Information Session for TSSSU 2021-2022
24 Sep 2020

Office of Research & Knowledge Transfer Services (ORKTS)
TSSSU companies are not owned by CUHK but they facilitate the transfer of CUHK technologies into innovative applications for society.

TSSSU Funding

HKD8,000,000
Per Institution

HKD700,000
At Max. Per Year

3 Years At Max.

Funded 55 TSSSU Companies since 2014-15

HKD700,000 At Max.
Per Year
TSSSU Companies funded in 2020-21

• Biotechnology/Health Care

TSSSU Companies funded in 2020-21

- Adv. Manufacturing/Material Science
- FoodTech/Lifestyle
- ICT/IT

Companies Highlight

**IMSIGHT 视见科技**

- Al diagnostic assistant

  - Founded in 2016, one of the top 50 China AI companies in 2018.
  - Headquarters in SZRI
  - Develops medical image analysis software with large-scale platforms for automated processing of medical images
  - First product LungSight (automatic early lung cancer detection software) integrated with multiple 3A Hospitals in China

  [https://www.imsightmed.com/](https://www.imsightmed.com/)

**Codex GENETICS**

- Al genetic diseases management

  - Composensive multiple genetic tests in one assay
  - Targeting 186 cancer related genes and 17 cancer types

  - Founded in 2013. Headquarters in HKSTP.
  - Develops screening services for patients, intelligent-based clinical decision systems for hospitals, and AI-powered mental disorder consulting services to public
  - Launched consulting service with labs and hospitals, and collaborated with Prince of Wales Hospital for neurodegenerative diseases screening

  [https://www.codexgenetics.com/](https://www.codexgenetics.com/)
Companies Highlight

**Sensor tech and big data for sports**
- Founded in 2016. Headquarters in Guangzhou.
- Al-aided sensor technologies - Data fusion, inertial sensor, heart rate sensor and pressure sensor
- Intelligent analysis of user behaviour and performance metrics evaluation
- Generates customized training solutions by comparing with professional players’ data
  [https://www.tropsx.com/](https://www.tropsx.com/)

**Unmanned industrial vehicles**
- Develops unmanned platform of industrial vehicles based on control and sensing technology
- Customers in the logistics and manufacturing industry include DHL, Walmart and Amway etc.

**One-stop solution for STEAM**
- Founded in 2016. Headquarters in SZRI.
- Designed a three-stage advance learning program for K12 education, covering six main areas: Robotics, Light, Music, Internet of Things (IoT), Scientific Experiment and Artificial Intelligence (AI)
- Independently developed products: hardware, software and online learning platform
  [https://www.cocorobo.hk/](https://www.cocorobo.hk/)
Investment received by TSSSU companies

<table>
<thead>
<tr>
<th>Year</th>
<th>('000,000)</th>
<th>No. of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>13.56</td>
<td>1</td>
</tr>
<tr>
<td>2016</td>
<td>13.11</td>
<td>4</td>
</tr>
<tr>
<td>2017</td>
<td>44.974</td>
<td>4</td>
</tr>
<tr>
<td>2018</td>
<td>319.754</td>
<td>8</td>
</tr>
<tr>
<td>2019</td>
<td>14.42</td>
<td>2</td>
</tr>
<tr>
<td>2020</td>
<td>180.86</td>
<td>3</td>
</tr>
</tbody>
</table>
Benefits

- Funding support
- Potential to join HKSTP’s Incubation Program (Incu-Tech and Incu-App)
- Mentorship from our experienced Entrepreneurship Consultant
- Access to potential investors and industry partners
- Access to InnoPort located near the University Station and InnoHub in Shenzhen Research Institute

Responsibilities

- IP Clearance
- Succession Plan
- Timely submission of required documents (e.g. reports, budget change, milestones change etc.)
- Join CUHK startup and investor matching events
- Attend workshops or training sessions organized by Pi Centre
## Technology Readiness Level (TRL) - MedTech

