Metallomic Scientific Network
No. 11440027

Laboratory of Metallomics and Nanotechnologies

invites you to seminar:

Metallomics - What is it? – part I

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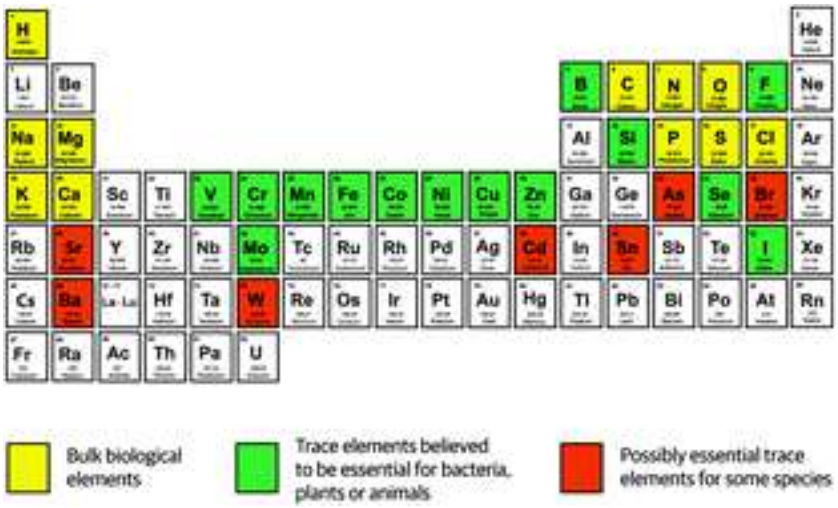
Recent advances in understanding the human genome have been made possible due to intensive multidisciplinary cooperation involving the life sciences and technology. Genomics has succeeded in producing complete genome DNA sequences of number of living organisms but we are still some way from understanding the difference between the normal and pathological functioning of cells and organisms. Currently, an attention is focused on proteomics providing information about protein localization, structure and function, and most important, interactions with other proteins. Recent improvements in high-throughput sample separation and mass spectrometry have impacted positively on the proteomic characterization of proteins in systems biology. Metalloproteins are one of the most diverse classes of proteins, with the intrinsic metal atoms providing a catalytic, regulatory and structural role critical to protein function. Transition metals such as copper, iron and zinc play important roles in life. Metallomics and metalloproteomics are emerging fields addressing the role, uptake, transport and storage of the trace metals essential for life. Metallomics is defined as the analysis of the entirety of metal and metalloid species within a cell or a tissue type, whereas metalloproteomics is focused on exploration of the function of metals associated with proteins.



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