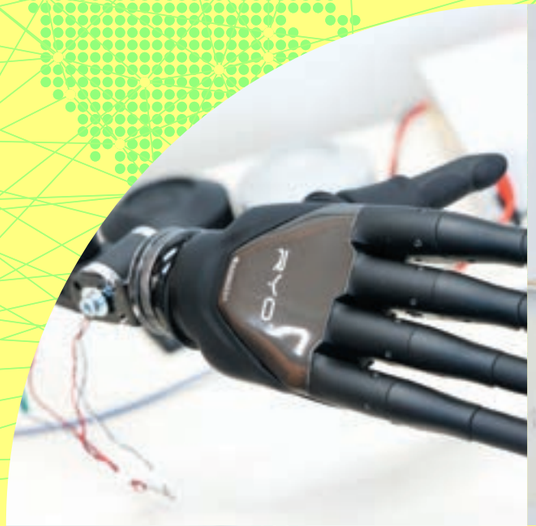


business with OSAKA

Innovative Healthcare Businesses in Osaka

CONTACT OSAKA BUSINESS DEVELOPMENT AGENCY
Mail bw-osaka@obda.or.jp HP https://www.obda.or.jp/en.html

OSAKA CITY 大阪市

OSAKA BUSINESS DEVELOPMENT AGENCY

Healthcare-related Companies in Osaka Contribute to the Improvement of Well-being for Every Individual.

Historically, Osaka has been home to many companies that handle pharmaceuticals and healthcare equipment, among which are many leading companies in the medical, nursing care, and health-related fields.

To meet the needs of medical and nursing care settings and to improve the lives of each individual, these companies provide products and services that often incorporate cutting-edge technology.

In this edition, we will introduce nine promising Osaka-based companies that contribute to global well-being.

※Please contact the listed companies individually for the status and information of their patents and trademarks inside/outside of Japan.

"EggU" Fertility test kit

Featured Business 1

Fertility Test Kits to Support Modern Women's Future Pregnancy and Childbirth

CEO
SHIGA Haruna

In Japan's current society in which women are entering the workforce and pursuing higher education, the overlap of the childbearing age and career advancement has become a social issue. Ms. Shiga, CEO of BeLiebe, is the one who felt worried about this situation herself. After finishing graduate school, she was looking to work overseas at a foreign consumer goods manufacturer; however, she faced a problem unique to women—the inevitability of becoming pregnant and having children at an older age.
For that reason, Ms. Shiga, who had studied medical and life sciences at university and graduate school, established the company in 2021 with the desire to expand women's options using the power of biotechnology. While working at the company mentioned above, she started her own company to start a parallel career. She then developed the fertility test kit "EggU" to help women with the same concerns as she had.
To use it, simply prick your fingertip with the needle provided and collect as little as 0.065 ml of blood. Then put it in the return envelope and mail it by post to the testing lab. The number of eggs left in the body can be measured from AMH (Anti-Mullerian Hormone) without going to a hospital. In addition, by combining the data from the questionnaire you answered in advance, you can visualize your current physical condition, including some of the risks of infertility. This provides an opportunity to think about future career planning and lifestyles.
Furthermore, the program also includes online counseling by nurses, midwives, and other professionals on topics such as pregnancy, childbirth, and life/career planning. Individual counseling based on test results not only allows you to freely discuss issues related to fertility, infertility treatment, childbirth, and balancing work and family life. It also provides you with advice customized to your own individual life planning. The anxiety of "not knowing what to do even after the test results come back" is eliminated, and the actions that should be taken after the test are clear. "EggU" is unique in its ability to provide services that are attuned to women's feelings, which cannot be measured by data alone.
Currently, "EggU" is gradually spreading, mainly among companies and governments that actively support women's work styles. For women to achieve their own unique goals in life, BeLiebe supports women in today's society who do not want to give up working, pregnancy, and childbirth.

BeLiebe K.K. [Sales of medical equipment, provision of health care services, etc.]

