Draft Format for Abstract Submission



***Title of Speech:** Therapeutic Consequence of Allogeneic Mesenchymal Stem Cell for Duchenne Muscular Dystrophy- Case Study

***Scientific Session:**

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***Abstract Description: (150 to 200 words)**

Duchenne muscular dystrophy (DMD) is an inherited disorder caused by mutation in gene that prevents the translation of dystrophin protein, which leads to massive skeletal muscle wasting. Any form of muscular dystrophy is considered as an incurable disease yet there are occupational treatments assisting patients with locomotion strengthening and to further extend the lifespan. Thus, emerging treatment strategy is warranted to improve patients' conditions from DMD. In the present study, we have evaluated the therapeutic outcome of human umbilical cord derived mesenchymal stem cell (hUC-MSC) in patients with DMD. In light of that, we have produced therapeutically safe (chromosomal stability, stable Immunopheotyping and mesodermal lineage differentiation ability) hUC-MSCs in our GMP compliance laboratory. Patients (24 and 27 years old) were administrated (intravenous [$50X10^6$] + intramuscular [$50X10^6$]) one single dose of hUC-MSC and followed up for 12 months. Therapeutic efficacy was measured as based on the level of creatinine phosphokinase (CK) in plasma. Both patients were highly responsive to hUC-MSC and the CK level was significantly dropped from 3^{rd}month of post transplantaton. After 12 months of post transplantation the CK level was slightly increased in both patients as compared

to 6th months. However, the level of CK level was still significantly lower than basal level. In conclusion, one single dose of hUC-MSCs treatment may not be sufficient to give better clinical outcome and also these results suggested that multi-dose of hUC-MSCs may give long term beneficial effects in patient with DMD.

***Corresponding Author's Biography: (50 to 100 words)**

Kris has a keen interest in the research and therapeutics of neuro-trauma, neurodegenerative diseases and genomic medicine.

Kris has worked for various medical institutions both in the public and private sectors in the past.

In 2011, he won the "People's Choice Award" in neurosurgery conferred by Hospital Sultanah Bahiyah, Kedah, Malaysia. In 2016, he was awarded "Most Impactful Entrepreneur Award". In 2017, he was awarded KWYP "Dr. Sun Yat-Sen Best Enterprise Award", Malaysia "Top 100 Most Influential Young Entrepreneur" award and during an international symposium organised by Korean College of Radiology, he was awarded the Grand Prix award for Best Photo in people category. In 2017, as Chief Clinical Scientist of Osel Diagnostics Lab, they were awarded "Best Innovative Screening – Blood Based Approach" for innovative genetic screening by Asian Halal Brands Awards making it the first lab in Asean to be conferred the prestigious award. In 2018, Dr. Kris is the scholarship recipient for the prestigious Harvard Medical School South East Asia Medical Leaders program. In the same year, he was awarded The Excellence Achievement Entrepreneurs Award – International Entrepreneurs Business Conference 2018.

He is currently serving as the Medical Director of Osel Group, Chief Clinical Scientist of Osel Diagnostics, Clinical Scientist with Auto Stem Laboratories, Visiting Consultant and Research Associate with Niscell Laboratories, Visiting Research Associate with Hygieia Laboratories. In 2017, Dr. Kris was appointed a faculty member of The Frontier Medicine Institute – advocating healthcare innovations and building bridges between education and healthcare, brought about by the Fourth Industrial Revolution. The same year, He was appointed a co-supervisor research project in University Science Malaysia, Penang, for research interests in the "Biological Activities in Durian". Dr. Kris is also the editor-in-chief for The Frontier Medical Journal, an open access peer reviewed journal.

Currently he is the founding member and advisor for Wings of Love – a community based not-for-profit mobile clinic, Penang, the medical adviser for Serdang Badminton Club and Penang Badminton Club. He is also the adviser for Kiddo Science JB, where he shares his insights about early childhood education. He is serving as medical advisor for Kopan Free Clinic in Kathmandu, Nepal. Previously, He was serving as the Medical Adviser for Yayasan Medical Foundation. Dr. Kris is instrumental in advocating and setting up "The Tan Hong Mui Scholarship", where he is appointed as one of the panel of judges for selecting deserving students to pursue creative arts industry.

Dr. Kris See is immensely passionate about empowering the youth in education and medicine arena. He is frequently invited to give keynote speeches both domestically and internationally. In

his free time, he contributes to various charitable organizations both within Malaysia and overseas.

He is currently residing in Penang, Malaysia.

Note - * Marked Fields are Mandatory.