

Table 2: Example of mitochondrial disease causational mtDNA mutations detected in a sample human oocyte. The abbreviations refer to names of mitochondrial diseases: Mitochondrial Encephalopathy, Lactic acidosis, and Stroke-like episodes (MELAS), Leber's Hereditary Optic Neuropathy (LHON), Type 2 Diabetes Mellitus (T2DM), Myoclonic Epilepsy with Ragged Red Fibers (MERRF).

Disease	Base position mutation	Presence?	Read Depth
Deafness	1095 T>C	No	-
Deafness	1555, A>G	Yes	794
Encephalomyopathy	1606, G>A	Yes	887
MELAS	3243, A>G	No	-
T2DM	3394, T>C	Yes	878
LHON	3460, G>A	Yes	757
Cardiomyopathy	4269, A>G	Yes	876
LHON	6261, G>A	Yes	742
Sensorineuronal hearing loss	7445, A>G	Yes	877
MERRF	8344, A>G	Yes	765
MERRF	8356, T>C	Yes	809
MERRF	8361, G>A	Yes	916
MERRF	8363, G>A	Yes	915
LHON	8993, T>G	Yes	819
Encephalomyopathy	10010, T>C	Yes	842
Insulin resistance	10398, A>G	Yes	781

LHON	11778, G>A	Yes	808
T2DM	12026, A>G	Yes	838
Deafness & diabetes	12258, C>A	No	-
Myopathy	12320, A>G	Yes	770
MELAS	13513, G>A	Yes	817
MELAS	13514, A>G	Yes	483
LHON	14484, T>C	Yes	797
LHON	14568, C>T	No	-
Myopathy	14709, T>C	Yes	801
T2DM, Insulin resistance	16189, T>C	Yes	639