

Autonome Zenuwstelsel Sympathische & parasympathische routes

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LUMC

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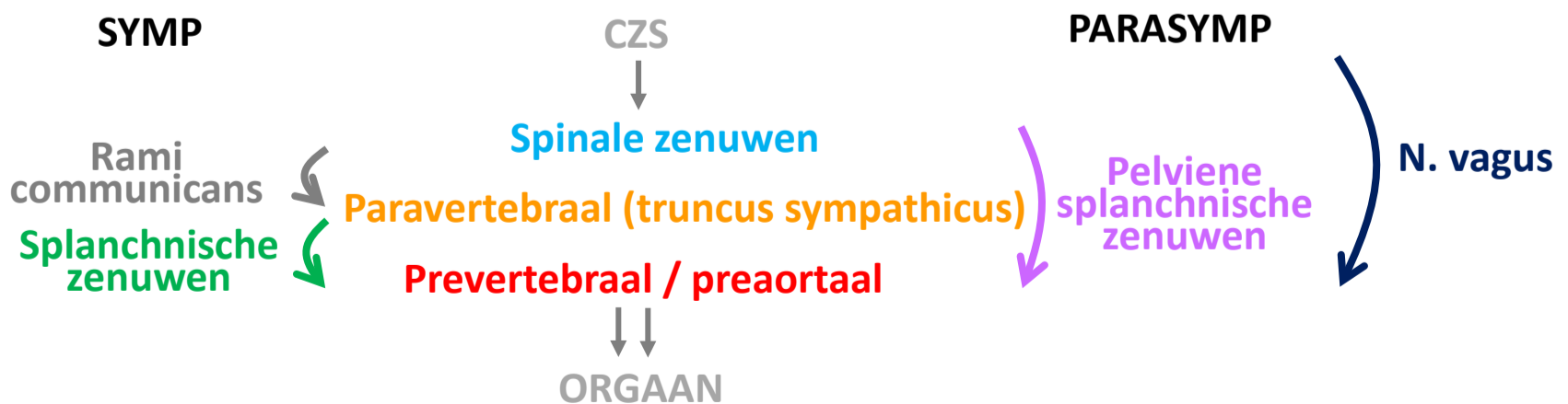
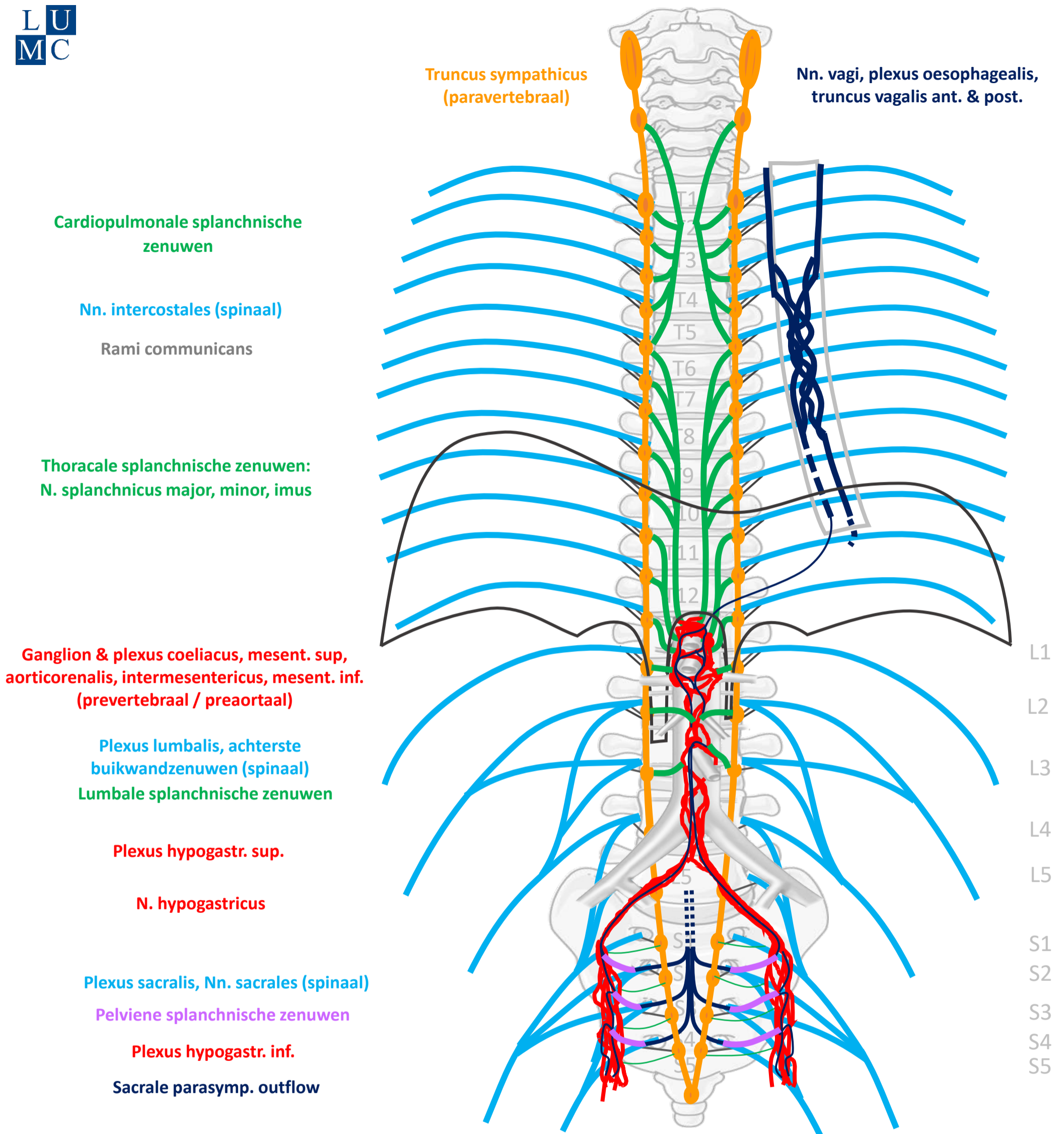


v2, oct. 2022

Vooraf...

- Deze presentatie bouwt voort op het schema uit presentatie 'Autonome Zenuwstelsel Schematisch opgebouwd'.
- Het is aan te raden deze eerst te bestuderen.

Compleet schema



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Sources: Gray's Anatomy 41st ed., Moore K et al, Clin. Oriented Anatomy, 8th ed.