[Address] #5 8F Osaka Ekimae Daiichi Bldg. 1-3-1 Umeda, Kita-ku, Osaka City

[Product name] Fertility test kit "EggU"

▲HP

"Eleban Prestat" and other dialysis-related products


"Hakuzo Mouth Clean A" and other oral-care products

Featured Business 2

Wide Range of Dialysis-related Products and Oral-care Products from Japan to the World

Overseas Trade Dept.
Senior Manager
NISHIMURA Masahiro (right)
Manager
NISHINOME Seiji (left)

Since its establishment in 1954, Hakuzo Medical has been manufacturing and selling hygienic products, such as gauze, bandages, and absorbent cotton wool, as well as a wide variety of pharmaceuticals, quasi-drugs, and infection control products. To meet the needs all over Japan as well as Asian countries, they are aggressively developing dialysis-related products by opening an office in Thailand office in 2019 and a factory in Thailand in 2021. For example, the "Dialysis Kit I (ICPACK)," a disposable tray kit that includes, among other things, cotton balls and dialysis sheets, has been well received because it is "of higher quality and more hygienic than those made by local manufacturers".
Also, their popular products are protective dressing materials that are applied to the puncture site after dialysis. The "Eleban Prestat" provides excellent compression with its highly elastic tape and compression pad. When applied immediately after dialysis, the pad absorbs blood and expands vertically to enhance its hemostatic effect. When the patient returns home from the hospital, it can be replaced with "Eleban Prestat Mini EX". Its five-layered padding also provides excellent absorbency and protects the puncture site.
The company has also launched the nursing care brand "cocoemi (Emi means Smile)" to focus on developing oral-care products for the elderly that not only clean the mouth but also maintain and improve oral functions. As a manufacturer of hygienic products, the company has a wide variety of products designed to solve on-site problems based on the technology and experience they have accumulated over many years. For example, their toothbrushes are easy to brush at any angle because their bristles are in a 360-degree direction. Their wet sheets have a unique uneven surface design for easy wiping of dirt from the mouth which provide a sense of ease of use and timesaving for caregivers while taking into consideration the comfort and fatigue of the person.
The company will continue to expand overseas to India, the Middle East, ASEAN, and even Europe and the United States. With its high-quality products, it has the potential to increase its presence in the medical and nursing care fields in various countries.

Hakuzo Medical Corporation

[Manufacture and sale of pharmaceuticals, quasi-drugs, medical equipment, cosmetics, and import/export of medical hygiene materials]

[Address] 2-4-9 Tokuicho, Chuo-ku, Osaka City

[Product name] Dialysis Kit I (ICPACK), Eleban Prestat, Refreshing Hakuzo Mouth Clean A

▲HP


Bionic hand "RYO"

Featured Business 3

Smart Bionics Prosthetics Achieving Natural and Comfortable Movement with Bionics Technology

CEO
Dr. Alvaro Rios Poveda

KAWATEK, established in December 2022, is led by Dr. Rios, who has extensive knowledge in the field of bionics and upper limb prosthetics.
The company is dedicated to the research and development of products and services based on bionics, human augmentation, and rehabilitation. By incorporating cutting-edge technologies such as Al, 5G, nanotechnology, and micro-robotics, the company is enhancing the user experience for people with disabilities. The company is committed to making technology accessible, supporting people with physical disabilities and the elderly, and striving to achieve a healthy and prosperous society for all.
Dr. Rios is a leader in the field of myoelectric prosthetics with sensory feedback, which uses subtle signals from the brain and muscles to control bionic hands. "RYO" is a prosthetic limb equipped with gesture control and sensory feedback based on this knowledge of bionics.
The complete system consists of the bionic hand, socket, and battery, with a total weight of less than 0.9 kg. Using aluminum and titanium for the body achieves lightweight and shock-resistant durability. The socket, custom-fitted to the user's size, is crafted after scanning the user's stump to ensure the perfect fit. Currently, the battery lasts 4-5 days, with plans to extend this to a maximum of 1 month.
"RYO" receives signals transmitted from the user's brain, enabling more natural and precise hand movements, such as opening and closing palms and pointing fingers. It can comfortably perform movements that were previously thought to be impossible, including movements such as catching a ball in mid-air, using a computer mouse, or a video game controller.
Additionally, with Al integration, the hand's learning function allows "RYO" to adapt to the user's specific needs. The system further reduces the patient's stress during delicate tasks. With "RYO", it is expected that more than 95% of daily activities can be performed, resulting in an improvement in the quality of life for the users.
Moreover, a prosthetic eye that can be fitted without surgery is currently under development.
The company's innovative and practical bionics technology will deliver hope and inspiration, especially to people with physical challenges.

