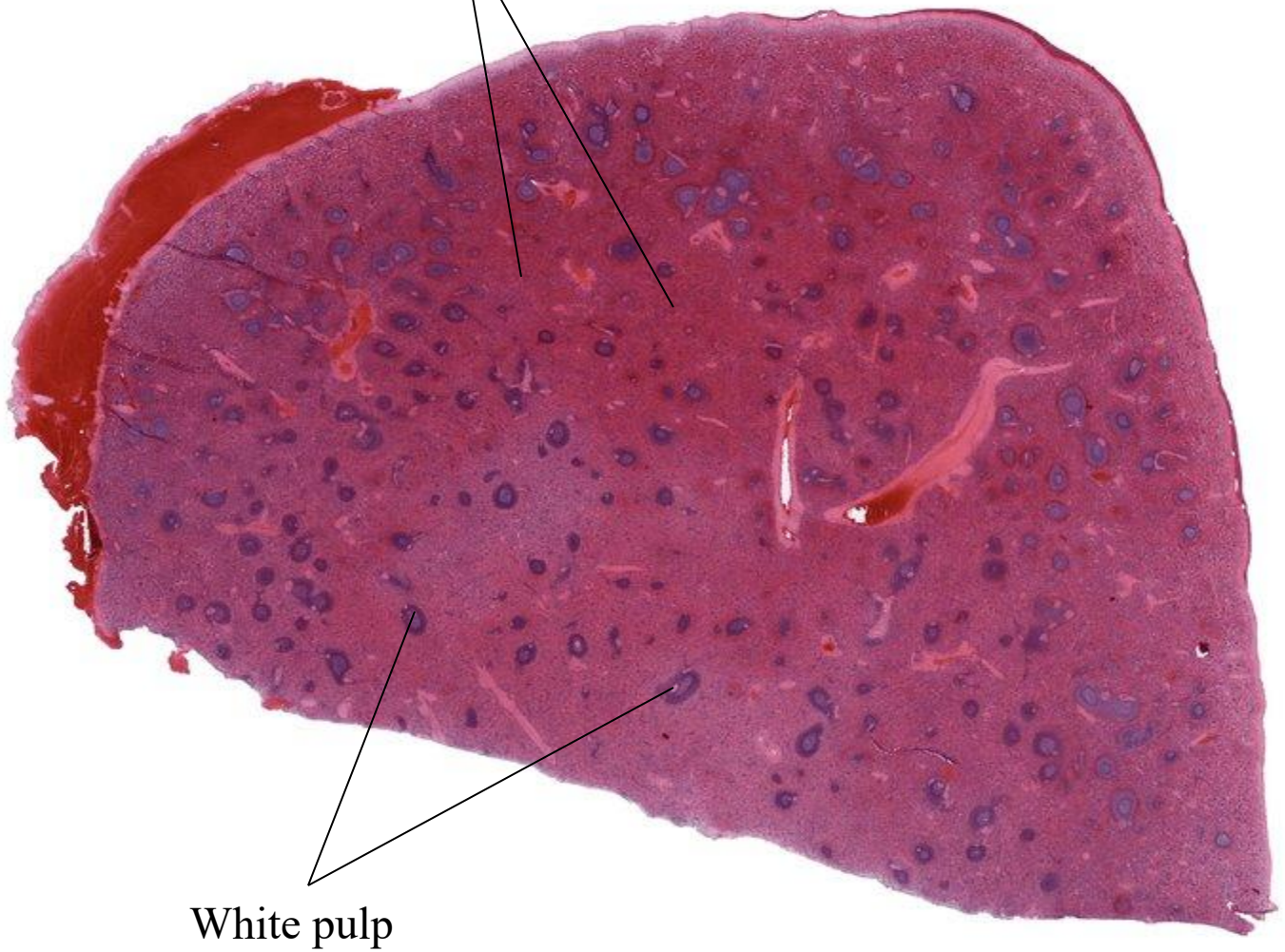
Lymph node- Silver Stain

Remember: reticular fibers are argyrophilic

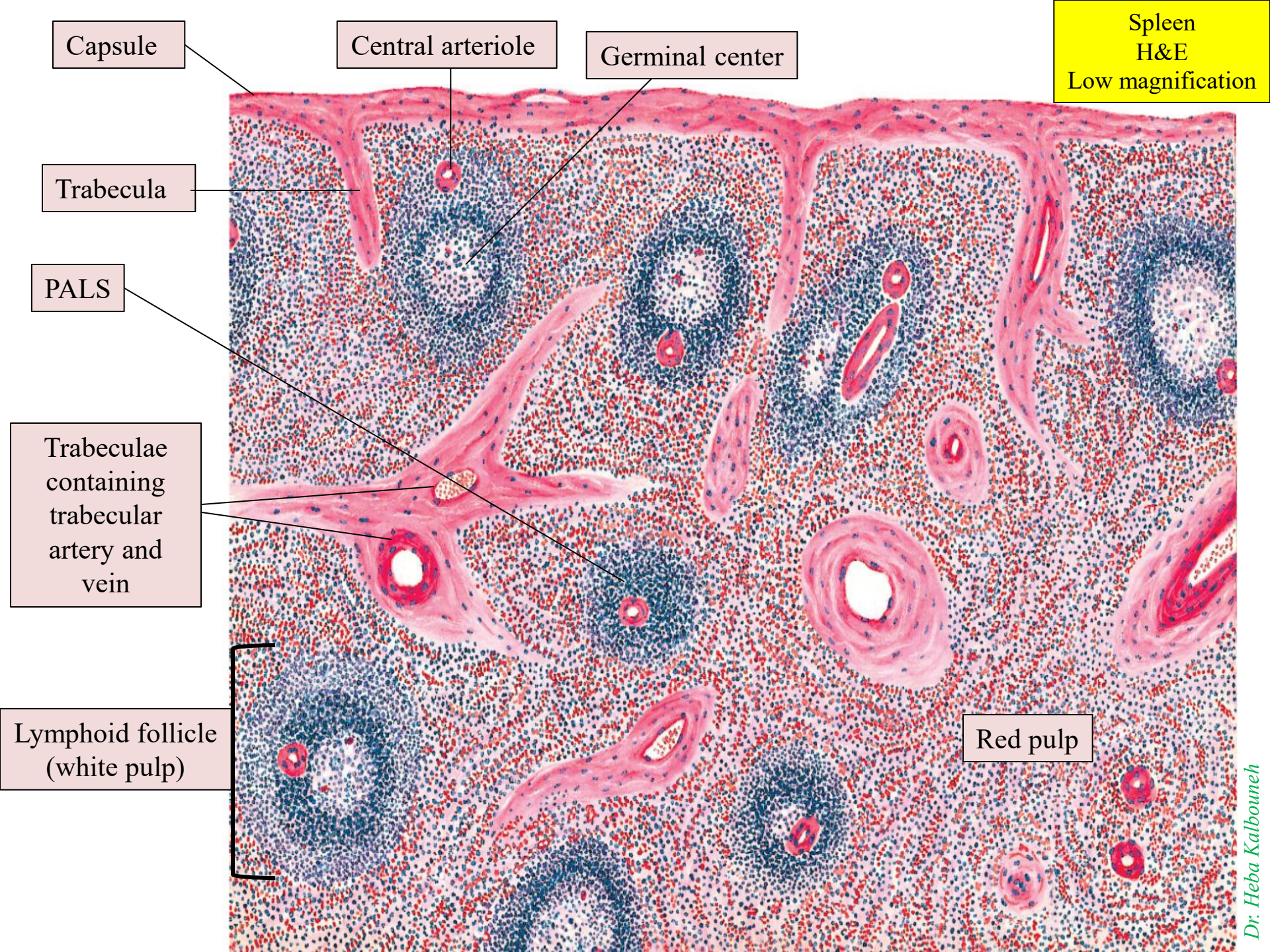


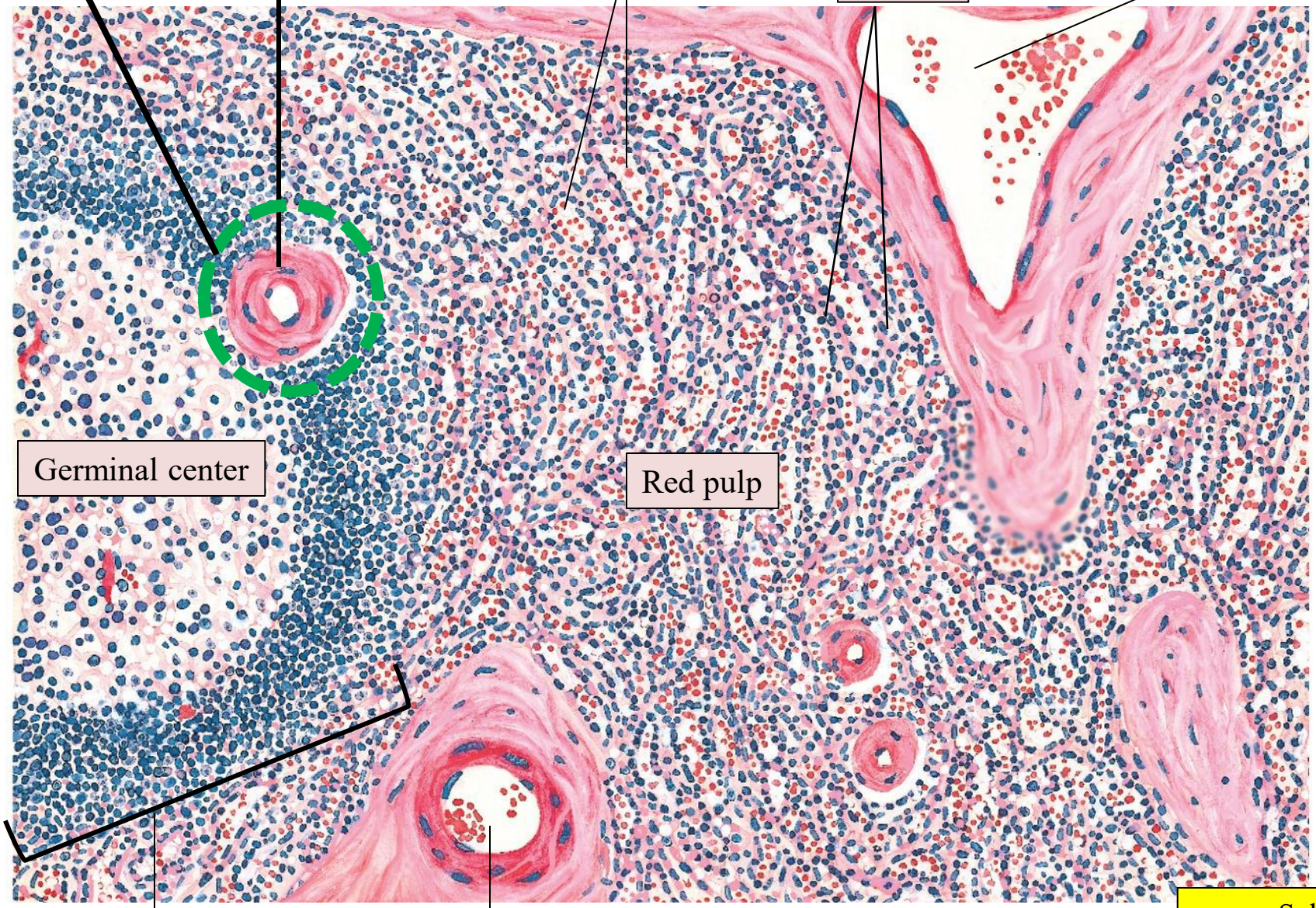
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Spleen
Gross observation



