Special Issue

Network Medicine in Human Diseases

Message from the Guest Editors

Network science is nowadays at the forefront to meet this challenge and its potential has been widely demonstrated. The employment of network science principles to biomolecular applications enabled the full integration and exploitation of heterogeneous (multi-)omics datasets, uncovering key molecular mechanisms responsible for the onset of human diseases and facilitating the design of new and more effective treatments. In the context of human complex diseases, network medicine allows to simultaneously evaluate the molecular impairment underlying the disease under study and the mechanism-of-action of drugs, identifying novel therapeutic targets for a certain disease. Modelling drug response using network-based predictions can lead to accurate and robust predictions in terms of druggability of biological systems, enabling the design of innovative and effective treatments. For these reasons, network medicine will arguably be the instrument to tackle the complexity behind human pathological phenotypes, improving current treatments for curable diseases and finding new therapies for untreatable ones.

Guest Editors

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Message from the Editor-in-Chief

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