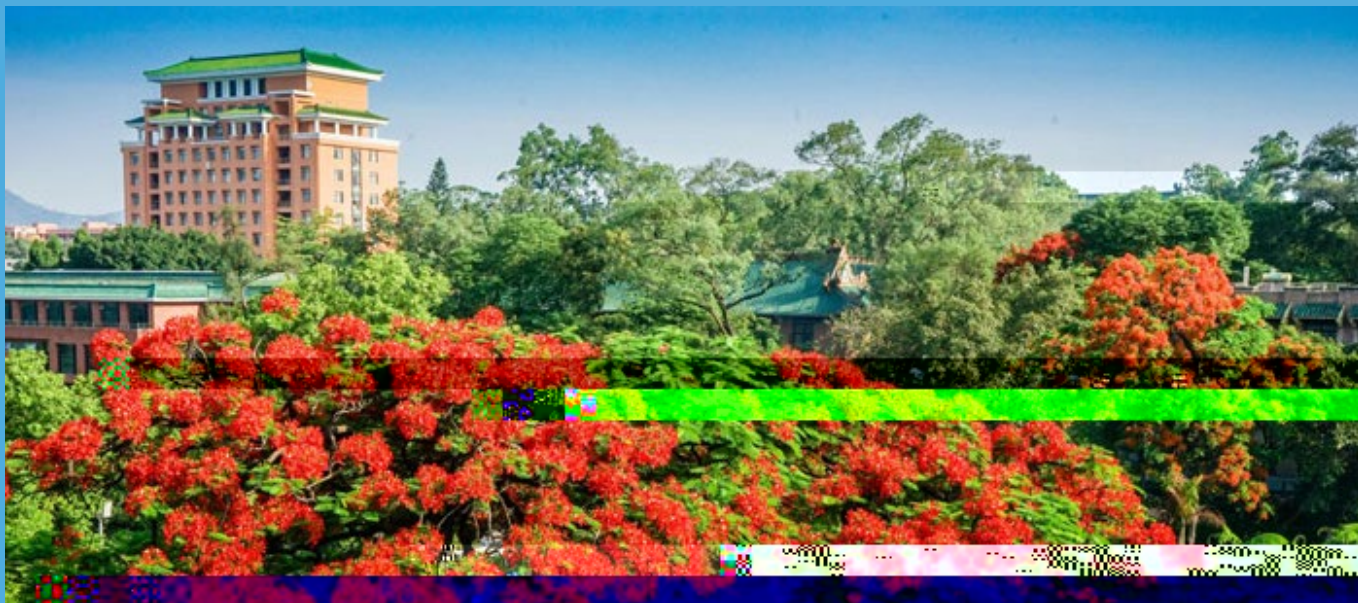




SCUT Newsletter

第22届中国国际工业博览会CIIF大奖获奖名单			
序号	奖项名称	参展企业	
1	CIIF特别大奖	中科院微小卫星创新研究院	北斗三号中科院号
2	CIIF大奖	武汉中科极化医疗科技有限公司	人体肺部气体微装
3	CIIF大奖	上海振华重工(集团)股份有限公司	自动化码头装卸系
4	CIIF大奖	中国科学院沈阳自动化研究所	海洋一号
5	CIIF大奖	上海芥兰机器人科技有限公司	芥兰机器人系列作粗器
6	CIIF大奖	上海三爱富新材料科技有限公司	新型显示用音膜高分
7	CIIF大奖	凯盛科技集团有限公司、中建材料集团、中建材料集团、中建材料集团	中性硼硅药用玻璃管
8	CIIF大奖	上海汽车集团股份有限公司	上汽SG智能重卡
9	CIIF大奖	华南理工大学、广东星联科技有限公司	超高分子量聚乙烯制品短流程高效制造技
10	CIIF大奖	广东星联科技有限公司	超高分子量聚乙烯制品短流程高效制造技

1. SCUT Wins Award at 22nd CIIF

22

CIIF

On October 8, the Opening and Awarding Ceremony of the 22nd China International Industry Fair (CIIF) themed on "Intelligence & Interconnection Empowering New Industrial Development" was held at the National Exhibition and Convention Center (Shanghai).

South China University of Technology (SCUT) presented various S&T achievements at this edition of

the CIIF, among which "Short-process and High-efficiency Manufacturing Technology for UHMWPE Products" and "Beidou-3 Navigation Satellite System" and other entries won this edition of the CIIF Award, and "Multifunctional Digital-waveform-controlled Arc Welding Inverter" won the Excellent Exhibit Award.

