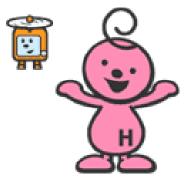


# "University-industry collaborations in Japan"

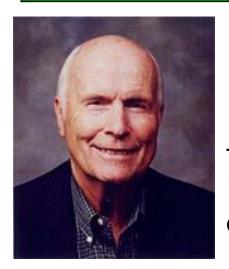
# TODAI TLO, Ltd.

### CEO & President ,Takafumi Yamamoto, RTTP http://www.casti.co.jp/





# Niels Reimers : Father of Technology Licensing



In 1968 he established a research management office and in 1969 the Office of Technology Licensing (OTL) at Stanford University.

The successful launching of these two offices led to his hiring by universities such as the Massachusetts Institute of Technology (MIT), the University of California at Berkeley, and the University of California at San Francisco, all of which were seeking to establish their own offices for technology transfers.

A cofounder of the Association of University Technology Managers (AUTM), Reimers has served as chairman of the Licensing Executive Society (U.S. and Canada) (LES). Reimers now serves as a consultant, advising universities around the world planning to open or operate their own technology transfer offices.



# University – Industry collaboration in US & Japan

# **AUTM Survey in 2011**

- Number of invention disclosures
- Number of patent applications
- Number of licenses
- Total loyalty income
- Number of New Products
- Number of Spin-offs

21,865 (6%up)

- 19,905 (6%up)
  - 6,051 (12.6%up)
  - 2.5B\$ (2.6%up)
    - 591 (10%down)
    - 671 (3%up)

# UNITT (AUTM JAPAN) Survey in 2010

- Number of invention disclosures
- Number of patent applications
- Number of licenses
- Number of active licenses
- Total loyalty income

- 8,867 (4.3%down)
- 8,675 (1.4%down)
- 1,378 (78 universities)
- 4,588 (78 universities)
- 16M\$ (78 universities)



Japanese Government encourages universities to do a University-Industry collaborations.

	The Basic Law for Science & Technology policy (1995)			
	The First Five year S&T Plan (1996~2000)			
1998	Report on Innovation Research Group (MITI)			
	Law for Promoting Technology Transfer from Universities (TLO Law)			
1999	Law for Special Measures for Industrial Revitalization • Japanese Bayh-Dole Act • Reduction of patent fees for approved TLOs			
2000	Law to Strengthen Industrial Technology • Allowing TLOs to use national university facilities free of charge			
2001	1,000 University-start-ups in three years (Hiranuma Plan)			
2004	Enforcement of National University Reformation Law			

# **IPR Ownership**

**Incorporated as an Independent Agency** 

2004/April

National Universities had no legal status. Universities could not be a patent owner. National Universities get legal status. Universities can be a patent owner.

