eHealth HUB Smart Guides

FIND YOUR WAY THROUGH THE EHEALTH MARKET

Solution Match Report

"Data analytics/AI solutions to support clinical decisions & research"







The eHealth Hub project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No727683











"Data analytics/AI solutions to support clinical decisions & research" SOLUTION MATCH REPORT









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Why this report?





We are here to support European eHealth businesses

<u>eHealth HUB</u> - European eHealth business support is the new EU-funded initiative, cross-border and focused on the digital health vertical. eHealth HUB's goal is to provide high-quality business-oriented services tailored to the needs of European eHealth startups, SMEs and stakeholders. We use a demand-driven approach to promote new business and collaboration opportunities for SMEs and key ecosystem stakeholders including healthcare provider organizations, investors, insurers, pharma and MedTech.



info@ehealth-hub.eu www.ehealth-hub.eu

From Business Modelling to Regulatory advice: exploit our services

eHealth HUB offers FREE services to support European eHealth SMEs, healthcare providers and ecosystem stakeholders on the following key areas:

Business modelling



Business model clinic One-on-one Support

The Business Model Clinic supports the best promising entrepreneurs and startups offering personalized coaching on business proposition, customers and go-to-market strategies.



Lean Startup Academy Learn to be Lean

The Lean Startup Academy provides eHealth SMEs with the opportunity to mature their business by systematically testing their ideas against the market.

Access to private finance



Investment readiness training & pitch Make eHealth SMEs ready to make their business

eHealth Hub Investment Readiness prepares European early-stage startups and SMEs to approach and collaborate with investors.



eHealth Hub Platform
The place to be for eHealth SMEs and Investors

The eHealth Hub Platform features SMEs, investors, healthcare organizations, legal and regulatory service providers. By registering, health stakeholders can get easily in touch with each other.

Commercialization



Solution Match Start form your need, ask European SMEs for a Solution

Solution Match supports healthcare providers, insurers, pharma or medtech companies looking for a concrete digital health solution to be implemented in their organization.



eHealth Roadshow
Pitch your solution, Jump into European market

eHealth Roadshow offers an opportunity for selected eHealth SMEs to expose their digital health solutions in front of a Committee of key stakeholders in the eHealth European market.

Legal issues & Regulatory and reimbursement guidance



Legal Support

A compass to navigate legal services through Europe

eHealth Hub Legal Network offers good quality, affordable legal advice for eHealth SMEs as well as free workshops detailing current legal



Regulatory Guidance
Regulatory and Reimbursement Guidance for eHealth SMEs

eHealth Hub Regulatory Network helps European eHealth SMEs to be compliant with regulatory requirements and develop reimbursement strategies across the European Union.

Let's find the best way to work together



Sylvie Donnasson, eHealth Hub partner and eHealth Hub team

"Most healthcare providers are looking to implement digital health solutions. However, the market is constantly evolving and finding the perfect match to a concrete and very specific need is challenging. Solution Match is the eHealth Hub personalized service for health care providers interested and ready to implement a digital health solution, linking the economy to innovation. More generally, our role is to best serve entrepreneurs on their business journey by creating a value chain and proposing a combination of services. Your business is in digital health? Contact us, we will find the best way to work together".

Solution Match

One of the services offered by eHealth Hub is called Solution Match. It specifically focuses on:

a

Engaging healthcare providers, insurers, pharma and MedTech companies looking for a concrete ehealth solution and ready to implement it.

eHealth Hub helps them clarify their requirements, research the offering and connect with the most relevant SME solutions on the market.



Accelerating commercialization by outsourcing for free the filtering for fit of relevant digital health solutions in a rapidly moving ecosystem.



eHealth Hub organized a Solution Match service for Servicio Extremeño de Salud to support clinical decisions & research by looking for a clinical decision support system using data analytics/artificial intelligence. We did a public call for applications and received 44 answers. The following report displays the results of that call for applications, presenting in a synthetic way all the companies that applied and their main features.

Who is that report for?

SME's looking at promoting one or more solution(s) to support clinical decisions & research



Companies specifically interested in solution(s) to support clinical decisions & research







Solution Match Report, Solutions to support clinical decisions & research

Companies	Your solution integrate genetic testing	Your data base include biomarkers data sets	Your solution use medicine data bases	Your own algorithms are used	An existing api is used	Your solution use measurable outcomes	Your solution use patient outcomes	Your solution use cost saving benefits	Your solution is interoperable	The conditions your solution can monitor
B2B Salud (Ribera Salud Group) p.12	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Balidea Consulting & Programming p.13	✓	✓	✓	✓		✓	✓	✓	✓	Cardiovascular diseases, Cancers
Bayer Hispania p.14			✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Biomedical Informatics Scientific Advisory $\rho.15$	✓	✓		✓	✓				✓	Psychiatry, Cardiovascular diseases, Cancers, Chronic Diseases
Bismart Business Intelligence Specialist Services p.16			✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
BITAC MAP p.17	✓	✓	✓	✓		✓	✓	✓	✓	Cardiovascular diseases, Cancers, Infectious diseases
Blendarsys p.18	✓	✓	✓	✓		✓	✓		✓	Cardiovascular diseases, Cancers
Butler Scientifics p.19	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers, Immunology, Urology and Biomedical Research in general
Canalyticals p.20	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Cangame p.21			✓	✓	✓	✓	✓	✓	✓	Psychiatry, Voice therapy
CheckTheMeds Technology p.22	✓	✓	✓			✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers, Drug allergies etc.
Clinerion ltd p.23	✓	✓		✓		✓	✓		✓	Psychiatry, Cardiovascular diseases, Cancers
Cognuse p.24	✓	✓		✓		✓	✓	✓	✓	Cardiovascular diseases, Cancers
Costaisa Group p.25	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Deontics p.26	✓	✓	✓		✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
DNA Compass p.27	✓	✓	✓		✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Drimay Consultores p.28				✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Diabetes
E*Healhtline p.29	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers, COPD, Diabetes
Electronic Record Services B.V. p.30	✓	✓	✓	✓	✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers, all ICD codes
Enhanced Medical Decisions p.31	✓	✓	✓	✓					✓	Psychiatry, Cardiovascular diseases, Cancers
EY p.32			✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
GENOMCORE p.33	✓	✓		✓	✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers

Solution Match Report, Solutions to support clinical decisions & research

							Solution	racer repor	c, 5014110115	to support clinical decisions & research
Companies	Your solution integrate genetic testing	Your data base include biomarkers data sets	Your solution use medicine data bases	Your own algorithms are used	An existing api is used	Your solution use measurable outcomes	Your solution use patient outcomes	Your solution use cost saving benefits	Your solution is interoperable	The conditions your solution can monitor
Grupo Pulso ρ.34	✓	✓	✓	✓		✓	✓		✓	Psychiatry, Cardiovascular diseases, Cancers
Health Gorilla p.35	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers, CCDA
HeartIn p.36				✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases
HMG Systems Engineering p.37	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Ibermatica p.38	✓	✓	✓	✓	✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Icometrix p.39		✓	✓	✓		✓	✓	✓	✓	Neurology
Instituto de Medicina Genómica p.40	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Juniper Medical Computing p.41	✓	✓	✓	✓		✓	✓	✓	✓	Cancers
Machine Medicine Technologies p.42	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Neurology
Medical-D p.43	✓	✓				✓	✓	✓	✓	Periodontitis
Medicsen p.44		✓	✓	✓		✓	✓	✓	✓	Cardiovascular diseases, Diabetes, Prediabetes, Lifestyle
MediKeep p.45	✓		✓	✓	✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
NIMGenetics p.46	✓	✓	✓	✓	✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Orion Health p.47	✓	✓	✓	✓	✓	✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Medmesafe p.48	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Pulse Infoframe p.49	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
Qubiotech Health Intelligence p.50	✓	✓	✓	✓		✓	✓	✓	✓	Psychiatry, Cardiovascular diseases, Cancers
RAMPmedical p.51		✓	✓	✓		✓	✓	✓	✓	Diabetes
Roche Farma p.52	✓	✓	✓		✓	✓			✓	Cancers
Smart EpiGenetX p.53	✓	✓	✓	✓		✓	✓	✓	✓	Cardiovascular diseases
Tree Technology p.54	✓	✓	✓	✓	✓	✓	✓	✓	✓	Cancers
Virtual Doctor and Medicines p.55	✓	✓	✓	✓	✓	✓	✓	✓	✓	All clinical pathologies, Drug interactions and lifestyle
XTREM Industria De Software p.56			✓	✓		✓	✓	✓	✓	ICTUS
11										a No.



www.riberasalud.com

FOUNDED 2009

COUNTRY Spain

CONTACT Manuel Ros

Business development manager

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VIDEO



B2BSalud and Interpreta are partnering to create the most highly innovative platform in precision medicine combining a world renowned heath delivery platform with the fastest and most powerful clinical and genomic analytical engine in healthcare.