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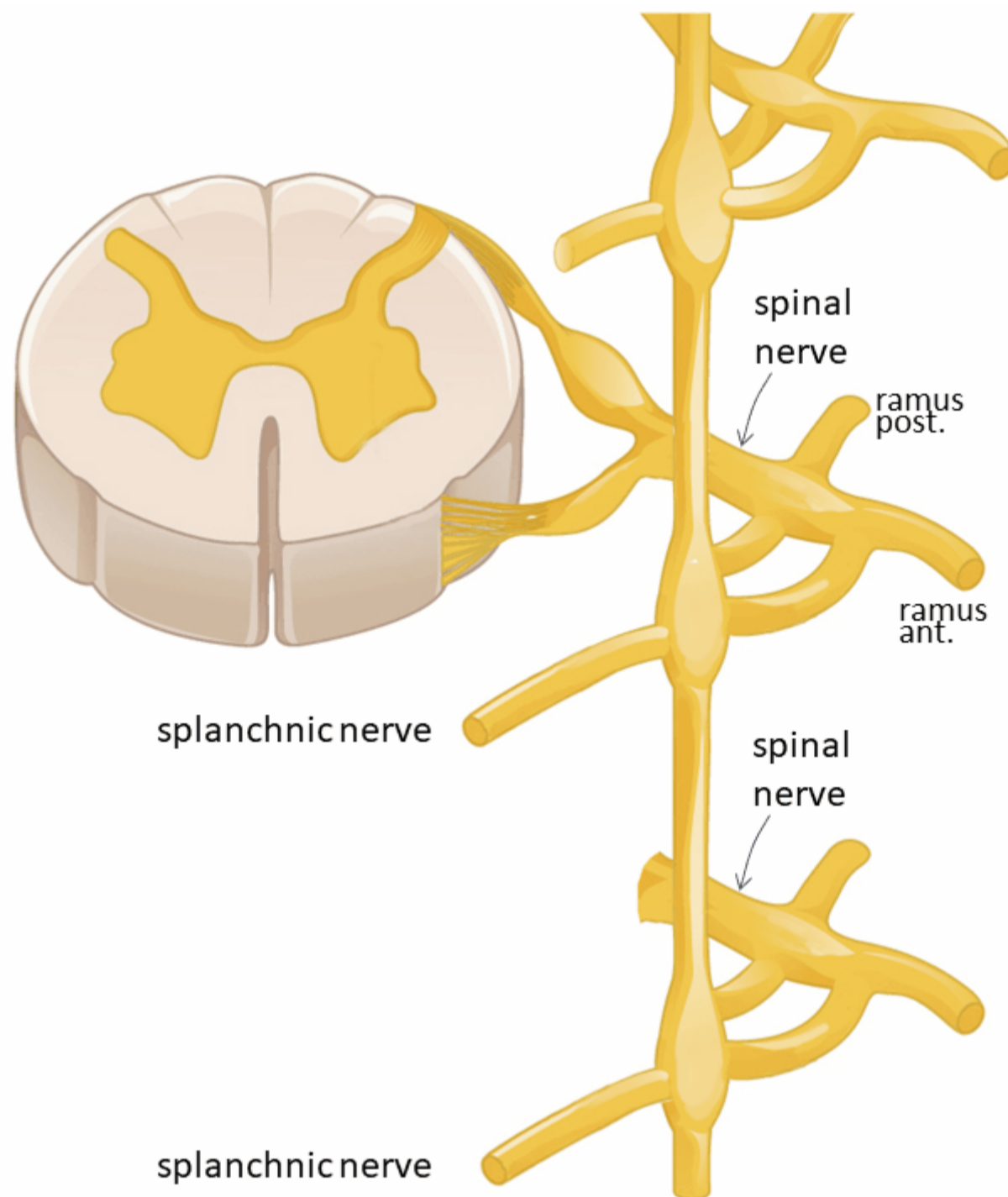
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Sympathisch naar rompwand