toda

IPR belonged to inventors

**TLOs contracted with inventors** 

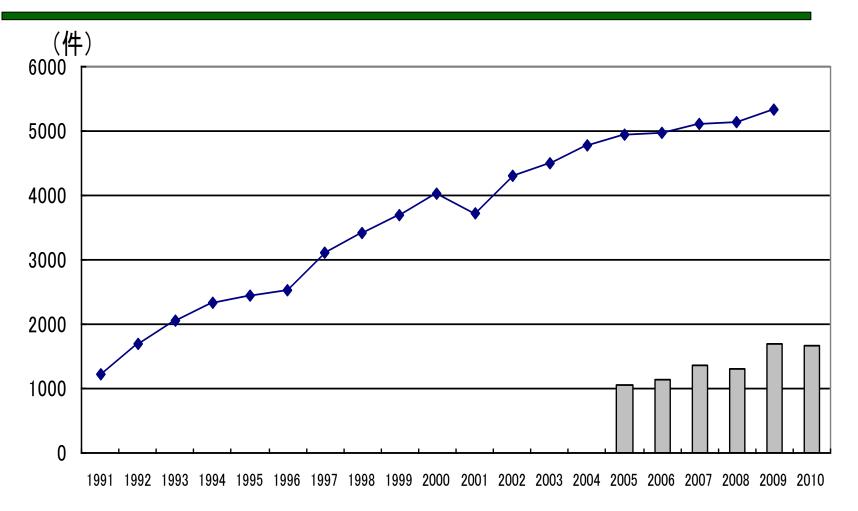


**IPR belongs to Univ.** 

**TLOs contract with Universities** 



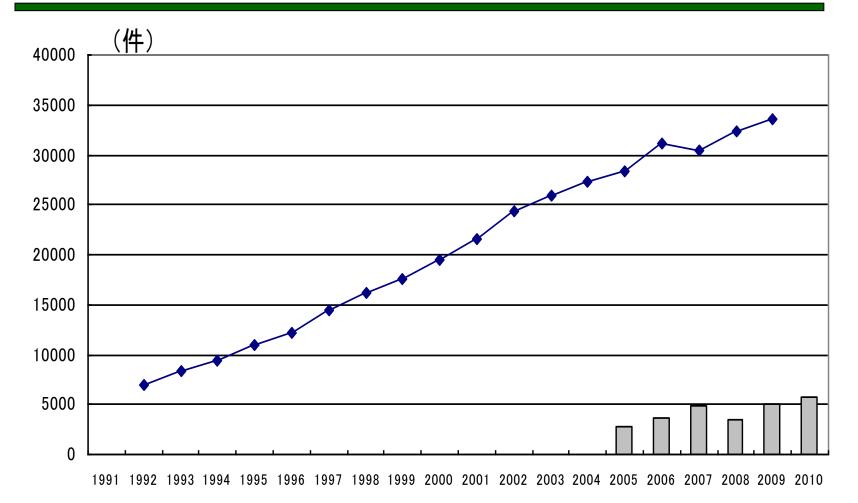
# Number of New Licenses (US & Japan)



The line graph shows the number of new licenses at US universities, and the bar graph shows the number of new licenses at Japanese universities.



# Number of Active (continued) Licenses (US & Japan)



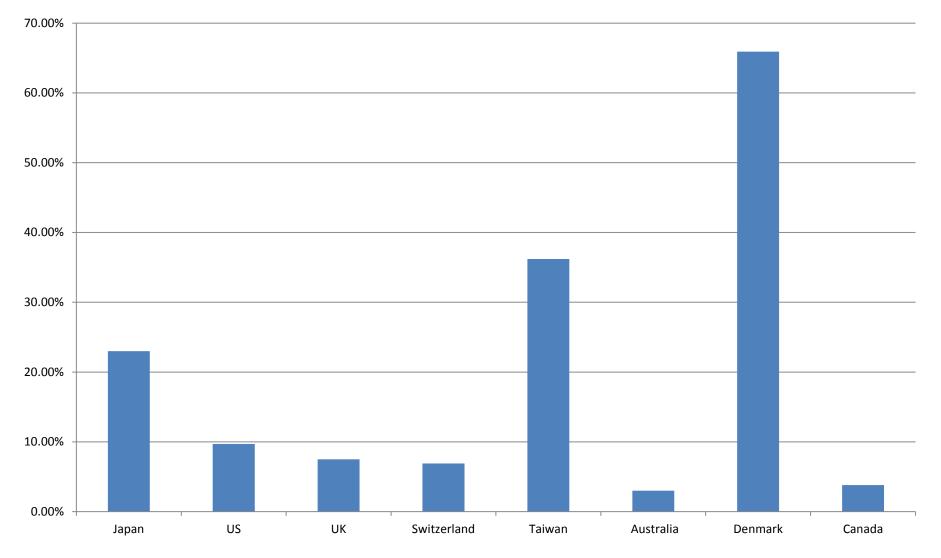
Trend diagram of continued licenses in Japan and the US. The line graph shows the trend in the US, and the bar graph shows the trend in Japan.



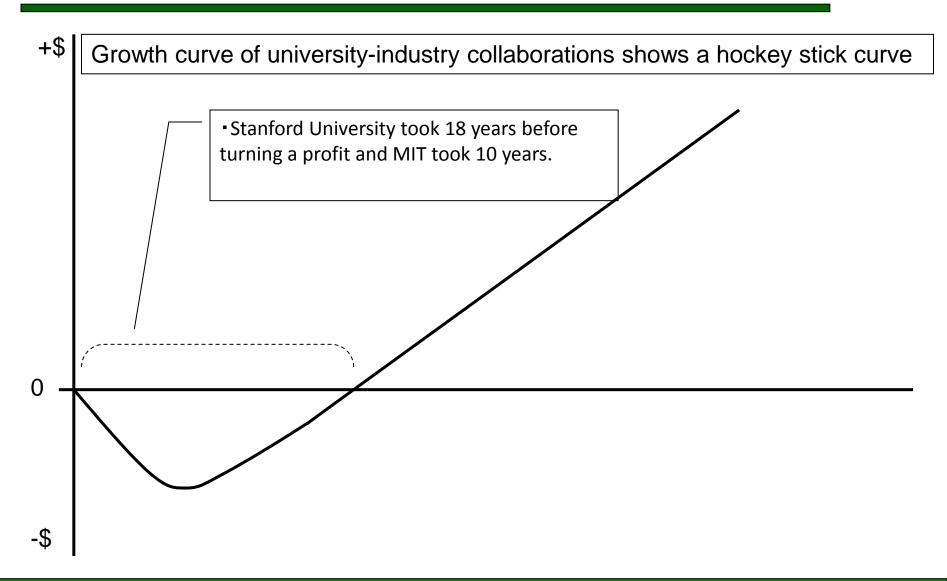
# Japanese situation is at the same level that the US was at 19 years ago