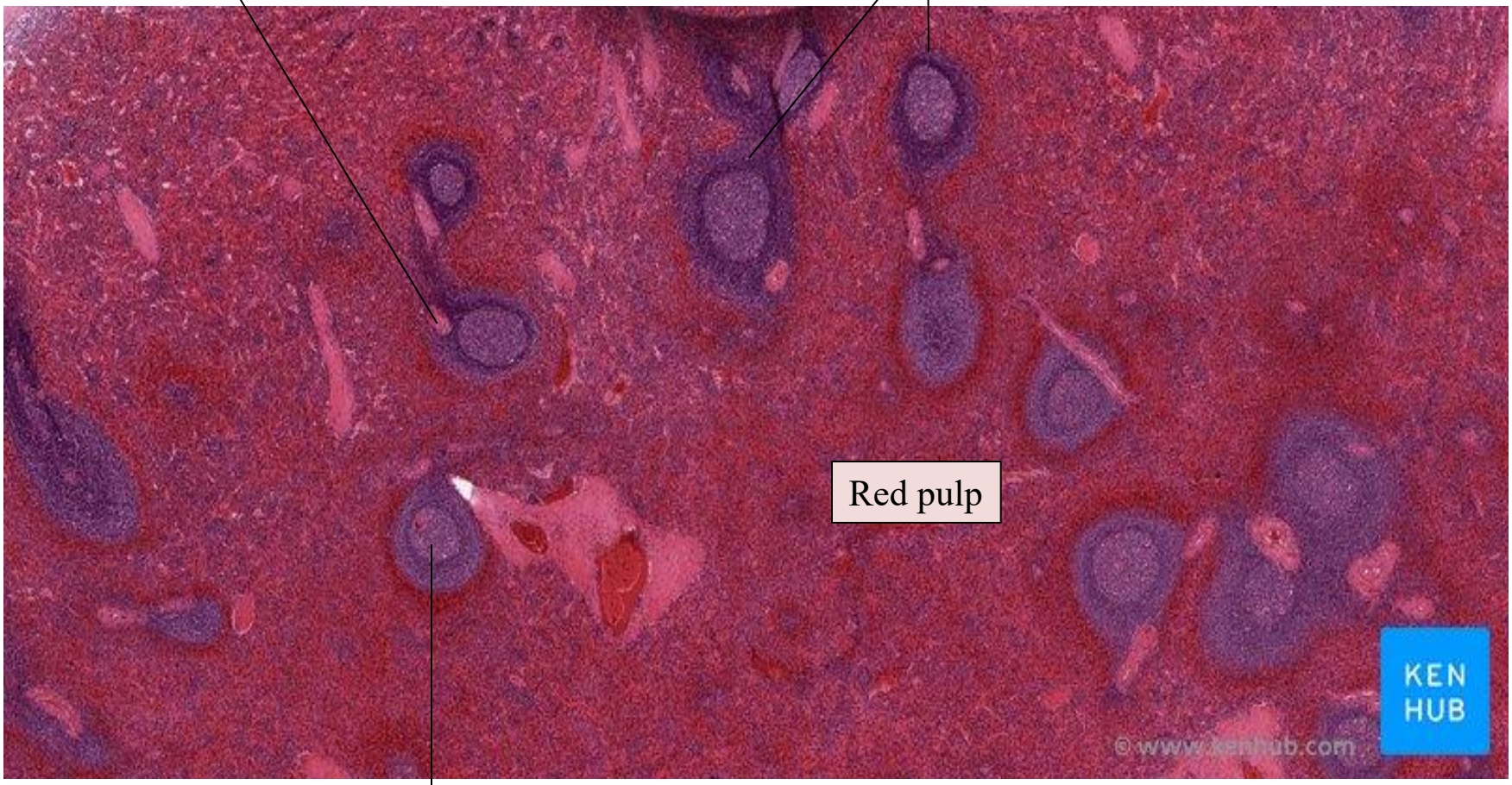
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Capsule
Central arteriole
Germinal center
Spleen
H&E
Low magnification
Trabecula
PALS
Trabeculae containing trabecular artery and vein
Lymphoid follicle (white pulp)
Red pulp
Dr. Heba Kalbouneh

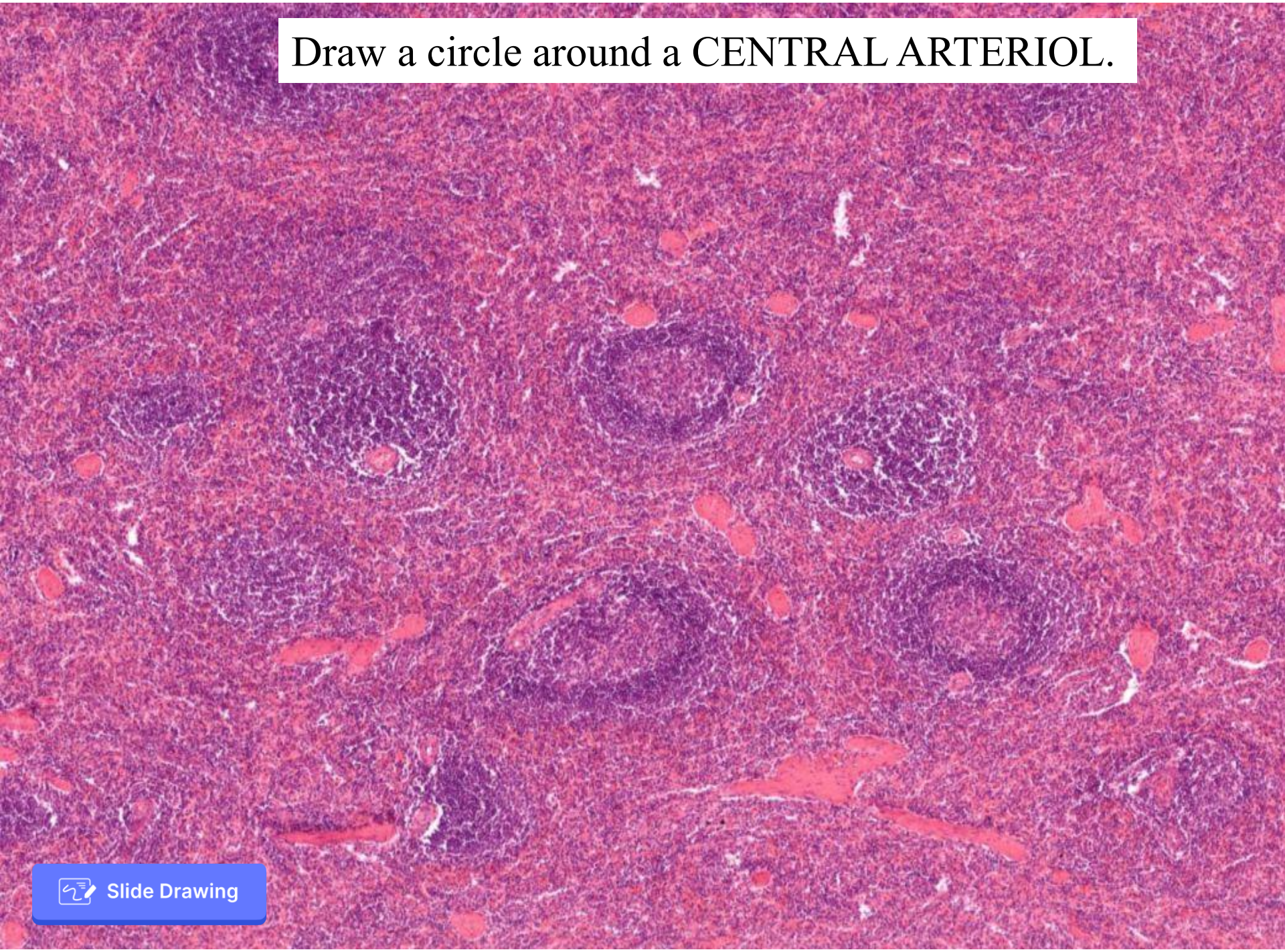


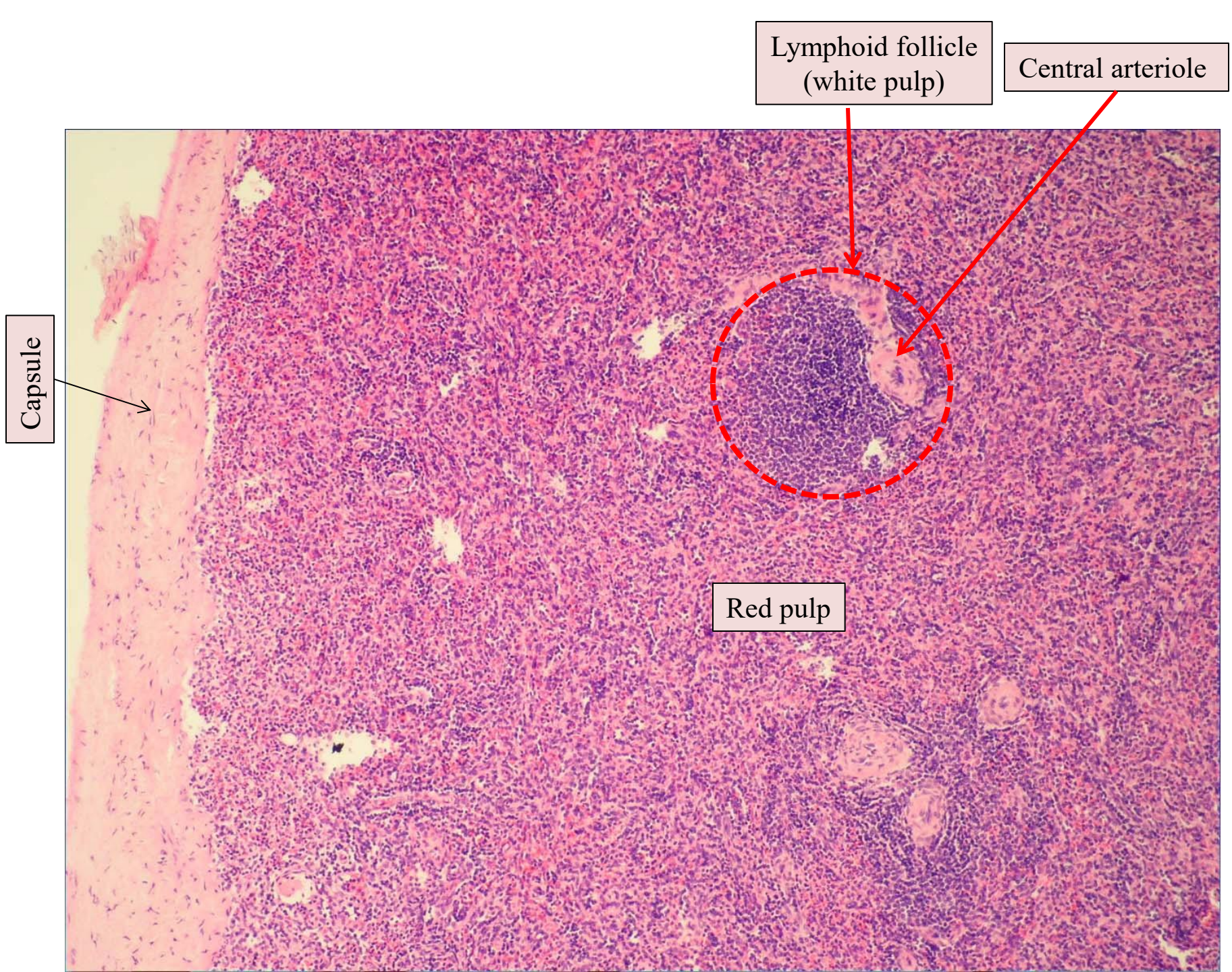
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Spleen
H&E
Higher magnification

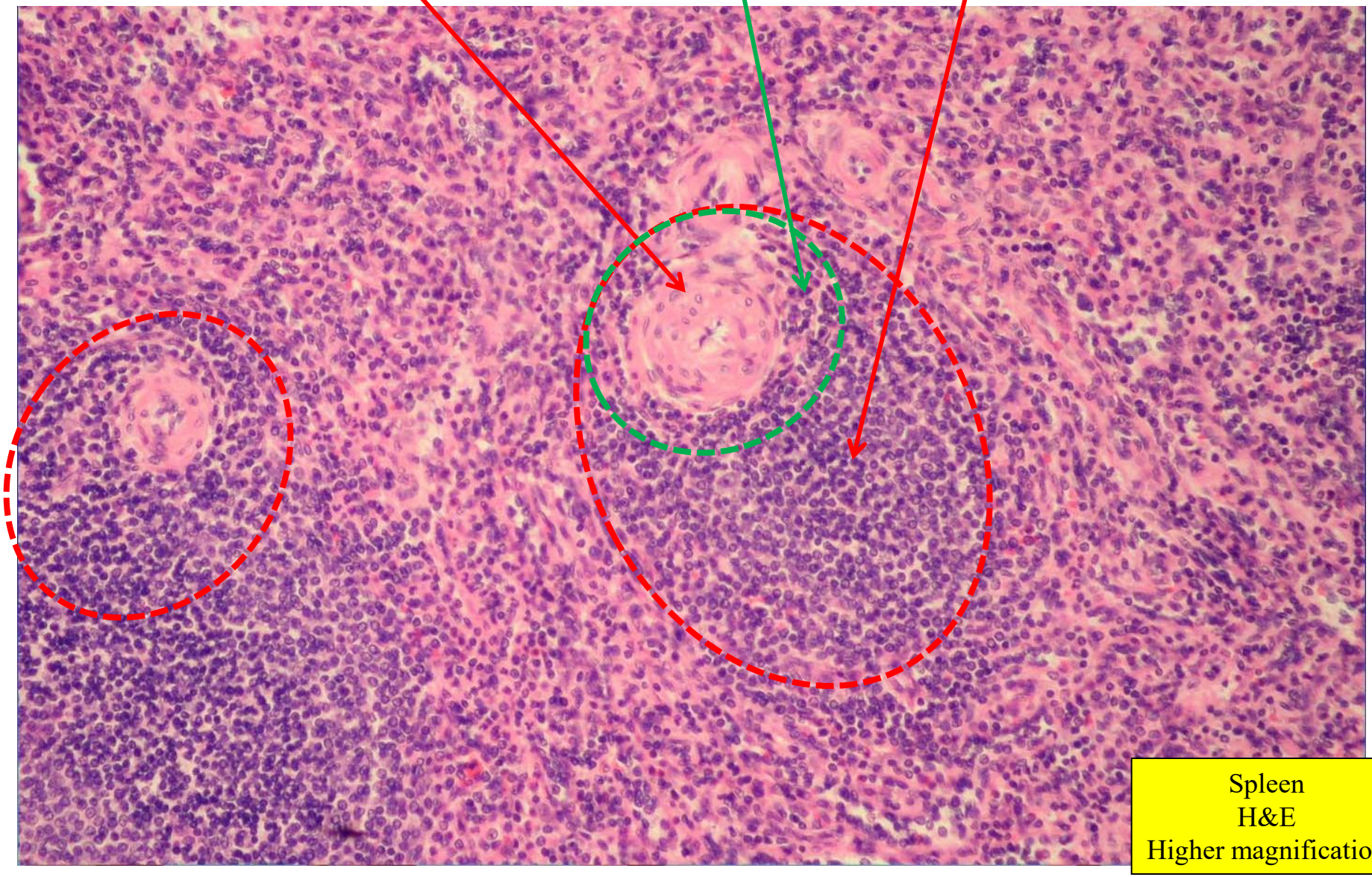


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Draw a circle around a CENTRAL ARTERIOL.
Slide Drawing



