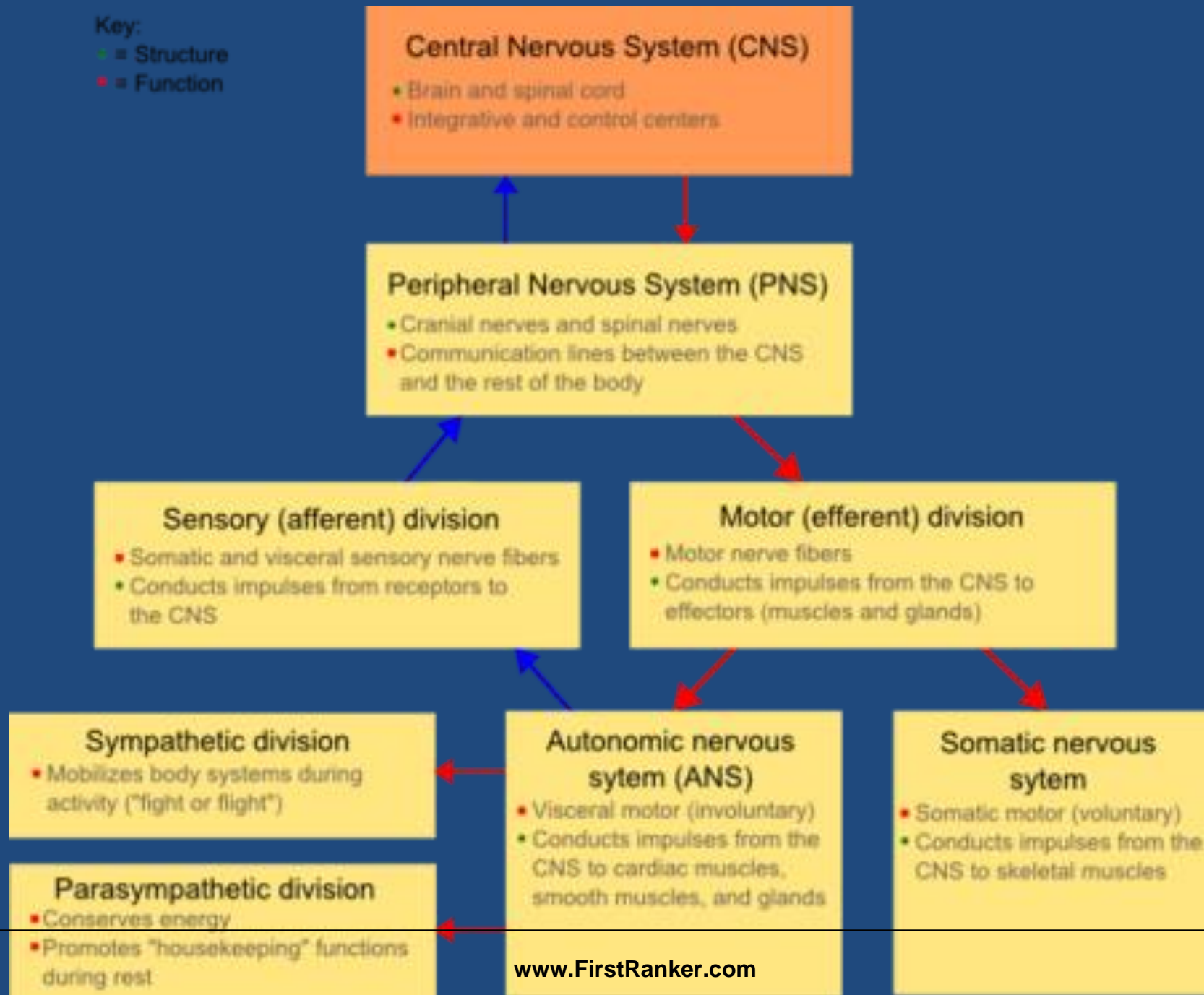


SYMPATHATIC NERVOUS SYSTEM

FirstRanker.com

Key:
• = Structure
▪ = Function



AUTONOMIC NERVOUS SYSTEM

*The portions of the **CENTRAL & PERIPHERAL** nervous system that are concerned primarily with the regulation & control of visceral functions are termed collectively the visceral, vegetative, or autonomic nervous system*

AUTONOMIC NERVOUS SYSTEM

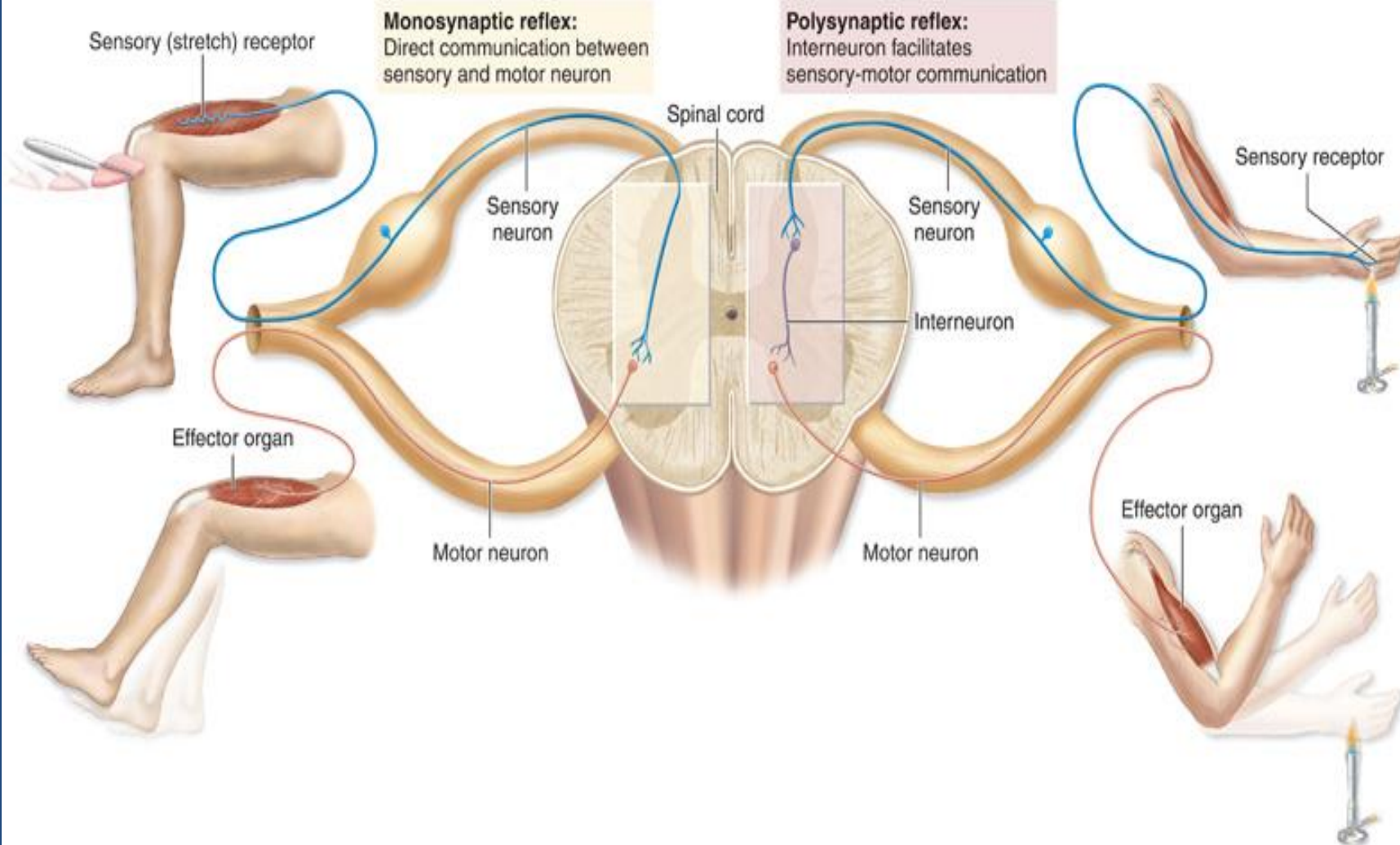
- Innervate organs not usually under voluntary control.
- Effectors include cardiac and smooth muscles and glands.
- Effectors are part of visceral organs and blood vessels.

