Introduction of Life Science-related Companies Seeking for Overseas Collaboration

This is a list of life science-related companies (as of Jan 2021) with main/branch offices in Kanagawa which are seeking for overseas partners. Please contact the companies directly or Kanagawa Prefectural Government for inquires.

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No.	Company Name & Their Products/Technology/Service/	Key Words	
1	Metcela Inc. <revolutionizing failure="" heart="" the="" treat="" way="" we=""></revolutionizing>	Cardiac fibroblasts, heart failure, regenerative therapy, clinical trial	
2	K Pharma, Inc. <regenerative discovery="" diseases-model="" drug="" ips="" medicine=""></regenerative>	Regenerative medicine, Spinal cord injury, Neurodegenerative disease, iPS cell technology	
3	UNIQS CORPORATION <xeno-free collagen:="" purecolla="" synthetic=""></xeno-free>	Synthetic Collagen, Extracellular Matrix, PURECOLLA, Scaffold	
4	AJINOMOTO Co., Inc. <we and="" cell="" clinical="" culture="" factors="" growth="" in="" media="" provide="" use=""></we>	iPSC, Stem Cells Culture Medium, Chemically- defined, Animal Origin Free, Regulatory compliance	
5	AS ONE CORPORATION <gravity "gravite®"="" control="" device=""></gravity>	Gravity, Space, Stem cells, Regenerative medicine, Drug discovery	
6	Kanto Chemical Co., Inc. <in -vitrigel-eit="" eye="" irritation="" method="" method-="" test="" vitro=""></in>	Eye irritation test, cell culture, in vitro test method, cell culture medium, collagen	
7	Risk Measurement Technologies Co., Ltd. <mind health="" measurement="" system=""></mind>	Mental health, healthtech, voice technology, data analytics, risk management	
8	Metabologenomics, Inc. <gut "metabologenomics®":="" environment="" evaluation="" intestinal="" r&d="" service="" study="" supports="" to=""></gut>	Metabologenomics®, Gut Environment, Responder, R&D	
9	TANOTECH Corporation <tano2020 and="" fun="" motivating="" rehabilitation="" software="" –=""></tano2020>	Rehabilitation, Healthcare, Sensor, Motion Training, Physical Examination	
10	KEA-KOBO Co., Ltd. <appearance -="" care="" garments="" improve="" post-surgery="" qol="" tailored="" to=""></appearance>	Breast Cancer, Lymphoedema, Appearance Care,	
11	HOGY MEDICAL Co., Ltd. <japanese for="" no.1="" operation="" premium<br="" provider="" solution="" theater="" with="">Surgical Kit></japanese>	Surgery, Operation Theater, Surgical kit, infection, workflow	

Company Name:	Metcela Inc.
Location (HQs):	3-25-22 Tonomachi, Kawasaki-ku, Kawasaki, Kanagawa Prefecture 210-0821 Japan
URL:	https://www.metcela.com/en/
Contact address:	cd@metcela.com



<Revolutionizing the Way We Treat Heart Failure>

◆ Abstract/features of product:

Metcela is a clinical-stage biotech startup in Japan, developing an innovative, clinically efficacious and commercially viable autologous cell therapy for heart failure using a specific population of fibroblasts, called "VCFs" or VCAM-1-positive cardiac fibroblasts.

\$22.1 million raised from the U.S. and Japanese VCs and government Fibroblastbased cell therapy for cardiac repair instead of replenishing cardiomyocytes

Efficacy in ischemic animal models using injection catheter delivery

Simple and low-cost manufacturing with no gene modification

◆ Strength & Advantage :

Our approach to heart failure therapy is quite unique from other technologies in a sense that we aim to stimulate endogenous cardiomyocytes to regenerate damaged cardiac tissue by re-establishing favorable microenvironments with VCFs.

The efficacy of VCF has been examined in heart failure models in rats and pigs. Ejection fraction (EF) improved by approximately 26% in VCF treated nude rat, compared to the control. We have also observed a dramatic increase in the cardiac function (i.e. EF) in our porcine studies.

The therapy consists of 4 major steps: taking out a heart tissue from a patient's body by biopsy, culturing and sorting the tissue in a production facility and injecting back into the patient's heart.

Metcela has a strong group of leaders and advisors both in Japan and the U.S. to support business, science and clinicals. We aim to initiate phase I clinical trial at the University of Tsukuba, Japan in early 2021.