- Zweten
- Kippevel
- Perifere vaatvernauwing

Sympathisch naar rompwand



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *SYNAPS*

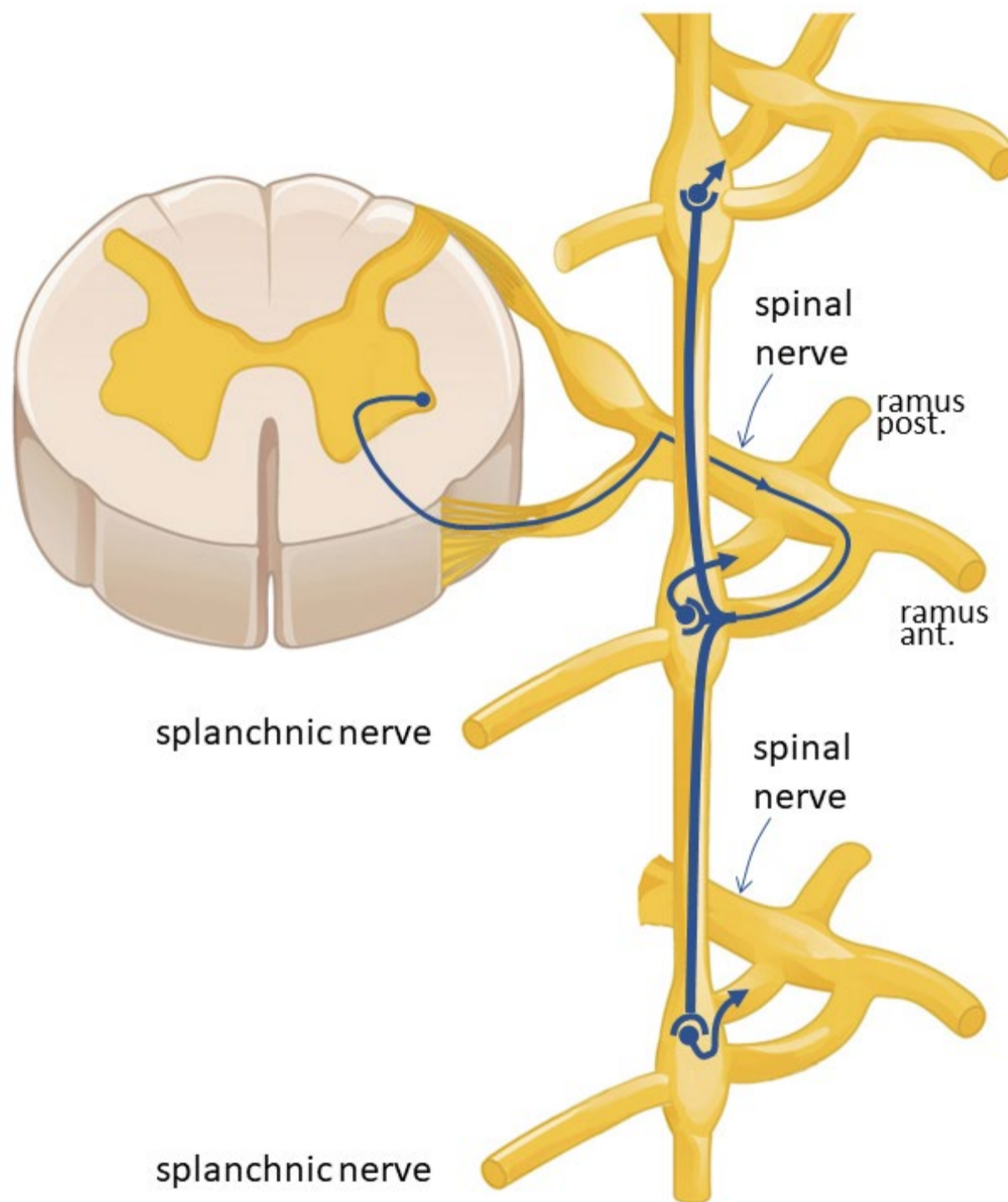
Ramus communicans griseus

Spinale zenuw

Rompwand – zweetklieren, haarfollikels, bloedvaten



Sympathisch naar rompwand



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *SYNAPS*

OMHOOG / ZELFDE NIVEAU / OMLAAG

Ramus communicans griseus

Spinale zenuw

Rompwand – zweetklieren, haarfollikels, bloedvaten



Sympathisch naar rompwand



**Truncus sympathicus
(paravertebraal)**

**Nn. intercostales
(spinaal)**

Rami communicans

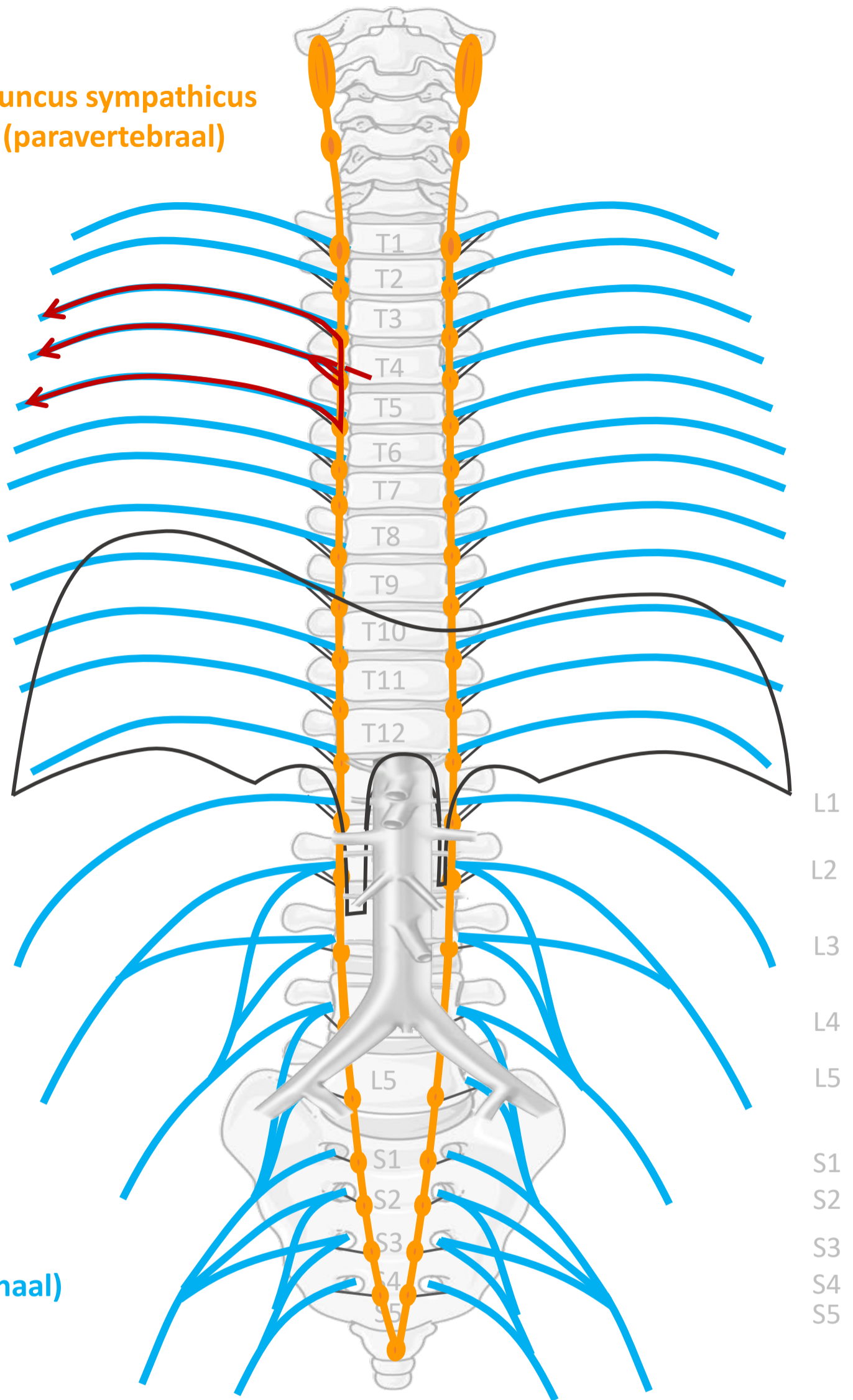
OP ALLE NIVEAUS

**Plexus lumbalis, achterste
buikwandzenuwen (spinaal)**

Rami communicans

Plexus sacralis, Nn. sacrales (spinaal)

Rami communicans



SYMP

CZS

Spinale zenuwen

Paravertebraal (truncus sympathicus)

Spinale zenuwen

ORGAAN

Rami communicans
albus

Rami communicans
griseus

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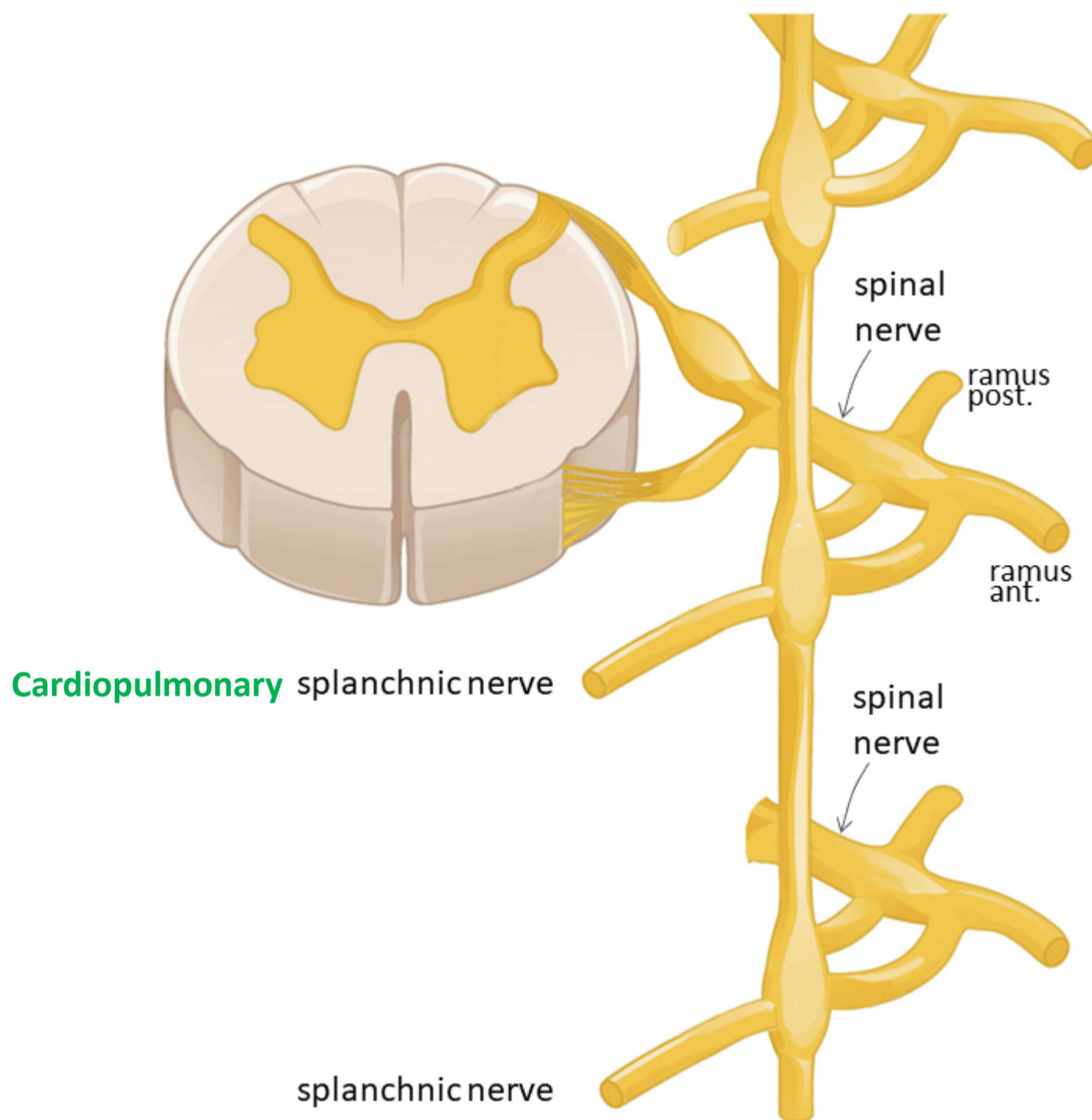
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Sympathisch naar hart, long, oesophagus

