

Premières tendances du CES Las Vegas 2024

Chapitre 1 : La santé

D'année en année, le marché de la santé prend une place **de plus en plus prépondérante** sur le CES. Les offres et surtout les contenus progressent. Rappelons que le CES est un salon du « Consumer Electronic » plutôt dédié au grand public. On y retrouve donc beaucoup d'objets avec des usages personnels et familiaux. Toutefois cette année, on constate un nombre important de **solutions professionnelles**.

Une caractéristique importante du marché de la santé est qu'il est très réglementé, et avec une réglementation différente entre l'Europe et les USA. Un dispositif médical doit présenter un marquage CE pour Europe et un agrément FDA sur les marchés rattachés aux USA. **Certains des produits présentés ne pourront donc pas directement être commercialisés en France.** Contrairement à certains marchés comme la domotique, qui parfois ont du mal à mettre en avant une « valeur d'usage », la santé se positionne facilement avec des cas d'usage précis pouvant créer des valeurs marchandes conséquentes.

L'intelligence artificielle est entrée de plain-pied dans l'univers de la santé pour permettre de proposer de nouveaux services.

Sur cette édition du CES, on constate une **croissance importante du nombre d'exposants** inscrits dans la catégorie « Digital Health » (385 entreprises sur les 3630 exposants enregistrés à ce jour). Cette tendance est aussi vraie pour les produits primés d'un CES Award.

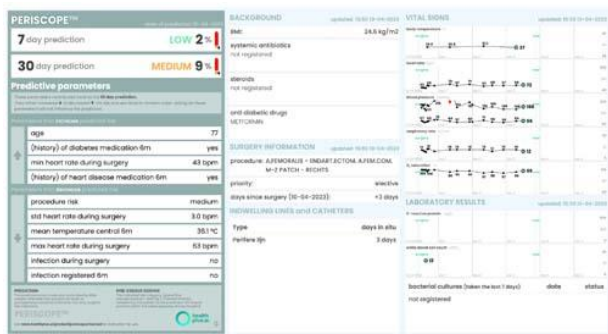
Nous avons pré-identifié quatre domaines particulièrement représentés (Télésurveillance / Nouvelles Analyse / Silver Economie / Santé mentale) ainsi que **quelques OVNI (Objets Vraiment Nouveaux et Innovants)** symbole de la capacité annonciatrice de ce salon:

a. Surveillance à distance / monitoring / Lien avec centre de soin

Quasiment tous les systèmes de soin nationaux sont économiquement dans le rouge. Le maintien et le soin à domicile dont donc souvent privilégiés. De multiples offre de monitoring à domicile sont proposés sur le salon. La **mesure et le contrôle de paramètres vitaux** est aussi une tendance forte du SelfCare. Un autre marché devenant important est celui de la filtration de l'air et de la détection des différentes sources de pollution (présentés dans la partie smarthome).

PERISCOPE

By Healthplus.ai



Patent-pending medical diagnostics tool, using advanced AI/ML technologies, for taking diagnostics and/or treatment of a post-operative bacterial infections following any surgical procedure in the hospital setting to a Next level, by effectively reducing the severity and impact of such infections through prevention & early detection, enabling the Development of Personalized & Precision healthcare practices as major tools for Control of ever escalating Healthcare costs, while Collecting the Individual patient's electronic health data for a unique ability of Recovery Predictions at the end of each surgical procedure.

Inception ONE

By InceptionLAB



Inception One is an attachable smart medical device optimized for pressure ulcer care. Utilizing multi-panel impedance measurements and advanced machine-learning algorithms, it delivers unparalleled accuracy in skin mapping without direct ulcer contact. Its bio-photonic healing capabilities address the limitations of traditional drug treatments, reducing allergy risks. Designed for user-friendly home application, this all-in-one device aims to substantially improve preventative skin care for the elderly without the need for specialized medical supervision.

doctorigin S1

By KUEENDOM Co., Ltd./HANSEO UNIVERSITY



IoT Beauty Device & Customizable Cosmetics

- Step 1. Analysis and diagnosis of individual skin through the APP's AI skin analysis program
- Step 2. Personalized skin improvement cosmetics are provided as a result of diagnosis by an AI program
- Step 3. Automatically provide usage optimized for the user's real-time environment (Weather, temperature, and humidity through doctorigin S1)

