

THE HONG KONG YOUNG ACADEMY OF SCIENCES 新 新 青 年 科 學 院 Education Bureau

E2TEC017T (Not-token required)

The Hong Kong Young Academy of Sciences (YASHK) talk series

Talk Series on Emerging Technologies — Science, Opportunities and Challenges 2024:

From DNA to Epigenetics: A Chemist's View

Prof. Xiang David LI Tenured professor, Department of Chemistry University of Hong Kong

Application Deadline

22 July 2024 12:00 noon

Upon completion of the programme, participants should be able to:

- 1. have a general knowledge of DNA and proteins;
- 2. understand the concept of epigenetics;

Intended Learning Outcomes

- 3. know the factors that influence the epigenome;
- 4. Comprehand the involvement of epigenetic disorders in human diseases.

Co-organisers:

Supporting Organisation:



Introduction

The talk starts from the introduction of DNA. DNA have a double helix structure and can be replicated to pass genetic information to next generation. In cell, the genetic information of DNA can be transcribed into RNA, which can then be translated to produce proteins. Although genetic information of DNA determines a lot of things, it still cannot explain how cells carrying exact same sequence of DNA can have different functions. The talk then focuses on the concept of epi-genetics which can explain the above observation. The most common epi-genetic information rose from modifications of DNA and histones. These modifications help to control expression of genes. Finally, the talk points out several known factors that can actually influence the epigenome and gave the audience an introduction of an example to develop new drugs based on epi-genetic interactions.

Schedule

Session	Date	Time	Venue
1	17 August 2024	10:00 a.m 12:00 noon	Zoom Meeting

Target Participants

- S1 S6 students and teachers in 2023/24 school year.
- Class size: 250
- * First-come-first-served.

Medium of Instruction

Holistic Talk

Series

English

Certificate

E-Certificate will be awarded to participants who have attended the talk.

This talk is one of the items in the four domains of the Holistic Talk Series. The objective is to facilitate the all-round development of student' gifted potential.

