

**A Briefing Session  
for the application of  
TSSSU@HKU 2019/20**

**September 14, 2018**



# TSSSU@HKU 2019/20

- Technology Startup Support Scheme for Universities at HKU
  - ❖ HK\$4 million per year from ITC
- This is the 2<sup>nd</sup> TSSSU triennium
  - ❖ from 2017/18 to 2019/20 government financial years
- Purpose – to encourage technology start-up, especially among young people
- Based on “ITC Guidelines on Technology Start-up Support Scheme for Universities”



# HKU Technology Spinoffs

Name of TSSSU Awardees	Category	Business	Founders
<b>Hong Kong Unific Publishing Limited</b>	IT & Engineering	e-Textbook for primary and secondary schools	Professor from the Department of Electrical and Electronic Engineering, Faculty of Engineering
<b>Living Tissues Co. Ltd.</b>	Biotech	solving musculoskeletal problems by providing regenerative tissues for cartilage repair	Professor from the Department of Mechanical Engineering, Faculty of Engineering
<b>OrthoSmart Limited</b>	Biotech	correction of abnormal curvatures of the spine by using specially tailored super-elastic nickel titanium rods	Professor from the Department of Orthopedics & Traumatology, LKS Faculty of Medicine
<b>Immuno Cure Limited</b>	Biotech	Development of human-PD-1 based HIV vaccines.	Professor from the Aids Institute, LKS Faculty of Medicine
<b>FanoLabs Limited</b>	IT & Engineering	Provision of AI-enabled chatbot services	Professor from the Department of Electrical and Electronic Engineering, Faculty of Engineering
<b>CISC Limited</b>	IT & Engineering	Provision of cyber intelligence and cyber security consulting	Professor from the Department of Computer Science, Faculty of Engineering
<b>Conzeb Limited</b>	IT & Engineering /Biotech	high speed imaging for cancer diagnostics	Professor from the Department of Electrical and Electronic Engineering, Faculty of Engineering
<b>EN Technology Limited</b>	IT & Engineering /Biotech	Novel encapsulation technologies for food and cosmetics industries	Professor from the Department of Mechanical Engineering, Faculty of Engineering
<b>Eonzen Technology Co Ltd</b>	IT & Engineering	non-invasive blood glucose monitoring	Professor from the Department of Mechanical Engineering, Faculty of Engineering



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Name of TSSSU Awardees	Category	Business	Founders
<b>Electrode Limited</b>	IT & Engineering	development of highly efficient solar cell	Professor from the Department of Mechanical Engineering, Faculty of Engineering
<b>Hactis Limited</b>	IT & Engineering	VR technology for training and education	Professor from the Department of Industrial and Manufacturing Systems Engineering, Faculty of Engineering
<b>ImmunoDiagnostics Limited</b>	Biotech	Provision of immunology and diagnostic solutions	Professor from the Department of Pharmacology and Pharmacy, LKS Faculty of Medicine
<b>SkinData Limited</b>	Biotech	Development of skin whitening products	Professor from the School of Biological Science, Faculty of Science
<b>LifeSpan Limited</b>	Biotech	Development of medical implants	Professor from the Department of Orthopedics and Traumatology, LKS Faculty of Medicine
<b>High Performance Solution Limited</b>	IT & Engineering	Thermo-electrochemical capacitor (TEC) for converting low grade wasted heat into electricity	Professor from the Department of Mechanical Engineering, Faculty of Engineering
<b>m-Chinese Solution Limited</b>	IT & Engineering	A mobile app for enhancing teaching and learning in Chinese and connect and supporting individual learners and experts to organize mobile consultation and learning courses	Professor from the Department of Education, Faculty of Education
<b>Novel Sonics Limited</b>	IT & Engineering	Novel ultrasound imaging techniques for economical, real time and invasive diagnosis of Cardiovascular diseases	Professor from the Department of Electrical and Electronic Engineering, Faculty of Engineering
<b>Quantum Fabless Limited</b>	IT & Engineering	Fast and reliable quantum mechanical modeling and simulation tools for nano-scale materials, devices and applications modelling, to accelerate the research and development, improve quality and reduce cost	Current Students from the Department of Physics Faculty of Science



# SPINNOFFS OF HKU TECHNOLOGY

Along the years more than 20 successful spinoffs took off with developers and researchers from HKU, from various fields of research of the IT & engineering and Bio Tech



