HKU Med LKS Faculty of Medicine The University of Hong Kong 香港大學李嘉誠醫學院

Advanced Therapy Products for Occasional Students (2023)	
Course Coordinator(s)	Mr. Tony Li, Senior Quality Assurance Manager, Department of Pharmacology and Pharmacy, HKUMed Laboratory of Cellular Therapeutics (Email: tonylihk@hku.hk) Dr. Aviva Chow, Assistant Professor, Department of Pharmacology and Pharmacy (Email: asfchow@hku.hk)
Course Description	This course is designed to provide students a comprehensive and broad overview of the development and application of Advanced Therapy Products (ATPs). Students will learn about the scientific principles, manufacturing and regulatory frameworks that underpin the evolution of ATP treatment. The course will cover the manufacturing process of ATPs, characterization, clinical applications, and regulatory concerns. Through this course, students will be enhanced with knowledge on the evolvement of cell and gene therapy and be envisioned on their use and impacts in clinical settings.

The following table summarizes the features of the two study options offered to occasional students.

	Study Option A **MAPH7360 Advanced Therapy Products**	**Study Option B** **Certificate Course in Advanced Therapy Products**
HKU Credits	**Yes – 3 credits** Students can apply to be considered for advanced standing for this course in future enrolment in the Master of Advanced Pharmacy programme within the next 5 years	**No**
Certificate of Completion	**No**	**Yes** ○ Completion of pre-recorded videos ○ Achieving pass on essay
Assessment	○ **Group Presentation (50%)** ○ Tentative date: May 11, 2023 19:00-21:00 ○ **Written Examination (50%)** – MCQ and short answer questions ○ Tentative date: May 20, 2023 afternoon	○ **Written essay (500 words)** – Pass/Fail
Delivery Mode	**Pre-recorded Lectures + Face-to-Face Sessions**	**Pre-recorded Lectures**
Cost	**6560 HKD**	**4370 HKD**

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Advanced Therapy Products for Occasional Students

Tentative Course Calendar

Date	Time	Delivery Mode	Session Topic	Lecturer	Hours	Included in	
						Study Option A	Study Option B
Jan 16 – Jan 22, 2023		Pre-Recorded	Introduction to Cell Therapy	Mr. Tony Li	2	Yes	Yes
Jan 23 – Jan 29, 2023							
Jan 30 – Feb 5, 2023			Scientific Principles of Cell and Gene Products - Part 1	Dr. Virginia Lau	2	Yes	Yes
Feb 6 – Feb 12, 2023							
Feb 13 – Feb 19, 2023			Scientific Principles of Cell and Gene Products - Part 2	Dr. Virginia Lau	2	Yes	Yes
Feb 20 – Feb 26, 2023			Cell Therapy Products - Part 1	Dr. Qizhou Lian	2	Yes	Yes
Feb 27 – Mar 5, 2023							
Mar 6 – Mar 12, 2023			Cell Therapy Products - Part 2	Dr. Qizhou Lian	2	Yes	Yes
Mar 13 – Mar 19, 2023							
Mar 20 – Mar 26, 2023			Gene Therapy Products - Part 1	Dr. Carol Lee	2	Yes	Yes
Mar 27 – Apr 2, 2023							
Apr 3 – Apr 9, 2023			Gene Therapy Products - Part 2	Dr. Carol Lee	2	Yes	Yes
Apr 10 – Apr 16, 2023							
Apr 17 – Apr 23, 2023			Regulatory Affairs of Advanced Therapy Products	Mr. Tony Li	2	Yes	Yes
Apr 24 – Apr 30, 2023			Role of Pharmacists in Preparation and Dispensing of ATPs	Mr. Tony Li	2	Yes	Yes
May 6, 2023 (Sat)	14:00 – 17:00	F2F – TBD	Lab/Site Visit	Dr. Carol Lee Dr. Virginia Lau	3	Yes	No*
May 11, 2023 (Thurs)	19:00 – 21:00	F2F - HKU Campus	Student Group Presentations	Mr. Tony Li Dr. Carol Lee Dr. Virginia Lau	2	Yes	No
May 11, 2023 (Thurs)	21:00 – 22:00	F2F - HKU Campus	ATP Discussion Forum	Mr. Tony Li Dr. Carol Lee Dr. Virginia Lau	1	Yes	No
May 20, 2023 (Sat)	14:30 – 16:30	F2F - HKU Campus	Written Examination	---	2	Yes	No

*There is a limited number of student slots for the lab/site visit. Study option A students will be prioritized to attend. Study option B students may have an opportunity to attend if spaces are available.

