



LATAM Health Champions

2024

FIFARMA
FEDERACIÓN LATINOAMERICANA DE LA INDUSTRIA FARMACÉUTICA

ITIF | INFORMATION TECHNOLOGY
& INNOVATION FOUNDATION

INNOS
Instituto de Prospectiva e Innovación en Salud

LATAM Health Champions 2024



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Foundation for Technology and Innovation (ITIF)

A study center dedicated to promoting technological innovation and economic growth. ITIF conducts research on a wide range of technology and policy-related topics, including information and communication technology, biotechnology, nanotechnology, energy, and climate change. The center also publishes reports, opinion articles, and other materials to inform policymakers, the media, and the public about the benefits of technological innovation.

Latin American Federation of the Pharmaceutical Industry (FIFARMA)

Federation that brings together Local Associations and Research and Development Pharmaceutical Companies from Latin America and the Caribbean. Its mission is to generate a positive impact on patients' lives, developing initiatives that foster more sustainable health ecosystems, where the value of innovation is recognized.

Institute for Prospective and Innovation in Health (INNOS)

INNOS, the Institute for Prospective and Innovation in Health, is a Think Tank driven by an alliance between El Bosque University and AFIDRO. Its main objective is to contribute to the national dialogue on health and innovation, adopting a future perspective. In addition, it focuses on connecting the knowledge and thinking of academics, experts, and health innovators with the purpose of supporting the solution of the challenges faced by public policy designers, the community, and the agents of the Colombian Health System.

HUB iEX de la Universidad El Bosque

A health innovation and entrepreneurship ecosystem that aims to generate innovative thinking to build the future of health. The HUB connects actors from the health ecosystem with problem solvers to boost innovation initiatives and provide support to teams and initiatives that seek to improve the health of Colombians, the health system, and strengthen the health industry.

Introduction

Innovation plays a critical role in advancing health and healthcare systems globally. These advancements allow humanity to increasingly successfully face global challenges such as the COVID-19 pandemic, regional and local challenges inherent in the evolution of health problems, the emergence of new entities, or the daunting need to make healthcare systems more sustainable. Additionally, this role is seen in improving public health and overcoming global health challenges, and robust Intellectual Property (IP) rights are key in enabling innovation worldwide by providing incentives for innovators to invest in Research and Development (R&D) that yields health innovations.

Our organizations, the **Foundation for Technology and Innovation (ITIF)**, the **Latin American Federation of the Pharmaceutical Industry (FIFARMA)**, and the **Institute for Prospective and Innovation in Health (INNOS)**, have joined forces to launch a call to identify the most innovative and promising health innovations in Latin America. This call, **Latam Health Champions 2024**, which ran from 5 February to 5 March 2024, received 55 applications proposing innovative solutions for a wide range of health challenges. Here we will highlight the 20 best applications that were considered most disruptive.

To understand the call a little better, we can indicate that the international jurors valued five fundamental aspects: the health need being addressed, novelty in solving a previously unsolved problem or a new way of solving a problem efficiently, the potential impact of the solution, its scalability potential, and the management of Intellectual Property.

Precisely this last dimension sought to highlight the importance of intellectual property management in the development and growth strategy of the solution, underpinning its market access capacity, commercialization, and scalability.

The proposed solutions encompassed various forms of health innovation, from medical devices, health-techs, mobile-tech, to drugs in development. They also focused on diverse health conditions, such as medical emergencies, visual health, sexual and reproductive health, cerebral palsy, general medical care. We received applications from Mexico, Panama, Costa Rica, Nicaragua, Colombia, Ecuador, Peru, Argentina, and Chile, all of which had a different level of Intellectual Property maturity.

For our organizations, it is promising to identify so much talent in the region, talent that will undoubtedly continue to respond to the challenges of Latin America, but beyond that, it shows a promising future for the health innovation ecosystem in the region, increasingly dynamic and needing to connect with more mature ecosystems. For this reason, the winners of this first version of the Latam Health Champions had the opportunity to visit the potent ecosystem of the Eastern United States, Washington, and Boston in particular.



ARGENTINA
Ganador



<https://selectivity.life/>

SelectOne & DAiO Selectivity

Currently, more than 100 million couples face the harsh reality of infertility, and unfortunately, 75 percent of them lack access to adequate treatments. To address this worrying situation, the Selectivity team has created a patented technology that revolutionizes accessibility to fertility treatments. Selectivity's first medical

device allows any gynecologist to perform intrauterine inseminations (IUI) directly from their office, democratizing access to these procedures. Furthermore, the company has introduced a second device, called DAiO, which offers couples or single women the possibility to perform an IUI autonomously, in the comfort of their home. This innovation not only broadens access but also optimizes the process by significantly reducing costs and time. By improving the effectiveness of treatments, the company aims to ensure positive results without compromising the emotional burden that seeking fertility entails. With these solutions, Selectivity seeks to provide hope and options to those facing this challenge, significantly transforming the global fertility landscape.

The pioneering solution applied to the health sector focuses on two revolutionary devices for fertility treatments. The first, a sperm selection device, uses a patented biomimetic membrane and microfluidic channels with unique dimensions and shapes. This allows gynecologists to perform intrauterine inseminations in their offices, opening a previously inaccessible market without depending on laboratories. This technology, easy to use, fast, and with superior performance compared to current techniques, eliminates the need for sophisticated equipment, avoids traditional manipulations, and does not require the presence of highly specialized professionals, simplifying the procedure.

