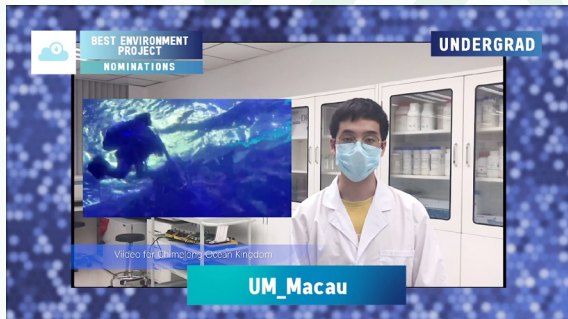


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1. Ji, D., Zhang, M., Qin, E., Zhang, L., Xu, J., Wang, Y., **Cheng, G.**, Wang, F., and Lau, G. (2020) Obesity, Diabetes, Non-Alcoholic Fatty Liver Disease and Metabolic Dysfunction Associated Fatty Liver Disease Are Proinflammatory Hypercoagulable States Associated with Severe Disease and Thrombosis in Covid-19. *Metabolism*, 154437 [2019 IF = 6.159]
2. Xie, R., **Shao, N.**, and **Zheng, J.** (2020) Integrated Co-Functional Network Analysis on the Resistance and Virulence Features in Acinetobacter Baumannii. *Front Microbiol* **11**, 598380 [5yr IF = 4.926]
3. Zhang, Y., Li, W., Zhang, W. Y., He, F., Pan, H. P., Cheung, T., Ungvari, G. S., Li, S., **Xiang, Y. T.**, and Angst, J. (2020) Validation of the 33-Item Hypomania Checklist (HCL-33) in Screening Adolescents with Bipolar Disorder. *J Affect Disord* [5yr IF = 4.226]
4. Rao, W. W., Yang, Y., Ma, T. J., Zhang, Q., Ungvari, G. S., Hall, B. J., and **Xiang, Y. T.** (2020) Worldwide Prevalence of Suicide Attempt in Pregnant and Postpartum Women: A Meta-Analysis of Observational Studies. *Soc Psychiatry Psychiatr Epidemiol* [5yr IF = 3.749]
5. Chen, Y., Li, B., Lyu, P., **Kwok, H. F.**, Ge, L., and Wu, Q. (2020) Boronate Ester Bond-Based Potentiometric Aptasensor for Screening Carcinoembryonic Antigen-Glycoprotein Using Nanometer-Sized CaCO<sub>3</sub> with Ion-Selective Electrode. *Anal Bioanal Chem* [2019 IF = 3.637]
6. Bressington, D. T., Cheung, T. C. C., Lam, S. C., Suen, L. K. P., Fong, T. K. H., Ho, H. S. W., and **Xiang, Y. T.** (2020) Association between Depression, Health Beliefs, and Face Mask Use During the COVID-19 Pandemic. *Front Psychiatry* **11**, 571179 [5yr IF = 3.359]

### FHS Community Story

#### iGEM Series IV - UM Students Win Gold Medal at iGEM for Enhancing the Quality of Water for a Better Human Life



A cross-disciplinary team comprised of 15 FHS and 1 FST student won a gold medal in the International Genetic Engineered Machine (iGEM) competition, and was also ranked among the top five in the Environment Track of the competition. This is the second time that the UM team has won the gold medal in two years. This year, the Grant Jamboree (finale) of iGEM was held virtually due to the COVID-19 pandemic, but still attracted 249 teams from more than 40 countries and regions.

Under the supervision of FHS Assistant Professor Leo Tsz On LEE, Associate Professors Ruiyu XIE and Tzu-Ming LIU, the UM iGEM team worked together to design the Biofilm-Removing *Escherichia coli* (*E. coli*) for Aquarium Cleaning (BREAC) System. Biofilm is a significant problem in aquariums, ocean parks and even the home water pipes. Not only it can discolor water, it also favours the growth of germs. The team has successfully bioengineered the genetic material with both the functions of detection and degradation for *E. coli* to eliminate the deposit of the biofilm in the aquatic system. In order to keep the degrading system work safely

and securely, the students designed a magnetic collection system, introducing ferritin expressing function into the modified E. coli such that they could be collected after degrading biofilms. Aside from removing biofilm in aquariums, the design of the UM team also provides a strategy to clean biofilm in the water pipes. The team won the gold medal, and was ranked among the top five in the Environment Track, which are recognitions to the students in their contribution to the quality of the water to enhance quality of human life.

