

Symposium

[S32]Innovation of life metals-relating pathogenic mechanism and treatment strategy for diseases

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Fri. Mar 27, 2020 3:00 PM - 5:00 PM [Room T] Sakura (1F)

In recent years, it is reported that the biological trace metals (life metals), as one of the endogenous factors controlling homeostasis, begin to exhibit abnormal levels even in pre-symptomatic disease state. New biomarkers are considerably searched to realize a more effective and precision diagnosis when the onset and healing of disease process cannot be exactly judged by existing inspection methods. The topography changes of life metals have possibility to become the biomarker in the early stage of diseases.

For example, the specific metabolism patterns are found in cancer cells, and principal component analyses based on both the metabolome of organic metabolites and metallome of inorganic metals would be effective and are discussed for the possible and real cancer diagnosis. Additionally, life metals are related with the mechanism of cell death such as platinum in apoptosis, iron in ferroptosis, copper in paraptosis, and zinc in autophagy.

At this symposium, we pick up "iron, zinc, copper, and manganese" as the representative life metals for recent evidences on "the bio-distribution and physiological function of life metals" to lead to interpretation of homeostasis failure, early disease diagnosis, and proposal of new drug target molecules. Four symposiasts, authorities on each life metal, will give a lecture on latest research developments in terms of disease mechanism and treatment strategy, and we would like to provide the opportunity to discuss them in a cross-sectoral manner.

4:45 PM - 5:00 PM

[S32-Closing]総括

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