

Kawasaki Innovation Gateway



Ikuta Ryokuchi:
Full of natural greenery



Kawasaki Fujiko F. Fujio Museum



Kawasaki Daishi
(Heiken-ji Temple)



The costal area adjacent to
Haneda International Airport



Musashi Kosugi District:
A region lined by high-rise
condominiums/apartment buildings



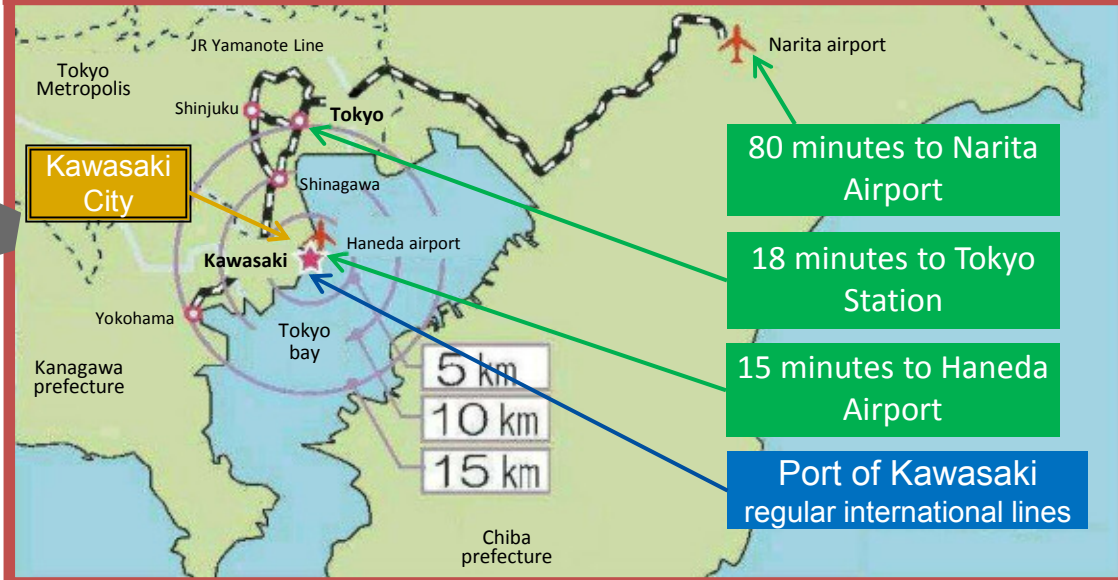
The magical night-time view of
Kawasaki's coastal factories



A Highly Convenient and Vibrant City



Located in the center of the National Capital Region, the city has good accessibility via land, air, and sea



Population: 1,503,301 per.
(As of Sep. 1, 2017)

Area: 144.35 km²

Gross City Product:
5.1386 trillion yen (FY2013)