- Snellere, krachtigere hartslag
- Verwijding luchtwegen

Sympathisch naar hart, long, oesophagus



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *SYNAPS*

OMHOOG / ZELFDE NIVEAU / OMLAAG

Cardiopulmonale splanchnische zenuwen

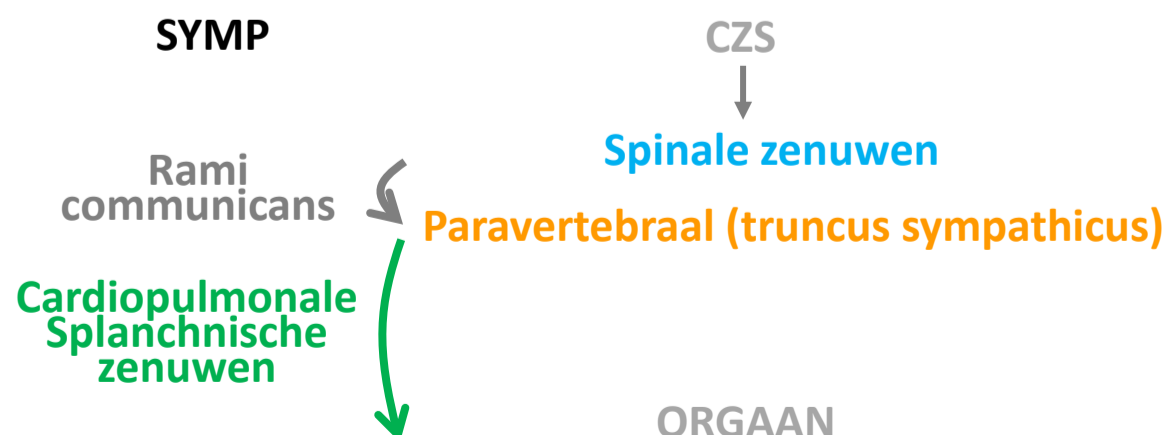
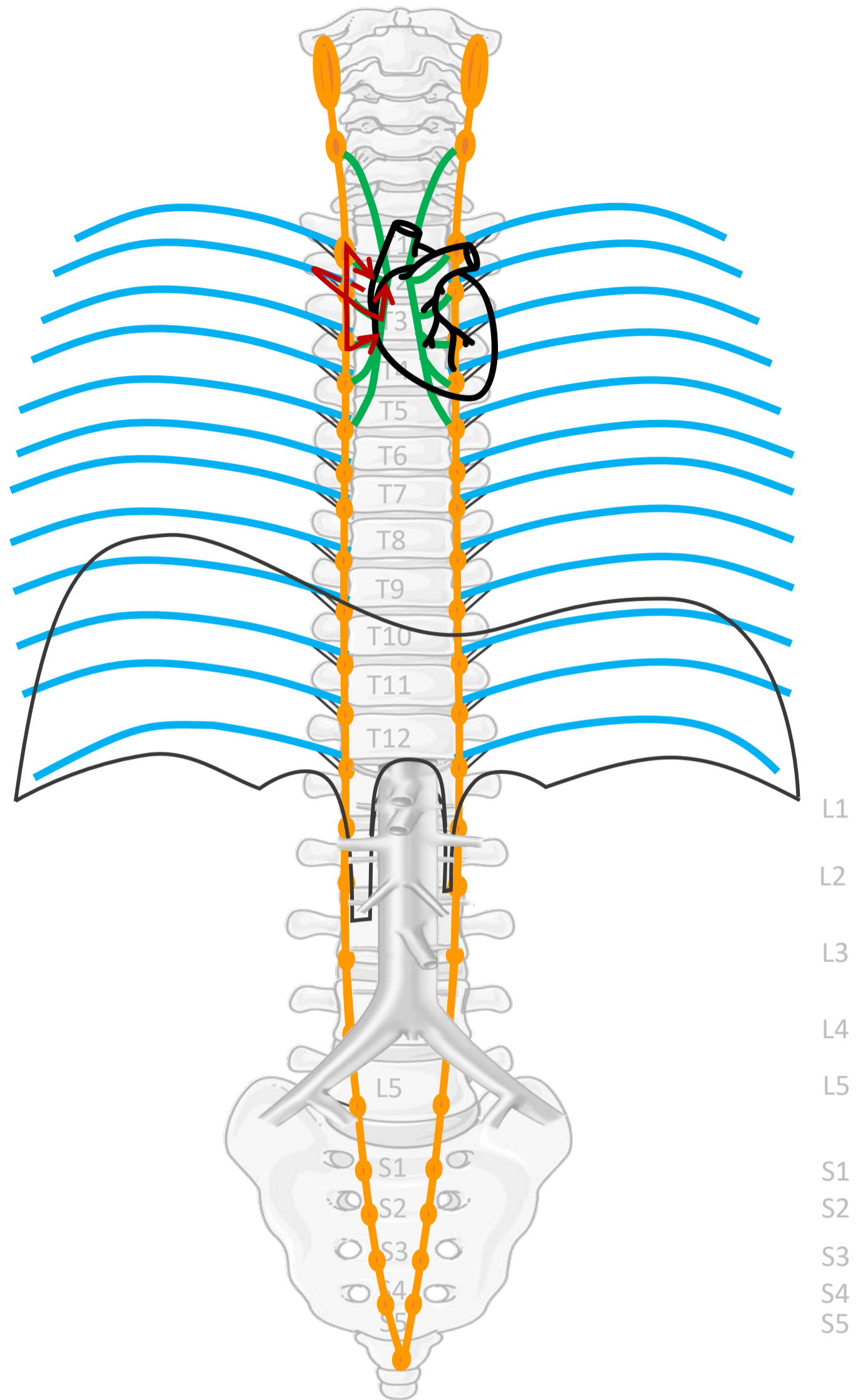
Hart, longen, oesophagus

Nn. intercostales (spinaal)

Rami communicans

Truncus sympathicus
(paravertebraal)

Cardiopulmonale
splanchnische zenuwen



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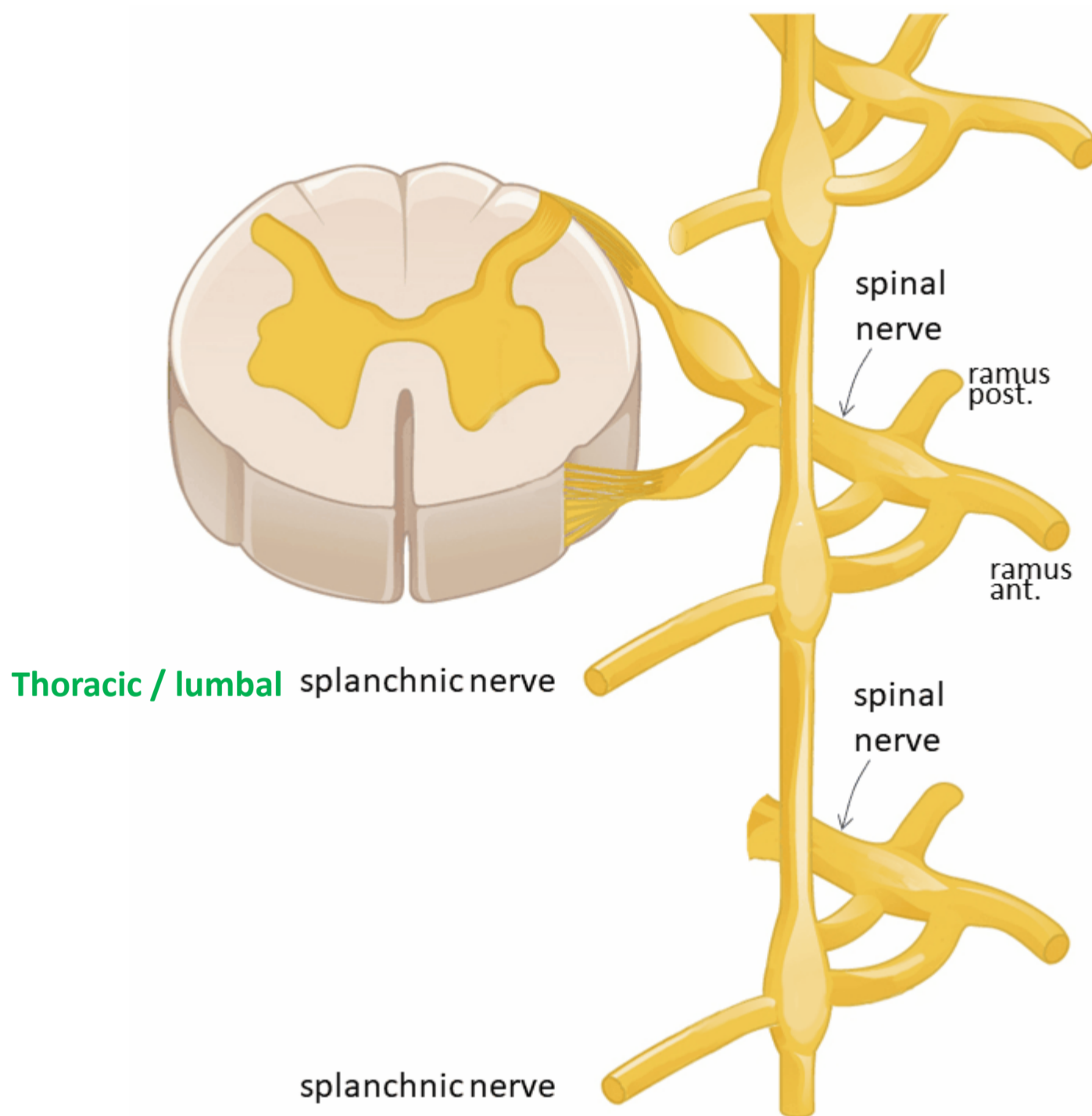
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Sympathisch naar buik- en bekkenorganen