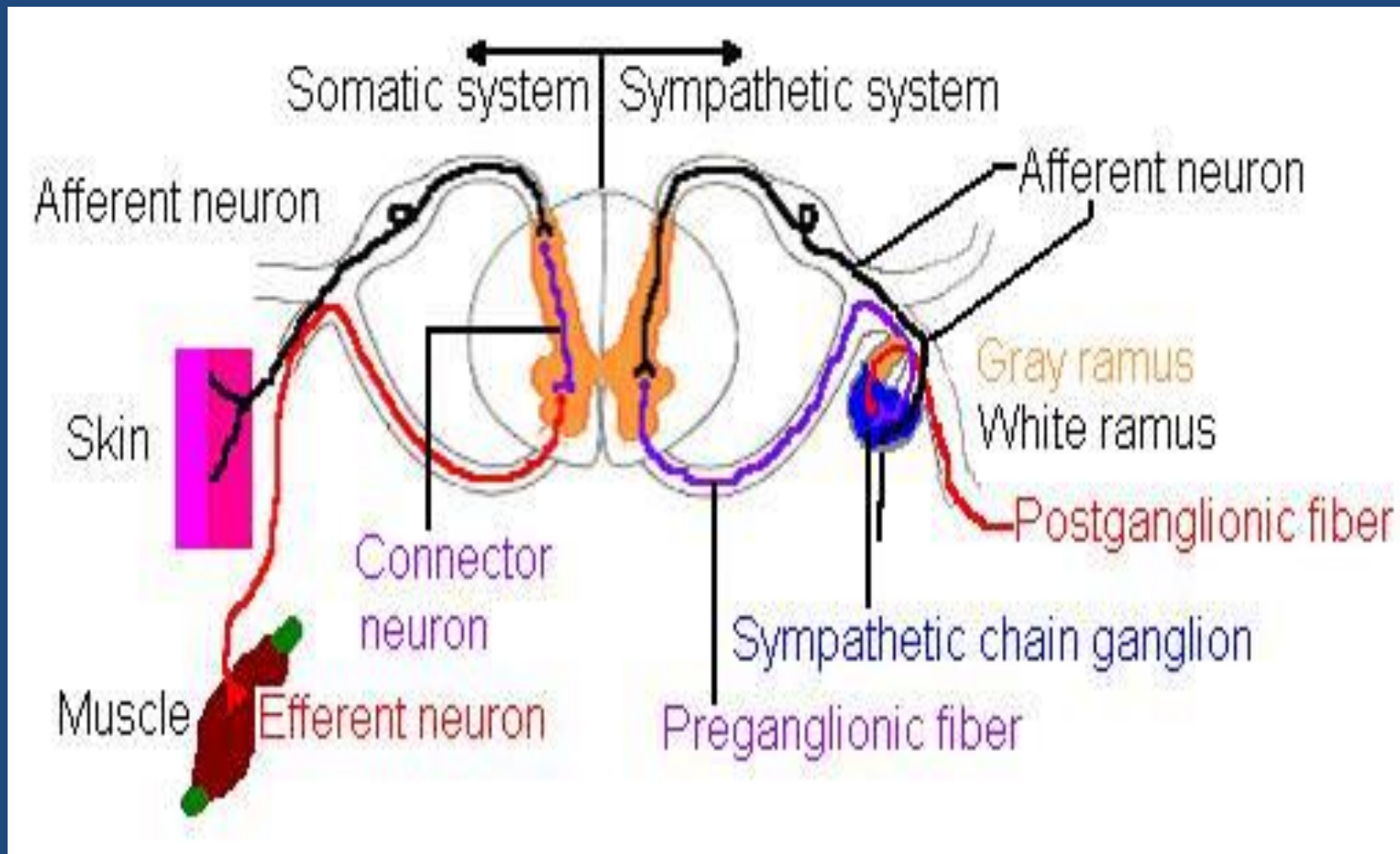
ORGANIZATION OF ANS

AFFERENT NEURONS

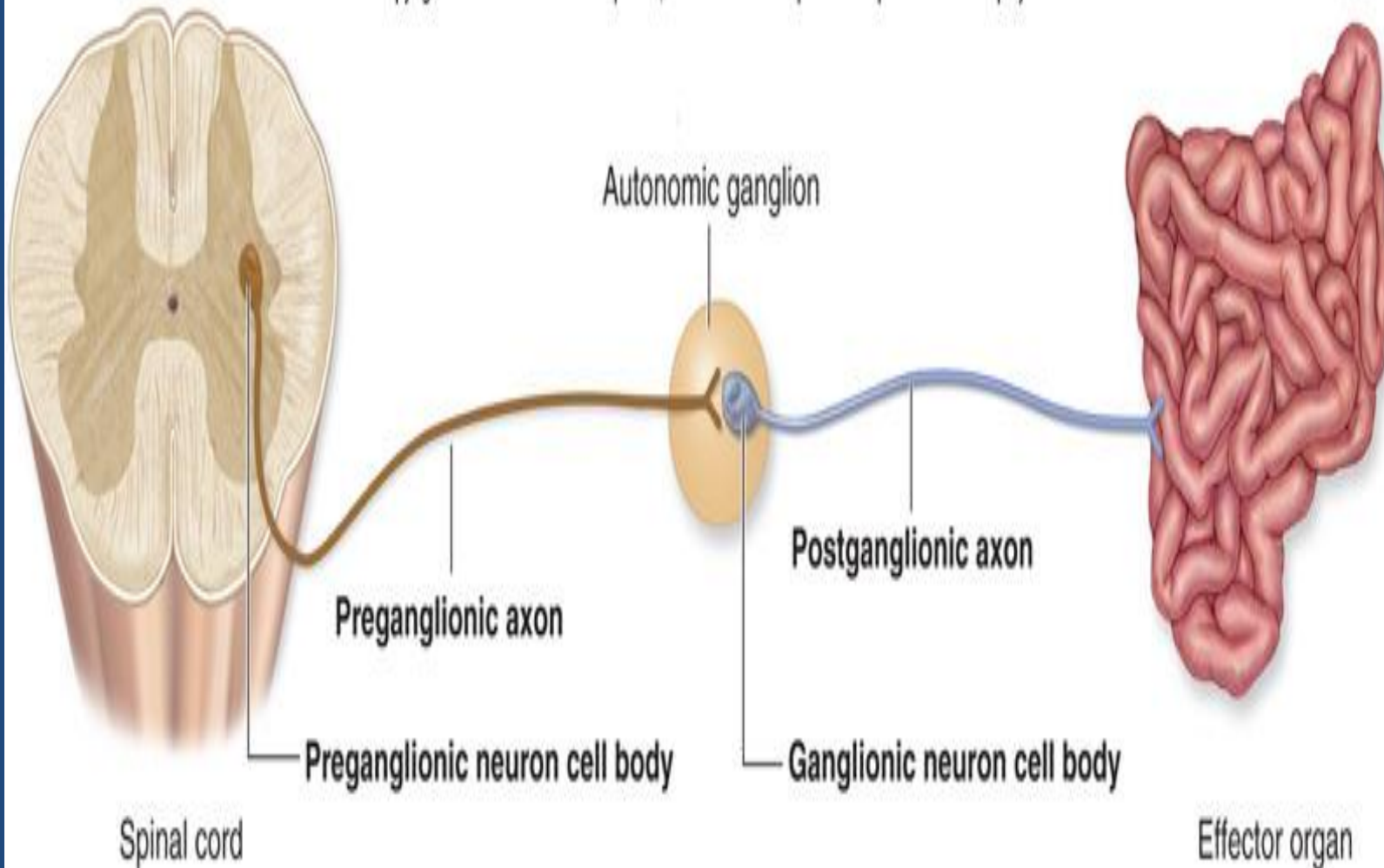
EFFERENT NEURONS

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