* Equivalent to the Gross
Domestic Product of
Luxembourg

Vibrant City Blessed with an Abundance of Human Resources

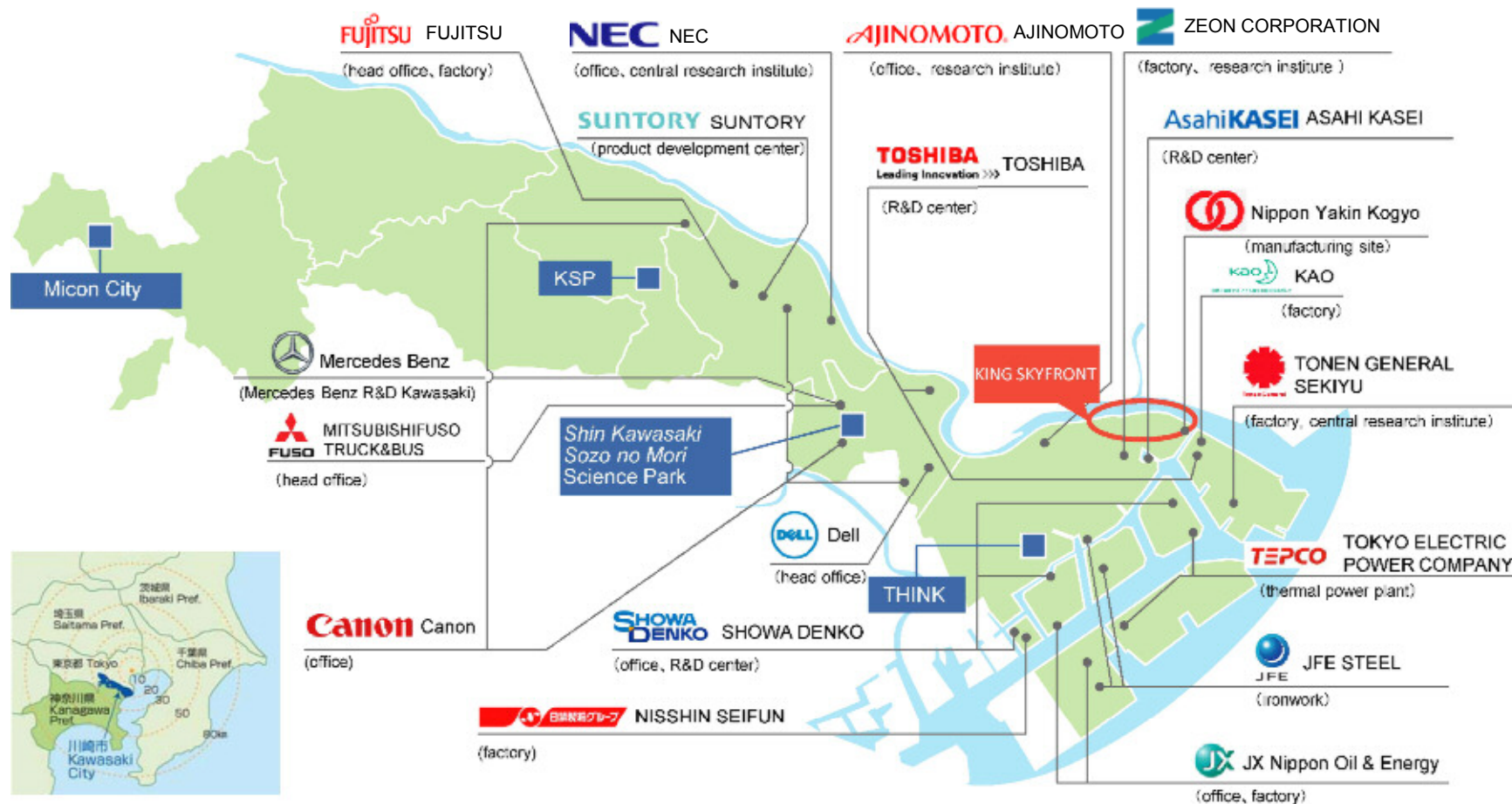
<2016 Comparative Statistics of Major Japanese Cities>

- Birth rate Ranked 1st
- Average age Ranked 1st
- Percentage of population of working-age Ranked 1st
- Shipment value of manufactured goods per employee Ranked 1st
- Percentage of workers employed by

academic/research and development institutions Ranked 1st
(Provisional calculation by Kawasaki City based on categorization of business establishments)

Global Companies Located in Kawasaki City

Over **400** R&D organizations,
and over **1,200** SMEs in Kawasaki,



Science park and R&D industrial housing

KING SKYFRONT

Kawasaki Innovation Gateway
at SKYFRONT

Kawasaki City

Tokyo
Metropolitan
Area

Tama
River

Tokyo
International
(Haneda) Airport

Manufacturing function to R&D function

- Before 2000 ISUZU was promoting business restructuring.
- 2001 Mar. Urban Renaissance Agency get the land of ISUZU.
- 2004 May ISUZU moved the Kawasaki factory to Fujisawa city.
- 2008 Sep. KAWASAKI city government formulate participation arrangement policy of TONOMACHI 3-chome.
- 2010 Mar. TONOMACHI 3-chome Land Readjustment Project began.
- 2011 Mar. TONOMACHI 3-chome named as "**KING SKYFRONT**".
- 2011 Jul. Central Institute for Experimental Animals (CIEA) started operation.
- 2011 Dec. Designated as a Special Zone for International Competitiveness Development.