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Accosys Limited	IT & Engineering	Provision of ai-enabled chatbot services	Professor from the Department of Electrical and Electronic Engineering, Faculty of Engineering
CISC Limited	IT & Engineering	Provision of cyber intelligence and cyber security consulting	Professor from the Department of Computer Science, Faculty of Engineering
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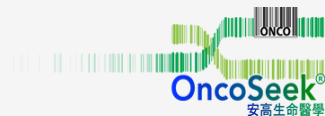
# HKU TSSSU COMPANIES

## Biotech



**ImmunoCure**

Enzyme Design Limited



## IT/Engineering



傑峰導電膜技術有限公司



# FANO Labs 有光科技

- Founded by Dr Miles Wen and Professor Victor Li of the Electrical and Electronic Engineering Department in 2015
- Specializes in speech, natural language processing (NLP) and big data technologies to help enterprises with their customer services
- It offers local dialects speech recognition based on AI
- The first HK startup backed by Horizons Venture, the private investment arm of Mr Li Ka-shing



**SPEECH RECOGNITION**

Speech Recognition for different Chinese dialects, such as Cantonese and Sichuanese



**NATURAL LANGUAGE PROCESSING**

Deep Learning technology to enable machines to understand human languages



**BIG DATA**

Help enterprises analyze their voice and text data to help them understand their customers and agents





# CISC Limited

*Expertise in Cyber Intelligence and Security*

- Founded by Dr K P Chow and Dr Vivien Chan of the Computer Science Department in 2016
- Specializes cyber intelligence and cyber security
- Focus in **critical information infrastructure protection (CIIP)** and **financial information infrastructure protection (FIIP)**



## Intelligence as a Service (IaaS)



### Crawler

- 7x24 patrol to download target public data including media files per clients' request
- Cover social media, online discussion forums and auction sites
- Full archive to keep track of changes / deletion in data

### Analyzer

- Basic keyword search
- Image search (by text in image or visual matching)
- Monitor search with alert and investigation reports
- Auction sites search

### Analytics

- Social Media User Profiling (statistic, wordgraph, similarity, post/reply relationship)
- Statistic analysis (top users/posts statistic)
- Sentiment analysis (in development)

## SHIELD



- Machine Learning combined with Bloom Filter to automatically identify and drop attack traffics
- Privacy Preservation
- Cyber Attack Profiling and Cyber Attack Analysis



# Focus and Priorities

- (a) Start-up using **inventions and technologies** developed by **HKU**.
- (b) Start-up using inventions and technologies developed **jointly** between **HKU** and **its collaborators**.
- (c) Start-up based on **technology developed by students or alumni (within 3 years of graduation)** during their course of study at the University as part of their curriculum (e.g. Final Year projects, research projects). The application team must have the right to commercialize the relevant technology.
- (d) **Technology innovations** by staff or students resulting from employment or studies at HKU, with a significant 'knowledge' and 'technology' component.



# Intellectual Property Rights

- The awardee company shall own all the intellectual property rights it creates using the TSSSU@HKU funding unless otherwise specified by alternative agreements
- Use of any inventions or technologies of HKU should be governed by pre-agreed licenses with HKU
- If you do NOT use any background intellectual property of HKU, you must declare that in your application
- Consult TTO if in doubt



# Funding Scope & Duration (1)

1. Essential items for setting up and operating the technology start-ups (e.g. furniture and equipment, legal and accounting services, rental of necessary and suitable premises, manpower etc.).
2. R&D expenditure (e.g. manpower, equipment, other direct costs, etc.).
3. Promotion of the technology start-ups and marketing of their project deliverables.
4. 50% can be spent outside Hong Kong



# Funding Scope & Duration (2)

6. HKU **will not** take any equity unless otherwise agreed.
7. Awardee **must be a start-up** (within 2 years) company by ***Eligible Applicant***
8. Manpower remuneration limits (max):
  - ❖ HK\$12,000/month – non-degree
  - ❖ HK\$18,000/month – Bachelor
  - ❖ HK\$24,000/month – Master or above
9. Award **MUST be spent** within each financial year
10. Continued funding for the 2<sup>nd</sup> or the 3<sup>rd</sup> year requires application again each year (3<sup>rd</sup> year will fall into the next triennium)



# Eligibility

An *Eligible Applicant* must be from one of the following:

- a) current full-time professoriate staff of HKU;
- b) current full-time or part-time students of HKU;
- c) graduate of HKU for no more than 3 years as of the announced *Cut-off Date* of each application year (1 February 2019).

