

► **Ms Pothida Youhorn**

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Dear Ms Youhorn

Inquiry into the Mitochondrial Donation Law Reform Bill (Maeve's Law)

Thank you for your letter dated 25 August 2021 regarding a question on notice from Senator Deborah O'Neill. Please see my response below:

Thank you for your question. I am not a cell-biologist, and not well qualified to answer questions about the role of mitochondrial DNA in development. However, my understanding is that variations in mitochondrial DNA between individuals without mitochondrial disease have very little influence on early cell division, development, or a person's future characteristics. Most children born with mitochondrial disease do not appear to have obvious developmental abnormalities detectable at birth, but can suffer developmental delay and other symptoms under the stresses of post-natal growth and exposure to infections and other stressors. While individual differences in mtDNA contribute to health-related differences between people, no such links have been established for our personal characteristics such as intelligence, appearance, or personality.

Kind regards,

Christopher Gyngell
Team Leader in Biomedical Ethics
Murdoch Children's Research Institute
06/09/2021