- doctorigin S1 and the APP are capable of checking current skin condition and providing skin information in real time.
 - Users can enjoy 'smart' beauty through personalized skin improvement.
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Bodylog Chest Patch

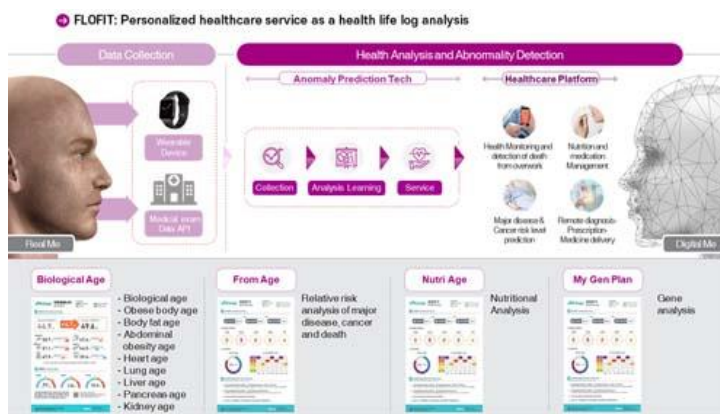
By Luxnine Corp.



Bodylog, a revolutionary telehealth solution seamlessly integrating into your lifestyle. Harness the power of wearable technology as Bodylog monitors EKG, HRV, and vital signs, adapting to your unique body postures for precise insights. Uncover the impact of posture on metrics like stroke volume, making EKG, HRV, and vital signs posture-responsive. With this knowledge, Bodylog accurately assesses pain levels compared to baselines. In emergencies, Bodylog shines—detecting crises and instantly transmitting updates to chosen family and caregivers. Versatile and intuitive, it thrives in any environment. Attach to your chest, and access data through our app and web services.

HEALTHKETCH, AI based digital healthcare system

By Modata Co, Ltd



'HEALTHKETCH' is a personalized digital healthcare system that can detect health abnormalities using our patented multi-modal artificial intelligence-based anomaly detection technology.

'HEALTHKETCH' is not a simple wearable body data monitoring system, but collects health information through the National Health Insurance Service API and analyzes the national comprehensive health checkup information that all Korean citizens over 30 years of age must undergo, then anonymizes/pseudonymizes the information. It is based on one result.

The analyzed results are combined with real-time biometric information measured from smart rings and smart bands incorporating our IoT technology, and by simply wearing a smart ring or smart band, you are notified that there is a health problem in your daily life and that your health is improved accordingly. We provide information and health guides such as exercise methods and health supplements for management.

b. Devices d'analyse

De nombreuses d'offres utilisent la puissance de calcul et la connectivité du **Smartphone** pour proposer la mesure de paramètre vitaux. Parallèlement, l'arrivée de nouveaux capteurs permet le déploiement de nouveaux services. Dans ce domaines, deux nouvelles modalités sont présentés cette année : **l'analyse d'urine, et les biomarqueur ADN** (voir aussi OVNI).

On voit aussi de nombreuses solutions pour l'accompagnement et le suivi des **maladies chroniques**. En France, sur 168 milliards d'euros dépensés par l'Assurance Maladie en 2020, 104 milliards (62 %) étaient consacrés aux pathologies et traitements chroniques...

EyeCane

By CELLiCO



AMD, a leading cause of vision loss, severely blurs vision in the central area of sight, making it difficult to see faces, read, or even perform basic, everyday tasks. Without a cure, the only option is to prevent it from getting worse. EyeCane is the world's first solution that empowers those suffering with AMD to rediscover their lost vision. Revolutionary smart glasses use a 4K camera and mobile app to capture video, process it, and display it back to the user in real-time. Clear, live images are moved from their impaired area to their viewable peripheral area, enabling sight.

CERAGEM Home MediCare Platform

By CERAGEM Co., Ltd.