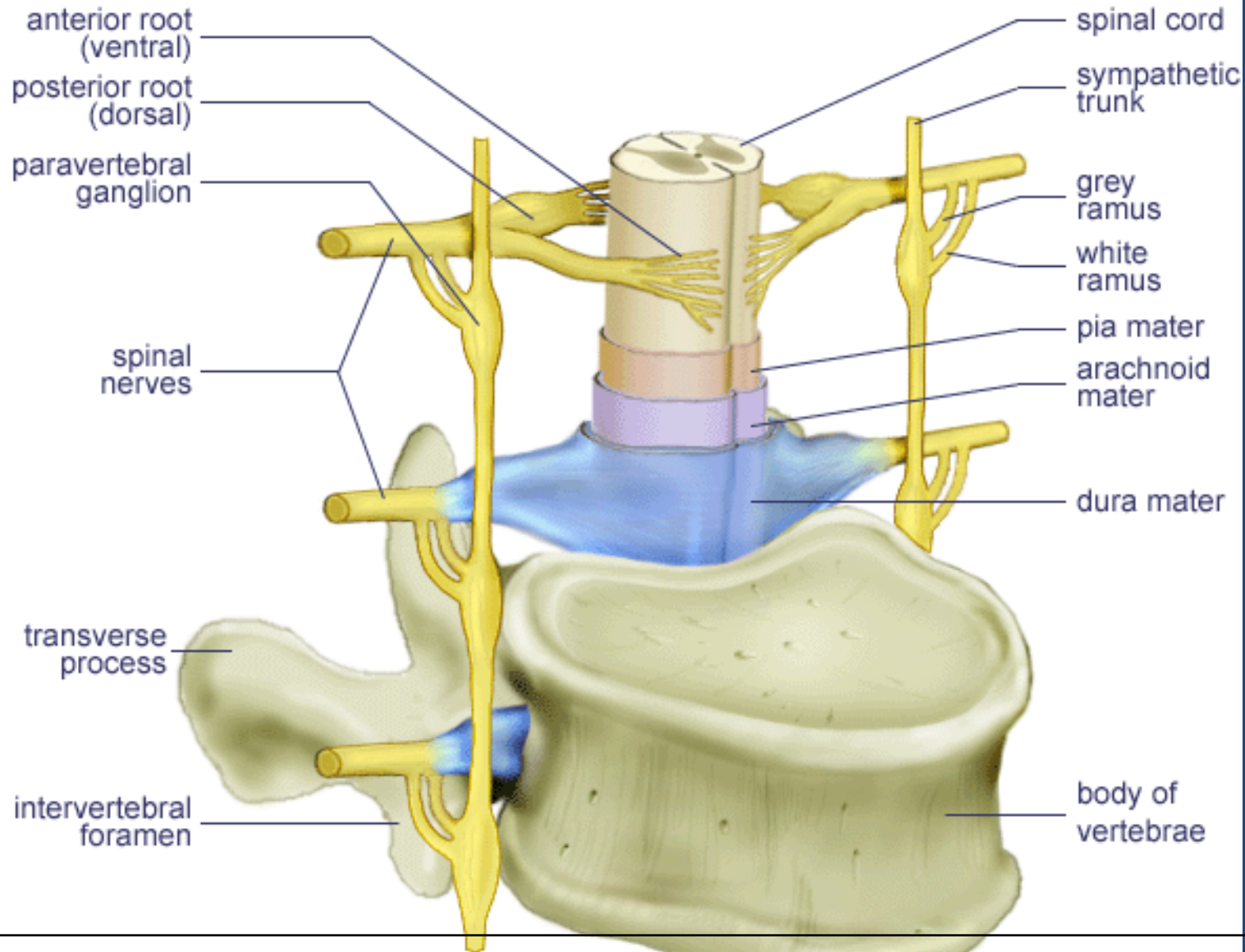
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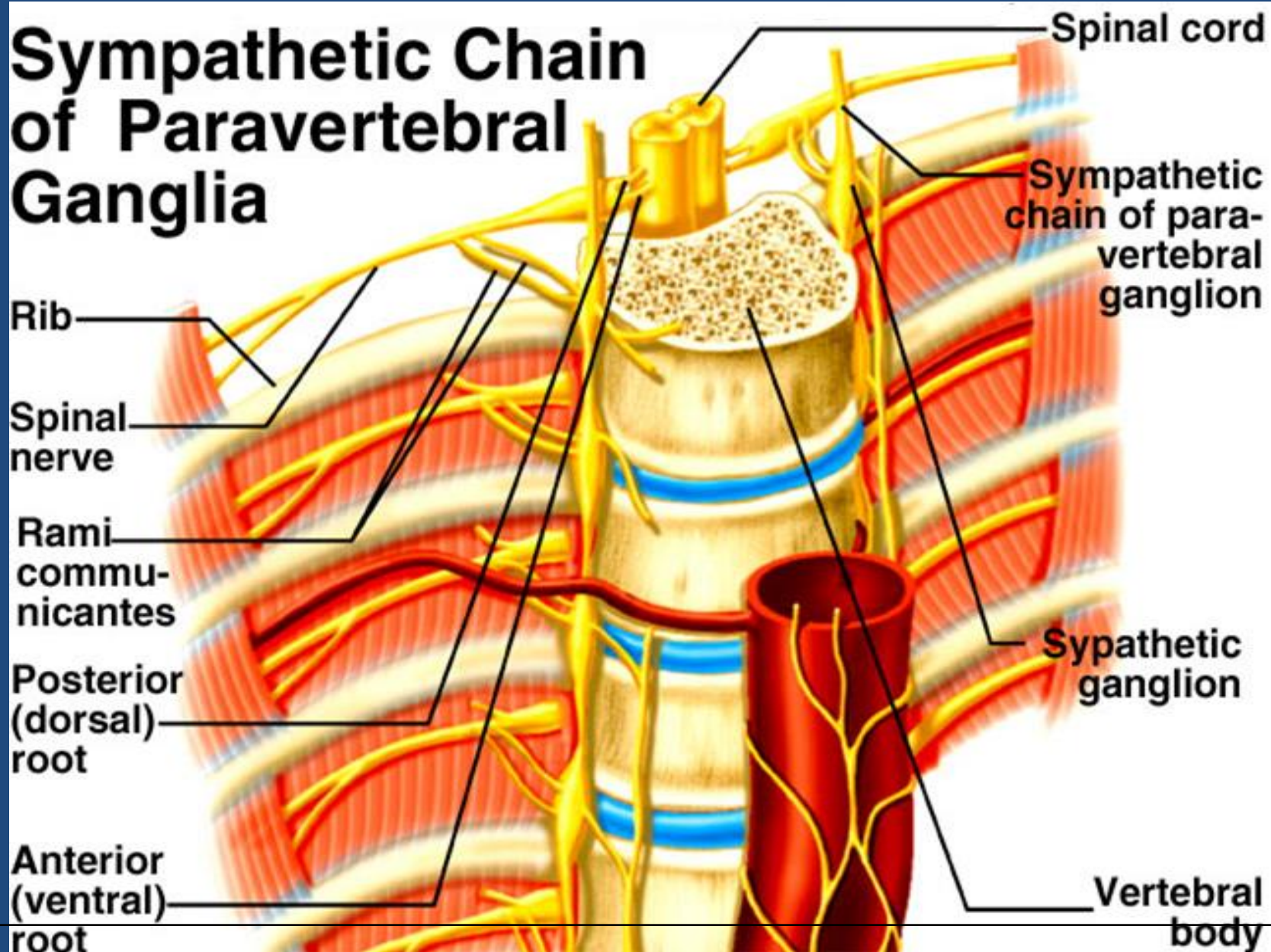
SYMPATHETIC TRUNKS