- Remming peristaltiek
- Vasoconstrictie in tractus digestivus
- Omzetting glycogeen naar glucose
- Continentie - constrictie blaas- en anale- interne sphincters

Sympathisch naar buik- en bekkenorganen



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *GÉÉN SYNAPS*

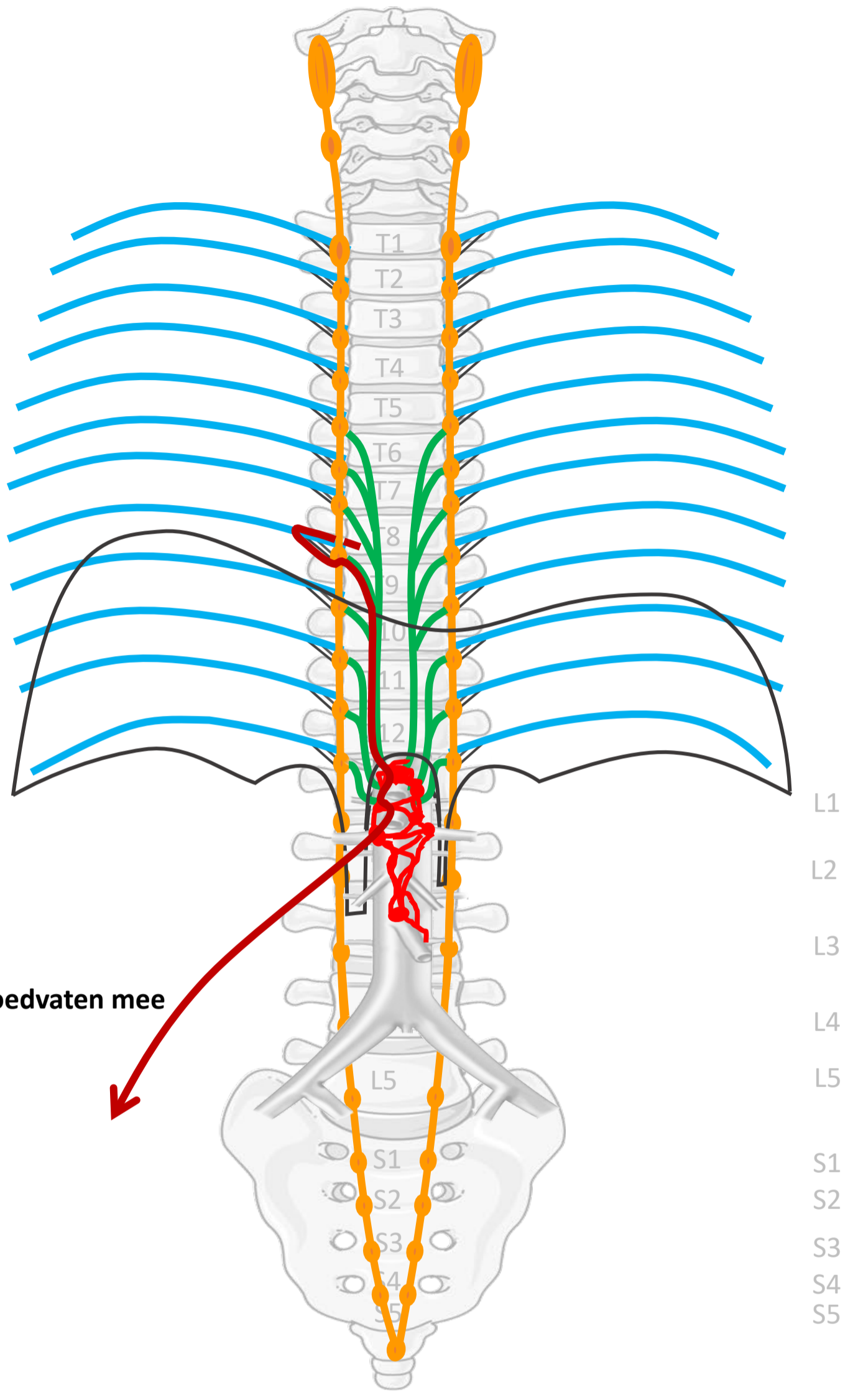
Thoracale /lumbale splanchnische zenuwen

Prevertebraal / preaortaal ganglion/ plexus *SYNAPS*

Met bloedvaten mee naar organen



Sympathisch naar buik organen (t/m ~ middendarm – colon transv.)



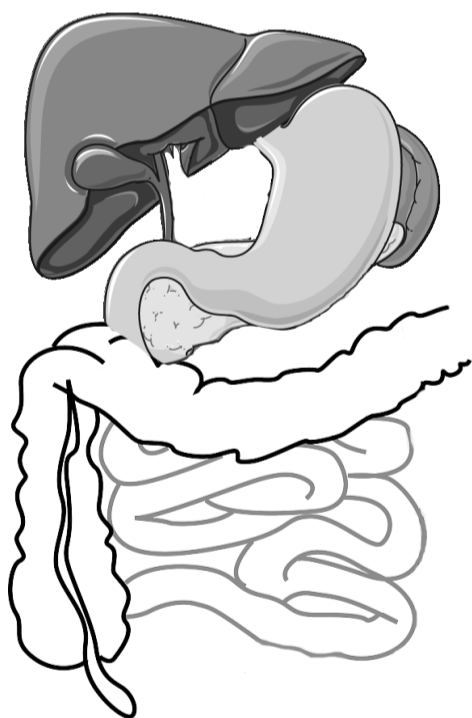
Nn. intercostales (spinaal)

Rami communicans

Truncus sympathicus (paravertebraal)

Thoracale splanchnische zenuwen: N. splanchnicus major, minor, imus

Prevertebraal / preaortaal: ganglion & plexus coeliacus, mesent. sup, aorticorenalis, intermesentericus, mesent. inf.