CERAGEM HOME MEDICARE

A healthcare platform that combines home IoT and telemedicine to enable patient-centered, everyday care



CERAGEM Clinical's "CERAGEM Home Medicare Platform" is an IoT-linked home medicare platform that enables daily on-demand healthcare. The platform allows users to control both Medical and Smart Home IoT Devices in an integrated manner using wireless connection and controllers. The platform includes functions for device usage algorithm settings tailored to the user's daily routine at home, automatic home environment settings, and health and sleep monitoring. The integrated platform function also maximizes healthcare access in everyday life with telemedicine services.

AsthmaGo

By CMI Health, Inc.



AsthmaGo® is an app-based asthma management platform that aims to transform the way healthcare professionals and patients alike manage their chronic conditions on a day-to-day basis.

This solution includes the integration of over-the-counter devices that simplify testing, managing, and sharing the user's pulmonary function data and pulse oximetry data at home or on the go.

The AsthmaGo® App takes the recorded health data and aggregates it into reports, that are easily visualized by the user and remotely shared with a caregiver.

Users can also check local weather and air quality, perform Asthma Control Test, and log symptoms in the App.

Flexible Optical Biosensor Based Next-Gen Urine Analyzer

By D&C Biotechnology Inc.



CLSI categorizes urine testing as a cost-effective diagnostic method for detecting diseases efficiently compared to its cost.

However, traditional strip-based urine testing is prone to infection risks from contaminated samples and involves eight complex and inconvenient steps. Regular equipment cleaning is needed due to sample-induced contamination, and it lacks precision as it can't perform individual tests for each parameter.

To tackle these issues, we've developed our Cup Type Urine Testing KIT and incorporated a Flexible Optical Biosensor, allowing for fast and precise disease testing in a dedicated next-generation urine analyzer solution.

OBST BANK (Obesity Genetic Testing Kit)

By DNA Corporation



OBST Bank is an AI-powered big data solution that assists doctors in diagnosing obesity based on genetic analysis. Our machine learning algorithms automatically identify genetic biomarkers that increase the risk of obesity by analyzing the latest research data. This technology helps doctors diagnose the causes of obesity by analyzing an individual's genetic characteristics, allowing for more personalized treatment recommendations. Customers can purchase a DNA test kit online, which provides in-depth reports on genes highly related to obesity with high reliability and reasonable price.

MORA

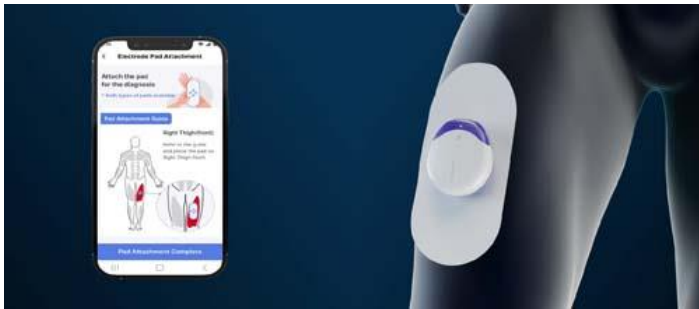
By EverEx



MORA is an AI-driven mobile application specializing in musculoskeletal assessment and personalized rehabilitation. It employs cutting-edge pose estimation technology, utilizing mobile phone cameras to analyze patient movements for musculoskeletal evaluations. Tailored rehabilitation exercises are then crafted based on these assessments. Real-time, natural language feedback is provided to patients during rehabilitation through AI video understanding technology and a large language model. Additionally, MORA incorporates cognitive behavioral therapy to address cognitive distortions related to musculoskeletal pain, promoting patient compliance with rehabilitation exercises. This holistic approach aims to offer patients a level of care comparable to that of a professional therapist.

Next-Gen Digital Health: AI-Powered Digital Biomarker

By EXOSYSTEMS Inc.



Imagine diagnosing neuromuscular disorders in under 2 minutes with a small, pebble-sized wearable. Introducing our latest product, AI-Powered Digital Biomarker: MFI revolutionizes the diagnosis of neuromuscular and central nervous system diseases by directly analyzing neuromuscular bio-signals at their origin, the motor nerve.