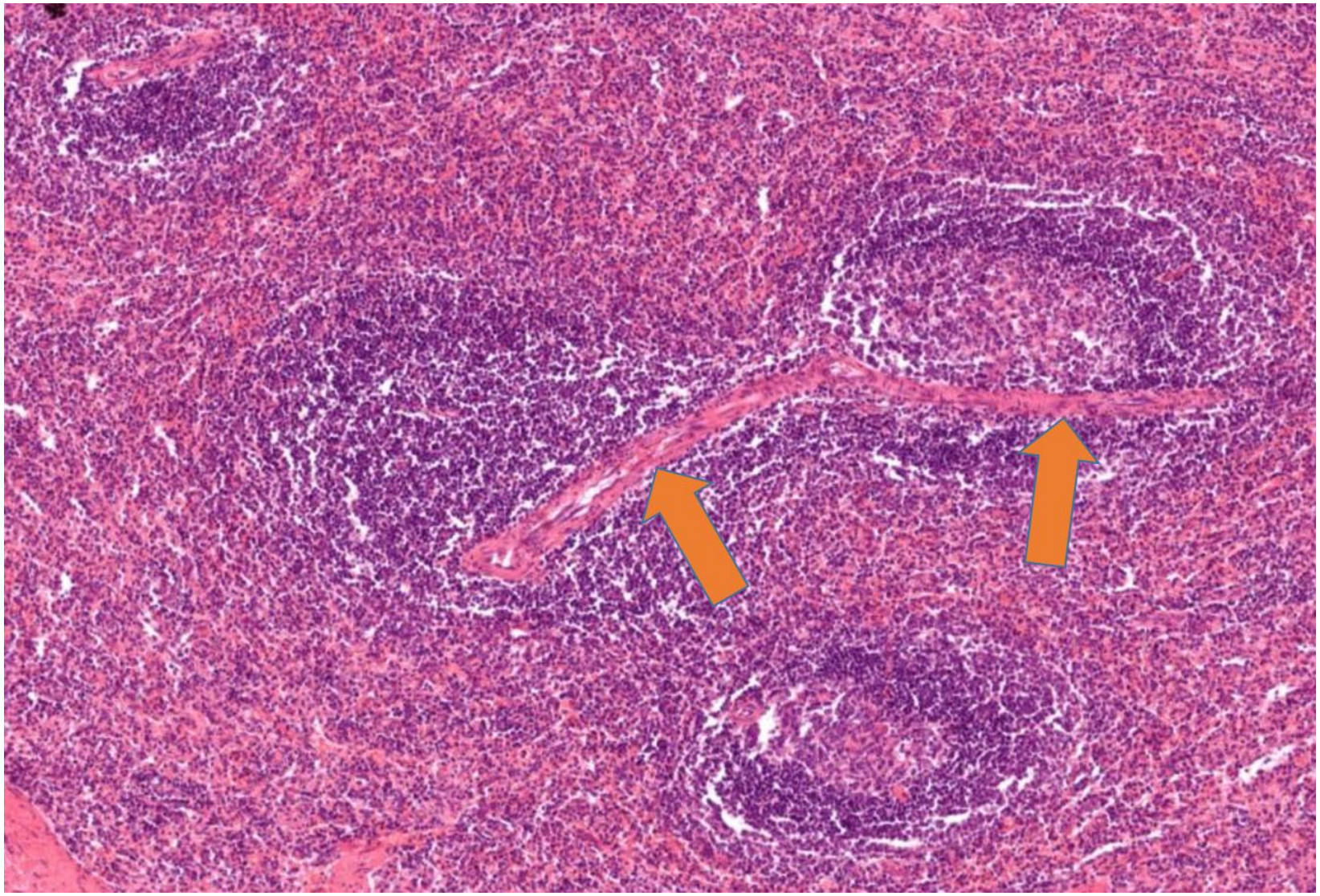
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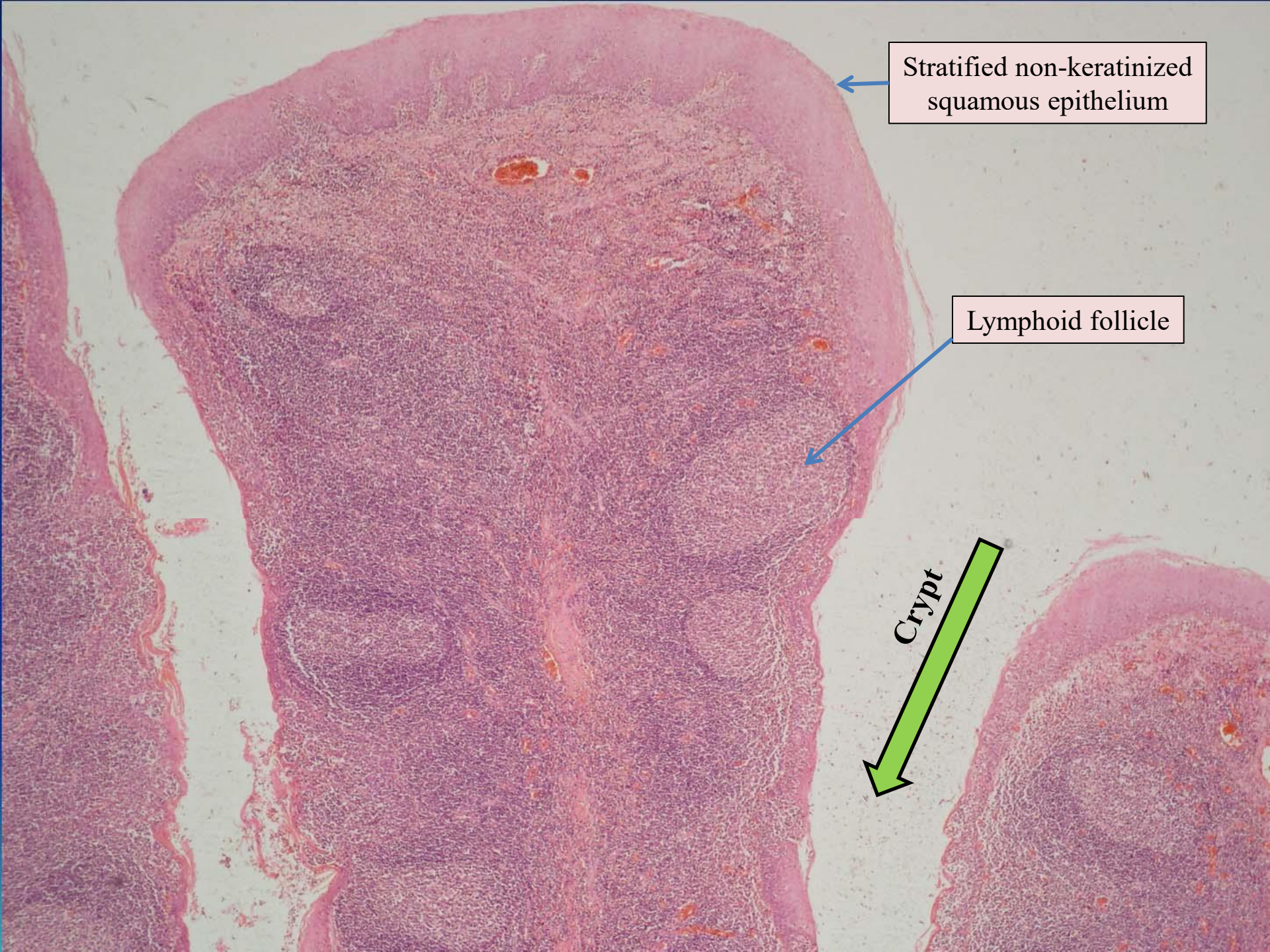