The second solution comes from the ability to select sperm in any environment, without the need for control as in a laboratory. This is achieved through the microfluidic technology



explained above, which allowed the company to develop the first device, worldwide, for intrauterine insemination to perform the IUI outside of clinics and in the comfort of people's home, reducing times and costs. This innovation encompasses a complete selection and insemination system in a single device, designed to be easily used by any woman (or couple) who needs it. It also reduces the stress associated with infertility and improves the quality of life of those affected.

Currently, couples who have difficulty conceiving are forced to make appointments at unknown and remote fertility clinics after more than 12 months of attempts, which

carries a significant emotional burden. The first Selectivity solution, the sperm selection device, changes this scenario by allowing the couple to continue to be cared for by their trusted gynecologist in their own city, reducing the distress and anxiety associated with travel and tight schedules. In addition, it provides gynecology professionals the opportunity to offer a new service to their patients, strengthening the doctor-patient bond and reducing costs and emotional burdens.

The third solution, which is a home IUI device, goes a step further by allowing people to face these difficulties from the comfort of their own home. This product, available on digital platforms or pharmacies, gives women the autonomy to follow a personalized treatment, adapted to their own times and desires. This innovative proposal seeks to positively

impact the lives of those who are going through these difficulties, providing affordable and accessible options, and allowing the repetition of the treatment according to the needs and desires of the woman or the couple.

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<https://selectivity.life/>





COLOMBIA
Ganador

GymSmile - KitSmile

KITSMILE was founded in 2014, inspired by the case of Laura, a 5-year-old girl with cerebral palsy who lived in Maya Cundinamarca, a rural town where there was no adequate access to medical care. KITSMILE designed the world's first home rehabilitation gym, called "GymSmile". The gym, which is patented, enables children, teenagers, and adults to exercise, eat, study, rest, and carry out different daily activities to improve their

condition, transitioning from having no rehabilitation to having a tool at home that supports their process 24/7. The "GymSmile" adapts to children's growth from 2 to 12 years old or from 50 cm to 1.50 cm in its Junior version and up to 1.80 cm in its adult version, evolving with the child's growth. Also, it has organic shapes and colors that make it look like a toy, generating a lot of acceptance among regular children. The "GymSmile" fabric will adapt specifically to the conditions of children with disabilities, as it withstands high temperatures, liquids, and fluids, and has a system that allows air to circulate and prevents children from sticking to it, eliminating pressure ulcers from materials traditionally used in the market.

The innovative solution offered by GymSmile has the potential to significantly positively impact society, especially the lives of people with cerebral palsy or physical disabilities, as well as their



families and the healthcare system. In Colombia, there are 300,000 children with cerebral palsy, of which 70 percent are like Laura. Cerebral palsy affects approximately 17 million people worldwide, representing a significant global prevalence. In terms of incidence, analysts estimate that between 1.5 and 4 out of every 1,000 babies are born with cerebral palsy, making it the most common movement disorder in children

By providing a tool that facilitates a wide range of exercises and daily activities in the comfort of home, GymSmile can substantially improve the quality of life of users, enabling them to participate in daily activities with greater independence and comfort. Similarly, by having access to a home rehabilitation tool, users can perform therapies more frequently and consistently, which is crucial for progressing in conditions like cerebral palsy. This is particularly important in areas where access to specialized rehabilitation services is limited or nonexistent. By focusing on key areas like head control, postural alignment, and stretching exercises, GymSmile can help prevent secondary complications associated with cerebral palsy and other physical disabilities, which in turn can decrease the need for additional medical interventions.

Families live far from specialized centers, and their primary caregivers are often single mothers who have to quit their jobs to look after their children. These families face the highest rates of extreme poverty in Colombia. Without access to frequent rehabilitation, children's conditions worsen, leading to other disabilities as a result of inadequate care and, mainly, a lack of opportunities.

By facilitating home rehabilitation, GymSmile can help reduce costs associated with professional rehabilitation treatments, transportation to therapy centers, and the acquisition of multiple assistance devices as the child grows or the user's needs change. Allowing users and their families to take a more active role in the rehabilitation process empowers individuals, fostering a sense of autonomy and control over their own well-being.



GymSmile can help foster greater social inclusion of people with disabilities, by improving mobility and the ability to participate in everyday activities, thus contributing to a more inclusive society that is aware of the needs of all its members. As a patented and unique solution, GymSmile sets a precedent for innovation in the field of rehabilitation and healthcare, encouraging other companies and organizations to develop equally innovative and effective solutions.

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MÉXICO
Ganador



división de FOODVICA

Formulación para revertir las cataratas

FOODVICA SA

FOODVICA's mission is to innovate and provide support, guidance, and advice for the development of products of great importance and social impact. FOODVICA developed the Formulation to reverse cataracts, a new non-surgical treatment potentially applicable to patients at any stage of cataract maturation, through an ophthalmic composition, at a lower cost, and with a greater possibility of access to people suffering from this condition. Cataracts are the leading cause of reversible blindness in the world and affect at least 100 million people; factors such as aging, ultraviolet radiation, diabetes, and other diseases cause their onset. The only existing treatment is surgery, with the complexity and costs that this implies, and it is also only applied to people with an advanced degree of the disease. This prevents addressing it from its early stages of development. Currently, the patent protects a synergistic combination of compounds, whose results demonstrate a reversal of grade 4 cataracts to grade 1 in a rat model, and it has already been granted in Mexico and presented in primary markets internationally.