Kawatek Co., Ltd.

[Development and manufacture of Smart Bionics prosthetic limbs and eyes]

[Address] M -1-15, 6F ITM ATC Bldg. 2-1-10 Nankokita, Suminoe-ku, Osaka City

[Product name] "RYO" bionic prosthesis

▲HP

Non-invasive blood glucose sensor　(left) mobile form (right) stationary type

Measuring takes just 5 seconds by touching the sensor with your fingertip

Featured Business 4

Blood Glucose Sensor that Reduces the Burden on Diabetic Patients without Finger Pricking

President CEO YAMAKAWA Koichi

There are more than 10 million diabetic patients in Japan and more than 500 million worldwide. Some diabetic patients need to test their blood 4-5 times daily since treatment requires accurate monitoring of blood glucose levels. To test the blood, patients need to prick a finger with a needle. The physical pain and emotional stress, as well as the generation of medical waste such as blood collection needles and the risk of infection, have become problems.

In response to this, Light Touch Technology, established in 2017, has developed a "non-invasive blood glucose sensor" capable of measuring blood glucose levels without finger pricking. The measurement can be completed in just 5 seconds by simply touching the sensor with your finger. This device uses the property of glucose (sugar) in the blood to absorb light in a specific wavelength band emitted by a mid-infrared laser. The absorption rate is used to measure blood glucose levels.

There have been developments in technology to measure blood glucose levels by using near-infrared light which does not require any blood sample; however, it has been considered difficult to obtain sufficiently accurate measurements due to the significant impact of components other than glucose (sugar). On the other hand, in the mid-infrared region, it is possible to measure only the absorption rate of glucose (sugar). However, the extremely low brightness in the mid-infrared region of conventional light sources has not yet achieved sufficient measurement accuracy.

Under these circumstances, the company has succeeded in developing an unprecedented palm-sized, high-brightness-mid-infrared laser with its proprietary technology. They established a non-invasive blood glucose measurement technology that meets the criteria set by the International Organization for Standardization (ISO) under certain conditions, making the first step toward product commercialization.

As of 2024, two types of prototypes have been completed: a stationary type using at home and a mobile type designed for portability. First, they will move forward with clinical trials for the stationary type, with the aim of commencing sales in a few years.

With this device, diabetic patients as well as non-diabetics can easily measure their blood glucose levels. To ensure that everyone can use the device on a daily basis, they are also considering introducing the device to public institutions, educational institutions, pharmacies, drugstores, fitness gyms, and the like.

Light Touch Technology Inc. [Development, manufacture, and sale of non-invasive blood glucose sensors that do not require blood samples]

[Address] 13F NLC Morinomiya Building. 1-6-111, Morinomiya, Joto-ku, Osaka City

[Product name] Non-invasive blood glucose sensor

▲HP

"WAVEX" in use (EEG Sensing VR Relaxation)

"WAVEX" in use (next-generation virtual cognitive brain training)

Featured Business 5

Applying the Most Advanced Technology of EEG Analysis to the Field of Healthcare and Wellness

Managing Director, CEO Dr. Christian Penaloza

Mirai Innovation Research Institute provides and develops services that will be useful in various fields such as health, education, environment, and entertainment, centered on research, development, consulting, and academic training. The five areas of expertise are AI, virtual reality (VR) and augmented reality (AR), robotic systems including hardware and software design, neuro-sensing technology that analyzes brain waves, and business innovation. Dr. Penaloza, CEO, studied computer engineering at an American university and came to Japan about 15 years ago. In Japan, he completed doctoral studies in cognitive neuroscience, artifical intelligence and robotics at Osaka University.