This cutting-edge AI-powered digital health technology addresses critical drawbacks in conventional assessments by:

- 1) eliminating dependency on patient condition,
- 2) lowering labor intensity and cost,
- 3) enabling remote monitoring.

As easy as using a thermometer, this product elevates neuromuscular disorder diagnosis to a higher standard, offering safety, efficiency, standardization, and patient-friendliness that benefits both patients and healthcare professionals.

FaceHeart Vitals™

By FaceHeart Corporation



FaceHeart improves human health through its FDA 510 (k) cleared AI-driven, video-based contactless vital signs solution, FaceHeart Vitals™, providing a simple, comfortable, and cost-effective method to empower patients to manage their health.

With only a single camera, our edge-cutting technology measures Heart Rate, Blood Pressure, Respiration Rate, Oxygen Saturation, and Heart Rate Variability with medical-grade accuracy, thus accelerating smart digital solutions such as Remote Patient Monitoring, Telehealth, Clinic Trials, Corporate Wellness, etc. efficiently and effectively.

Cellytics™ NK- Rapid Immunity Check for All

By MetalImmuneTech Inc



Cellytics™ NK is an innovative digital healthcare tool that checks your immune system using advanced technology, Lens-free Imaging Technology. It looks at a special type of immune cell called Natural Killer cells quickly and precisely. These cells are important for your body's defense. With just a small blood sample, Cellytics™ NK can tell you about your immunity without you having to go to a specific place. The results are given in a simple report that's easy to understand. This product is a convenient way for anyone to check their immunity in the age of digital health.

MindMics Heart Health System

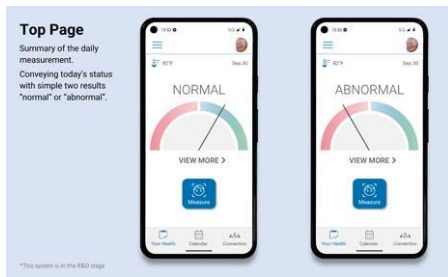
By MindMics, Inc.



MindMics Heart Health System is an innovative and comprehensive solution designed to address the growing need for next-generation heart health monitoring. At the core of our technology is the patented in-ear Infrasonic Hemodynography (IH), which enables heart health monitoring through TWS earbuds. Our system combines clinical accuracy of a 99% IH-ECG correlation to measuring each heartbeat. MindMics provides users a dashboard based on their personal baseline showing physiological states in real time. Placing emphasis on stress recovery and blood pressure management, our solutions are tailored to meet individual needs, providing actionable steps for users to manage their health and thrive.

Face & Facial Parts Monitoring System

By NEC Corporation



The world's first system to estimate vitals and mental states, and cognitive levels by analyzing the surface of a human face patterns and pupil size.

With the growing awareness of wellness, it provides "by yourself, easily" management of daily health and risks without dedicated device and help improve pre-symptomatic state.

- Accurate measurement of press rate, respiration and SpO2 with deep learning
- It takes only 10-60 seconds to determine the current status (healthy, normal, critical)
- Highly useful technology proven in joint research with University of Tsukuba, Tokyo Medical and Dental University

*This system is in the R&D stag

WAYMED Cough PRO

By WAYCEN

WAYMED Cough PRO

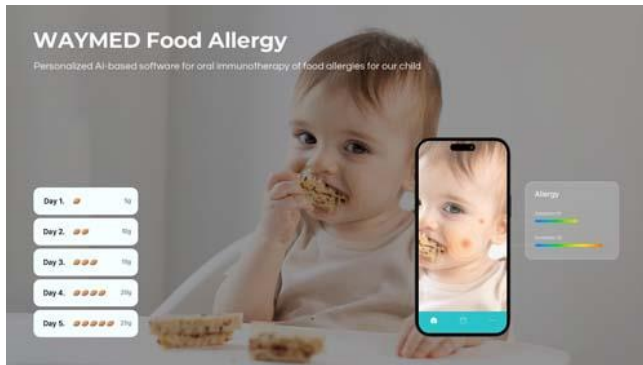
An AI self-screening service that examines a user's respiratory health in just 5 seconds using cough sounds, enabling remote medical consultations.