Cataracts affect 100 million people worldwide. In Mexico, it affects 3 million people, and it is estimated that each year there will be 140,000 new cases. It is a disease that is often linked to a lack of resources and access to health services, which is why it is "almost four times more common in poor and illiterate people living in marginalized and rural areas than in rich neighborhoods," according to the Pan American Health Organization (PAHO). The sick, by not treating it, can lose their vision and be economically affected, as it prevents them from being productive. The invention is applicable to people at any degree of cataract maturation, through an ophthalmic composition, at a lower cost, and with a greater possibility of access. As surgery is not accessible to the entire population due to costs and the need for infrastructure that is only available in large cities, the Formulation to reverse cataracts can help solve this international problem. It provides a non-surgical solution using nanotechnology, a formulation that has proven to reverse cataracts in animal models in a short time. The solution is much cheaper than surgery, more accessible, and provides a much better experience for the patient.

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Solution By Country





ARGENTINA

AVEDIAN AUMED SAS

AVEDIAN has developed an AI-based platform that extracts actionable data throughout the

patient journey, allowing: 1) Insurers to improve prevention and risk management and implement outcome-based contracting and payment models to their providers; 2) Hospitals to reduce clinical variability and achieve greater patient safety and efficiency; and 3) Drug manufacturers to improve market access by implementing shared risk agreements with insurers. The innovative solution developed by AVEDIAN addresses the problem of fragmentation in health systems, which limits the effective use of the vast amount of data generated. Approximately 30 percent of data worldwide are health data, but their potential is not fully utilized. The consequences are evident. In health insurers, up to 40 percent of care spending can be optimized through evidence-based risk management and provider efficiency control. On the other hand, in hospitals, intuitive patient management generates variability, inefficiency, and avoidable costs, which ultimately impact insurers.

Moreover, new high-priced drugs, such as biologics, are also straining insurers' budgets, generating frictions in their market access. AVEDIAN's platform uses AI to extract actionable data along the "patient journey," thus allowing significant improvements at different levels. AVEDIAN enables more accurate identification of risk factors in insured populations so that physicians can implement effective and personalized prevention strategies, which in turn reduces costs associated with potential treatments and hospitalizations. Thanks to the information processed using AI, insurers can implement outcome-based contracting models with the DRG (Diagnosis Related Groups) methodology. This means that providers are compensated for the quality and effectiveness of the care provided (rather than the quantity of services provided). This incentivizes patient-centered care. AVEDIAN is one of three companies worldwide with proprietary DRG algorithms. Additionally, AVEDIAN addresses intuitive patient management by providing detailed, descriptive, and predictive information on each case treated. This is achieved by leveraging the use of DRG algorithms and performing clinical benchmarking of indicators, which allows for more informed decision-making and standardization of clinical practice through guidelines and protocols. Process optimization based on the DRG methodology also enables automation of data collection and detection of areas for improvement in patient safety indicators.





Otilia

Otilia

Otilia's fundamental role in the health innovation ecosystem is to provide comprehensive and personalized solutions to address specific needs of maternal and reproductive health. Through its AI platform, Otilia offers immediate answers

and expert guidance to future parents, as well as access to online specialists at any time. Otilia's focus on humanizing technology and personalizing services makes it a key player in the field of maternal and reproductive health, significantly contributing to innovation and well-being in this field. The Otilia O. platform goes beyond conventional prenatal and postnatal programs. Otilia offers a comprehensive approach that combines advanced AI-driven tools with compassionate guidance, ensuring that every aspect of the maternal journey is addressed with understanding, empowerment, and care. Through this platform, families not only access information; they connect with a community that understands their joys, fears, and uncertainties. The organization also personalizes its services to meet everyone's unique needs, providing tailored support that addresses everything from physical health to emotional well-being.

Leveraging the power of technology, Otilia O. can offer immersive experiences through virtual and augmented reality, allowing future parents to visualize and prepare for the journey ahead in an informative and emotionally resonant way. It's about bridging the gap between the digital world and human experience, creating a space where technology serves as a conduit for empathy, understanding, and support. In short, the solution goes beyond providing information; it's about creating a nurturing and empowering environment that helps families navigate the complexities of pregnancy, childbirth, and beyond with confidence and resilience. It's about harnessing the latest advances in technology to improve the human experience, foster connections, and empower people to embrace the transformative journey of parenthood with joy and anticipation.

Unlike alternatives like BabyCenter, Peanut, and Mindfulness Mom, Otilia O. recognizes and adapts its services to the unique needs of each user, offering full and specific support for each stage of the maternal process. This personalization extends through a wide range of the company's services and features, including social connection, expert advice, and emotional care. Otilia O. goes beyond integrating social connections with expert advice and an integrated schedule.

PILL.AR PILL.AR

PILL.AR is developing a technological platform for 3D printing of medications based on a printing method patented by its entrepreneurial group, registered under the name MESO-PP®, which stands for Solidification Fusion Printing Process. This method allows for the decentralized production of customized solid pharmaceutical forms (SPFs).

The aim is to provide a low-cost technology that improves access to personalized medicine by enabling the establishment of a customized, individual-scale drug production facility at each patient care point, offering the same quality as traditional labs.