Met bloedvaten mee

SYMP

CZS

Spinale zenuwen

Rami communicans

Paravertebraal (truncus sympathicus)

Thoracale splanchnische zenuwen

Prevertebraal / preaortaal

Met bloedvaten mee

ORGAAN

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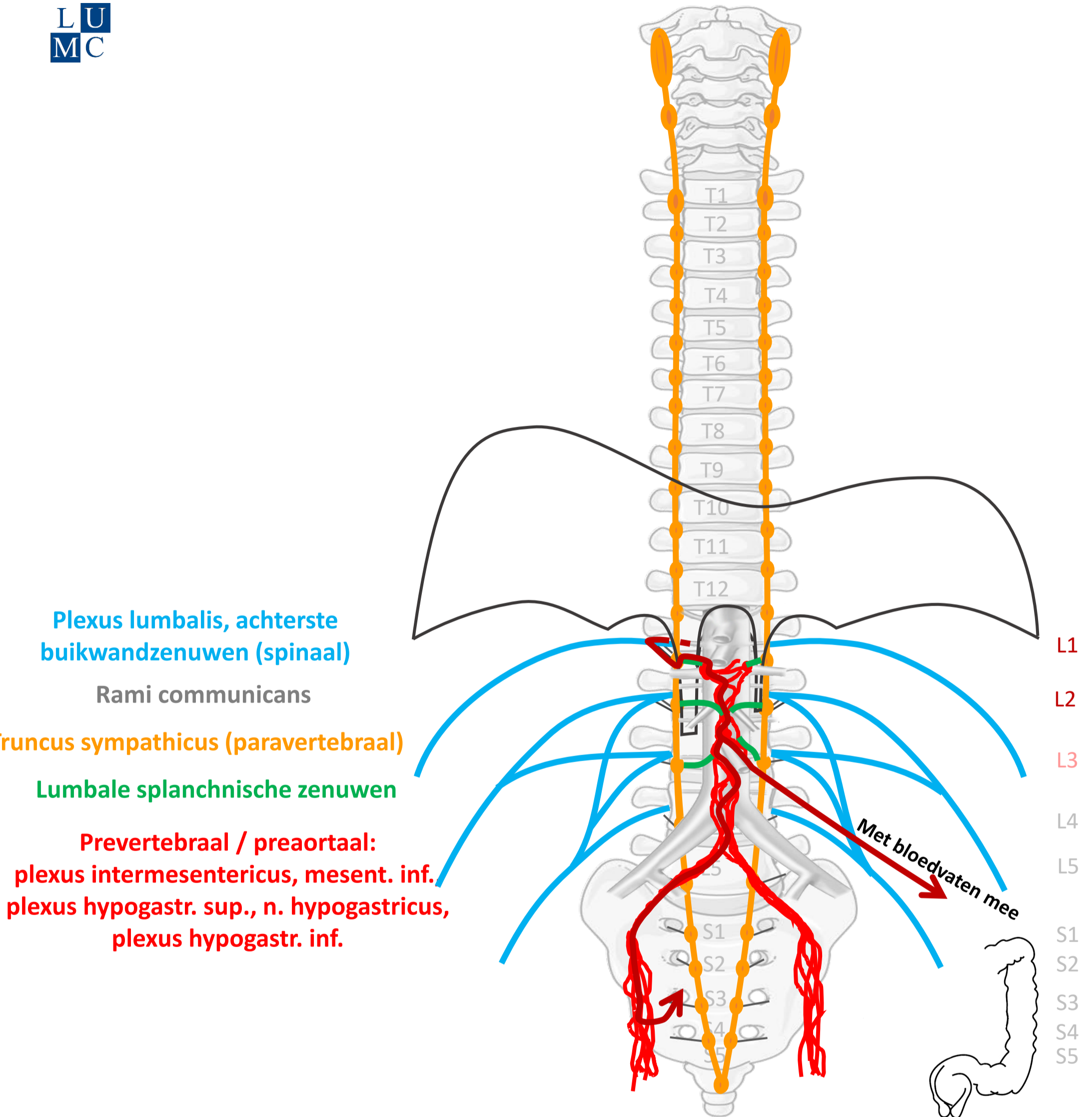
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Sympathisch naar einddarm (colon desc./sigmoid/rectum) en bekkenorganen



Plexus lumbalis, achterste buikwandzenuwen (spinaal)

Rami communicans

Truncus sympathicus (paravertebraal)

Lumbale splanchnische zenuwen

Prevertebraal / preaortaal:
plexus intermesentericus, mesent. inf.
plexus hypogastr. sup., n. hypogastricus,
plexus hypogastr. inf.

Met bloedvaten mee

SYMP

CZS

Spinale zenuwen

Rami communicans

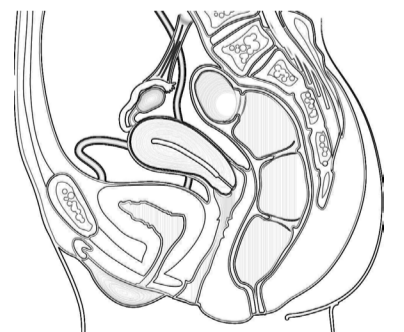
Paravertebraal (truncus sympathicus)

Lumbale splanchnische zenuwen

Prevertebraal / preaortaal

Met bloedvaten mee of via plexus hypogastr infer.

ORGAAN



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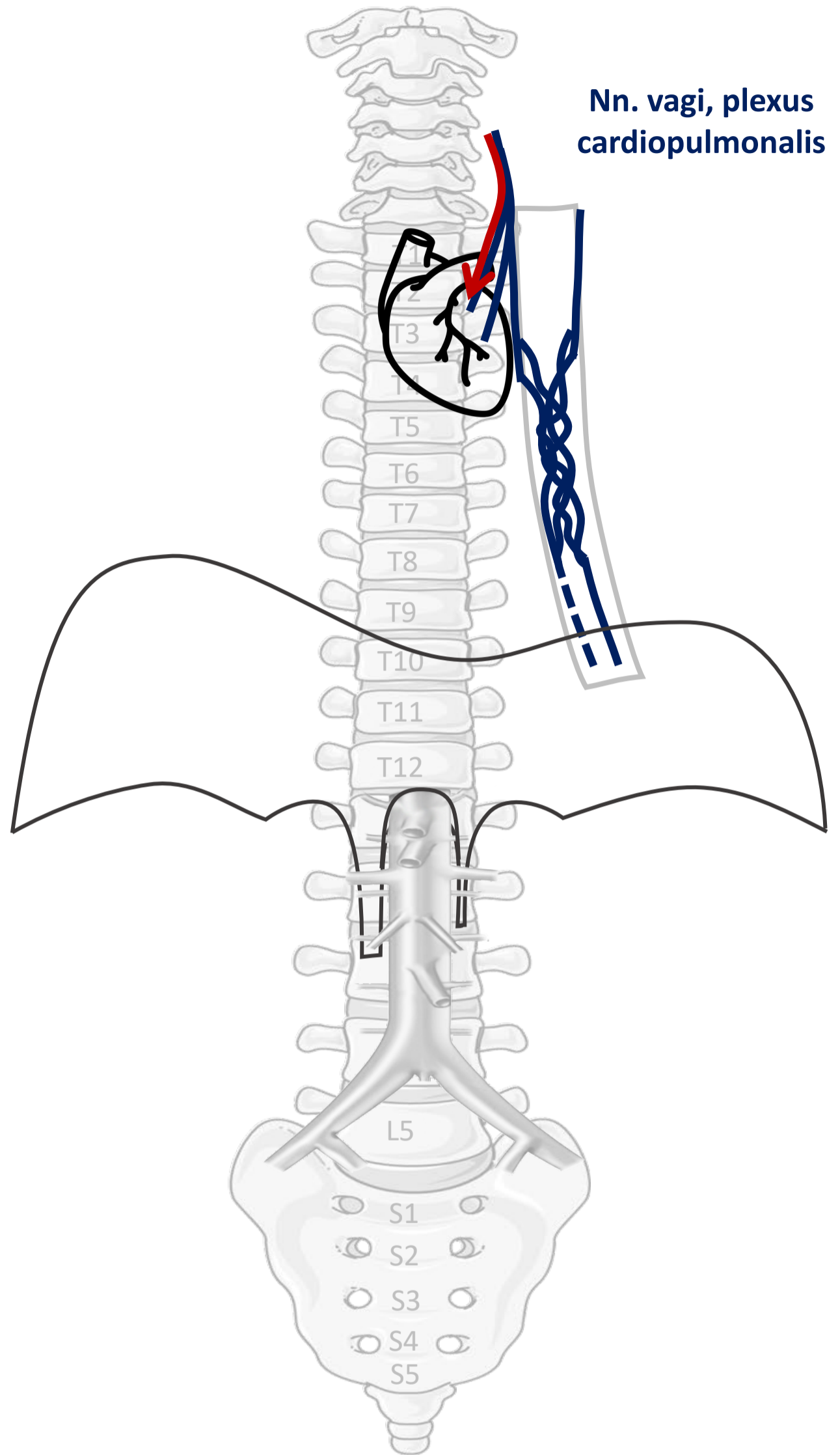
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Parasympathisch naar hart, long, oesophagus

