Healthy Ideas Healthy Returns

HIHR

Program

&

Summary propositions

(Update 25 November 2019)

HIHR 5th edition

27 November 2019

Leiden, the Netherlands

28 Participating institutions (incl UMCs) in the Benelux

Strategic partner

Event partners

Inhoud

Program

5th edition Healthy Ideas, Healthy Returns

Wednesday 27 November 2019, 11.00 – 18.00

Fletcher Wellness hotel, Bargelaan 180, 2333 CW Leiden, NL - rooms **Oude Meesters**, 5th floor

10.30 Registration desk open; welcome with coffee / tea

11.00 Allocated tailormade informal one2one networking session between early-stage projects (not pitch-ready) and investors. Registration closed.

1. Alveolar (Toxicology) – LIST: Patented in vitro method to identify respiratory sensitizers and to differentiate them from respiratory irritants.
2. Panorama Laboratories (Lab technology) - LURIS (Leiden): Creating a biotech research lab that achieves 100% automated documentation
3. BEHAPP (MedTech) - RU Groningen: Smartphone based behavioral monitoring services for (medical) scientific research
4. LEYLEK (MedTech) - VU-MC: A non-invasive device for embryo quality assessment in IVF treatment. A novel method to measure embryo stiffness
5. GeriaMove (MedTech) - RU Groningen: Preventing muscle loss. Muscle controlled game for direct mobilization after an operation for elderly
6. Lumento Therapeutics (Therapeutics) - RU Groningen: Light-Activated Cancer Drugs
7. COmto (MedTech) – ULB: Endoscopic bypass for the treatment of morbid obesity
8. Short acting peptide CGRP-antagonist for acute migraine (Clinical Pharmacology) – KU Leuven: Clinical Development Plan for a short acting peptide CGRP-antagonist for the acute treatment of migraine.
9. Synvenio biomolecules (Life science research chemicals) - Radboud University: The bridge between chemistry and biological research
10. PacingCure (Therapeutics) – AMC: Creation of biological cardiac pacemakers using gene therapy

12.00 Lunch

13.00 Start of pitch programme – doors close
Koen Verhoef, moderator (director TTO, Netherlands Cancer Institute) - opening remarks
Word of welcome by **Gideon Bevelander** (J&J Innovation) & **Elena Fernandez Kleinlein** (Interim Head JLABS EMEA)

13.10 Pitch session - I

Spinovit	Diagnostics	Nancy van Overstraeten	UC Louvain
MinTR	Diagnostics	Pieter Meysman	U Antwerp
PCaVision (CUDI)*	MedTech	Mark Bloemendaal	TU Eindhoven
Colonova*	Drug Delivery	Ignacio Faustino	RU Groningen
RunEASI	eHealth	Kurt Schütte	KU Leuven
AFLEXYS	Therapeutics	Gaëlle Vandermeulen	UC Louvain

14.30 Break

15.00 Pitch session - II

	Noveadent	MedTech	Luc Randolph	UC Louvain
	Omnicin Therapeutics	Therapeutics	Auke van Heel	RU Groningen
	PlasmaPendix*	MedTech	Huibert Tjabbes	TU Eindhoven
	Helia Biomonitoring*	MedTech	Menno Prins	TU Eindhoven
	Oncosence	Therapeutics	Rolf Jan Rutten	NKI / Oncode
New	HuMix	Therapeutics	Kris Ver Donck	U Luxembourg