Cardiac fibroblasts, heart failure, regenerative therapy, clinical trial

Ejection fraction (EF) in nude rats 18 weeks after human VCF injection Normal EF Rat: 90~95% Human: 64~66% 25.9% EF improvement against control Vehicle Control VCF Injection

2. Purpose of international collaboration

Main Purpose:

To find domestic and foreign investors and collaborators*; who can help us with our global business expansion.

* Especially those with R&D experiences using cells, and regulatory experiences in regenerative/ cell-based therapy products

◆ Expectations for collaboration:

For investors: we hope to work with investors who can support us in expanding our business to the United States. For collaborators: we hope to collaborate with researchers and institutions to maximize the potential of our technologies.

Company Name:	K Pharma, Inc.
Location (HQs):	Level 8, Tri-Seven Roppongi, 7-7-7 Roppongi, Minato-ku, Tokyo 106-0032 Japan
URL:	https://kpharma.co.jp/en
Contact address:	info@kpharma.co.jp



<Regenerative Medicine/Diseases-model iPS Drug Discovery>

◆ Abstract/features of product:

We aim to regenerate the nervous system and develop pharmaceuticals effective for intractable neurological diseases. Although the development of treatments for spinal cord injury (SCI) is processing, effective cure has not yet been established. Anticipation grows for regenerative medicine as a vital therapeutic tool for SCI and cerebral infarctions. In addition, we have focused on elucidating pathological conditions and drug discovery research for intractable neurological diseases utilizing diseases-model iPS cell technology.

◆ Strength & Advantage:

K Pharma, Inc. is a spin-off venture from Keio University dedicated to contributing to the society in the medical field through early implementation of neuro-regenerative technology, as well as drug development and industrialization, for intractable neurological diseases.

- Regenerative Medicine: Keio University has discovered a differentiation-inducing method for iPS cells to neural stem / progenitor cells, and has strived to apply them in the treatment of SCI. We aim to further improve the stem cell differentiation method optimized for effective cell therapy.
- Diseases-model iPS Drug Discovery: <u>The combination of our iPS cell technology with drug screening system is a powerful tool to seek novel drug candidates efficiently.</u> Especially, drug repositioning of approved drugs enables us to deliver effective compound to patients as soon as possible.

♦ Keywords:

Regenerative medicine, Spinal cord injury, Neurodegenerative disease, iPS cell technology

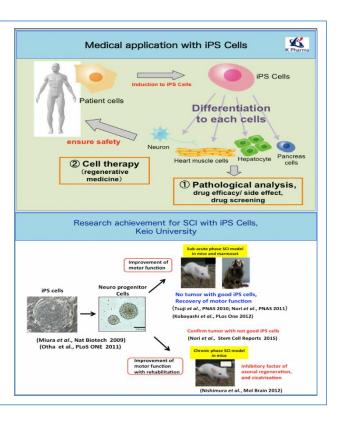
2. Purpose of international collaboration

◆ Main Purpose:

To find business partners such as pharmaceutical companies who have research development base, manufacturing base, and/or sales channel.

◆ Expectations for collaboration:

We hope to work with local partners in US and EU.



Company Name:	UNIQS CORPORATION
Location (HQs):	2-F,Techno-core, High-Tech-Center, 1-1-1 Fukuura, Kanazawa-ku, Yokohama, Kanagawa Prefecture 236-0004 Japan
URL:	http://www.uniqs.co.jp
Contact address:	http://www.uniqs.co.jp/contact.php



<Xeno-free Synthetic Collagen: PURECOLLA >

◆ Abstract/features of product:

Polymeric collagen created with the world's first synthesis technology. Non-animal-derived Polymeric collagen made only from fermented and synthesized amino acids. It is also effective as a hemostatic agent and a material for regenerative medicine.