The main advantage of this proposal is the ability to adjust doses, create palatable oral solid forms for children, combine multiple agents (medicines, vitamins, and nutraceuticals) into a single tablet, and even incorporate technology for patient tracking. The use of this platform, consisting of the printer, cartridges, and digital files specially designed for each ink (understanding as ink: drug + excipients), allows for the automated production of batches of medications, independent of the operator (saving time and reducing interindividual variability) and the place of use.

MESO-PP is a simple, flexible, and cost-effective method applicable to small batches of drug manufacturing. It can adapt to special patient groups and offers multiple advantages over other 3D printing methods focused on the decentralized production of medications. The current model of the pharmaceutical industry is adapted to the standardized production of large batches of medications. This model is obsolete in terms of manufacturing flexibility and is very costly and complex (in terms of modifications to the formulation, equipment and/or processes) to adapt production to the particular needs of small patient groups. Compound pharmacies, which are scarce, are the only alternative to adjust medications to the individual needs of the patient (dose, sex, age, genetics, allergies, etc.). However, the processes are manual and require experience and specialized training, leading to significant interpersonal and inter-institutional variability, which is reflected in the quality of the resulting medication.

The solution proposed by PILL.AR is to use 3D printing (3DP) to produce medications in pharmacies and patient care points. This technology allows for the creation of solid structures differentiated in size and shape, combining materials of different nature. Simply by modifying the ink and/or the file containing the printing specifications, it is possible to create differentiated solid dosage forms (SDFs).

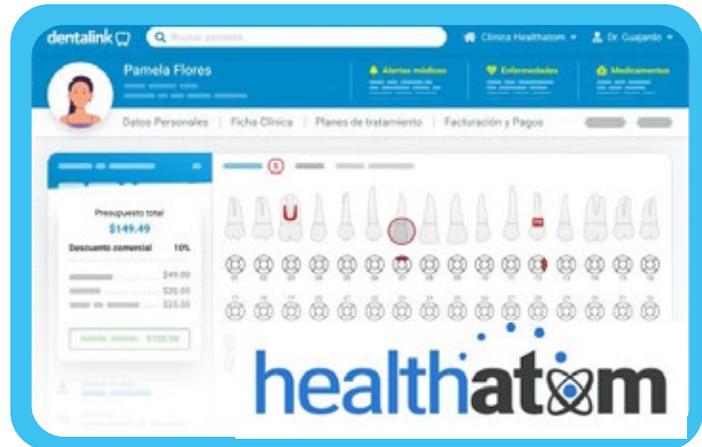




CHILE

Dentalink HealthAtom

HealthAtom is the leading company in the software as a service (SaaS) Healthtech industry in Latin America. Its goal is to improve the quality and access to healthcare for people through the creation of its digital ecosystem that connects healthcare providers and other



stakeholders in the field, allowing efficiency, traceability, control, and regulatory compliance for all parties. With its solutions, Dentalink and Medilink, as SaaS verticals, it is a catalyst for change with over 13,000 healthcare providers and 60,000 users using its software daily in 23 countries, generating a volume of over 45 million effective appointments on its platforms. With its fintech, Gerty, it offers financial benefits to patients, being the connection point that facilitates safe, quick, and 100 percent reliable access for users. Currently, it has over 200 collaborators and leads the digital development of the health industry in Latin America.

Dentalink was created with the mission of improving the quality and access to healthcare for people by freeing up administrative time for dental clinics. This solution, with over 14 years in the market, has revolutionized the management of thousands of dental clinics, providing a single platform to access patient medical history information, intelligent reports, treatments, patient loyalty, email marketing, task automation, patient financing, and much more.

The company's software is unique in Latin America, with certifications such as compliance with the Health Insurance Portability and Accountability Act (HIPPA) and ISO 27001. In addition, customers give Dentalink a net promoter score (NPS) of 75, making it world-class software.



COLOMBIA

Sistema de telemonitoreo Telsy Fundación Cardiovascular de Colombia

The Cardiovascular Foundation of Colombia (FCV) is one of the most important medical complexes in Colombia and Latin America. It is the first institution in the country accredited by the Joint Commission International (patient safety) and HIMSS Emram 7 (Digital Hospital).



The FCV constitutes a health ecosystem that has 13 health business units. One of those units is a Research Center, with recognition at a regional, national, and international level. To date, it is the Colombian company with the most patents granted in medical technology and also specializes in the production of medical devices that are marketed throughout the country. The FCV works with criteria of excellence, innovation, and social sense to provide patients with the best care.

The "Sistema de telemonitoreo TELS Y" is a portable diagnostic tool used to monitor vital signs in individuals in a mobile way, with remote transmission and georeferencing, aimed at integrating these benefits to sense, visualize, transmit, and continuously store a patient's physiological parameters and in this way verify the clinical status.

The most innovative function of the "Telsy" telemonitoring system is the "TelsyHogar home assistant monitor" which allows sending the perceived patient data to a remote station that can be viewed through a computer or cell phone with internet access, using different transmission media. This equipment has obtained a patent for the integration of a device that takes vital signs to track the data from the physician interface, and a mobile application that allows bidirectional communication with the patient and/or their caregiver.



AIR Montejo Innovation SAS

Montejo Innovations (MI) is a design and development company focused on contributing to the social and healthcare sectors. Its products combine cutting-edge technical and technological solutions for current local and global challenges.

Montejo Innovations created AIR, a system that uses a ventilation mask with a CO2 sensor, a self-regulated oxygen source operated by software, and a dedicated cervical support to provide lung resuscitation without prior medical training and without mouth-to-mouth contact. AIR is a complete system contained in a rigid protective box that can be placed in airports, schools, recreational areas, and swimming pools, among others.

