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Substantia Gelatinosa

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Synonyms

[Rexed's lamina II](#)

Definition

Substantia gelatinosa is a collection of cells in the gray area (dorsal horns) of the spinal cord. Found at all levels of the cord, it receives direct input from the dorsal (sensory) nerve roots, especially those fibers from pain and thermoreceptors. Rather than directly contributing efferent fibers to the anterolateral system or spinothalamic tracts, the substantia gelatinosa's main connections appear to be to other lamina within the gray matter of the cord, including the contralateral lamina II.

The substantia gelatinosa is also believed to receive input from descending fibers. Composed of fine networks of interneurons, it contains high levels of substance P as well a large number of opiate-type receptors, both of which are involved in the perception of pain. Thus, the substantia gelatinosa is believed to play an important role in the modulation of and/or mediation of pain perception at the spinal level.

Cross-References

► [Pain Perception](#)

References and Readings

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