# Press Conference President of JST

# June 11, 2019







# Protection and utilization of intellectual property rights

#### <Basic Concepts>

JST files patent applications for some of the inventions resulting from the research it funds and licenses the inventions to companies for technology transfer to society.

JST considers the following as important for companies to use its patents smoothly and makes great effort to

- a) ensure that the inventions pass the examination required for procuring registered patents,
- b) maintain licensed patents, and
- c) collect related patents held by universities.

Based on the above recognition, **JST may, together with inventors and legal specialists,** <u>implement countermeasures against patent infringement and patent invalidation procedures.</u>

#### <An example of activities for IP protection and utilization>

JST insisted on the validity of the patent group of "IGZO oxide semiconductor TFT" invented by Professor Hideo Hosono of Tokyo Institute of Technology, in order to counter multiple patent invalidation trials and oppositions against the patent. As a result, all cases were completed in April 2019, with JST's assertion granted.



# **SUCCESS** (SUpport program of Capital Contribution to Early-Stage companieS)



## Current situation and issues of universityoriginated ventures

- Market values of university-originated ventures have climbed to 1.8 trillion yen.
- Although the number of newly established ventures has been increasing in recent years, it has not recovered to the past level yet. Compared with other countries, entrepreneurship levels are low in Japan.

#### **Current Situation**

#### [Listed university-originated ventures]

#### Total market capitalization reached about 1.8 trillion yen. (As of May 2018)

Name of Ventures	Established	University	Market Capital
PeptiDeam Inc.	Jul-06	University of Tokyo	542,398
CYBERDYNE	Jun-04	Tsukuba University	193,111
PKSHA Technology	Oct-12	University of Tokyo	176,373
SanBio	Feb-01	Keio University	136,948
euglena	Aug-05	University of Tokyo	84,851
Total market capital of listed ventures			1,818,407

(Million Yen)

#### **Market Capital in TSE Mothers**



(The table and chart are created by MEXT and JST based on the official information)



## Issues relating to university startups



(Ref. The report on entrepreneurship in FY2016 conducted by Mizuho Information & Research Institute, Inc. consigned by METI)

#### [Startup Ratio (startups/companies)]



# 【The number of newly established university-originated ventures】



(Ref. The report on University-industry collaboration by MEXT)

#### From the viewpoint of universities, the number of university-derived startups declined because of the following reasons:

- 1. Difficulties of financing and market development as a result of economic deterioration
- 2. Management difficulties and high risks
- 3. Insufficient support from universities and the government
- 4. Low levels of entrepreneurship and interests in ventures among teachers and students

(Ref/ Excerpt from hand-outs of The 22<sup>nd</sup> Special Committee for Integrated Policy Making)



### Support Program of Capital Contribution to Early-Stage Companies (SUCCESS)

1. Overview				
<ul> <li>Based on the revision of the Act on Enhancement of Research and Development Capacity funded R&amp;D results in their business activities, JST makes a financial contribution and/or property, equipment, etc. owned by JST.</li> </ul>	city, for those who intend to utilize JST- or an in-kind contribution of intellectual			
<ul> <li>2. Objectives</li> <li>Promoting practical application and return of research outcomes to society through creater Aiming to attract more private funds by investing in ventures.</li> <li>Utilizing unused patents of universities and JST by enabling in-kind contribution of intell</li> </ul>	ation and growth of venture capitals. ectual properties.			
<ul> <li>3. Eligibility</li> <li>4. Maximum Funding</li> <li>Venture capital aiming for implementation of JST R&amp;D outcomes</li> <li>Ventures newly entered or established within roughly five years</li> <li>4. Maximum Funding</li> <li>Investment Ratio: a half of total voting rights in principle</li> <li>Investment Amount: accumulated 500 million yen per company</li> </ul>				
JST's research outcomes Finding out Start-up concept for practical application Realization concept for venture capital Constructing business plan by entrepreneurs, researchers, related organizations, and JST	EXIT IPO M&A MBO/EBO			



# Investments by JST (Pick-up 2 ventures today)



### Support Program of Capital Contribution to Early-Stage Companies (SUCCESS)

#### Cyfuse Biomedical K.K.

Developed Bio 3D printer with microneedle array technology that enables 3D tissue fabrication with cell only

- Cyfuse aims to establish the platform technology of processing and manufacturing in regenerative medicine.
- Cyfuse expands seeds by conducting basic in-house research and proposing results to research institutes, eventually expanding the use of its products.





Cell aggregates The aggregates are secured in are fused on The skewers place by skewers. the skewers. are removed

Fabricated 3D tissue

#### Funded by: A STEP (local type), JST

#### Lily MedTech Inc.

Contributing to the early detection and treatment of breast cancer through the realization of breast cancer testing equipment without pain and X-ray exposure

Lily MedTech aims for the development, manufacture, and sale of an ultrasound imaging device for breast cancer. The features of the device are as follows:

- ·No pain, no X-ray exposure, and high-density entry
- ·Acquires 3D images and easy to detect changes over time
- ·Lowers running cost—no need for a high-skilled laboratory technician

•Expected to pave the way for early detection, early treatment, improvement of prognosis QOL, and management of recurrence.

#### Funded by: Center of Innovation (COI) Program, JST