WAYMED Cough PRO is an AI self-screening service that examines a user's respiratory health in just 5 seconds using cough sounds. When the user inputs his/her cough sounds to the smartphone, the AI audio analysis algorithm specialized in respiratory health analysis automatically analyzes and displays respiratory health conditions with 3 different colors just like traffic lights. This collected respiratory data can be integrated with healthcare services for remote medical consultations, enabling quick action based on the patient's respiratory condition.

WAYMED Food Allergy

By **WAYCEN**



WAYMED Food Allergy is an AI-based personalized digital oral immunotherapy solution for children with food allergies. Once the user enters a child's blood information, AI can determine safe consumption levels and potential allergic reactions to allergy-inducing foods like peanuts, eggs, and milk. This offers a convenient way for children and their parents to suffer from food allergies to manage and overcome them through digital oral immunotherapy. It moves beyond avoiding allergenic foods, introducing a new paradigm in food allergy treatment through AI technology.

XK-Slim

By **Xandar Kardian**



The XK-Slim Sensor is a new innovation inspired by Xandar Kardian's flagship XK300 sensor, which is an award-winning, FDA 510(k) cleared class II medical device. The XK-Slim Sensor features Xandar Kardian's proprietary UWB (ultra-wide band) radar technology which safely detects macro (body motion), micro (breathing motion) and nano (heartbeat) vibration patterns that are constantly generated by our human bodies to accurately measure a patient's vital signs. However, what makes the XK-Slim Sensor unique is its design - the product features a rotatable extending "blade" that optimizes vital sign collection, making it Xandar Kardian's most versatile sensor yet.

Cym702 Circle

By Yellosis



Cym702 Circle is a smart health monitoring system that alarms presence of glucose in urine through simple light signals. It is the first healthcare system that will be installed publicly, in hopes of creating a world where no individual is excluded from daily healthcare.

Diabetes, affecting 1/3 of the population, is difficult to detect in its early stages, and thus, is often found too late with other related symptoms. To reduce the cost of its treatment, Cym702 Circle provides an innovative solution of seamlessly detecting the disease in public restrooms, while laying the foundation for a global public healthcare system.

Cym702 Seat

By Yellosis



By implementing urinalysis into the daily-used toilet seat, Cym702 Seat provides users analysis of five health indicators, along with diet solutions through Cym702 Application.

The seat provides quality healthcare service in households through its convenience in use and accuracy in results, made possible by the movable gutter system.

This innovative system automates the entire testing process, from replacement of used test strips to analysis of test results, minimizing user involvement.

The measured results are integrated with wearable and IoT devices for real-time life logging, and this valuable data forms personalized smart life solutions, including customized diets and exercise plans.

Mac'AI

By SynergyAI



Mac'AI helps doctors predict and diagnose heart disease earlier than ever. Leveraging cutting-edge artificial intelligence technology, Mac'AI can detect the risk of arrhythmia (irregular heartbeat) early, up to 14 days in advance. By assisting medical professionals in identifying potential heart irregularities, Mac'AI empowers timely intervention and enhances patient care.

Tandem Mobi

By Tandem Diabetes Care



Tandem Diabetes Care, a leading insulin delivery and diabetes technology company, creates new possibilities for people living with diabetes, their loved ones, and healthcare providers through a positively different experience. The company's human-centered approach to design, development, and support delivers innovative products and services for people who use insulin. The company's newest addition to its product portfolio, Tandem Mobi, expands this commitment. Tandem Mobi is the world's smallest, durable automated insulin delivery system. FDA cleared for people with diabetes age 6 and up, Tandem Mobi was designed to bring new options to people with diabetes who value discretion and simplicity in managing their therapy through its wearability options and full smartphone control.

Noninvasive Glucose & Vital Sign Monitor

By TomatoCrew Co., Ltd./HANSEO UNIVERSITY



Pebble-MS is a combination of a noninvasive glucose and vital signs monitor and a digital stethoscope for teleradiology. This small portable composite device is well featured to measure the blood glucose noninvasively using a near-infrared photosensor without finger pricking, and multiple vital signs such as heartrate, oxygen level (SpO2), electrocardiogram (ECG), blood pressure and skin temperature. The vital sign and acoustic data of a digital stethoscope are displayed on the product's smartphone APP and shared with designated clinicians for teleradiology in real-time via our cloud service platform.