Our aims are to

- establish a comprehensive clinical and genomic system which combines genetic data with continuously adapting guidance for managing other clinicals needs of a patient,
- 2. integrate this knowledge with a healthcare delivery system for care delivery, and
- 3. track performance and outcomes with robust metrics and tools used by the health departments.

Currently, Interpreta provides real-time clinical and genomic analytics for millions of patients every night. Interpreta is the fastest and most powerful analytical engine in healthcare with proven scalability of 10M+ members in real time. This combined enterprise solution and speed have brought Interpreta recognition by Gartner, Health Tech Outlook Magazine, and others as Cool Vendor and one of the top pharmacogenomics and Healthcare IT companies. Interpreta can analyze millions of patients within minutes, at a velocity 100x faster than competitors. Interpreta applies AI to adapt and to identify the sickest patients today. Interpreta genetic capabilities and adverse drug monitoring are aimed at the most common medications used in the clinic today. Interpreta tracks and supports opportunities for testing and adapting treatment and dose based on drugs, genetic results from 80% of the industries genetic testing devices. As its source, Interpreta utilizes the curated db and pharmacogenetic knowledge endorsed by the US Food and Drug Administration (FDA), European Medicines Agency (EMA), the Pharmaceuticals and Medical Devices Agency, Japan (PMDA), and Health Canada (Santé Canada) (HCSC).

The main area(s) of activities

- Healthcare IT services.
- B2B Salud is the IT services company of the Ribera Salud, group investee by Centene Corporation. Ribera Salud is leader in the management of administrative concessions under a model of public-private collaboration.
- B2B Salud and Interpreta, another Centene investee company, are partnering to develop and implement a disruptive software platform to support clinical decisions

The specialization(s)

- Our position within the group allows us to develop our services, maximizing the value provided to the professional and the
 citizen by being completely aligned with the needs of the sector and contrasting our solutions in the four hospitals and
 nearly a hundred primary care centers that we manage providing healthcare to more than 500,000 citizens in Spain
- Within the portfolio of services provided by B2B Salud include, among others:
- Development of EMR systems and other departmental solutions oriented to the professional
- Development of patient-oriented eHealth solutions
- Development of management solutions
- Integration of third-party solutions
- IT operations administration and management services.

BALIDEA

www.balidea.com

FOUNDED 2002

COUNTRY Spain

CONTACT Carmen López Pérez R&D and Innovation Office Manager

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Solution Description

DECIDE (Data Expert for Clinical Intelligent Decisions) is an innovative clinical decision support system able to provide the adequate recommendations to clinicians in complex clinical cases and determine the eligible best patients to participate in a clinical trial. For that the system includes the following tasks and components:

- Information system that integrates different heterogeneous data sources, from clinical and biological data to genomic information and image biomarkers, and visualizes them in an easy manner.
- Genomic data processing, filtering and annotation with state-of-the-art databases for patient stratification, tailored therapeutic strategy and pharmacogenomic profiling
- Connection to existing repositories and reference databases for the annotation of genomics and pharmacogenomics.
- Development of an ontology that contains the clinical knowledge to determine the effective prescription for specific patients connected with the information system and pharmacogenomic databases.
- Development of machine learning techniques to stratify patients based on their information and determine which are the best patients to be included into a clinical trial.
- Similarity based Clinical Decision Support System to provide similar patients treatments information with good prognosis, so that complex cases could be explored to increase health care quality and efficiency.
- Real world data capture module focused on the acquisition of patient reported outcomes (PROS) in an unobtrusive way
 using personal devices and wearables.

• The main area(s) of activities

Software Engineering

The specialization(s)

Virtual Assistants (stablishing recommendations that fit end-user needs) Data Analytics
Data Visualization
Natural Language Processing (NLP)



www.bayer.es

FOUNDED 1863 COUNTRY Spain

CONTACT David García Callej Country Head Spain Radiology

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Bayer's concept of Total Dose Management (TDM) emerges with the intention of becoming a new standard for diagnostic imaging services.

The objective is to design, develop, implement and evaluate a new integral model that allows an increase in the quality of care, optimizes the testing process, the use of contrast media and the radiopharmaceuticals associated with them, incorporating predictive, preventive and customized, allowing the control of the processes and an optimization of costs.

The main area(s) of activities

Research Development Manufacture and marketing of pharmaceutical products etc.

The specialization(s)

Contrast media Medical devices Medical software

Biomedical Informatics Scientific Advisory

FOUNDED 2001

COUNTRY

CONTACT Carlos Luis

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VIDEO



Relevant expertise in the development of advanced evidence-based clinical decision support methods and tools, as well as learning health systems. Relevant expertise in the development of advanced evidence-based clinical decision support methods and tools, as well as in learning health systems. Representation of biomedical and healthcare knowledge, ontologies-based. Deep knowledge of the landscape of open software initiatives to support clinical and translational research such as protégé, i2b2, TranSMART, and Open Clínica. Current experience in implementing FAIR principles for health research datasets.

The main area(s) of activities

Medical Health Informatics Digital Health

The specialization(s)

Informatics for Clinical and Translational Research Clinical Decision Support Systems



https://bismart.com

FOUNDED 2009

COUNTRY Spain

CONTACT Enric Marti

International Development Director

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VIDEO



Bismart's folksonomy automatically highlights tags from natural language texts, to reveal the internal content. It helps in locating specific items of related topics.

This advanced analytics solution transforms non-structured text files into structured ones, unlocking insights.

This real-time classification system is automatic, based on those tags and their frequencies. In contrast to the manual taxonomic classification, that is specified by the authors.

It is oriented towards cooperative and collaborative projects, such as content repositories, text documents or any media contents.

This solution provides easy access to the information from different perspectives:

- Healthcare professionals: to explore related medical records during the patients visits
- Managers: to evaluate the use of healthcare resources and results
- Researchers: to correlate information from multiple sources for statistical studies Capabilities:
- · Unlocking insights from non-structured data
- Bottom up tag discovery instead of top down tag definition
- Fast tag processing by tag frequency
- · Manual labor no longer required for tag and structure definitions
- Fast and easy implementation
- · Real time restructuring for different business uses
- Multiple structures for different needs
- Advanced search engine for non-technical users.

The main area(s) of activities

Big Data Machine Learning Artificial Intelligence

The specialization(s)

Business Intelligence



www.bitac.com

FOUNDED 2008

COUNTRY Spain

CONTACT Mireia Rodriguez Naque

Co-founder and Business development

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Healthcare environment nowadays is an information intensive industry: data providing from primary care, hospitals , mental Health , Pharma, social workers and other silos related, must be integrated in order to provide the best care for the patient and also to make the healthcare System sustainable.

Interoperability of ICT-enabled solutions and of data exchange still remains as a barrier for better coordination and integration across the entire chain of healthcare delivery and health data exchange.

BITAC MAP addresses this semantic interoperability gap in healthcare with CTMAP, a computer assisted coding tool which links local terminology used in clinical information systems directly to clinical terminological standards such as SNOMED CT, LOINC AND ICD10.