<table>
<thead>
<tr>
<th>TRL</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Basic Principles Observed</td>
</tr>
<tr>
<td>2</td>
<td>Technology Concept Formulated</td>
</tr>
<tr>
<td>3</td>
<td>Experimental Proof of Concept in Vitro and in Vivo Research Models</td>
</tr>
<tr>
<td>4</td>
<td>Proof of Concept Demonstrated in Defined Laboratory/Animal Models</td>
</tr>
<tr>
<td>5</td>
<td>Product Development Plan</td>
</tr>
<tr>
<td>6</td>
<td>Phase 1 Clinical Trials</td>
</tr>
<tr>
<td>7</td>
<td>Clinical Safety and Effectiveness Trials in Operational Environment</td>
</tr>
<tr>
<td>8</td>
<td>Overall Risk-benefit Trials</td>
</tr>
<tr>
<td>9</td>
<td>Medical Device can be Distributed or Marketed</td>
</tr>
</tbody>
</table>

**Source:** [https://www.ipi-singapore.org/tech-offer/help/field_tech_readiness_level](https://www.ipi-singapore.org/tech-offer/help/field_tech_readiness_level)
## Technology Readiness Level (TRL) - Physical Sciences & Engineering

<table>
<thead>
<tr>
<th>TRL</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1</td>
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<td>Technology concept formulated</td>
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<tr>
<td>3</td>
<td>Experimental proof of concept</td>
</tr>
<tr>
<td>4</td>
<td>Technology validated in lab</td>
</tr>
<tr>
<td>5</td>
<td>Technology validated in relevant environment</td>
</tr>
<tr>
<td>6</td>
<td>Technology demonstrated in relevant environment</td>
</tr>
<tr>
<td>7</td>
<td>System prototype demonstration in operation environment</td>
</tr>
<tr>
<td>8</td>
<td>System complete and qualified</td>
</tr>
<tr>
<td>9</td>
<td>Actual system proven in operational environment</td>
</tr>
</tbody>
</table>

Source: [https://www.ipi-singapore.org/tech-offer/help/field_tech_readiness_level](https://www.ipi-singapore.org/tech-offer/help/field_tech_readiness_level)
Evaluation Criteria

1. **Innovation and technology content** (20%)
   - Potential for knowledge transfer;
   - Intellectual property position, including patents, copyrights, trademark, know-how etc.;
   - Stage of technology development and readiness for application (Technology Readiness Level);

2. **Commercial viability of the business** (25%)
   - Well-defined business and budget plan
   - Well thought-out market analysis (e.g. opportunities, entry barriers, competitions, etc.);
   - Viable and realistic milestones and deliverables;
   - Potential in generating economic impact;
   - Whether the Company has secured other sources of funding apart from the TSSSU;

3. **Team expertise and commitment** (25%)

4. **The social and/or community impact of the start-up’s R&D project(s)** (15%)

5. **CUHK specific requirements** (15%)
   - Whether the technology involves CUHK IP
   - Whether the business aligns CUHK’s mission in entrepreneurship and KT
Pre-application Meeting

Meeting with the Entrepreneurship Consultant & team

• To understand the Technology Readiness Level (TRL) of your research for commercialization

• To provide guidance for your business plan presentation to the TSSSU vetting panel if shortlisted for interview

Before the Meeting

• Prepare a 20-min presentation for your business plan based on the template

Pre-application Meeting

Scheduling of the Meeting (registration opens until 29 Oct)

https://cloud.itsc.cuhk.edu.hk/webform/view.php?id=10410176

• On a first come first served basis
Apply for TSSSU
Eligibility

Person-in-Charge (PIC)

• Full-time Students (either UG or PG) or
• Full-time Professors or
• Alumni graduated within the last 36 months
• the PIC cannot join concurrently other active teams funded by TSSSU

Team Mix

• The number of team members including PIC of the Company must be at least two and can include alumni and non-CUHK individuals
• Research Staff, part-time student, non-CUHK individuals can be team members only
• Team members who are staff members and also alumni/students will be considered as staff members
Registration of a Company

• The applicant must be a company already registered under the Companies Ordinance for no more than 24 months before the date specified by ITC, i.e. 1 Feb 2021.
  • **Earliest registration date:** 1 Feb 2019