As a result, Pebble-MS provides a more convenient and accurate method for healthcare.

c. Silver Eco (chute maintien à domicile)

La population vieillit dans tous les pays industrialisés, et **le marché de la santé des séniors** (Silver Economie) représente un potentiel énorme. Là aussi le maintien à domicile permet un meilleur confort des personnes, une meilleure prévention et des économies substantielles. La surveillance des personnes âgées à domicile est donc un marché puissant. Le plus gros domaine est celui de la **détection de chute**, mais d'autres paramètres, tels que **l'écoute des faibles sons** comme la respiration, ou le bruit d'eau des toilettes et de la salle de bain, permettent une analyse assez fine des rythmes de vie et de leurs éventuelles modifications, et donc de nouveaux services de télédétection. Le marché de la détection et de l'accompagnement des **maladies neuro-dégénératives** est aussi représenté.

Whispp

By Whispp



Worldwide 500 million people permanently lost their voice due to a voice disorder, trauma or old age or stutter severely. This has a profound and far-reaching effect on their daily lives and work.

Until now there was no adequate solution available. With its revolutionary and worldwide unique AI Assistive Voice Technology, Whispp created a new product category.

Whispp's AI Assistive Voice Technology and Calling App converts whispered speech (people who stutter severely speak relaxed and much more fluent while whispering) and vocal cord-impaired speech (throat cancer, vocal cord paralysis, ALS) into a person's natural voice, in real-time.

XK300-H

By Xandar Kardian



Xandar Kardian's XK300-H is the first-ever radar-based vital signs monitoring solution intended specifically for home use. The XK300-H is intended to autonomously and continuously monitor human vital signs for patients in the comfort of their own home. This represents a game-changing evolution to the standard of care for all forms and stages of home health treatment - especially patients with chronic or long-term health conditions. XK300-H measures macro (body motion), micro (breathing motion) and nano (heartbeat) vibration patterns that are constantly generated by our human bodies, and is capable of doing so even through objects like clothes and blankets.

XK-FD (Fall Detection Sensor)

By Xandar Kardian



Xandar Kardian's XK-FD (Fall Detection Sensor) is a new product that is propelled by the same radar technology as the company's flagship XK300 sensor, an award-winning, FDA 510(k) cleared class II medical device. Debuting in early 2024, XK-FD is designed specifically for deployment in bathrooms. The product leverages Xandar Kardian's presence detection and vital sign monitoring to successfully detect fall events in medical and household restrooms. Additionally, it helps medical staff monitor bathroom usage trends (length of trip, frequency) to assist in early detection of related issues in medically-vulnerable patients, such as urinary tract infections and gastrointestinal issues.

XanderGlasses

By Xander



XanderGlasses are wearable assistive technology for people with severe hearing challenges. Everyday situations—background noises, multiple speakers, and low-voices—impede understanding and create strain. Severity intensifies with age causing individuals to withdraw and can contribute to cognitive decline.

XanderGlasses substitute “sight for sound,” enabling those who can’t hear speech to understand conversations. Using Vuzix Shield smart glasses, they combine microphones, processors, and AR displays to transcribe speech to text, and instantly project accurate captions into the wearer’s field of view. They don’t require a cloud connection, and work wherever people need them empowering people to regain confidence and independence in conversations.

d. Santé mentale

L'expansion du marché destiné à **la santé mentale** pouvait être constaté avant la pandémie du COVID, et celle-ci l'a encore accéléré. Le bien-être mental représente aujourd'hui une forte demande et de nombreuses solutions sont proposées, en particulier sur la qualité du sommeil. D'autre part, on voit aussi apparaître des produits d'accompagnement de certains troubles comme **l'autisme**.

FRENZ BRAINBAND- SLEEP SCIENCE

By Earable Neuroscience



"FRENZ Sleep Science is the world's first AI-powered consumer mobile app that tracks and stimulates brain activities in real-time using science-backed audio to facilitate better sleep.

