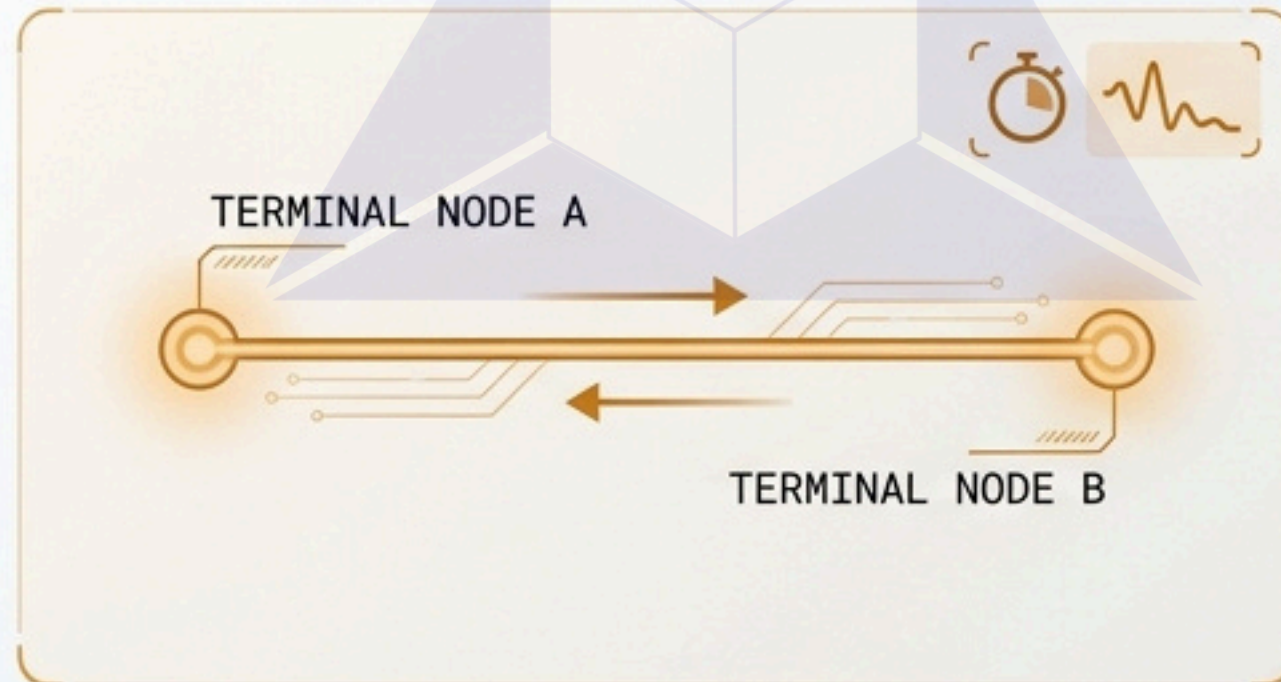


Ductless Messengers of the Body

An Introduction to Endocrine Glands and Hormones

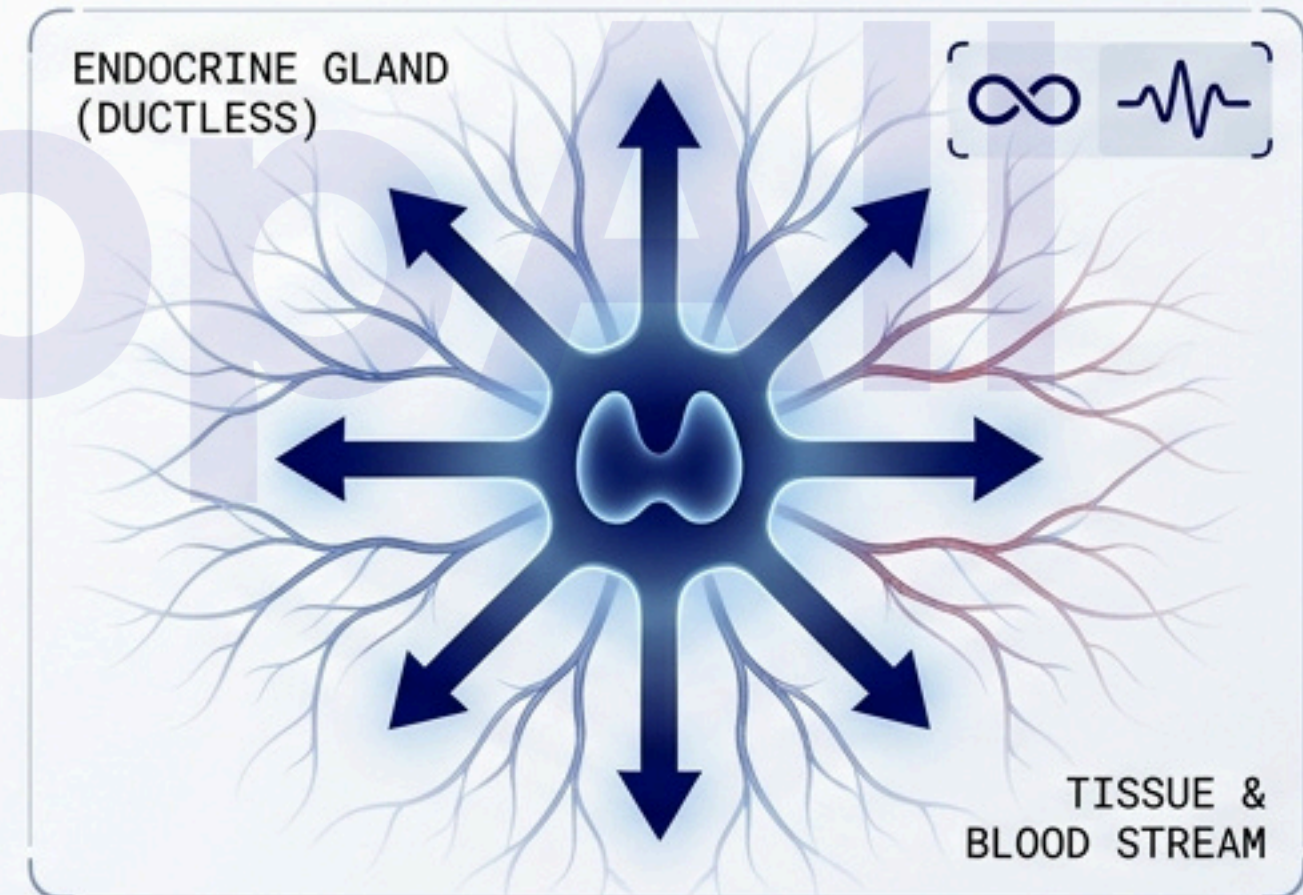
The Neural Limitation

The neural system provides rapid, point-to-point coordination, but it is short-lived. Because nerve fibers do not innervate all cells, the body requires a secondary system for continuous cellular regulation.

