

First International Symposium on Entrepreneurship

— Stimulating Innovation and Job Growth —

Presented by: Chiba University • Chiba Prefecture • Chiba University Multi-Career Center

Sponsored by: Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Japan Science and Technology Agency (JST)

Meeting Dates: March 15 - 16, 2010

Meeting Location: Chiba University, Keyaki Kaikan (University Hall)

Chiba University Nishi-Chiba Campus

1-33 Yayoi-cho Inage-ku Chiba-shi Chiba 263-8522 Japan

5 minute walk from JR Soubu line Nishi-Chiba station (45min. from Tokyo station)

Purpose of Symposium – Stimulating Innovation and Job Growth in Japan

This Symposium will discuss how collaboration between universities and industry fostered entrepreneurial job growth and innovation in the United States, Canada and Europe. Then the objective will be to identify what lessons can be learned from these successful high-tech startups and how this model can be customized to increase jobs and innovation in Japan.

Background - The United States financial crisis in late 2008 started a severe worldwide economic downturn. However, due to the massive government stimulus packages and bailouts, the United States, Japan and countries in Europe are slowly beginning to recover. On the other hand, some developing countries such as China are quickly resuming their rapid growth. The World Bank predicts that in 2010, China will grow by 9 percent, while the U.S. economy will expand by 2.5 percent and Japan and Europe will lag behind with growth rates of 1.3 percent and 1.0 percent, respectively. Unfortunately, Japan continues to recover slowly due to global and domestic problems in areas such as natural resources, energy, medical care, aging population due to low birth rates, etc. Due to increased world-wide competition and transitions in its social structure, Japan is at risk of losing its technological advantages. Today it is crucial to develop new innovative products in rapidly changing markets. In addition, many Japanese PhDs lack employment opportunities, and often cannot find jobs in their fields of expertise. In 2009, these factors led the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to begin a new way to educate technical personnel, the “Young Researchers Training Program for Promoting Innovation”. This program offers training and internships for PhDs and young researchers. In 2009, using the Coordinate Funds for Promoting Science and Technology, Chiba University applied for this program and was selected. As a result, in October, 2009, Chiba University began the “Advanced Multi-Career Training Program”, which is targeted to increase job opportunities and for PhDs in scientific fields.

Outline of Symposium

Day 1 - The first day of the symposium will show how formal and informal alliances between leading universities and talented personnel at startup companies led to innovation and job growth in both Europe and America. For example, in the United States, strong collaboration between industry and MIT created an amazing entrepreneurial engine. MIT alumni created over 25,000 companies which employ over 3 million workers and generate over \$2 trillion of sales per year (roughly 200 trillion yen per year). This symposium will include many case studies which illustrate how entrepreneurs flourished around universities. Professor Roger Howe from Stanford University will discuss the astonishing story of Stanford and Silicon Valley – alliances which fostered both remarkable innovations and jobs. In addition, there will be examples of how

other universities around the world helped cultivate the growth of startups at the University of Waterloo in Canada, and in Europe at the Swiss Federal Institute of Technology (ETH), the Technische Universität München “Technical University of Munich”, and the Helsinki University of Technology. Professor Shuji Nakamura of the University of California, Santa Barbara (UCSB) will also speak about his research including his invention of blue LED, an amazing technological innovation which created new markets. He will address the differences and problems between Japanese and American ways of innovation and training of technical personnel.

Day 2 - The second day will highlight success stories at Japanese Companies and new training programs for Young Researchers in Japan. Professor Yoshiyuki Sankai of the University of Tsukuba who is also the President of Cyberdyne, Inc., will talk about his success in developing and marketing the “Robot Suit —HAL—” and how startups can succeed. Also, Mr. Hikaru Shimura, the President of Rigaku Corporation, will discuss the remarkable entrepreneurial accomplishments of his company, a leader of instrumentation technology including X-ray diffractometry, spectrometry, NDT and thermal analysis. Mr. Shimura grew Rigaku’s revenue by over 20 times with sales today of approximately \$330 million (roughly 30 billion yen) and he did this without using venture capital. There will also be panel discussions on the ideal training programs which foster innovation among young personnel. Moreover, there will be a wide range of case studies from both domestic and foreign industries and universities which provide inspiring examples of successful entrepreneurs. Finally, because there is less venture capital in Japan versus the U.S. and also due to cultural difference, many of the opportunities and innovations in Japan are at large corporations. Therefore there will be discussions about successful intrapreneurs at large Japanese firms, such as the development of hybrid cars by teams of managers and engineers.

The goal of this symposium is to promote “Entrepreneurship and Innovation”. At the same time, we hope our “Advanced Multi-Career Training Program” will foster strong collaboration between industry and Chiba University in order to expand the job opportunities for Japan’s PhDs and young researchers.

