

Co-organisers:

Supporting Organisation:



THE HONG KONG YOUNG ACADEMY OF SCIENCES  
教育局  
Education Bureau  
香港青年科學院

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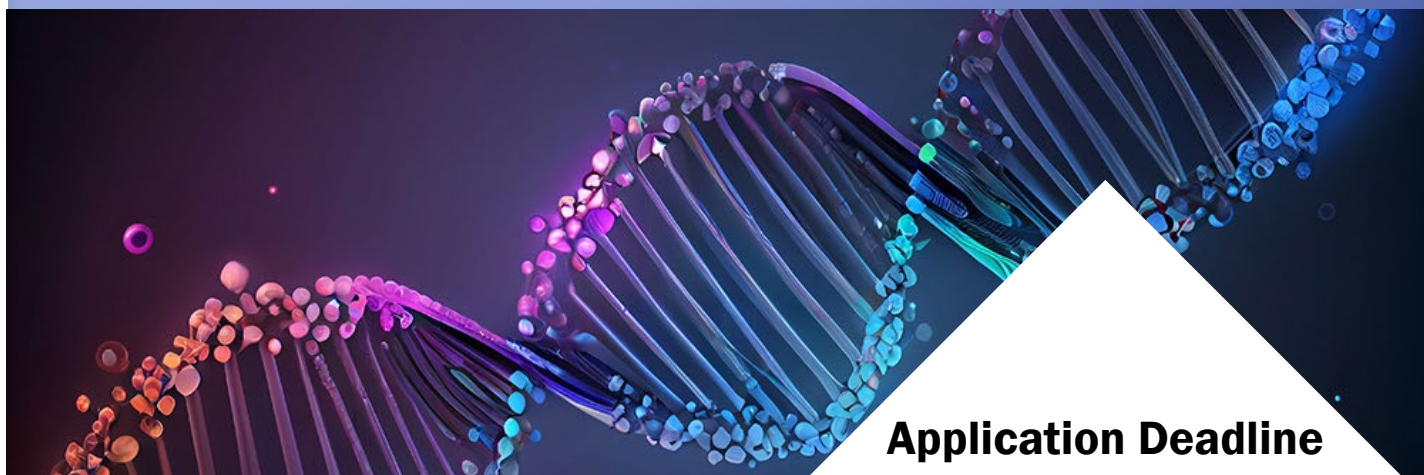


The Hong Kong Young Academy of Sciences  
(YASHK) talk series

**Talk Series on Emerging Technologies —  
Science, Opportunities and Challenges 2023:**

**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**

### **Intended Learning Outcomes**

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



## ◆ 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

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.



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

Talks are about emerging technology to inspire students' motivation in pursuing knowledge in specialized areas.



### Celebrities Talk Series

Celebrities share their life-changing moments to enhance students' aspirations for life.



### Academic Introductory Talk Series

Introduce trendy topics to widen the students' horizons.



### Future Insight Talk Series

Professionals explain the latest trend in their industry to give students an insight to plan their future.