With 40-70% of the over 50-year-old population suffering from chronic sleep issues, FRENZ is an award-winning disrupter in non-invasive sleeptech, trialed in real-world and clinically proven to accelerate sleep onset by at least 24 minutes. Unlike hospital polysomnography (PSG) that requires post-processing, FRENZ uses patented AI/ML algorithms to score sleep stages in real-time with PSG's gold-standard precision, all while using only consumer-grade EEG signals. FRENZ offers personalized audio from its science-backed cognitive-behavioral-therapy-based library.

FRENZ Sleep Science is the mobile app for FRENZ Brainband, designed for all-night comfort and all-side sleepers using only non-obtrusive audio-based stimulations.

FRENZ App's key features:

- Fast Sleep Onset
 - Deep Sleep Boost
 - Back to Sleep
 - Smart Wakeup at optimal sleep cycle time
 - Science-backed sleep audios
 - Real-time EEG, EMG, EOG, heart rate, sleep scoring,... tracking
 - Sleep Insights & Trends"
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Peel&Play

By SOLIVE VENTURES



Peel&Play is a semi-active SMART sensory toy comprised of twenty interlocking pieces that can be peeled from the main body and rebuilt into any desired shape, which emulates the playful act of peeling an orange. The toy serves two purposes: 1) addressing self-stimulatory stimming behaviors (e.g., hand flapping, head rocking) among children with autism spectrum disorder (ASD) and related disabilities, and 2) monitoring changes in children’s development based on play therapy. Alongside the hardware with a therapeutic effect of 56.3% immediate reduction in stimming behavior, our AI-based software analyzes developmental progress through various data-driven parameters to monitor progression and regression of autism.

e. OVNI - Objets Vraiment Nouveaux et Innovants

Certains produits très innovants peuvent créer des ruptures ou annoncer de nouveaux usages et des tendances futures. Citons en quatre :

GenHome

By Attoplex Inc.



Introducing GenHome: the future of at-home diagnostics. Imagine rapid, precise results in the palm of your hand, merging the best of molecular and immunodiagnostic tech. Whether you're a pro or just concerned, pinpoint pathogens like COVID-19 in under 30 minutes. With isothermal amplification, we're not just talking accuracy; we're talking 100 times the precision of conventional rapid tests.

As the world changes, GenHome is not just a tool; it's a revolution for everyday wellness and pandemic preparedness. Welcome to the next-gen of affordable health assurance.

ELITONE URGE

By Elidah



ELITONE URGE treats urge incontinence (Overactive bladder or OAB) by calming bladder spasms and urgency. It is the only device that treats OAB at home, and is non-intrusive to her lifestyle as a wearable device underneath clothes.

Galeon Organ Donor NFT Card

By Galeon



Every day in the US, 17 people die because of not enough donor organs. Galeon fixes it. Galeon Organ Donor NFT Card utilizes soulbound tokens technology to enhance organ donation. Our soulbound token represents your ownership of the right to donate your organs on a blockchain. When this right is linked to your individual blockchain address, it serves as a certified and unalterable testament of ownership. This innovative approach not only streamlines the administrative process but also increases the chances of saving a patient's life by making available organs more traceable and legally sound.

Smart Inject

By PLASBIO Inc.



Smart Inject is an innovative device that enhances the accuracy of non-clinical trials using AI and robotic technology. By automating precise vein detection and drug delivery, it increases the reliability of experiments and enables researchers to conduct more trials. With its user-friendly interface, it simplifies complex processes, setting a new standard in the field of medical innovation. Smart Inject is an essential tool for non-clinical trials demanding high precision.

f. Accessoires professionnels :

Cette année on constate de nombreuses annonces de **produits destinés aux professionnels de santé**

Bioimaging device for real-time vascular wellness

By ATRI(Advanced Technology Research Institution), CHUL GYU SONG



This device uses this technology to monitoring vascular wellness and diagnose inflammatory diseases early.

Thrombosis is also referred to as a time bomb within blood vessels, the mortality rate due to thrombosis is higher than that due to traffic accidents. Therefore, early detection of thrombosis is crucial. However, current technology requires a dark room to detect thrombosis in real-time. But we have made improvements to overcome this inconvenience.

We have developed a technology that use ultraviolet blocking filter and visualizes only the thrombosis florescence image.