Course Coordinators

Coordinator	Biography
Mr. Tony Li	Mr. Tony Li is the Authorized Person at the Stem Cell GMP Laboratory of the LSK Faculty of Medicine and a teacher-practitioner at the Department of Pharmacology and Pharmacy. He is involved in the GMP development and training of Advanced Therapy Products at the faculty. Mr. Li obtained his Master of Pharmacy degree with First Class Honour at the University of London and Postgraduate Diploma in Pharmaceutical Quality & Good Manufacturing Practice with Distinction at the University of Strathclyde. In 2016 he was awarded his MBA from the Hong Kong University of Science and Technology. Mr. Li is a registered pharmacist with experience in the pharmaceutical industry and hospital pharmacy. He has worked with all major pharmaceutical dosage forms including Advanced Therapy Products, biologics and small molecule drugs.
Dr. Aviva Chow	Dr Chow is an Assistant Professor in the Department of Pharmacology and Pharmacy in the University of Hong Kong (HKU). Dr. Aviva Chow obtained his Bachelor degree of Chemical and Bioproduct Engineering from the Hong Kong University of Science and Technology (HKUST). He pursued his PhD in Pharmacy (Pharmaceutical Sciences) at the Chinese University of Hong Kong (CUHK). Prior to joining HKU, Aviva worked as a technical lead and research scientist at Jacobson Pharma Corporation Limited. He is also one of the principal investigators in Advanced Biomedical Instrumentation Centre (ABIC) at the Hong Kong Science and Technology Park.

Speaker Team

Speaker	Biography
Dr. Virginia Lau	Dr Lau is working as laboratory manager in the Department of Medicine in the University of Hong Kong. She completed her PhD at The Chinese University of Hong Kong (CUHK) and undertook post-doctoral training at the University of Hong Kong. Dr Lau has focused her research on the study of induced pluripotent stem cells (iPSCs), with the aim of developing platforms for disease modelling, drug screening, and personalized therapy for cardiovascular diseases.
Dr. Carol Lee	Dr. Lee is a registered authorized person for ATP. During her second year of PhD study, she received a 2-month training from hiPSC generation, cell banking and cardiac differentiation in Biomedical Sciences Institute, Agency of Sciences and Technologies (ASTAR), Singapore. She underwent a one-year postdoctoral training in IRCCS Foundation San Matteo Hospital, University of Pavia, Italy. She then focused her research on MSC isolated from human placenta and hiPSC disease modelling of LQTS to identify potential modifier. Since 2014, she has been involved in major research area concerning cardiac regeneration by pluripotent stem cells and dilated and hypertrophic cardiomyopathy (DCM and HCM)-related-disease modelling using iPSC. She was intensively involved in handling patient sample database, hiPSC generation and characterization, stem cell culture and banking, cardiac differentiation protocol and functional studies. Her cancer and stem cell research works have been well documented in the internationally peer-reviewed original articles, book chapters and reviews.
Dr. Qizhou Lian	Dr Qizhou Lian currently is a practicing Authorized Person (AP) for Advanced Therapy Products (AP/ATP) and serves as a Scientific Officer for the HKUMed Laboratory of Cellular Therapeutics. He also is a Principal Investigator in the State Key Laboratory of Pharmaceutical Biotechnology in HKU, an Honorary

	Professor in Peking University Shenzhen Hospital and Guangzhou Medical University Women and Children's Medical Centre. Dr Lian has more than 20 years of experiences in scientific research, bioprocessing and biomanufacturing development of stem cell- and gene-based therapies. In 2014, he pioneered the Asia's first hematopoietic stem cell gene therapy and successfully saved patients suffering from metachromatic leukodystrophy (MLD), a rare hereditary disease caused by accumulation of fats in brain called sulfatides. To date, he has filed 11 patents and has co-authored over 100 peer-reviewed publications in SCI-indexed journals including Nature Metabolism, Nature Communications, Circulation, Cell Stem Cell, etc. He also has supervised and nurtured over 24 M.Phil./Ph.D. students and Postdoctoral Fellows since 2011.