CIF

The award-winning S&T achievements demonstrate major progress in key aspects of the industry, breakthroughs in core technologies, and internationally leading technology and process levels. They represent the top-level of industrial technologies in China. As one of the most prestigious honors in China's industrial sector, the CIIF Award also marks the highest level of "Made in China" manufacturing.

CIF

CIF

2. SCUT First Ranks among Top 300 in US News Best Global Universities Rankings

US News

300

unveiled the 2021 Best Global Universities Rankings, in which South China University of Technology (SCUT) ranked 290th in the world, up by 46 places from last year, and secured the 15th place among universities in mainland China.

US News & World Report

290

46

15

also released the 2021 World University Rankings by Subject. SCUT saw a total of 15 subjects on the list, an increase of 5 over the previous year. Among them, 11 subjects ranked among the global top 100, while 3 subjects, namely Agricultural Science, Chemical Engineering, Energy and Fuel, ranked among the world's top 10.

US News

15

5



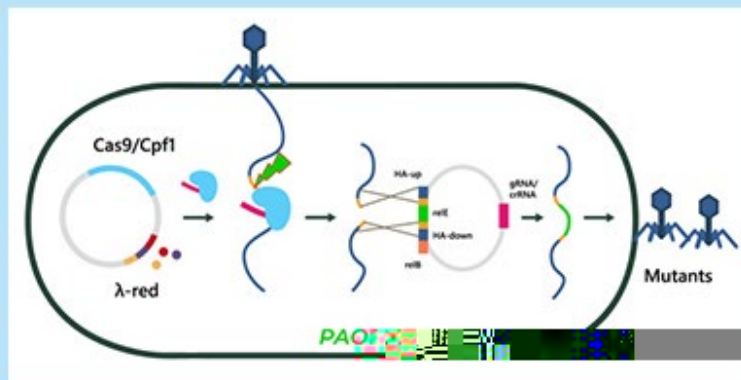
3. SCUT Co-organizes 1st Conference of BFA ISTIF

On the morning of November 10, the Opening Ceremony of the 1st Conference of the Boao Forum for Asia (BFA) International Science, Technology and Innovation Forum (ISTIF) was held in Macao.

In October, a press conference was held for the 1st Conference in Guangzhou. South China University of Technology (SCUT) co-organized the event as a BFA partner and the only university co-organizer. Themed on "Innovation Empowers Sustainable Development" and focusing on impetus for innovation, innovation and everyday life, and cooperation on innovation, the 1st Conference offered both online and offline events and activities, including the plenary conference and 12 sub-forums. Participants had in-depth discussions covering hot topics in S&T and innovation such as 5G, aerospace science and technology, gene therapy, biomedicine, molecular materials and AI. A series of important consensus were reached, making ISTIF an essential platform for international exchange and cooperation in S&T and innovation.

5G

The event brought together approximately 1,000 representatives from 25 countries and regions, including 5 former and current political dignitaries, Chief Executives of Hong Kong and Macao SARs, over 10 ministers, 2 heads of international organizations, nearly 100 high-profile guest speakers, 9 diplomatic envoys or representatives and more than 10 business leaders from multinationals. The Conference was also covered by almost 100 journalists of over 40 media outlets from Chinese mainland and the Guangdong-Hong Kong-Macao Greater Bay Area (GBA).