It stands out from others on the market for two main reasons: Currently, some knowledge or training is required to perform resuscitation maneuvers. The wait time for emergency assistance can be considerably long. The defibrillators one finds now are not easily accessible at different public points.

Clip de mama Fundación Santa Fe de Bogotá

The Fundación Santa Fe de Bogotá is a leading institution in the health innovation ecosystem in Colombia and Latin America. Its main function focuses on the research and development of new therapies, medical technologies, and advanced procedures. Through medical research programs, collaborations with universities and industry, and technology transfer, the foundation promotes the creation and application of innovative solutions to improve medical care and patient outcomes. Furthermore, it serves as an important center for health professional education and training, offering continuing education programs and research opportunities.



The institution promotes a culture of innovation in the health sector, fostering collaboration, creativity, and the adoption of new technologies and approaches to address current and future health challenges. In summary, the Santa Fe Foundation of Bogotá plays a crucial role in advancing medicine and improving healthcare in the region through research, education, and promotion of health innovation.

"Breast Clip" is an innovative medical device specifically designed to optimize the precision and efficacy of breast cancer tracking. This device is anticipated to be used with low-cost hospital supplies, making it accessible in various medical settings. Its functionality centers on a tumor marker for breast biopsies, equipped with a universal applicator that allows precise placement in intramammary tissue. One of the key features of this device is that it enhances the location of tumors, cysts, or abnormal tissues through imaging equipment. This is crucial in breast tracking after a biopsy, where precision in lesion identification is essential to determine the appropriate treatment plan.

The device's design includes an opening system that facilitates its attachment to intramammary tissue, ensuring secure and stable placement during medical procedures. Furthermore, its configuration is optimized for easy identification through imaging equipment, which improves

the efficiency of the diagnostic process and contributes to patient safety. This innovative approach enhances access by offering a more affordable alternative and timely breast cancer treatment, which improves clinical outcomes. Additionally, by reducing associated costs, it alleviates the financial burden on health systems, allowing more efficient resource allocation and potentially expanding medical insurance coverage.



Knockout

Universidad de La Sabana

The Universidad de La Sabana is a higher education institution that, as part of its mission, is dedicated to teaching, research, and social outreach through its undergraduate and postgraduate programs. This includes cross-sectional and longitudinal studies for the health sector and clinical trials in association with the University of La Sabana Clinic.

As a result of several of these R&D efforts, iAMed emerged as a spin-off initiative. Its purpose within the health innovation ecosystem is to offer medical solutions to public and private entities in the health and education sectors based on Industry 4.0 technologies, supported by R&D knowledge and processes.

Knockout is an anesthesia depth monitor that acquires and processes electroencephalography, electrocardiography, and non-invasive blood pressure signals. With the help of an artificial neural network, it determines the depth of anesthesia with a diagnostic accuracy of 90.55% on average, with outstanding performance in detecting awake patients (99%) and deeply anesthetized patients (93%). In addition, the system uses artificial neural networks to support anesthesiologists' decision-making about medication doses. This development allows the patient to receive the appropriate dose of anesthesia and reduces the likelihood of intraoperative awakenings, which have long-term psychological consequences such as post-traumatic stress disorder and depression.

Moreover, these can cause medico-legal problems for the attending anesthesiologist. Being awake during surgery and unable to do anything about it is a patient's worst nightmare. Patients who wake up during surgery describe a range of sensations, including feelings of suffocation, paralysis, and pain. That's why the use of an efficient anesthesia depth monitor can lead to an improvement in the quality of health services received by the patient, reducing the likelihood of intraoperative awakening and its psychological impact, as well as allowing for the optimization of hospital resources for the benefit of society.

KUMPELS KUMPELS S.A.S.



Kumpels' role in the health innovation ecosystem is twofold: on one hand, it

develops innovative technological solutions to improve patient safety and efficiency in healthcare. On the other hand, it acts as a facilitator and co-creator in the healthcare community, sharing knowledge and experiences to drive innovation in the sector and develop new solutions. Kumpels actively participates in events, acceleration programs, and strategic partnerships to promote the exchange of ideas and foster collaboration among various actors in the healthcare ecosystem. As a result, it contributes to the advancement of healthcare in Latin America by offering practical and scalable solutions that address the real challenges of the healthcare system and promote greater access, efficiency, and safety in healthcare.

Kumpels Pharma, a technological platform designed to optimize clinical management and prevent medication errors, is a comprehensive tool that addresses key challenges in healthcare, including the prescription, dispensing, administration, and monitoring of medications in hospitalized patients. Kumpels Pharma is a Clinical Decision Support System (CDSS) that first performs a multivariate analysis to determine high-risk patients and prioritize them for pharmaceutical care, allowing healthcare professionals to focus on patients with the greatest need for intervention. Secondly, it provides comprehensive tracking of drugs from the initial prescription to the patient administration. This includes the automatic generation of pharmacotherapeutic profiles from the patient's electronic medical record information, ensuring a comprehensive view of each individual's pharmacotherapy. Finally, Kumpels Pharma facilitates the automatic detection of risk alerts associated with potential medication errors, such as drug interactions and duplications, allowing for timely interventions to prevent adverse events and improve the quality of care.