DeepDx Prostate

By Deep Bio Inc.



"DeepDx Prostate is an AI-based system designed to assist pathologists.

Its core functionality involves the detection of prostate cancer lesions within whole-slide images derived from H&E-stained prostate needle biopsy slides. It further provides automated histological grading based on the Gleason system and quantifies tumor involvement. Notably, the system generates comprehensive pathology reports for each biopsy case, offering clear and clinically relevant information, supporting informed treatment decisions in a professional context."

DoseRx1 Medicine 3D Printer

By Doser



Patented semi-solid printing process using DoseRx1 desktop 3D printer for highly accurate compounding of pharmaceutical products at the pharmacy level enabling personalized dosing of medications for precision healthcare practices to determine the optimal efficacy of medications for individualized treatments methods, in compliance with ever stricter requirements about onsite compounding by pharmacists, and for collecting data for fine-tuning medical treatment methods & optimizing compounds of existing drugs, as well as for the development of new & more effective drugs, as very valuable tools to contribute to bringing the ever escalating healthcare costs under control.

xKidney

By ExoRenal



The xKidney stands as a revolutionary home and portable hemodialysis device poised to transform the lives of dialysis patients. What truly distinguishes the xKidney from conventional dialysis machines is its groundbreaking active Piston Balancing pumping technology, which supersedes crucial components found in traditional hemodialysis units, such as the dialysate and UF pump, as well as the balancing chamber. This ingenious feature directly confronts one of the foremost concerns experienced by dialysis patients, providing them with an unrivaled sense of security and newfound independence.

Myomics-VB

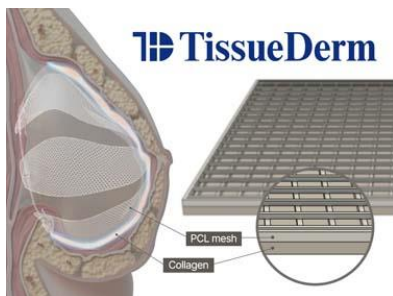
By Phantomics



The leading cause of death globally is heart disease. Hence, accurate diagnosis and treatment evaluation of heart conditions are crucial. In many cardiac cases, myocardial tissue sampling using catheter insertion into the heart is essential for precise diagnosis and monitoring. Myomics-Virtual Biopsy offers a safe, quick, and accurate non-invasive AI diagnostic solution that replaces the risky and costly myocardial tissue tests.

TissueDerm (Pink Reborn)

By PLCOSKIN.Co.,Ltd.



TissueDerm is a form of artificial skin that combines polycaprolactone (PCL) mesh and collagen sheets manufactured using a 3D printer, and is used for reinforcement and reconstruction of tissue defects or damaged soft tissues (breast reconstruction, etc.). The role of the collagen sheet is to naturally fusion with the patient's tissue, promoting tissue regeneration and fixing the silicone implant. And the role of biodegradable PCL is to solve tissue adhesion problems that may occur due to long-term implant use and to support silicone implants.

SOLIVE

By SOL Inc.



1. SOLIVE: It is a disruptive and new innovative platform that can monitor the growth status of various cells from a single cell to organism in real-time from anywhere outside the cell incubator.
 2. Technology: It is equipped with a lens-free semiconductor bio-sensor, optimized for visualizing cell states without any optical objective lenses. It can also easily store and transfer cell image data through cloud server via WiFi.
 3. Key Features:
 - 1) A larger FOV
 - 2) Can store and manage a result data in the Cloud Server
 - 3) Compact-Sized: possible to operate by placing multiple SOLIVES in an incubator
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Ophthalmic cataract surgery device 'imass'

By TI inc.



Cataracts are a common disease, accounting for 50% of blindness in people over the age of 65 years worldwide.

'imass' is a disposable surgical instrument that performs anterior capsulotomy, the most difficult step in the cataract surgery process. The reason why anterior capsulotomy is difficult is that the doctor must manually set the same shape and exact center every time. The unique feature of 'imass' is that it solves this problem by incising the anterior capsule in a uniform size (5mm), and the operation can be completed in 15 seconds, providing comfort and safety to both doctors and patients.