◆ Strength & Advantage :

- Point 1. Less likely to cause allergies
- Point 2. Excellent heat resistance
- Point 3. No concerns for virus contamination
- Point 4. 100% pure without odor
- Point 5. Dissolve in neutral region
- Point 6. No variation between lots

♦ Keywords:

Synthetic Collagen, Extracellular Matrix, PURECOLLA, Scaffold

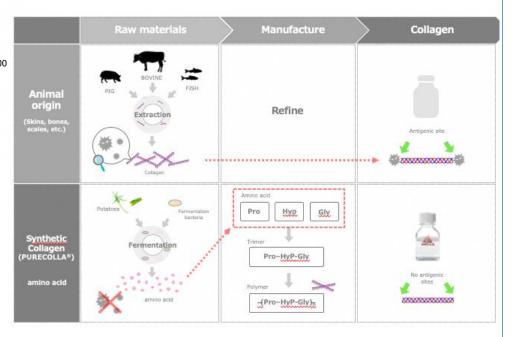
2. Purpose of international collaboration

◆ Main Purpose:

To Find customers such as (1) Companies/Institutions researching and developing regenerative medical materials using collagen and gelatin, etc., (2) Cosmetic manufacturer and OEM/ODM manufacturer of cosmetics, and (3) Distributors dealing in cosmetic and regenerative medical materials.

◆ Expectations for collaboration:

We are looking for companies that use "Synthetic Collagen" as a raw material for cosmetics or regenerative medicine.



Company Name:	AJINOMOTO Co., Inc.
Location (HQs):	15-1, Kyobashi 1-Chome, Chuo-ku, Tokyo 104-8315 Japan
URL:	https://www.ajitrade.com/stemfit/ Twitter: https://twitter.com/fit_stem LinkedIn: https://jp.linkedin.com/showcase/stemfit-?trk=affiliated-pages_result-card_full-click
Contact address:	E-mail address: stemfit@ajinomoto.com



<We provide Cell Culture Media and Growth Factors in clinical use>

Abstract/features of product:

Stable cultivation of stem cells requires complicated operations and high cultivation costs in addition to the high technical skills of the workers. Ajinomoto has advanced technology in the development of culture media for iPSC/ESC through collaboration with the group of Prof. Shinya Yamanaka (CiRA), a Nobel laureate for the discovery of iPSC. We jointly developed high performance culture medium, "StemFit", for stem cells research and further clinical applications.

◆ Strength & Advantage :

- 1. High Consistency Free of undefined components (Serum, human platelet lysate). Chemically defined composition minimizes lot-to-lot variation and enables consistent cell expansion.
- 2. High Safety
 Minimized risk of hazardous animal- and human-derived components.
- 3. High performance StemFit enables superior cell expansion compared to serum-containing media. This medium can maintain stem cells with high level of marker expression and differentiation potential.
- **♦** Keywords:

iPSC, Stem Cells Culture Medium, Chemically-defined, Animal Origin Free, Regulatory compliance

StemFit® High Quality Basic 198C/ESC Medium StemFit® For StemFit® Basic 198C/ESC Medium StemFit® For Differentiation New StemFit® For MSC

2. Purpose of international collaboration

◆ Main Purpose:

We provide cell culture media and growth factors which are chemically defined and animal-origin free to support customers who manufacture cell therapy products for uncured diseases. We expect for finding companies and institutions working towards the clinical and commercialization of cell therapy products as our customers.

Expectations for collaboration:

We perform technical supports for our StemFit products, and will provide a customized medium with high quality and safety for manufacturing your cell therapy products.

Company Name:	AS ONE CORPORATION
Location (HQs):	2-1-27 Edobori, Nishi-ku, Osaka 550-8527 Japan
URL:	https://www.as-1.co.jp/en/
Contact address:	tonomachi-lab@so.as-1.co.jp



<Gravity Control Device "Gravite®">

◆ Abstract/features of product:

Gravity Controller "Gravite®" is one of the 3D-clinostat. Gravite® is a multi-directional gravity device for stimulating microgravity. By controlled rotation of two axes, a 3D-clinostat minimizes the cumulative gravity vector at the center of the device and makes 10^{-3} G over time average. Moreover, Gravite® creates not only simulated microgravity environment as well as ISS but also hyper-gravity environment of 2-3G by centrifugal force from one axis rotation.

◆ Strength & Advantage:

Gravite[®] can set up in CO_2 incubator with 37 degrees C temperature and 95% humidity. It can be used for research and development such as regenerative medicine, space biology, drug discovery, and so on.

- ✓ Inhibition of stem cell differentiation
- ✓ Maintenance of an undifferentiated state of stem cells
- ✓ Promotion of cell growth
- ✓ Three-dimensional cell culture
- ✓ High take percentage on the transplantation of the stem cells
- ✓ Promotion of cell differentiation in a hyper gravity environment

♦ Keywords:

Gravity, Space, Stem cells, Regenerative medicine, Drug discovery

2. Purpose of international collaboration

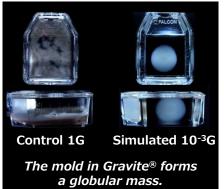
◆ Main Purpose:

To find collaboration partners who can help business expand locally outside Japan. For example, the expected partners would be (1) Laboratories / Companies conducting life science research, (2) Sales agent of scientific instruments and reagents, or (3) Manufacturers of life science equipment and reagents, etc.

