**HKU-Pasteur Cell Biology Course**

The HKU-Pasteur Research Pole has pioneered and established, in close synergy with the University of Hong Kong and the Institut Pasteur, an advanced teaching program in life sciences for postgraduate students and postdocs from all over the world.

Visit our [website](http://www.hkupasteur.hku.hk/) to apply to HKU-Pasteur courses.

Subscribe to our newsletter and follow us on social media to keep up with upcoming courses and ongoing research projects!

***Course description***

|  |  |
| --- | --- |
| *Topic* - Biological sciences | *Domain –* Cell Biology |
| *Level* - Master, PhD, DVD, MD, Post-doct Fellows | *Certificate of attendance* delivered  |
| *Length* - 7 days | *Frequency of the course* - Biennial  |
| *Language -* English  | *Structure* - 10 to 12 theoretical modules & 4 to 6 practical sessions |

Since 2008, the HKU-Pasteur Cell Biology Course has cover a variety of aspects from Pathogen-Host Cell Interactions, studying how pathogens hijack cellular machineries to suit their needs (2011), to cancer biology, with emphasis on cell division and migration of cancer cells (2012), to probing the underlying cell biology of human diseases. With the advent of more sophisticated technology and instrumentation through mass spectrometry, a strong interest has emerged to interrogate biology at the level of protein networks, along with the more conventional genomic and transcriptomic approaches. We have incorporated this technological revolution to focus on proteomics, the next step in the study of biological systems that has emerged as an effective means to reveal how biological networks operate in normal physiology and during diseased states.

The Cell Biology Course is filling a need in the region by exposing our students to the latest concepts and technologies in the field of molecular cell biology, with an integrated view of cellular homeostasis in health and disease that incorporates quantitative and unbiased approaches supported by computational analysis.

Cell biology is the discipline that describes the organizing principles of cells, the functional units of life, and studies these principles in mechanistic fashion by drawing parallels between unicellular organisms, such as yeast, and multicellular organisms, such as plants and animals. Despite the global scale of these topics, the Course faculty has always relied on leading scientists from the region, in particular from Singapore, Australia, Korea and PR China, strengthening our connections with these centers of excellence, as well as local experts.

***Teaching team***

[Prof Roberto Bruzzone](http://www.hkupasteur.hku.hk/index.php/research/roberto_bruzzone) – Co-Director of the HKU-Pasteur Research Pole, specialized in Cell Biology of Host-Pathogen Interactions

[Dr Philippe Chavrier](https://institut-curie.org/personne/philippe-chavrier) – Head of the Subcellular Structure and Cellular Dynamics Laboratory, specialized in Cell migration and cancer

[Prof George Tsao](http://www.sbms.hku.hk/staff/george-sai-wah-tsao) – Professor in the HKU School of Biomedical Sciences, specialized in Cancer Cell Biology

[Dr Chiara Zurzolo](https://www.bing.com/search?q=chiara+zurzulo+pasteur&cvid=082500bf5b0a4e7c93b782cd0d90c0f6&aqs=edge..69i57.4199j0j4&FORM=ANAB01&PC=U531) – Head of the Membrane Traffic and Pathogenesis Laboratory, Institut Pasteur

Along the lines of a new up-to-date topic selected each year, top scientists are invited to deliver lectures in the course, in addition of the above teaching team.

***Learning outcomes***

The main objective of the HKU-Pasteur Cell Biology Course is to enable students to develop theoretical and practical hard and soft skills, with emphasis on the multidisciplinary nature of modern cell biology and the major scientific questions of life sciences. The course pays special attention to stimulate a critical, inquisitive attitude to challenge current knowledge and think out of the box.

* Theoretical lectures to enable participants to study in depth current trends in quantitative cell biology with a holistic approach by pursuing two interrelated objectives:
* Discuss current challenges in life sciences and share cutting-edge research carried out by leading laboratories in the world.
* Provide students with a deep understanding of the mechanisms underpinning cellular functions.
* Workshops aiming at developing the students’ practical skills related to the specific topic studied in the field of virology. These skills include but are not limited to: defining a scientific question; gather relevant information with web-based searches; identify tractable research objectives; understand advantages and limitations of available techniques; formulate hypothesis; design research experiments; train in data presentation; understanding best laboratory practices, biosafety and other techniques related to the course topics.

***Location***

All courses organized by the HKU-Pasteur Research Pole are held on the campus of the Li Ka Shing Faculty of Medicine of the University of Hong Kong (HKUMed), where our laboratory is located.

This location ensures a unique access to the state-of-the arti scientific facilities and infrastructure provided by HKUMed to all the students from the course.

Combining excellence in research and teaching, the HKU-Pasteur Courses encompass three major international courses per year (Cell Biology, Virology and Immunology) and smaller training and technology-oriented courses organized or co-organized by HKU-PRP and HKU. The Teaching and Training Centre is also available to HKU for organization of workshops, at both the local and regional level.

***HKU Curriculum***

The HKU-Pasteur Virology, Cell Biology and Immunology Courses have been recognized by the Research Postgraduate Committee of the University of Hong Kong, which has included it as a credit-bearing teaching in the coursework curriculum of MPhil/PhD students since 2007.