



生物信息学研究中心

Center of Bioinformatics

学术报告

题目： Understanding the Utilization, Function and Evolution of Trace Elements by Computational and Comparative Genomics Approaches

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时间： 4月1日（星期五）下午 15:00

地点： 思源楼 712 室

摘要：

Biological trace elements are needed in minute quantities for proper growth, development, and physiology of all organisms. These micronutrients provide proteins with unique coordination, catalytic, structural, electron transfer and other properties in a variety of pathways. Utilization of trace elements is generally rather complex and a growing number of trace element-dependent proteins and trace element utilization pathways highlights importance of these elements for life. In recent years, dramatic advances in genomics and related studies provided an opportunity to investigate the occurrence and evolution of numerous biochemical pathways that an organism utilizes, including trace element utilization. Our studies focus on several important trace elements, such as selenium, zinc, iron, copper, nickel, cobalt and molybdenum. A variety of systematic, genome-wide computational and comparative approaches have been used for the analysis of these elements, which provide important information with regard to fundamental issues of their function and evolutionary dynamics of trace element utilization in biology.