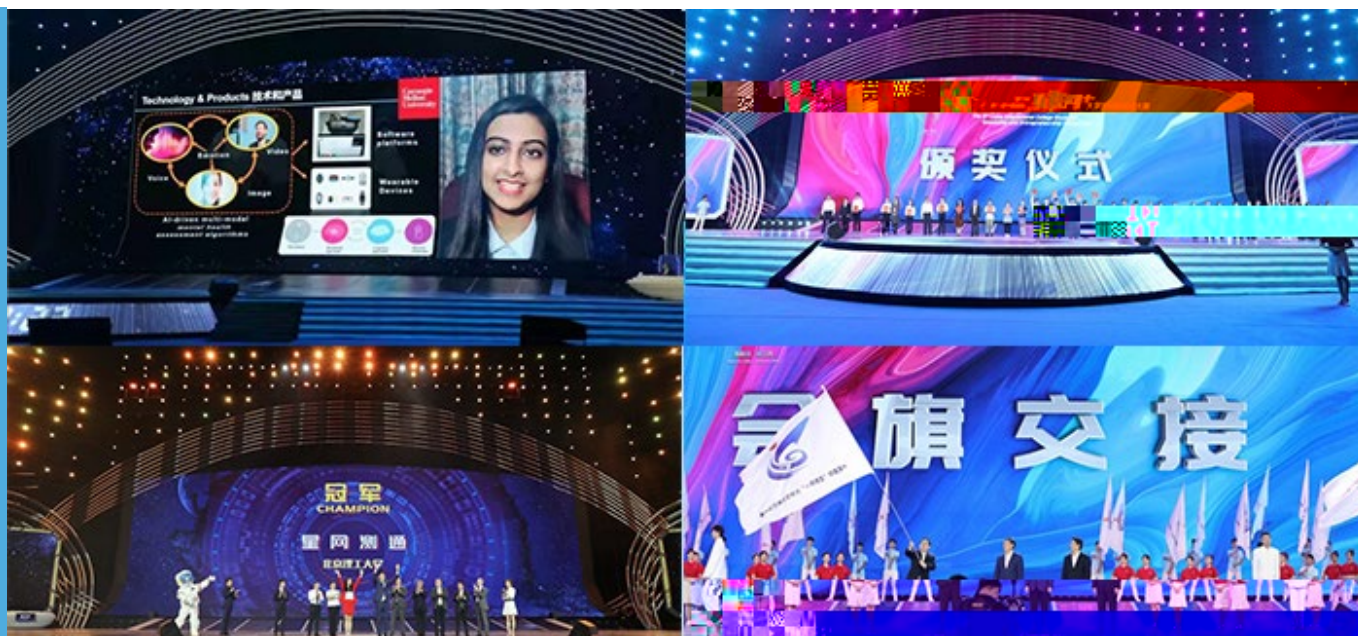
4. SCUT Wins iGEM Gold Award

International Genetically Engineered Machine Competition (iGEM), hosted by Massachusetts Institute of Technology (MIT) and the iGEM Committee, is a top international academic and S&T competition in interdisciplinary synthetic biology. In response to COVID-19, the 2020 iGEM global finals were held online from November 16 to 22. 239 teams from around the world participated in the finals and 2020 SCUT_China, the iGEM team of SCUT, won the Gold Award.

International Genetically Engineered Machine Competition, iGEM			
iGEM			iGEM
	16-22	239	iGEM
2020 SCUT_China			

2020 SCUT_China comprised of 15 students from the School of Biological Science and Engineering, School of Mathematics, School of Computer Science and Engineering, and School of Design. The competition entry submitted by the team was "Toxin-based Recombinant PAE Phage". With the drug-resistant *Pseudomonas aeruginosa* (DR-PAE) phage as an example, the team quickly captured two toxin-carrying recombinant PAE phages through editing and purification, using a CRISPR editing system developed by them. The said recombinant phage can kill PAE with lower drug resistance, thus offering a reference for more effective modification of phages.

2020 SCUT_China	15
CRISPR	



5. The 6th China International College Students' "Internet+" Innovation and Entrepreneurship Competition Successfully Held

“ + ”

From November 17 to 20, the "CCB Cup" 6th China International College Students' "Internet+" Innovation and Entrepreneurship Competition was successfully held at South China University of Technology (SCUT). Hosted by SCUT, gold medals were presented at the Awarding Ceremony to over 100 teams selected from 1.47 million teams from all over the world. SCUT stood out with 10 teams winning gold medals, ranking first in the nation for its total number of gold medals.

17-20

+

147

With the theme of "Dare to differ, Dare to win", the Competition attracted 1.47 million entries and 6.31 million participants from 4,186 universities and colleges in 117 countries and regions including China. In response to the COVID-19 pandemic, it was determined that the Competition would be held in a hybrid format that combined both offline and online presentations, with aims to step further ahead in international presence, education, coverage, innovation, and Chinese characteristics.

631

117

4186

147.3

2020 Global Highly Cited Researchers (HCRs) Entries Number from Universities in Chinese Mainland 2020年全球高被引科学家（中国内地单位入选人次）

University 单位名称	Number of Entries 入选数
University of Electronic Science and Technology 电子科技大学	17
Southeast University 东南大学	16
Fudan University 复旦大学	16
South China University of Technology 华南理工大学	16
Shanghai Jiaotong University 上海交通大学	16

6. SCUT Researchers Achieve 16 Entries on the 2020 Global Highly Cited Researchers (HCRs) list

16 2020

On November 18, Clarivate Analytics released its list of Highly Cited Researchers (HCRs) 2020, identifying 6,167 researchers in various sectors from over 60 countries and regions around the world. Researchers from Chinese mainland accounted for 770 entries on the list, including 16 entries (13 researchers) from South China University of Technology (SCUT) which tied for the 8th place among universities from Chinese mainland in number of list entries, up by one place from 2019.