"WAVEX" is one of the company's representative products. A hardware and software platform that integrates brain waves into existing VR headsets to provide a personalized VR experience based on real-time brain wave analysis.

The application of "WAVEX" to healthcare services is the "Next Generation Virtual Cognitive Brain Training". This is a service that prevents cognitive decline, aimed mainly for the elderly. The objective is to improve cognitive skills such as, memory and concentration by performing simulated real-life tasks such as shopping at a vending machine in VR. By wearing "WAVEX", the user's brain waves are analyzed in real time, and task's complexity can be adapted to be tailored to the cognitive abilities of each user. The company is also planning to introduce the system to nursing homes and medical facilities not only in Japan, where the population is aging but also in other countries around the world.

Another example of their wellness service is the "Brainwave Sensing VR Relaxation". Wearing "WAVEX" with a 360-degree view projecting nature images in a VR space provides peace of mind and is expected to relieve stress. There are five types of images: space, forest, underwater, beach, and temples as the device analyzes the user's cognitive state to project the most relaxing VR space.

"WAVEX" is also scheduled to exhibit at the Osaka Healthcare Pavilion at the 2025 Osaka/Kansai Expo. Why not experience for yourself the state-of-the-art technology of EEG analysis in action?

Mirai Innovation Research Institute
[Research, development, and sales of AI and robots]

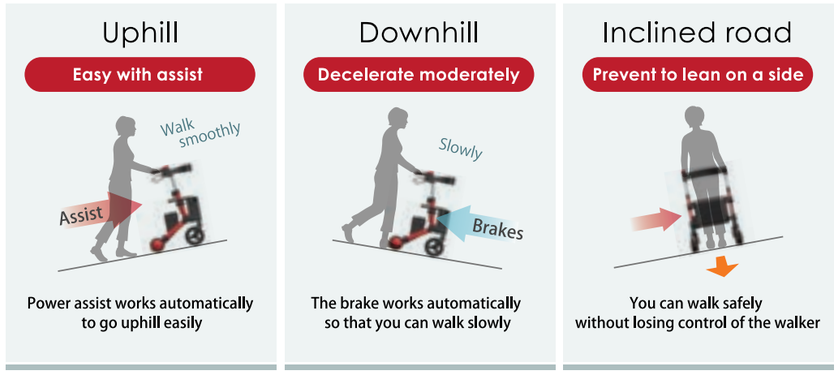
[Address] Edge Hommachi Bldg. 2-3-12 Minamihommachi, Chuo-ku, Osaka City

[Product name] "Next Generation Virtual Cognitive Brain Training" and "EEG Sensing VR Relaxation"

▲HP

Image of use of "Reha3.0"

"RT.3" for easy use at your fingertips



Assistance that ensures safe and comfortable walking even on slopes

Featured Business 6

AI App that Identifies High-risk Patients to Reduce the Burden on Medical and Nursing Care Sites

CEO
MASUDA Hirokazu

Rehabilitation3.0 was launched in 2019 by Mr. Masuda to explore combinations of rehabilitation and cutting-edge technologies, using his many years of experience as an occupational therapist. In particular, the company aims to revolutionize the rehabilitation field by making full use of Digital Transformation (DX) and Artificial Intelligence (AI).
Their flagship product, the "Reha3.0", a patented application in Japan, in which AI analyzes and makes projections about individual motor and cognitive abilities based on collected vital data (heart rate, respiration rate, etc.) during sleep. Based on this information, "Reha3.0" can recommend an optimal workout plan and precautions for improved individual health conditions in line with each individual's health condition.
"Reha3.0" is particularly helpful in addressing potential issues that may occur in medical treatment and nursing care settings. The fluctuation of the motor and cognitive abilities of people with dementia poses the risk of falling from day to day, which in turn leads to the problem of exhaustion of the caregiving staff. For example, by using "Reha3.0" to assess the condition of people with dementia and identify those at risk of falling beforehand, the task of monitoring by the caregiver staff has decreased by 80%, thereby reducing costs and improving the working environment. It can also be used together with other devices, such as bed-exit sensors, making it responsive in a wide range of situations.
In addition to the medical treatment and nursing care fields, it is anticipated that the "Reha3.0" technology will be used in a wide range of other fields, such as research to maximize the effects of supplements, development of performance improvement programs for athletes, and prevention of driving accidents by cab drivers. They are also expanding their capabilities in the field of security, such as the development of a personal identification system using heart rates.
The company is continuing to provide advanced solutions to various social issues in Japan, and abroad which has the potential to pave the way for solutions not only for the challenges of Japan's aging society, but other global issues as well.

