

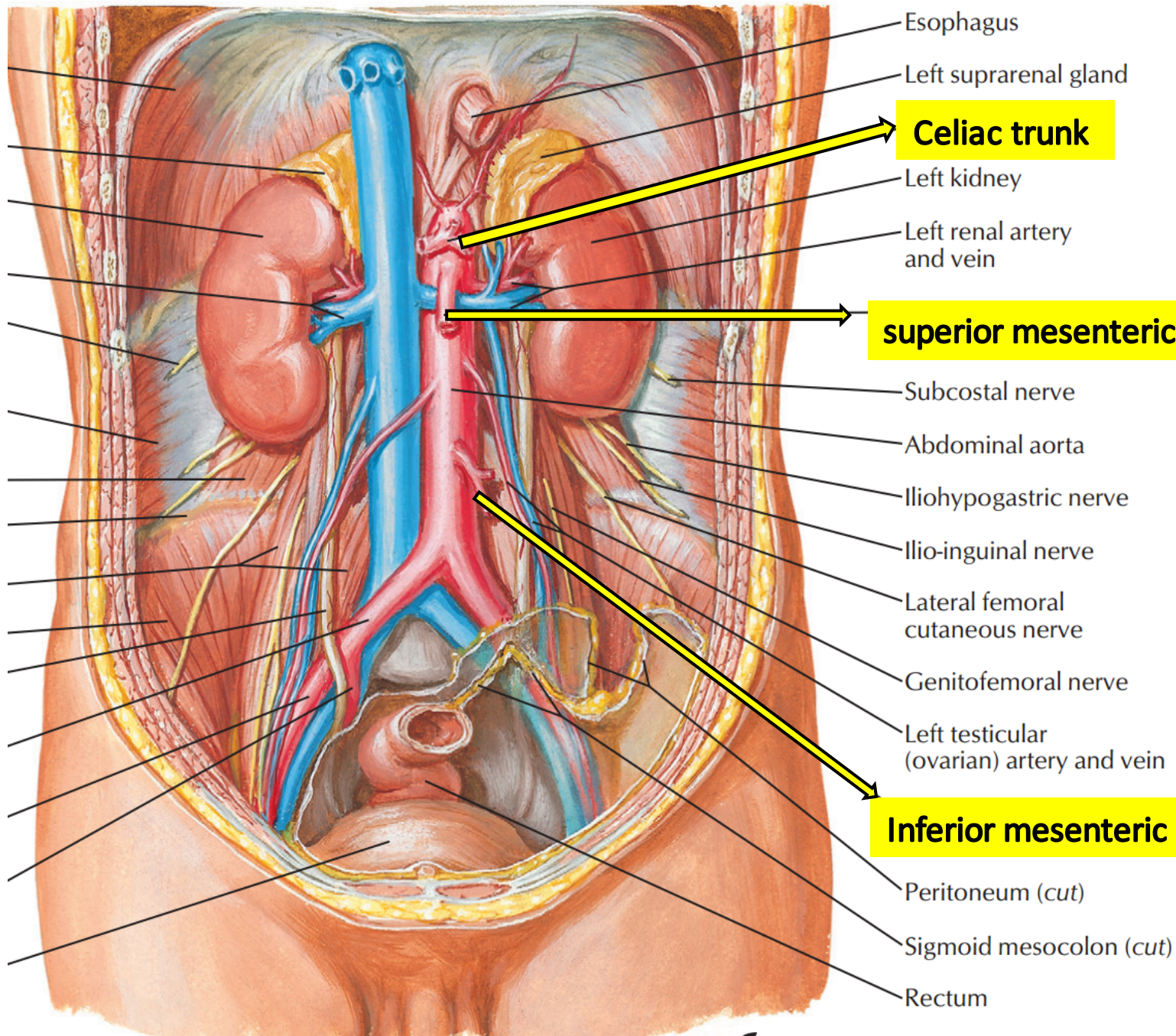
BLOOD SUPPLY OF ABDOMINAL VISCERA

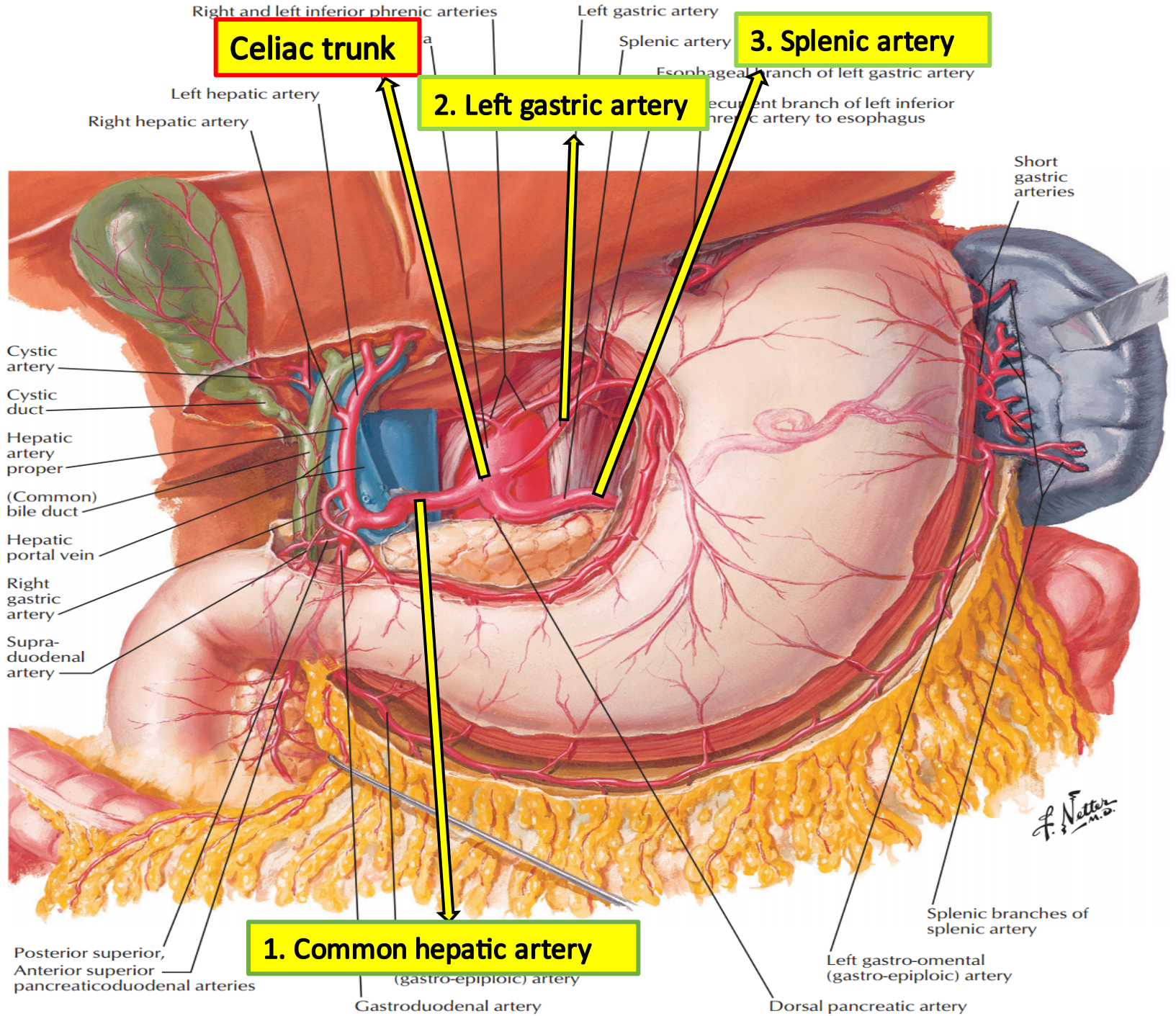
Dr. Afsal Muhammed

27-06-2017

Arterial supply

ARTERY BRANCH	VERTEBRAE	TYPE	PAIRED?	A/P
<i>INFERIOR PHRENIC</i>	T12	Parietal	YES	post.
<i>CELIAC</i>	T12	Visceral	NO	ant.
<i>SUPERIOR MESENTERIC</i>	L1	Visceral	NO	ant.
<i>MIDDLE SUPRARENAL</i>	L1	Visceral	YES	post.
<i>RENAL</i>	In between L1 and L2	Visceral	YES	post.
<i>GONADAL</i>	L2	Visceral	YES	ant.
<i>LUMBAR</i>	L1-L4	Parietal	YES	post.
<i>INFERIOR MESENTERIC</i>	L3	Visceral	NO	ant.
<i>MEDIAN SACRAL</i>	L4	Parietal	NO	post.
<i>COMMON ILIAC</i>	L4	Terminal	YES	post.





Celiac trunk

2. Left gastric artery

3. Splenic artery

1. Common hepatic artery

Right and left inferior phrenic arteries

Left gastric artery

Splenic artery

Esophageal branch of left gastric artery

Recurrent branch of left inferior phrenic artery to esophagus

Left hepatic artery

Right hepatic artery

Short gastric arteries

Cystic artery

Cystic duct

Hepatic artery proper

(Common) bile duct

Hepatic portal vein

Right gastric artery

Supra-duodenal artery

Posterior superior, Anterior superior pancreaticoduodenal arteries

(gastro-epiploic) artery

Gastroduodenal artery

Left gastro-epiploic (gastro-epiploic) artery

Dorsal pancreatic artery

Splenic branches of splenic artery

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Arteries

Celiac Trunk

(Axis) Branches

(Highly Variable)

- ***Left gastric artery***

- ***Splenic artery branches***

- Posterior gastric artery: to posterior body and fundus

- Left gastroepiploic artery

- Short gastric arteries: to fundus region

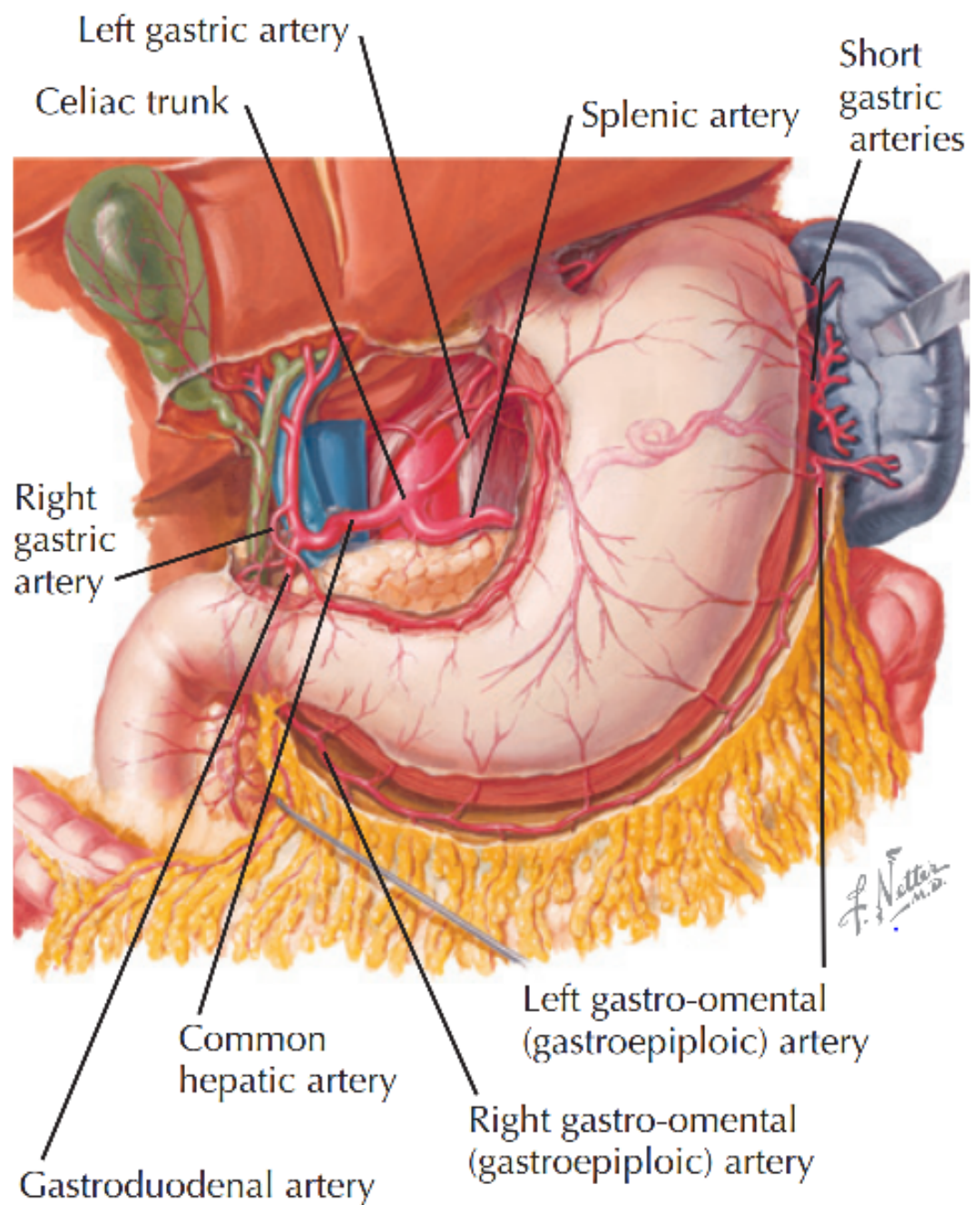
- ***Common hepatic artery branches***

- Right gastric artery: to right side of lesser curvature (may be off left or right hepatic)

