Flow Chart of main support measures

Individual consultation/ support by the coordinators of “Kihara Foundation” and “IDEC Yokohama” (Two Support Organizations of LIP Yokohama)

Intellectual property strategy, business plan development, matching, project initiation, financing, acquisition of grants, etc.

Technology seeds from universities and research institutes

Companies' technology and research

Business Idea

Open Innovation Conference

・“LIP. Yokohama Open Innovation Conference III”
Matching events of the 3 universities in the city, and small, medium-sized and venture enterprises (Sep, 2018)
・“LIP. Yokohama Open Innovation Conference IV”
Matching events between major companies in various fields and small, medium-sized and venture enterprises (Feb, 2019)

LIP.YOKOHAMA BIBLIO

・Health and medical-related venture support base
1 Reading books, magazines, market research reports, etc. on health and medical-related research
2 Support for the utilization of online tools for searching journal articles and papers and examining R&D information
3 Free consultation with research and business experts in the health and medical fields, patent attorneys, etc.
4 Holding seminars, study sessions, exchange events, etc.

Grant (verification of idea, backing by data, prototype development)

Project Development

Technology/ Needs Presentation

・“The 2nd LIP. Yokohama Network Seminar”
Briefings on Technology Needs by major companies
・“The 3nd LIP. Yokohama Network Seminar”
Clinical needs matching meetings by medical institutions

Visual consulting

・Supports illustration creation for the health and medical fields in cooperation with Advanced Medical Research Center of Yokohama City University “Communication Design Center”

Overseas development

・Conclusion of a memorandum on mutual cooperation with BIOCOM (San Diego, USA)
(Apr, 2017)(This is the first memorandum of this type concluded by a Japanese municipality.)
・Acceleration program in cooperation with CONNECT (entrepreneur support organization)
Launch of “The Springboard™ Program in Yokohama” (first in Japan)

Promotion of collaboration between medicine and engineering

・Support of manufacturing that works on medical device development; seminars to introduce needs and business meetings on the medical field centering on IT-related companies “Yokohama Medical Equipment Study Meetings”; exhibiting at academic conferences

Financing support (Pitch event)

・“The 8th Yokohama Venture Pitch” (Field of Life Science) (Oct, 2018)
・“The 8th Yokohama Venture Pitch” (Field of Health & Productivity Management) (Dec, 2018)

Commercialization Market Development

Support for trade show exhibitions

・“BioJapan 2018,”“Medtec Japan 2018,”“COMPAMED 2018(Germany),” and "CIIE2018(China)”
・First-time participation of the city in the “2019 BIOCOM Global Life Science Partnering Conference”

Health & productivity management and healthcare business

・Yokohama Wellness Partners (around 400 companies/groups) general meetings, exchange meetings, matching meetings, etc.Conducting an “Survey on issues” at the medical and nursing care sites, and soliciting proposals from companies for solutions to their problems

National Strategic Special Zone and Comprehensive Special Zones for International Competitiveness

・Support for the realization of new business plans by making the best of the advantages of special zones, such as exceptional measures on regulations, tax support, financial support, and funding support

OPEN YOKOHAMA

https://businessyokohama.com/home/major-industries/life-science/

LIP. Yokohama is also introduced on this website

Issued in August 2019

On the Frontlines of Continuous Innovation

LIP. 横浜
Life Innovation Platform YOKOHAMA

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History of Yokohama Life Innovation

The City of Yokohama has early recognized the growth potential of the life sciences-related industry. Thus, the City of Yokohama has promoted the establishment of leading-edge R&D infrastructure, such as the development of the Kanazawa Bio Park, inviting RIKEN to set up operations in Yokohama, and the establishment of incubation facilities . Currently, enterprises, universities, and research institutes located in the city are engaged in various research and development projects.

