

Company name: Imel Biotherapeutics * Website: <https://imelbiotx.com/> *

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Highlight the relevant session below -

1. Longevity - How to Complete the Centenarian Decathlon?

- **Title of the Presentation: Cell therapy to restore mitochondrial function**
- **Executive Summary**

IMEL Biotherapeutics (IMEL) develops cell-based therapies to restore mitochondrial function for the treatment of age-related indications and genetic diseases. IMEL's unique approach enables replacing the dysfunctional mitochondria with healthy mitochondria in a cell to metabolic reprogram its functionality. Acquired mitochondrial dysfunction is involved in many age-related disorders such as cancer, neurodegenerative diseases, and inflammatory diseases. To date, IMEL's technology was applied in human cells [Leigh Syndrome (m.10158T>C; PMID: 34035362) & Leber hereditary optic neuropathy (m.14484T>G) patients' fibroblasts] and various animal models such as immune-deficient nonobese diabetic/severe combined immunodeficient (NOD/SCID) Gamma (NSG) mouse model and the heteroplasmic C5024T mice (m.5024C>T). At present, the impact of IMEL's technology on exhausted/senescent markers is tested on lymphocytes collected from aged (>75-yr) population in multicenter non-interventional clinical trial in Israel (Hadassah Medical Organization: 0296-22; Galilee Medical Center Hospital: NHR-0202-22). Next, IMEL plans to focus its efforts on adoptive cell transfer (ACT) therapy for treating metastatic cancer.

IMEL is supported by Pontifax VC, Remiges BioPharma VC, Korea Investment Partners (KIP) and other private investors. It was co-founded and lead from its establishment in 2019 by Dr. Silvia Noiman, a serial entrepreneur and leading executive with over 30 years' experience in the Life Science industry.