The students have girded themselves for the iGEM competition for nearly a year. Besides the laboratory works, the students have performed excellent outreach works, including user interviews with Chimelong Ocean Kingdom and Ocean Park Hong Kong, and a scientific talk in the high school to raise the high school students' awareness in pushing the boundaries of synthetic biology by tackling everyday issues that the world is facing. Besides, the students have established a collaboration with five other iGEM teams from the Dalian University of Technology, Southern University of Science and Technology, Tsinghua University, Wuhan University and Tsuen Wan Public Ho Chuen Yiu Memorial College by forming the Anti-biofilm Community (ABC). The teams in the community exchanged ideas on biofilm and collaborated to promote the knowledge of synthetic biology in various means.

The team leader, FHS Year 3 student Yuzhao FENG admitted that it was challenging to work on the project due to the COVID-19 pandemic this year. She mentioned that all the team members have tried very hard to overcome the obstacles, and finally their effort has paid off. They acknowledge the positive impact of the competition which is conducive to their development, both academically and personally.

In addition, Prof. Lee, Prof. Xie and Prof. Liu supervised a native team from Pui Ching Middle School (Macao). This team also received a gold medal at the competition for developing a system that produces flame retardant proteins. The students conducted the project in UM's laboratories during their spare time for the past year.

The iGEM competition is a worldwide interdisciplinary competition involving not only the fields of synthetic biology but also mathematics, computer science, statistics, for a cross-disciplinary collaboration. The iGEM competition was initiated by Massachusetts Institute of Technology students in 2004, and then became a global competition in 2005, giving students the opportunity to push the boundaries of synthetic biology, develop open communities and collaboration among various universities around the world through a series of workshops and activities. At the Giant Jamboree (finale) of the competition, teams present their works through posters and oral presentations and compete for prizes and awards.



The team visits Chimelong Ocean Kingdom in July



The students hold a science talk for local high school students



The website of the UM iGEM team ([https://2020.igem.org/Team:UM\\_Macau](https://2020.igem.org/Team:UM_Macau))





### FHS Receives a Donation from International Ladies Club of Macau for Support Breast Cancer Research

Recently, the International Ladies Club of Macau (ILCM) proposed to make a donation to FHS to support its research in breast cancer. On 24 November, the delegation of ILCM visited UM and met with Prof. Chuxia DENG, the project leader of breast cancer research. During the meeting, Prof. Deng explained to the delegation of the latest progress and future development of breast cancer research in FHS. At the end of the meeting, the delegation presented a check for their generous donation to Prof. Deng and Ms. Cindy LAM, Director of Alumni and Development Office.



### Visit

#### A Delegation of Research Institute of Tsinghua, Pearl River Delta visits FHS

To enhance and develop the industry-university-research cooperation, Mr. Debao WANG, Executive Vice President of Research Institute of Tsinghua, Pearl River Delta, led a delegation to visit FHS on 24 November. Prof. Chuxia DENG warmly received them and demonstrated the research facilities in the aquatic room and the rodent room of the Animal Research Core.

During the visit, both parties introduced their research projects, expressed their intentions in future research connection, and explored the possibility of the cooperation in the industrialization of scientific research results, technological innovation and technological achievement transformation.

As a research and development institution which is jointly established by Tsinghua University and the Guangdong Provincial Government, Research Institute of Tsinghua, Pearl River Delta aims to provide multi-faceted support for the “triad” of R&D, investment and incubation for the high-tech projects as well as the innovation and entrepreneurship teams in the Guangdong-Hong Kong-Macao Greater Bay Area.





### Vice Counsel of the Guangzhou Municipal Science & Technology Bureau visits FHS

A delegation led by Vice Counsel of the Guangzhou Municipal Science & Technology Bureau Jiang LI, visited FHS on 24 November. They were warmly received by FHS Dean Chuxia DENG.

Prof. Deng oriented the guests the latest developments, academic programmes, research achievements, the cultivation of high-calibre students and the internationalization of FHS. Then he guided the guests to the aquatic room and the rodent room of the Animal Research Core and also Proteomics, Metabolomics and Drug Development Core. Prof. Terence POON and Dr. Li WANG briefed the delegation on the facilities and services of the cores.

After the lab tour, both parties had an in-depth discussion. In the meeting, Prof. Douglas ZHANG, Prof. Gang LI and Prof. Qi ZHAO reported the progresses and the accomplishments of their research projects jointly collaborated with their Guangzhou collaborating enterprises, funded by the scheme entitled "Guangzhou Science and Technology Innovation Commission - 2018 Guangzhou Science and Technology Innovation and Development of Special Funds for Foreign R & D Cooperation Project". Prof. Douglas ZHANG would like to seek assistance from the Guangzhou Municipal Science & Technology Bureau in the subsequent collaboration with his collaborating unit, Guangzhou RiboBio Co., Ltd. Mr. Jiang LI requested his colleagues to contact Prof. Zhang for a further discussion after the meeting. He encouraged FHS to develop deep and solid collaboration with the enterprises or the higher educational institutes in Guangzhou. The bond connection with Guangzhou collaborating parties surely enhances upcoming funding applications of FHS.