CTMAP is defined as a terminology standardization service based on a SaaS platform. Its semantic coder and its core terminology DB with >1.500.000 validated relationships, make of CTMAP a disruptive clinical service unique in the market.

The strong development and rapid growth of eHealth, mHealth, as well as Big Data deployment do reinforce and stress the need for standards.

Interoperability market is about to exploit at exponential rates.

CTMAP is a very competitive tool addressing this challenge

BITAC has been awarded the seal of excellence of a H2020 call for SMEs entitled COMPUTER ASISTED CODING FOR HEALTH Certificate delivered by the European Commission, as the institution managing Horizon 2020, the EU Framework Programme for Research and Innovation 2014-2020

This means passing all stringent Horizon 2020 assessment thresholds for the 3 award criteria (excellence, impact, quality and efficiency of implementation) required to receive funding from the EU budget Horizon 2020.

The main area(s) of activities

Promoting semantic interoperability in healthcare environments to all continuum of healthcare since EHR until the genomic profile in favour of a personalized medicine.

The specialization(s)

Computer assisted coding in healthcare NLP of biomedical text Consultancy of terminology standards



www.blendarsys.com

FOUNDED 2011 COUNTRY Spain

CONTACT Rafael Palomino

Chief Executive Officer

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The solution we propose collects information from hospital health records to take adverse effects and other valuable data into account. Using genetic testing and health records we offer to the physician recommended specific dosage, the calculation and dispensing of pharmaceutical preparations, including the possibility of preparing complete cancer protocols. This is made using CIE10 code, Risk Matrix, incompatibilities, etc. The solution uses machine learning, and in some situations, decision tree, pattern recognition, etc.

The main area(s) of activities

Software development for clinical & biomedical research Genetics Genetics diagnosis Genetic reproductive health Software for hospitals Health consulting Web developments

The specialization(s)

Advanced and complex software development Algorithms
Intelligence
Data analysis
Bioinformatic
Genetic counselling
NGS (Next Generation Secuencing)
Microarrays.
eHealth specific software
Pharmacovigilance
Training and consulting



www.butlerscientifics.com

FOUNDED 2014

COUNTRY Spain

CONTACT Ray G

Butler, CEO

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VIDEO



AutoDiscovery is an intelligent automated exploratory data analysis software that helps biomedical researchers to unveil clinically relevant associations hidden in the data files of their own scientific experiments and clinical studies.

To do that, AutoDiscovery automates a 3 step workflow:

Consolidate: Multiple data files can be merged into a single table.

Discover: An exhaustive smart statistical procedure is automatically applied to unveil clinically relevant associations.

Explore: Relationships are filtered and browsed following the original exploratory question.

AutoDiscovery is a great complement to classical confirmatory statistical tools such as SAS, SPSS or R providing the following additional key features:

Smart Exhaustivity:

Configurable range of combinatorial analysis.

Automatic unassisted selection of the proper statistical methods in each case.

Exclusivity and prioritization of results.

Biomed-specific:

White Box: traceability of results assured.

Automatic data integration.

Stratified analysis (groups, treatments, etc.)

Built-in False Discovery Rate

Designed for Principal Investigators:

Complement to hipothesis testing to improve research impact.

High-level exploratory insights in a matter of minutes.

Personalised reporting services (we do it all!) or individual licenses (you use the software by yourself) options are available.

Agile technical support

The main area(s) of activities

Automated smart exploratory data analysis.

Development of data acquisition forms (eCRD and similar).

Education / training workshops on data analysis techniques in biomedical research



Software Engineering Data Science



https://canalyticals.com

FOUNDED 2016 COUNTRY Spain

CONTACT

Daniel Monfort,

Partner

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We are experts developing matching and predictive algorithms.

All our algorithms are fully developed from scratch in order to achieve the best results in predicting and matching. They are developed using R and Python.

The real value is that they are tailored algorithms: developed to give solution to focused problems, using specific data bases regarding clinical information.

Our solution uses Big data from a wide range of transversal information: all databases regarding information from patients, diseases, biomakers, historical clinical information, diseases and genetic data.

Therefore, we use all databases with information that somehow drives to adverse reactions in patients. According to our information, nowadays about 20% of total medical reactions are adverse for patients. To avoid this situation, it is necessary to identify all data affecting that performance.

Our solution firstly develops a Master Chart combining all information and variables.

One of the most important issues to take into consideration is the data combining management in order to achieve good results.

The next step is building up a mathematical model including algorithms (neural networks, white box / black box algorithms, decision trees).

The wider and more extensive the information is, the better the performance of the algorithm solution is. That is why the solution uses the latest genomic/biomarker databases considering real performance in patients through pathology, clinical history and genomics.

The algorithms learn from all real past situations, analysing all matchings, so when feeding it with new information, it is able to performance an accurate prediction.

The model gives back the prediction analysing all information in the model, avoiding adverse reactions to single medicines or combined medicines.

The main area(s) of activities

Artificial Intelligence Machine Learning Predictive Algorithms Bespoke Advanced Analytics Algorithms Management



Predictive Algorithms Machine Learning



www.lifeupbrasil.com.br/cangame

FOUNDED 2011 COUNTRY Brazil

CONTACT Eraldo Filho

CEO

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VIDEO



This customization to create content specific to the user, using pictures, texts, audio and video in the sequence that are more appropriate to stimulate cognitive development and social. Creating customized content, Teaching plan individualized learning, it's for any life phase of autistic, which may accompany from child to adulthood. Remote monitoring by the doctor or educator of social cognitive development; capture of mistakes and successes by ASD; scheduling of treatment activities and education; personalized content and customized for each patient; you can accompany the ASD for every phase of life from child to adult!

The main area(s) of activities

Education Health Care

The specialization(s)

Software Engineering Education

Checkthe Meds®

www.lifeupbrasil.com.br/cangame

FOUNDED 2014
COUNTRY Spain

CONTACT Carlos Valilla

Commercial director

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VIDEO

Solution Description

Software to help pharmacotherapeutic decisions for doctors and pharmacists.

Our software help healthcare professionals by globally analyze the demographic, clinical and pharmacological data detecting patterns and problems related to the medication to help them quickly in making decisions to reduce Drug Related Problems (DRP) and Negative Outcomes associated with Medication (NOM).

• The main area(s) of activities

Demographics data
Pharmacogenetics
Physical exploration
Geriatric assessment
Intolerance to excipients
Intolerance to groups of drugs
Data of complementary test
Results of analysis
Toxic habits
Drugs
Medicinal plants...

The specialization(s)

Software



www.clinerion.com

FOUNDED 2008

COUNTRY Switzerland

CONTACT Luis Magalhaes

Site and Patient Network Director

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Clinerion is the worldwide leader in medical data informatics, radically improving efficiency in patient search and identification, increasing effectiveness in clinical research and accelerating the process of drug development to ensure an earlier availability of medicines

• The main area(s) of activities

Digital solutions for clinical research
Interoperability and integration of systems
Development of AI solutions to support data networks and queries in data pools.

The specialization(s)

Data aggregation Data mining

VIDEO



www.cognuse.com

FOUNDED 2011

COUNTRY Estonia

CONTACT Andres Mellik

CEO

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VIDEO

Solution Description

The Guidelines Adherence and Management System (CoNurse) by Cognuse is a simple yet elegant voice-guided tool for improving quality and reducing avoidable medical errors and patient harm. This tool is seamlessly integrated into the clinical workflow to help ensure procedural protocols, guidelines, and checklists are followed each and every time by supporting nurses' memory to remember over 300+ protocols.

Application runs on the smartphone and by wearing a Bluetooth headset, it is ensured that the user-experience is entirely hands-free, aligning with hospital hygiene and infection control measures.

Guidelines management is made easy for the quality department by providing a system with preset of guidelines which can be adapted and adjusted regarding the hospital needs.

Another aspect of the digital platform is involving families and caregivers in the care loop at more advanced levels, empowering them to take upon nursing and therapeutic actions and thus extending the amount of therapy and support for the patient.