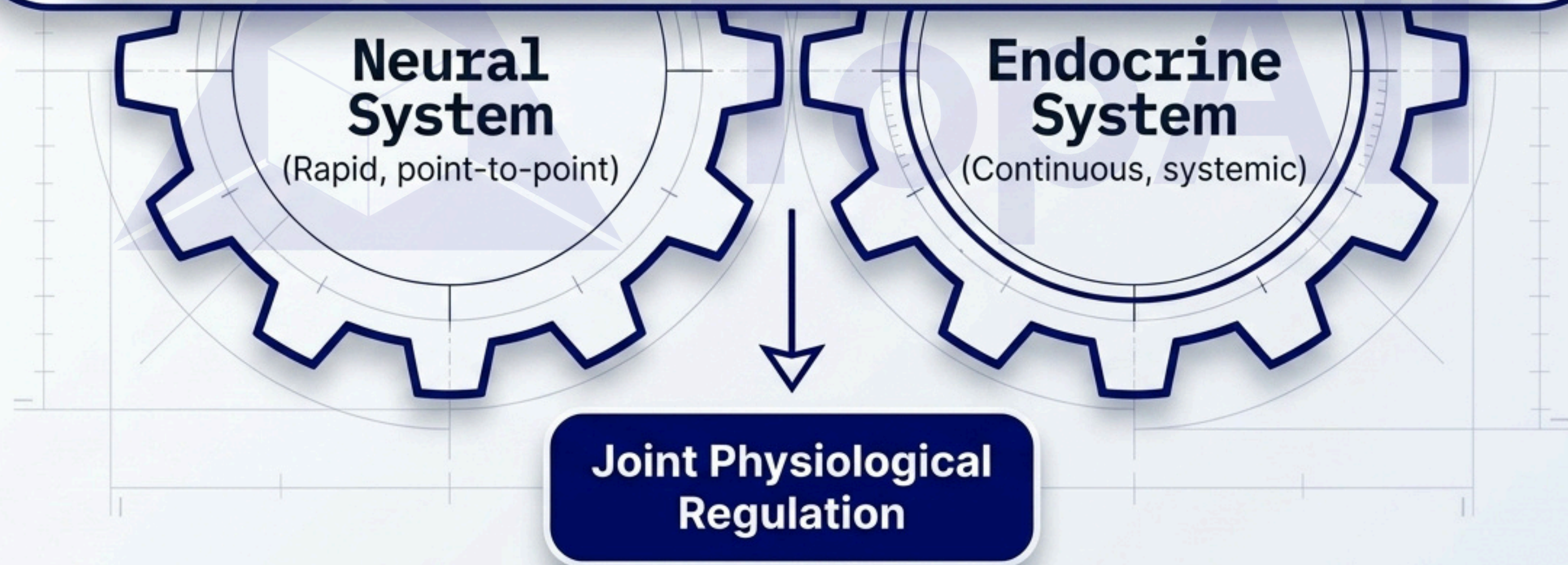


The "Ductless" Glands

The endocrine system provides this continuous regulation. Endocrine glands completely lack ducts.



Hormones are the specific chemical secretions produced by these ductless endocrine glands.





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Key Highlights

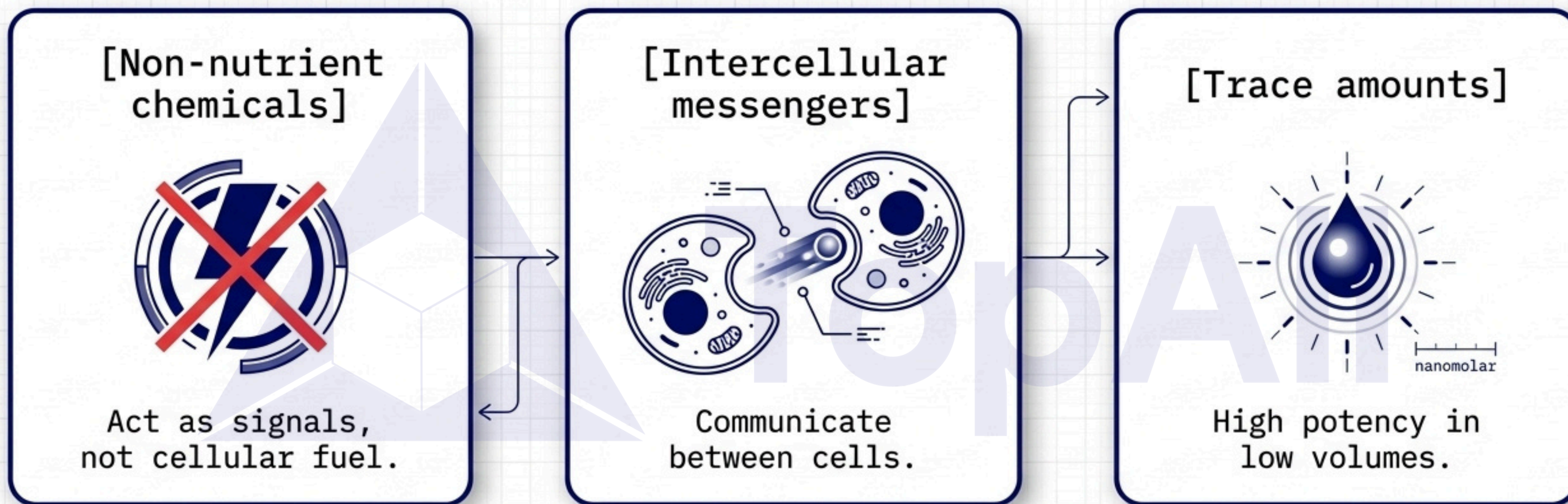
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The Classical Definition of a Hormone



The Current Scientific Paradigm Shift



This new definition expands beyond organised endocrine glands to cover a number of new signaling molecules.



Evolutionary Scale of Chemical Coordination

Simple Systems

Found in Invertebrates. Characterized by simple endocrine systems utilizing very few hormones.

Complex Systems

Found in Vertebrates (including humans). Characterized by a large number of chemicals acting as hormones to provide intricate physiological coordination.





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