**Cover letter**

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*A brief description of the novelty and importance of the findings detailed in the paper*:

A general view of human physiology is proposed. The organism is a net of trillions of dynamic cells belonging to one of 220 cell types. Each cell, despite obstacles created by other cells, must provide its intimate functions. The physiological mechanisms are independently emerged and evolutionarily saved due to their ability to provide optimal-like coexistence of cells on a background of destructive challenges of external/internal environments. In certain limits, both cells and organs are adaptive. Mechanisms of the adaptivity are discussed. The view is a basis for re-thinking the concept of the so-called physiological norm and fundamental mechanisms of age-associated pathologies.

Declaration

Conflict of Interest - absent

Author’s position on advisory boards or board of directors/management relationships: Editorial team member.

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