

## Joint Course Offered under HKU-CUHK-HKUST Centre for Advanced Study

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|-----------------------------------|---|--|---|
| <i>Department(s), institution</i> | Departments of Anatomical and Cellular Pathology, Chemical Pathology, Orthopaedics and Traumatology, School of Public Health, Faculty of Medicine, CUHK<br>Division of Life Science, School of Science, HKUST<br>Department of Pathology, Li Ka Shing Faculty of Medicine, HKU  |  |   |
| <i>Course description</i>         | <b>Course title: Molecular Medicine</b>   |  |   |
|                                   | <p>This joint course will introduce the basic concepts, modern techniques as well as the latest analytic technologies in Molecular Medicine. The current usages of molecular diagnostic tests will be discussed, where cancer will be used as one of the disease models. Here are the specific objectives will be covered in the course:</p> <ul style="list-style-type: none"> <li>• To deliver basic knowledges of chromosomal abnormality and immunoregulation in cancer development, and their clinical significance.</li> <li>• To discuss the genetic basis of cancer and implications for clinical diagnosis, prognostication, and disease monitoring.</li> <li>• Special topics in neuroscience/cancer biology: to focus on neuronal signalling and neurodegenerative diseases, and cell cycle control.</li> <li>• Cell signalling: to discuss the concept and techniques used in signal transduction study and its connection with cancer.</li> <li>• To obtain basic knowledge in molecular diagnostics.</li> <li>• To obtain basic concepts on the design of molecular medicine studies, including statistical considerations.</li> <li>• To obtain basic knowledge on high throughput molecular technologies, including those used in proteomics and the mass spectrometric analysis of nucleic acids.</li> </ul> |  |   |
| <i>University</i>                 | <b>CUHK</b>   | <b>HKUST</b>   | <b>HKU</b>  |
| <i>Course code</i>                | MEDP 6001   | LIFS 6660  | MMPH 6020   |
| <i>Course credits/units</i>       | 3 units   | 3 credits  | N/A   |
| <i>Course title</i>               | Molecular Medicine  |  |   |
| <i>Grading scheme</i>             | A-F grades  | Pass/Fail  | Pass/Fail   |
| <i>Term offered</i>               | 2 <sup>nd</sup> semester, 2022-23 (January – Apr 2023)  |  |   |
| <i>Teacher</i>                    | Prof. Patrick Tang<br>Prof. Peiyong Jiang<br>Prof. Huating Wang<br>Prof. Benny Zee<br>Prof. Maggie Wang   | Prof. Pingbo Huang<br>Prof. Yukinori Hirano<br>Prof. Lan Wang<br>Prof. Tuan Anh Nguyen | Dr. Helen HN Yan<br>Dr. Carmen CL Wong<br>Dr. Judy WP Yam<br>Dr. Jack CM Wong |

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| <i>Class schedule</i> | Please refer to page 3   |
| <i>Assessment</i>     | <ul style="list-style-type: none"> <li>▪ An essay assignment is needed for assessment (max 2500 words).</li> <li>▪ Attendance rate at least 75% is required for HKUST students (need to sign <u>before and after</u> the class).</li> <li>▪ Every teacher will set an essay question related to their lecture topic, which will be available for student to select in the end of April 2023.</li> <li>▪ A quota is set for each topic (max: 6 students/topic).</li> <li>▪ Students need to indicate their top three choices in priority order within one week and be required to submit their essays within one month.</li> <li>▪ In case of over-quota in any topic, students will be chosen in random, and remaining students will be assigned to their second-choice topic.</li> <li>▪ The essays will be graded A to F by the topic teachers for grades, which can be translated into Pass/Fail according to each institution's system.</li> <li>▪ The dissertation assessment guidelines currently adopted by the Master of Medical Sciences programme at HKU and a similar marking scheme from the CUHK would be taken as a reference.</li> <li>▪ Academic results for CUHK students will be released in <u>late July 2023</u>.</li> </ul> |

## Class schedule of Joint Course in Molecular Medicine

- 12 sessions each lasting for approximately 3 hours (total 36 hours)
- Each university contributes 4 sessions (total 12 hours)
- Classes will be held on Saturdays, starting from **7 Jan 2023**
- Scheduled teaching time: 10:00 am – 1:00 pm (CUHK and HKUST)  
10:30 am – 1:30 pm (HKU)

| Date        | University | Topic   | Teacher                              |
|-------------|------------|---|--------------------------------------|
| 7 Jan 2023  | CUHK       | Molecular Mechanisms of Neoplasia   | Prof. Patrick Tang                   |
| 14 Jan 2023 | CUHK       | Clinical Trials Designs<br>Bioinformatics Applications in<br>Molecular Medicine | Prof. Benny Zee<br>Prof. Maggie Wang |
| 28 Jan 2023 | CUHK       | Non-coding RNAs: Nature's Trash or<br>Treasure?                                 | Prof. Huating Wang                   |
| 4 Feb 2023  | CUHK       | Clinical Applications of Molecular<br>Diagnostics Techniques                    | Prof. Peiyong Jiang                  |
| 11 Feb 2023 | HKUST      | Ion channels in Health and Disease  | Prof. Pingbo Huang                   |
| 18 Feb 2023 | HKUST      | Molecular Understanding of Brain<br>Disorders                                   | Prof. Yukinori Hirano                |
| 25 Feb 2023 | HKUST      | MicroRNA in Cancer  | Prof. Tuan Anh Nguyen                |
| 4 Mar 2023  | HKUST      | Structural Biology in Molecular<br>Medicine                                     | Prof. Lan Wang                       |
| 11 Mar 2023 | HKU        | Molecular basis and characterization of<br>new genes                            | Dr. Judy WP Yam                      |
| 18 Mar 2023 | HKU        | Hypoxia and cancer  | Dr. Carmen CL Wong                   |
| 25 Mar 2023 | HKU        | Molecular genetics of cancer: genomic<br>analysis                               | Dr. Helen HN Yan                     |
| 1 Apr 2023  | HKU        | Cancer epigenetics  | Dr. Jack CM Wong                     |

### Venue:

CUHK: Lecture Theatre, 2/F., Lui Che Woo Clinical Sciences Building, Prince of Wales Hospital, Shatin, New Territories

HKUST: Cheung On Tak Lecture Theatre (LT-E), Academic Building, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon

HKU: 11 Mar 2023: Lecture Theatre 1, 1/F, HKUMed Academic Building, 3 Sassoon Road, Hong Kong  
18 Mar, 25 Mar and 1 Apr 2023: Lecture Theatre, 2/F, Block T, Queen Mary Hospital, Hong Kong

(Last updated: 21 Feb 2023)