Spleen
H&E
Higher magnification

Dr. Heba Kalbouneh

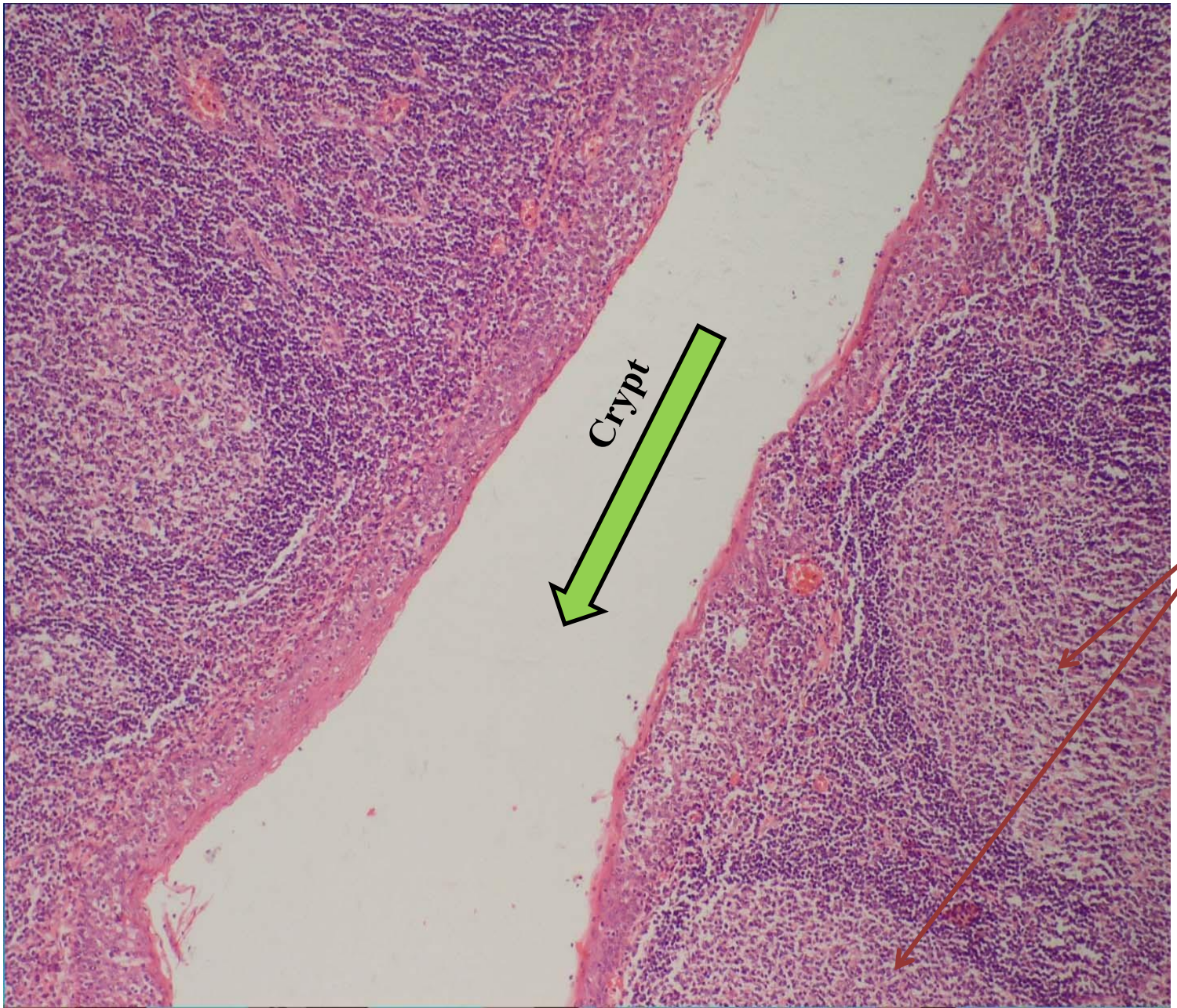
Central arteriole




Stratified non-keratinized squamous epithelium
Lymphoid follicle
Crypt

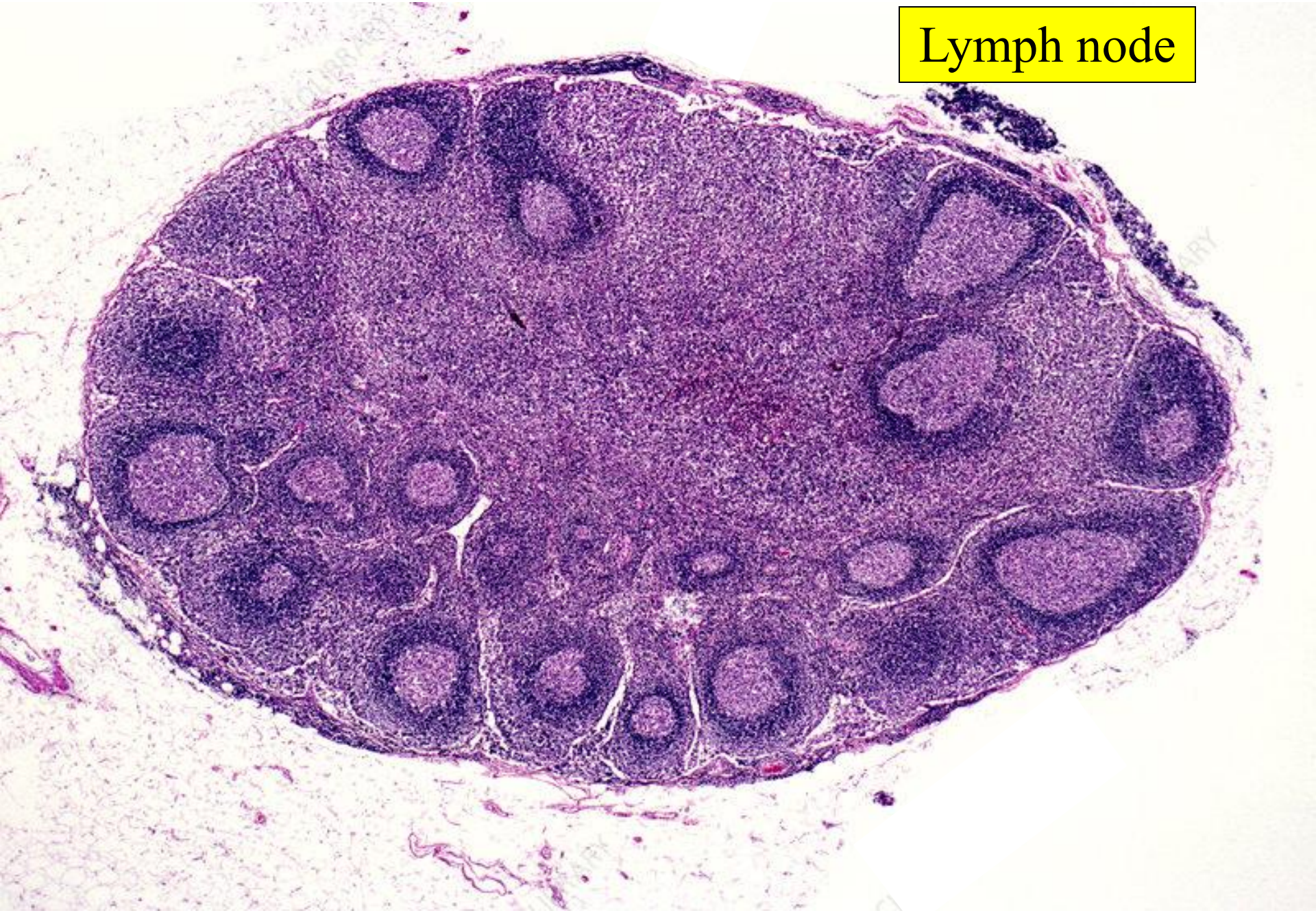


Dr. Heba Kalbouneh

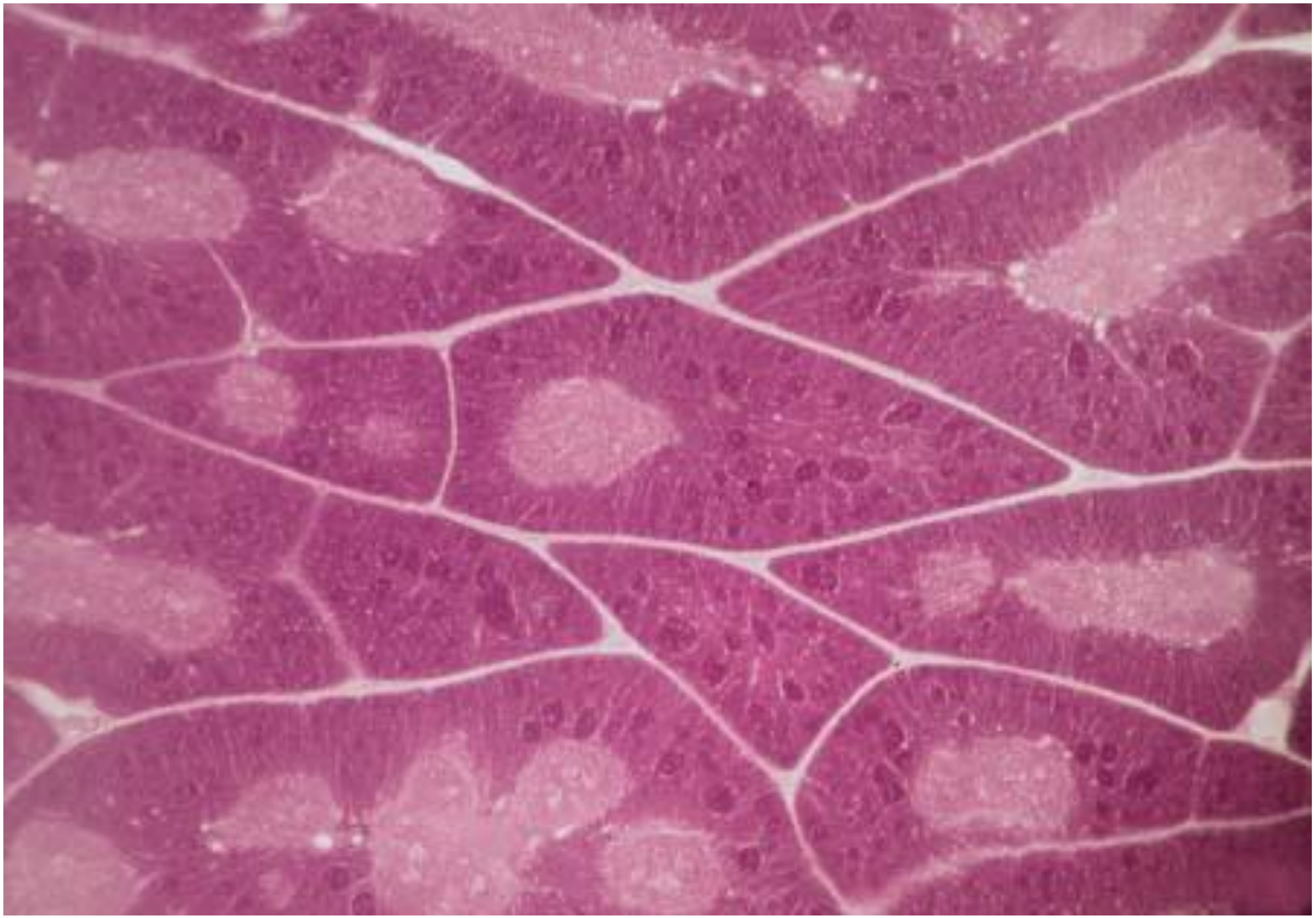


