

## Expectations of Academic-Industry Collaboration

Takafumi (TAKA) YAMAMOTO, RTTP

CEO & President

Todai TLO Ltd.

Website: https://todaitlo.com/

### Industry-University collaboration in Japan



UNITT Survey 2016

Number of invention disclosures	8,361	(3.2%UP)
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Number of Japanese patent applications 6,661 (3.4% UP)

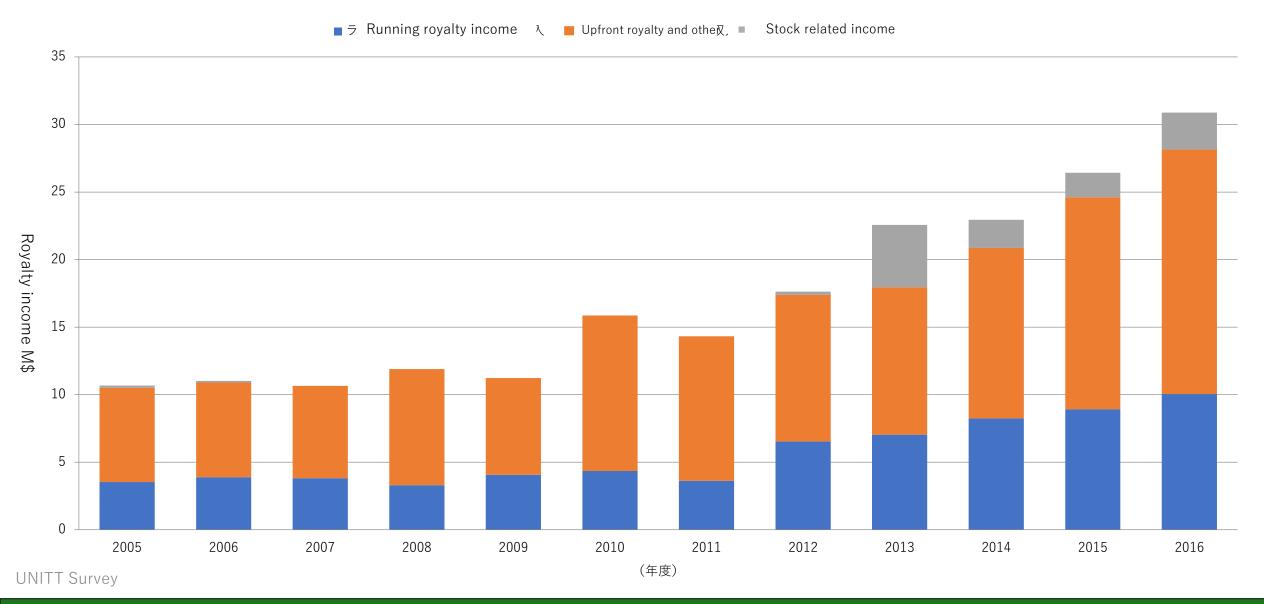
Number of all patent applications 9,388 (6.4% UP)

Number of new licenses 2,980 (4.7%UP)

Total amount of license revenue 22M€ (17.7%UP)

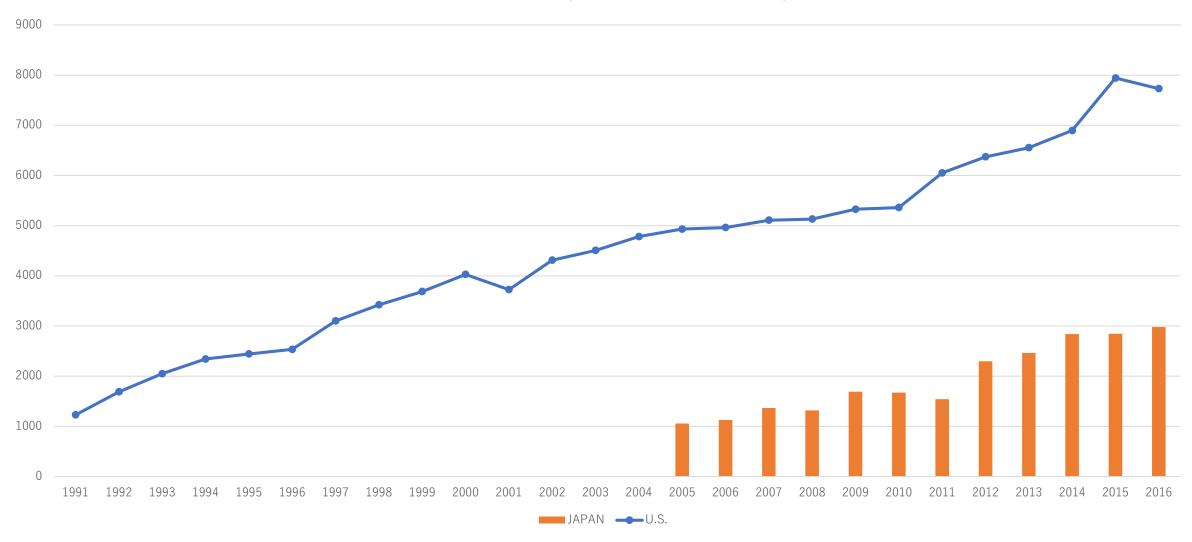
#### Total amount of license revenue







#### Number of new licenses: Comparison between Japan and the U.S.





## 22 Years ago

### Industry

Companies could use the technology of the university for free.

NIH syndrome.

University researchers are rivals.





Dissatisfaction of many researchers.

Lack of interest in patent applications.

If she or he establish a startup, she or he is said to have stopped research.





Academia led the university – industry collaboration in Japan.

The government strongly led this.

During the first few years, conflicts between universities and industries continued. This was a tough period.



However, this situation is changing dramatically.



Why are Japanese companies changing from conflict to cooperation?

- Successful startup companies.
- Successful collaboration between Japanese universities and foreign companies
- The emergence of new concept technologies such as Al and genome editing.
- Change in consciousness of top management





- Schaft won the DARPA contest.
- After that, Schaft proposed buyouts to various Japanese companies but no interest.
- Google acquired Schaft.

**SCHAFT Shock!** 

Softbank has acquired Schaft from Google.







- Peptidream was founded in 2006, based on the inventions of Prof. Hiroaki Suga.
- The company retains a library of over 1 trillion peptides, along with search technology for finding the right peptides to target diseases with. They began their business by approaching multiple Japanese pharmaceutical companies, but found it rough going until they started forming alliances with big-pharma firms overseas, ultimately leading to their IPO in 2013.























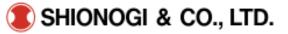












# Vedanta Biosciences signs \$241 million licensing deal with Janssen and J&J Innovations





Vedanta, founded in Boston, was based on intestinal flora technology that failed to attract the interest of Japanese firms.

It is a unique case of technology developed at a Japanese university being used to establish a spin-off company overseas. Some may think it best to commercialize Japanese inventions within Japan, but considering the needs of patients, this can still be considered a successful case.



## And then,

- TOPs of many large companies are seeking collaboration with universities.
- However, there is still a culture gap between companies and universities.
- The next challenge is important.

• To be continue ······