

## **Selected publications (2014-2019)**

RNase H1 directs origin-specific initiation of DNA replication in human mitochondria. Posse V, Al-Behadili A, Uhler JP, Clausen AR, Reyes A, Zeviani M, Falkenberg M, Gustafsson CM. *PLoS Genet.* 2019 Jan 3;15(1):e1007781. doi: 10.1371/journal.pgen.1007781.

Separating and Segregating the Human Mitochondrial Genome. Nicholls TJ, Gustafsson CM. *Trends Biochem Sci.* 2018 Nov;43(11):869-881. doi: 10.1016/j.tibs.2018.08.007. Epub 2018 Sep 14. Review.

Topoisomerase 3 $\alpha$  Is Required for Decatenation and Segregation of Human mtDNA. Nicholls TJ, Nadalutti CA, Motori E, Sommerville EW, Gorman GS, Basu S, Hoberg E, Turnbull DM, Chinnery PF, Larsson NG, Larsson E, Falkenberg M, Taylor RW, Griffith JD, Gustafsson CM. *Mol Cell.* 2018 Jan 4;69(1):9-23.e6. doi: 10.1016/j.molcel.2017.11.033.

An Adaptable High-Throughput Technology Enabling the Identification of Specific Transcription Modulators. Bergbrede T, Hoberg E, Larsson NG, Falkenberg M, Gustafsson CM. *SLAS Discov.* 2017 Apr;22(4):378-386. doi: 10.1177.

Human Mitochondrial Transcription Factor B2 Is Required for Promoter Melting during Initiation of Transcription. Posse V, Gustafsson CM. *J Biol Chem.* 2017 Feb 17;292(7):2637-2645. doi: 10.1074.

POLRMT regulates the switch between replication primer formation and gene expression of mammalian mtDNA. Kühl I, Miranda M, Posse V, Milenkovic D, Mourier A, Siira SJ, Bonekamp NA, Neumann U, Filipovska A, Polosa PL, Gustafsson CM, Larsson NG. *Sci Adv.* 2016 Aug 5;2(8):e1600963. doi: 10.1126.

Mitochondrial transcription termination factor 1 directs polar replication fork pausing. Shi Y, Posse V, Zhu X, Hyvärinen AK, Jacobs HT, Falkenberg M, Gustafsson CM. *Nucleic Acids Res.* 2016 Jul 8;44(12):5732-42. doi: 10.1093.

Maintenance and Expression of Mammalian Mitochondrial DNA. Gustafsson CM, Falkenberg M, Larsson NG. *Annu Rev Biochem.* 2016 Jun 2;85:133-60. doi: 10.1146.

Posse V, Shahzad S, Falkenberg M, Hällberg BM, Gustafsson CM. TEFM is a potent stimulator of mitochondrial transcription elongation in vitro. *Nucleic Acids Res.* 2015 Mar 11;43(5):2615-24.

Posse V, Hoberg E, Dierckx A, Shahzad S, Koolmeister C, Larsson NG, Wilhelmsson LM, Hällberg BM, Gustafsson CM. The amino terminal extension of mammalian mitochondrial RNA polymerase ensures promoter specific transcription initiation. *Nucleic Acids Res.* 2014 Apr;42(6):3638-47.