# Growth rate of royalty income in 2011 from 2010



# Structure and profitability of university-industry total collaborations

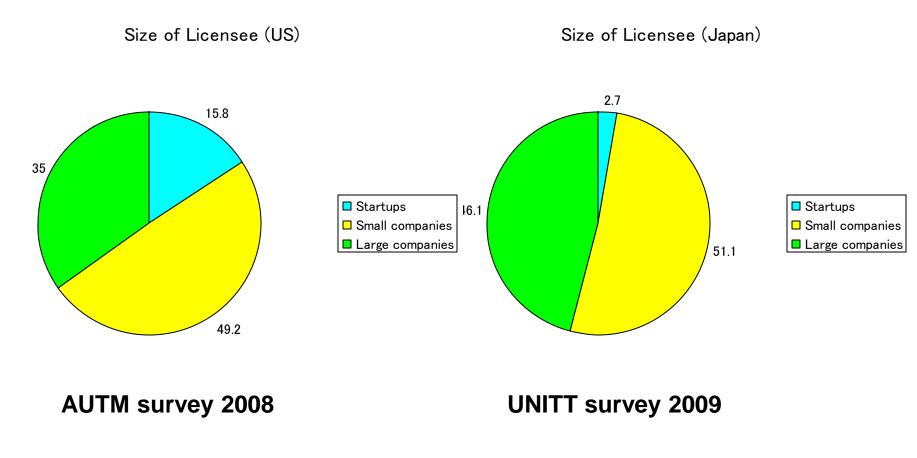


TODAI TLO (TLO for the Univ. of Tokyo)



## University-industry collaborations SME in the US

Two thirds of technologies in US universities are licensed to smalland medium-sized companies and startups, on the other hand, few of those are licensed to startups companies in Japan.



# Support Triangle for Industry-university Cooperation at the University of Tokyo



University Corporate Relations University of Tokyo



Managing entity for IP: Supports joint research through the "Proprius21" scheme, etc.



#### **TODAI TLO**

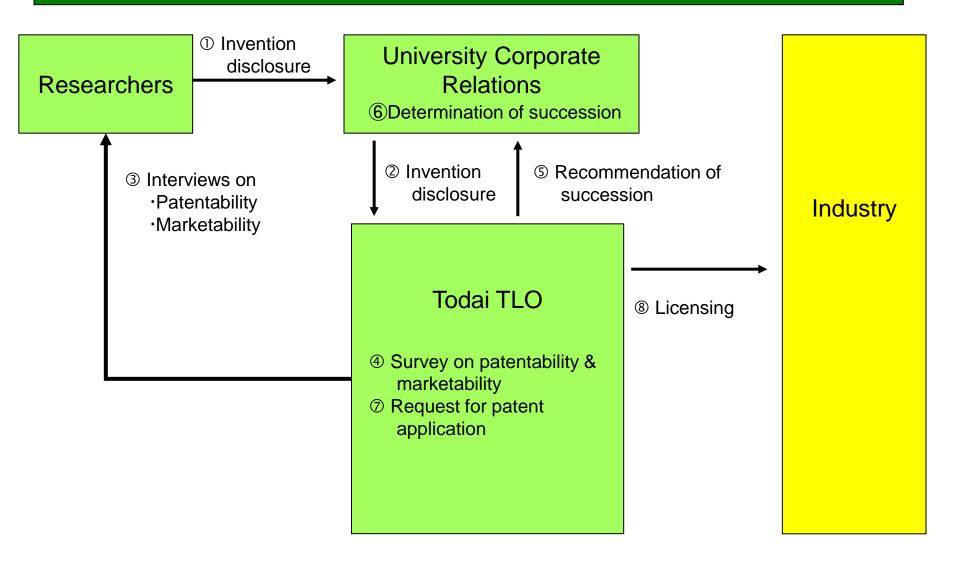
Operating entity for IP: Marketing licenses to companies, etc.

#### University of Tokyo Edge Capital (UTEC)

Supports the start-up of university-oriented venture businesses, in funds, human resources, and other aspects.



