ITbM Seminar

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Peeping the mitochondrial biogenesis through the channel pore of the TOM complex

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Lecture Room, ITbM
Language: English

Abstract
The majority of 1000 different mitochondrial proteins are synthesized in cytosol as a precursor protein. The translocase of the outer membrane (TOM complex) forms the entry gate for these preproteins. The TOM complex consists of a channel, formed by the beta-barrel protein Tom40, and six other subunits each containing single alpha-helical transmembrane segments. Dr. Shiota and his colleagues clarified how dynamic coupling of alpha-helical receptors, beta-barrel channels and chaperones generates a versatile nanomachine to import 1000 different protein cargoes.

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