Rehabilitation3.0 Co., Ltd.

[AI research, development, and sales for medical treatment and nursing care]

[Address] ON the UMEDA. 1F Message Umeda Bldg. 2-16-19 Sonezaki, Kita-ku, Osaka City

[Product name] "Reha3.0", an AI application for medical treatment and nursing care

▲HP

Featured Business 7

Futuristic Electric-assisted Walker that Supports Walking with Robotic Technology

Director, COO
SHIKAYAMA Yusuke

RT. Works was created as a spin-out of Funai Electric, a manufacturer of home appliances such as TVs and recorders. It was established to achieve a future in which robotic technology functions well in people's lives and where each individual can play a more active role. The company especially targets the healthcare sector, with particular emphasis on the issues of walking among the elderly. "RT.3" was developed as a robot-assisted walker that supports people to walk on their own feet and go out on their own for a long time.
Since this product features an electrically assisted design that utilizes robotic technology, it can be used intuitively without learning how to operate it. The user simply turns on the power switch and walks by gripping the handles. Sensors detect the walking environment and conditions, then automatically adjust to provide support for easier walking.
Specifically, a grip sensor mounted on the handles senses human movement, and a 6-axis motion sensor mounted in the center of the walker senses road surface conditions and human movement. Based on this sensing information, motors mounted on the wheels move, which assists with movement and braking in real time.
For example, when going uphill, the power assistance is automatically activated to make it easier to go up smoothly and effortlessly. Conversely, when going downhill, the brake is automatically activated, allowing the user to slow down walking little by little. In addition, the anti-leaning function automatically works for inclined roads, therefore this makes it possible to walk safely without losing control. Even if you let your hands go while going downhill, a grip sensor detects that and automatically stops the walker. If the system detects sudden excessive speed, such as tripping over something on a flat road, it automatically decelerates and applies the brakes to prevent the walker and the user from tipping over.
Another popular function is an announcement of the walking distance. You can check the distance per outing and the cumulative distance. After use, it can be folded up for compact storage in the home without taking up much space.
This is a future-oriented walker that assists the elderly with robotic technology. If this product succeeds in reducing the risks of walking outside, people will be able to envision a healthier future in which they can continue to actively go outside without giving up hope.

RT.WORKS CO., LTD.

[Development, manufacturing, and sales of technologies related to life support robots]

[Address] 11F Sakuramorinomiya Bldg. 1-10-26 Nakamichi, Higashinari-ku, Osaka City

[Product name] Robot-assisted walker RT.3 (RT.3)

▲HP

Electric bed “Emi” for home care, positioning support “Emi Table” and the “Emi Footrest”

At the “To Do Studio,” a hands-on showroom, visitors can experience the latest equipment, including beds, lifts, wheelchairs, and bathing systems.

Featured Business 8

Electric Beds that Create New Pleasure by Responding to the Detailed Needs on-site

Managing Director, CEO
MASUMOTO Tatsuki

SEAHONENCE manufactures and sells electric beds for medical and nursing care facilities and for home care. Up to now, the company has introduced a number of innovative products to suit caregiving settings. Various advanced features and functional improvements have been achieved, on-site such as lowering voltage by using a DC power supply, an anti-bacterial body coating, and a battery for operation during power outages.