16.25 Closing remarks

16.30 Networking drinks & bites

18.00 End of programme

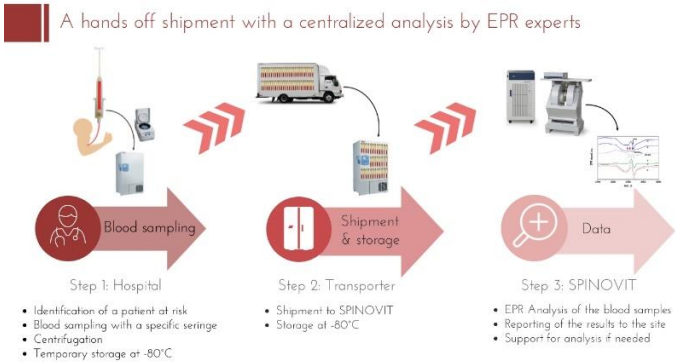
*Attendance is **on invitation only** and **upon registration only**, via this on line registration-form.*
Pitches will last for a maximum of 8 min. presentation, followed by 5 min Q&A (+1 min change)
Elevator pitches contain of a 4 min presentation plus 2 min Q&A (+1 min change)*
Due to the density of the programme we must strictly adhere to the schedule. There will be plenty of time afterwards for further questions and for exchanging contact information to follow up at a later time.

Spinovit

SPINOVIT is a spin off project from UCLouvain proposing a robust biomarker of **endothelial dysfunction** which allows the detection of the earliest stages of **cardiovascular diseases.** Cardiovascular diseases remain the primary cause of mortality in the world and have a major socio-economic impact.

Today, only an assessment of the risk factors (overweight, smoking, hypertension, cholesterolemia, diabetes and aging) are used to "guess" the real state of the patient. The medical community requests a better **tool to measure and monitor** the risk of a patient in order to help them to personalize the treatment.

Our SPINOVIT project consists of a newly developed and a patented syringe, a hands-off secured shipment and a patented measurement of our biomarker by an innovative technology (electronic paramagnetic resonance spectroscopy) setup in our laboratory.



In first intention, we target the **Anesthetists** (40 millions surgeries in Europe/year) who have a huge need for a biomarker such as ours to prevent the **peri-operative cardiovascular complications** (4% of non cardiovascular surgeries). Based on this segment, we established this sales model:

Gross sales model		2020	2021	2022	2023	2024	2025
Market potential (TMP)	Annual increase	88000000	88580000	89165050	89755199	90350495	90950989
Penetration		1.200.000	2.657.400	2.674.952	2.692.656	2.710.515	2.728.530
Model Life cycle product		0,00%	0,10%	0,20%	0,40%	0,80%	2,00%
Total treated cases/kits		0	2657	5350	10771	21684	54571

To achieve these objectives, we are:

- further clinically validating the **relevance** of our biomarker in this community. This will establish our biomarker in this medical field and demonstrate the pulling force of this community.
- looking for new **scientific collaborations** to penetrate other market segments.
- looking for **investors** to support us during the first 5 years after our creation (1 June 2020). We estimated that 2 million € in capital (dilutive & non-dilutive) could help us reach the break-even (costs structure and forecast revenue on demand).

Health care is at the heart of our team who is composed of scientists (engineers, biologists, physicists) and physicians. The SPINOVIT kit will allow a better prevention against the cardiovascular diseases, and thus will save lives and improve the quality of life of millions of people.

Nancy Van Overstraeten, Dr Ir nancy.vanoverstraeten@spinovit.com

MinTR

MinTR: Digital Immune Monitoring-Drug Development Platform

Founding date: 1 January 2020

Equity funding to date:
None as the company has not been founded yet.

Short description of product / service including value proposition:
The immune system of each individual is unique, and each individual therefore will respond differently to infections and vaccines. Our aim is to exploit this uniqueness at the molecular level of immune cells to deliver personalized diagnosis and treatment.

We created MinTR, a unique digital immune drug development platform, based on the functional analysis of T-cell receptor sequencing data. MinTR combines a unique set of wet and dry lab technologies enabling decoding of the adaptive immune system. The core MinTR algorithms have been trained on a comprehensive and unique database of T-cells and epitope combinations generated through curation and targeted experiments. One of these algorithms is publicly available as the TCRex webtool (tcrex.biodatamining.be). This tool allows annotation of human T-cells with their target epitopes for further analysis in a robust, fast and easy manner. We have established the MinTR platform to characterize the uniqueness of the immune system for use in vaccine development, which includes both infectious disease and cancer immunotherapies.