# **Operations of Todai TLO**



### Our Team







### Number of Invention disclosure in 2005 (U.S. & Japan)

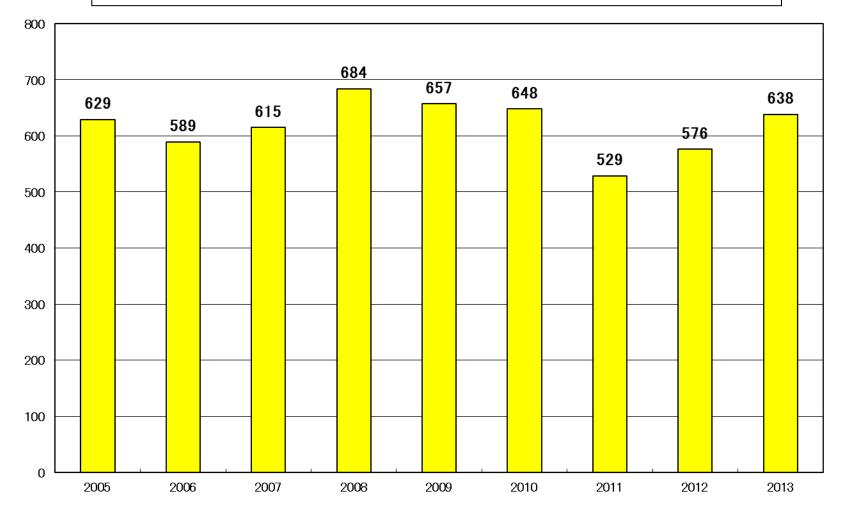
Name of university	Number of invention disclosure	Number of domestic applications	Application filing rate
University of California System	1,196	515	43.6%
University of Tokyo	627	313	49.9%
California Institute of Technology	549	416	75.8%
Tohoku University	527	380	72.1%
Osaka University	525	261	49.7%
MIT	515	287	55.7%
Tokyo Institute of Technology	464	317	68.3%
Kyoto University	457	324	70.9%
University of Wisconsin	405	163	40.3%
University of Pennsylvania	392	536	136.7%

\*Source: AUTM U.S. Licensing Survey FY 2004 for the US data and the "Performance of university-industry collaborations FY 2005" of the Ministry of Education, Culture, Sports, Science and Technology for Japanese data.



# **TODAI-TLO performance** (Jan-Dec)

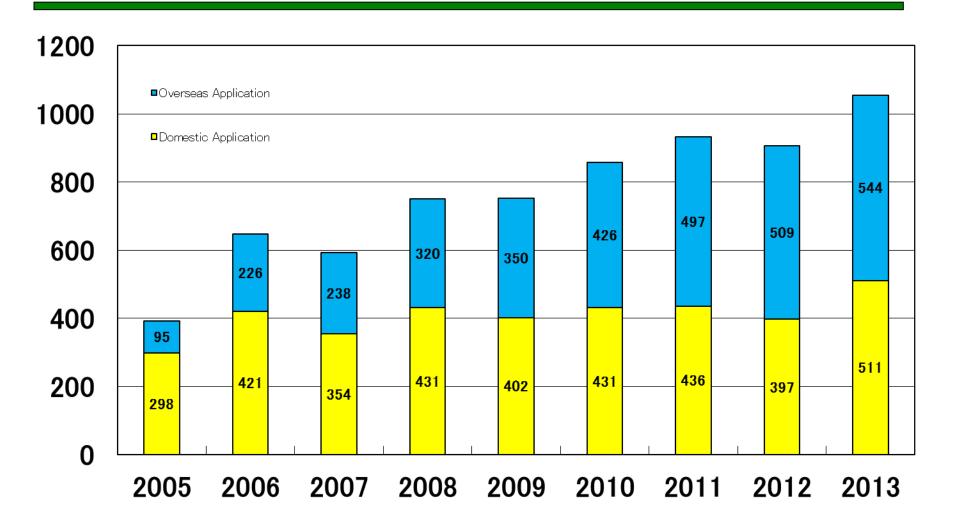
The number of invention disclosures that TODAI TLO accepted



TODAI TLO (TLO for the Univ. of Tokyo)