National Special Zones for life science

1. Special Zone for International Competitiveness Development (December 2011)

Details of Support

- ① Preferential measures against regulations
- ② Tax support measures
- ③ Financial support
- ④ Monetary support



2. National Strategic Special Zones (May 2014)

Details of Support

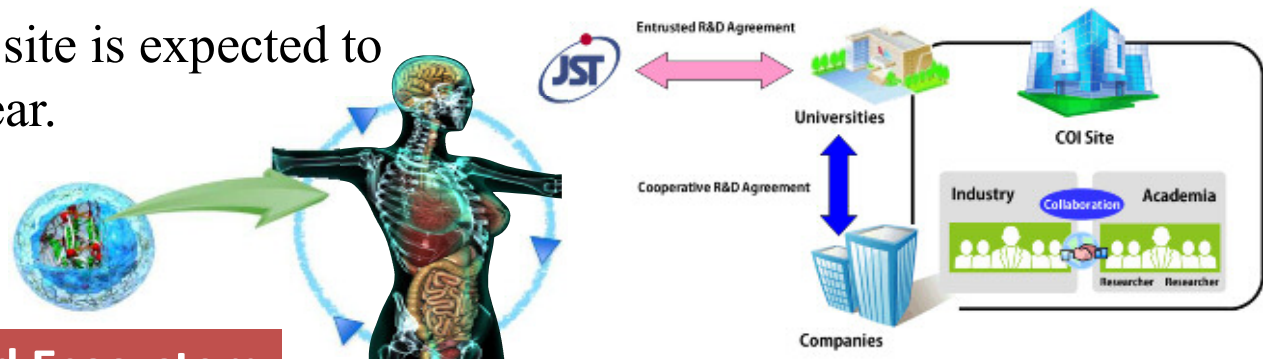
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- ② Tax support measures
- ③ Financial support



National Project at KING SKYFRONT

1. Center Of Innovation Program (COI) (Oct. 2013) INDUSTRY-ACADEMIA COLLABORATIVE R&D PROGRAMS

- ◆ R&D funding for a COI site is expected to maximum \$10M per year.
- ◆ fy2013 ~ fy2021



2. Regional Innovation and Ecosystem Formation Program (Jul. 2017)

- ◆ This program supports to create a successful model of industrialization with significant social impact based on global expansion from region.
- ◆ Grants of \$1.55M per year.
- ◆ fy2017 ~ fy2021



3. Research Complex Program(RCP) (Sep. 2015)

- ◆ RCP supports the construction of a mechanism producing continuous scientific and technological innovations in the regions
- ◆ Maximum \$7M per year.
- ◆ fy2015 ~ fy2019



“R&D” accumulation at KING SKYFRONT

57 organizations are located! (as of October ,2017)


Life Science & Environment Research Center (LiSE)
 (0.7ha) Operating as of March 2013



CIEA
 Central Institute for Experimental Animals,
 Regenerative Medical and New Drug
 Development Research Center
 (0.6ha) Operating as of 2011



Innovation Center Of NanoMedicine (iCONM)
 (0.8ha) Operating as of April,2015



CYBERDYNE
 CYBERDYNE Inc. (1.5ha)
 Successful bid decision in 2014.8.8



Japan Radioisotope Association
 (1.0ha)
 Operating as of June,2017



FUJIFILM
 Value from Innovation
FUJIFILM RI Pharma Co., Ltd.
 (0.35ha) Operating as of June, 2016

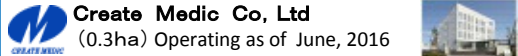


DAIWA HOUSE INDUSTRY CO, LTD. (4.6ha)
 Signed MOU regarding Urban Design on June 30, 2016

- ◆Kawasaki Tonomachi Tokyu REI Hotel (200 rooms)
 Scheduled to be completed in the spring of 2018
- ◆RGB2
 - Medtronic Innovation Center Japan
 - Keio University Tonomachi Town Campus
 Operating as of October,2017
 - Tokyo Institute of Technology
 Scheduled to move in in the spring of 2018
 - Kanagawa Medical Innovation School
 Scheduled to move in in FY 2019
- ◆RGB1
 - Convenience facility(ex. convience store)
 - Rental Rooms (Laboratories and Offices)
 Scheduled to be completed in FY 2017



Create Medic Co, Ltd
 (0.3ha) Operating as of June, 2016



JSR Co.,LTD
 (0.3ha) Decided to move, 2017

Kawasumi Laboratories,INC.
 (0.4ha) Decided to move, 2017

National Institute of Health Sciences
 (2.7ha) Starting operation in FY 2017



Johnson & Johnson
Tokyo Science Center
 (0.3ha) Operating as of August, 2014



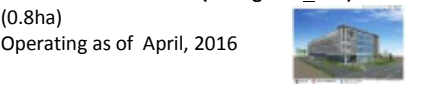
ヨドバシカメラ
Yodobashi Camera Assembly Center
 (8ha) Operating as of 2005