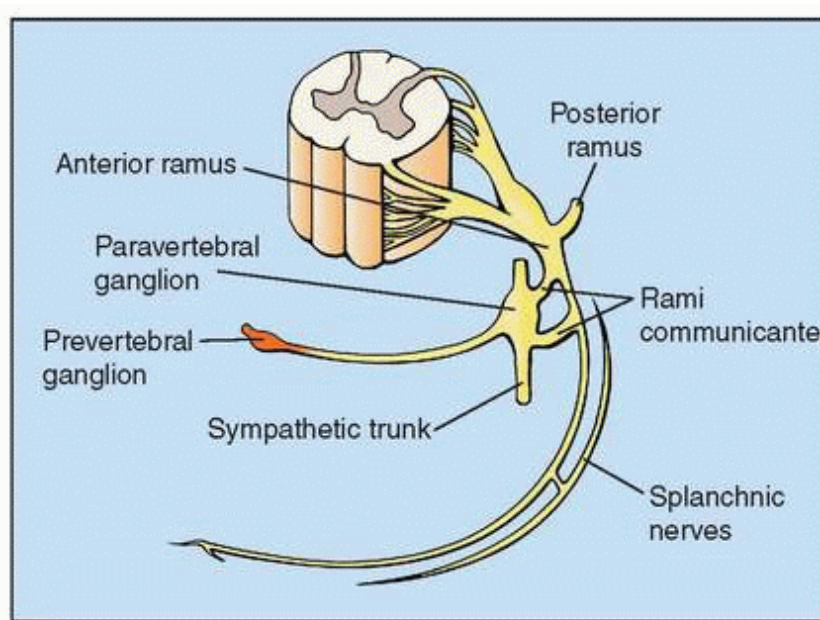
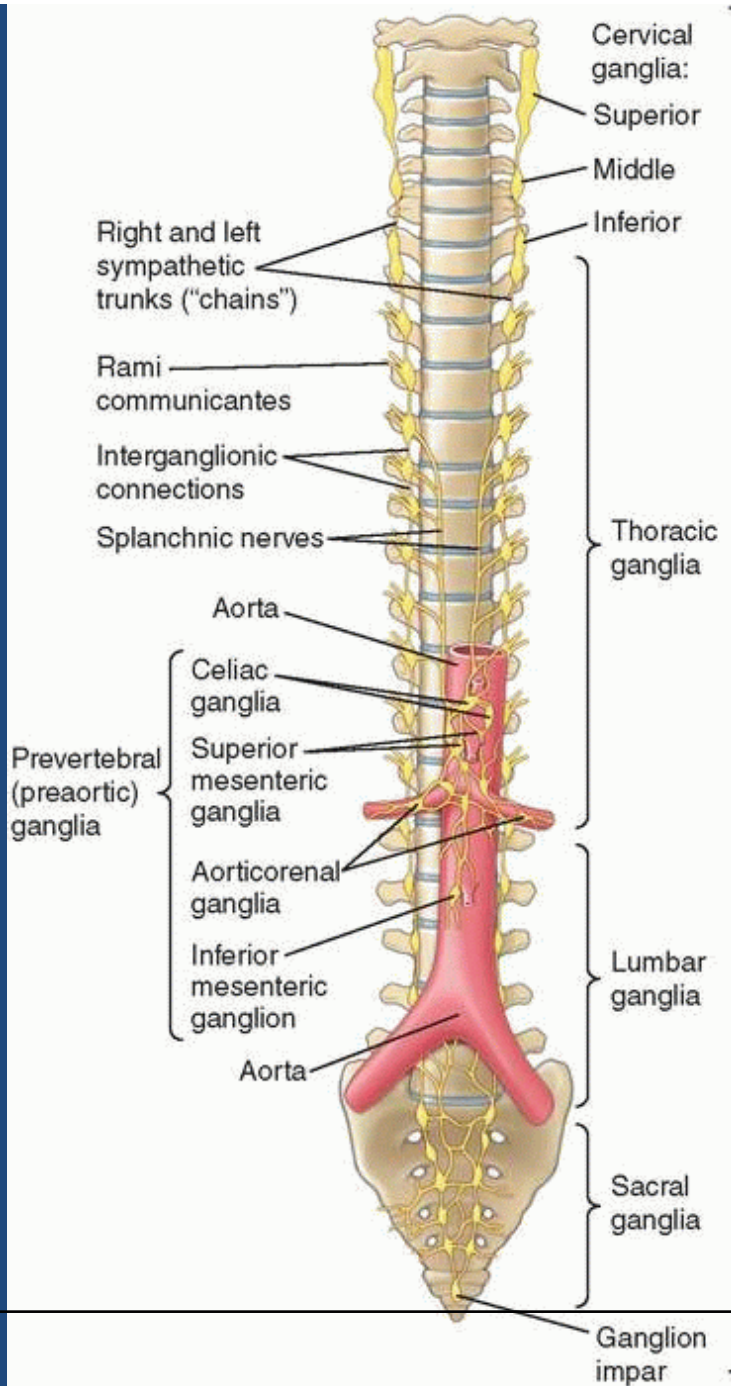
- ❑ Two ganglionated nerve trunks - paravertebral ganglia
- ❑ Extend the whole length of vertebral column from the cranial base to the coccyx.
- ❑ Joined to spinal nerves by rami communicantes.