Dr. Heba Kalbouneh

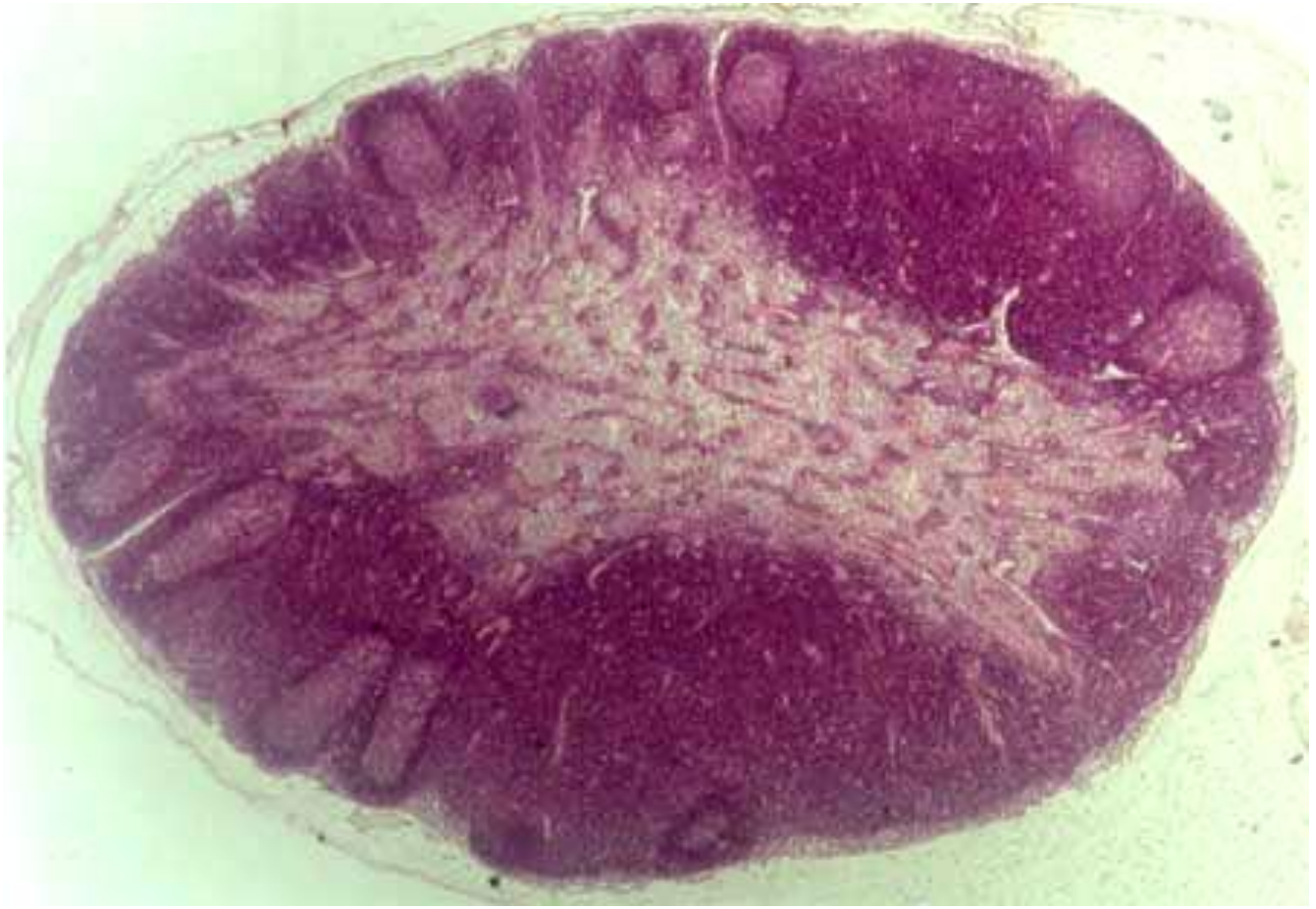
Identify


Lymph node

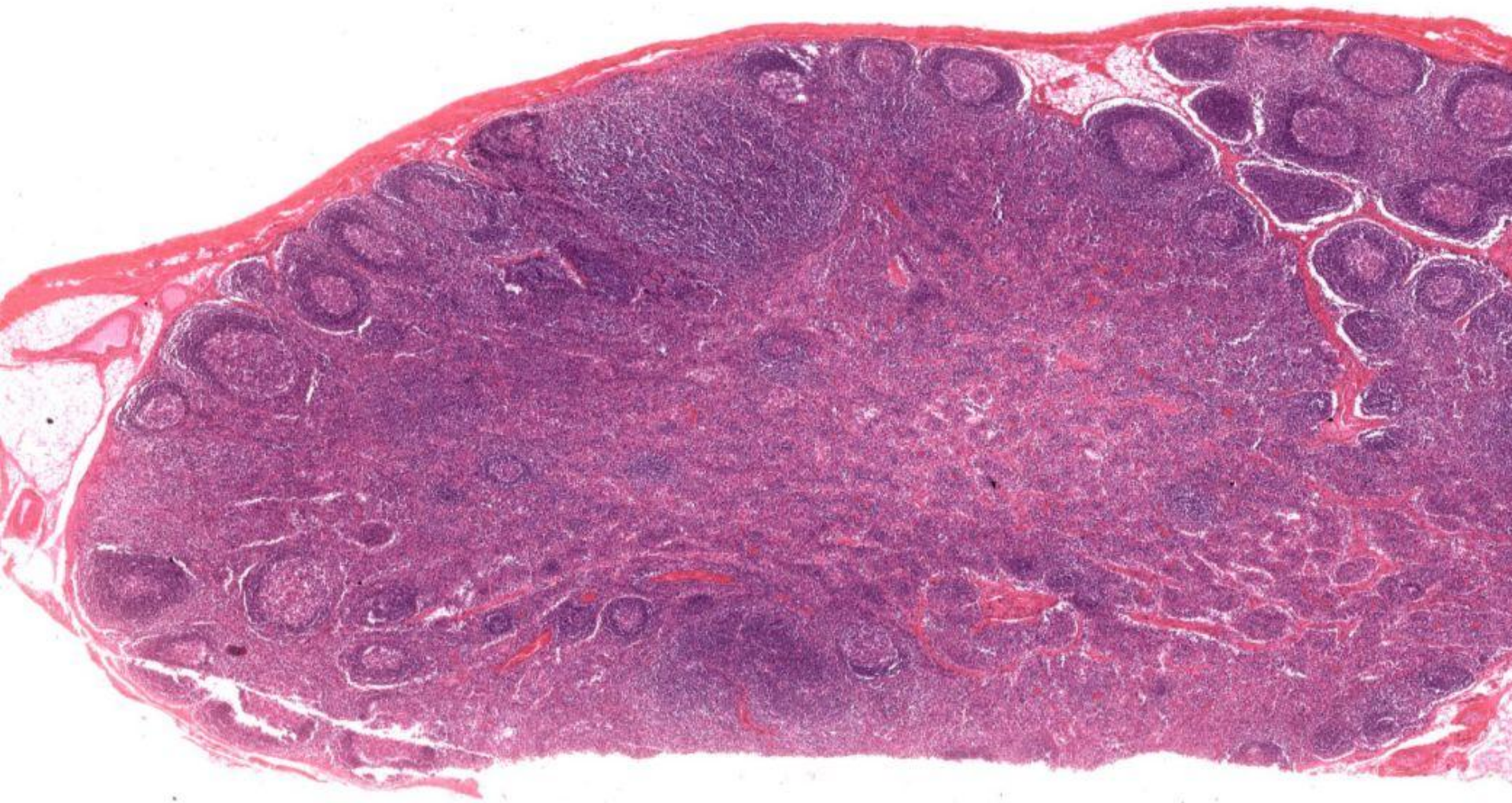
Thymus



Lymph node



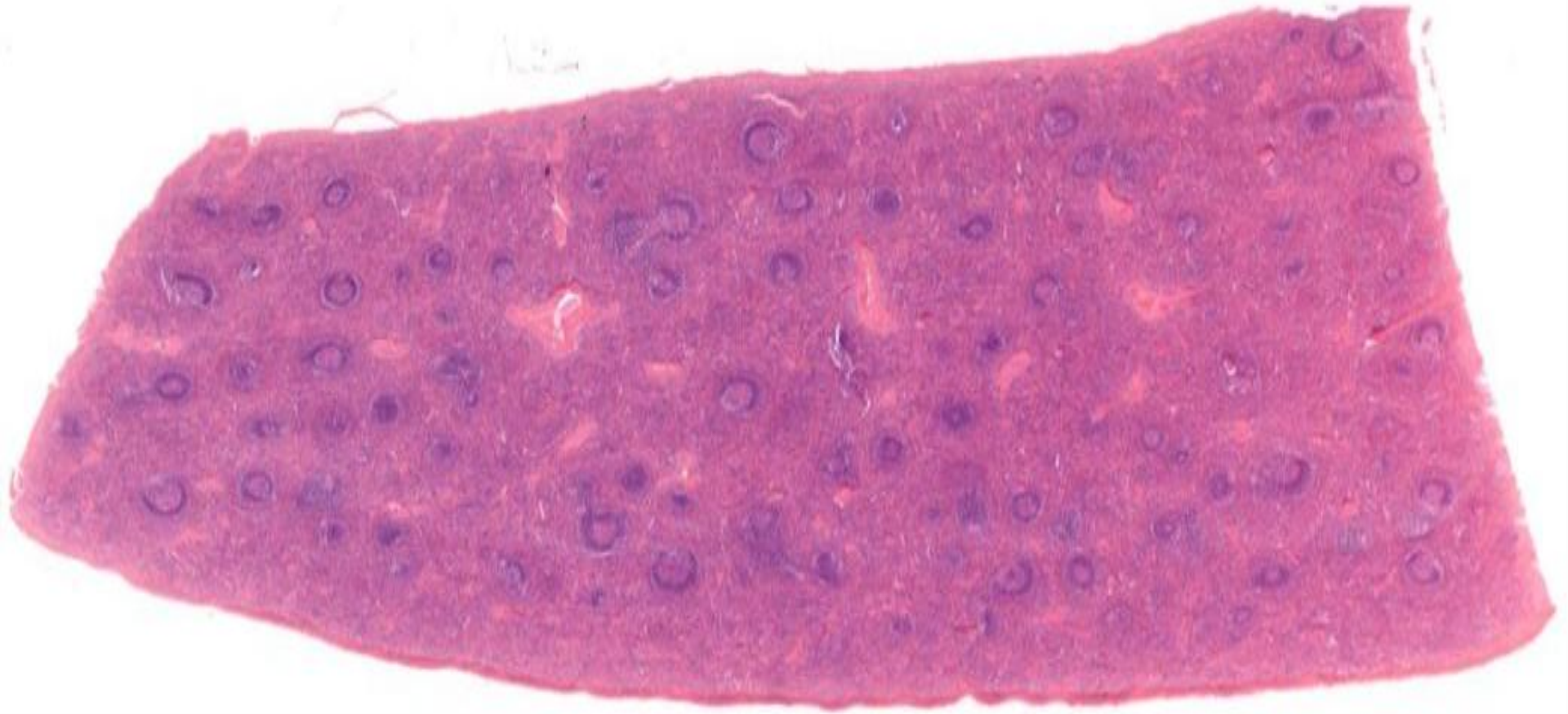
Lymph node



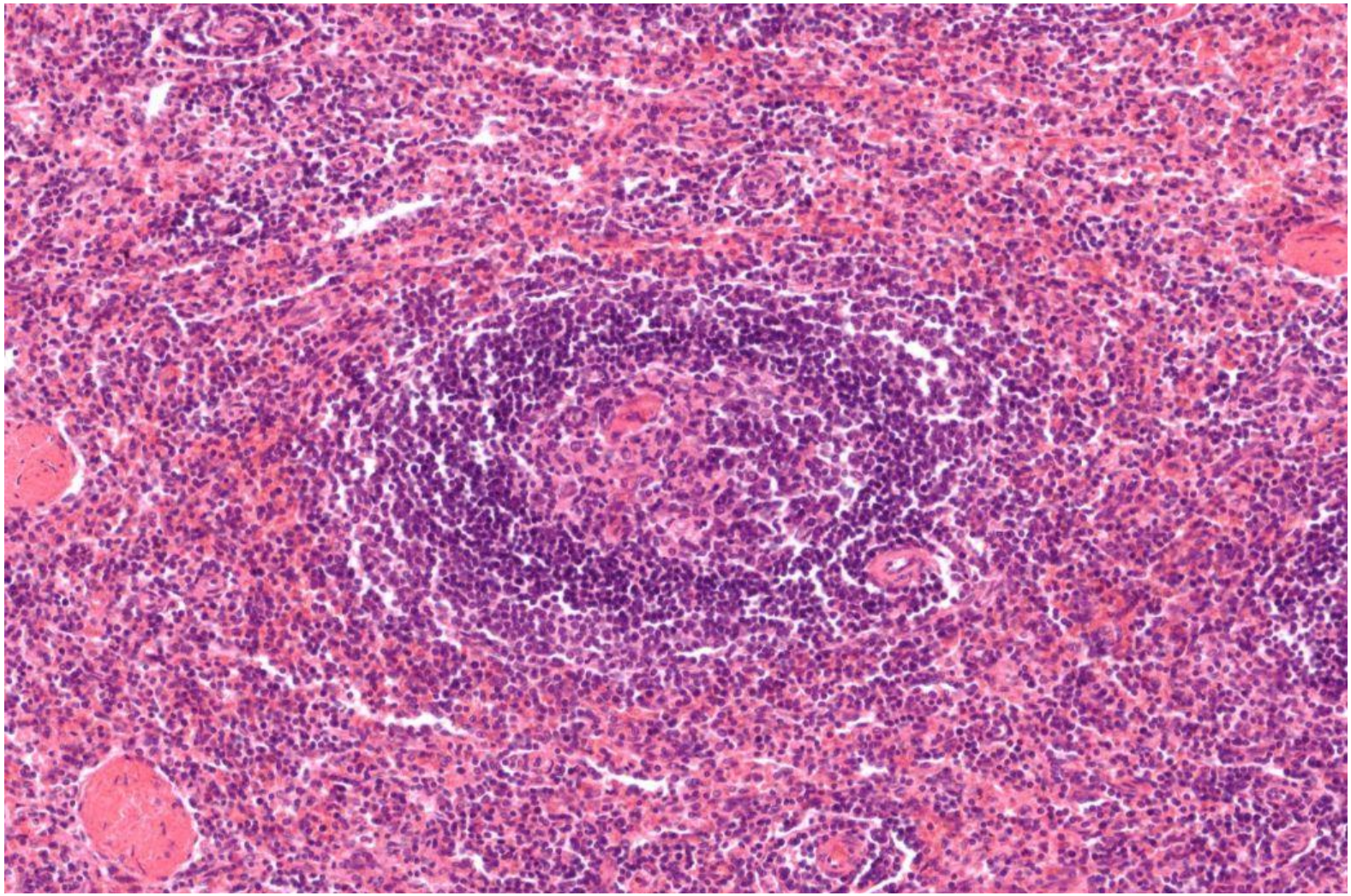
Palatine tonsils



