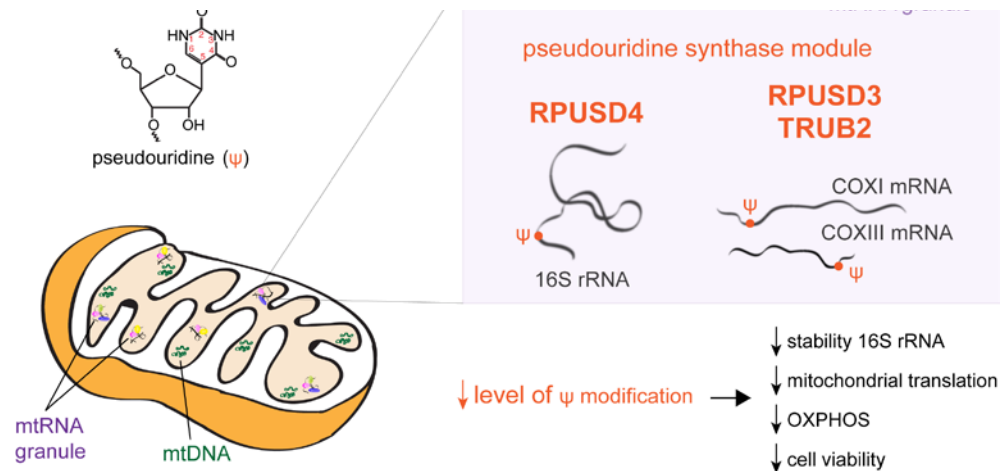




Posttranscriptional Regulation of Mitochondrial Gene Expression



Eukaryotes have evolved mechanisms to sequester mRNAs and their associated RNA-binding proteins into non-membrane delimited bodies called RNA granules as a mechanism to control translation and turnover of mRNAs. We recently identified mitochondrial RNA granules, and showed that they contain newly synthesized mitochondrial RNA, a large toolbox of proteins dedicated to RNA metabolism and the biogenesis of mitochondrial ribosomes. Using a proximity biotinylation assay (BioID) we identified a protein module containing three uncharacterized pseudouridine synthases, identified the molecular targets of these enzymes by RNA pseudoSeq, and showed that they have essential roles in epitranscriptomic modification of mitochondrial rRNA and mRNA.

Dr. Eric Shoubridge

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Host: Dr. Anne-Claude Gingras

Date: Monday November 13th, 2017

Time: 4PM

Place: Room 103, Fitzgerald Building,
150 College Street