The application for TSSSU@HKU must be made by a team (“*the Team*”) (i.e. more than one person), comprising at least one *Eligible Applicant*. The *Team* forming the technology start-up may have any mix of the following members of the University –

- a) undergraduate / graduate / postgraduate students;
- b) professor(s) to serve as consultant(s), providing technical expertise and direction of the R&D work; and/or
- c) business savvy university alumni, giving business and management advice, etc.

The *Team* should **collectively hold more than 50%** of the shares in the company. For the avoidance of doubt, any person not associated with HKU cannot be part of the *Team* (but of course can be shareholders, investors or even founders of the company).



# Person-in-Charge

The *Team* required a member as the *person-in-charge*

- who should preferably be an *Eligible Applicant*
- significantly engaged in the technology start-up's business and be responsible for:
  - a) overseeing the operations of the technology start-up;
  - b) liaising with HKU on matters relating to the funding support under TSSSU@HKU.

**Note: the appointed person-in-charge cannot concurrently join other active teams funded by TSSSU**



# Application Procedures

1. Complete Application Form (available from [www.tto.hku.hk](http://www.tto.hku.hk)) with supporting documents, business plan and financial plan for assessment.
2. Make sure appropriate IP licenses are available (if not, negotiate quickly).
3. Make sure you have clear budget, and if additional funding available, this will be an advantage.
4. Submit proposal/application to TTO by November 30 2018, 5:00 pm HKT.
5. Register the company before November 30 2018.



# Assessment and Selection

A Selection Panel from HKU will be set up to assess the applications using the following criteria:

- a) the quality of the **business plan** (10%);
- b) the innovation and **technology content** (20%);
- c) the **commercial viability** of the business (25%);
- d) the **capability** of the technology start-up and its **team** to undertake the R&D work and manage the company (20%);
- e) the social and/or community **impact** of the technology start-up's business and R&D work (10%);
- f) the potential of **attracting additional investment** to develop the technology and the company (10%), and
- g) **other** considerations on the overall application (5%).





# Disbursement, Reimbursement and Audit

1. As TSSSU@HKU award is reimbursement by Government, the award is a **“Cash Advancement”** to Awardees.
2. The Advancement is considered fully paid by government once we obtain the **reimbursement**.
3. Awardees have to agree with the terms of the Government, provide the necessary interim and annual reports, and conduct the audit according to the requirements of the Government.



# Monitoring and Review

1. The University is required to provide mentorship and monitoring of all TSSSU@HKU Awardees (we need to provide comments on the report).
2. Half-year progress report, and annual report would be needed.
3. The University is required to comment on whether the milestones are reached as part of the review.



# Change in Business Plan

Substantial change in business plan or the financial plan:

- ❖ Key members
- ❖ Deliverables
- ❖ Milestones
- ❖ Budget spending ..., etc

require prior written approval (otherwise you would have problems during audit)



# Timeline

Call for Applications TSSSU@HKU	September 3, 2018
Closing (internal – 5:00 pm)	November 30, 2018
Recommended List to ITC (cut-off date)	February 1, 2019
Announcement of Results	~ April 1, 2019
Spending Period	Date of announcement – March 31, 2020
Interim Report	October 15, 2019
Annual Report	May 31, 2020
Audit Report	June 30, 2020



# Q&A



# A Sharing Session with TSSSU@HKU Founders

Dr Wilton Fok, Mr Ken Law and  
Mr Eric Auyeung



*ITWake Limited*



*HK Unific Publishing Limited*

Dr Henry Lau and Dr William Tam



*Hactis Limited*

## September 28, 2018



The University of Hong Kong  
Technology Transfer Office



VERSITECH LTD.



# ENTREPRENEURSHIP ACADEMY 2018

17 Sept - 29 Nov, 2018 (Every Monday)

5:30-6:30pm | Room 223, 2/F, Knowles Building

Free 10-week workshop to enhance your skills in  
building startup business for innovations.

Register via <http://bit.ly/Apply2018EA> by **13 Sept, 2018 (Thur)**