Autonomic Nervous System



Sympathetic Chain of Paravertebral Ganglia

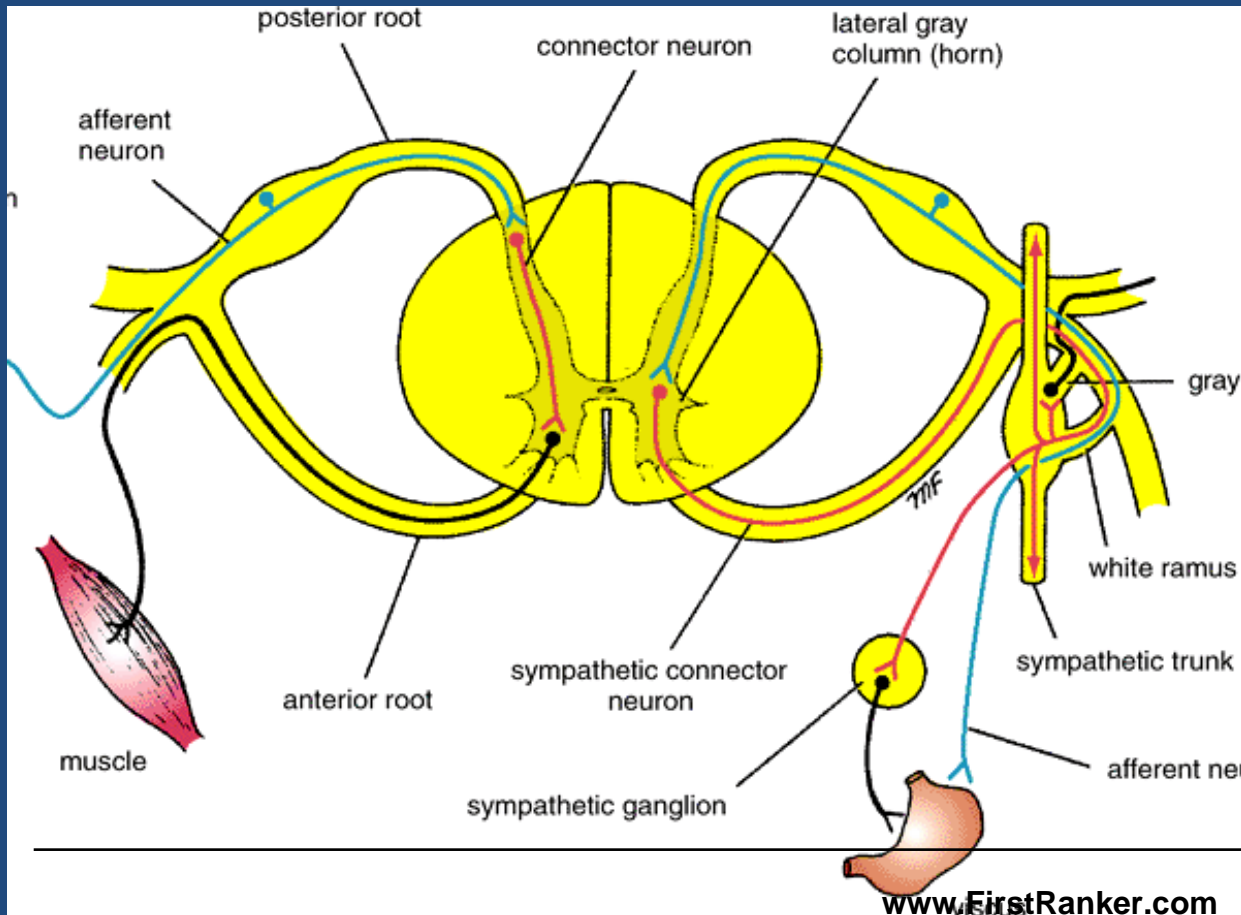




SYMPATHETIC PART OF ANS

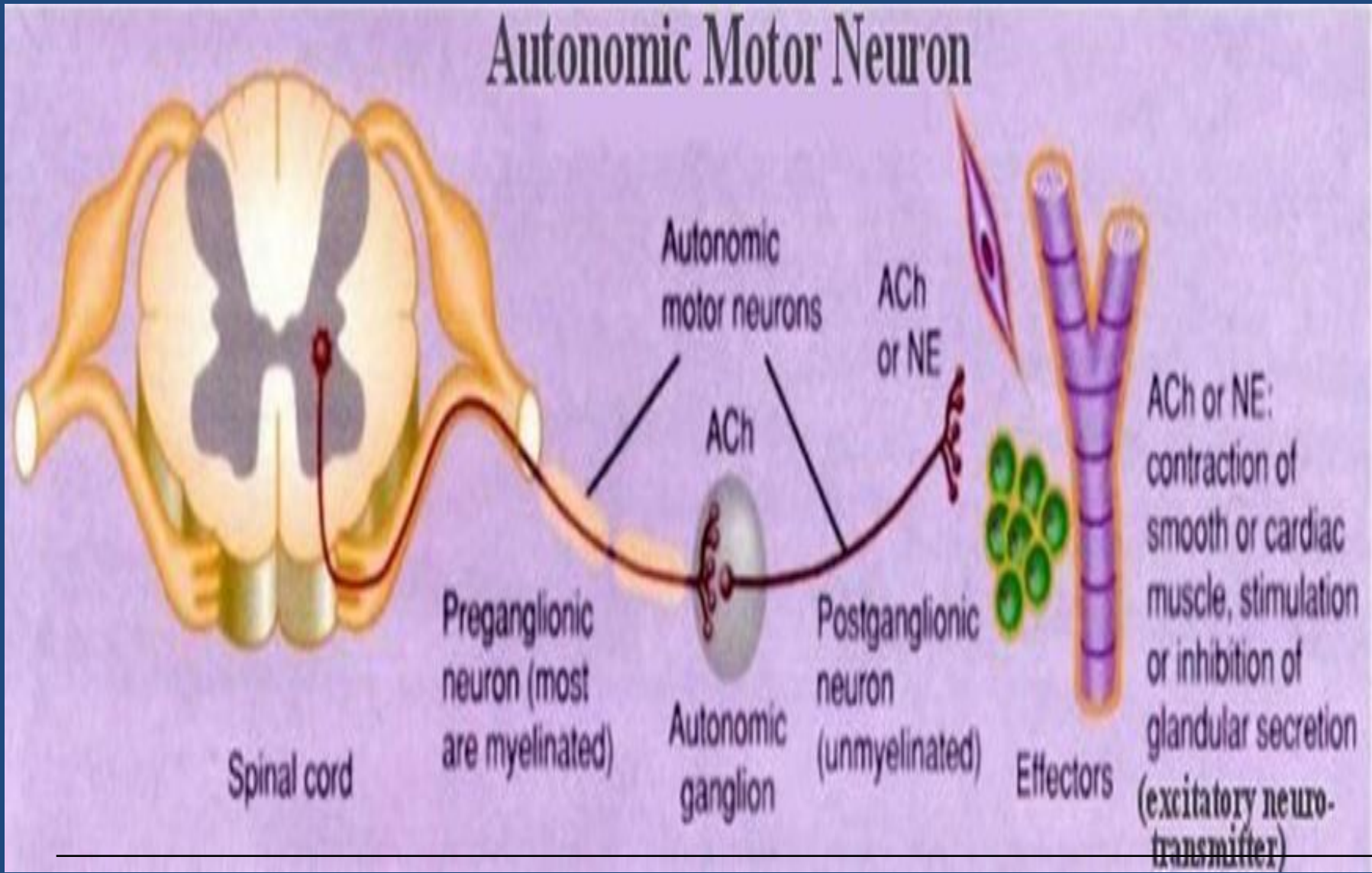
- Larger part
- Widely distributed
- Prepares body for emergency & stress – (fight, fright & flight)

