Mathematisch-Naturwissenschaftliche Fakultät
der Universität zu Köln
- Der Dekan -

Einladung

zu dem am Donnerstag, dem 20. Januar 2022, ab 14 Uhr
als Zoom-Videokonferenz

stattfindenden öffentlichen

wissenschaftlichen Vortrag zur Habilitation
Zoologisches Institut (Fach: Zoologie)
von

Dr. Kenneth Dumack

über das Thema

Novel Findings in the Evolution of Archaea and Consequences for Eukaryogenesis

Half a decade ago, Archaea were recognized as the third domain of life. The exploration of archaean diversity, and especially the exploration of their genomes, revealed that Archaea represent the closest prokaryotic relatives of eukaryotes. This, for instance, is evidenced by the finding that Archaea exhibit several genes that were previously believed to be eukaryote specific. In consequence, this changed our perspective on the genomic setup of the ancestors of all eukaryotes. Especially the discovery of the Asgard Archaea, the closest known relatives of eukaryotes, gave rise to numerous hypotheses about how eukaryotes evolved. It is commonly accepted that mitochondria are derived from alphaproteobacteria and thus it is clear that endosymbiosis, and the transfer of genes, is involved in the process. It is still a matter of debate when and how an archaean ancestor entered a stable symbiosis with the alphaproteobacterial ancestor of mitochondria and whether phagocytosis, as we know it today, was involved.

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