

Brief Biography

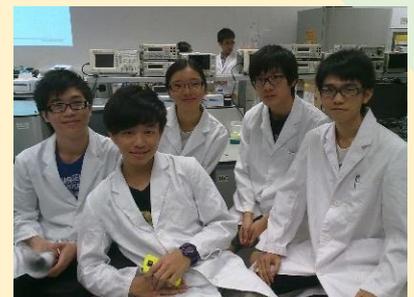


Dexter Wong
2015 BEng BME Graduate
2019 Ph.D. BME Graduate

My name is WONG Siu Hong, Dexter. I was one of the last Hong Kong Advanced Level Examination (HKALE) participants in 2012 and attended the Chinese University of Hong Kong (CUHK) to study Biomedical Engineering (BME) in the same year. After three years of undergraduate life in CUHK, I graduated with a bachelor of engineering degree in BME in 2015. Right after that, I decided to start my four years life of doctor of philosophy (Ph.D.) in BME under supervision by Prof. BIAN, Liming. I successfully passed my thesis defense entitled "Harnessing Cell Receptor–Ligand Interactions via Tunable Nanostructures to Regulate Cellular Behaviors" in 2019 and stayed in the same group as a research assistant (RA) for the follow-up work of my previous projects. In 2020 July, I will join the BME department at the Hong Kong Polytechnic University as a research assistant professor to continue my academic research life.

Starting My Undergraduate Life in BME@CUHK

During my undergraduate study in BME, I initially found it hard to follow the courses as I only focused on advanced biology, chemistry, and mathematics and statistics in my secondary school period. It is because BME courses relate to multi-discipline subjects such as engineering mathematics and computational science, apart from biochemistry. But sooner after that, I gradually caught them up with help from professors, tutors, and university resources. From these courses, I realized that we had been very close to modern science and technology that are prerequisite to solving the social and international medical healthcare issue. This idea further encouraged me to learn and understand how we can further apply theoretical knowledge to practice. Later on, I actively joined hands-on experimental works and projects as much as possible to enrich my practical skills and experience. This is how I started to develop an interest in academic research.



Working on a project with my classmates in BME teaching Lab

My U Life



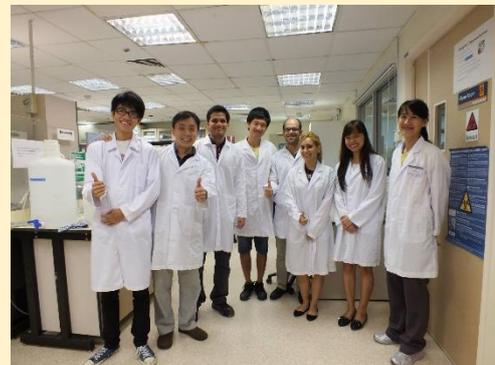
Promotion for our student association election

Despite the academic activities, I also joined the BME department student association (上莊) as one of the committees during my first year. Indeed, I was having a good time and making a lot of good friends at that time. Moreover, the BME department encouraged us to participate in overseas exchange activities to enhance our international perspectives and discover potential inter-collaboration among universities. I was successfully approved to join the overseas summer research internship as a research assistant (Prof. LEO Hwa Liang's group) in the

Department of Biomedical Engineering at the National University of Singapore (NUS) in 2014. It was a precious experience to learn Singaporean culture and the academic environment in NUS. This internship was financially supported by the CUHK Student Exchange Financial Aid and Scholarship Scheme (FASS) in the Office of Academic Links and Shaw college. Speaking of financial support, I also luckily received a few bursaries from different organizations, such as Apple Daily Charitable Foundation, Shaw college, Yan Oi Tong, Albert Young Foundation Limited as well as the bursaries from the government (TSFS scheme). I have to thank these financial aids for supporting my undergraduate study as my family was not quite well off. In summary, I enjoyed studying in CUHK, especially in BME. I have been gaining fruitful experience and meaningful U life in this place.