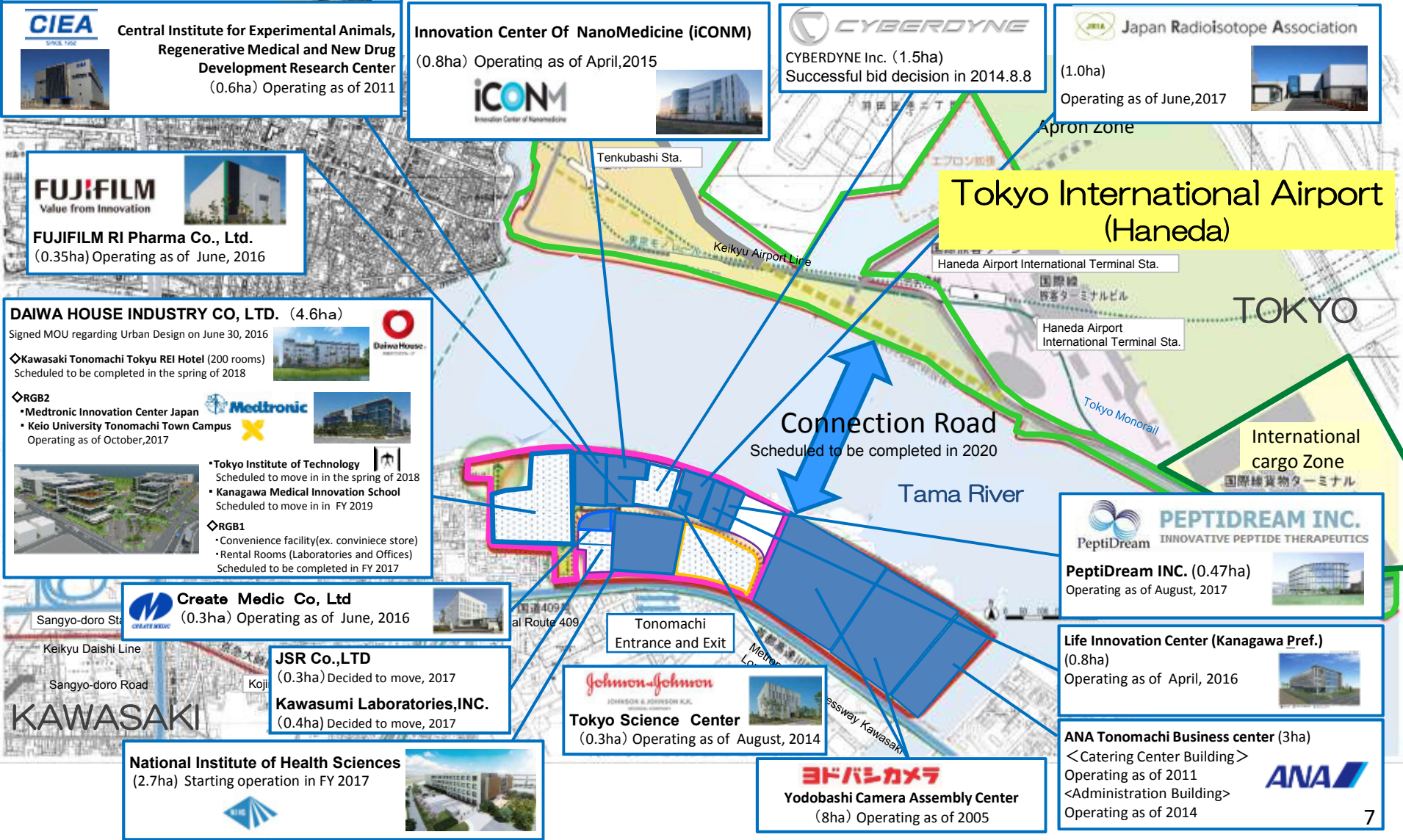
PEPTIDREAM INC.
 INNOVATIVE PEPTIDE THERAPEUTICS
PeptiDream INC. (0.47ha)
 Operating as of August, 2017