The company’s philosophy is to develop and improve products that thoroughly address issues on-site issues and provide new value and discoveries to users through its products. The quintessential product is the latest model of electric beds for nursing care, the “Emi”. First, let us mention the electric headrest function! The head and neck angle can be adjusted electrically within a range of 0 to 50°, enabling positioning and keeping it in a forward-tilting position with chin pulled back without difficulty. In addition to making swallowing easier and reducing the risk of aspiration, it is also expected to improve quality of life by making breathing easier, eye contact with people around you easier, and for watching TV or reading books. A wide range of positioning functions are available as options to help with proper positioning. The “Emi Table” can be attached to an overbed table or side table which relieves the weight on the shoulders and arms by relaxing the tension around the neck by supporting the upper limbs with it. It also accommodates comfortable positioning at the table, including at mealtimes.

The “Emi Footrest” is attached to the foot portion of the bed to support the bottom of the foot. By supporting the soles of the feet, even while in bed, it allows the lower abdomen to stabilize the core, which promotes the maintenance of a stable sitting position through the core, and plantar stimulation promotes arousal to help maintain a stable sitting posture.

Other attractive features include a mechanism that reverses to upward when something is bitten into the bed when lowering it, voice guidance to prevent incorrect operation, and a compact design that can be used in any room.

It is not an exaggeration to say that changing your bed can change your life, and according to the company, users of the product and their families have been sending in many comments of their satisfaction. It is truly an electric bed that brings a “smile (Emi in Japanese)” to your face.

SEAHONENCE Inc. [Manufacture and sale of electric beds for medical and nursing care facilities and home care]

[Address] 3-10-17 Fukaekita, Higashinari-ku, Osaka City

[Product name] Electric beds for home care “Emi”

▲HP

“Hitomiru”, a pupillometer

Featured Business 9

Simultaneous Measurement of Pupillary Reaction in Both Eyes Expectations for Non-medical Applications

Uratani Shoji Co., Ltd.
Senior Managing Director
URATANI Naoto

”Hitomiru”, a pupillometer that measures both eyes simultaneously, was developed by Uratani Lab, a manufacturing subsidiary of Uratani Shoji, which engages primarily in the manufacture of mold components and engraving tools for metal and plastic products.

The impetus for the development of the “Hitomiru” was the consultation from an emergency physician to Mr. Ota, who originally managed a camera store (currently in the Medical Device Manufacturing Department of Uratani Lab) about how to record pupil responses easily and accurately even during emergencies. Pupil measurement, a simple method of determining brain function in emergency patients, is generally performed by measuring the diameter of the pupils with a special tape measure and penlight; however, since this method is only a visual assumption, a more accurate pupillometer was needed.

The “Hitomiru”, which was commercialized about 10 years later, has a simple configuration consisting of goggles that take and measure images and a display (tablet) for monitoring. Its compact size makes it very portable. Although compact pupillometers have been commercialized in monocular types, the “Hitomiru”, a binocular type, was an unparalleled product. The functions include simultaneous recording of two cameras using Windows and analytical measurement technology. The ability to record data about changes in surface area and diameter of the left and right pupil allows objective and reliable pupil measurement without relying on the judgment of individuals. Incidentally, a QR code is engraved on the main body, taking advantage of the engraving technology we have cultivated over many years, to provide easy access to the latest information, such as the instruction manual. The “Hitomiru” is still being further improved in cooperation with mainly medical research institutes and experts. Since it is said that various information can be detected from pupil responses, including symptoms of dementia, one’s stress level, and signs of eye disease, the company is expanding the use of the “Hitomiru” in the nursing care and transportation industries. The expectations of the device, which has the potential to be applied in fields other than medical care, continue to grow.

Uratani Shoji Co., Ltd. [Manufacture and sale of die components and engraving for marking]
Uratani Lab [Medical device manufacturing]

[Address] 3-10-22 Himesato, Nishiyodawa-ku, Osaka City

[Product name] “Hitomiru”, a pupillometer

▲HP