University Entrepreneurship and Innovation Ecosystem at the University of Tokyo

May 6, 2016

Dr. Shigeo Kagami
Professor
General Manager – Innovation and Entrepreneurship
Division of University Corporate Relations (DUCR)
The University of Tokyo
PeptiDream was selected as the winner of Nippon Venture Award (Prime Minister’s Award) in February 26, 2016

(From left to right) Mr. Hironori Suga (Mizuho Securities), Professor Hiroaki Suga (University of Tokyo), Mr. Kiichi Kubota (CEO-PeptiDream), and Mr. Tomotaka Goji (President-University of Tokyo Edge Capital)

Mr. Kiichi Kubota (CEO-PeptiDream) and Prime Minister Shinzo Abe

Sources: METI and Wikipepia
**COMPANY PROFILE**

PeptiDream’s core technology is based on the RAPID system (Random Peptide Integrated Discovery System) developed by Professor and company cofounder Hiroaki Suga at the University of Tokyo Research Center for Advanced Science and Technology. This system allows PeptiDream to engineer peptide libraries with the desired physical, chemical, and pharmacological properties, which can be screened to identify a specific peptide “key” that selectively interacts with a target “keyhole”.

PeptiDream went public in June 2013. The company moved to First Section of the Tokyo Stock Exchange in December 2015. PeptiDream is the winner of the second Nippon Venture Award (Prime Minister’s Award in 2016).

Source: UTEC Website
University of Tokyo Edge Capital (UTEC)

- UTEC 1 L.P. (8.3B Yen) was established in 2004, has successful IPOs of UTEC lead companies such as tella, Inc. (Cell Medicines: JASDAQ 2191), Morpho, Inc. (Imaging Technology: TSE Mothers 3653) and PeptiDream, inc. (Biopharmaceutical: TSE Mothers 4587). Successful exits include Cirius Technologies (Business and Technology Solution Provider of Location-based Services for Mobile Devices) acquired by Yahoo Japan in 2010, Phyziros (Simulation Technology applied for Entertainment) acquired by Google in 2013, and popIn (Search Engine and Browsing) acquired by Baidu in 2015.

- UTEC 2 L.P. (7.1B Yen) was established in 2009, and amongst the active portfolio companies, Naked Technology, Inc. has been acquired by mixi, Inc. (Social Network Service: TSE Mothers 2121).

- UTEC 3 L.P. (14.5B Yen) was established in 2013, and UTEC is currently investing from its fund, expanding seed/early stage investments through closer collaboration with the industry, to make greater impact to the global market while building sustainable foundation for innovation eco-systems in Japan.
"Paradigm Shift" in Innovation Ecosystem

Linear Model

- Basic Research
- Applied Research
- Product Development

Time

Open Innovation

- Basic Research (University)
- Entrepreneurship Education
- University Start-ups
- Partnership & Acquisition
- Product Development (Industry)
Promotion of University Entrepreneurship

- **Consultation**
  - Offer one-stop advisory services to the university’s researchers, students and spin-off entrepreneurs

- **Mentoring**
  - The University of Tokyo “Mentors (UT Mentors)”
  - External network of professionals (VCs, Attorneys, Accountants, Bankers, Analysts, ….)
  - UT Venture Squares
    - Network with the entrepreneurs who are UT graduates

- **Venture Capital**
  - Offer seed money to spin-off ventures
    - The University of Tokyo Edge Capital (UTECE)
  - Offer hands-on assistance for university-spin-offs in developing businesses

- **Incubation**
  - Offer facilities and assistance to university start-ups
    - The UT Entrepreneur Plaza

- **Education**
  - *UT Entrepreneurship Dojo* for the entire schools
  - *Innovation and Entrepreneurship* at Graduate School of Engineering
  - *Entrepreneurship* at School for Engineering
  - *Business Creation* at the Institute of Medical Science
  - *EDGE Program*
University Entrepreneurship Ecosystem at the University of Tokyo

- The University of Tokyo
- TLO (CASTI)
- Invention Disclosure Information
- Return from Investment Success
- Licensing (Patents etc.)
- Royalties
- Capital Gain
- Risk Money
- Hands-on Assistance