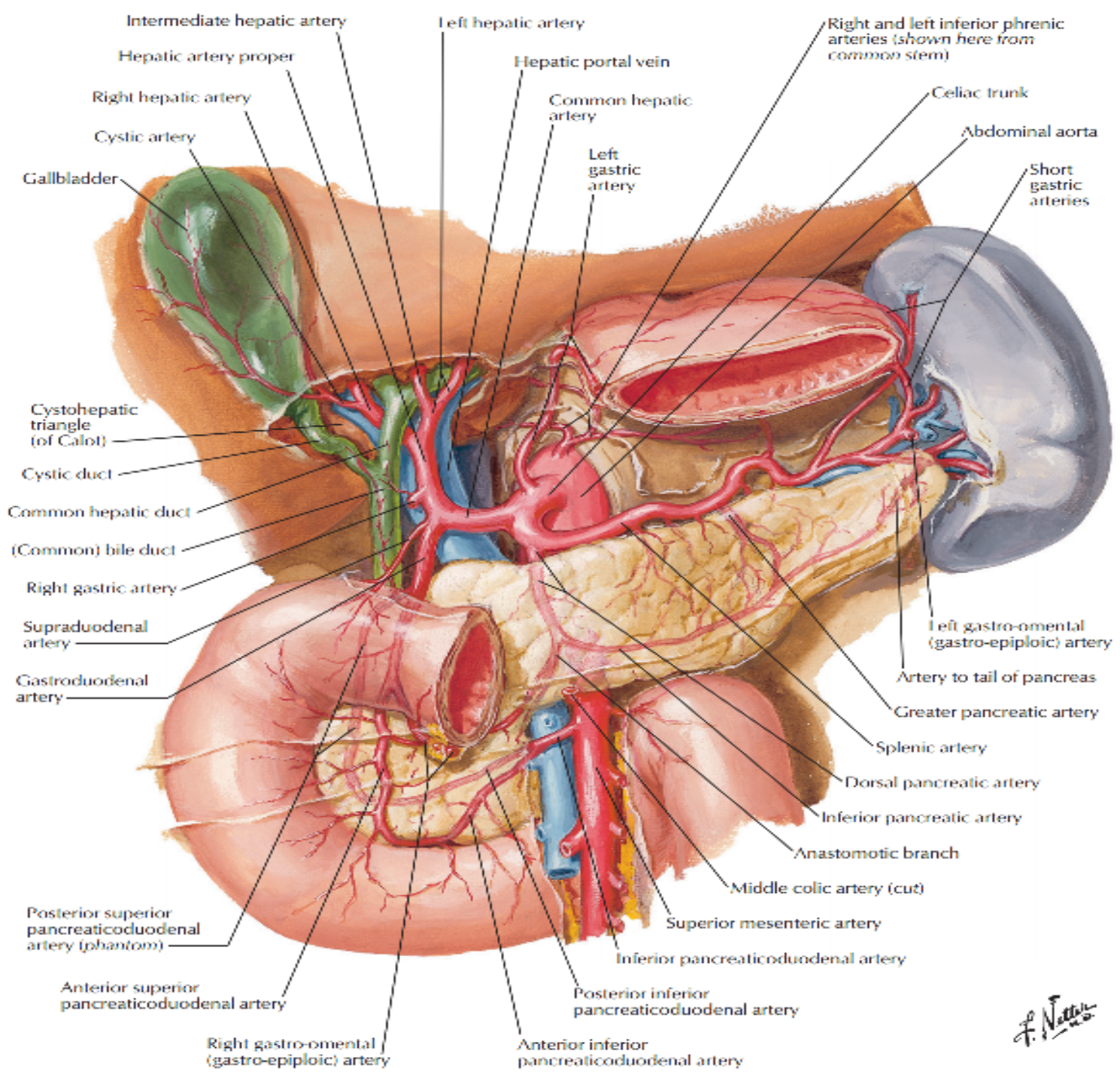
- Proper hepatic artery

- Gastroduodenal artery

- Right gastroepiploic artery: pancreaticoduodenal



Arteries of the Stomach

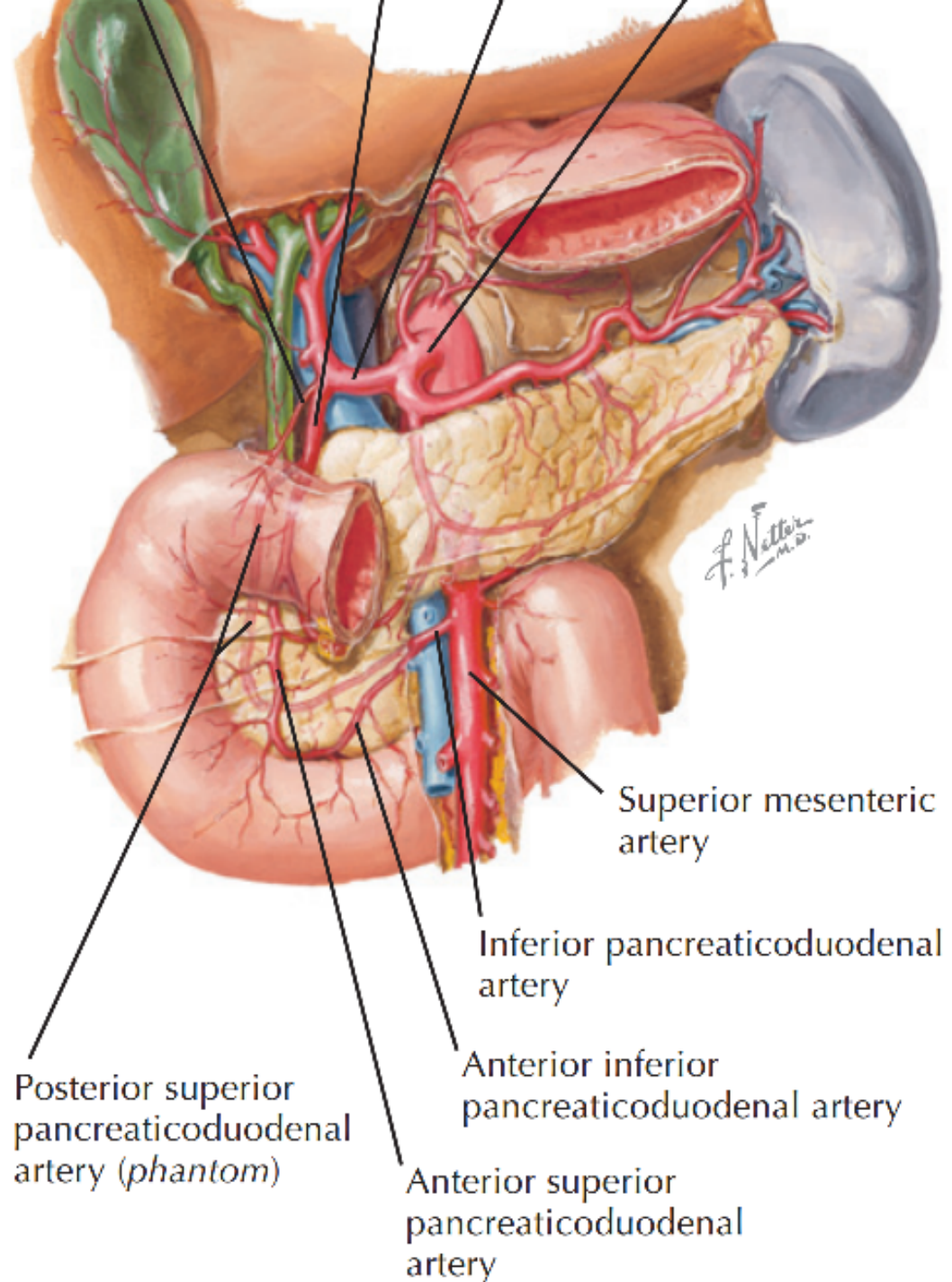


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Superior Mesenteric Artery

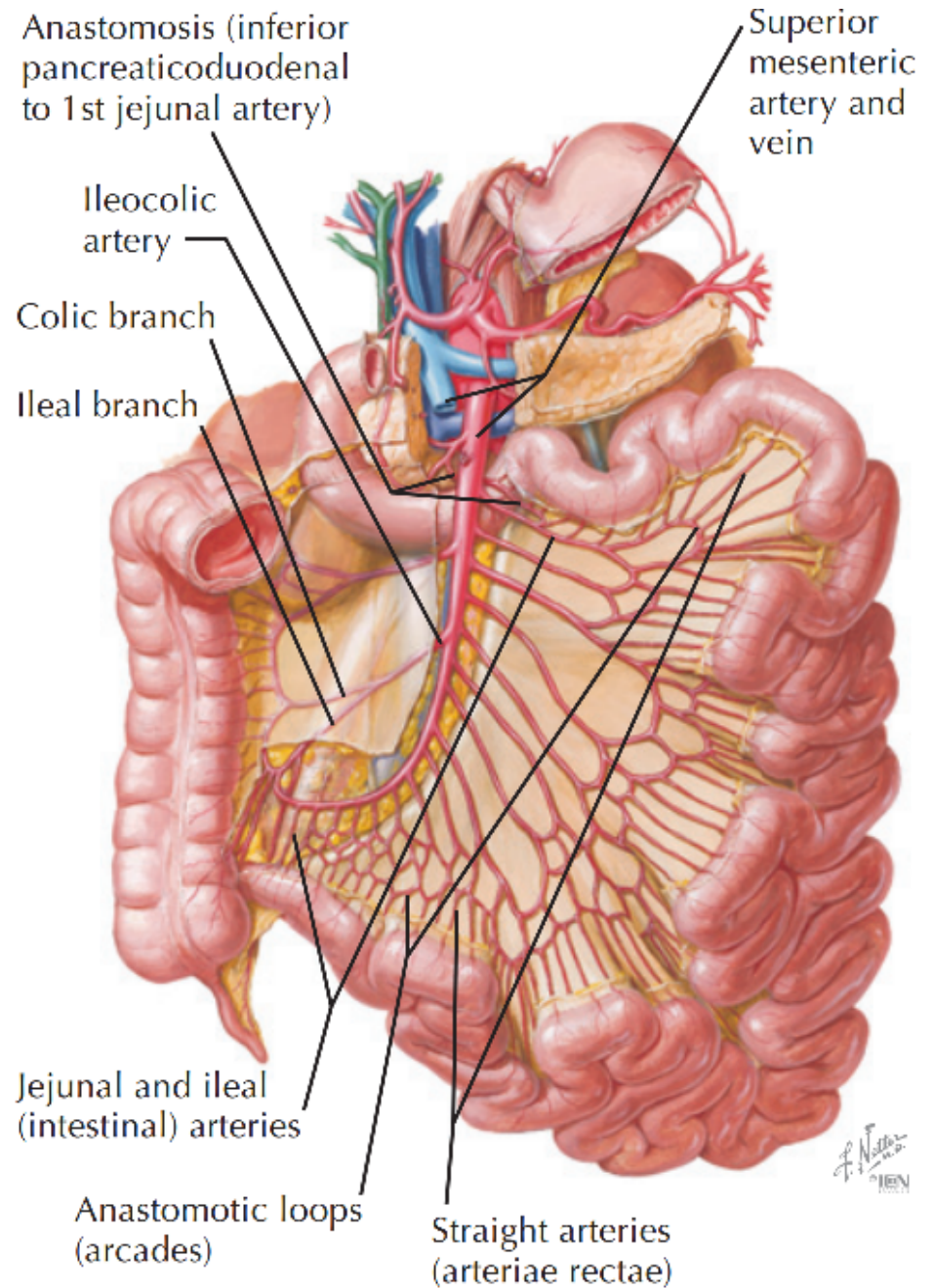
- **Inferior pancreaticoduodenal artery**

→ Anterior and posterior branches anastomose with superior pancreaticoduodenal branches. (Supply duodenum distal to bile duct)



Superior Mesenteric Artery

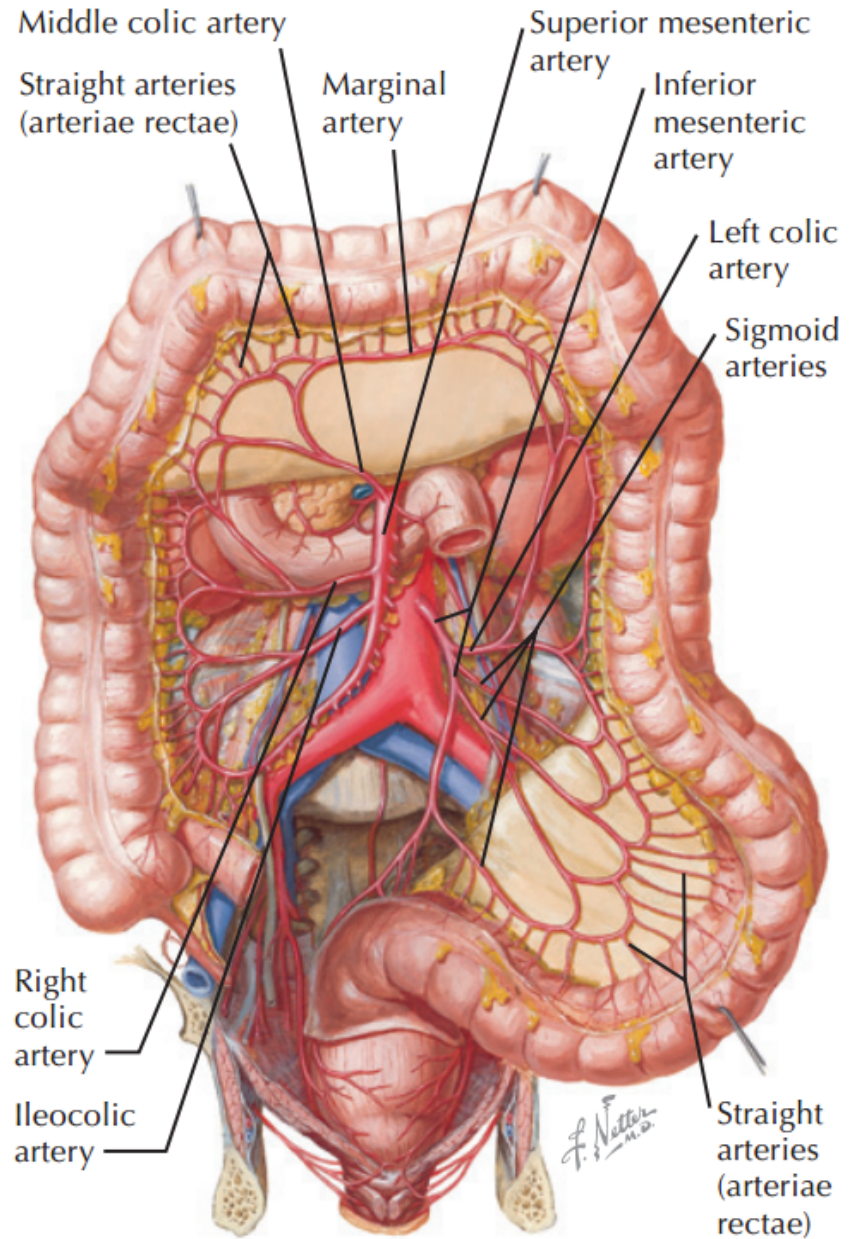
- *Jejunal branches*
- *Ileal branches*
- *Ileocolic artery (with appendiceal branch)*
- *Arcades link adjoining jejunal and ileal branches.*
- *Vasa rectae connect from arcades to bowel walls.*