The main area(s) of activities

Digital health
Care variation reduction strategies
Patient safety
Critical and chronic disease management

The specialization(s)

Health IT Digital health applications



www.costaisa.com

FOUNDED 1968

COUNTRY Spain

CONTACT Jordi Campo

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Solution Description

The combined technology and expertise of the 3 consortium partners Costaisa, Orikami and Awell will be used to build a tailored solution.

This tailored solution will exist out of 2 main components.

- The first component is the "production platform", to be used in clinical practice. It will exist out of care pathways for each of the target disease areas. These care pathways collect outcomes data from patients, healthcare providers and existing systems such as EMRs and will provide decision support at key decision moments (diagnosis, treatment selection, treatment adjustment, disease progression, etc.) by using the following technologies:
 - a) Onto-Pharma (Costasia Group), a support system based in ontologies for the use of the medication that can be shared and used in different healthcare areas
 - Orikami, providing the expertise and platform to use discover and validate digital bio-markers and combine these into medical decision support (https://www.orikami.nl)
 - The Awell care pathway platform to automate the relevant workflows and offer a patient portal
 - Integrated bi-directionally with existing systems and applications to provide a seamless experience to all actors (https://awellhealth.com)
- 2. The second component is an "algorithm pipeline", which will act as preparation and vetting system for the algorithms to be used in the "production platform" as decision support.

The "algorithm pipeline" component will take care of the following:

- Find and acquire relevant data sources
- Develop and test algorithms
- Validate and deploy decision support tools

• The main area(s) of activities

Design, development and implementation of software and technological solutions in health care; as well as IT outsourcing, strategy and business consultancy services for the Healthcare sector

Data science, decision support, digital bio-markers

Integrated care pathways spanning the full continuum of care, including outcomes collection, informing patients, providing decision support



Data science Care pathways

DEONTICS

CLINICAL FUTURES

www.deontics.com

FOUNDED 2014

COUNTRY United Kingdom

CONTACT Guy Wood-Gush

CEO

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Over 25 yrs of academic research, using deontic logic principles, the Deontics team has developed a platform including a standardised clinical logic model, capable of accommodating ambiguity and non-linearity, an authoring tool for encoding guidelines and local protocols, and an engine for dynamically integrating guideline logic with individual patient data to generate individual evidence based recommendations. In addition the platform will record compliance of all decisions, and rationales for non-compliance. In addition to algorithms from guidelines, it can include genomic logic inputs, as well as patient preferences, clinical trial inclusion/exclusion criteria, and can be applied to all clinical indications and all use cases e.g. Emergency, outpatient, on the ward, in the patient's home etc.

Because we have a standardised digital clinical logic model, which is editable executable and deployable, the process of encoding clinical logic does not require any computer code to be written and is extremely rapid, making this the fastest mechanism known to us at this point in time to encode complex clinical algorithms from any source.

The Deontics platform allows multiple evidence sources to be run against individual patient data simultaneously, e.g. national guidelines, local protocols, patient preferences, genomics algorithms, predictive analytics probabilities etc. to contextualise all relevant data dynamically, allowing what-if type review of a case. Where there are conflicts, it will highlight these.

The system will automatically select patients for clinical trial eligibility if trial in/ex criteria are encoded into the logic.

The main area(s) of activities

Clinical decision standardization and audit Patient safety

The specialization(s)

Clinical Decision Support, rapid, automated encoding of clinical algorithms into a standardized digital logic model, and dynamic integration with individual patient data to generate evidence based, individual, clinical management recommendations. Deontics offers a mechanism to standardize and audit clinical decisions, and clinical compliance with your clinical policies, across e.g. a practice, a hospital group, or a geographic region.



www.dnacompass.com

FOUNDED 2018 COUNTRY USA

CONTACT Alice Rathjen

Founder & CEO

alice@dnacompass.com

VIDEO



DNA Compass provides a micro-geocoding service for genetic markers - enabling to setup their own rules for how genetic data is managed across various users within and outside their organization. DNA Compass leverages the mapping software Health IT networks already have up and running on their network as a "back door" to integrate genetic data into health records and integrate multiple streams of information.

The main area(s) of activities

Rapidly deploy clinical decision support tools at low cost by leveraging entities existing mapping software (integrate genetic data into electronic health record systems).

Provide a way for multiple stakeholders (i.e. clinicians, patients, clinical research organizations, health data content providers) to meet up at locations on the genome to exchange information and services.

Provide comprehensive solution for mapping, interpreting and managing genomes at scale.

The specialization(s)

Use maps to promote genomic literacy, research collaborations, automate diagnostics and manage consent down to DNA base pair level if needed.

Leverage existing global IT infrastructure and relationships between entities for sharing health data via maps.



www.drimay.es

FOUNDED 2014

COUNTRY Spain

CONTACT José Manuel Velarde

Partner & CRO

jmvelarde@drimay.es

Solution Description

Drimay develops products and algorithmic models oriented to the health data sets. These ones require different approaches than the usual ones in Big Data. Starting with the methodology that should complement the randomized clinical trials (ECA) with the Real-World Data (RWD) and continuing with techniques beyond machine learning: Complex system models.

Our models are used in:

- Assessment of drug (medicine) effectiveness under conditions of actual use, according to health outcomes and distinguishing individual traits.
- Prediction stroke models and Decision-making tools
- Medication Adherence and Pharmacotherapy Monitor App

The main area(s) of activities

Health and Pharmacv

The specialization(s)

Health and Pharmacy Performance Consultancy Health and Pharmacy Data Analytics Health and Pharmacy Software Solutions and Apps



www.ehealthline.com

FOUNDED 1999

COUNTRY Ireland

CONTACT Sorin Stircu

Regional Healthcare Strategist -European Global Office

sorin.stircu@ehealthline.com



E*HealthLine's Clinical Decision Support Systems (CDSS) encompasses a variety of intelligent applications to enhance decision-making within clinical workflow; which includes computerized alerts and reminders to care providers and patients; clinical guidelines; condition-specific order sets to predict and avoid adverse drug reactions optimize drug prescriptions; focused patient data such as genomic and biomarker profiles and summaries; documentation templates; diagnostic support, and contextually relevant reference information, for clinical research. E*HealthLine's CDSS incorporates AI and machine learning to boost diagnostics, imaging, pathology and radiology and provides clinicians and patients with knowledge and person-specific information, intelligently filtered or presented at appropriate times, to create actionable clinical decision support capabilities are the end goal of all clinical big data analytics and personalized medicine.

The main area(s) of activities

E*HealthLine is a leader in Integrated Health Care Information Management software and services and the one of the largest independent vendors in the healthcare solutions market offering fully Certified software technology and business intelligence services within the global health industry. We use a proven technology software organization providing complete Global Professional Services, all dedicated to serving its clientele with the delivery of high-quality healthcare management solutions by reducing costs, streamlining processes, and improving the safety of patient care. Our integrated system provides a comprehensive spectrum of care for hospitals, physicians, homecare, payors, retail pharmacy automation and services.

The specialization(s)

Software: We developed a comprehensive Ecosystem which includes 23 integrated or stand-alone apps consisting of HIS, EHR, E-Prescribing, Telehealth & 30 Pharmaceutical Enterprise Systems. These applications provide Hospitals, Clinics, Labs, Pharmacies and Pharmaceutical Manufactures with a solid platform to facilitate powerful Artificial Intelligence that harnesses the intelligence with massive datasets through Deep Learning frameworks.; Medical Device: MIOt© applications connects medical devices to the electronic health record, enabling an automatic flow of information for health care professionals to consult the medical record as the single source of truth™ for each patient; Voice Recognition - enables clinicians to dictate directly in the EHR.



www.e-recordservices.eu

FOUNDED 2007

COUNTRY The Netherlands

CONTACT René Schippers

Director

r.schippers@e-recordservices.eu

VIDEO



The ERS solution builds on GASTON, a framework for Clinical Decision Support, is now used by 17 hospitals in The Netherlands as medication monitoring software that, as an alert pharmacist, continuously monitors the well-being of each of your individual patients. It offers clinician and pharmacists guidance in the development and implementation of (local) clinical rules for medication monitoring.