Qhorte TARGETSOFT DE COLOMBIA SAS

TARGETSOFT DE COLOMBIA SAS is a software company specializing in the health technology sector. It offers a cloud-based solution to support management and diagnosis in pathology laboratories, CX cytology, molecular biology, hematooncology, and other areas of cancer diagnosis. It is structured around three main pillars: patient traceability, sample traceability, and result traceability. The primary focus is on patient care opportunities. QHORTE

is used by over 30 institutions in both public and private sectors in Colombia, Mexico, the Dominican Republic, and Venezuela. It was awarded as the best success story in health software and the best business model in the Ingenio Awards 2022. The team was the first in Colombia to have implemented a cloud-based cancer diagnosis solution, first in 2010 from dedicated cloud servers and later from 2014 on AWS Amazon, becoming a scalable solution, which allows specialists to work collaboratively and ubiquitously, with little or no investment in infrastructure.

Cervical cancer, the second leading cause of cancer death in women in Colombia, is considered a public health issue because it is preventable. The team at TARGETSOFTDECOLOMBIA SAS developed the first version called EVAHPV, which evolved to cover all areas of cancer diagnosis, including histology, hematooncology, molecular biology, and flow cytometry, among others, becoming what is known today as "QHORTE," a solution to support cancer diagnosis. Guiding and providing support to professionals in low, medium, and high-complexity laboratories. This has led to a reduction in the time required to deliver the diagnostic result or conclusion and has closed the gap in early detection for cases of present malignancy. QHORTE exposes in its indicators the study agreement, which compares the result of the first cervical cytology reading vs. the confirmation or quality control result, showing false negatives. QHORTE seeks to standardize diagnosis within the framework of quality data capture, so its scope includes CIE-10 and CIE-0 diagnosis associated with the variables of the high-cost account. It includes controls of opportunity and quality between each of the processes within the workflow.

QHORTE has an integration layer to interoperate with electronic medical record systems using HL7 FHIR, an integration layer to operate with electronic billing systems, and an integration layer for communication with biomedical equipment and printers.



COSTA RICA

Modelo de machine learning para la predicción de la incidencia de diabetes mellitus tipo II para la población atendida con el EDUS Caja Costarricense de Seguro Social



The Costa Rican Social Security Fund (CCSS) plays a fundamental role in the health innovation ecosystem in Costa Rica. Its main function is to provide health services to the population, ensuring universal and equitable access to medical care. Within the context of health innovation,

CCSS performs several important functions, such as allocating resources to finance medical research and health innovation projects, and evaluating and adopting new medical technologies and innovative treatments that can improve the quality of medical care and health outcomes for the population. CCSS plays an important role in promoting best clinical practices and quality standards in healthcare.

Type 2 diabetes mellitus (DM2) is a chronic disease with a high prevalence in Costa Rica, with a significant impact on public health and the economy. Early detection and prevention are crucial to avoid serious complications and improve the quality of life of the population. The team created a machine learning model for the prediction of the incidence of type II diabetes mellitus in the population served using data from Costa Rica to help identify individuals at highest risk of developing the disease. It consists of the development of a model with high sensitivity to predict the "Diabetes" class, based on the Random Forest algorithm, with an accuracy of 75 percent and a sensitivity of 81 percent. This model initially predicts whether the person evaluated is at risk of developing type 2 diabetes mellitus or not, and in at-risk patients, it also classifies them as low, medium, or high risk based on the percentage obtained. Additionally, risk alerts are generated in the digital record, risk distribution maps by region, gender, and age of the individuals, which are used for decision-making and definition of individual and collective strategies for public health in Costa Rica, with potential to be tested in the region.

The solution will be designed specifically for the Costa Rican population, taking into account genetic, demographic, and lifestyle factors that are relevant to this particular population. This will allow greater accuracy in predictions and recommendations, as they will be adapted to the unique characteristics of Costa Ricans.



ECUADOR



Reliv Reliv

Reliv se posiciona como un agente impulsor de la transformación digital en el sector sanitario al proporcionar herramientas y soluciones tecnológicas innovadoras que mejoran la eficiencia, accesibilidad y calidad de la atención médica. Como parte de este ecosistema de

innovación, Reliv se compromete a desarrollar tecnologías disruptivas, fomentar la colaboración y empoderar a los pacientes. El equipo trabaja continuamente en el desarrollo de nuevas soluciones tecnológicas que aborden las necesidades actuales y futuras del sector sanitario, desde sistemas hospitalarios completos hasta aplicaciones móviles para pacientes.

La empresa cree en la importancia de la colaboración entre los diferentes actores del sector sanitario, incluyendo médicos, hospitales, farmacias, laboratorios y aseguradoras. También reconocen la importancia de empoderar a los pacientes en la gestión de su propia salud. Por lo tanto, las soluciones de la compañía están diseñadas para mejorar el acceso a la información médica, facilitar la comunicación con los proveedores de atención sanitaria y promover una mayor participación y participación del paciente en su proceso de cuidado.