COMPOSITION

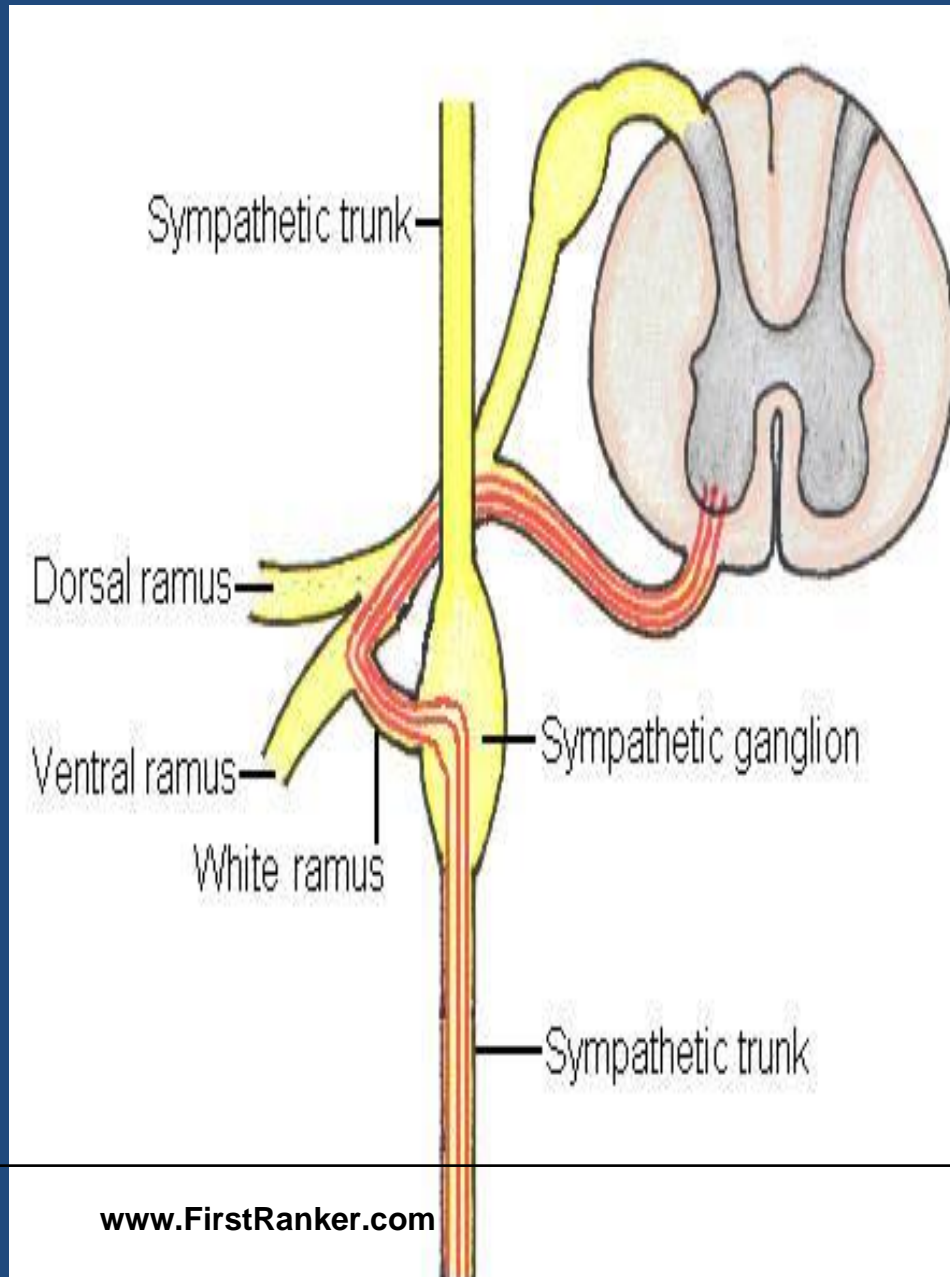


Consists of

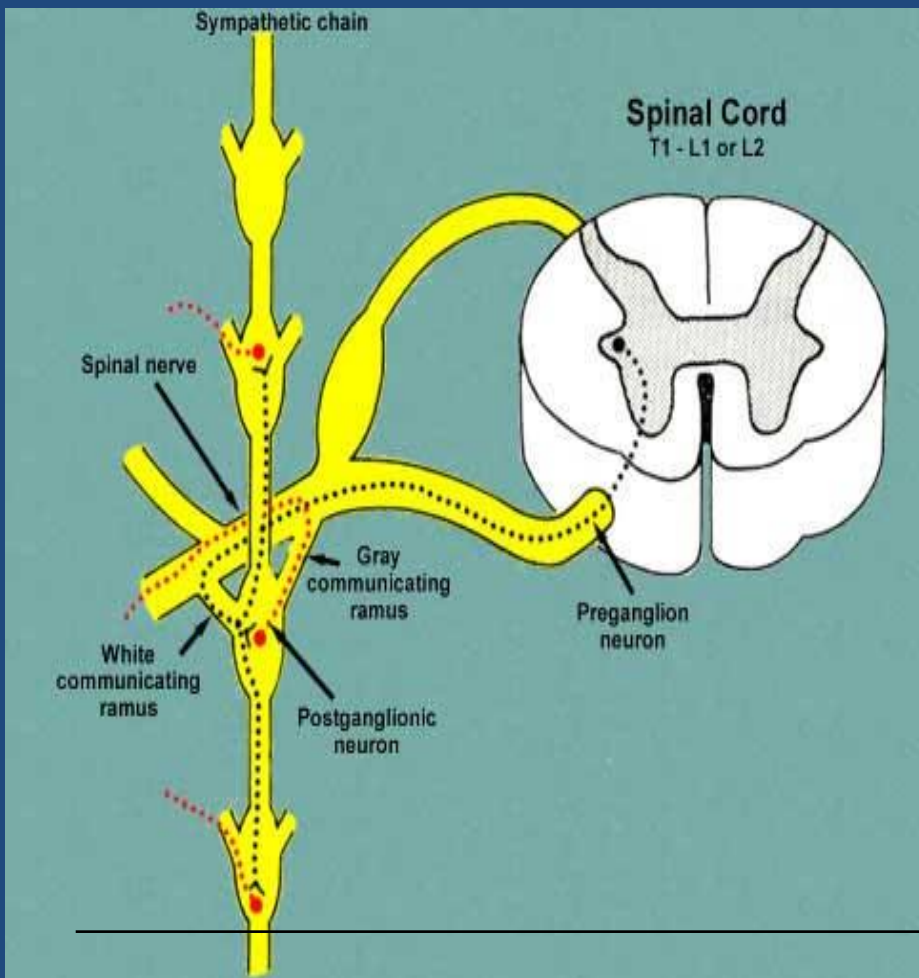
- *Efferents*
- *Afferents*
- *Ganglia* – paravertebral & prevertebral
- *Plexuses*



- Communicating branches arising from thoracic and first two lumbar spinal nerves going to sympathetic ganglion