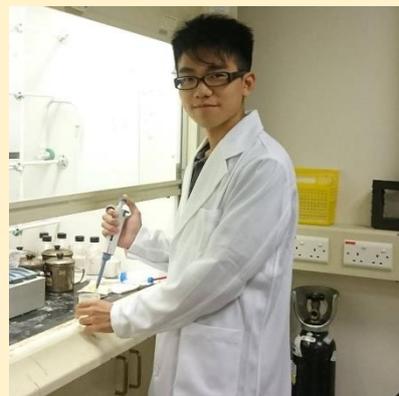
Promotion of the newly designed BME clothes by our student association



Summer research internship in Prof. LEO Hwa Liang's group at the Nation University of Singapore

My Ph.D. Life

In my last year of undergraduate, I struggled whether I should go to a commercial/business/commercial career or academic research (Ph.D.). I compared the pros and cons of going to other jobs and studying Ph.D. quite frequently at that time. Ultimately, I chose the latter one as I could have more flexibility to do what I want and to achieve what I propose, especially in academic research. I like in vitro and in vivo experimental work and publish my work to the whole world. I think it makes my life more meaningful and be a person who contributes to our society. Throughout the entire Ph.D. training, I have improved my critical thinkings in all aspects. For example, I become familiar and mature in the work-flow of a scientific project consists of a hypothesis, observation, experimental design, practical experiments, data collection, and data analysis. To package my findings into a readable format, I have to improve my technical writing, which is very important for publication. Also, I have attended a few international conferences to present my work by oral/poster presentations. As a researcher, we need to keep our exposure high to the peers like pop-stars keeping their fans. We need to let the public be familiar and recognize our current work so that we can exchange more useful scientific opinions among the peers to improve the quality of our work. As a result, our research can go to a more right direction.



Starting with my own project during the first year of my Ph.D. life

Although my Ph.D. life is full of great challenges and hard times, once I resolved them, I feel a sense of accomplishment in my entire life. I would like to attribute all my success to my supervisor, Prof. BIAN, Liming, who is an outstanding teacher for me. It was imperative to keep updating your progress and brainstorm new ideas with your supervisor. Otherwise, you may not know the mistakes you have been making. Then you will be stopped in front of a barrier, and your time is wasted. Therefore, I successfully published my works on several well-recognized international peer-reviewed journals in the past 5 years (4 year Ph.D. plus 1 year RA) under Prof. Bian's guidance.

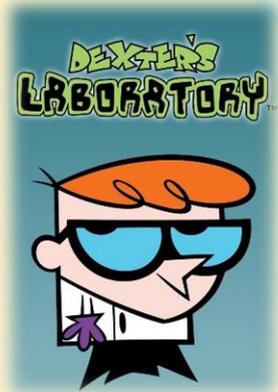
Of course, I did continuously seek for more overseas exchange/collaboration opportunities. In 2018, Prof. CUI Bianxiao in the department of Chemistry at Stanford University accepted my application of visiting student researcher in her lab. This exchange was financially supported by Global Scholarship Programme for Research Excellence 2018-19 (OAL Mobility Scheme, CUHK). I started a new good project in this group and worked with their postdocs. It was really a precious chance to visit and work in this famous lab and the world-leading university. The rich academic research atmosphere impressed me a lot. More importantly, they emphasize inter-collaborations among different groups to increase research output efficiency so that many U.S. universities are so successful in the world. I have gained much valuable experience in this journey.



Having a good time in a Christmas party with Prof. Cui and her group members

Dexter's Story

Hence, all these experiences lead to my career decision after my Ph.D. graduation - I should further pursue a faculty position to establish my lab. "Dexter's Laboratory" is one of my favorite cartoon shows when I was studying primary school. I love this show because the character "Dexter" was a genius scientist, right after his birth. Hence I used "Dexter" as my nickname to imagine that I could be a scientist some days, just like him. Today, I am one step closer to achieving that dream.



Saying "Hi" to all the potential future BME members

I hope my story can provide some useful information as a reference before you join us as a BME member. Being a BME student at CUHK is not only talking about study a subject but is a person who can connect to the university, society, and even the world. I am a normal person. I believe you can also develop what you are good at and pursue what you are looking for from BME because it provides different streams/fields as different advanced study choices. Everyone can translate their knowledge into practice, especially the engineers. I wish you all the best in the future academic/career endeavor!