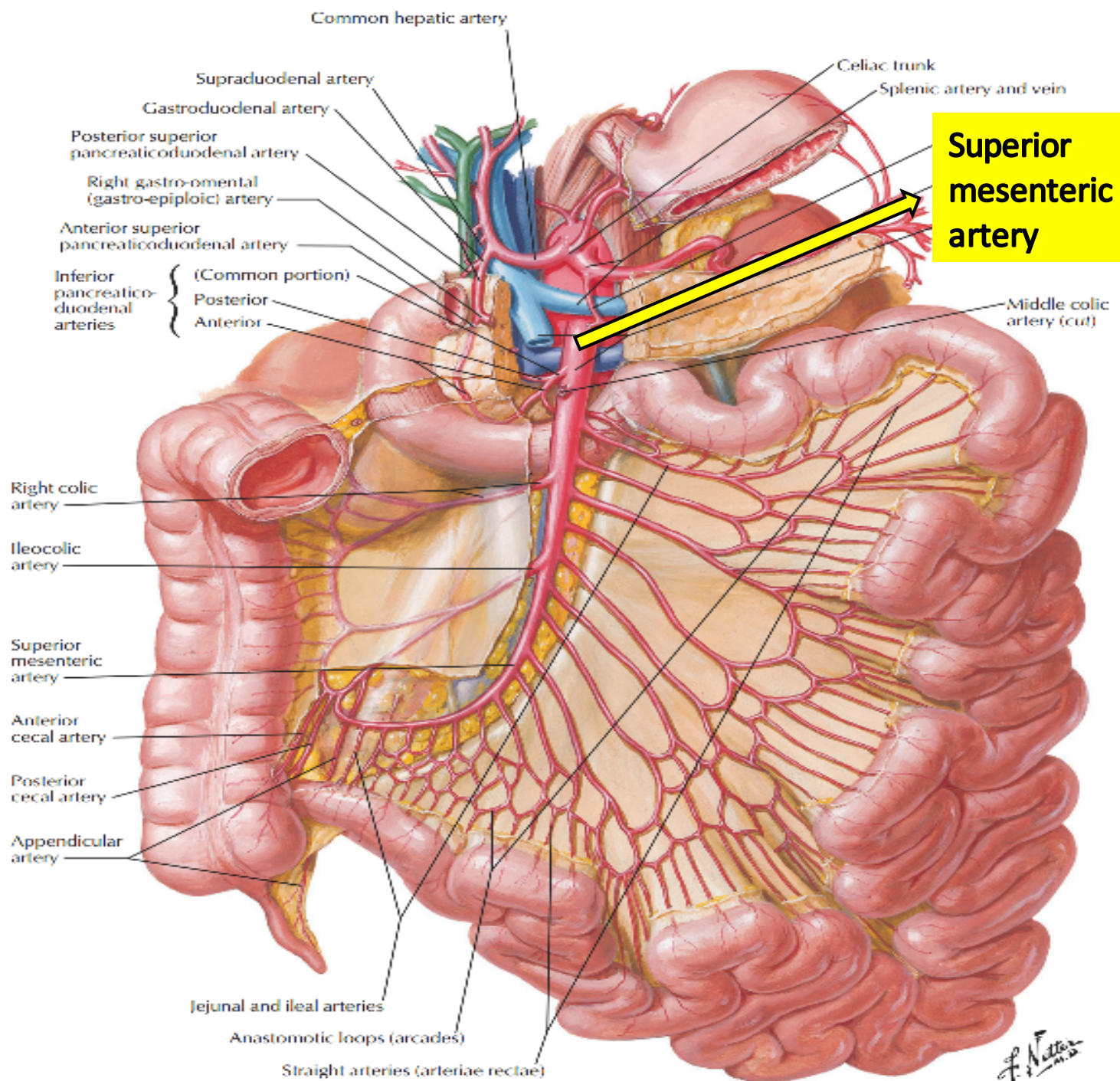
Arteries of Small Intestine

Superior Mesenteric Artery

- *Ileocolic artery (with appendicular branch)*
- *Right colic artery*
- *Middle colic artery*



Arteries of Large Intestine

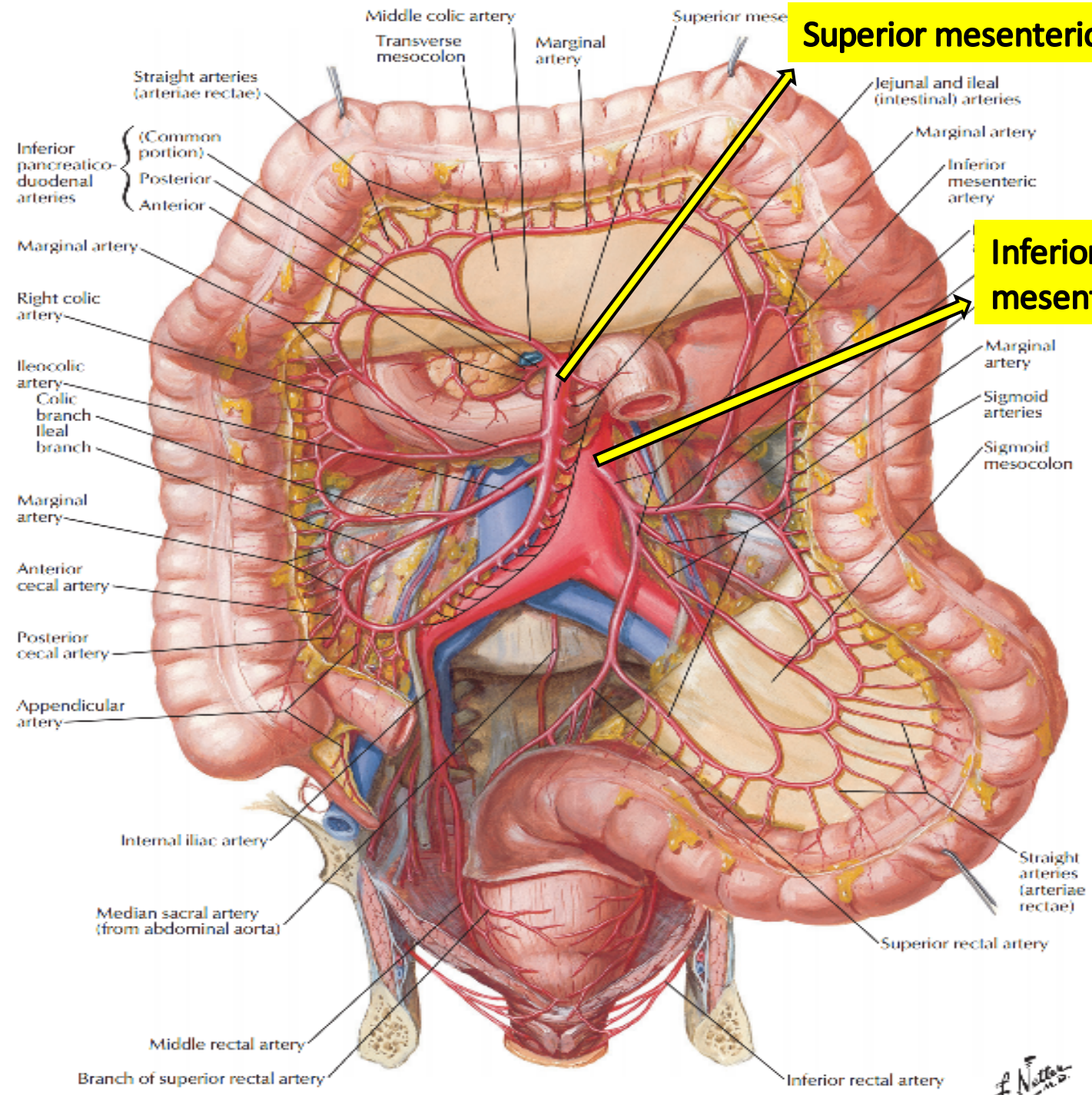


Superior mesenteric artery

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Superior mesenteric artery

Inferior mesenteric artery



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Inferior Mesenteric Artery

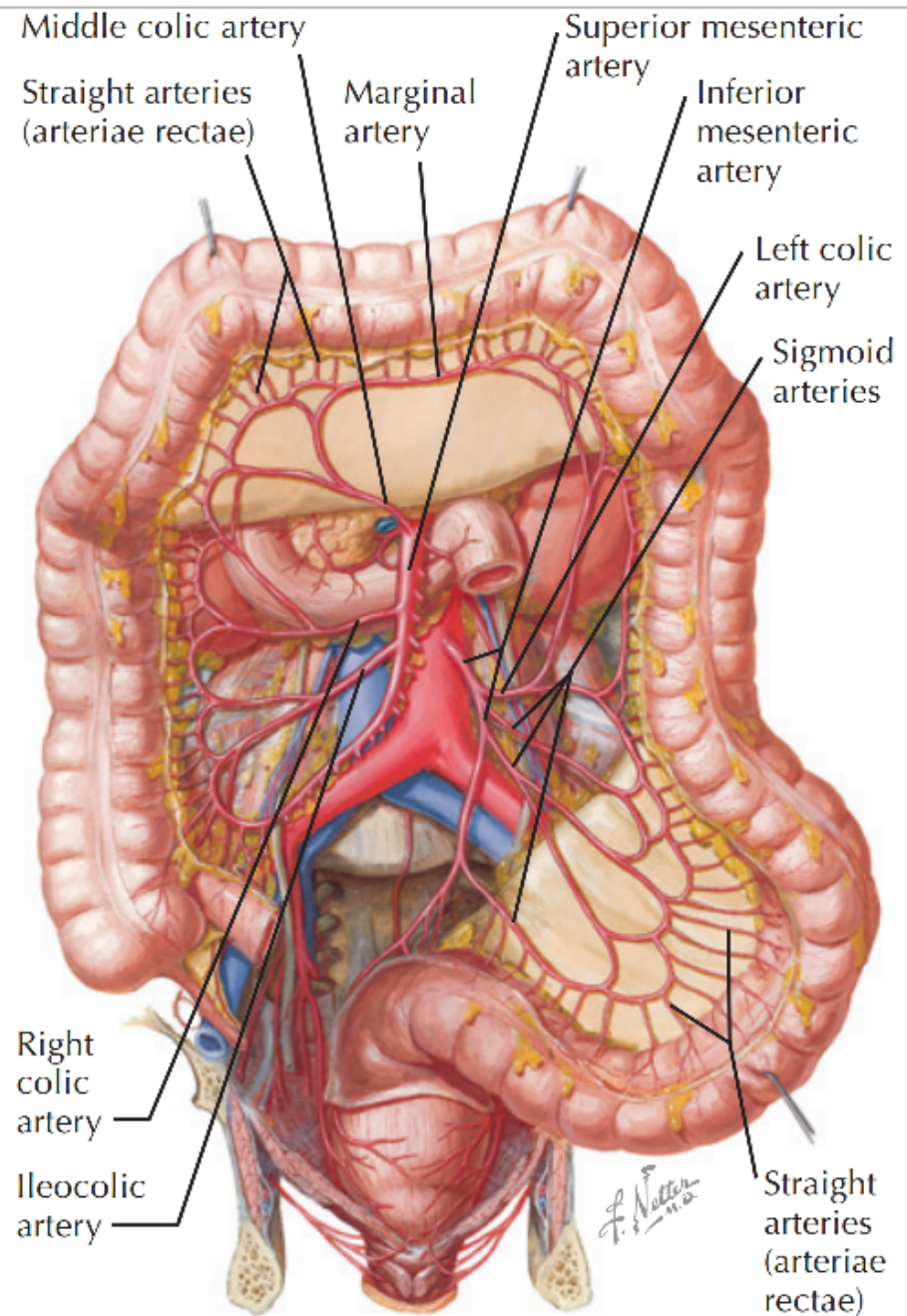
- Inferior mesenteric artery branches

→ *Left colic artery*

(retroperitoneal)