University startups and entrepreneurial ventures

*The University takes equity in partial lieu of royalties
UT Entrepreneur Dojo

- Started in 2005
- Recognized as one of the most important educational initiatives at the University
- 200-250 students are enrolled every year
- 6-month and three-phase entrepreneurship educational program
  - April-June: Lectures & Development of Business Ideas
  - July-August: Seminars & Writing of Business Plans
  - September-October: Mentoring
  - End of October: Business Plan Competition
- Sponsored by DUCR, UTEC (Venture Capital) and UT TLO (Technology Licensing Organization)
- Student exchange program with Peking University
- UTEC is ready to offer initial capital if the business plan developed by a student team is feasible enough
### UT Entrepreneurship Education Program & Business Plan Competition

**Profile of Enrolled Students: 2005~2015**

<table>
<thead>
<tr>
<th>School</th>
<th>Freshman &amp; Sophomore</th>
<th>Junior &amp; Senior</th>
<th>Graduate School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Science &amp; Engineering</strong></td>
<td>68</td>
<td>357</td>
<td>1,040 (50.8%)</td>
<td>1,465 (71.6%)</td>
</tr>
<tr>
<td><strong>Humanities &amp; Social Science</strong></td>
<td>76</td>
<td>311</td>
<td>194</td>
<td>581 (28.4%)</td>
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<tr>
<td><strong>Total</strong></td>
<td>144 (7.0%)</td>
<td>668 (32.6%)</td>
<td>1,234 (60.3%)</td>
<td>2,046 (100.0%)</td>
</tr>
</tbody>
</table>
Enhancing Development of Global Entrepreneur Program (EDGE Program) by MEXT

Development of Showcases (Business Plans) based on University Technologies

University Research (Science)

Development of Human Resources who can Connect Science & Technology with Business

Innovation (Business: Products and Services)

- Entrepreneurship education for university researchers
  - Provide knowledge and skills for writing a business plan using the researchers’ own intellectual properties
  - Provide mentoring to each team of researchers in writing their realistic business proposals
Public-Private Innovation Fund Program

- MEXT and METI together have created a system which allows the four leading national universities in Japan to invest in companies (such as a venture capital arm dedicated to each university) supporting university-launched venture businesses.

- The total amount of money to be invested to the four universities for the system:
  - The University of Tokyo
    - JPY 50 billion (JPY 8.3 billion as Special Operational Grant, JPY 41.7 billion for the source for investment)
    - UTokyo Innovation Platform Co., Ltd. was founded in February 2016.
  - Kyoto University
    - JPY 35 billion
  - Osaka University
    - JPY 20 billion
  - Tohoku University
    - JPY 15 billion

Sources: MEXT and METI websites
Thank you for your attention!

Dr. Shigeo Kagami
Professor
The University of Tokyo
kagami.shigeo@mail.u-tokyo.ac.jp

Professor, General Manager – Office of Innovation and Entrepreneurship, Division of University Corporate Relations (DUCR), The University of Tokyo.

Dr. Kagami is a graduate of Hitotsubashi University (BA in Commerce, 1982), and gained his MBA from IMD (Lausanne Switzerland, 1989), and completed his doctoral work in corporate governance at Weatherhead School of Management, Case Western Reserve University (2000).

Before he joined The University of Tokyo, Dr. Kagami was a consultant at Boston Consulting Group (1982-1986), a founding partner of Corporate Directions Inc. (CDI, 1986-1997), and Partner of Heidrick & Struggles International (2000-2002). At the University of Tokyo, he became Associate Professor, Pharmaco-Business Innovation Course at Graduate School of Pharmaceutical Sciences, and he had been Professor and General Manager – Science Entrepreneurship and Enterprise Development (SEED), Division of University Corporate Relations (DUCR) from 2004 until the end of March 2013. Professor Kagami has become General Manger of the Office of Innovation and Entrepreneurship, a newly created organization as a merger of two offices at DUCR; Office of Development of Collaborative Research and Office of SEED.

Professor Kagami’s responsibilities include 1) Development of large scale research collaboration projects with the industry for innovation, 2) Entrepreneurship education program and student business plan competition for the University, 3) Management of incubation facilities for university start-ups, 4) Relationship management with The University of Tokyo Edge Capital (UTEC) as a board member (~June 2013), and 5) Consulting and mentoring for the University researchers and students for their start-up initiatives.