	60	6167
770	13	16
2019		

SCUT's HCRs are mainly from six fields, namely material science (4 entries), cross-disciplinary fields (4 entries), chemistry (3 entries), agricultural science (2 entries), computer science (2 entries) and engineering (1 entry). Among them, Cao Yong, Chen Junlong and Huang Fei are named in two ESI categories, while Zhu Min and Ma Yuguang appear in the list for the first time.

3
6

Based on Web of Science, Clarivate Analytics analyzed citation data over past 11 years and selected scientists with the most highly cited papers in different sectors.

Web of Science

7. Academician Tang Benzhong and Prof. Wang Jun Elected 2020 Fellow, Biomaterials Science and Engineering

2020

Fellow

On December 11, the 11th World Biomaterials Congress (WBC) opened online, where Academician Tang Benzhong and Prof. Wang Jun from South China University of Technology (SCUT) were elected 2020 Fellow, Biomaterials Science and Engineering (FBSE).

Fellow

WBC not only provides S&T workers in biomaterials with opportunities for joint exploration towards cutting-edge research and platforms of interactive communication, but also plays an important role in promoting development of the global biomaterials science and industry. Known as the "Olympics" of the biomaterials industry, WBC was inaugurated in 1980 and is held every four years. Although the COVID-19 pandemic has brought many challenges to the opening of the Congress, over 2,500 attendees still registered their participation, including nearly 150 from China.

1980

2500

150

The election of Academician Tang Benzhong and Prof. Wang Jun as Fellow, Biomaterials Science and Engineering, soon after SCUT Academician Wang Yingjun and Prof. Chen Xiaofeng were elected Fellow in the same field, marks the improved international influence of the discipline.

Fellow



8. "Unwaveringly Committed to Opening up in Education" -- The 2nd SCUT International Week Closes Successfully

“ ”

Launched on November 26, the 2nd SCUT International Week lasted 16 days and closed successfully on December 11.

26

16

With the normalization of COVID-19 response measures, a total of 39 events in four categories of this year's SCUT International Week were presented mainly online with corresponding offline supports based on quality resources on and off the campus. Compared to last year, this edition of International Week featured a new program themed on "Cultivation of International Innovative Talents". The program invited UN experts and interns to lecture on and share information about the UN's talent training model, career development plans to work with international organizations, and UN internship opportunities, contributing to the country's top level strategy on preparing and pooling talents of global governance. Another new program set up in response to the COVID-19 situation, "How to Pursue Overseas Study in a Pandemic-hit World", offered four themed lectures respectively on "government-sponsored overseas education", "pre-departure safety orientation", "Open Day on Overseas Study of Undergraduates", and "importance of cross-cultural communication in the post-COVID era". These lectures attracted nearly 1,000 students and helped them prepare for overseas study in a pandemic-stricken environment by offering guidance and service on policies and formalities.



9. SCUT Wins Innovation Gold Prize at the First Guangdong - Hong Kong - Macao Financial Mathematics Modeling Competition

On December 20, the defense session of the finals of the first "GBA Cup" Guangdong - Hong Kong - Macao Financial Mathematics Modeling Competition was held at Sun Yat-sen University. Hao Bowen, Li Zifeng and Lai Xiang from SCUT School of Electric Power (2018 cohort) won the Innovation Gold Prize for their outstanding performance. The defense session was held both online and offline, where 14 finalist teams competed for the Gold Prize of the Competition.