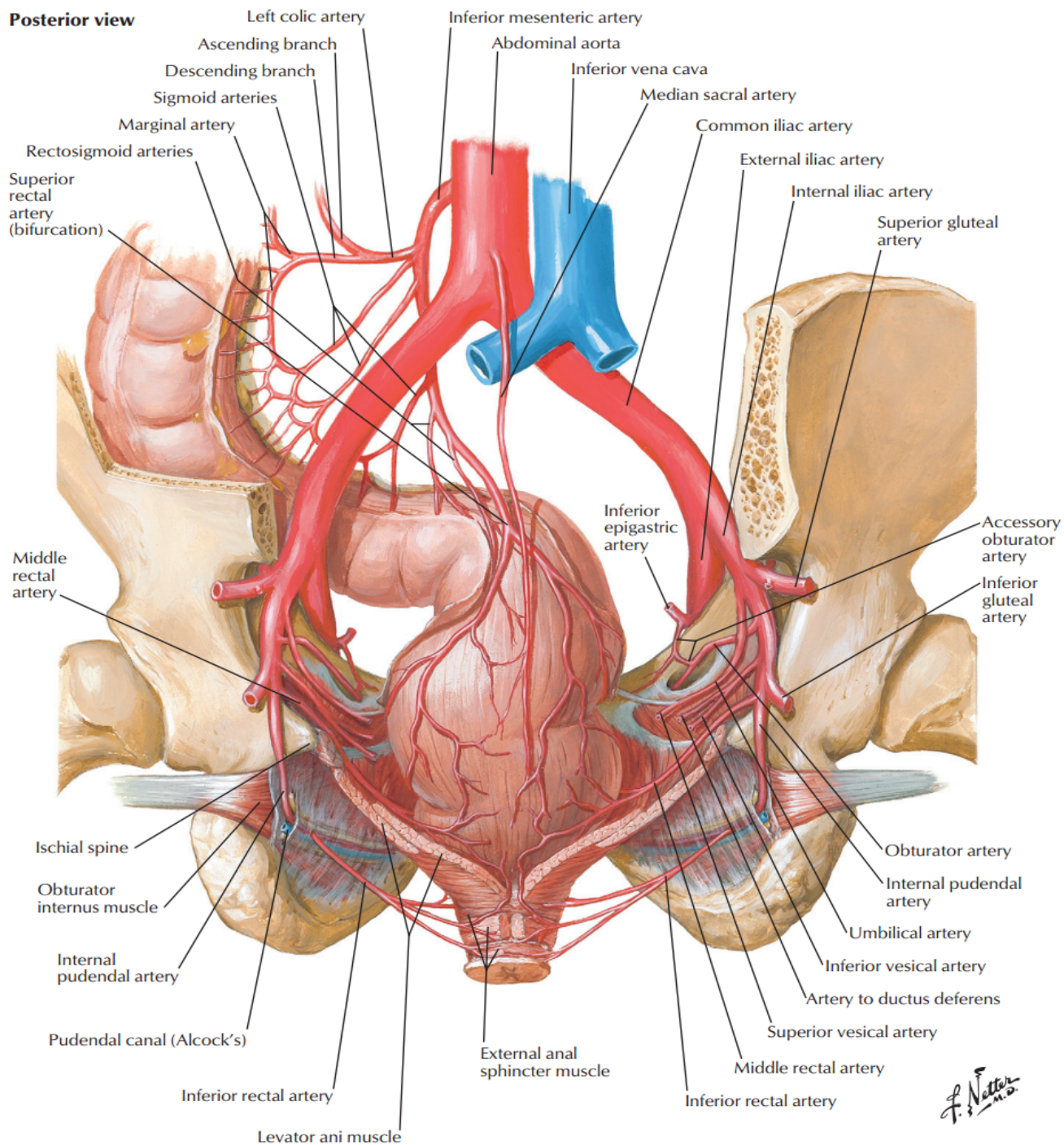
→ *Sigmoid arteries (3 or 4)*

→ *Superior rectal artery*



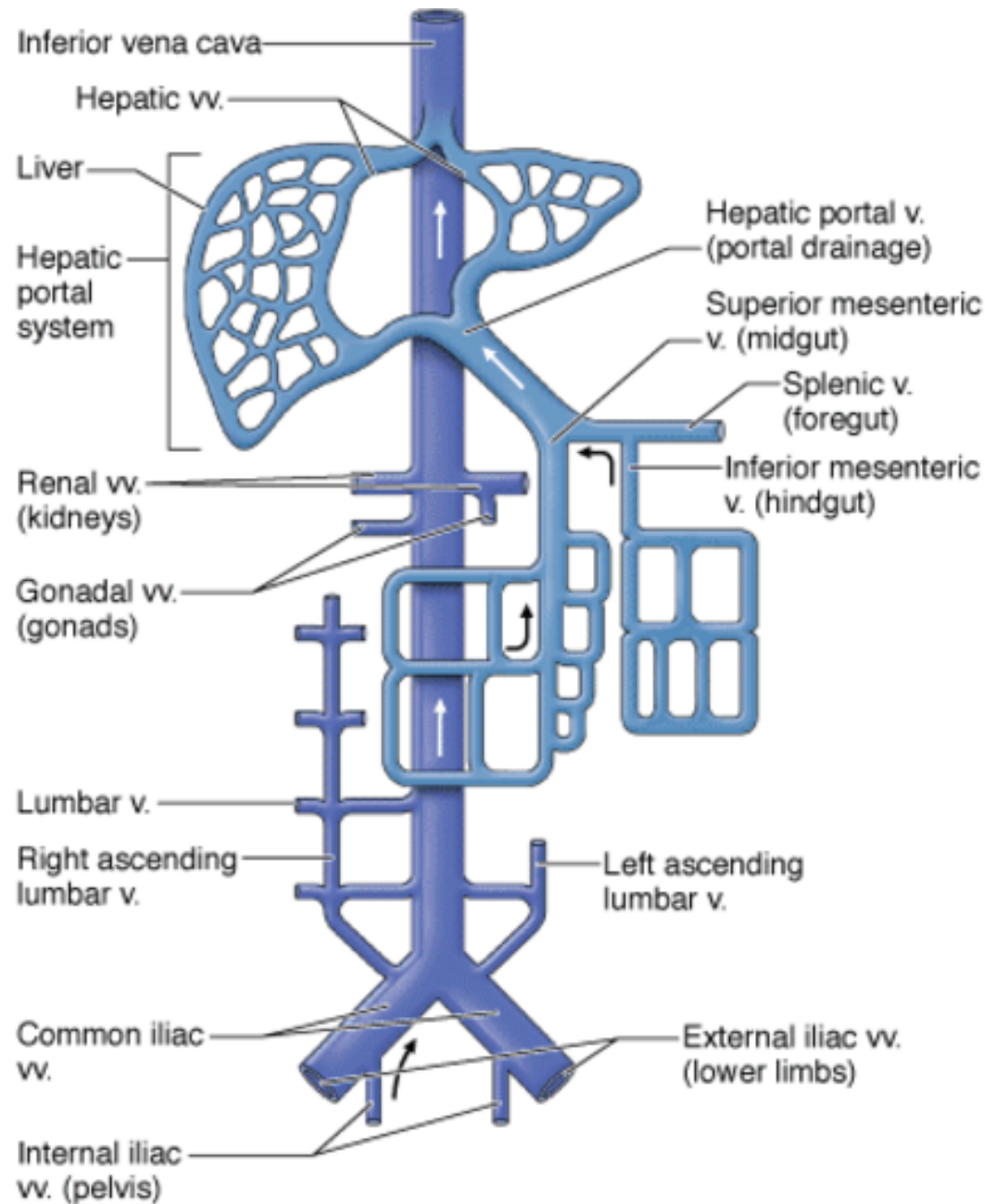
Arteries of Large Intestine

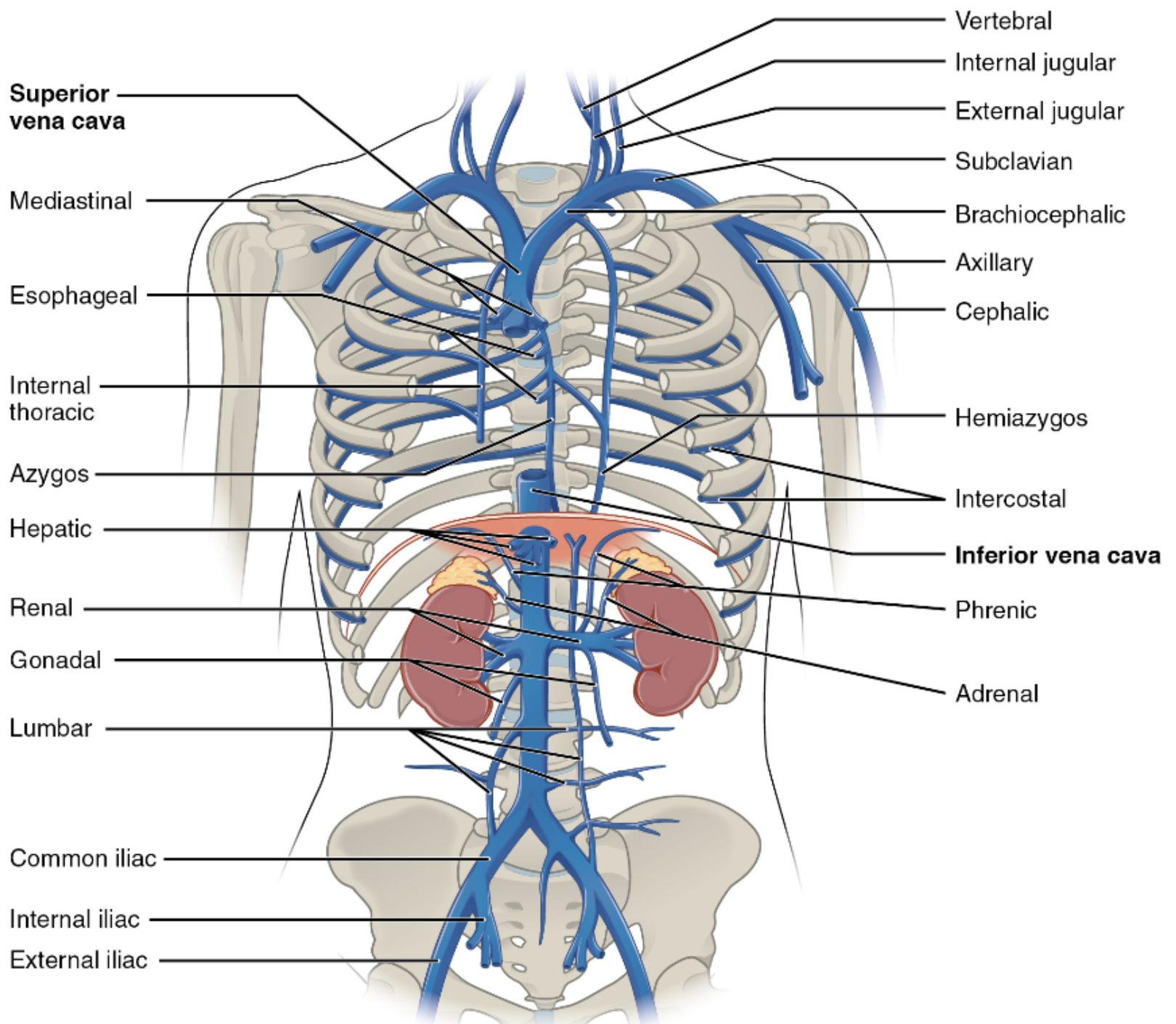
Posterior view

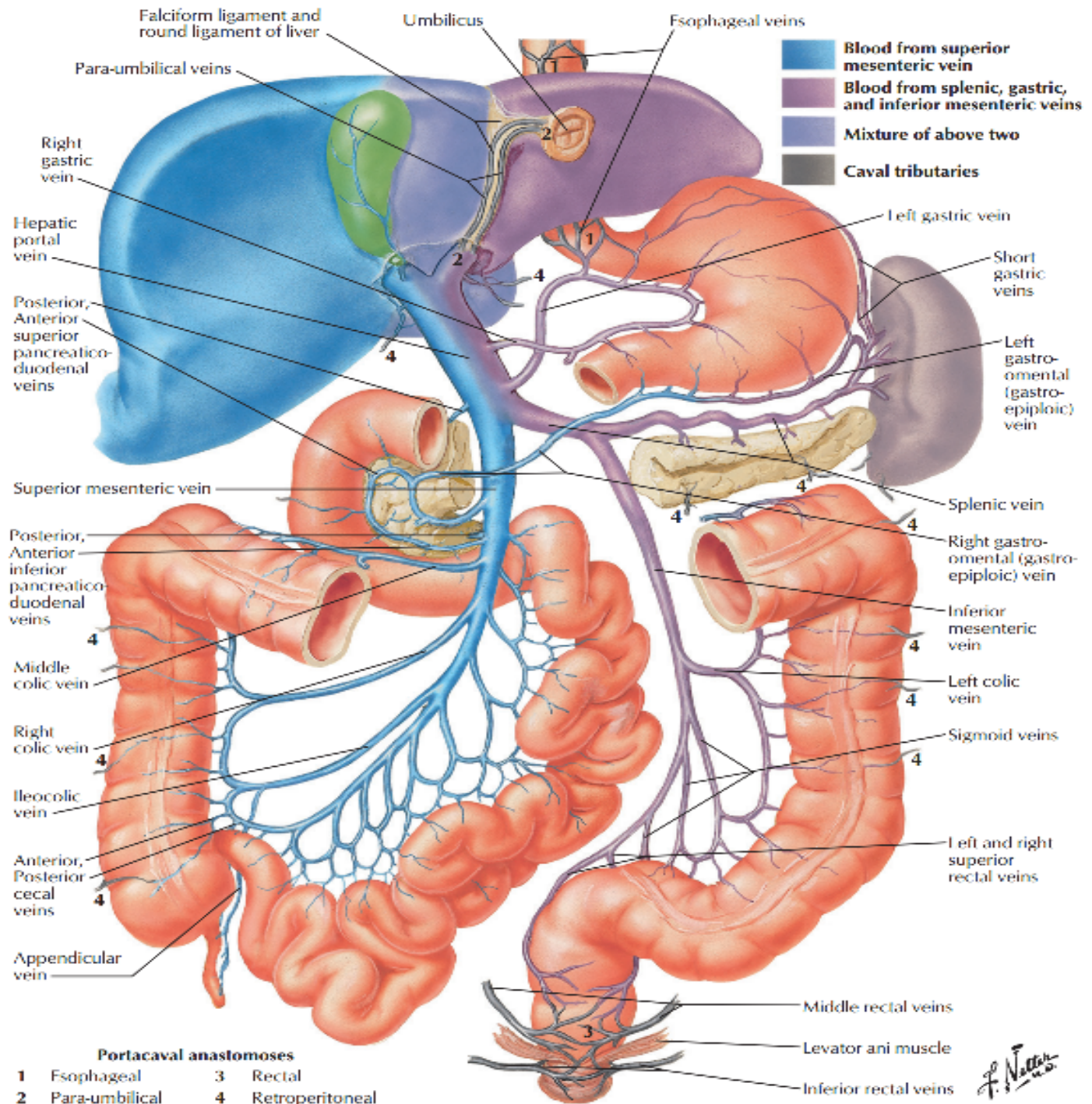


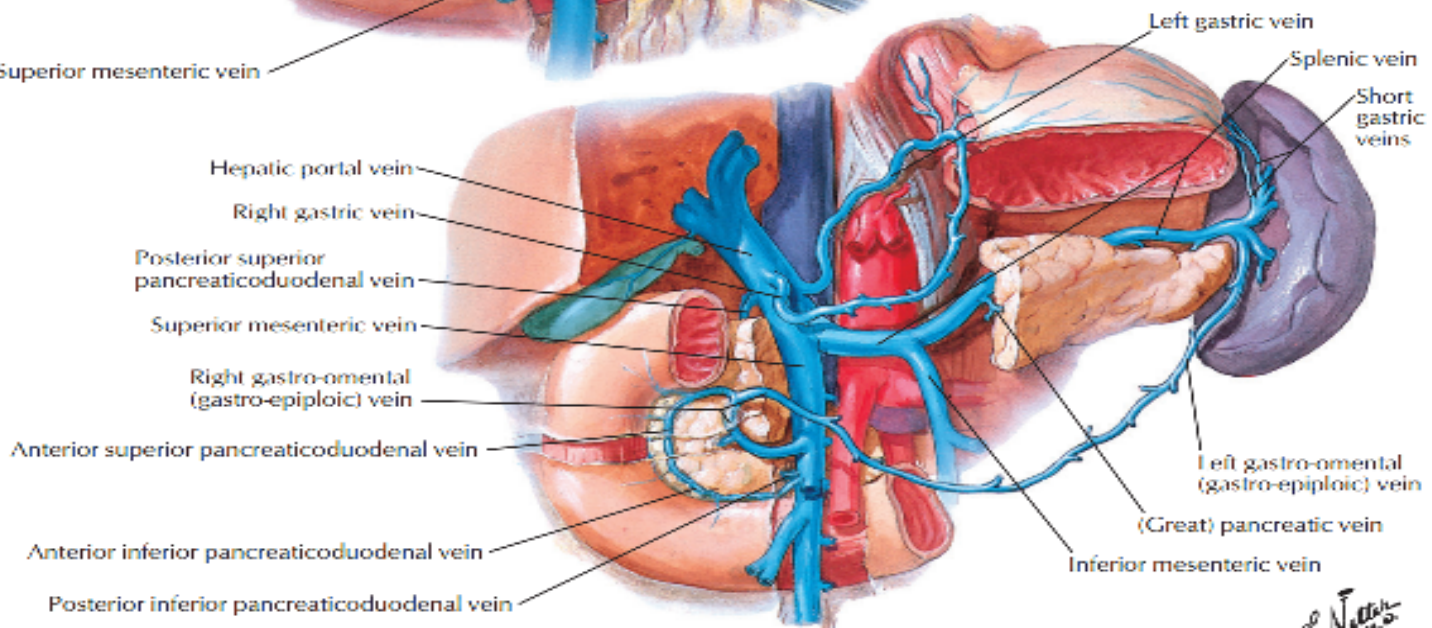
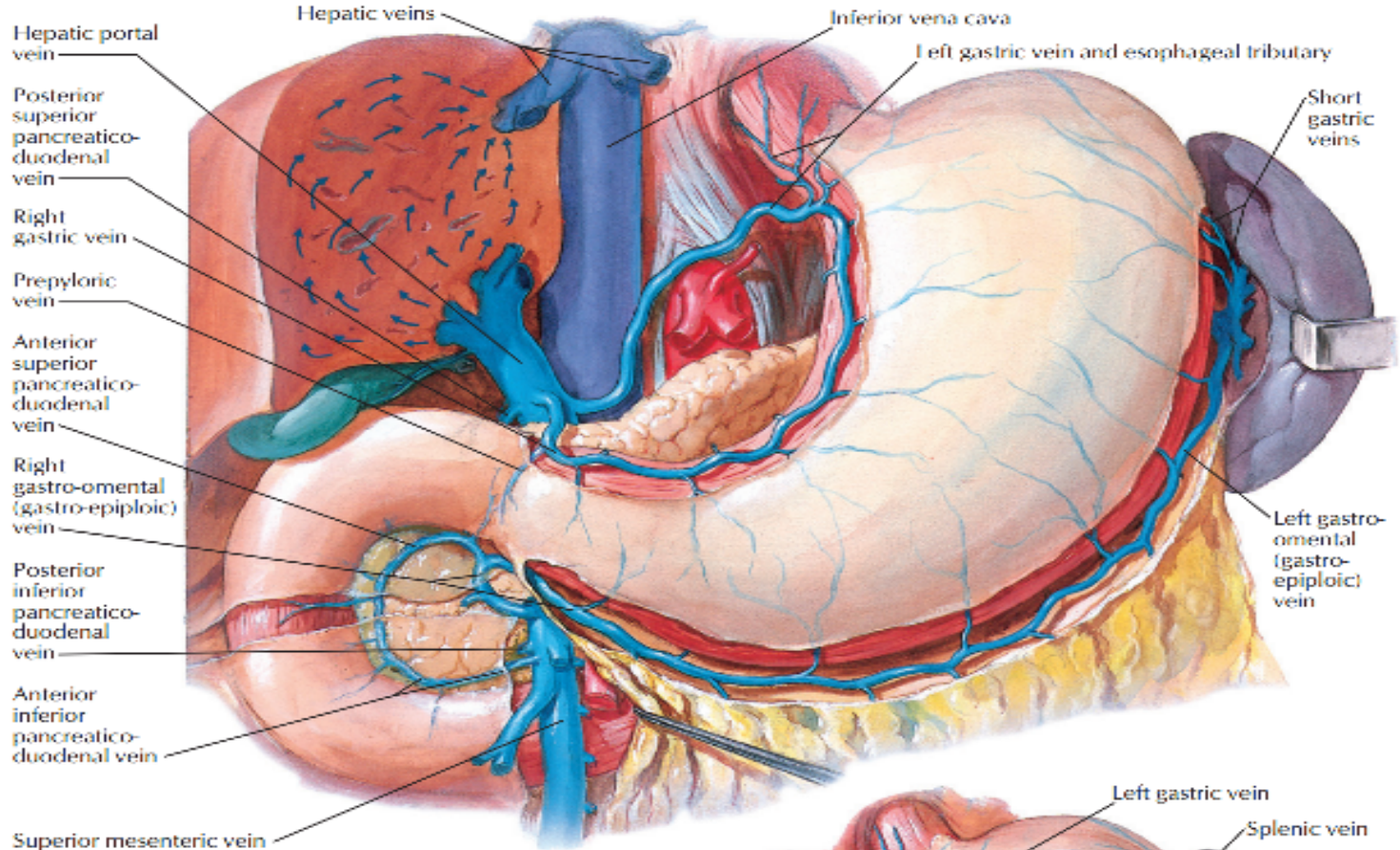
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Venous drainage