Spleen



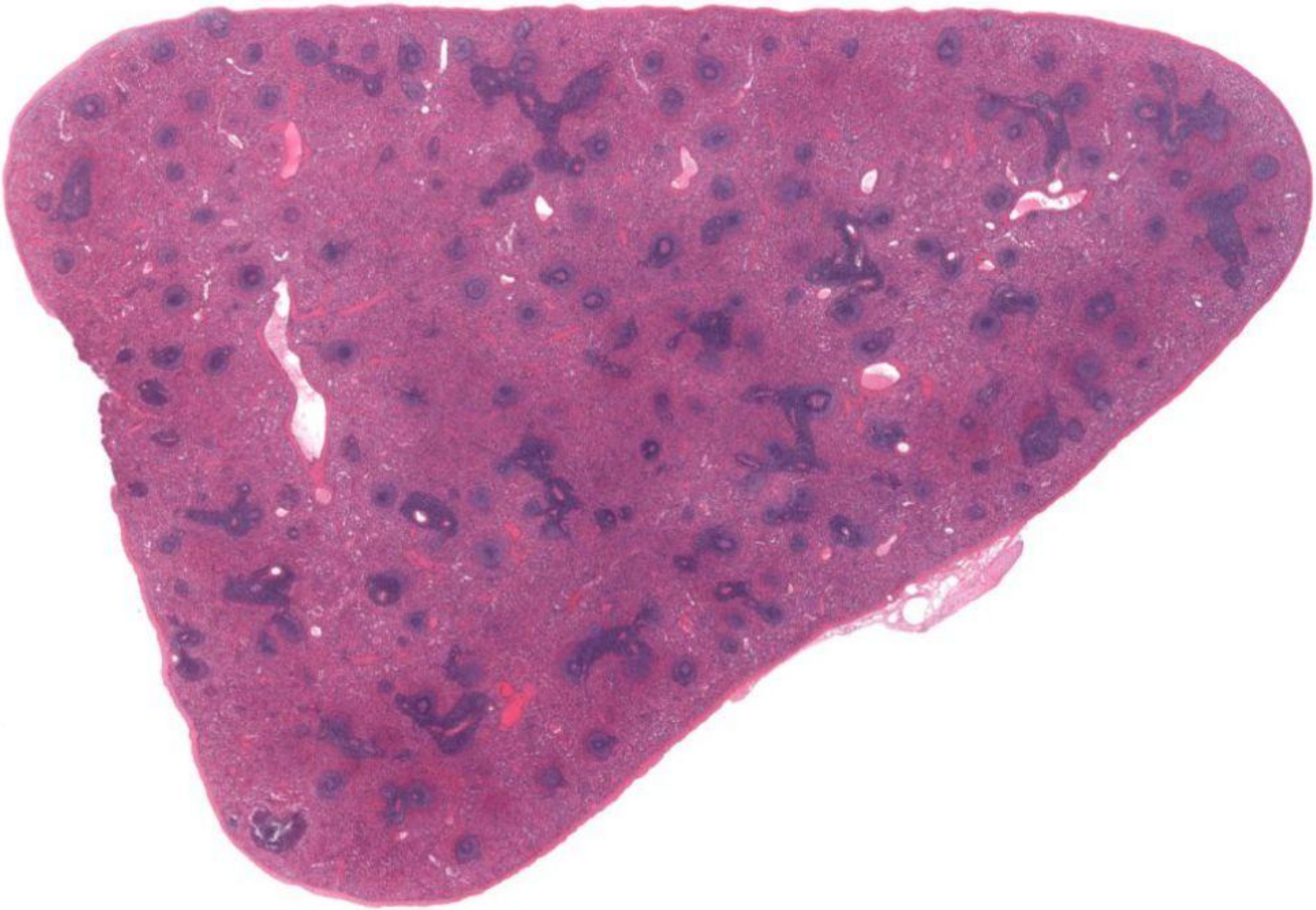
Spleen



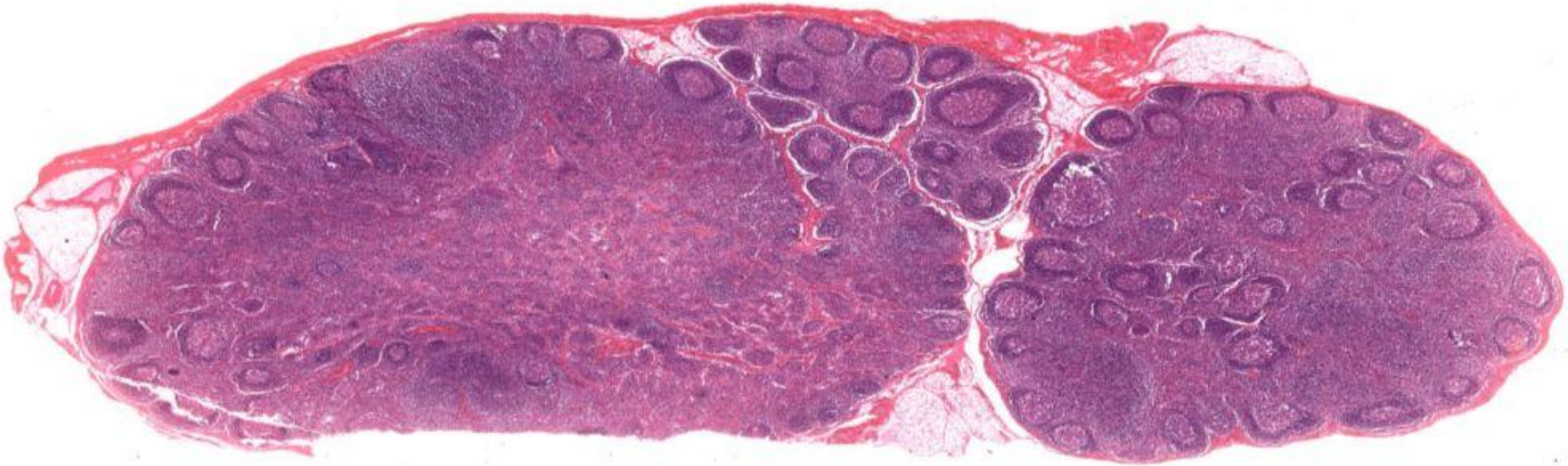
Palatine tonsils



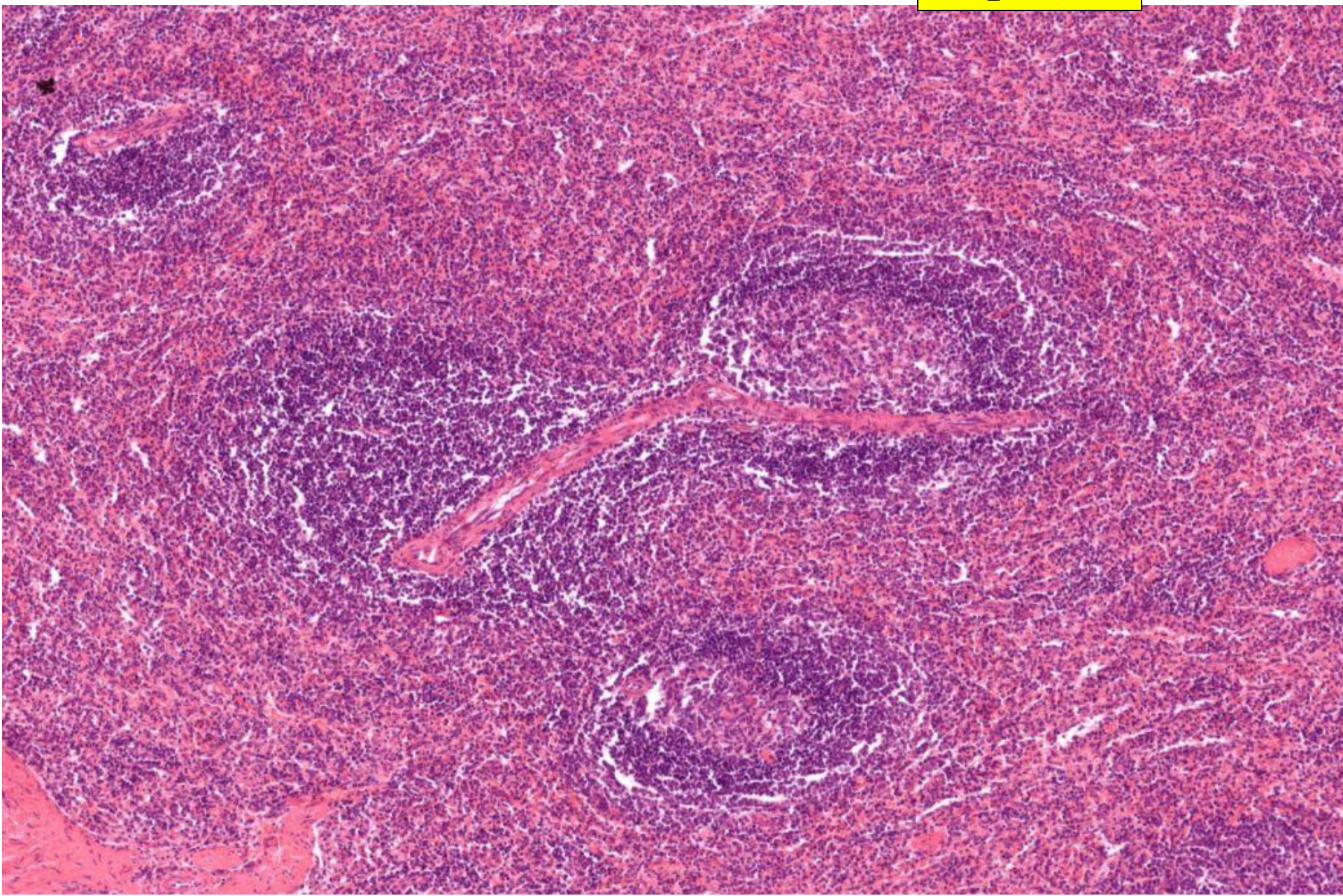
Spleen



Lymph node



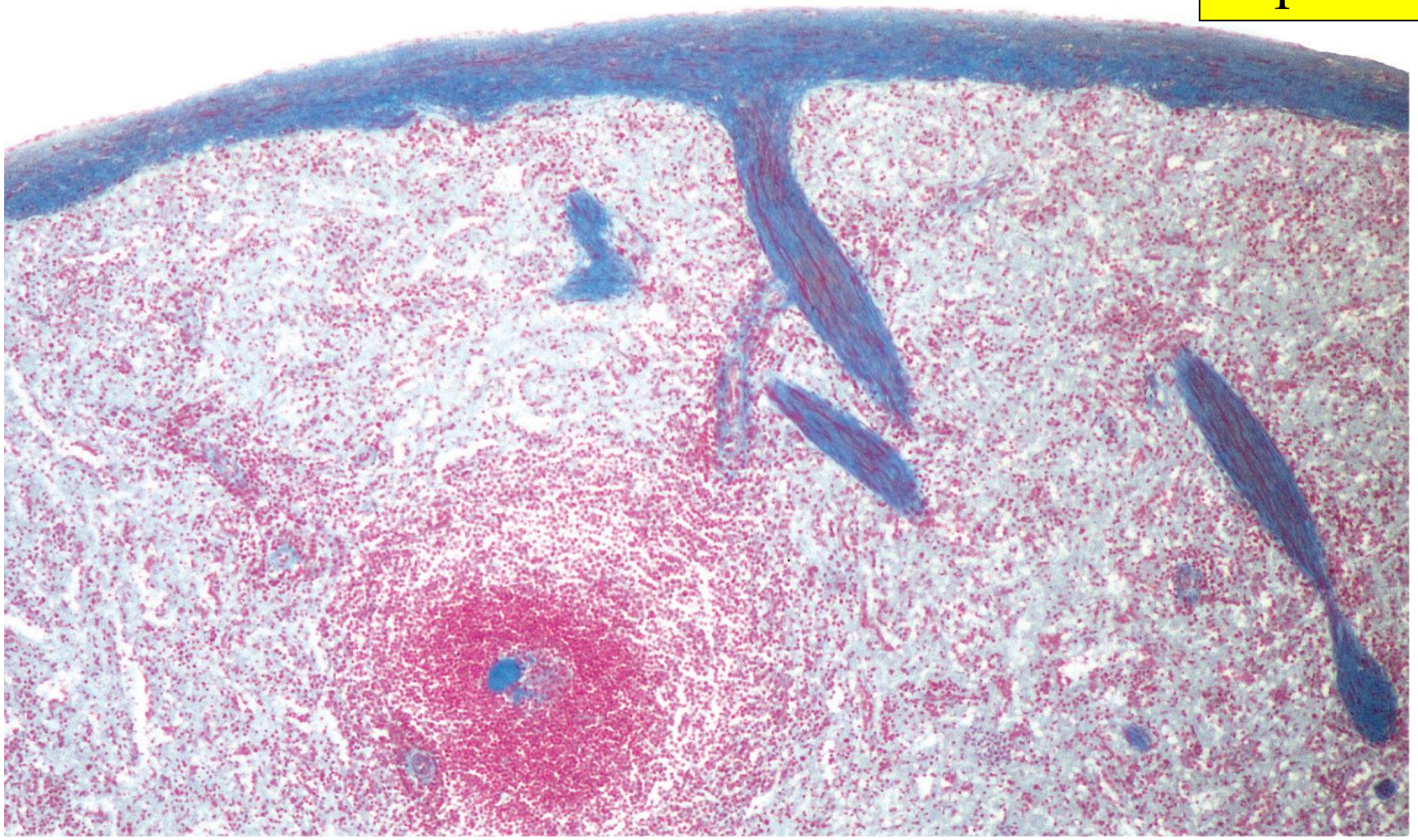
Spleen



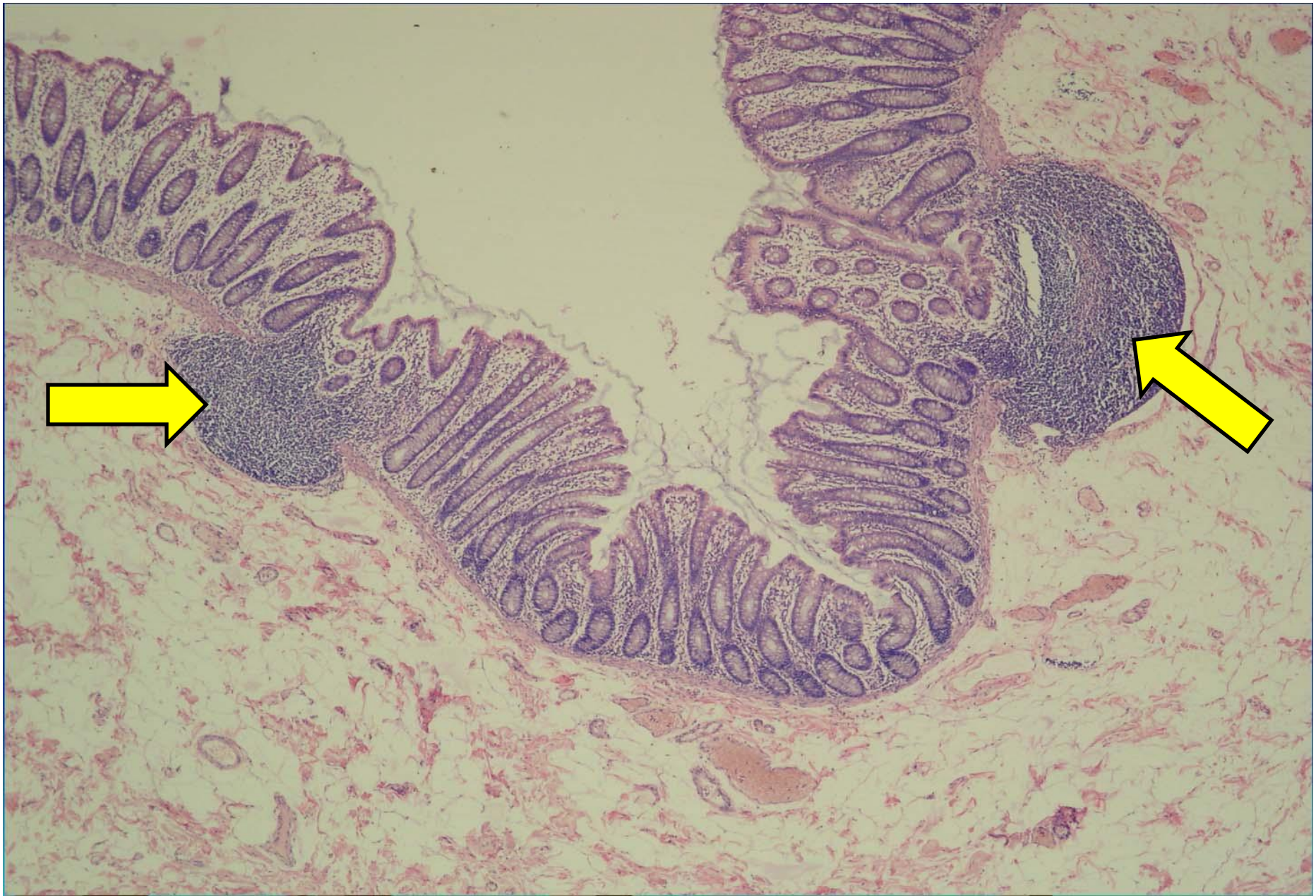