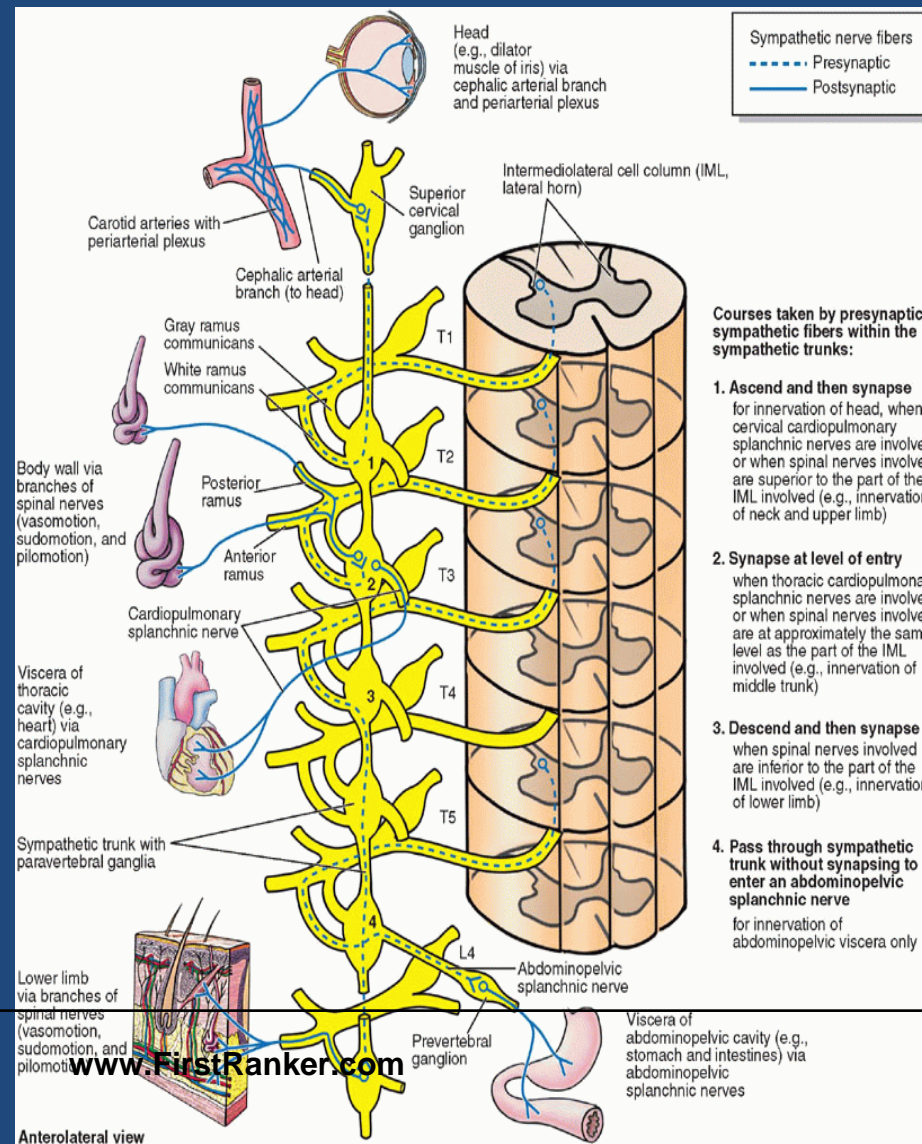
EFFERENTS

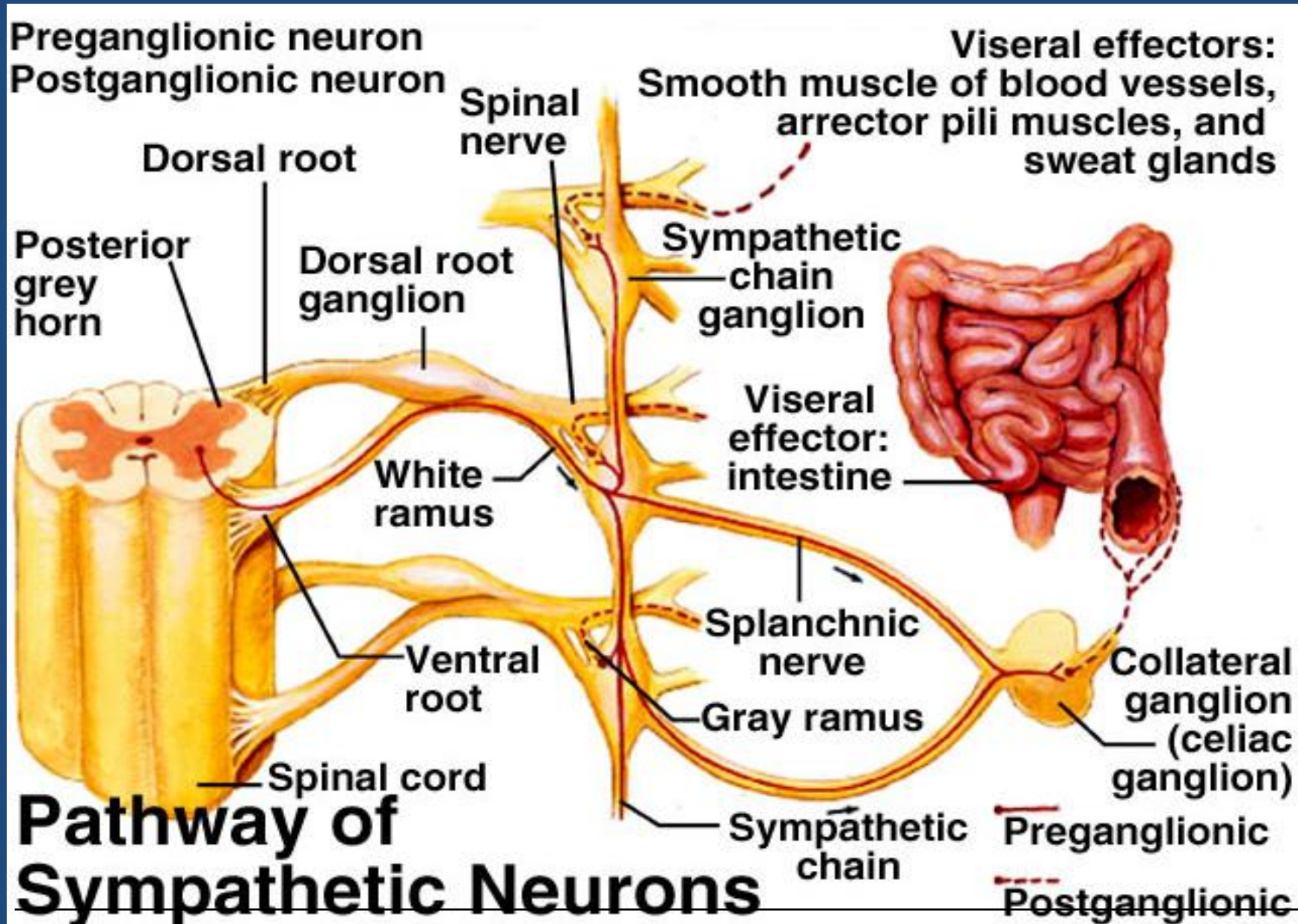


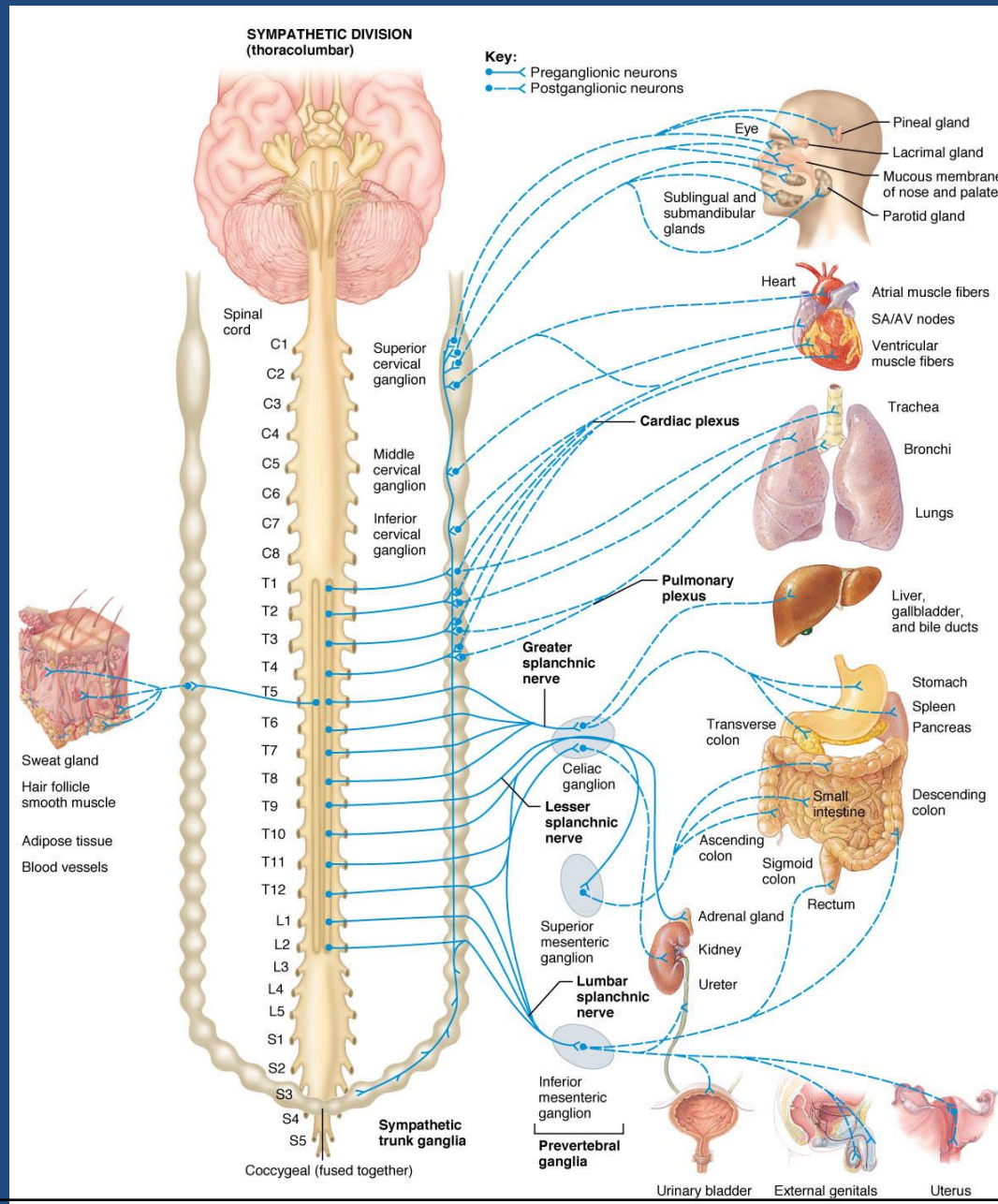
- Cell bodies of sympathetic neurons are located in grey matter of spinal cord.
- Myelinated axons leave through anterior nerve root and then pass via white rami communicantes to paravertebral ganglia

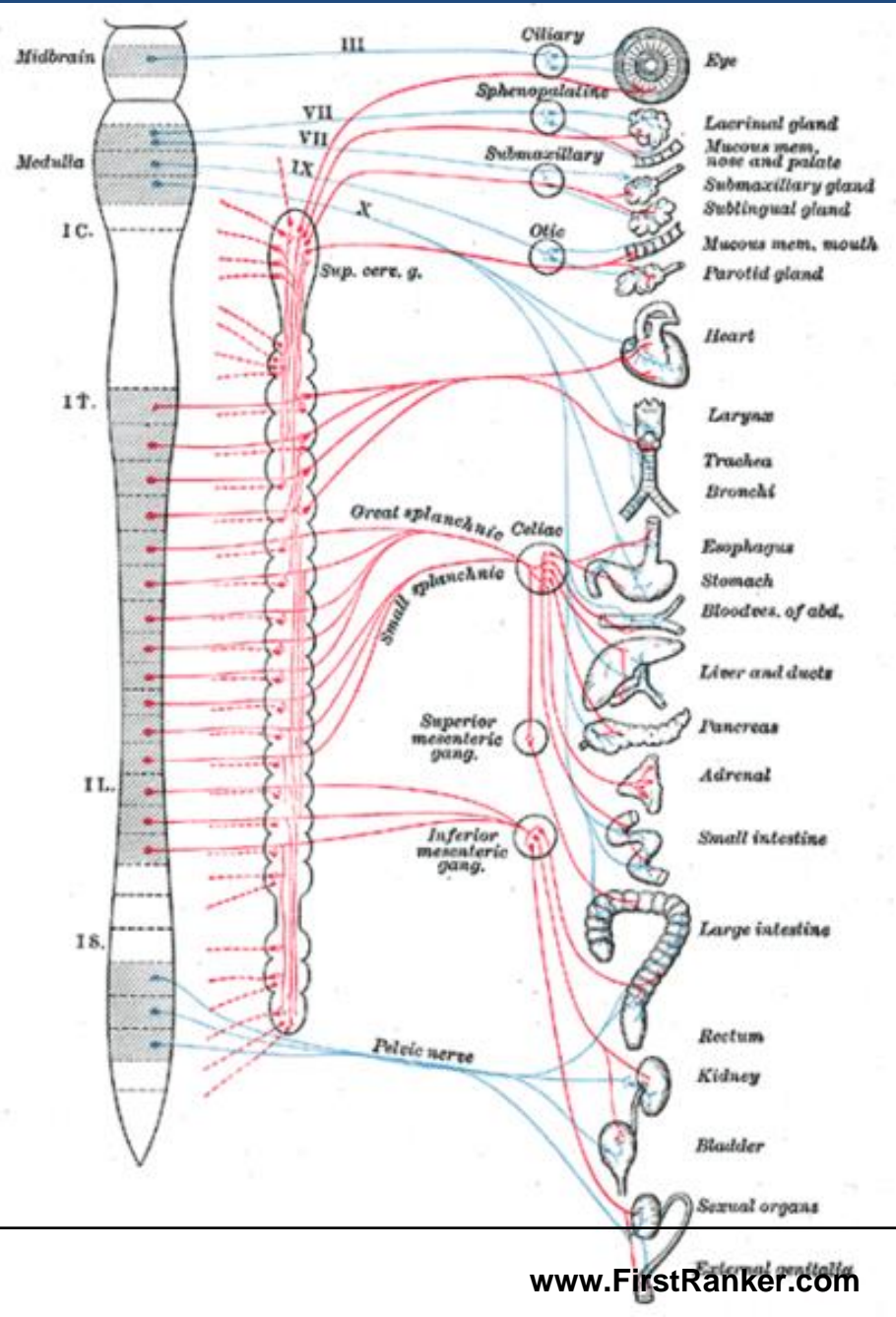
EFFERENT FIBERS

- Terminate in the ganglion
- Travel upward to the cervical region
- Pass through ganglion without synapsing