La solución ofrecida por Reliv destaca por varios elementos innovadores y diferenciadores en comparación con otras alternativas disponibles en el mercado. Reliv ha creado un ecosistema completo e integrado que abarca desde sistemas hospitalarios hasta aplicaciones móviles para pacientes. Esta integración asegura una experiencia fluida para todos los interesados involucrados en el proceso sanitario. Tradicionalmente, los sistemas sanitarios han estado fragmentados, lo que dificulta la coordinación entre los diferentes proveedores de atención sanitaria y puede resultar en una experiencia del paciente menos eficiente y coherente. Reliv aborda este problema ofreciendo un ecosistema integrado que conecta a médicos, hospitales, farmacias, laboratorios y aseguradoras en una plataforma unificada. La digitalización de los médicos, los hospitales y los procesos de atención sanitaria es fundamental en la propuesta de Reliv. Esto no solo agiliza los procedimientos administrativos, sino que también permite una mejor coordinación entre los diferentes servicios de atención sanitaria y una atención más personalizada para los pacientes. Reliv prioriza la comodidad y el acceso del paciente al ofrecer servicios como programación en línea, consulta médica móvil, y la posibilidad de completar todo el proceso de atención sanitaria, desde la consulta hasta la adquisición de medicamentos, en un solo lugar.



MÉXICO

Lifeclip **Viretec Gestión y Desarrollo SA**

The Lifeclip project represents a radical solution based on the integration of an innovative, affordable, safe, and easy-to-use medical method and device that allows non-specialist health

personnel (nurses/midwives) to easily, affordably, non-surgically, without anesthesia and without pain, stop bleeding. This is achieved by locating and blocking the main blood supply to the uterus using a clip, with a specific pressure control that eliminates the risk of uterine perforation and allows immediate blocking and restoration of blood flow. This allows for the use of any other maneuver in the protocol and, if necessary, facilitates the transfer of the patient for proper care.



In the treatment of women with obstetric hemorrhage, existing alternatives share the same paradigm: the application of pressure on the uterus and its placental bed. This is done externally

using the abdominal component of the non-pneumatic anti-shock suit, internally with intrauterine packing using textiles such as gauze, or by placing intrauterine hydrostatic balloons, which are expensive and require specialized skills for placement. LifeClip represents a disruptive solution in this landscape, being a medical device that, by temporarily occluding the main artery supplying the most blood to the uterus, reduces the volume of bleeding and directly contributes to reducing complications derived from obstetric hemorrhage, thus saving the lives of mothers in childbirth.

This system is based on the integration of an innovative device supported by the Zea methodological training process, which allows its immediate implementation by health personnel. Unlike current medical care for obstetric hemorrhage, which is based on a single paradigm of using a tamping balloon to stop bleeding and saturate the uterus, LifeClip modifies this approach using two perfectly designed clips. These clips block the blood flow with the necessary pressure to stop the bleeding without damaging the tissue of the uterine arteries, allowing the immediate restoration of blood flow when they are removed.



NICARAGUA



Chava App The Lily Project

The Lily Project has been working for over seven years using an innovative methodology that combines in-person assistance with virtual sexual and reproductive health education, as well as screening for the prevention of cervical cancer in rural areas of Nicaragua.

The initiative has examined more than 23,000 women and has performed cryotherapy treatments on more than 1,500 women. The founders of The Lily Project felt that something was missing in this space, so in 2021 they launched a new

program called Chava, a mobile application for sexual and reproductive health education that provides access to information, tools, and comprehensive, personalized, and confidential care for anyone who identifies or has experiences as a Latin American woman or girl.

Chava, a mobile application for sexual and reproductive health, allows the end user to use it for free, confidentially, and personalized according to their needs. In this way, the organization aims to close the equity gap that exists between communities and countries. The application can be downloaded from the Play Store. While there are many Femtech companies that offer some kind of innovative product to improve the lives of women, Chava focuses on young women from 15 to

24 years old, as this is the age group that engages digitally the most and has the highest risk of unwanted pregnancy. Additionally, the global Femtech market is expected to grow to \$10.1 billion by 2028, but only 1 percent of this is distributed in Latin America. The company's market is Spanish speakers, and the entire user experience is based on Latin culture, as many of the available applications that offer sexual health services are translated, losing cultural relevance.



PANAMÁ

BIENI **BIENI-MED, S.A.**

BIENI-MED, S.A. is a private Panamanian company that has developed an innovative mobile application with the aim of transforming health management. With the overall goal of building an integrated health ecosystem, Bieni focuses on simplifying access to medical records, improving service delivery efficiency, and promoting active user participation by fostering a culture of prevention and well-being. At the heart of Bieni is an ambitious goal: to transform health

management in Panama. The company's goal is to build an integrated health ecosystem, weaving a digital network that simplifies access to medical records, improves efficiency in health service delivery, and most importantly, encourages active participation of each user in managing their well-being.

Bieni stands out for several innovative differentiating elements that position it as a unique solution compared to other alternatives in the digital health market. Bieni's proposal is not limited to the management of medical records; it goes further by building an integral health ecosystem.

This holistic approach connects health professionals, users, and other stakeholders, creating a collaborative network that improves the coordination and efficiency of healthcare. It fosters the active participation of individuals in managing their well-being by providing educational tools, personalized reminders, and a direct communication channel. This enables users to take a proactive role in their health. The solution stands out for its focus on the user experience.





Instadosis App Healpty S.A.

Small business owners contact Healpty S.A. for assistance in opening pharmacies, where they also introduce the company's software (Instadosis) and charge a monthly fee for it. Instadosis is an exclusive app for healthcare professionals capable of instantly calculating drug doses and interactions. It aids healthcare professionals (doctors and pharmacists) in making decisions about medication use, minimizing malpractices. It notifies contraindications in cases of renal and hepatic insufficiency, pregnancy, and breastfeeding. It allows automatic calculations of drug doses and interactions, all with a single click.