Thymus



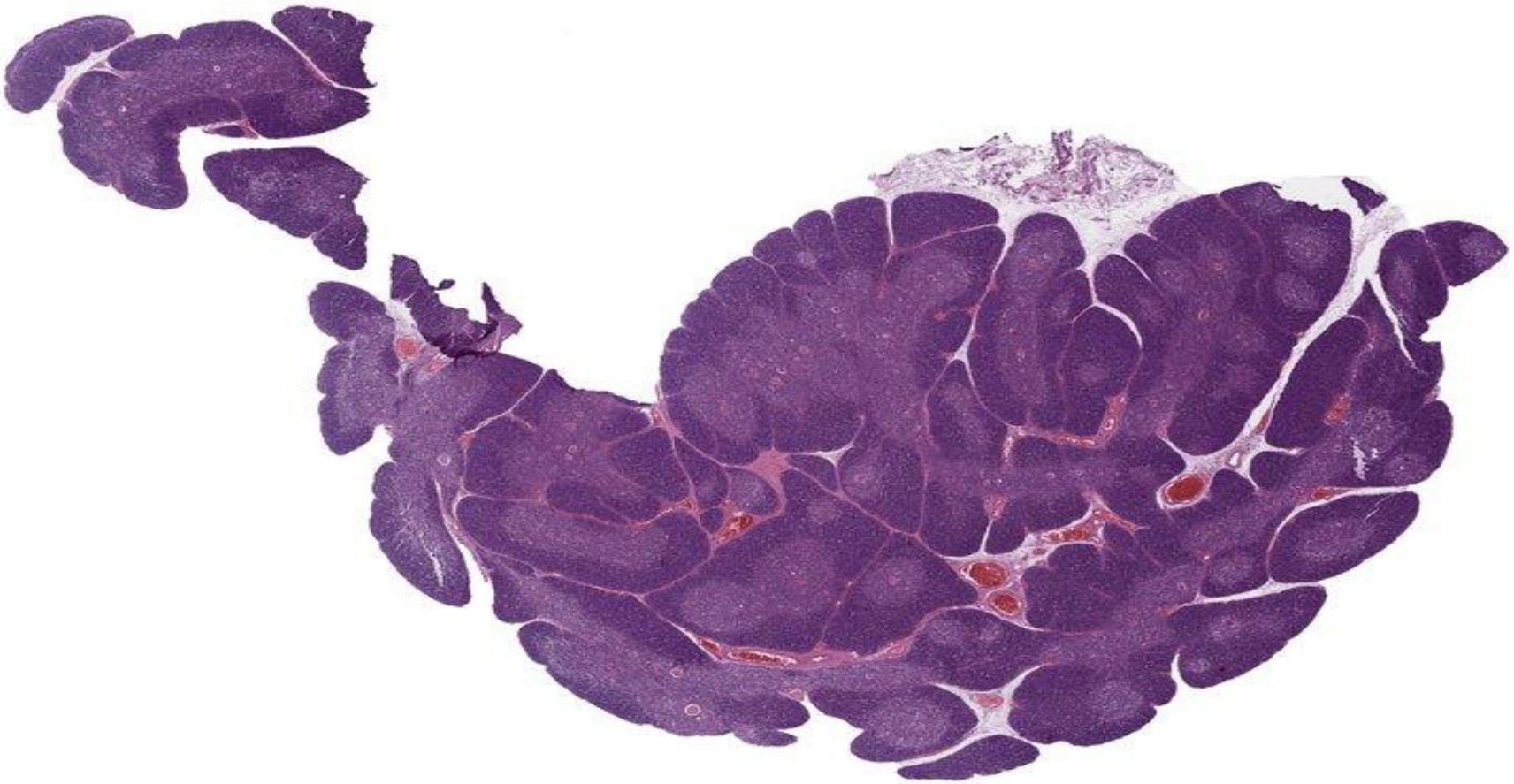
Spleen



Solitary Lymphatic nodules (diffuse lymphatic tissue

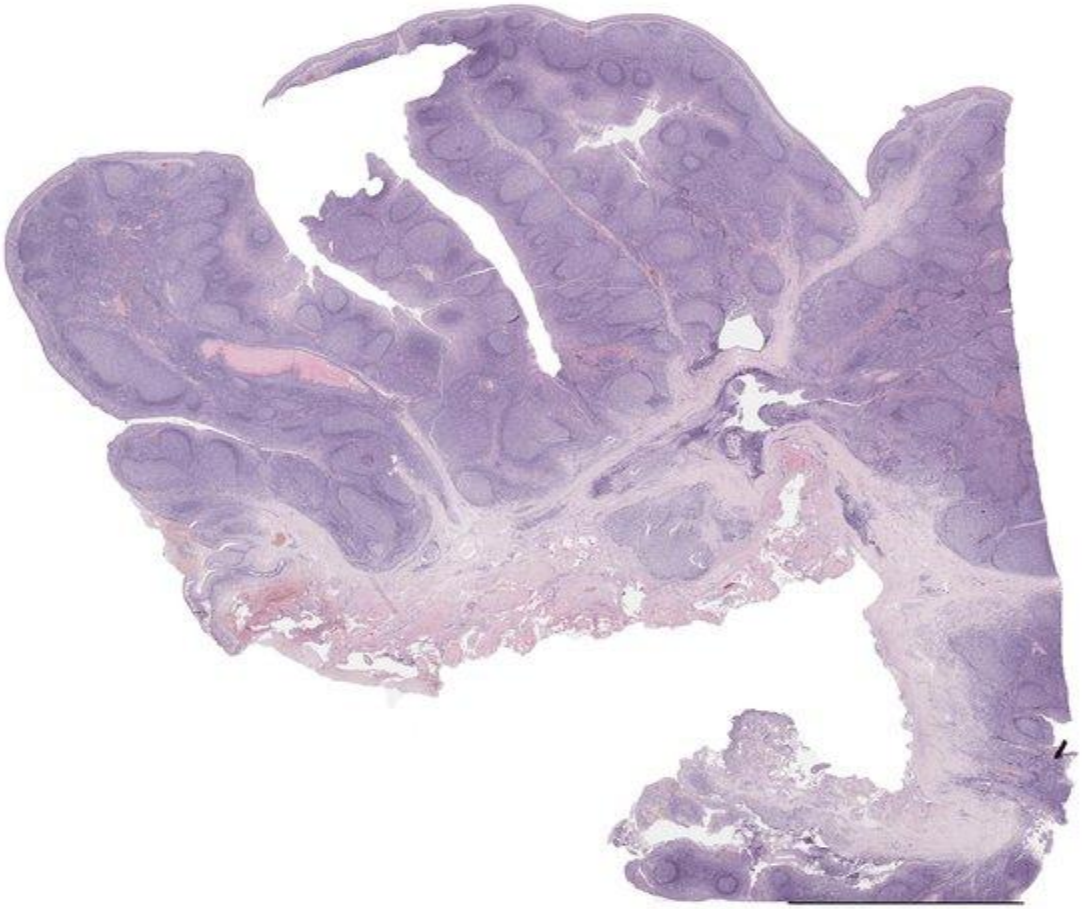


Thymus



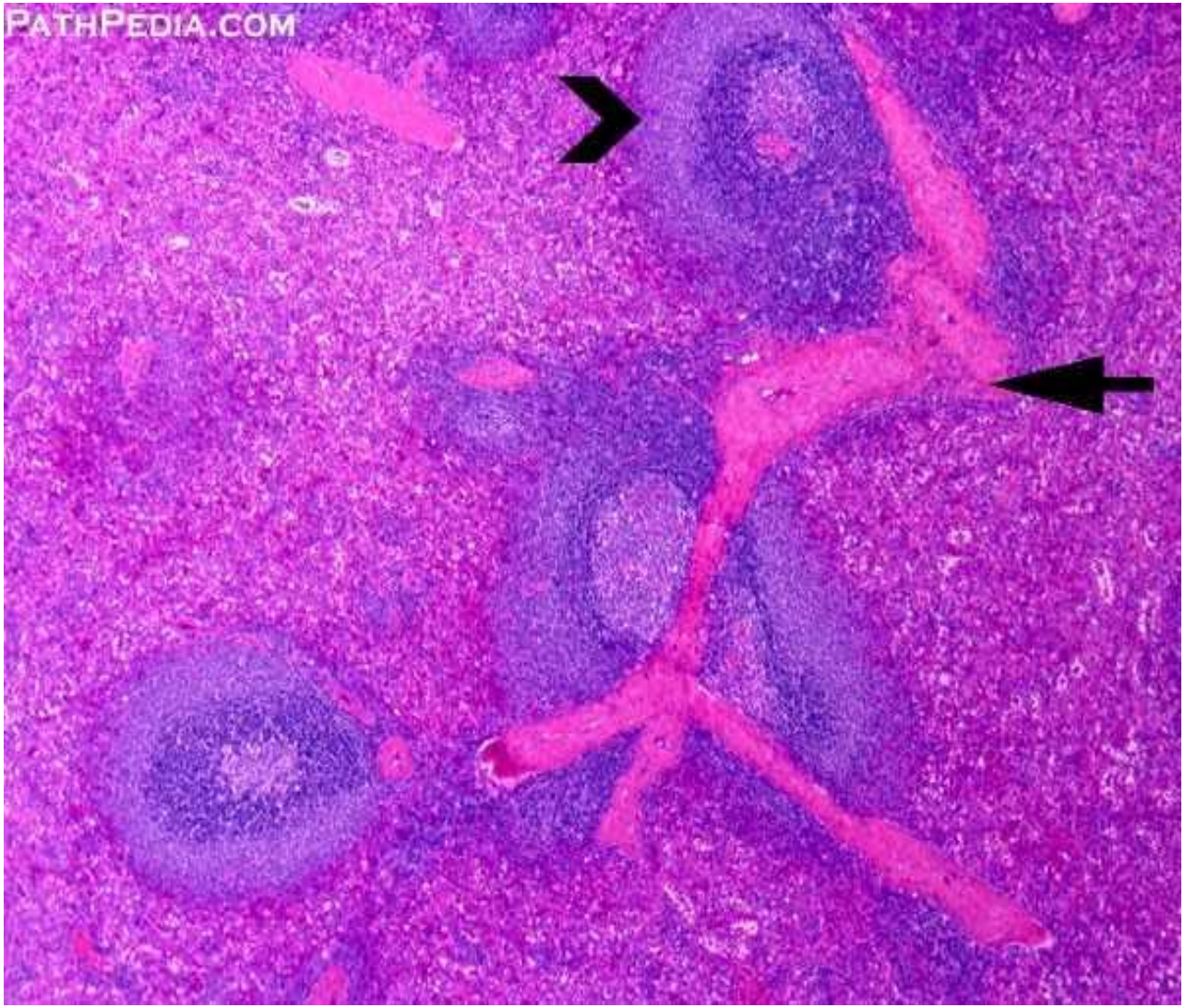
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Palatine tonsils