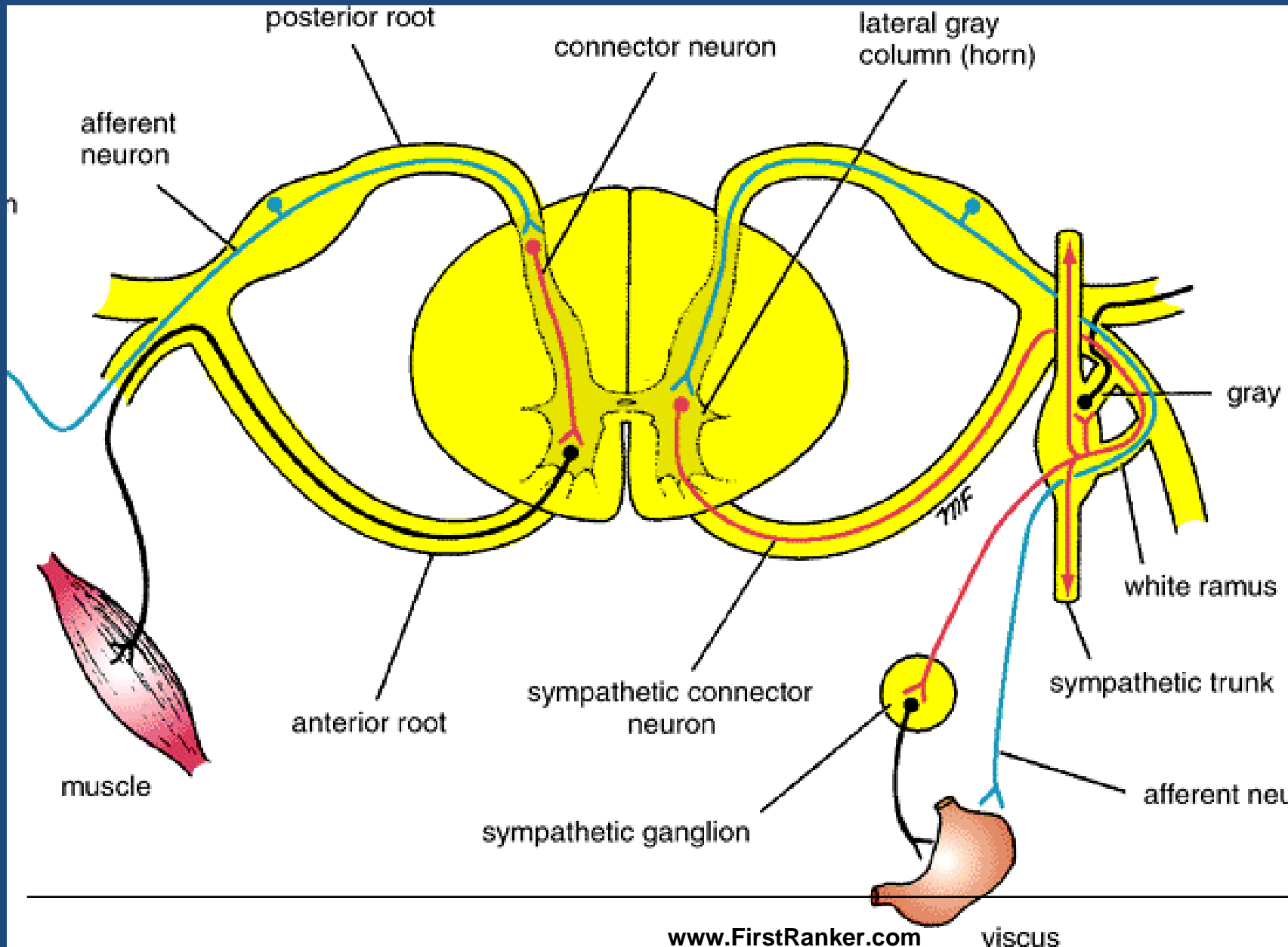


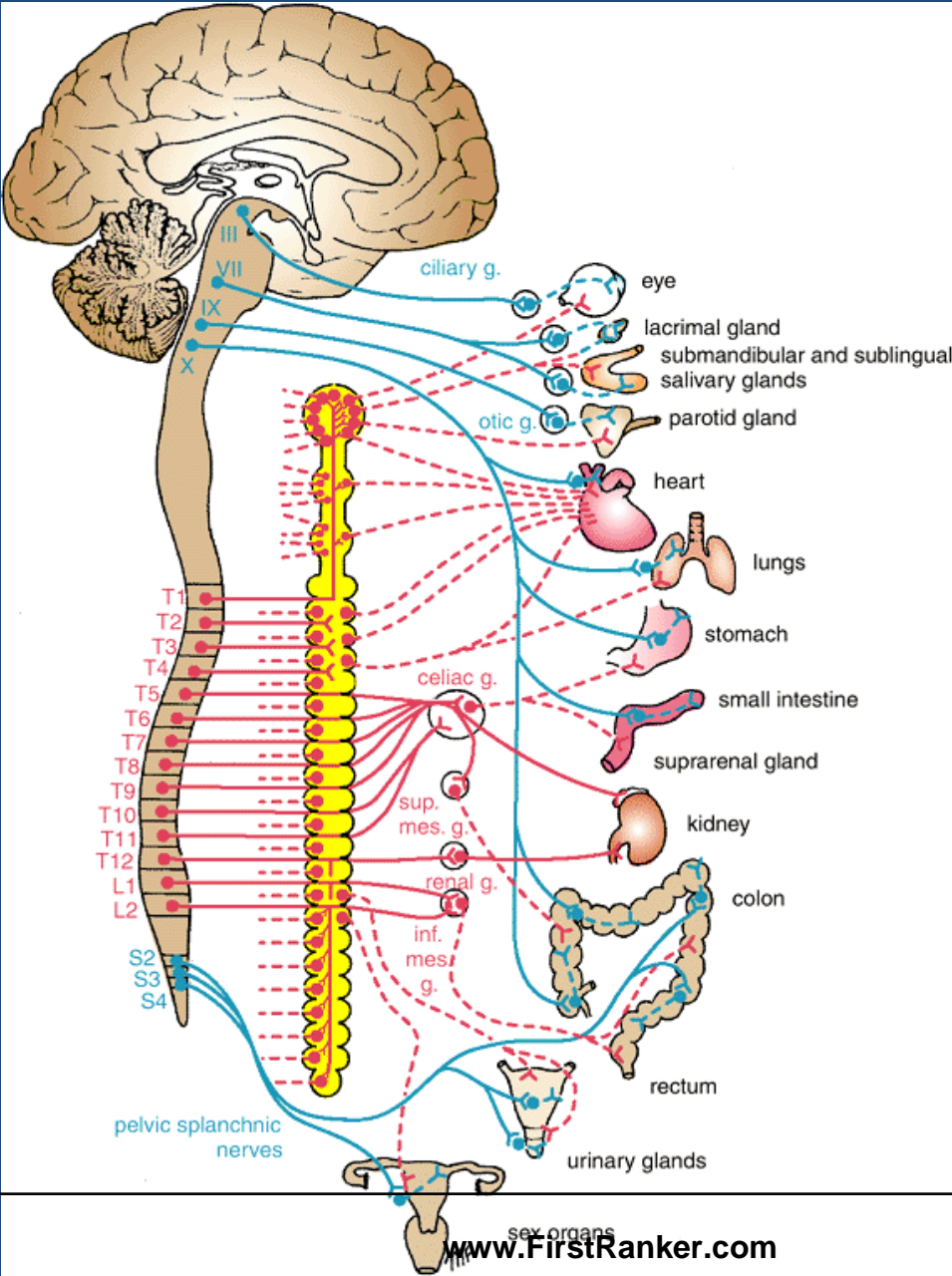




AFFERENTS

- *The afferent myelinated nerve fibers travel from the viscera through the sympathetic ganglia without synapsing.*
- *They reach their cell bodies in the posterior root ganglion of the corresponding spinal nerve*







Thank You...