Our business model offers an integrated solution to pharma and biotech companies for vaccine development. The main value proposition is twofold namely, to recommend antigens of interest for novel vaccines or to characterize the efficacy of existing vaccines. Based on the target, the samples and the questions our experts, in concert with the customer, define the optimal experimental design to reduce time and cost for vaccine development. We estimated that we can reduce the initial phase 1 of expensive vaccine trials with 50% by identifying underperforming therapies earlier in the process and reducing the current failure rate of 90% to 50%. By making the phase I more efficient, we can significantly reduce the Phase I cost of 5M€ with 20% to 40% per vaccine development trial.

Amount of funding sought:
6M euros
This amount will cover the investment in establishing state of the art wet and dry lab, employee costs, accreditation and running costs for the first three years. Approximately, half of the funding will be gathered through governmental R&D funding and earnings from strategic partnerships, leaving about 3M€ for VC investment.
Our milestones for the first year are to acquire platform accreditation and demonstrate the cost saving accomplished with our platform versus current methods in vaccine development. By the third year, we expect to have expanded our workflow to other domains, establish a recurrent customer base and initiate co-development on clinical applications with pharma and biotech companies.

Scientific contact: Pieter Meysman (pieter.meysman@uantwerpen.be)
Commercial contact: Ineabel Carrillo Ortiz (Ineabel.CarrilloOrtiz@uantwerpen.be)

PCaVision by CUDI BV

Founding date : July 2018
Equity funding to date : 0
Amount of funding : 4.5M over 4 year period from Q3 - 2021 onwards.
Contact : Mark Bloemendaal, +31 652 3045 77, Bloemendaal.mark@gmail.com

ABSTRACT
Prostate cancer (PCa), is a type of cancer with the highest incidence (19%) and second mortality rate (8%) in western men. In The Netherlands over 12,000 male patients are diagnosed with PCa annually, world-wide over 1,300,000 annually.

The present medical diagnosis procedures are largely based on the execution of (repetitive) multi-biopsy procedure(s) on the patient.

Each multi-biopsy procedure is invasive, painful for the patient and incurs significant risk of adverse health events such as sepsis.

In addition, the sensitivity and specificity of the existing diagnosis procedures are limited.

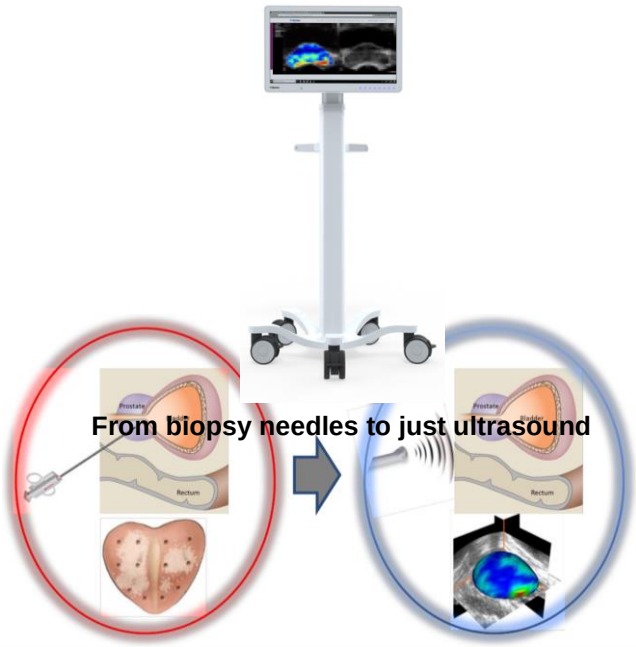
PCaVision provides urologists with a novel ultrasound imaging technology which improves the PCa diagnostic procedure leading to:

- strongly reduced (eventually largely eliminated) number of required multi-biopsy procedures,
- improved sensitivity and specificity

PCaVision reduces patient pain and harm while improving outcome.

PCaVision saves direct and indirect healthcare cost resulting in both a net cost saving on a healthcare institution level and on a national healthcare system level.

The worldwide total available market for PCaVision is projected to be over USD 455M annually.