Gaston learns from previous decisions, effortlessly applies your own clinical rules and only shares relevant information and advice to the healthcare professionals involved on the efficacy of the treatment.

The solution is supportive to ISO IDMP standard, because this standard is almost fully implemented in Dutch G-standard of Z-Index organization (https://www.z-index.nl/english) that distributes the Dutch drugs database to users and IT- and Pharma industry on behalf of the Royal Dutch Pharmacists Association (KNMP).

The solution is used to implement Medical Pharmaceutical Decision Rules in hospitals to lower the number of irrelevant medication monitoring reports. It is also used by the Z-Index organisation to define 27 nationwide used MFB's to prevent unnecessary hospital admissions due to drug interactions.

The solution is supportive to all relevant coding systems of WHO (ATC, ICD, ICPC etc.), SNOMED CT, LOINC, UCUM etc. and is easy to integrate with third party solutions for EMR/EHR/Lab/Pathology etc. using HL7 message standards or webservices. EMR/EHR vendors use the GASTON framework to upgrade their prescription systems into Personalised Drugs Prescription Systems supportive in a context of polytherapy and multiple pathology.

The solution combines summary of product characteristics (SmPC) technical data sheets from European Medicines Agency and National Competent Authorities (drugs and interactions database etc.), clinical data from EMR/EHR and analytical biomarkers using a drug selection algorithms.

The solution is multi language supportive.

The main area(s) of activities

- Clinical Decision Support to rationalize medication prescription and laboratory research
- Application development and UI advice to third parties
- Strategic Consultancy National/Regional Health Services and Life science
- · Change- and project management

The specialization(s)

- ISO IDMP standard implementations using EMA and National Competent Authorities databases
- Algorithm development for clinical decision support in pharma care
- Strategic Consultancy Healthcare & Life Science companies
- Change Management

Enhanced Medical Decisions Inc.

www.enhancedmd.com

FOUNDED 1999 COUNTRY USA

CONTACT Marlene Beggelman

Founder and CEO

marlene@enhancedmd.com



The application and genomic data extraction have been vetted in university and commercial settings; and the application references source information provided by commercial and public providers of aggregated drug information.

• The main area(s) of activities

AI/Natural Language Processing

The specialization(s)

Clinical Decision Support Natural Language Processing



www.ey.com

FOUNDED 1955 COUNTRY Spain

CONTACT Baltasar Lobato Socio Health and Life Sciences

baltasar.lobatobeleiro@es.ey.com

VIDEO



Big Data and advance analytics solution that allow to develop software solutions over an AI platform and work in health investigation around data in a collaborative environment that allow to implement algorithms to clinical practice in less than 1 week since the discover or update.

The main area(s) of activities

Consulting Health and Life Sciences

The specialization(s)

Health IT and Digital Transformation

www.genomcore.com

FOUNDED 2015

COUNTRY Spain

Miguel Bru Angelats CONTACT

VP Business Development

miquel.bru@genomcore.com

GENOMCORE® Solution Description

At Genomcore we are a Bioinformatic company where we aim to create an interoperable framework between healthcare institutions, diagnostic providers, researchers, healthcare professionals and end customers. We want to jointly fulfill the promise of an affordable, high quality, and responsible personalized medicine. By doing so, we would improve health system efficiency and reduce its related operational costs. This framework comprises 3 components:

- Genomicore Biomed is a platform designed to meet the bioinformatic needs of healthcare and diagnostic providers, and pharmaceutical companies, with a strong focus on data management, ad hoc algorithm development, data analytics and
- Built on top of Biomed, Genomcore Healthcare combines a powerful and flexible bioinformatics framework for clinical sector:
 - aggregation and anonymization of clinical datasets.
 - clinical records conversion from a HIS to semi-structured metadata,
 - legal binding request, online informed consent and
 - support clinical system personalization.
- Genom.care is our transactional solution for consenting access to any kind of sensitive data. We created an all-in-one solution for legal-binding electronic signature of informed consents, based on our proprietary patented technology, creating an agile framework for analysis delivery.

The main area(s) of activities

Personalized Medicine **Bioinformatics** Data analytics IT security

The specialization(s)

Software Framework for Genomic Medicine Compliant Omics Data Management Bioinformatics Pipelines Optimization and Automation Genomic Data Protection / Electronic Informed Consent



www.pulso.com

FOUNDED 1979

COUNTRY Spain

CONTACT Joan Escudero

Business Development and Innovation Manager

j.escudero@pulso.com



Our solution will review and integrate two sources of information.

- First it will perform data aggregation of pharmacogenetics databases including:
- PharmGKB: The pharmacogenomics Knowledgebase
- · CYP-Allele data set
- NAT
- NAT allele database
- TP-Search Database
- PharmaADME (pharmacogenetics of absorption, distribution, metabolims, and excretion genes)
- UGT-Allele database
- KEGG Kyoto Encyclopedia of Gene and Genomes (where we will mine reaction pairs, and genes involved in main human pathways) Secondly, it will use state of the art predictors of binding interaction between compounds and proteins based on deep learning techniques, developed in B2SLab/UPC.

The application will take these data as input, jointly with user patient provided data, which might include (genotype information, drug prescriptions, comorbidities, gender, age and other variables). The output of the system will provide the following information: Possible pharmacogenetic interactions for patient genetic profile and drug prescription, including loss-of-effect due to genetic variants. Possible interactions between drugs (incompatibilities). Possible pathway impact for a set of drug prescriptions. An agreement for genetic profiling could be proposed with Sant Pau Hospital. Interactions between compounds and proteins are mined from ChEMBL, MUV and DUD-E database, learnt through Recurrent Deep Neural Networks and cross-validated across databases and compound structure.

The main area(s) of activities

eHealth projects Continuous medical education Patient support programs Data analytics

The specialization(s)

Develop ICT-based turn-key solutions to pharma and public administrations: Web App Machine learning



www.healthgorilla.com

FOUNDED 2011 COUNTRY USA

CONTACT Sergio Wagner

Chief Strategy Officer

swagner@healthgorilla.com



Rewiring the Healthcare Ecosystem for Clinical Interoperability Health Gorilla enables health systems, providers, patients, and digital health vendors to exchange clinical data seamlessly on a trusted network.

The main area(s) of activities

Data Aggregation
Data Normalization

The specialization(s)

We aggregate health data in our Universal Chart system the data is normalized, independent of its original format, and is stored following CCDA standards keeping track of every transaction and the data represents new opportunities



www.heartin.net

FOUNDED 2014 COUNTRY USA

CONTACT Oleksiy Levenko Europe & CIS Regional Manager oleksiy.levenko@heartin.net



We developed an ECG garment in a form of a t-shirt, which is capable of collecting ECG data, determining the level of stress and fatigue of the body with a further AI diagnostics. It is same precise as a classical ECG, but significantly cheaper, does not require any specific knowledge to set it up and can be used wherever it is needed: in the hospital, at home, during work or on the walk.

Existing technologies allow to detect an arrhythmia and diagnose possible diseases based on this data, however, the data set collected in a hospital is very small (about 5-8 minutes long). At the early stage, an arrhythmia may not be detected during such a short period of time, and this means the diseases will be cured at the later stage, thus resulting into higher cost of treatment and a higher possibility to have irreversible changes in the heart function.

In order to solve this issue, HeartIn offers a product, which is able to monitor a heart function remotely, during different life cycles and detect heart-related problems faster than in a clinic.

The main area(s) of activities

MedTech Remote cardiology

The specialization(s)

Medical device Software



www.hmg-systems-engineering.com

FOUNDED 2014
COUNTRY Germany

CONTACT Herna Munoz Galeano

Managing Director

herna.munoz@munoz-galeano.com



We developed an ECG garment in a form of a t-shirt, which is capable of collecting ECG data, determining the level of stress and fatigue of the body with a further AI diagnostics. It is same precise as a classical ECG, but significantly cheaper, does not require any specific knowledge to set it up and can be used wherever it is needed: in the hospital, at home, during work or on the walk.