Other academic attending the meeting included Prof. Hanming SHEN, Prof. Ren-He XU, Prof. Guokai CHEN and Prof. Xuanjun ZHANG.



### FHS Professors visit Guangzhou KingMed Diagnostics



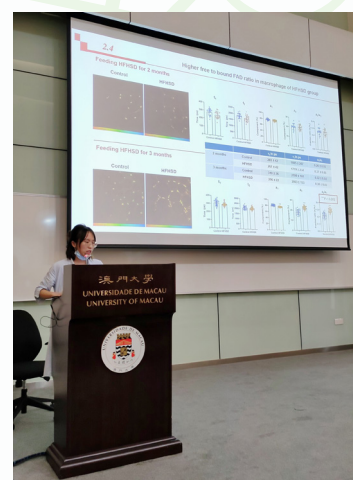
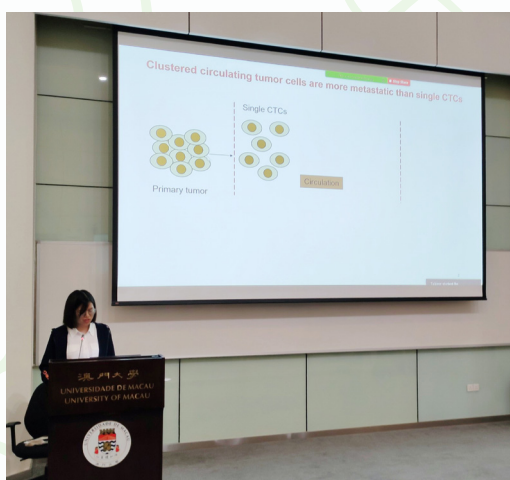
Prof. Guokai CHEN and Prof. Xuanjun ZHANG led by Prof. Wei GE, Vice Rector (Research) of UM, visited KingMed Diagnostics in Guangzhou on 23 November. KingMed Diagnostics is the largest Medical Diagnostics Company in China. They visited the diagnostics facilities of the company and discussed the mutual interests in viral detection, cancer diagnosis and genetic diseases. Potential long-term collaboration was discussed also during the visit.

### FHS Postdoc Student Seminar

#### Presented by Prof. Tzu-Ming LIU's group and Prof. Kathy LUO's group

On 26 November, Ms. Liping CHEN of Prof. Tzu-Ming LIU's group presented "Metabolic and Morphologic Imaging of Diabetic Microenvironment in Adipose Tissues" and Ms. Koukou LI of Prof. Kathy LUO's group presented "DSC2 and PKP1 Increase the Cluster Formation, Survival and Metastasis of Circulating Tumor Cells".

The next seminar will be held on 10 December, and presented by the group members of Prof. Yunlu DAI and Prof. Xuanjun ZHANG via Zoom.





NOV / DEC				
Mon	Tue	Wed	Thu	Fri
30	<b>DEC</b> 1	2	3	4
		<b>BCAT Meeting</b> Speaker: Prof. Guokai CHEN Time: 17:00-18:00 Venue: E12-G004	<b>Qualifying Exam</b> Haibo PENG Supervisor: Prof. Ren-he XU Time: 14:30 Venue: N22-3042	
7	8	9	10	11
	<b>Holiday- Feast of Immaculate Conception</b>	<b>Oral Defence</b> Fang WANG Supervisor: Prof. Chris WONG Time: 10:00 Venue: N6-2022  <b>Oral Defence</b> Liangnan ZENG Supervisor: Prof. Yutao XIANG Time: 15:00 Venue: E12-G020	<b>FHS Postdoc/ Student Seminar</b> Session: Chemistry Host: Prof. Yunlu DAI and Prof. Xuanjun ZHANG Time: 17:00-18:00 Venue: N22-G002 and Zoom  <b>Qualifying Exam</b> Soichan LEI Supervisor: Prof. Tzu-Ming LIU Time: 14:00 Venue: E12-1016	
14	15	16	17	18
		<b>Oral Defence</b> Yaojun JU Supervisor: Prof. Kin Yip TAM Time: 10:00 Venue: N6-2022  <b>BCAT Meeting</b> Speaker: Prof. Hanming SHEN Time: 17:00-18:00 Venue: E12-G004	<b>Oral Defence</b> Linjing SHEN Supervisor: Prof. Garry WONG Time: 16:00 Venue: N6-2022	
21	22	23	24	25
<b>Holiday- Winter Solstice</b>	<b>Holiday- Compensatory rest day of Winter Solstice</b>		<b>Holiday- Christmas Eve</b>	<b>Holiday- Christmas Day</b>