Colonova BV – Company's summary

Founding date: March 1st 2018

Equity funding to date: €30,000

Short description
The therapeutic gastrointestinal market is worth $51.9 billion and growing due to the adoption of biologics. Chronic conditions such as Crohn's disease or ulcerative colitis (~$8.1 bn in 2023) have become a substantial challenge that clinicians and health policy makers are facing, especially due to side effects associated to chronic administration of injected biologic therapies, which hold 57% share.

Oral dosage forms are an alternative for injectable administration. Per oral administration shows an increase in adherence to dosing regimens and reduced costs for patients and hospitals. It is known that the proximal colon is a favorable delivery site for drugs such as biologics and other drugs with poor bioavailability after oral administration, but current solutions lack effectiveness to target that specific region and have a higher dependence on individual factors compared with Colonova's proprietary technology.

Colonova's technology allows drug substances to reach adequate concentrations in the proximal colon sufficient to promote transport across the colon intestinal wall. Our encapsulation technology is fully developed and validated in humans and has been combined with small molecules and biologics showing to be safe, adaptable and ready for clinical development.

By targeting pharmaceutical and nutraceutical companies that work in the field of therapeutic products for Crohn's disease, ulcerative colitis, colon cancer or irritable bowel syndrome, Colonova focuses on supporting their pre-clinical drug development offering a reliable, proven and customizable oral drug delivery. By using our technology customers will increase drug clinical efficacy, reduce side effects and can potentially extend the commercial lifecycle of existing drugs. In addition to our pre-clinical services, milestones and royalties are expected to drive Colonova's revenues in the future.

To setup our formulation development and manufacturing facilities we are currently seeking pre-seed equity investment.

Amount of funding sought: €0.5 million

Contact: Ignacio Faustino | CEO | ignacio.faustino@gmail.com

RunEASI

Founding date

Our anticipated Founding date is December 2019 as a spin-off of KU Leuven.

Equity funding to date

None. However, we have received conditional investing interest.

Short description of product / service including value proposition

We offer Run**EASI**, an artificially intelligent (AI) wearable technology for runners that is:

Evidence-based;
Actionable;
Seamlessly integrated; and
Individually adapted.

RunEASI provides three key benefits to runners (B2C end users). *First*, RunEASI **uses personalized AI-predictive models that** "get to know the runner's behavior". *Second*, RunEASI **provides validated in-session coaching** by employing AI to give early warnings when a runner's loading behaviour or impact asymmetry does not align with his or her recommended performance goals. *Third*, rather than simple aggregate statistics, RunEASI **provides runners with biomechanically meaningful analysis** that guides them toward their performance goals. Our unique competitive advantage is that we have **access to both the necessary data**, and the **combined domain expertise** in biomechanics and artificial intelligence to put our idea into practice.

Amount of funding sought

We are seeking € 1.2 M seed money to give our idea legs for the first five years from founding date. We foresee € 0.8 M needed in the first year to fund proceeds for key hires, advertising and marketing expenses, R&D, and additional fixed expenses.

Contact details

Kurt Schütte
Kurt.schutte@kuleuven.be
+32486918241

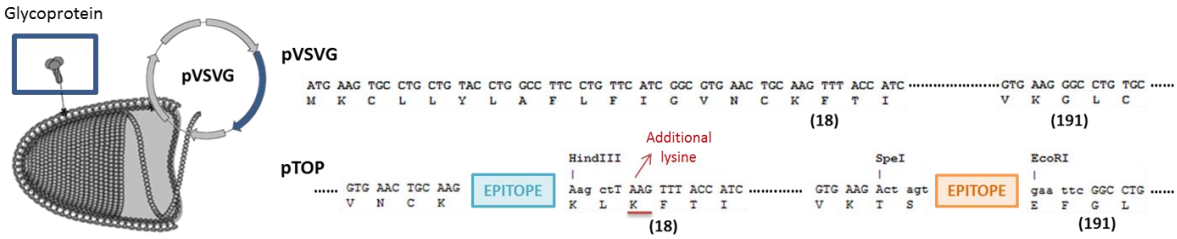
AFLEXYS

The establishment of immunotherapy as a novel treatment modality has opened new avenues for cancer treatment. Indeed, immune checkpoint inhibitors and other immuno-oncology drugs have greatly improved outcomes, but efficient vaccination strategies could represent a new modality to go beyond what has been achieved to date. AFLEXYS develops therapeutic vaccines that can act in combination with immunotherapy drugs in order to train the patient's immune system to more efficiently combat tumors.