The main area(s) of activities

Global telecommunications Medical engineering Automation

The specialization(s)

IT-based innovations

Development and system integration of high complex IT systems Requirement management

Type Approval of systems with high safety and security restrictions

Ibermática

www.ibermatica.com

FOUNDED 1973 COUNTRY Spain

CONTACT Xabier Eroa

Desarrollo negocio Área Salud

x.eroa@ibermatica.com



Personalized medication prescription management system integrated with the digital patient model. This digital model of the patient collects information from the clinical history, pharmacological prescription, and patient reported outcome (PRO). Based on this information, a decision / recommendation support system of the drug and adequate dosage is created by means of machine learning tools with the objective of maximizing the personalization of the prescription of the medication. In this way we optimize the prescription in terms of reducing adverse pharmacological effects that put the patient's health at risk and improve efficiency.

The main area(s) of activities

Ibermática is a global IT services company that has been operating in the market since 1973. Its activity focuses on the areas of consulting, infrastructure services, information systems integration, outsourcing and implementation of integrated business management solutions. It is also present in the main sectors of activity (Financial Services &Insurance, Industry, Services, Telco & Media. Healthcare & Life sciences. Utilities and Public Administration), where it offers specific sectoral solutions.

Our business model is based on seven key industries, five lines of business, three centers of excellence and Ibermática/digital with its transformation insights, in such a way that not only IT systems but also other digital platforms allow customers to tackle digital transformation initiatives. Thus, our offering covers:

IT SYSTEMS digital platform, supporting back-office, operations, ERP, core frameworks and so on.

CUSTOMERS digital platform, managing customer experience with portals, applications, omni-channel and mobile.

THINGS digital platform, with IoT and connecting physical assets, allowing integration with core and operational systems (OT). ECOSYSTEMS digital platform, related with external intermediation, aggregation, etc.

INTELLIGENCE digital platform, aimed at analyzing data coming from previous platforms in an integrated way.

The specialization(s)

In the Healthcare & Life sciences unit of Ibermática, we implement projects in several fields: Hospital Information System (HIS), Electronic Health Record (eHR), Personal Health Record (PHR), Electronic Prescription (eReceta) and Prescription Software. In addition, from the R & D unit of the Ibermática group (i3B), within the Healthcare & Life sciences area we lead and participate in numerous projects in the field of: Natural language in Socialcare - Healthcare environment, Machine Learning, Healthcare Bigdata, Decision support tools, IoT Platforms for home.



www.imegen.es

FOUNDED 2011

COUNTRY Belgium

CONTACT Steven van de Pavert

Director Business Development

steven.vandepavert@icometrix.com

VIDEO



Icometrix provides Icobrain to quantify brain MRI and CT scans for people with neurological disorders (including MS, dementia and traumatic brain injury). As opposed to manual radiological reading Icobrain is able to objectively provide metrics of the pathology and its evolution to greatly treatment decisions. Alongside this, Icometrix is now developing icompanion.ms which gives MS patients the ability to (a) upload the MRI scans from their hospital visit and to get education and information on this in terms of quality, and (b) keep track of their daily symptoms, DMT use, and patient reported outcomes. In this way, icompanion.ms together with Icobrain greatly enriches the annual neurologist consultation by providing objective quantitative metrics of the patient's MRI scan as well as detailed metrics of adverse event and the patient's day-to-day experience of their disease. In the medium term the information that icompanion.ms collects will be used to the benefit of the patient as this rich dataset allows for the making of predictive models of the effect of different treatments.

The main area(s) of activities

Neurology Radiology AI

The specialization(s)

AI MRI CT image analyses



www.imegen.es

FOUNDED 2009

COUNTRY Spain

CONTACT Mari Carmen Alvarez

Project Manager

maricarmen.alvarez@imegen.es



Imegen proposes a solution whose objective is the clinical implementation of an open, interoperable and easy-to-use Clinical Decision Support System to improve the prescription of medications and increase the effectiveness of Clinical Trials.

The solution proposed aims to facilitate the data integration without manual manipulation, data normalization (KPI's) and data access to the genotyping of patients in their clinical history; so, the prescriber will need to have access to all the related information and help when prescribing a certain medication. Not only does this information allow him to identify a rising risk situation and respond, it also enables him to create an extremely personalized response.

We offer the first fully automated bioinformatics tool created by experts in genetic diagnostics to support clinical decisions and research. The main objective of the proposed solution is to transform genomic data, wherever it comes, into clinical decisions. Our tool will transform genomic data into quality medical reports by integrating genomic information (genotyping and biomarkers), databases and scientific literature, along with the patient's medical history.

The main area(s) of activities

Genetics Genomics Bioinformatics Genetic Diseases Rare Diseases Pharmacogenetics Oncology Genetic Diagnosis

The specialization(s)

Services and products for genetic analysis Genomic data software



www.junipermed.com

FOUNDED 2018

COUNTRY

Germany

CONTACT Adrien Philippe

CEO

adrien@junipermed.com



Juniper is a software that clinicians use in tumor boards to get a recommendation of treatment based on the patient (clinical and molecular) data and the current literature. The software provides for each treatment (mono or combination drug therapy) the prognosis, degree of chances that it works, adverse effects and counter indications. Once a treatment chosen a report is generated to share with the tumor board members, physicians involved with the patient, insurance company and the patient himself.

The main area(s) of activities

Medical computing AI

The specialization(s)

Recommender systems Machine learning



www.machinemedicine.com

FOUNDED 2017

COUNTRY United Kigdom

CONTACT Jonathan O'Keeffe

CEO & Physician

jonathan@machinemedicine.com

VIDEO



We are developing a computer vision platform for the objective measurement of disability. Currently, we work in Parkinson's disease but the approach is extendible to many other fields. We will also integrate imaging, genomic and other biomarkers into our platform, which will then be ideally suited for patient stratification. This is of use in selecting PD patients for deep brain stimulation for example, a procedure costing around £150,000 per patient. It can also be used in selecting targets for lead placement and in reprogramming devices post operatively.

The main area(s) of activities

Computer vision Big health data Machine learning Time series analysis

The specialization(s)

Neurological assessment



www.medicsen.com

FOUNDED 2015 COUNTRY Spain

CONTACT Sara Garcia-Doncel

Head of Business Development

sara@medicsen.com

VIDEO



Medicsen is developing world first non-invasive artificial pancreas, a closed loop system for the smart management of diabetes and other chronic diseases by combining a needle-less Smartpatch with customized mobile technology, allowing suitable access to relevant individual personalised data (disease and lifestyle related), Chatbot interfaces and a predictive and preventive automatic algorithms (AI) creating a lifestyle coach based on future glucose prediction and individual behaviour intervention. Our cloud-based algorithm gets info from 3° party wearables showing predicted glucose levels providing personalized advice thorugh ChatbotApp, completing it with an automatic needleless patch.

The main area(s) of activities

Medtech eHealth mHealth

The specialization(s)

Software
Big Data
Multivariable Algorithm
Artificial Intelligence
Machine Learning
Chatbot
Medical Device
Non-invasive Transdermal Drug Delivery
Mobile App
Medical Dashboard



http://www.medikeep.eu

FOUNDED 2015
COUNTRY Estonia
CONTACT Kerti Alev

CEO

kerti@medikeep.eu

VIDEO



MediKeep offers a mobile app for home pharmacy management but we are currently integrating it with personalized medicine services.