- Vertraging, minder krachtige hartslag
- Vernauwing luchtwegen
- Toename bronchus-secretie



Nn. vagi, plexus cardiopulmonalis

CZS



ORGAAN

PARASYMP



N. vagus

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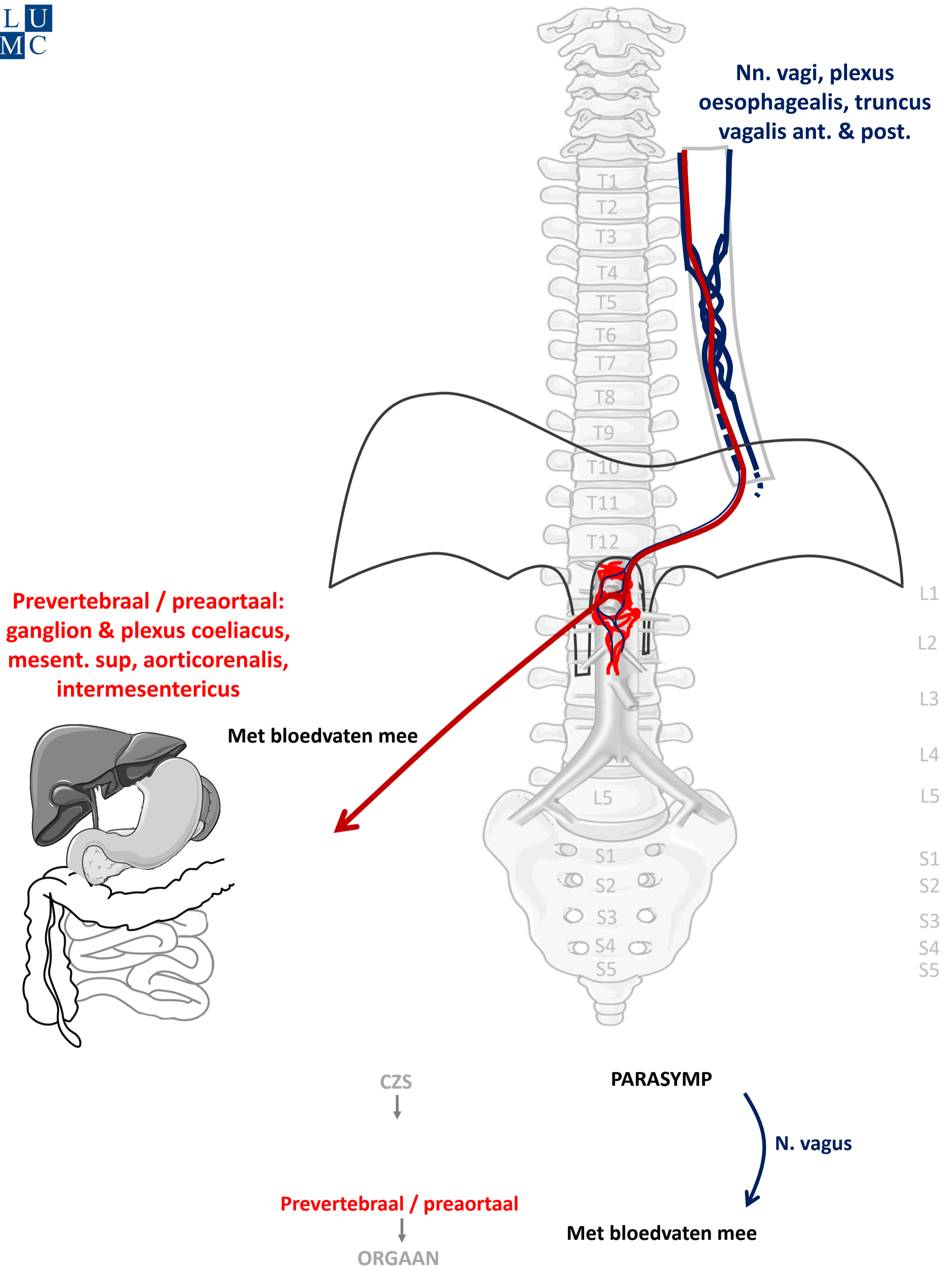


Parasympathisch naar buikorganen

(t/m middendarm – colon transversum)

- Stimulering peristaltiek
- Stimulering secretie spijsverteringssappen
- Omzetting glucose naar glycogeen

Parasympathisch naar buikorganen (t/m middendarm– colon transversum)



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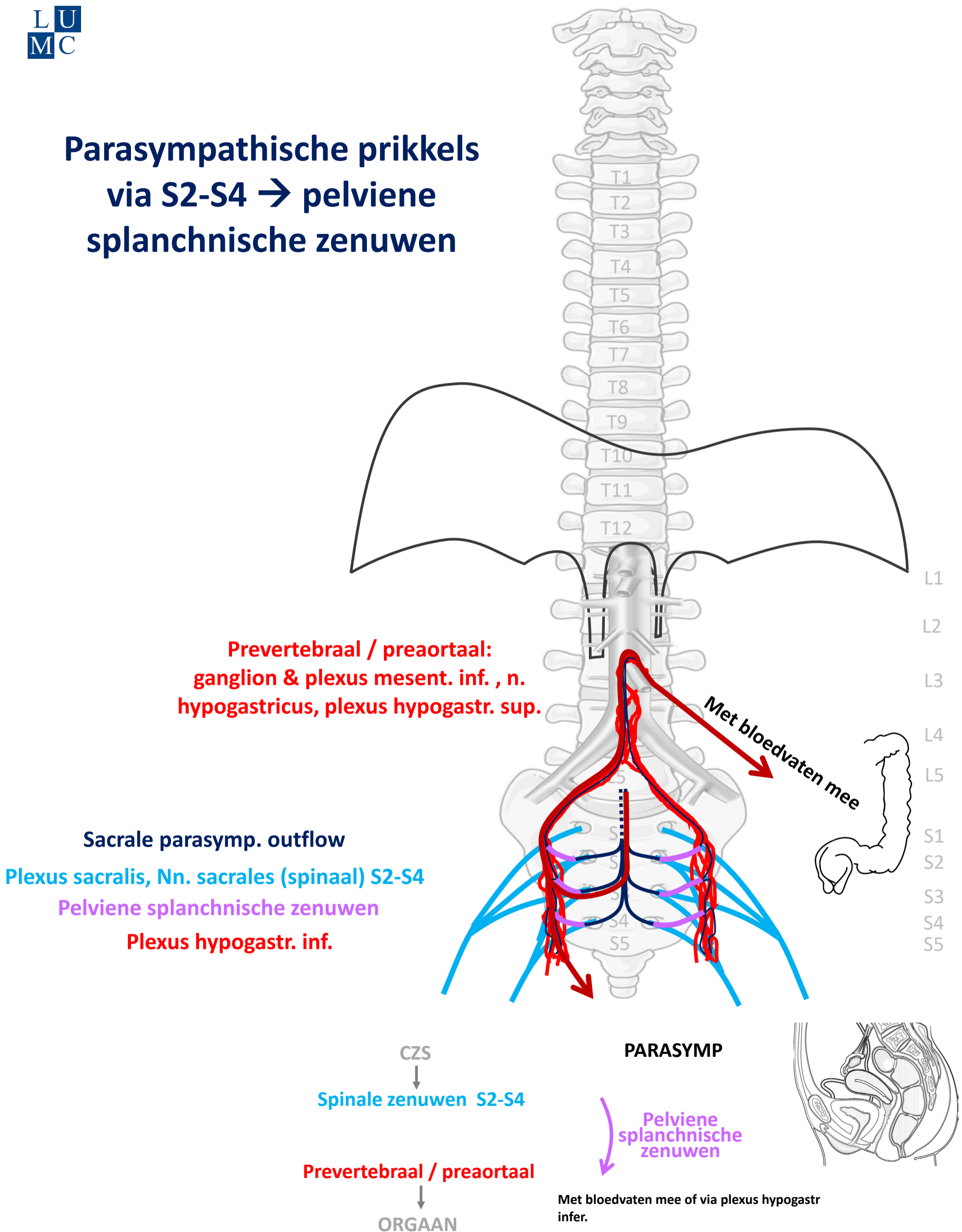
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Parasympathisch naar einddarm (colon desc/sigmoid/rectum) en bekkenorganen