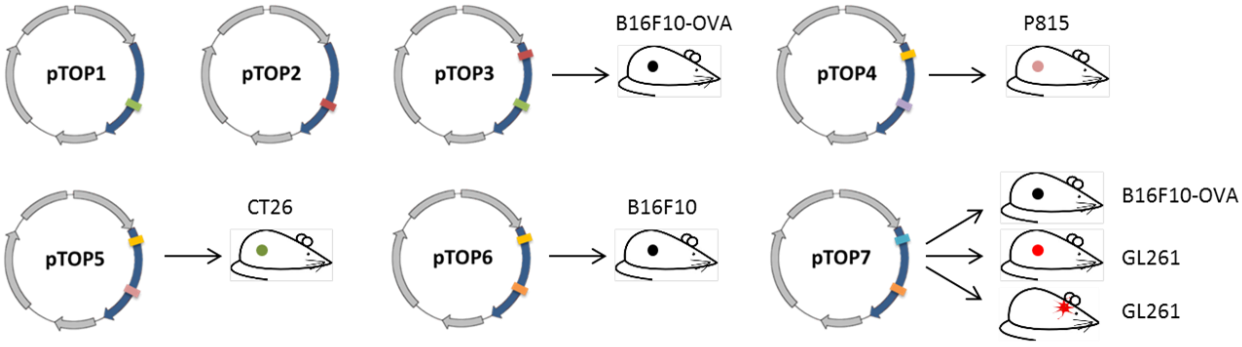
AFLEXYS

A flexible system for therapeutic vaccine.

AFLEXYS develops a flexible platform for designing and delivering DNA vaccines for cancer immunotherapy. Its core technology, called pTOP, has been discovered at the University of Louvain.



The pTOP plasmid encodes an immunogenic viral glycoprotein that is modified through the insertion of one or several tumor specific epitopes. Preclinical proofs of concept have been obtained against murine melanoma, mastocytoma, colon carcinoma and glioblastoma. Two patents have been filed to protect this innovative technology (PCT/EP2017/073119 and EP19199334.4).



The mission of AFLEXYS is to fully exploit the potential of the pTOP technology in order to provide patients with novel cancer treatments. Our project is currently led at the University of Louvain and funded by the Walloon Region (grant).

AFLEXYS inception is planned in May 2020

Fundraising is needed to perform CMC, preclinical pharmacology-toxicology studies and a first-in-man clinical trial

Estimated amount of funding sought: 6 to 12M€

Gaëlle Vandermeulen, PhD, Spin-off Project Leader
gaelle.vandermeulen@uclouvain.be, +32 2 764 73 24

Noveadent

'Founding date'

We have not yet registered a company. Current plans set registration for Q1 2020.

'Equity funding to date'

The spinoff project is currently funded by the public entity *Innoviris*, which focuses on promoting research in the Brussels region. To date, the project was awarded 650 000 € from Nov 2017 to Nov 2020 in the form of a grant.

'Short description of product / service including value proposition'

Dentists work at arm's length, day long, all year round. The risk for errors is high, in particular during the application of dental composites widely used for caries treatment – the most prevalent disease in the 21st century. Composites harden in the cavity upon light curing – too slowly according to dentists, constituting a major pain (physically and time-wise). We developed an innovative fast-curing dental composite (past like material) and a curing light (light emitting device) which optical parameters suit the requirements of our specific material formulation. These two innovations are medical devices (MD).