The main area(s) of activities

Personalized medicine IT development

The specialization(s)

Software



www.nimgenetics.com

FOUNDED 2008
COUNTRY Spain

CONTACT Beatriz Maroto

R&D Manager

bmaroto@nimgenetics.com



MediKeep offers a mobile app for home pharmacy management but we are currently testing personalized medicine services. In NIMGenetics, we are experts in genetic technologies. We were pioneers in implementing Array Comparative Genomic Hybridization (Array CGH) in the clinical diagnostic field, and we were prompt to move into NGS technologies to give response to the demands of the clinicians. We also have line of business dedicated to Personal Genomics that uses the FLUIDIGM system for high throughput genotyping. The two mayor Next Generation Sequencing (NGS) approaches are available at NIMGenetics: The Ion Torrent technological suite and the Illumina. Both NGS with the latest available technology: Ion Proton® 55 XL from Thermo Fisher and NovaSeq® from Illumina.

The main area(s) of activities

Predisposition screening market, particularly cancer Presymptomatic screening market Symptomatic genetic testing market

The specialization(s)

Therapeutics genetic testing market, used to optimize drug therapies based on patient's genotype and known genetic linkages to drug efficacy or toxicity

Perinatal screening and diagnostics, including carrier testing, prenatal diagnostic and pre-implantation testing



www.orionhealth.com

FOUNDED 1993

COUNTRY Spain

CONTACT Luis Javier Bonilla

Director General

luisjavier.bonilla@orionhealth.com



Amadeus is a precision medicine platform that creates a patient-centric record from a number of disparate sources, and then provides open access to that information for authenticated users. Designed as a platform for innovation, Amadeus provides a scalable platform where data from all sources can be aggregated and processed in configurable ways. Amadeus comes with processing for common information sources (such as Provider and Claims sourced data) and also provides for a configurable data modeling process to ingest and manage new data sources.

Access can be provided via:

- Application Programming Interfaces (APIs)
- Web-based Portals
- · Standards-based clinical data exchange
- Notifications

API access enables third-party developers to create applications that can harness the data held within Amadeus. This provides authenticated access to valuable patient data that can assist in treatment, research, patient engagement and care coordination.

OH Care Pathways is a toolkit for building patient care workflows across the healthcare continuum. Care Pathways provides the clinical, administration and patient focused tools that are required to manage and optimize the care of patients. The scope of possible solutions ranges from simple local clinical workflows to the management of chronic care patients being treated across multiple providers. Care Pathways can manage patients as part of basic clinical workflows through to chronic condition patients with complex care requirements.

Care Pathways provides management tools including rule driven reminders, prompts and alerts. These tools support organizations in improving compliance with known clinical best practice, or local care requirements.

The main area(s) of activities

At Orion Health, we are building thinking software for life. Our new generation eHealth software provides an open platform that seamlessly integrates local, regional, and national data, making it more readily available to doctors, nurses, specialists and patients themselves. We believe that our software, built on new generation technology, will give everyone healthier, happier and longer lives.

The specialization(s)

Healthcare is quickly transforming and changing to keep up with technological and consumer demand. Increasingly, the focus is moving from treating conditions to treating individuals. Orion Health has the modern scalable technology to make this happen. Orion Health develops software providing the open platform aggregating, normalizing and exposing relevant data and clinical decision tools to support precision medicine

medmesafe

https://www.medmesafe.com

FOUNDED 2017

COUNTRY Spain

CONTACT Clément Destoumieux

CEO

informacion@medmesafe.com

VIDEO

Solution Description

Medmesafe is an online platform proving genetic counseling and services acting as an intermediary. It connects users/patients with Medical Doctors (hereafter MD) and labs. Medmesafe is the first online platform for genetic screening and video-appointments by healthcare practitioners. What Medmesafe offers:

- Our genetic counselling services: If you need any advice about genetic analyses to take, Medmesafe offers a genetic
 counselling service via video consultation what lets patient to do it from home or any other place, to obtain the opinion
 of an expert in genetics. It allows to trace your family history and expose all your doubts about genetics with an expert.
 If indicated, the specialist may prescribe a genetic analysis at the end of the consultation.
- Our genetic analyses services: If you have a personal or familiar history of disease, you may directly register on our platform to purchase a specific genetic test:
 - Choose your analysis and a healthcare professional will contact you in 48 hours.
 - You will receive a sample collector kit at home that will be picked up by a courier.
 - One of our partner labs will proceed to make the analysis.
 - Your healthcare professional will present your results by videoconference.

The main area(s) of activities

Computer Services / Systems Developer Internet Health data Digital analysis

The specialization(s)

Software Genetics Services related to computer-based processing of data Informative testing, measurement, analyses and controls



www.pulseinfoframe.com

FOUNDED 2011 COUNTRY Canada

CONTACT Joseph Ternullo

Head and Business Development

jternullo@pulseinfoframe.com

VIDEO



Deployed globally and focused on rare disease and cancer, Pulse Infoframe has created a platform technology, healthie[™], which empowers consortia of patients, advocates and family caregivers, researchers, and pharmaceutical and medical device companies by creating engaging and sustainable data ecosystems.

At Pulse, we believe medical advances are made when patients and caregivers, researchers, clinicians, and companies collaborate and share data across silos. These collaborations result in:

- real-world evidence-based conclusions
- increased speed of clinical trial recruitment
- medical breakthroughs that improve the quality of people's lives

Supported by clinical and expert networks, we curate and provide insight on the best available, most comprehensive information about each patient's disease, while our real-time analytics and visualizations provide data insights that accelerate value delivery. By way of example, Pulse powers the Global Melanoma Research Network and multiple global rare disease registries.

Pulse Infoframe is committed to improving the lives of those living with rare disease, is part of Rare Disease International and would welcome the opportunity to discuss innovative collaboration possibilities to accelerate research, enable sustainable ecosystems, and improve lives.

The main area(s) of activities

Health digitalization that adheres to global standards of excellence and utility

The specialization(s)

Robust software technology platform enabling data-mapping Decision analytics Machine learning



www.qubiotech.com

FOUNDED 2014

COUNTRY Spain

CONTACT Daniel Fernandez Mosquera

CEO

daniel@gubiotech.com

VIDEO



Radiomics, the high-throughput mining of quantitative image features from standard-of-care medical imaging, enables data to be extracted and applied within clinical-decision support systems to improve diagnostic, prognostic, and predictive accuracy. Our proposal, "DeepImage.Cancer", aims to provide a deep learning clinical decision support system for personalized cancer treatments integrating image-derived and clinically relevant parameters as inputs. Medical images such as CT, MRI, PET and SPECT provide non-invasive and low-cost clinical data.

The objective of "DeepImage.Cancer" is to develop a fully automated clinical decision support system based on imaging biomarkers and deep learning patient stratification for personalized cancer treatments. A key distinctive feature of this system is that it will be able to connect medical images to biological events, allowing to identify normal biological processes, pathogenic processes or response to treatment and intervention.

Our solution is based on proprietary algorithms developed in collaboration with the Molecular

Imaging Research Group of Fundación Instituto de Investigación Sanitaria de Santiago de Compostela (FIDIS). A working prototype has already been used on the afore-mentioned publication (Eur J NuclMed Mol Imaging. 2018 Feb;45(2):196-206) with promising results

The main area(s) of activities

Development of medical data analysis software

The specialization(s)

Medical imaging postprocessing and data extraction Clinical image analysis Feature extraction formachine learning



www.rampmedical.com

FOUNDED 2015

COUNTRY Germany

CONTACT Jacques Ehret

Chief Scientific Officer

jacques.ehret@rampmedical.com

VIDEO



RAMPmedical is a therapy decision support tool that helps doctors to find the right treatment for patients and to stay up to date with the latest drug information. This software allows doctors to fully evaluate the available therapies and found out the one that adequates to their patient's need within consultation time. It analyses current treatment guidelines and medical research and presents the results in an accessible way so doctors can understand the information and avoid mistakes.

First, RAMP filters out contraindicated therapies based on the patient's data (medical history, blood values, comorbidity, and other medications, among other parameters). Then, it shows all the relevant parameters to make a therapy decision, of the remaining treatments: on-label efficacy, off-label efficacy, efficacy over time, safety (side effects frequency and severity), as well as the mechanism of action and prices. RAMP includes drug and non-drug therapies (lifestyle intervention and digital therapeutics).

