Talk Series on Emerging Technologies - Science, Opportunities & Challenges 2022

(1) Stem Cell and Regenerative Medicine
(E1TEC006T) (Postponed)

- Speakers:
  Dr LUI Oi-Lan, Kathy (CUHK)
  Dr CHEUNG Hiu Tung, Tom (HKUST)
- Date & Time: To be confirmed
  ~~22 January 2022 (Sat), 10a.m.- 12n.n.~~
- Venue: ~~Lecture Theatre (WB), 4/F,~~
  ~~West Block, Education Bureau~~
  ~~Kowloon Tong Education Services Centre~~
- Target Participants:
  - Secondary School Teachers of Science
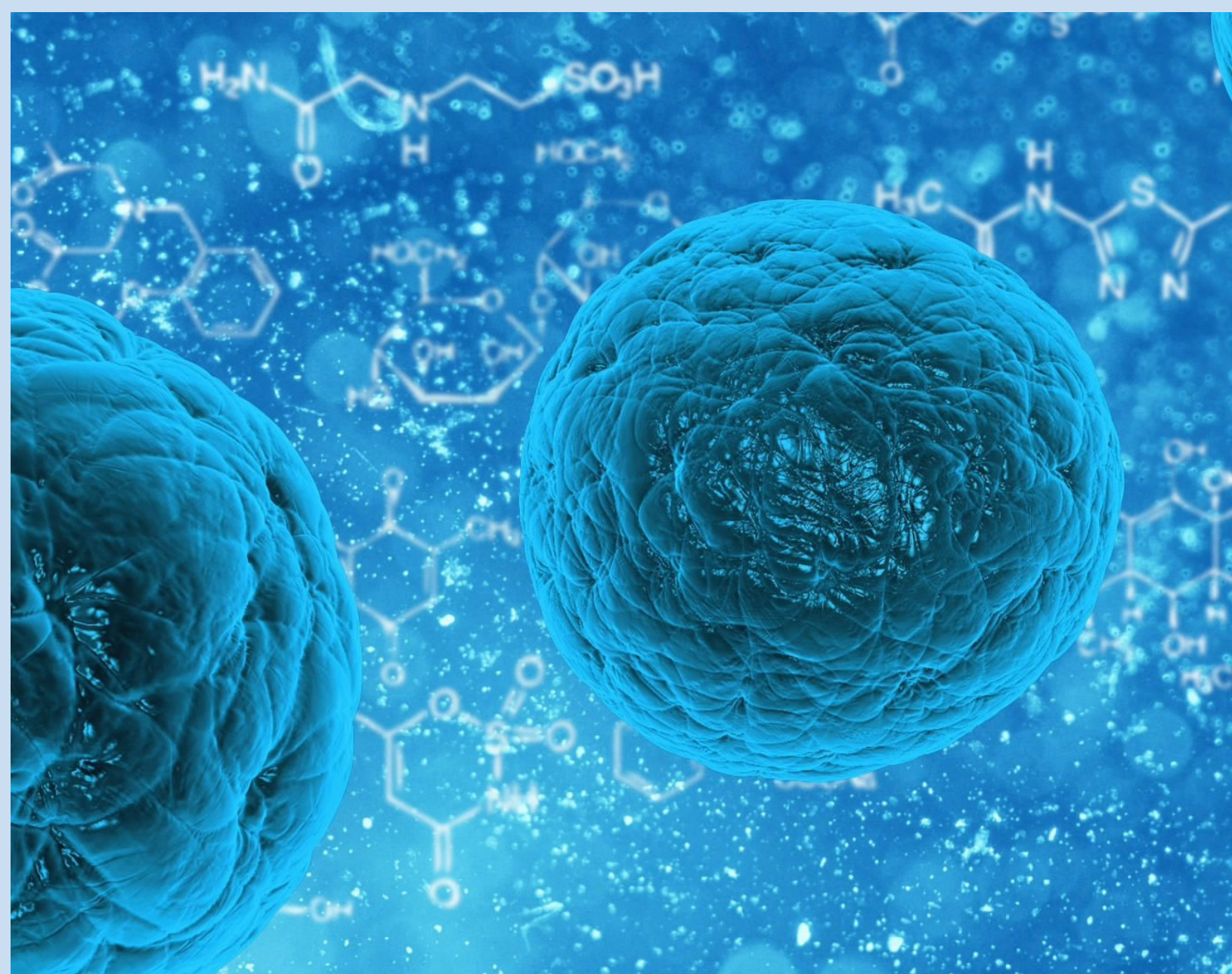 - S.1-S.6 Secondary School Students Only
- Language: English
- Registration:

  HKAGE members: Click here
  Non-HKAGE members: Click here

  Teachers (via EDB): Click here

  For more details and registration, please visit:
  https://www.hkage.org.hk/en/talk

Aging and its associated healthcare expenses remain as a heavy financial burden to individuals, families and societies. Chronic diseases including cardiovascular and skeletal muscle degeneration are examples of age related disorders. In fact, cardiovascular diseases remained the leading cause of death worldwide in the past three decades. Therefore, seeking a portion for longevity has been a dream in contemporary medicine. By virtue of its capability to self-renew and differentiate into almost every cell type of our body, pluripotent stem cells, including the embryonic stem cells or the induced pluripotent stem cells that are generated by the Nobel Prize winning technology, have recently received intense research interest with the hope to support cell therapy to replace aged and damaged cells to treat Parkinson's disease, diabetes, or heart failure, and to facilitate disease modelling and drug screening in a "humanized" setting.

This lecture will focus on the introduction of the characteristics and sources of stem cells, the promises of stem cell research, and the technological challenges including the ethical issues associated with using human embryos for research, immune cell rejection after stem cell transplantation, as well as the risks from some unproven stem cell therapies.