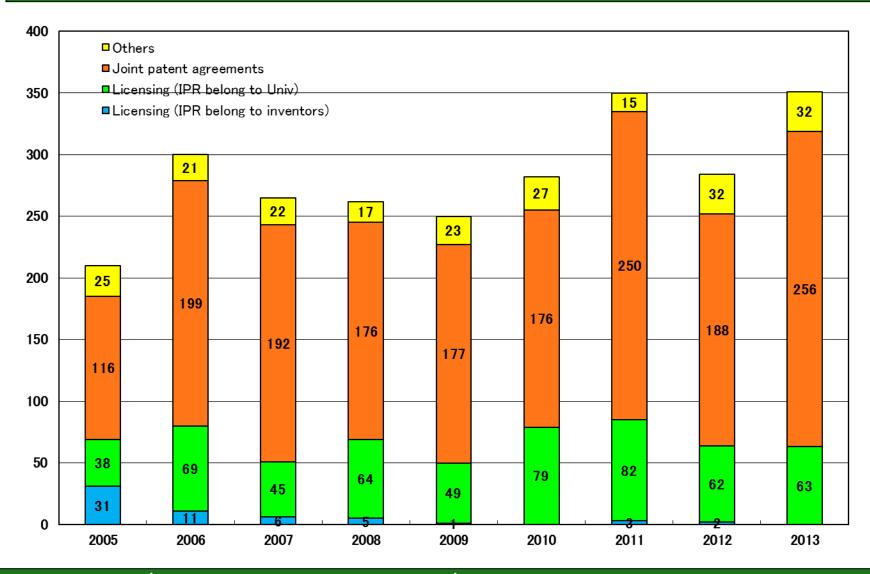


# Number of patent applications





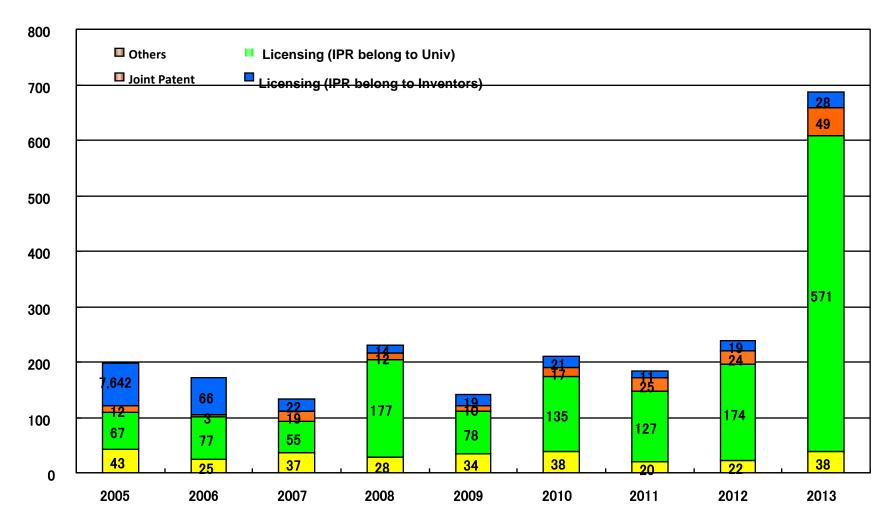
# Number of Agreements



# Royalty incomes

TODAI

<million of yen>





PeptiDream Inc. Innovative Peptide Therapeutics

**PeptiDream Inc** is a privately-held biopharmaceutical company employing our proprietary Random Peptide Integrated Discovery (RAPID) Platform, a state-of-the-art highly versatile peptide generation and selection platform which enables the production of highly diverse non-standard peptide libraries with high efficiency, for the discovery and development of best-in-class and first-in-class peptide-based therapeutics.

Established in 2006





AMGEN









Japanese Universities focus on the international license

 Difference between the US Bayh-Dole act and the Japanese Bayh-Dole act

Preference to domestic industry

In the US, preference is given to domestic industry. Meanwhile, no such preference is specified in Japan.

- NIH Syndrome of Japanese companies
- TODAI TLO contracted with Aalto University in Finland.
- TODAI TLO contracted with Mr. Adach(Canada) and Mr. Ushio(US) as a Liaison person.
- We contracted with CDRD in CANADA.
- Another Japanese Universities focus on the overseas license.

# Human Resource Development and Networking through Inter-university Cooperation



UNITT 2012 Annual Conference in Japan.

\* UNITT = University Network for Innovation & Technology Transfer (AUTM Japan)

10th UNITT Annual Conference was held at Tokyo Metropolitan University on September 13<sup>th</sup> & 14<sup>th</sup>.

11<sup>th</sup> UNITT Annual Conference will be held at Kansei Gakuin University on September 5<sup>th</sup> \$ 6<sup>th</sup>.

(About 500 people attended to this conference)

We held a 3<sup>rd</sup> "AUTM-ASIA conference in Kyoto in 2013".

Technology Transfer educational courses (Basic and Applied Courses) are provided by UNITT.