1988～93
Creation of the Kanazawa Bio Park
Gathering of research institutes, universities, companies, and venture enterprises


●Kanazawa Bio Park

2000
Invitation of RIKEN to set up the Yokohama Institute (Then)

2001
Establishment of the Yokohama Joint Research Center (incubation facility)
Creation of the Suehiro Factory Park (industrial complex)


●Yokohama Joint Research Center

2003
Opening of Yokohama Leading Venture Plaza 1 (incubation facility)
Establishment of a department dedicated to the promotion of the life sciences industry at the Economic Affairs Bureau

2005
Opening of Yokohama Leading Venture Plaza 2 (incubation facility)
Holding of "BioJapan" in Yokohama (held at PACIFICO Yokohama) for the first time

BioJapan

2006
Establishment of Advanced Medical Research Center of Yokohama City University


●Tsurumi Campus of Yokohama City University (NMR)

2009
Opening of the Yokohama Biotechnology Industry Center (a rental R&D facility for biotech enterprises)

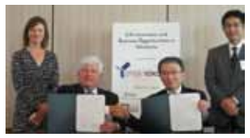
2011
Designation of Life Innovation in Keihin Coastal Areas Comprehensive Special Zones for International Competitiveness

2012
Completion of Advanced Medical Research Center Research Building

2014
Designation as National Strategic Special Zones

2016
Launch of Yokohama Wellness Partners
Start of "LIP. Yokohama"

LIP.横浜 Life Innovation Platform YOKOHAMA


●Memorandum signed with BIOCOM

2017
Memorandum signed with BIOCOM (San Diego, USA)

LIP.YOKOHAMA BIBLIO

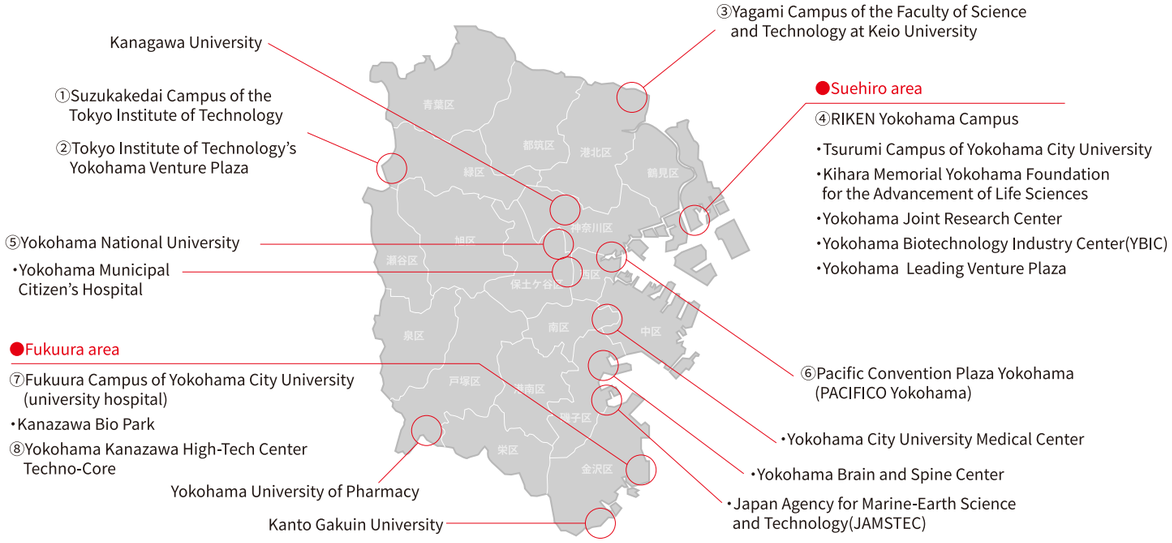
2019
Declaration of Yokohama as Innovation City
Opening of LIP. YOKOHAMA BIBLIO

Promotion of Life Innovation

It is expected that the market for businesses involved in healthcare equipment and in the health & medical field in general, focusing on the extension of life expectancy (such as preventive medicine), will expand in the future, alongside the progression of Japan's super-aging society. Against this backdrop, the City of Yokohama plans to actively support innovative initiatives in the health & medical field.

Yokohama's concentration of bio clusters

The city is concentrated with many universities and research institutes starting with the RIKEN Yokohama Campus, and a large number of manufacturing and information communication companies, that create a favorable environment for research and development in the health and medical field.