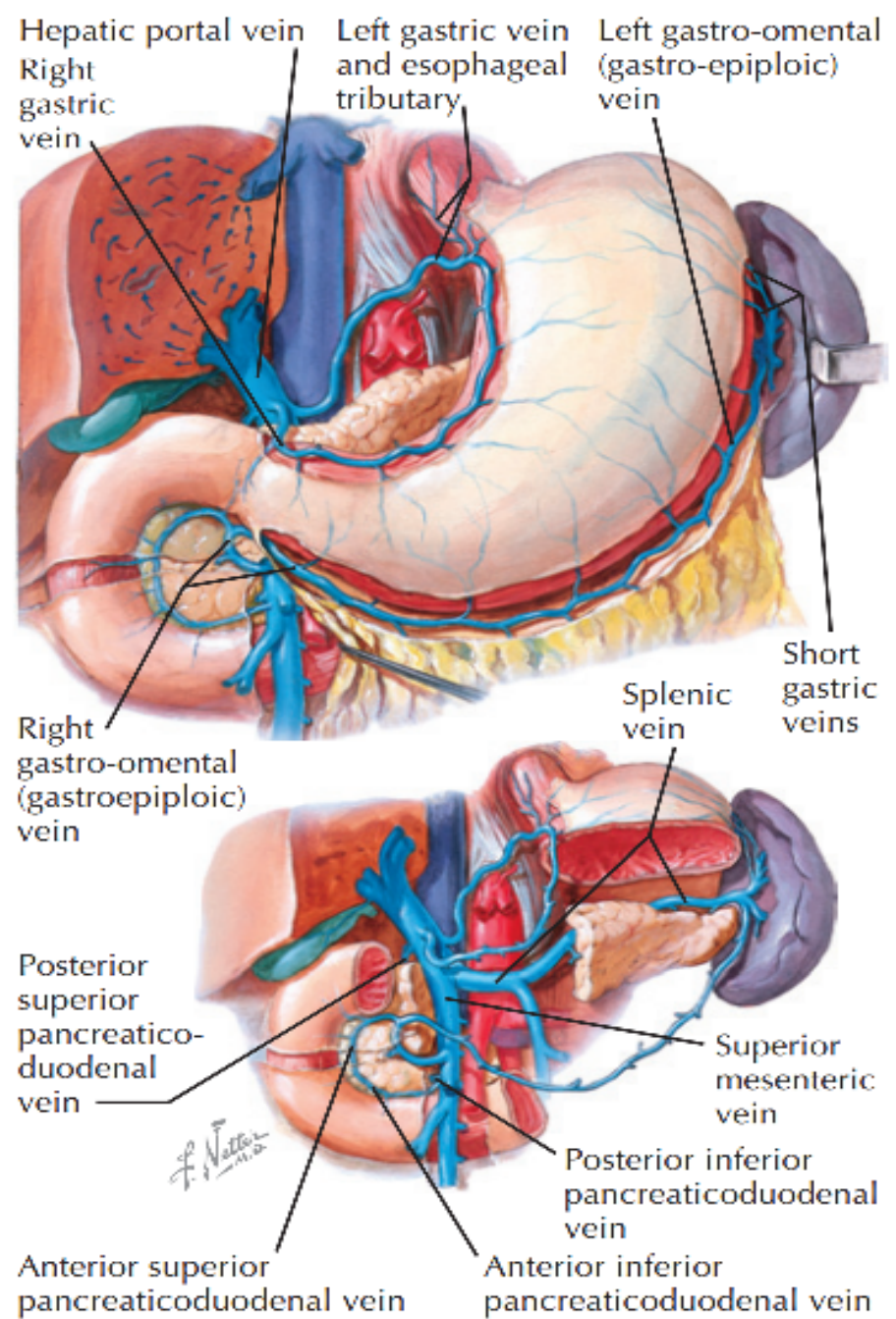




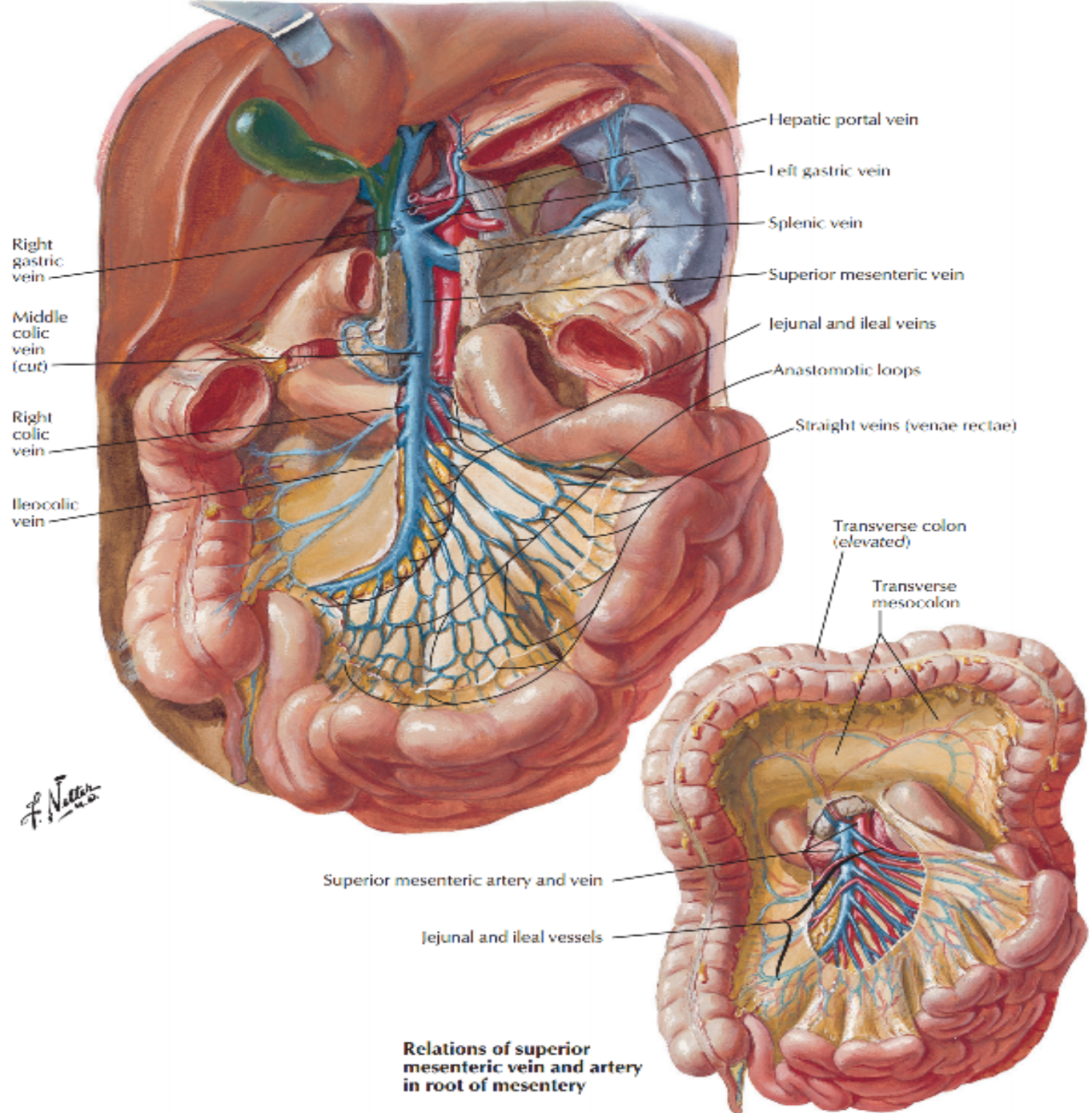
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Venous Drainage of stomach

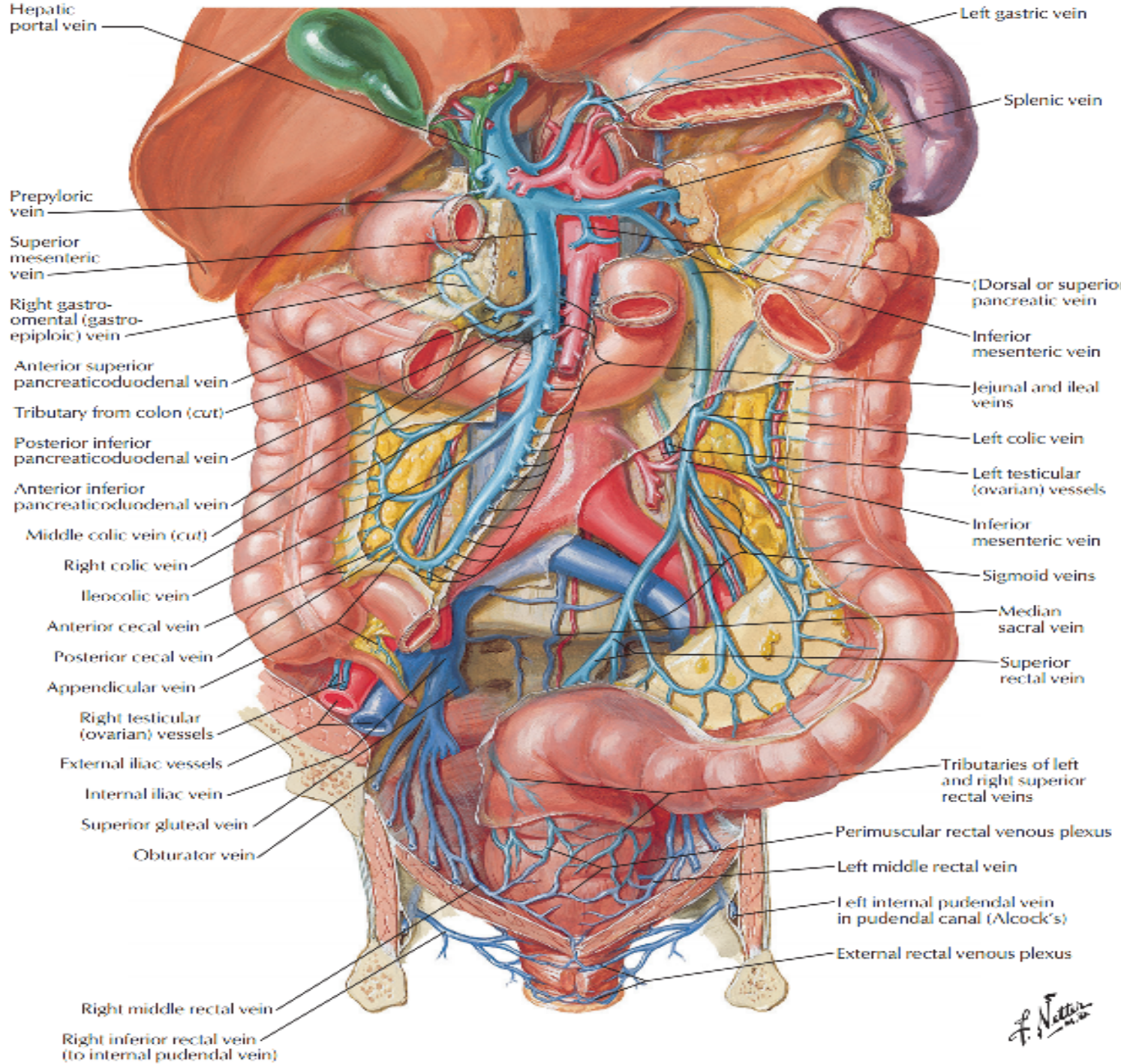
- Gastric and duodenal veins parallel arterial branches.
- Portal vein tributaries
 - Right gastric (lesser curvature)
 - Left gastric (coronary; prominent in varices)
 - Superior mesenteric vein (right portal)
 - Pancreaticoduodenal veins
 - Right gastro omental (gastroepiploic) vein
- Splenic vein (left portal)
 - short gastric vein
 - Left gastro omental (gastroepiploic)



Veins of the Stomach, Duodenum, and Pancreas



Relations of superior mesenteric vein and artery in root of mesentery



Hepatic portal vein

Left gastric vein

Prepyloric vein

Splenic vein

Superior mesenteric vein

(Dorsal or superior) pancreatic vein

Right gastro-omental (gastro-epiploic) vein

Inferior mesenteric vein

Anterior superior pancreaticoduodenal vein

Jejunal and ileal veins

Tributary from colon (cut)

Left colic vein

Posterior inferior pancreaticoduodenal vein

Left testicular (ovarian) vessels

Anterior inferior pancreaticoduodenal vein

Inferior mesenteric vein

Middle colic vein (cut)

Sigmoid veins

Right colic vein

Median sacral vein

Ileocolic vein

Superior rectal vein

Anterior cecal vein

Posterior cecal vein

Appendicular vein

Right testicular (ovarian) vessels

External iliac vessels

Internal iliac vein

Superior gluteal vein

Obturator vein

Tributaries of left and right superior rectal veins

Perimuscular rectal venous plexus

Left middle rectal vein

Left internal pudendal vein in pudendal canal (Alcock's)

External rectal venous plexus

Right middle rectal vein

Right inferior rectal vein (to internal pudendal vein)

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Drainage of large intestine

- Superior mesenteric vein (right portal vein tributaries)