Life Innovation Center (Kanagawa Pref.)
 (0.8ha)
 Operating as of April, 2016

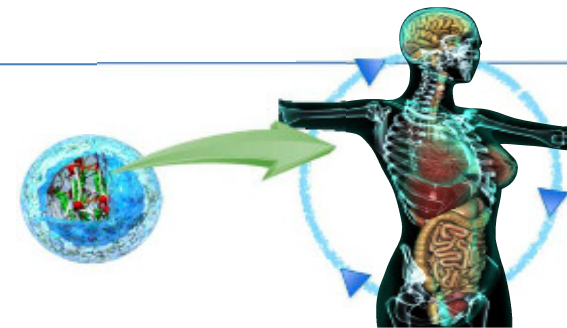


ANA Tonomachi Business center (3ha)
 <Catering Center Building>
 Operating as of 2011
 <Administration Building>
 Operating as of 2014

Innovation Center of NanoMedicine (iCONM)

- ◆ A facility that can conduct everything from organic synthesis and microfabrication to biological experiments, all under one roof.
- ◆ Open innovation platform aiming for the realization/commercialization of innovative ideas
 - Nanomachines which can target and eliminate intractable cancer.
 - The system for in-home cancer diagnosis, which requires no blood sampling.
 - Social system for implementation of the results into society.



The “O” in the logo is designed after a nanomicelle, and the colour gradient toward the centre represents “infinite possibilities” and a “leap toward the future.” The “winter blue” colour highlighted against the “black” of the surrounding letters represents “integrity” and “transparency.”

Central Institute for Experimental Animals (CIEA)

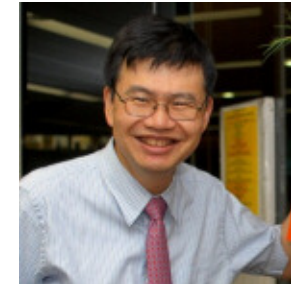
In 1952, The Central Institute for Experimental Animals (CIEA) was founded.

CIEA has continued contributing to the health and welfare of humankind through the provision of quality laboratory animals with a high reproducible level, together with the establishment of sophisticated test method systems.



Working toward regenerative medicine for the central nerve system

In collaboration with Professor Hideyuki Okano, a professor in the Medical Department at Keio University, CIEA has conducted regenerative medicine research for remedy of spinal cord injury using iPS cells.



Hideyuki Okano, M.D.&ph.D.

Common Marmoset

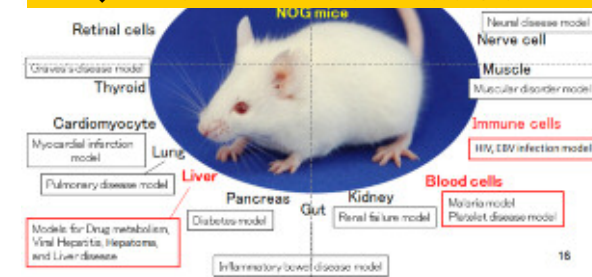


2009

459 (7246) :523-7

NOG Mouse

Humanized Mouse



Collaboration with Riken and the National Institute of Health and Sciences (NIHS)

- Riken: Collaboration with Dr. Katsuhiko Mikoshiba, Head of the Developmental Neurobiology Laboratory and Senior Team Leader for Brain Science tests with marmosets
- NIHS – Pharmacology Department: Safety and efficacy tests for iPS-derived cardiac muscle cells



Katsuhiko Mikoshiba, M.D.&Ph.D. 9

National Institute of Health Sciences(NIHS)

【Mission statement】

The National Institute of Health Sciences (NIHS) is a National organizations, conducting Regulatory Science.

The results of these activities are passed on to the health and welfare administration and other organizations and other so that they may be reflected in national policies.



【History】

- In **1874**, The National Institute of Health Sciences (NIHS) was established in Tokyo as the Tokyo Drug Control Laboratory.
- In **1946**, the laboratory moved its office from Kanda Izumi-cho to its current location in Yoga.
- In **1997**, the laboratory reorganized to the NIHS.

Johnson & Johnson Tokyo science center



Opened on Aug. 6th 2014 by Johnson & Johnson K.K. Medical Company.



- Built to promote safe and appropriate use of medical devices by healthcare professionals amid growing interest in minimally-invasive surgical procedures in Japan.
- Welcomed a medical staff of more than 22,000 people from Japan and abroad as of the end of July, 2015
- Will contribute to the advancement of Japanese technology through the training of Japanese healthcare professionals.



PeptiDream INC.