●Universities and research institutes **26** universities and **157** research institutes
Source: Universities: Yokohama Universities and City Partnership Association participating universities in Yokohama Research institutes: 2016 Economic Census for Business Activity

●Number of Manufacturing and information communication companies **8,250**
Source: 2016 Economic Census for Business Activity

●Medical facilities **3,104**
Source: Yokohama Health and Medicine Plan 2018


①Suzukakedai Campus of the Tokyo Institute of Technology


②Tokyo Institute of Technology's Yokohama Venture Plaza
(a facility of the Organization for Small & Medium Enterprises and Regional Innovation, Japan)


③Yagami Campus of the Faculty of Science and Technology at Keio University


④RIKEN Yokohama Campus


⑤Yokohama National University


⑥"BioJapan" (held at PACIFICO Yokohama): One of the largest bio industry exhibitions in Asia

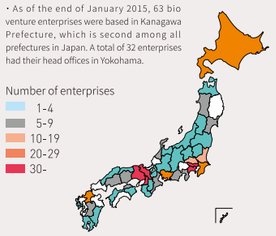

⑦Advanced Medical Research Center of Yokohama City University (Fukuura Campus)


⑧Yokohama Kanazawa High-Tech Center Techno-Core

【References】

Headquarters of bio venture enterprises

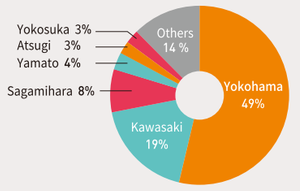
・As of the end of January 2015, 63 bio venture enterprises were based in Kanagawa Prefecture, which is second among all prefectures in Japan. A total of 32 enterprises had their head offices in Yokohama.



Source: Number of bio venture enterprises by prefecture (January 2015), published by the Japan Bioindustry Association

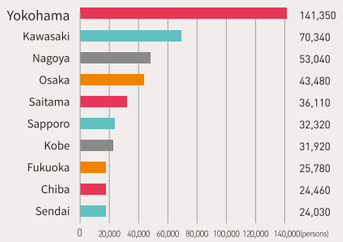
Life sciences industry accumulation in Yokohama and Kanagawa Prefecture

・There are 313 life sciences-related enterprises in Kanagawa Prefecture, of which 155 enterprises (49%) are located in Yokohama.



Source: Yano Research Institute Ltd. (as of September, 2018) Enterprises with their head office in Kanagawa Prefecture Note: Branch offices, etc., are excluded.

Number of researchers and engineers (top-10 ordinance-designated cities)



Source: Population Census (2015) of the Ministry of Internal Affairs and Communications

About LIP. Yokohama

Life Innovation Platform YOKOHAMA (LIP. Yokohama) is designed so that the City of Yokohama can collaborate with the industry, academic institutions, the government, and financial institutions in order to continuously support innovation in the health & medical* fields in Yokohama.Through this platform, a network of enterprises, universities, and research institutes develops innovative projects. At the same time, LIP. Yokohama supports the commercialization of small, medium-sized, and venture enterprises, and promotes the development of new technologies and products.

* Drug development, medical device development, diagnostic technology development, preventive medicine, regenerative medicine, nursing care & welfare, and health services, etc.

●Support of LIP.Yokohama by utilizing National Strategic Special Zones and Comprehensive Special Zones for International Competitiveness

【Merit】Exceptional measures on regulations, Tax・financial・funding support

LINK-J

Large enterprises

Small, medium-sized, and venture enterprises

VC・Financial institutions

BIOCOM accelerating life science

CONNECT

Overseas Collaborating organizations

Life sciences & bio industry

Overall support for SMEs

(Support organization: Kihara Memorial Yokohama Foundation)

Individual consultation for business creation in the life sciences field, support for financing opportunities, and support for business plan development, etc.