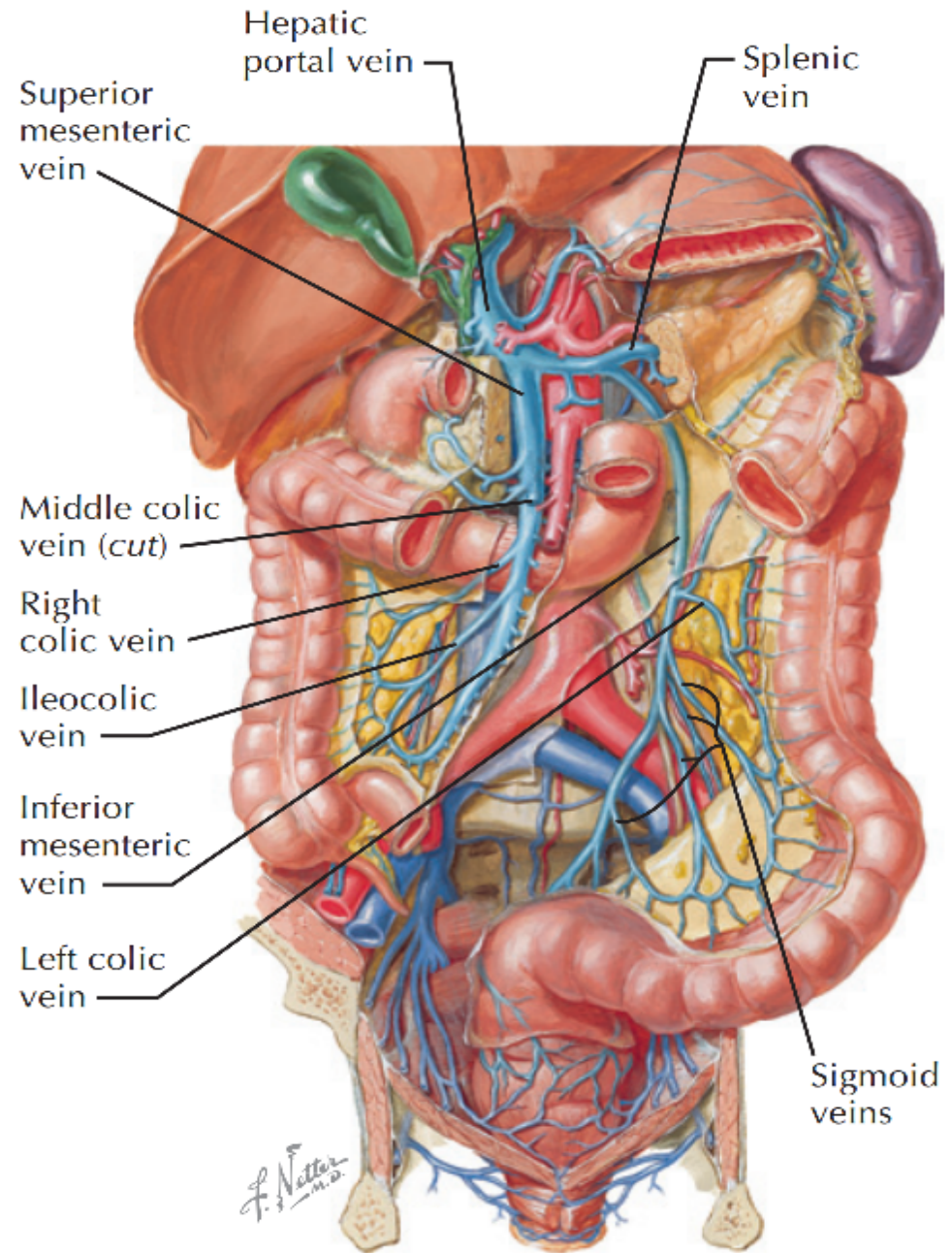
- Ileocolic vein (with appendicular branch)
- Right colic vein
- Middle colic vein

- Inferior mesenteric vein (drains into splenic: left portal vein tributaries)

- Left colic veins
- Sigmoid veins
- Recto sigmoid veins
- Superior rectal veins

- Internal iliac veins (inferior vena cava tributaries)

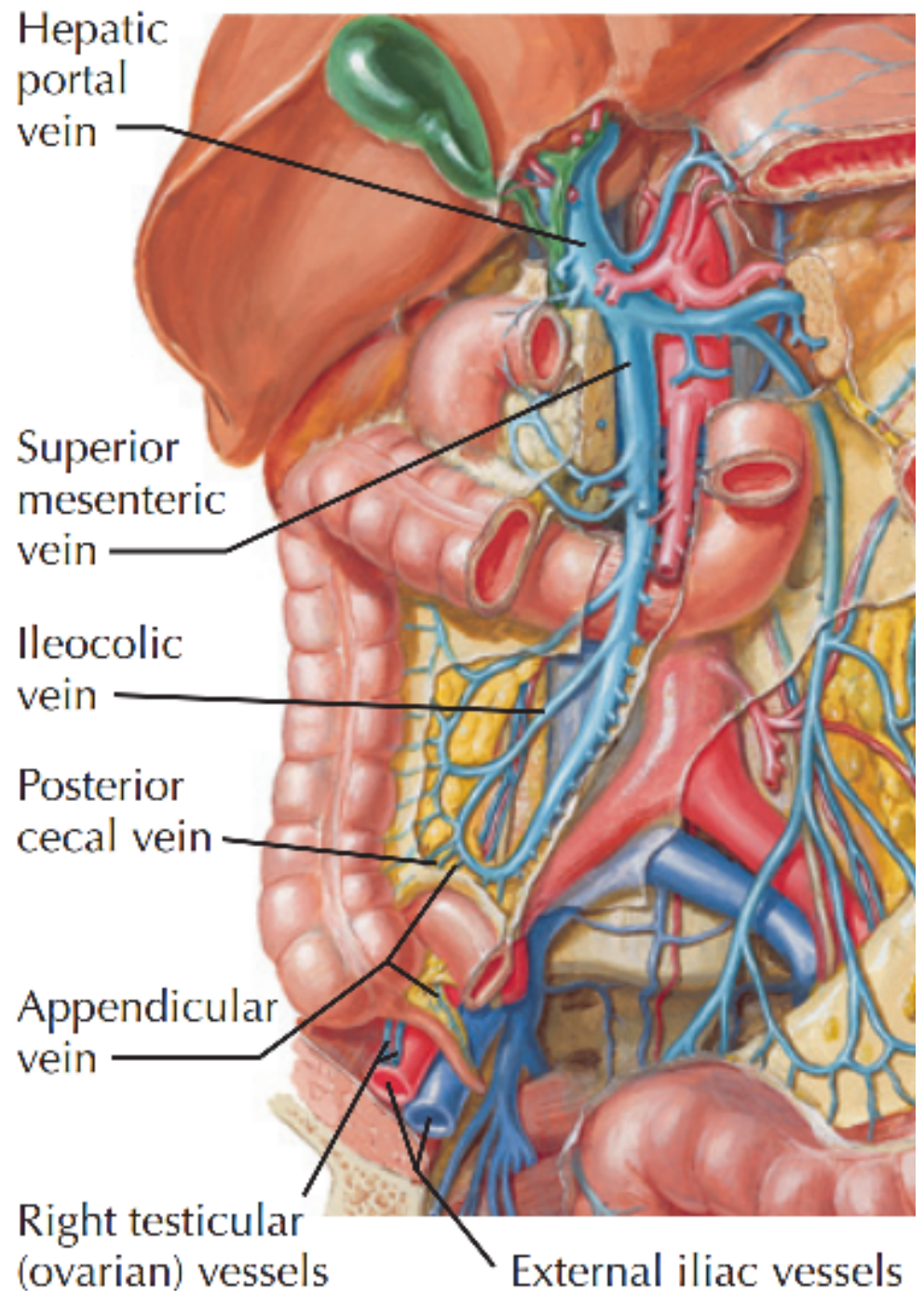
- Middle rectal veins
- Inferior rectal veins



Veins of Large Intestine

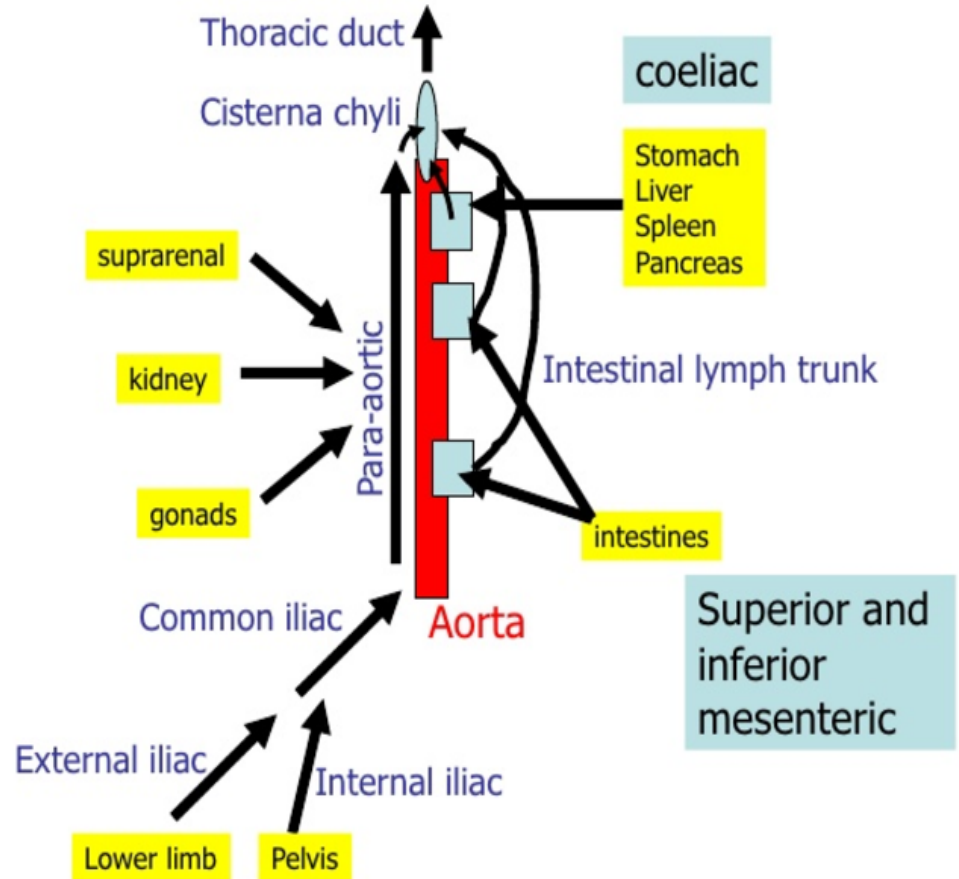
Appendicular (Appendiceal) Vein

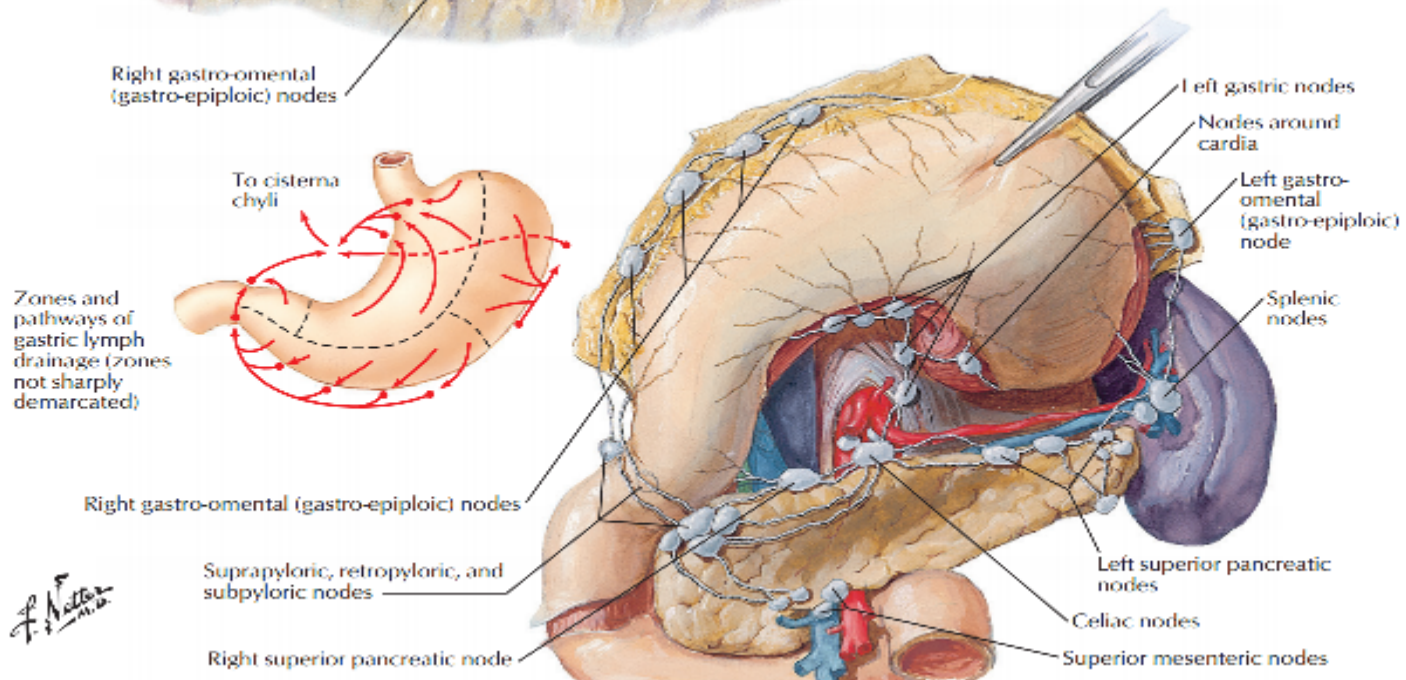
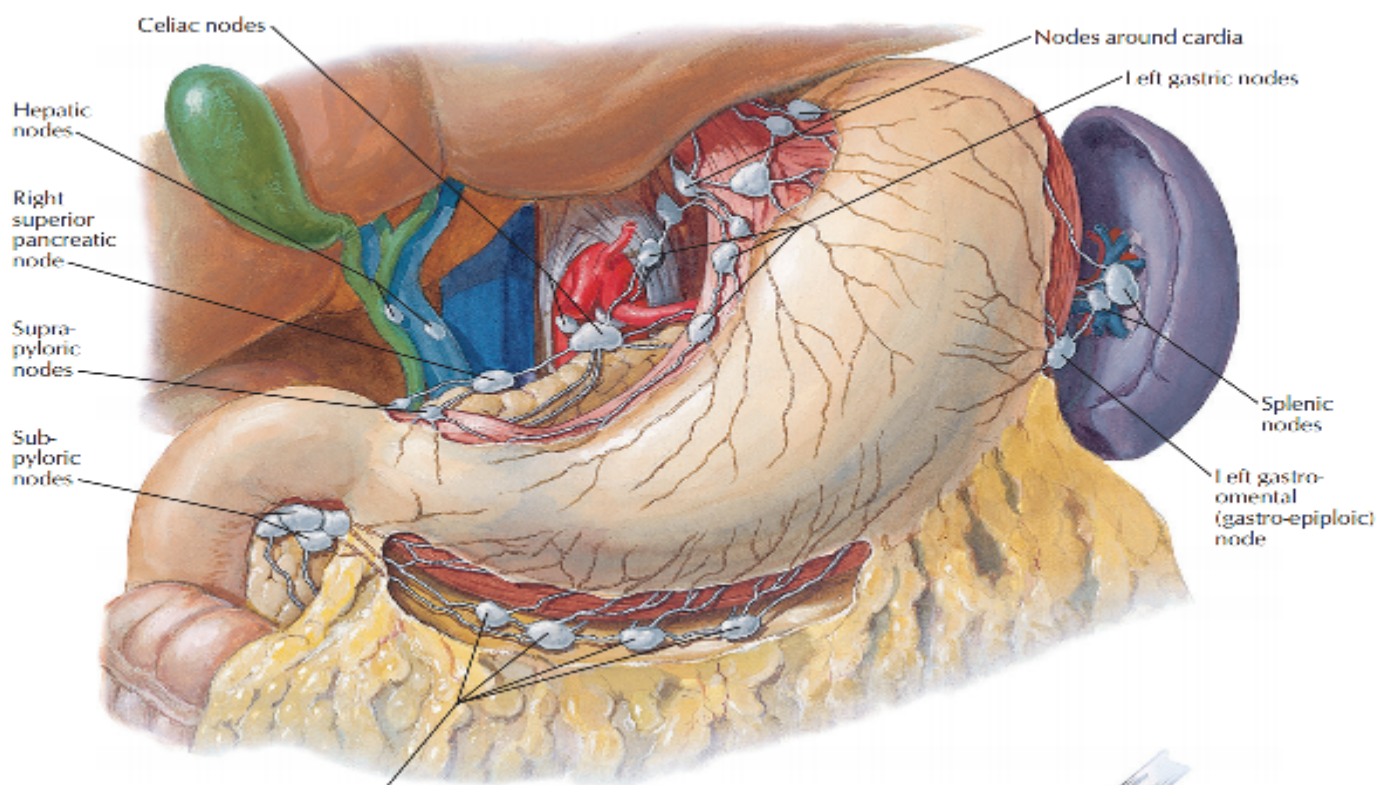
- Joins ileocolic vein, which joins superior mesenteric vein (portal vein drainage)