- Stimulering peristaltiek
- Defaecatie, mictie
- Erectie genitalia

Parasympathische prikkels via S2-S4 → pelviene splanchnische zenuwen



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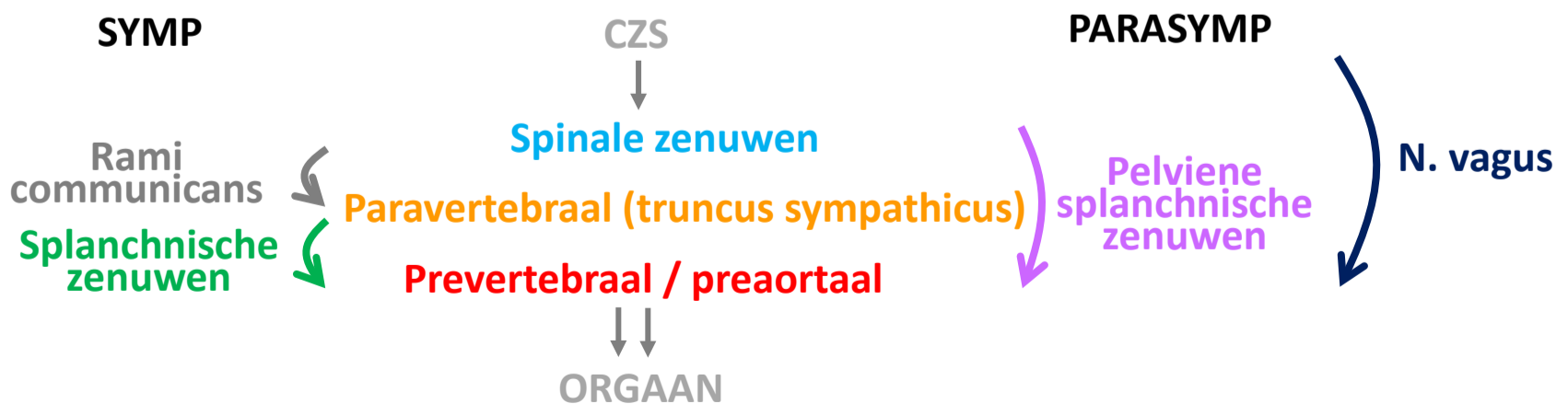
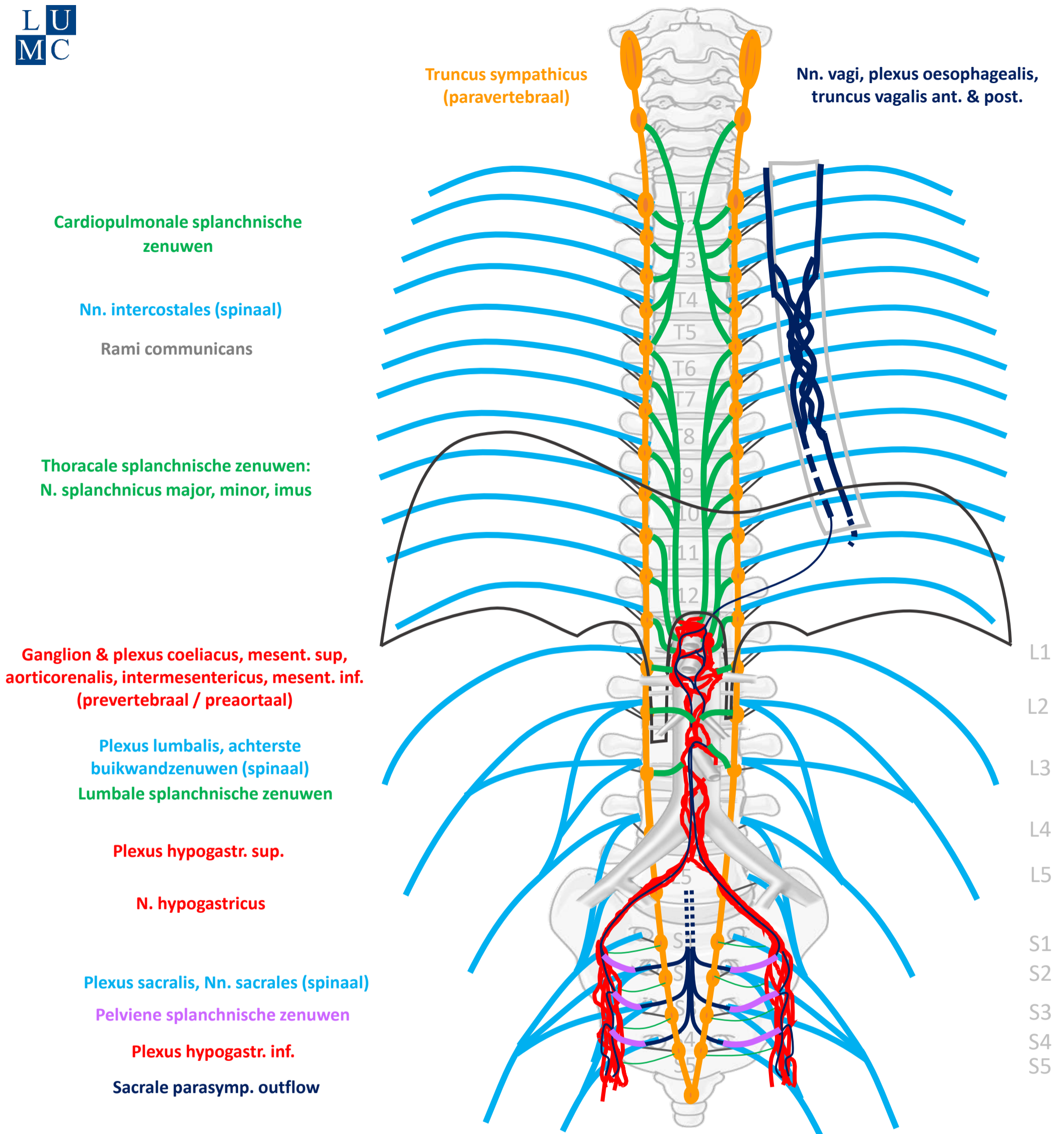
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Compleet schema



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