Medical institutions

LIP.横浜 Life Innovation Platform YOKOHAMA

Formation of a network of collaborating organizaions/ Creation of new projects

Support for SMEs' and venture companies' commercializations of their products

Promotion of the development of new technologies and products

Life Innovation Promotion Division Economic Affairs Bureau City of Yokohama

Health-related field

Promotion of healthcare businesses

The creation of health-related services and promotion of health & productivity management by Yokohama Wellness Partners, which is a network of enterprises, etc.

Medical devices field

Promotion of collaboration between medicine and engineering

(Support organization: IDEC Yokohama)

Supporting manufacturers and IT-related enterprises that work toward medical device development, etc., for R&D promotion and sales channel expansion

Research institutes

RIKEN

Yokohama City University

Universities

related initiatives

Promotion of health & productivity management

Dissemination and promotion of "Health and Productivity Management" in which health promotion, etc., is considered from a managerial point of view and strategically implemented.

Note: "Health & productivity management" is a registered trade name of the Workshop for the Management of Health on Company and Employee.

Revitalization of the economy of Yokohama

Yokohama's two platforms

The City of Yokohama aims synergy between IoT technologies and health & medical initiatives by linking its two platforms (LIP. Yokohama and I・TOP Yokohama [IoT Opening Innovation Partners]).

I・TOP Yokohama is an open innovation platform aimed at creating new businesses, solving social problems, and supporting small and medium-sized enterprises (SMEs) that utilize IoT, etc. and take advantage of the "accumulation of manufacturing and IT industries" which is the strength of Yokohama's economy.

Health & medical field LIP.横浜 × IoT technology I・TOP横浜

・Contribution to social issues
・Support for SMEs' challenges
・Creation of new business models

Declaration of "Yokohama as Innovation City"

In January 2019, Hayashi Mayor of the City of Yokohama declared Yokohama as Innovation City. The city will work on personnel exchange, business creation, etc. throughout the city by cooperating with companies and universities located within its boundaries, along with 250 innovators such as entrepreneurs, corporate engineers, and new business managers. In October 2019, the flourishing site for venture companies is planned to be established as a hub to promote programs that support venture companies and other growing enterprises, hold events for personnel exchange, and disseminate information.

Collaborating organizations

LIP. Yokohama aims to create new health & medical technologies and products in Yokohama through collaboration among the industry, academic institutions, the government, and financial institutions. Organizations that agree to the purpose of LIP. Yokohama's related initiatives are participating in the platform as "collaborating organizations."

Major universities and research institutes participating in LIP. Yokohama

RIKEN

As the only comprehensive natural science research institute in Japan, RIKEN, with bases in various locations in Japan, is promoting research in a wide range of fields. The RIKEN Yokohama Campus is home to four research centers that explore life science and the environment fields; Center for Integrative Medical Sciences, Center for Biosystems Dynamics Research, Center for Sustainable Resource Science and RIKEN SPring-8 Center.

YOKOHAMA CITY UNIVERSITY

Yokohama City University excels in the field of cancer, regenerative medicine, and infectious diseases, with a world-class level of research activity. Fukuura Campus has become a site for translational research, with the School of Medicine, University Hospital, and Advanced Medical Research Center closely located. Tsurumi Campus has joint graduate school program with RIKEN, and provides a world-class research environment.

YNU YOKOHAMA National University

Yokohama National University (YNU), located in Yokohama where advanced industries are concentrated, are actively promoting its research and education across the liberal arts and sciences, with three disciplines in a single campus: the humanities, social sciences, and science/engineering. YNU aims to be an international hub of the practical science by providing the solutions of diversified complex challenges in global new era and proposing an ideal form of future society.

Tokyo Institute of Technology

Tokyo Institute of Technology is committed to reforming education, research and governance with the aim of becoming one of the top 10 research universities in the world. At Suzukakedai Campus, we set up the "Institute of Innovative Research" consisting of multiple research institutes, research centers and research units, and are promoting leading research in a wide range of fields such as the life sciences, materials, and energy.

Keio University

At Yagami Campus located in Kohoku Ward, research activities focusing on science and technology are underway, and using Keio Leading-edge Laboratory of Science and Technology (KLL) as a window for collaborating between industry-academia-government, we promote giving back to society via cutting-edge research results and research collaboration with companies. It is also characterized by strong collaboration within the university, such as medical-engineering collaboration that makes use of its strength as a comprehensive university.