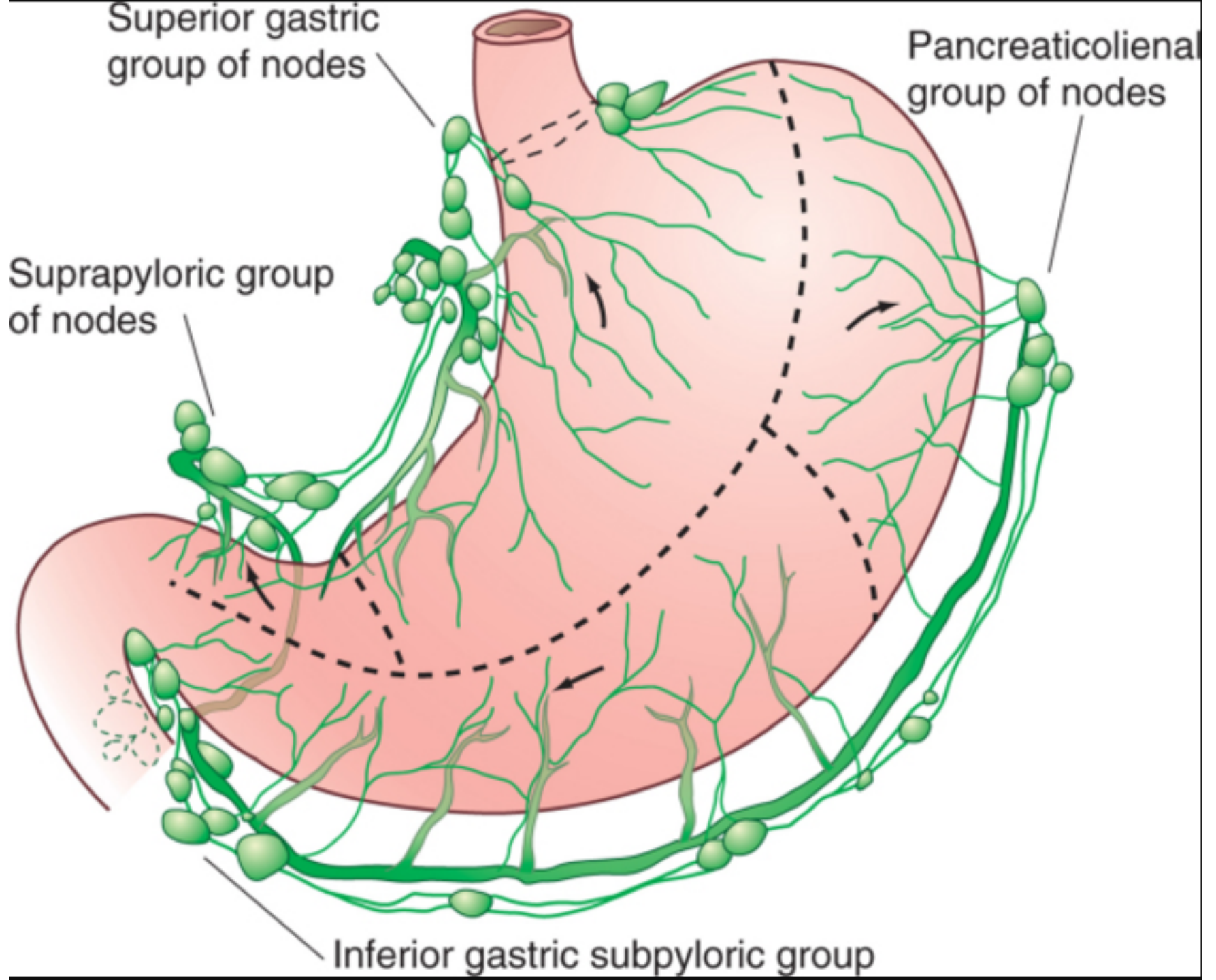
Lymphatic drainage

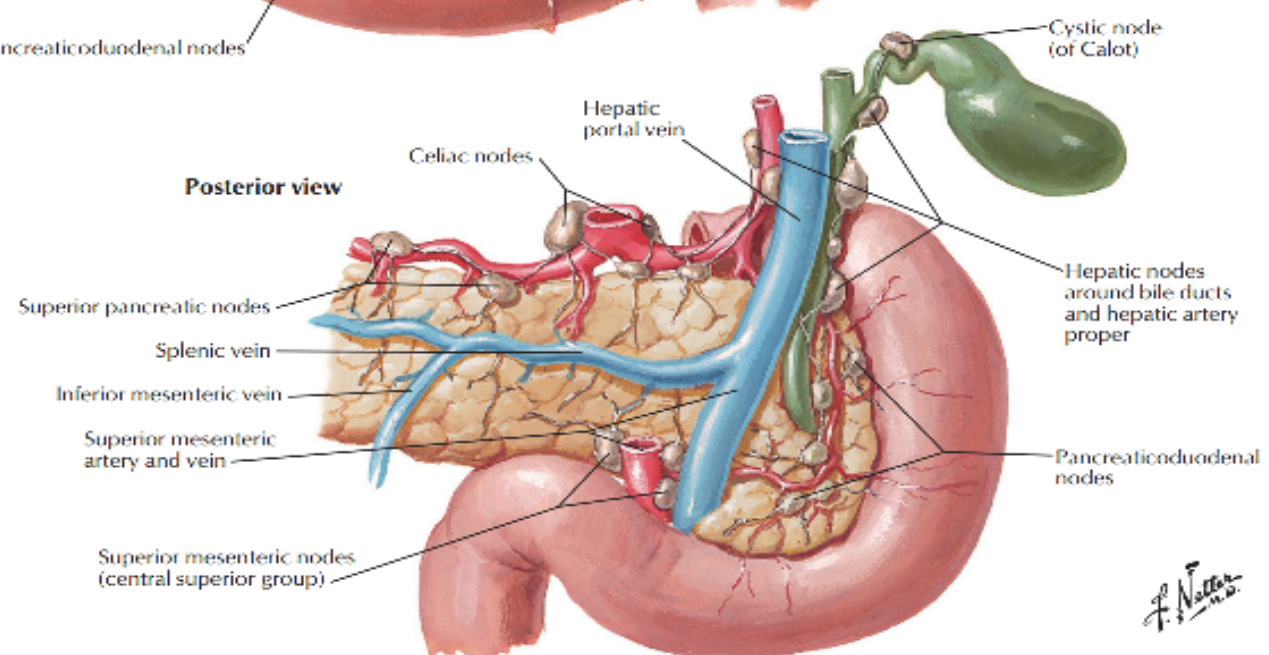
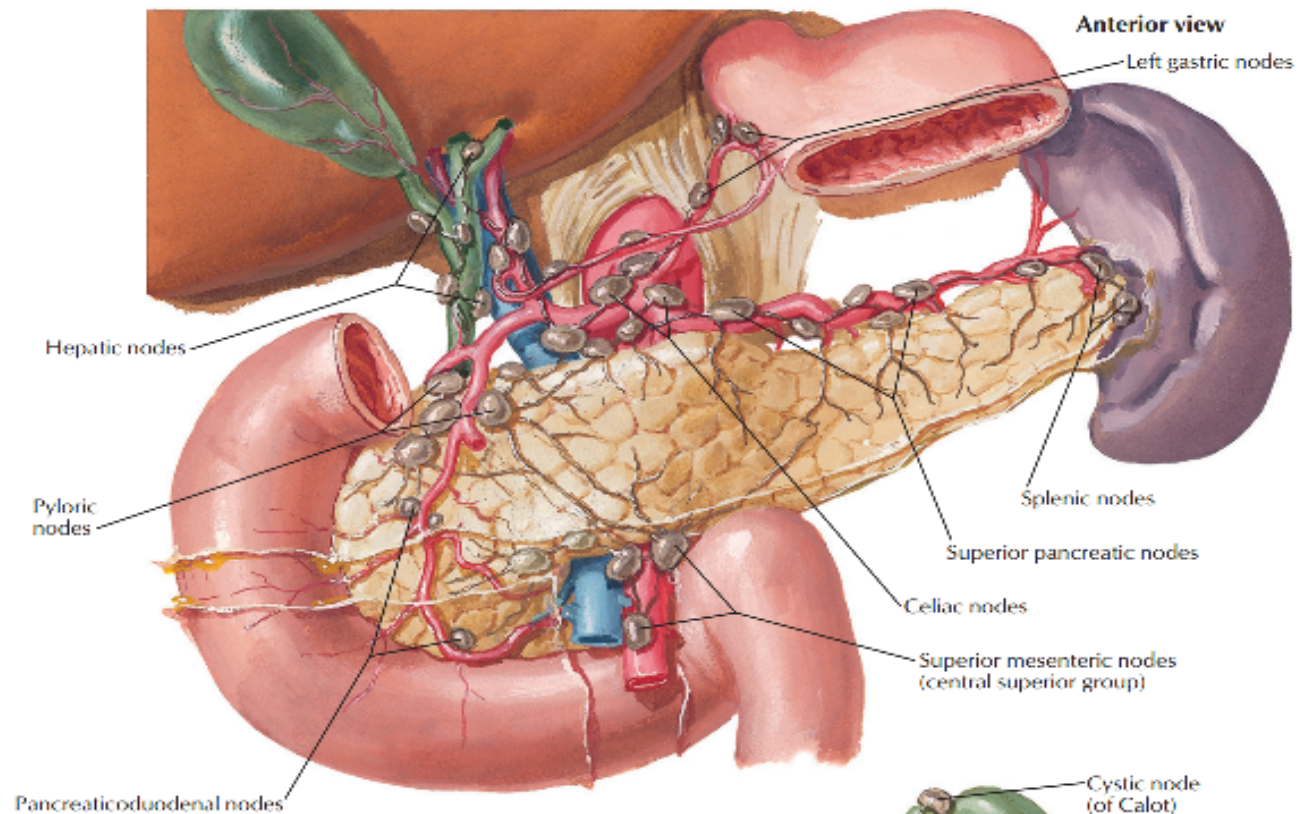
Plan of the lymphatic drainage in the abdomen