◆ Expectations for collaboration:

We hope to promote sales of our research instruments and equipment overseas. We also serve as a dealer in Japan who sells unique technology and products from overseas.





Company Name:	Kanto Chemical Co., Inc.
Location (HQs):	2-1, Nihonbashi Muromachi 2-chome, Chuo-ku, Tokyo 103-0022 Japan
URL:	https://www.kanto.co.jp
Contact address:	E-mail: yamaguchi-hiroyuki@gms.kanto.co.jp



<In vitro eye irritation test method -Vitrigel-EIT method- >

◆ Abstract/features of product:

The Vitrigel-EIT method is a test method for estimating the potential of eye damage or irritation caused by chemicals such as ingredients of household detergent, cosmetics and eye drops. Presence or absence of eye irritation with high sensitivity by analyzing the time-dependent changes of trans-epithelial electrical resistance (TEER) values for 3 minutes after exposing test chemicals to human corneal epithelium models fabricated in ad-MED vitrigel 2 cell culture inserts. The test method was registered as an OECD test guideline (TG494) in June, 2019.

◆ Strength & Advantage:

1. Easy and quick operation

Eye irritancy of chemicals can be estimated by applying a test chemical to the human corneal model and measuring TEER values for 3minutes.

2. Detect mild eye irritancy of chemicals

Vitrigel EIT method utilize change of epithelial barrier function by measuring time dependent TEER change after exposing chemicals to the corneal models. Disruption of corneal epithelial barrier function is early response by exposing eye-irritant chemicals to eye.

3. Custom-made 3D in vitro models

The ad-MED vitrigel 2 is suitable for fabricating cell culture models such as liver and intestine.

♦ Keywords:

Eye irritation test, cell culture, in vitro test method, cell culture medium, collagen

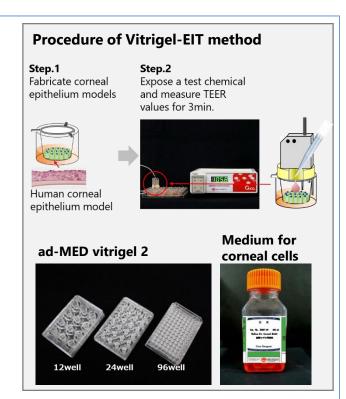
2. Purpose of international collaboration

◆ Main Purpose:

- (1) To Find potential customers, especially cosmetics, drugs and CRO.
- (2) To Find collaboration partners for diffusing the test method (for example, public research organizations involved in the development of national guidelines for safety testing methods for chemical substances etc.).

◆ Expectations for collaboration:

Entrusted companies and CROs carrying toxicology, metabolism, and other regulatory testing in the United States, Europa and South-east Asia.



Company Name:	Risk Measurement Technologies Co., Ltd.
Location (HQs):	Cross Gate 7th floor, Sakuragicho 1-101-1, Naka-ku, Yokohama, Kanagawa Prefecture 231-0062 Japan
URL:	https://rimtech.co.jp/
Contact address:	E-mail: kanji.okazaki@rimtech.co.jp, Tel: +81-70-7544-1992



<Mind Health Measurement System>

◆ Abstract/features of product:

"Mind Health Measurement System ("MiHMS")" that can visualize mental health only with voice. We aim to improve corporate productivity by mitigating human resource risk and operational risk by taking care of workers' mental health problems at an early stage with MiHMS and data analytics.



◆ Strength & Advantage :

The advantages of MiHMS are

- (1) Easy and simple (All you need is voice, simple UI, no response biases),
- (2) Timely (quick results, charts and dashboard),
- (3) Anytime, anywhere (SaaS, multi devices, no installation),
- (4) Save money (subscription, quick start, no existing system upgrade). In addition, MiHMS is language free and does not require meaningful words. Therefore, anyone, for example from kids to elderly, can use MiHMS easily.