Our devices used together allow for:

- *5x shorter curing cycles* → faster treatments and a reduced risk for errors
- *High biocompatibility with excellent chemical-stability* → safer material
- *Finely tuned viscosity and texture* → adequate clinical application and sculpting

The composite's formulation is finalized but the material must be scaled-up (formulation may be adjusted to comply with industrial processes) and be tested in preparation for CE marking (class IIa MD - our internal testing shows excellent biocompatibility)

The curing light is an electronic device. Mechanical parts are currently manufactured by 3D printing. The next steps for the prototype are the finalization of the mechanical parts (3D printing → injection molding), followed by validation and CE marking (class I MD)

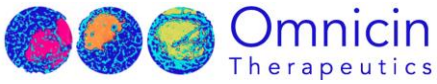
'Amount of funding sought'

We are seeking funding for a total of 2 M€, planned to cover two steps:

- *maturation*, which includes the finalization of prototypes, testing (CE) and scale-up
- *industrialization and launch*, with includes production, marketing and first sales

The funding takes into account working capital required during these two steps

Omnicin Therapeutics



Company:	Omnicin Therapeutics BV Groningen, The Netherlands
Contact:	Auke van Heel, CEO, mail@aukevanheel.nl
Founding date:	October 2019
IP:	License and Patent Transfer Agreement with University of Groningen, in preparation
Equity funding to date:	€ 0,-
Required amount of seed funding:	€ 450.000,-
Use of proceeds:	Selection of clinical candidate Selection of clinically relevant bacterial strain and infection Selection of therapeutic antibiotic/peptide combination Preparation for series A

Abstract:

Antimicrobial resistance is a major challenge for society. There is a growing need for new therapeutic options to treat bacterial infections. The WHO top 3 of high priority pathogens belong all to the group of, so-called, gram-negative bacteria. These gram-negative bacteria do have an additional outer membrane that prevents passage of many existing antibiotics that are only effective against gram-positive bacteria.

However, it was demonstrated that these existing antibiotics against gram-positive bacteria, can become highly effective against gram-negative bacteria when combined with selected synthetic peptides that were discovered and patented by the University of Groningen. Such a combination would create a virtually new class of antibiotics against gram-negative infections. Interestingly, the peptide and the antibiotic both separately have no intrinsic activity in gram-negative bacteria at a therapeutic dose. Resistance development is therefore likely to be slower, a feature that substantially increases the value of antibacterial therapies.

Based on in vitro checkerboard assays, we have demonstrated clinically relevant in-vitro activity with our lead candidate peptide OMT001 in combination with Vancomycin against several clinically relevant pathogens. A proof of concept study demonstrated in vivo efficacy with OMT001 against Pseudomonas aeruginosa PA14 in a mice infection model. We are about to finalize the discovery phase with OMT001 including in vivo PK, early in vitro and in vivo toxicity and a larger proof of concept study.

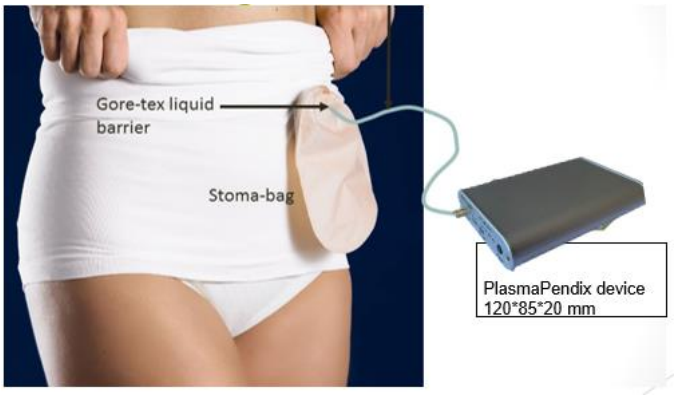
Prior to electing OMT001 as the clinical candidate for clinical development, data need to be generated on CMC and toxicity, selection of the most sensitive bacterial strains and most relevant clinical infections and the optimal antibiotic/peptide combination.

New economic revenue models for commercialization of new antibiotics are in preparation after discussions between all stakeholders, including major pharmaceutical companies, governments, health insurance companies and regulatory authorities. It will remain financially attractive to invest in new antibacterial treatment options especially because of the high economic and societal burden of untreatable infections.