KANAGAWA UNIVERSITY

横浜薬科大学 YOKOHAMA UNIVERSITY OF PHARMACY

KANTO GAKUIN UNIVERSITY

JAMSTEC 国立研究開発法人 海洋研究開発機構 Japan Agency for Marine-Earth Science and Technology

Two support organizations

Stage-appropriate careful individual consultation and support by the coordinator of the support organizations "Kihara Foundation" and "IDEC Yokohama"

Networking

Intellectual property strategy

Business plan development

Matching

Project initiation

Financing

Acquistion of Grants

Productization
Commercialization

Market development

KIHARA MEMORIAL YOKOHAMA FOUNDATION

The Kihara Memorial Yokohama Foundation for the Advancement of Life Sciences (Kihara Foundation) was established in 1985 to commemorate Dr. Hitoshi Kihara. Dr. Kihara achieved world-class results in the fields of genetics and evolutionary biology, primarily with a focus on wheat research, and he established the genome concept as a world first. As an affiliate organization of the City of Yokohama, the foundation encourages life sciences research and supports R&D and business development in the field of life sciences.
LIP. Yokohama provides support primarily to life sciences and bio-related SMEs in Yokohama. LIP. Yokohama strives to uncover promising ideas, business seeds, and technologies, etc., held by enterprises in Yokohama and academia and develops them via matching and project development, promoting practical application and social implementation.

●Yokohama Biotechnology Industry Center 1-6 Suehiro-cho, Tsurumi-ku, Yokohama

IDEC YOKOHAMA

Yokohama Industrial Development Corporation (IDEC Yokohama) is the only SME support center in Yokohama designated by the mayor of the city based on the Small and Medium-sized Enterprise Support Act. The corporation's coordinators support SMEs in the city when such SMEs need to collaborate with a large company, etc., or when they need to utilize the intellectual properties of universities in order to enter a new market or to develop new technologies.
LIP. Yokohama is promoting collaboration between entities involved in medicine and engineering, primarily to develop medical devices, etc. It engages in activities designed to create business opportunities, such as the provision of clinical needs information and matching with medical device manufactures.

●7F Yokohama Media Business Center 2-23 Ota-machi, Naka-ku, Yokohama

Issued by the Life Innovation Promotion Division,
Economic Affairs Bureau, City of Yokohama
As of August 2019

Development of new anticancer drug J-Phama Co., Ltd.

We are developing novel anticancer drugs for half of Japanese people who suffer from cancer, in the combination of "the anticancer drug JPH203 targeting only cancer cells" and "diagnosis for the efficacy of that anticancer drug" with Kyorin University, Osaka University, and Chiba University. As for the new anticancer drug JPH203, Phase I clinical trial to confirm safety has been completed, while Phase II clinical trial to demonstrate its efficacy is being conducted.

- Promotion of research and development granted by the City of Yokohama
- Kihara Foudation's support
  - ・Bussiness development cousulting
  - ・Bussiness Matching
  - ・Grant application support
  - ・Providing the information related to research and development

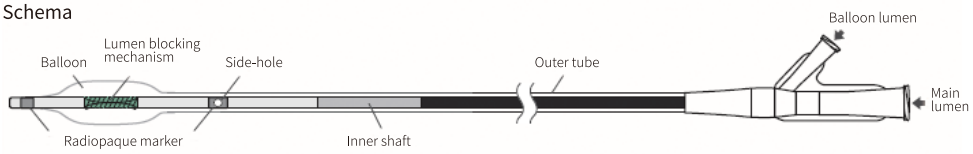
New anticancer drug JPH203

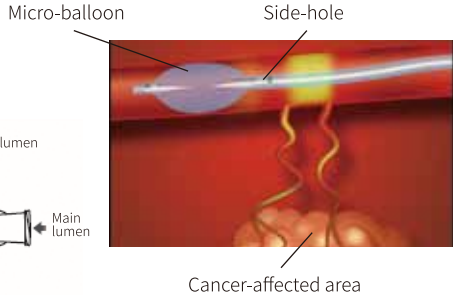
Catheter with selective infusion function Piolax Medical Devices, Inc.