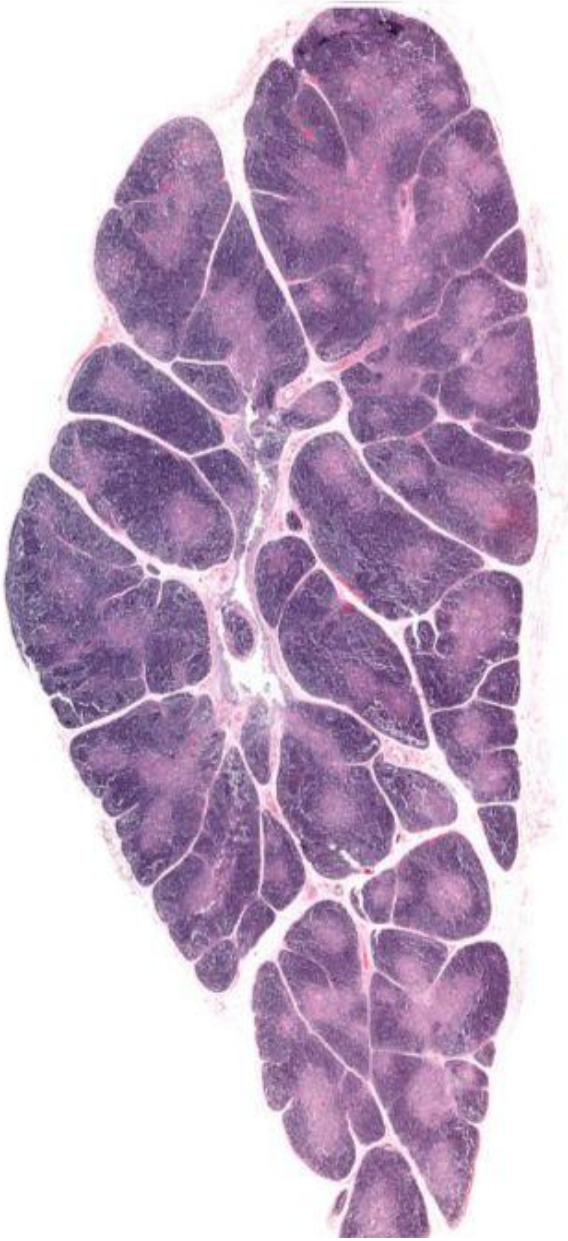


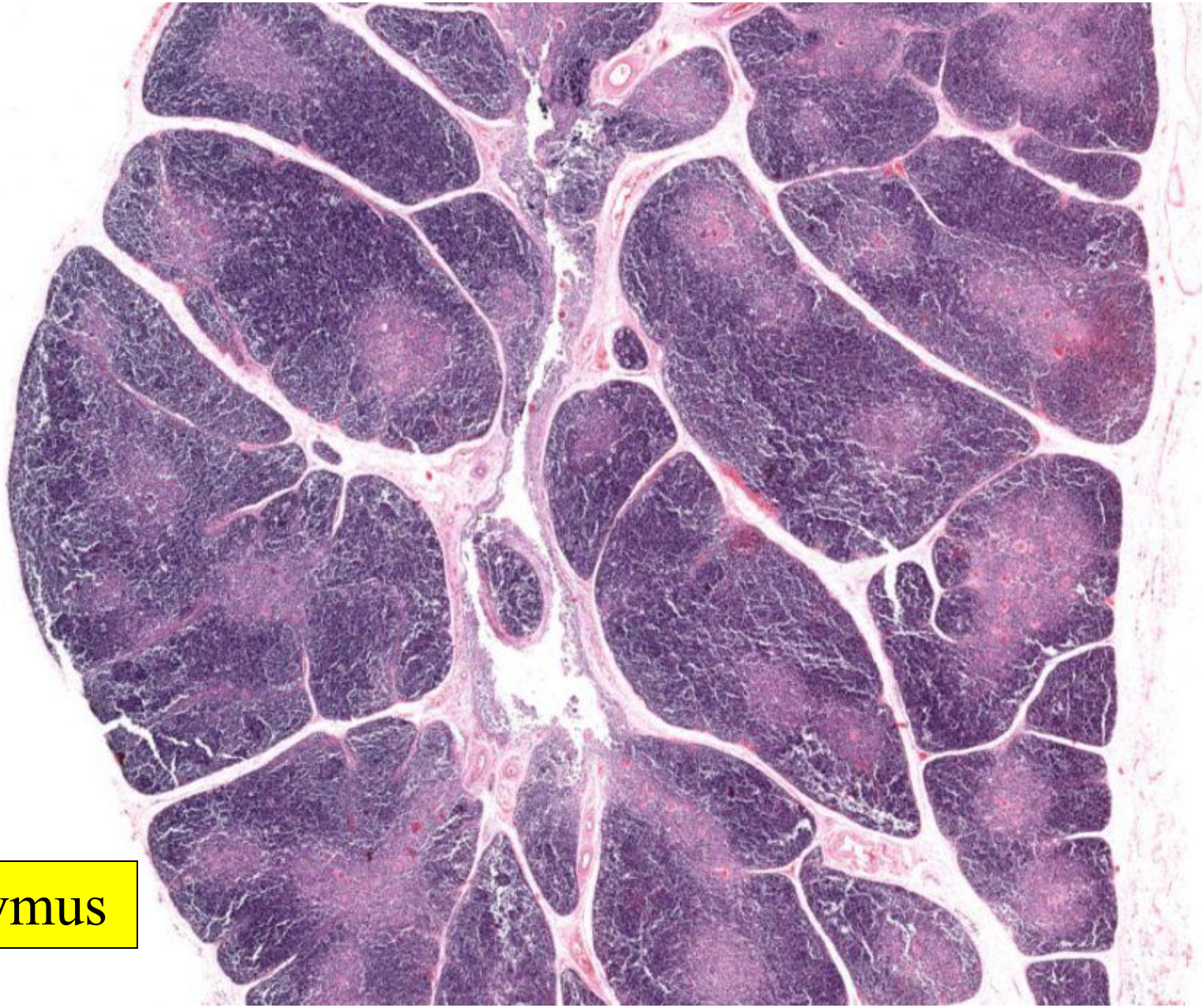
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Spleen



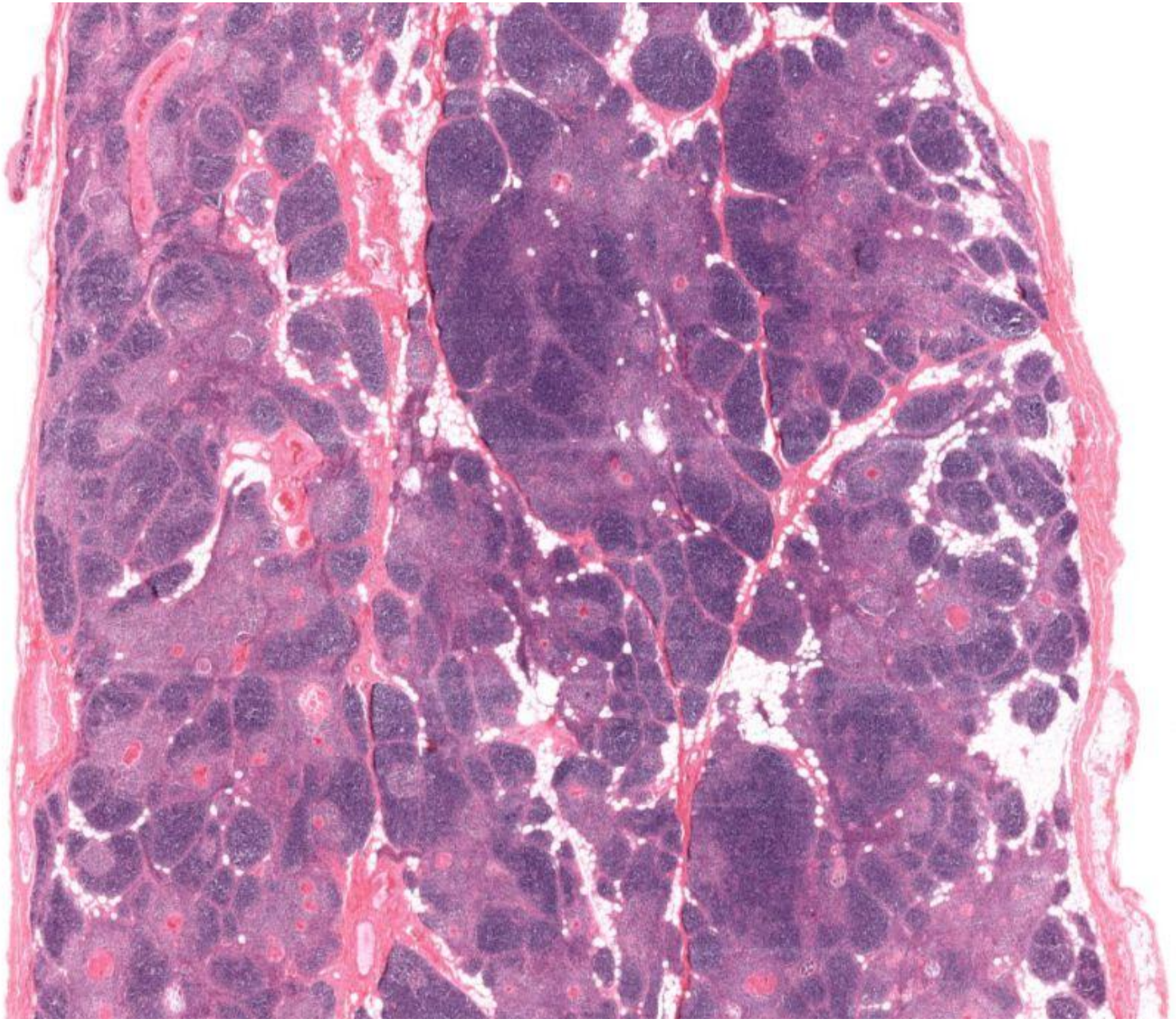
Thymus





Thymus

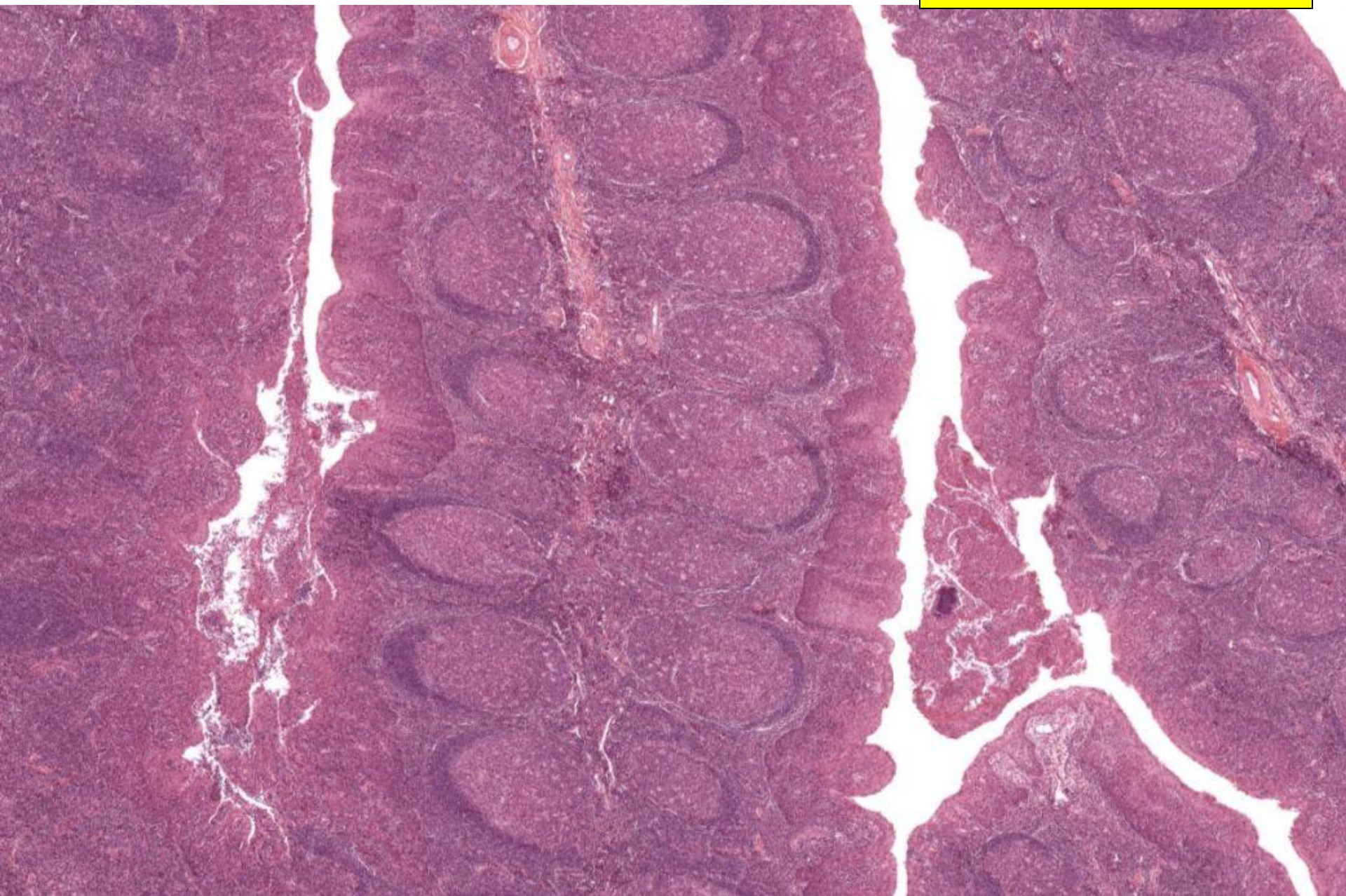
Thymus



Palatine tonsils



Palatine tonsils



	Lymph node	Spleen	Thymus
Cortex/ medulla	Present	Absent	Present
Lymphatic follicles (nodules)	Present (in cortex only)	Present (in white pulp only)	Absent
Lymphatic vessels	Afferents at capsule, emptying into subcapsular sinus; efferent at hilum	No afferents; efferents in trabeculae	No afferents; few efferents in septa
Unique features	Thin paracortical region between cortex and medulla, with high endothelial venules (HEV); medullary cords and sinuses	Minor white pulp component, with central arterioles; major red pulp component, with many sinusoids	Hassall (thymic) corpuscles in medulla; epithelial- reticular cells in cortex and medulla