Systems Biology in BIO

Division of Molecular and Cellular Biology (MCB) Systems and Synthetic Biology Cluster

"The cluster supports creative proposals that will generate a comprehensive understanding of emergent properties of biological systems through the development of an integrated theoretical framework that is guided by mathematical and physical principles and facilitated through the use of novel tools in systems and synthetic biology. The cluster funds proposals focused on regulatory and metabolic network dynamics, structure and function that govern the behavior of microbial communities, plant systems, and other model organisms. In addition, the cluster supports synthetic biology research with a focus on fundamental design principles of biological systems and questions related to the origin of life."

Division of Integrated Organismal Systems

"The Division of Integrative Organismal Systems (IOS) supports research aimed at understanding why organisms are structured the way they are and function as they do. Proposals should focus on organisms as a fundamental unit of biological organization. Principal Investigators (PIs) are encouraged to apply systems approaches that will lead to conceptual and theoretical insights and predictions about emergent organismal properties. Areas of inquiry include, but are not limited to, developmental biology and the evolution of developmental processes, nervous system development, structure, and function, physiological processes, functional morphology, symbioses, interactions of organisms with biotic and abiotic environments, and animal behavior."