SÉMINAIRES ET CONFÉRENCES

Alexey Amunts

Stockholm University

« A ribosome odyssey in mitochondria »

Proteins encoded in mitochondrial genomes are essential for life, and in human aberrations in their synthesis are associated with clinical pathologies. Synthesis of these proteins occurs on dedicated mitochondrial ribosomes (mitoribosomes) that possess specialized exit tunnels and regulatory features. During evolution, genetic information has been transferred from mitochondria to the nucleus independently in different species, hence the mitoribosomes are also highly diverse. Our lab investigates the molecular mechanisms of mitochondrial translation and the evolution of mitoribosomes employing primarily cryo-EM. I will present how the cryo-EM advances allow to investigate low-abundant mitochondrial complexes and describe unexpected structural data on the mitoribosomes from different species. The structural studies provide insight into the mechanism of action and evolution of those highly unusual molecular machines.

Le lundi 23 novembre 2020, 11h30

Invité de Gertraud Burger

Faculté de médecine
Département de biochimie et médecine moléculaire
Université de Montréal