+

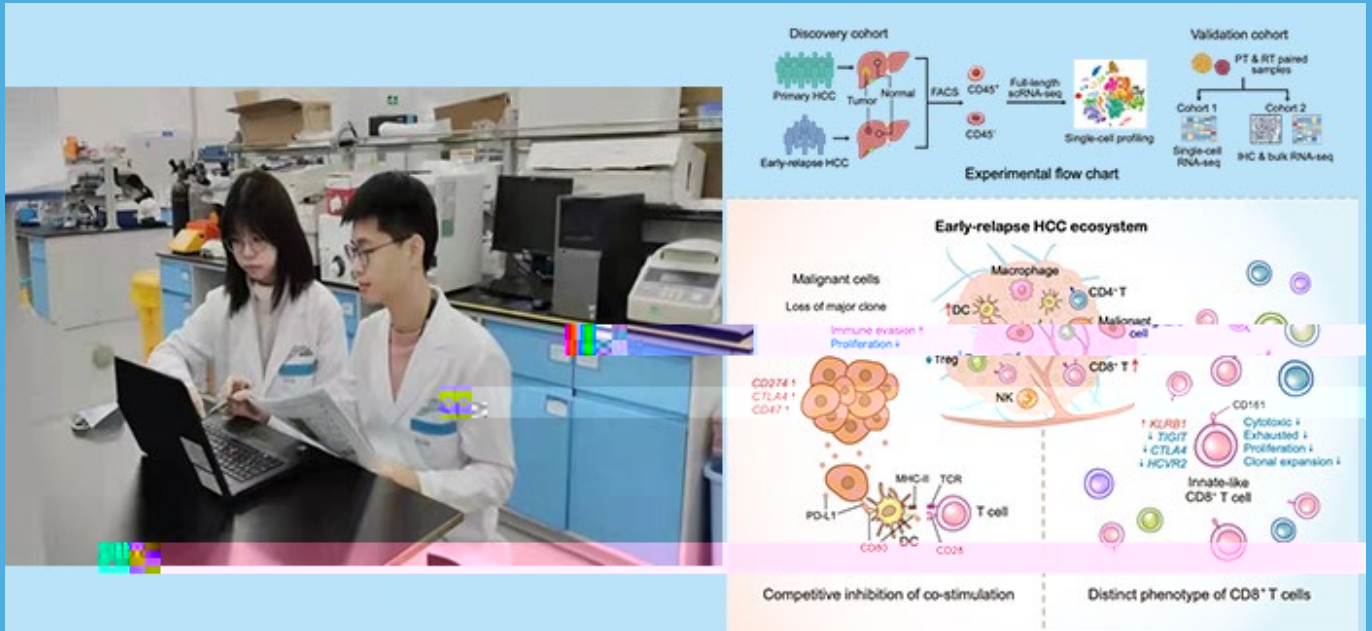
The Competition focused on hot topics in the financial sector of Guangdong, Hong Kong and Macao to facilitate financial innovation in the Greater Bay Area (GBA). Launched for the first time, the Competition attracted students from 341 universities and colleges in Guangdong, Hong Kong, Macao and other provinces in China, as well as those in foreign countries and regions. A total of nearly 10,000 participants from 3,285 teams registered for participation. The Competition intends to promote the economic development in the GBA and facilitate its efforts in developing its financial sector to reach international standards. During the Competition, a series of financial lectures were also delivered in collaboration with business partners from the financial sector.

341

3285

The "GBA Cup" Guangdong - Hong Kong - Macao Financial Mathematics Modeling Competition aims to conduct innovative research on the application of mathematical modeling methods in the financial sector, promote the integrated development of digital finance, digital currency and smart finance with the traditional financial investment sector. It encourages cross-disciplinary exchange of research and

independent innovation in mathematics and financial sectors, and develops and identifies innovative fin-tech talents with global vision and entrepreneurial spirit.



10. Students of SCUT-Shenzhen BGI College Innovation Class of Genome Science Publishes Major Discovery on HCC in online

- “ ” Cell

On December 23 SCUT postgraduates Zhong Yu and Xie Jiarui, published an online research paper titled "Single-cell landscape of the ecosystem in early-relapse hepatocellular carcinoma" in Cell, a top international biology journal, disclosing for the first time the significant differences of immune microecosystem between hepatocellular carcinoma and early-relapse hepatocellular carcinoma.

23

"Single-cell

landscape of the ecosystem in early-relapse hepatocellular carcinoma"

Hepatocellular carcinoma (HCC) is one of the most common malignant tumors. Resection surgery is currently the first choice to treat HCC, but the postoperative metastasis and recurrence is the major factor affecting the patient's long-term survival, which has become a bottleneck hindering further improvement of effectiveness of HCC surgery. Therefore, exploring mechanisms related to metastasis and recurrence of HCC and searching for effective strategies of intervention have become the key issues to raise the general survival rate of liver cancer patients.

Based on single-cell sequencing technology, the study systematically describes immune microecosystems of HCC and early-relapse HCC, unveils the divergence between the two microecosystems, and explores the cause of immune inactivation in recurrent liver cancer. It shows that the immune microecosystem in carcinoma is one of the critical factors to affect the efficacy of immunotherapy, and a deep understanding of relevant mechanisms of early recurrence is expected to lay a foundation for theories and novel treatment strategies to improve the effect of immunotherapy for HCC.

The research was jointly conducted by Fudan University (Zhongshan Hospital) Liver Cancer Institute, Shenzhen BGI Institute of Life Sciences, University of Chinese Academy of Sciences and SCUT. The co-first author Zhong Yu and the co-author Xie Jiarui of the paper are both postgraduates of SCUT-Shenzhen BGI College Innovation Class of Genome Science, and researcher Liu Shiping, co-corresponding author, was from the first cohort of the said Innovation Class.