♦ Keywords:

Mental health, healthtech, voice technology, data analytics, risk management

At workplace (tablets, PCs) Multi users Data linkage & Privacy Privacy Dachboard for administrators By user Mind Activity Feeling (current condition) Relaxation Vivacity Outside, business trip Holiday Privacy Privacy Holiday Privacy Outside, business trip Holiday Privacy

2. Purpose of international collaboration

♦ Main Purpose:

To find collaboration partner, who can help business expand locally (especially in Asia). For example, (1) Companies that aim for early detection of mental health issues and those who support them, (2) Counseling organizations and corporations, (3) Companies that provide relaxation services, or (4) Researchers to study the relationship between mental health and corporate performance / employee performance, etc.

◆ Expectations for collaboration:

We expect to expand partnership with local companies to develop local users and jointly develop solutions. We can issue a trial account with the same functionality as a paid account for potential partners.

Company Name:	Metabologenomics, Inc.
Location (HQs):	246-2 Mizukami, Kakuganji, Tsuruoka-city, Yamagata Prefecture 997-0052 Japan
URL:	https://metagen.co.jp/en/
Contact address:	E-mail: info@metagen.co.jp Tel: +81-235-64-0330



Metabolomics

Analyze Metabolites

How do they work ?

Microbes products

(Metabolites)

1. Our Products/Technologies/Services

<Gut Evaluation Service "Metabologenomics®": R&D Supports to Study Intestinal Environment>

◆ Abstract/features of product:

Metabologenomics® analysis evaluates the intestinal environment by cutting-edge technology, which helps clients to understand "what happens inside our gut". Our Metabologenomics® discloses the important intestinal factors that make a person a "responder", who are likely to be affected by certain foods, supplements, etc. The data obtained will be analyzed by top scientists in the academic field, and valuable ideas to improve the client's product will be suggested. Analyzed products could be recommended to potential collaborators participating our "Gut Design Project" consortium as well as responders identified by our gut evaluation service (under development) which supports people to improve their health more efficiently.

◆ Strength & Advantage :

- 1. <u>Metabologenomics® approach: Integration of Metagenomics and Metabolomics</u>
 Integrated analysis of metagenomics and metabolomics is highly complex and requires specialized knowledge to fully understand and apply to products development.
- 2. <u>Analysis and consultation by top researchers in academic fields</u>
 Active researchers from Molecular Biology, Bioinformatics and Medicine will analyze and consult the study in our R&D support services.
- 3. MGKit; the assessment kit able to stabilize both genetic and metabolomic information MGkit, our original fecal sampling kit, is capable of storing both microbiota and metabolites without reagents at room temperature, which ease a sampling (patent under registered)
- **♦** Keywords:

Metabologenomics®, Gut Environment, Responder, R&D

Bioinformatics Metabologenomics® Evaluation of Gut Environment, not only for "grasp" but also "regulate" Fig.1 Overview of Metabologenomics® 1 Stabilize at room temperature 2 Stabilize both microbiota/metabolites 3 Reagent free Fig.2 MGKit: Original fecal sampling kit

Metagenomics

Analyze Bacteria

Who are players?

Microbes (Genomes)

2. Purpose of international collaboration

◆ Main Purpose:

Discovering potential products/materials to improve gut environment

Expectations for collaboration:

Food/Supplement/Additive material/Drug companies who are interested in evaluating the effects of their own products on the intestinal environment by utilizing Metabologenomics® research platform in order to improve/advertise the products and its potency.

Company Name:	TANOTECH Corporation
Location (HQs):	Paren Bld 5F,1-4 Miyano-Mae, Hiratsuka City, Kanagawa Prefecture 254-0035 Japan
URL:	http://www.tanotech.jp/
Contact address:	global@tanotech.jp TEL: +81-463-73-5490



<TANO2020 – fun and motivating rehabilitation software>

◆ Abstract/features of product:

The contents of TANO rehabilitation training system consists of mainly four categories; limb movements, vocal training, brain training, and physical measurement. There are over 80 different fun training programs for rehabilitation and fitness exercise.

Users can enjoy TANO's "Physical Exercises" / "Voice Training" programs by oneself or with several people. Through the use of "Physical Examination" training programs, users can also be evaluated with various measurements - such as posture, body distortion, reflexes, etc.

◆ Strength & Advantage:

TANO applies the latest high-technology methods and develops products in collaboration with institutions and universities around the world based on the proposals of medical and nursing education institutions. It has gained a high reputation in Japan, Korea, Europe, China and Taiwan. It will be a star product in the rehab industry. Currently, it is used in more than 100 nursing homes in Japan. TANO has been certificated "KAWASAKI Innovation Standard (KIS)" as an innovative product that supports human independence, and received a bronze award in the HealthTech category of the "RE-CARE AWARD" in 2018.