Targeted Participants for Symposium (Hall capacity: 450 persons)

- ① Corporate Managers responsible for technology development or personnel training who want to increase innovation in their firms
- ② Companies which hire many scientific personnel from Chiba University
- ③ University faculties, Postdoctoral Fellows, PhDs, researchers, graduate and undergraduate students of Chiba University or any other universities in Chiba
- ④ Employees of companies cooperating in our “Advanced Multi-Career Training Program”
- ⑤ The other 16 universities that are part of the “Young Researchers Training Program for Promoting Innovation”
- ⑥ Personnel from the Ministry of Education, Culture, Sports, Science and Technology (MEXT) which originally proposed the “Young Researchers Training Program for Promoting Innovation” and personnel from Japan Science and Technology Agency (JST) which is sponsoring this program
- ⑦ Personnel in the Chiba Industry Advancement Center and the “Advanced Multi-Career Training Program”
- ⑧ Open to the general public
- ⑨ NHK Chiba broadcasting, newspapers etc
- ⑩ Other mass media outlets

Program for the International Symposium

Monday, March 15, 2010

[Day 1] **Academic-Industrial Collaboration Spurred Innovation/Job Growth in America and Europe:
Lessons which could be Applied to Japan**

- 9:00~9:05 Opening Remarks
 President Yasushi Saito, Chiba University
- 9:05~9:10 Opening Talk
 Mr. Kazuaki Kawabata,
 Ministry of Education, Culture, Sports, Science and Technology (MEXT)
 Foundation Policy Chief
- 9:10~10:00 Session 1: Mr. Mitsuru Miyata, Nikkei Business Publications, Inc.
 Japanese University Education, PhD Training, and Creating Innovation
- 10:00~10:15 Morning Break
- 10:15~10:45 Session 2: Prof. Mark Haley, Chiba University
 **America's Amazing Entrepreneurial Engine and Customizing this Model to Increase
 Jobs/Innovation in Japan**
- 10:45~11:35 Session 3: Mr. José J. Pacheco, Program Manager, MIT Entrepreneurship Center
 **The Incredible Partnership between MIT/Industry which Created over 25,000
 Companies and 3 Million Jobs**
- 11:35~12:15 Session 4: Prof. Roger T. Howe, Faculty Director, Stanford Nanofabrication Facility, Stanford University
 Stanford University and Silicon Valley – An Astonishing Story of Innovation and Jobs
- 12:15~13:15 Lunch Break
- 13:30~14:30 Keynote Speech I : Prof. Shuji Nakamura, University of California, Santa Barbara
 Differences between Japanese and American Innovations / Roles of the Universities
- 14:15~15:00 Session 5: Dr. Paul Doherty, The Center for Business Entrepreneurship and Technology,
 University of Waterloo
 Entrepreneurs and Intrapreneurs – How Both Approaches can Succeed in Japan
- 15:00 ~ 15:15 Afternoon Break

- 15:15~16:00 Session 6: Dr. Silke Meyns, Head of Patents and Licenses at ETH Transfer, ETH Zurich
How to build successful university spinouts – examples from Switzerland
- 16:00~16:45 Session 7: Dr Peter Kelly, Department of Engineering and Management,
Helsinki University of Technology
Transforming an Innovation Powerhouse into an Entrepreneurial Dynamo
- 16:45~17:30 Session 8: Dr. Markus Zanner
Planungsstab Exzellenzinitiative, Technical University of Munich
- 17:45~19:30 Opening Reception

Tuesday, March 16, 2010

**[Day 2] Success Stories at Japanese Companies and New Training Programs
for Innovative Young Researchers In Japan**

- 9:00~9:30 Session 9: Prof. Kenzo Nonami, Vice President of Chiba University
**Entrepreneurship in Chiba University:
Introducing the “Advanced Multi-Career Training Program”**
- 9:30~10:20 Session 10: Mr. Ken Katayama,
Deputy Director, Corporate Affairs, Legal and Corporate Affairs,
Microsoft Co., Ltd.
Innovation and Microsoft
- 10:20~10:35 Morning Break
- 10:35~11:25 Session 11: Mr. Haruyoshi Kumura, Fellow, Nissan Motor Co., Ltd.
Nissan's entrepreneurship and innovation
- 11:25~12:15 Session 12: Mr. Michio Kadota, Ph.D. / IEEE Fellow, Director Kadota Laboratory,
Technology & Business Development Unit Murata Manufacturing Co., Ltd.
Research and Development in Manufacturing Company
- 12:15~13:30 Lunch Break
- 13:30~14:30 Keynote Speech II : Prof. Yoshiyuki Sankai,
University of Tsukuba, President of Cyberdyne Corporation
**A Passion in Cultivating the Future
Robot Suit HAL®: A Challenge in Creating a New Industry**

14:30~15:20	Session 13: Mr. Hikaru Shimura, President of Rigaku Corporation How Mr. Hikaru Shimura grew Rigaku Corporation to \$330 Million in Revenue without Venture Capital
15:20 ~15:35	Afternoon Break
15:35~17:50	Panel Discussion
18:00~20:00	Closing Reception