The doctor adjusts the patient's values: weight, age, sex, renal and hepatic insufficiency, and pregnancy stage (by trimester, month, or week). As the doctor adds medications, the application calculates the doses and displays interaction alerts and contraindications on the screen. The doctor evaluates alternatives, adds and removes medications, and assists in decision-making. No other application in the world can make this task so easy. The application also includes the highest-rated drugs compared to other applications worldwide. It categorizes them by generic name, brand name, laboratory, pathology, and soon, by provider. It's like a drug dictionary that also provides instant dose and interaction calculations.



PERÚ

T-Sana Pacífico Salud

Pacífico Salud is one of Peru's most important healthcare companies, providing both healthcare services and insurance coverage. The team created T-Sana, a web solution that consolidates

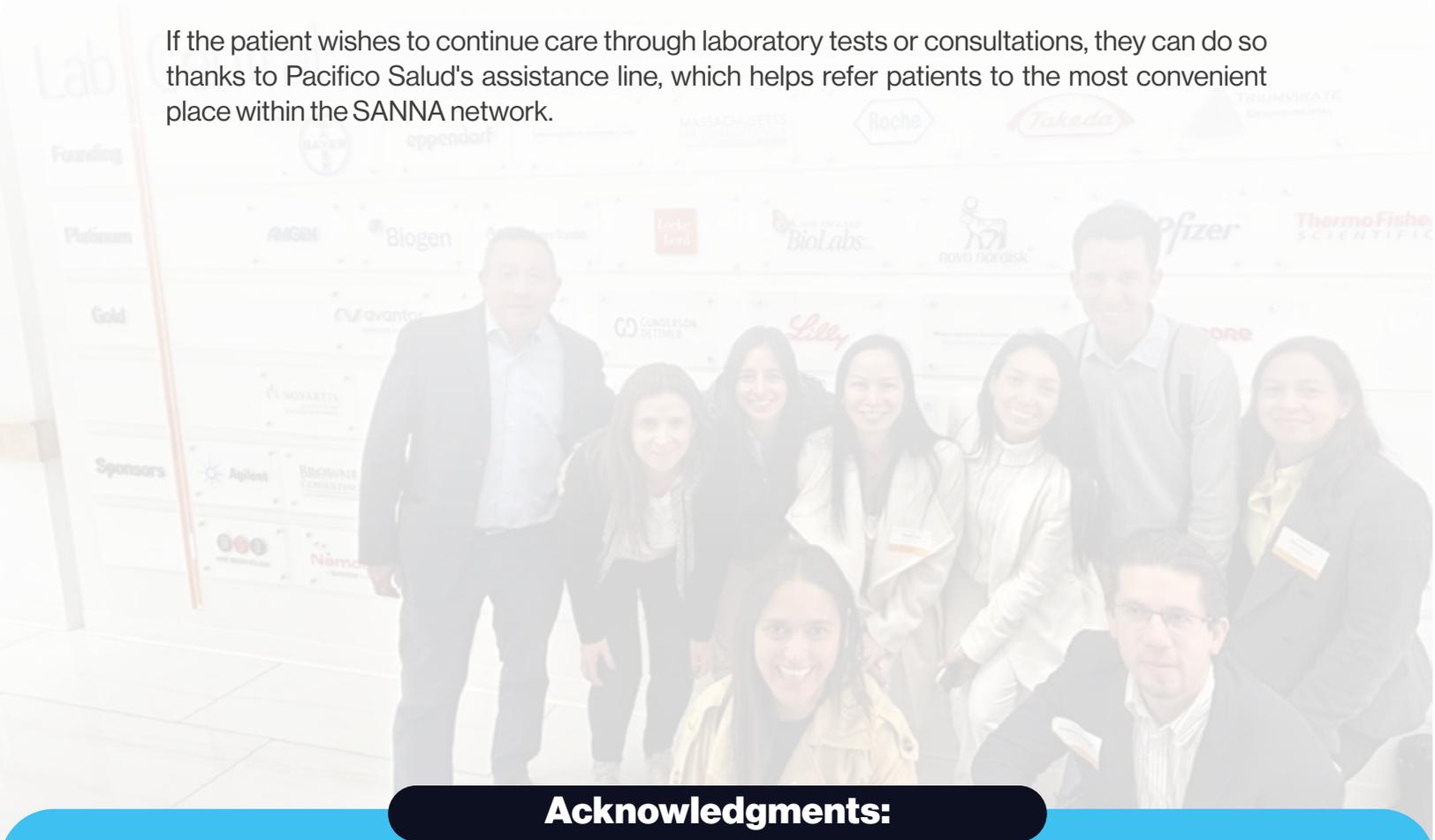


the main services needed for a person to address their low complexity health problems from start to finish. It offers services such as virtual triage, medical care through teleconsultation, purchase of medications, and referral for more complex cases (to the SANNA network). It is

aimed at the market of uninsured people who currently address such problems informally.

It offers the possibility of receiving triage 24/7 and from any device, and the ability to receive alerts when the doctor who will attend to the patient is ready to assist. The doctor will add the products to the patient's shopping cart as part of the prescription preparation, so the patient will not have to search for them. Patients can purchase the products for their treatment with just a few clicks from the same platform.

If the patient wishes to continue care through laboratory tests or consultations, they can do so thanks to Pacifico Salud's assistance line, which helps refer patients to the most convenient place within the SANNA network.



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LATAM Health Champions

2024

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