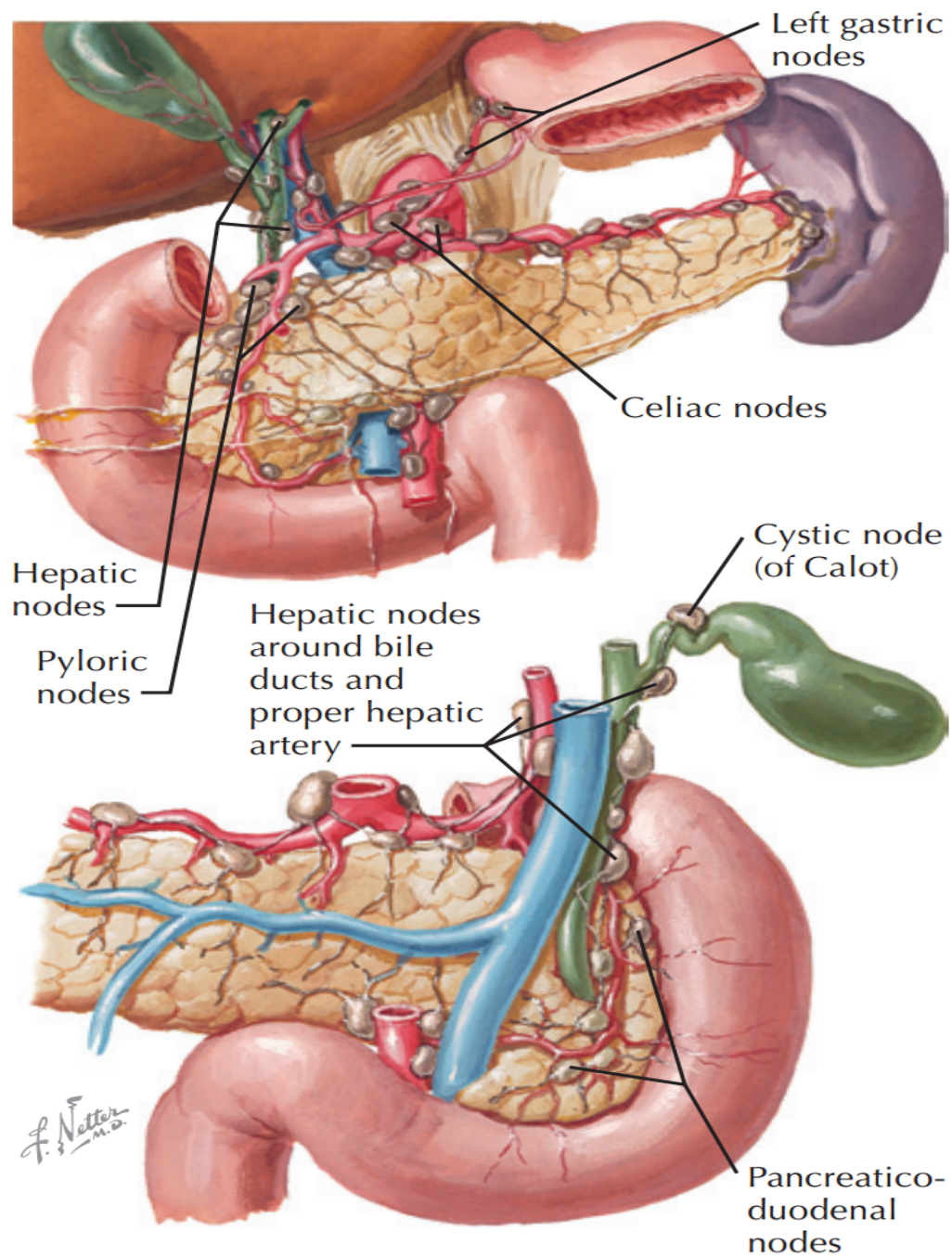


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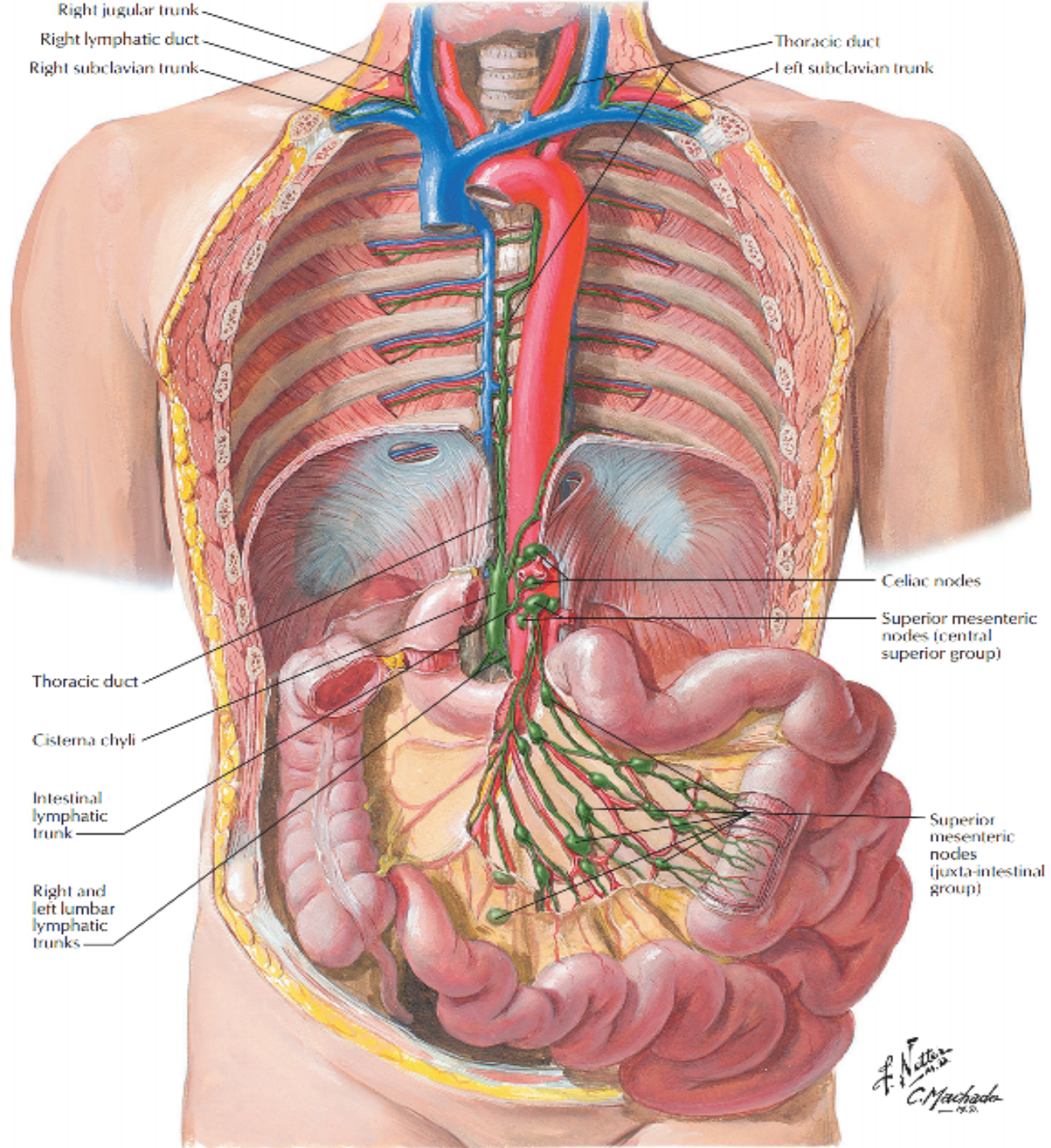




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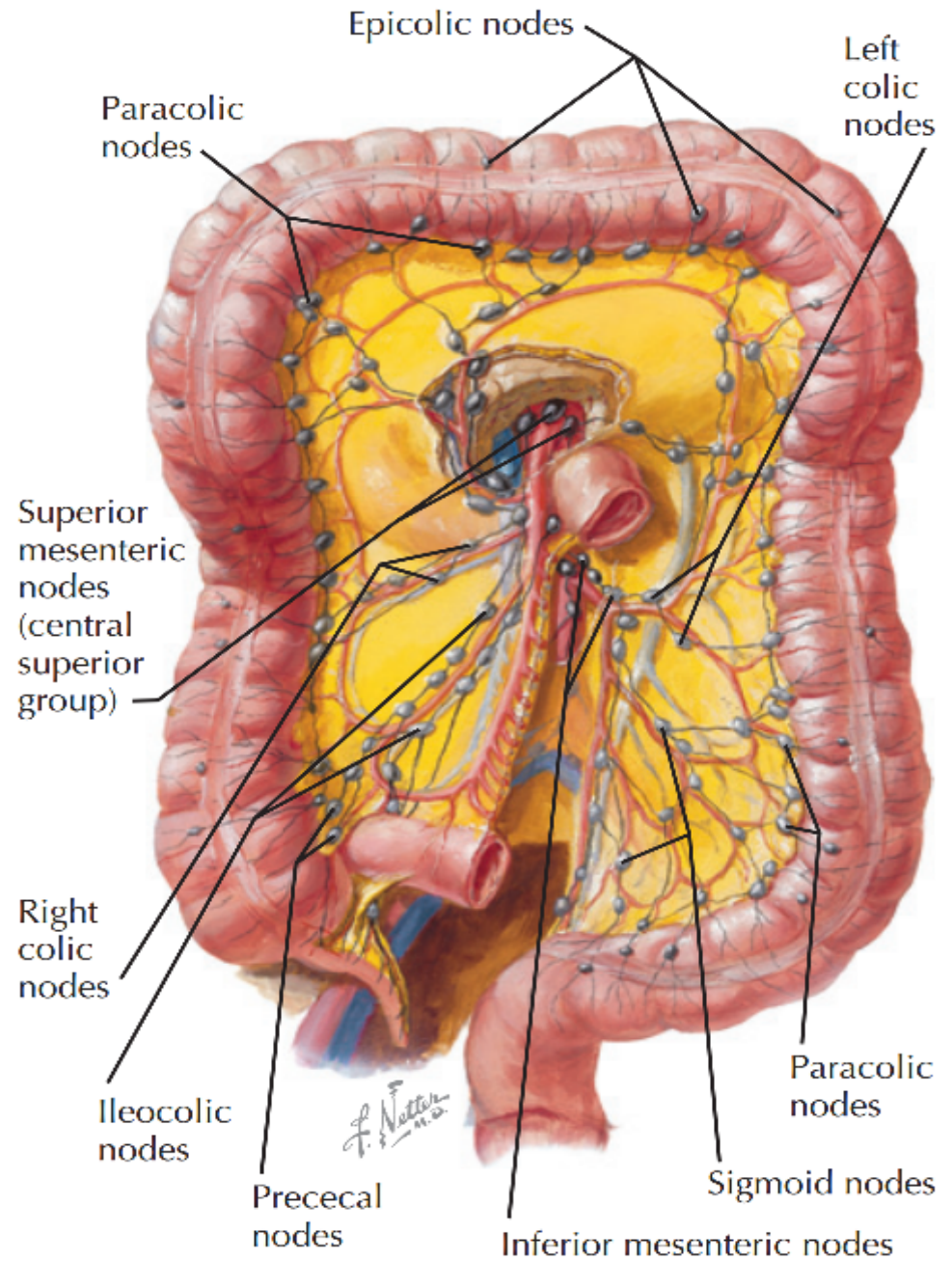
Lymph Vessels and Nodes of Pancreas



F. Netter
C. Machado
1950

Lymphatic Drainage of large intestine

- Parallels the arterial supply
- Right-sided mucosal and epicolic nodes drain along superior mesenteric branches into superior mesenteric nodes.



Lymph Vessels and Node of Large Intestine

Lymphatics of appendix

- Local drainage of nodes within mesoappendix through vessels and nodes along appendiceal and ileocolic arteries
- Draining toward superior mesenteric lymph nodes

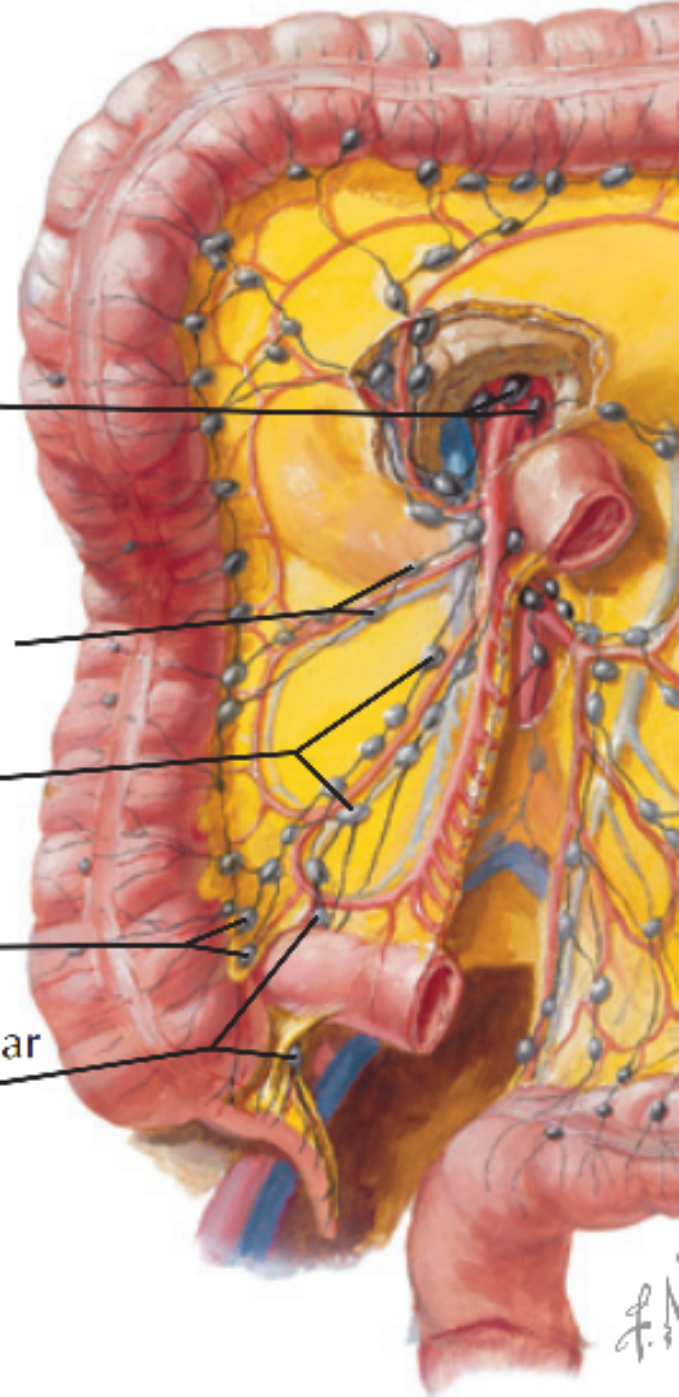
Superior mesenteric nodes (central superior group)

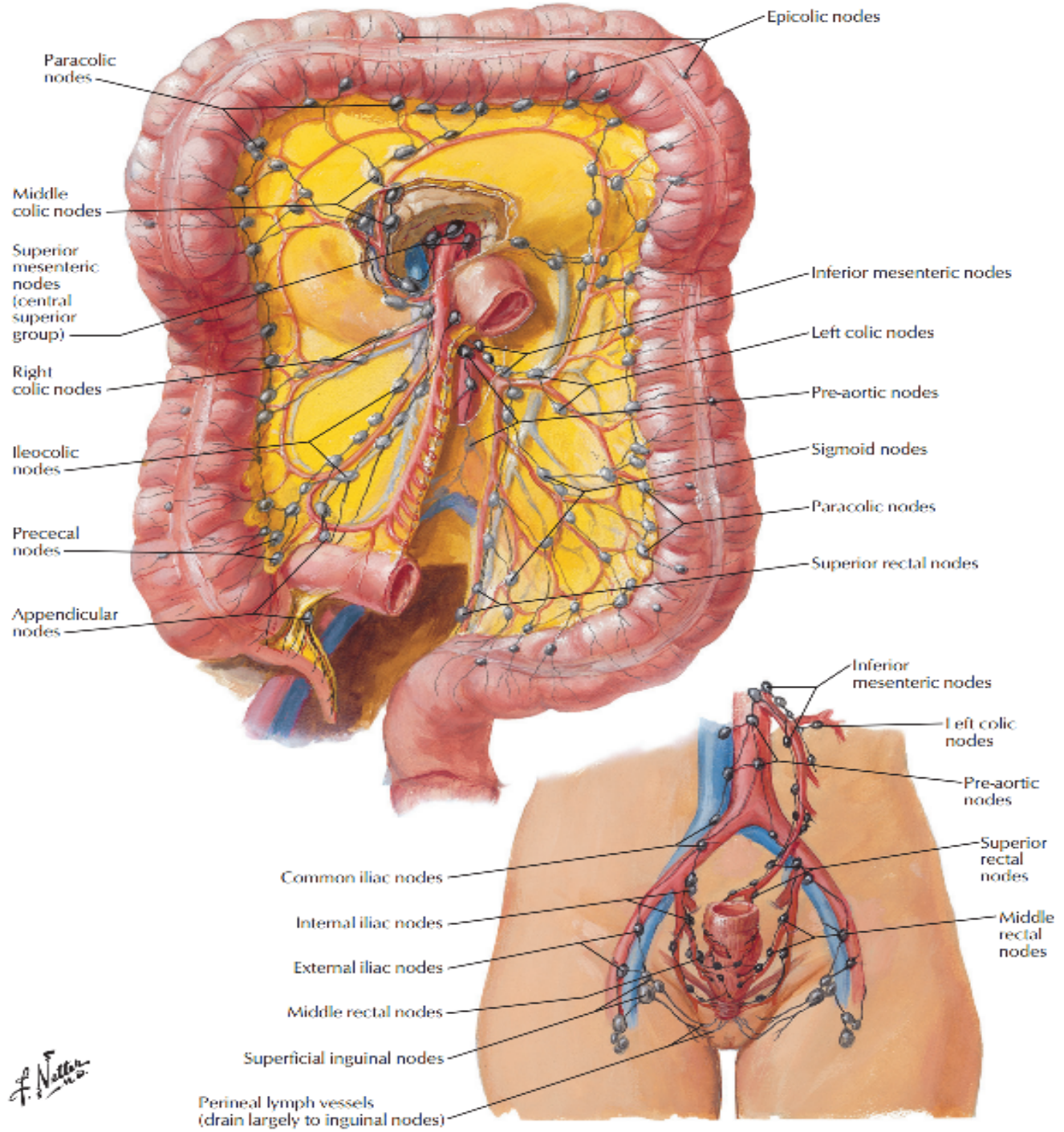
Right colic nodes

Ileocolic nodes

Prececal nodes

Appendicular nodes





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Thank you