We succeeded in the commercialization of "LOGOSSWITCH®," a proximal, side-hole, and micro-balloon catheter which has a selective blood vessel injection function activated by temporarily obstructing the blood vessel during endovascular treatment of liver cancer and the like. The tip of the catheter is obstructed simultaneous to the inflation of the micro-balloon, which makes it possible to effectively inject a drug solution from the side-hole of the catheter into the fine blood vessel leading to the area affected by the cancer.

- Promotion of research and development granted by the City of Yokohama
- We provide support in the form of individual consultations together with Yokohama Industrial Development Corporation (IDEC Yokohama) via the initiative for collaboration between medicine and engineering.

Schema





"Archelis" NITTO Co., Ltd.

Archelis is a wearable chair developed due to clinical need for a “chair which can be put on.”NITTO developed a “wearable leg support device,” which reduces the muscle fatigue of doctors and other medical staff and that enhances the stability of surgical procedures while doctors and other medical staff are forced to stay standing for long periods of time when carrying out medical operations.

- Promotion of research and development granted by the City of Yokohama
- The project was supported through Yokohama Industrial Development Corporation (IDEC Yokohama) via the initiative for collaboration between medicine and engineering.
- Yokohama City University cooperated in prototype demonstration experiment. Doctors actually used the prototype during medical operations and assessed/verified usability, etc.

Technical Illustration　Pinpoint Photonics, Inc.

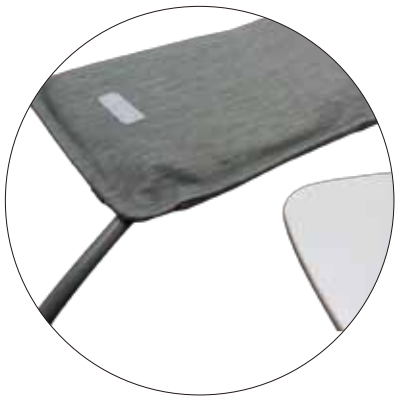
LIP. Yokohama and Advanced Medical Research Center of Yokohama City University “Communication Design Center” supported to create technical illustration (pictures and charts that visually convey scientific explanations and techniques). The deformation that holds down the core of technology, and the illustration abstracting the complicated mechanism, can be effective means of demonstrating the selling point of the company’ s technology and products.

When creating technical illustration, I noticed features that I would not have noticed normally. By showing good illustration at the exhibition, I didn't need to explain about the introductory appeal of the product, so technical explanation went on smoothly.

Example

Next-generation monitoring systems for nursing care - Supporting product development of companies in the city　TAOS Institute, Inc.

Example



AiSleep

Using the “Yokohama Wellness Partners” network, we matched with nursing homes, and conducted demonstration experiments for product improvement. We succeeded to make renewed monitoring system "Aisleep" made for the purpose of securing the safety of elderly patients and reducing the burden on caregivers. It is possible to monitor respiratory rates, detect the state of sleep, and check when the patient gets out of bed by using a pneumatic sensor.

By introducing a nursing care facility at the demonstration test site, we were able to listen to the opinions of people working at the nursing homes and incorporate useful functions at the site.

Develop a health management promotion program for small and medium-sized companies (SMEs) in the city　Yokohama Healthcare Consortium

Yokohama Healthcare Consortium was formed by Sotetsu Group,NTT Docomo Group, the City of Yokohama, etc. and developed a health & productivity management promotion program targeting employees in the city’s SMEs. Using wearable devices and dedicated apps , the consortium visualized the effects of health & productivity management, economized on manpower for collecting and managing health data, and provided health advice in line with individual values. This program made people foster health awareness, and aimed at improving corporate productivity and promoting the healthcare industry.

【Details of support for Yokohama Wellness Partners】

- Recruitment of participating companies utilizing corporate networks
- Establishment of open innovation systems for participating companies

Dedicated apps

Wearable devices