♦ Keywords:

Rehabilitation, Healthcare, Sensor, Motion Training, Physical Examination

2. Purpose of international collaboration

◆ Main Purpose:

Finding business partners who can help businesses expand locally. Acquisition of agents/distributors, Joint development partnerships.

Expectations for collaboration:

To expand sales channels, collaboration with E-sports competitions, Olympics and other Expos.

*Note: For sales in China and South Korea, we will introduce you to the sole agency in each country.



Company Name:	KEA-KOBO Co.,Ltd.	
Location (HQs):	5 th Floor Ginza Lyon Building, 9-12 Ginza 8-chome, Chuo-ku Tokyo 104-0061 Japan	株式会社 KEA工房
URL:	https://www.kea-kobo.com/	https://www.kea-kobo.com
Contact address:	Email: iwata@kea-kobo.com TEL: +81-3-6228-5312	

<Appearance Care garments - tailored care to improve post-surgery QoL>

Abstract/features of product:

- *Bras for post-breast cancer surgery for better QOL
- *Compression Garments to care the edemas of postcancer surgery
- *Any garments required at a hospital needs

◆ Strength & Advantage:

- 1. Our products give customers excitement and courage and bring up their Quality of Life to a better stage.
- 2. We can **meet each customer's needs** we can provide finely-tuned ready-made products, and also can manufacture custom-made products to fit each patient's body/condition.
- 3. We can **also meet each hospital's needs** products that are not generally available in market can be custom-made at the request of each hospital.
- **♦** Keywords:

Breast Cancer, Lymphoedema, Appearance Care,



Post Surgery

- Material that does not burden the skin
- Front opening for easy attachment and detachment
- A pocket on the surface for putting a light weight pad



Improving QOL

- The shoulder straps are wide and secure, with less strain on the shoulders
- Designed on the back side so that the adjustment bracket does not hit the surgical mark
- A pocket on the back side for putting a true weight pad
- Designed with wide sides and a firm support for the true weight pad



Lymphedema Care

2. Purpose of international collaboration

◆ Main Purpose:

To find the partners who are capable of selling our products in Southeast Asia.

◆ Expectations for collaboration:

We hope to work with local partners in Asian countries.

We expect to expand our sales network with local partners, and develop products tailored to overseas customers in collaboration with medical professionals in each area.

Company Name:	HOGY MEDICAL Co.,Ltd.
Location (HQs):	7-7, Akasaka 2-Chome Mimato-ku, Tokyo 107-8615 Japan
URL:	http://www.hogy.co.jp/english/index.html
Contact address:	Masato akiyama@hogy.co.jp Tel: +81-3-6229-1307



<Japanese No.1 Solution Provider for Operation Theater with Premium Surgical Kit>

◆ Abstract/features of product:

Premium surgical kit is an individual package of all required disposable items in a process of patient care from entry to exit of a patient at the operation theater.

It is an all-in-one products of disposable items required for each surgical procedure.

We contribute "Safety" "Work Efficiency" and "Cost Control" as turn key to improve current pain points at large hospitals which perform more than 5,000 surgery per year.

Proper infection Control for patient and workers Concept Visualization of operation theater performance Ease of manage cost and seek high profitability

> Operation Theater Management

Surgery, Operation Theater, Surgical kit, infection, workflow

Time Management

- standardizing surgical procedure plans
- appropriate scheduling of staff shift
- accurate, secure and quick preparation

Stock Management

- Accurate stock control
- Avoid expired stock
- Minimize variety and quantity
- Cost Management **♦** Keywords:
 - Evaluate by surgical procedure

Data analysis for improvement



2. Purpose of international collaboration

♦ Main Purpose:

We would like to collaborate widely with business partners who would agree with our product concept.

◆ Expectations for collaboration:

We would like to collaborate with the managers of medical facilities and hospital chains who seek for better management of the hospitals through further streamlining of surgery preparation and enhanced productivity of hospital staff. We would like to collaborate with above organizations, especially hospital groups who are expanding globally.

Kanagawa Prefectural Government Healthcare New Frontier Promotion Headquarters Office

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> > Tel: +81-45-285-0187

Website: http://www.pref.kanagawa.jp/docs/mv4/index.html