• The 24-month eligibility requirement does not apply to a start-up which is recommended for the TSSSU funding for the second or the third year.
Shareholder Structure

• Active members of CUHK (current full-time students, full-time professors, or alumni graduated within the last 36 months) should be the effective majority of shareholders, holding more than 50% of the shares of the Company.
• IPs originated from CUHK students and/or professors are preferred

• Intellectual Property (IP): “INDICATE ONLY” the technology involved and IP ownership in Section A(d) of Annex A (the application form)

(d) Declaration of Intellectual Property

(Please add separate sheet(s) if necessary)

Please provide details of any CUHK IP (e.g. patents, copyright, design, trademark, knowhow, etc.) that the company intends to use. Please specify if the IP has been created by the PIC or any team members(s) of the company.

(i) Non-confidential working title of the IP

(Please quote the reference number, if any)
Notes for Milestones and Budget

• Set out the milestones to be achieved from 1/4/2021 to 31/3/2022

• Budget in categories of Manpower, Equipment and Other Direct Costs has to be matched with the milestones

• Maximum allowable manpower remuneration for founding members
  • HK$12,000/month for a member without a Bachelor degree
  • HK$16,000/month for a member with a Bachelor degree
  • HK$22,000/month for a member with a Master degree or above

• Up to 50% of the Fund can be incurred in Mainland China and/or other countries
Endorsement (CUHK staff)

- CUHK staff (PIC and team members individually) should seek Departmental & Faculty/Supervising Officer endorsement via the Appendix to Annex A
  - More HR related information about Outside Practice (OP) and Outside Business Activities (OBA) will be brought to you by HRO
Endorsement (CUHK student or alumni PIC)

• CUHK-student PIC or alumni PIC should seek Departmental endorsement via Section E of Annex A
  • Copy of student ID card or graduation cert has to be provided for verification

**SECTION E: Internal Signatures**

For CUHK student/alumnus (PIC)

The PIC named ________________ is an undergraduate student/postgraduate student/alumnus* of ________________ programme. The year of graduation will be/is* ________________.
Submission of Application

Application Documents

1. Application form (Annex A) (PIC and Team mix, share structure, declaration of IP, milestones, Budget, endorsement, to be signed by PIC with a company chop)
2. Business Proposal
3. Copy of Certificate of Incorporation (CI) and Business Registration (BR)
4. CV of all team members (max. 4 pages each)
5. Agreement on royalties or IP rights with collaborating party (if any)

- The application form, with endorsement and supporting documents as listed in Section C of Annex A in hard copy, must be submitted in person to ORKTS at Unit 1A, 1/F, InnoPort, The Inter-University Hall by 5:00pm on Thursday, 12 Nov 2020
Important Dates

1. 10 Sept 2020
   Call for Applications

2. 12 Nov 2020
   Application Deadline

3. Late Nov 2020
   Announcement of Shortlisted Applicants for interview

4. 10-11 Dec 2020
   Interview by Vetting Panel

5. 1st or 2nd week of Jan 2021
   Announcement of Results

6. 1 Apr 2021 – 31 Mar 2022
   Funding Period (start date subject to receipt of ITC’s approval)
Office of Research and Knowledge Transfer Services (ORTKS)

• Eva Law
  • 3943 1450/ evalaw@cuhk.edu.hk

• Kirs Lau
  • 3943 0812/ kirslau@cuhk.edu.hk
Feedback form

Please scan the QR Code on the left or enter the following link to complete the feedback form: [https://cloud.itsc.cuhk.edu.hk/webform/view.php?id=1051673](https://cloud.itsc.cuhk.edu.hk/webform/view.php?id=1051673)

The presentation slides will be sent to audience after the info session.

<table>
<thead>
<tr>
<th>Contact</th>
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<tbody>
<tr>
<td>TSSSU application</td>
<td>Eva LAW/Kirs LAU of ORKTS</td>
</tr>
<tr>
<td>OP &amp; OBA</td>
<td>Sally LEUNG/Ka Yan MA of HRO</td>
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