- ◆ PeptiDream is a biopharmaceutical company that employs its proprietary Peptide Discovery Platform System (PDPS), a state-of-the-art highly versatile discovery platform which enables the production of highly diverse (trillions) non-standard peptides.
- ◆ Using the PDPS technology to develop peptide-based drugs—also known as the “third drug” after small-molecule and antibody based drugs—PeptiDream uses its PDPS system to work with its global and strategic/joint partners such as Novartis and GlaxoSmithKline



Company Profile:

Founded: 2006

Capital: 3,630 million yen (June, 2016)



February, 2016
The 2nd Nippon Venture Award

CYBERDYNE

- ◆ CYBERDYNE has taken steps to secure itself as a hub for the innovative development of the medical business
- ◆ Cyberdyne, making full use of “Cybernetics” - an integrated technology of human, robot and information systems, aims to both tackle/solve social issues via R&D and implementation of “innovative technology coexisting with people”, as well as to create a “New Industry” based on these solutions.



Comprehensive Agreement with Kawasaki City (June 2014)

(1) Purpose

- ◆ Contribute to the solution of problems in the fields of the health, medical treatment, and welfare.

(2) Points of Cooperation

- ◆ Active introduction of robots for use in medical care, nursing, etc.
- ◆ Superior service through cooperation with industry/academia; promotion of product development
- ◆ Helping to develop cutting-edge medical enterprises through utilization of the advantages of the International Strategic Zone.

Life Innovation Center (LIC)

Object

The Center is located at Tonomachi area in Kawasaki City , where cutting-edge companies and Institutes related to lifescience field assemble. Utilizing this locational advantage and other factor , the Center will accelerate initiatives from R&D to commercialization for practical application and industrialization of promising seeds found in regenerative medicine and cell therapy.

Led by Kanagawa, the Center works closely with the national Government and global industries, utilizing merits of Special Zone.

As the hub of regenerative medicine & cell therapy, the Center Strongly supports tenants wishing to commercialize their projects.



4F Support for Venture Business



3F Laboratory and Office

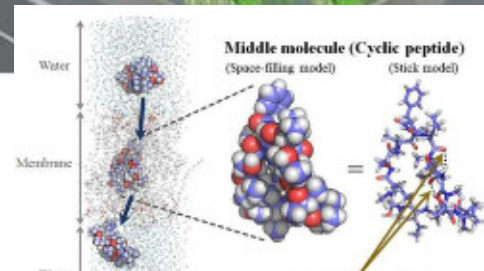
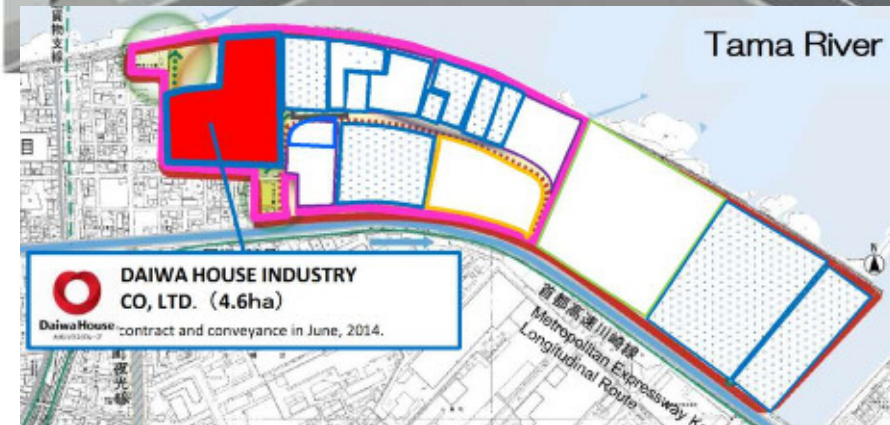


2F Laboratory, Office and Clinic



1F Cell Culture, Produce and Processing

Introduction of a new R&D Lab and more by Daiwa House Co.



a Middle Molecule IT-based Drug Discovery Laboratory (MIDI.) at KING SKYFORNT



Increasing Cooperation Between the Keihin Coastal Area and Haneda Airport



As the center of the International Strategic Zone, Tokyo and Kawasaki will strengthen their cooperation in order to advance Japanese international competitiveness.

Construction of the Connection Road with Haneda Airport

Image of the Connection Road



Kawasaki-side

Tokyo-side

View from Haneda

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HP KING SKYFRONT, International Strategic Zone
<http://inewsletter-king-skyfront.jp/en/>



View of Kawasaki from Tokyo bay (Kawasaki on the left, Tama River in the middle, Tokyo on the right)