RAMPmedical was tested for type 2 diabetes. Currently, the team is finishing diabetes and adding pain medicine as well as cardiology. Processing of genetic testings will be added once oncology and infectiology will be implemented

The main area(s) of activities

Digital Health Therapy decision support Personalized medicine Evidence-based medicine

The specialization(s)

Cheminformatics
Native Language Processing
Scientific and medical sources aggregation (Clinical trials, product authorizations, medical guidelines)
Drug and non-drug therapies
On- and off-label use
Safety assessment
Multiple therapies
Drug-drug interactions
Contraindications
Medical guidelines compliance



www.roche.es

FOUNDED 1930 COUNTRY Spain

CONTACT María del Mar Vicente

National Tender Manager

madrid.contratacionpublica@roche.com

VIDEO



Healthcare providers (HCPs) are exposed to more longitudina and patient data. Therefore, HCPs'll need to perform a clinical decision considering a broader range of clinical information and will need to rely on an efficient CDS-5.

We propose a CDS-S integrating existing patient databases from the JARA system (i.e. treatment choices and outcomes included in the JARA EHR, the drug prescription program [DPP] and the adverse event databases [AE-DB]) together with new services, databases and applications.

The main area(s) of activities

Production, trade and exploitation of chemical and pharmaceutical products

The specialization(s)

Pharmaceutical technology Chemical engineering Biotechnology



www.genetx.eu

FOUNDED 2017

COUNTRY Romania

Normania

CONTACT

Bogdan Ivanov

CEO

bogdan.ivanov@genetx.eu

VIDEO



We democratize access to PRECISION NUTRITION for EVERYBODY. Patients will be empowered to participate more fully in their own care

We offer FREE access to NUTRITION ASSESSMENT DIGITAL PLATFORM and using a patent-pending ALGORITHM based on STANDARD nutritional needs, and actual eating pattern, users find NUTRIENTS DEFICIENCIES and can determine the exact quantity of food and supplements to cover nutritional needs and a proper meal plan.

For deep personalization, based on nutrigenetic, microbiome and screening tests user can have a PERSONALIZED PREVENTION or THERAPEUTIC NUTRITIONAL SOLUTION.

Technology is transforming the world and changes are fundamental, bringing new service (NUTRITION ASSESSMENT) and products (NUTRIGENETIC and MICROBIOME and SCREENING TESTS) in the market we are allowing implementation of personalized approach and lowering medical costs

The main area(s) of activities

Digital Therapeutics
Precision Nutrition & Genetic testing

The specialization(s)

We address our solution based on the GENETIC ANALYSIS, made with the latest technology (Next Generation Sequencing), and the highest precision to identify genetic variations and ARTIFICIAL INTELLIGENCE clients can prevent diseases and find therapeutic nutritional solutions:

- Eat proper food which contains macronutrients and micronutrients (minerals, vitamins) to fulfill personalized needs.
- · Choose most efficient treatment in case of illness
- Benefit from physical activity in accordance with their metabolism
- Screening of genetic variation to prevent cancer and other diseases. We address our solution to: Nutritionists, dietitians, medical doctors, etc. to switch from "Try and Error" solution to "Precision Nutrition" based on information from microbiome and genetic profile



www.treelogic.com

FOUNDED 2018

COUNTRY Spain

Alberto Alonso CONTACT

Health Business Manager

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Solution Description

We propose an analytic solution to describe the profile of cancer patients treated with chemotherapy, immunotherapy or a combination of both, creating predictive models to identify patients in which any of the treatment options has higher chances of being successful.

- The idea is to predict:
- a) Success of the treatment, including the potential arising of non-expected adverse effects (particularly important in immunotherapy patients).
- b) Survival rate of the different treatments and patient groups.
- We will follow these steps:
- 1. Data collection.
- 2. Data pre-processing and exploratory analysis
- 3. Treatment Appropriateness
- 4. Survival analysis.
- 5. Explanatory results

We will provide a proof-of-concept of a system usable by physicians. We will design an interface to be tested by the professionals and will develop the integrations and interoperable APIs to interact with the health IT systems present in the SES (with an OPEN paradigm, including standards, such as HL7, DICOM, SAM/BAM or VCF).

The main area(s) of activities

IT Services (general, multisectoral SW) e-Health

The specialization(s)

Artificial Intelligence Big Data Agile SW Development

VR Medicines alertas

Virtual Doctor and Medicines

http://demo.vrdocmed.com/es

FOUNDED 2016

COUNTRY Spain

Jorge Ferrer Puig CONTACT

General Partner

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Solution Description

We have created a powerful and unique AI professional tool to support doctors and health professionals worldwide for their clinical, pharmacotherapeutic and lifestyle decision making, as well for giving medical and preventive advise, according to their local clinical, pharmacological guidelines and imperative protocols,

Works on a BigData® platform of massive and cross-linked contents which guides, monitors, supports, assists, helps and offers the best, safest, effective and less costly recommendation for each clinical decision and prescription of drugs to

their patients, taking into account genomic incidence, poly-pathologies and poly-medicalised situations

- Clinical intelligence engine: it shows the most suitable and efficient clinical and pharmacological decision:
- Personal circumstances of the patient
- Clinical scenarios presented. The desired therapeutic action
- Clinical algorithms based on validated protocols
- Genomic algorithms based on selective biomarkers
- Minimization of risks and costs
- Clinical and pharmacological Bigdata contents organized in exportable thematic libraries
- A. Clínical: pathologies, therapeutic protocols, detection and clinical profiles, anamnesis, clinical parameter calculators, exploratory algorithms, triage, algorithms, diagnostic algorithms, therapeutic algorithms, genomic algorithms, health tips B. Pharmacotherapeutics: pharmacotherapeutic

therapeutic orientation, posology, pharmacological forms, contraindications, allergies, alerts interactions, intolerances, toxicity, special populations,

poly-pathologies and poly-medicalised preventions Can be easily implemented on any EHR/HIS/Telehealth/e-Prescribing systems: loading mapped libraries into data structure, API calls or working on-demand SaaS microservice architecture.

Uses only reliable data and clinical procedures from each local health authorities and medical and scientific societies Enhances at once clinical expertise on clinical workstations and speeds up medical decision making



The main area(s) of activities

AI eHealth solution

Doctor and health professionals decision making support EHR/HiS/telehealth/e-Prescribing clinical response enhancer

Less costly management tool Medical insurance preventive tool

Patient empowering Clinical Data mining

Genomic and pharmacotherapeutic research

Targetting of Drug discovery

Predictive drug supplying too Machine learning and deep learning interpreter

Medical device interpreter

Natural language and voice recognition interface



The specialization(s)

Health technologies: Innovative Digital eHealth Clinical, pharmacological and genomic libraries Clinical decision-making engines and support systems Medical dashboard Genetics, genomics and pharmacogenomics Bioinformatics Biomedical software development Medical device interconnectivity Drug discovery targeting Doctor enhancer Patient empowering

Health systems management support

IT Technologies: Artificial intelligence algorithmic engines Multidevice, multipurposes, mobileApp Data analytics BigData Massive data mining Machine learning and Deep Learning Chatbot Medical Device interreter Natural Language Processing Voice recognition



www.xtrem.es

FOUNDED 1996

COUNTRY Spain

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VIDEO



Xtrem is a software company formed by experienced and qualified human group organized for the development of IT systems and the provision of IT services, which makes use of a wide variety of technologies, adopting the best options according to each case.

Our work system applies methodologies, models and standards reputed by the ICT industry, such as Metrica, ITIL and CMMI, in order to optimize process management and achieve the best levels of quality in services and products.

The main area(s) of activities

SAP Outsourcing Consulting and maintenance of SAP system Economic Financial Logistic

Specialists in ISH and MED, the SAP solution for the Health sector. Outsourcing Natural / ADABAS Budget control Public Sector

Public accounting

Xtrem Industria de Software

The specialization(s)

Public accounting for regional administrations BPM for electronic administration procedures SAP technical functional consulting Developments with the Java EE technology platform Tourism and food promotion apps























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