

Systems Biology (glossary)

systems biology

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Systems biology is the computational and mathematical modeling of complex biological systems.

Source

https://en.wikipedia.org/wiki/Systems_biology

Discussion

An emerging engineering approach applied to biological scientific research, systems biology is a biology-based inter-disciplinary field of study that focuses on complex interactions within biological systems, using a holistic approach (holism instead of the more traditional reductionism) to biological research. Particularly from year 2000 onwards, the concept has been used widely in the biosciences in a variety of contexts. For example, the Human Genome Project is an example of applied systems thinking in biology which has led to new, collaborative ways of working on problems in the biological field of genetics. One of the outreaching aims of systems biology is to model and discover emergent properties, properties of cells, tissues and organisms functioning as a system whose theoretical description is only possible using techniques which fall under the remit of systems biology. These typically involve metabolic networks or cell signaling networks. (Wikipedia, "Systems Biology")

SEBoK v. 2.10, released 06 May 2024

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This page was last edited on 2 May 2024, at 22:17.