A revolutionary device boosting the quality of life for 1.5 million ostomy patients in Europe/US

An ostomy is a surgically created, temporarily or permanent, stoma allowing bodily waste to pass through into an externally attached ostomy bag. Almost 60% of patients using ostomy bags (ostomates) see bad odor leaking from the ostomy bag as an important problem, seriously inhibiting their social life. Also more than 8 in 10 ostomates have experienced leakage within the last six months. Pressure problems in the bag (pancaking and ballooning) are important causes of leakage. Existing solutions for odor and pressure management are sufficient, so there is a clear need for innovative solutions for odor and pressure management.

Based on work done in cleansing of industrial gases, plasma-researcher Job Beckers and his team at the TU Eindhoven have developed a revolutionary device solving the odor and pressure problems: the PlasmaPendix. The PlasmaPendix is a small, easily wearable device with long battery life that, using patented plasma technology, neutralizes all odors and prevents ballooning and pancaking by active pressure management.



The PlasmaPendix greatly improves the quality of life of ostomates and in addition helps to prevent unnecessary early change of ostomy pouch, resulting in an estimated 20-30% reduction in material costs.

PlasmaPendix operates in huge market: the ostomy bag market is expected to reach $3.5 billion in 2022. Large players dominate the market but are threatened by smaller, cheaper or more innovative, competitors. Both large and smaller parties are urgently looking for ways to differentiate themselves, and the PlasmaPendix is an excellent opportunity for that. The addressable market is large with 1,5 million ostomates in EU and USA alone. The PlasmaPendix will be offered directly to ostomates and/or will be marketed in collaboration with a strategic partner, i.e. a ostomy bag producers. Based on current assumptions and an additional investment in 2022, we expect to serve around 14,000 people in 2024, generating around €9.5 million in revenues.

PlasmaPendix BV has recently been founded by TU Eindhoven, inventor sJob Beckers and Wouter Maassen, and Huibert Tjabbes. Tjabbes has been appointed CEO, he has extensive experience with medical start-ups and development of medical innovations. No funding has yet been secured, but several subsidy and loan applications, for in total €550K, have been submitted.

Currently a functional prototype is available and soon the first user test in the target population will start in the Catharina Hospital in Eindhoven. Based on the outcomes of this test the beta-prototype will be designed and tested. At the same time a network of stakeholders will be built and the marketing strategy prepared. This phase will take around 12 months and costs around €250k. In the next phase the PlasmaPendix will be industrialized, CE certified, clinically validated and introduced in the market. This phase will take another 18 months and costs around €500k. Altogether we are looking for €750k to develop and start commercializing this important innovation, open a multi-million market, and create substantial value for the company.

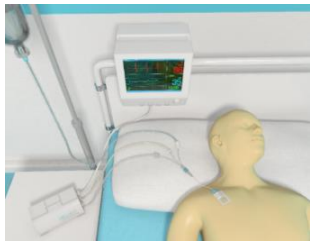
Huibert Tjabbes
+31-629056631
Tjabbes@plasmapendix.com

Helia Biomonitoring

Helia develops a sensor technology for continuous biomolecular monitoring, for early warning systems and closed-loop control based on real-time biochemical data. Large molecules (e.g. proteins, nucleic acids) and small molecules (e.g. drugs, toxins) are measured, across a wide range of concentrations (picomolar to millimolar). The sensor produces a continuous stream of data, fully automatic, in real time, with low costs per data point.

1. SEPARATION PROCESSES IN FOOD INDUSTRY. The production of food and food ingredients involves separation, extraction, and fractionation processes. Variabilities in these processes cannot be countered by sample tests in an analytical laboratory, because that is expensive and does not allow real-time feedback. In contrast, continuous biosensing is fully automatic and gives immediate results, for full process control and increases of process efficiency.

2. INDUSTRIAL BIOREACTORS AND FERMENTORS. Industrial bioreactors and fermentors use live cells and complex biological media to produce high-value materials. Fluctuations in these processes limit the yield and cause product quality issues. The variabilities cannot be countered by tests in an analytical laboratory, because that is slow and expensive. Continuous biochemical monitoring will allow the automatic on-line monitoring of critical molecular parameters (e.g. nutrients, contaminants, products), closed-loop control, and optimizations of the industrial processes.



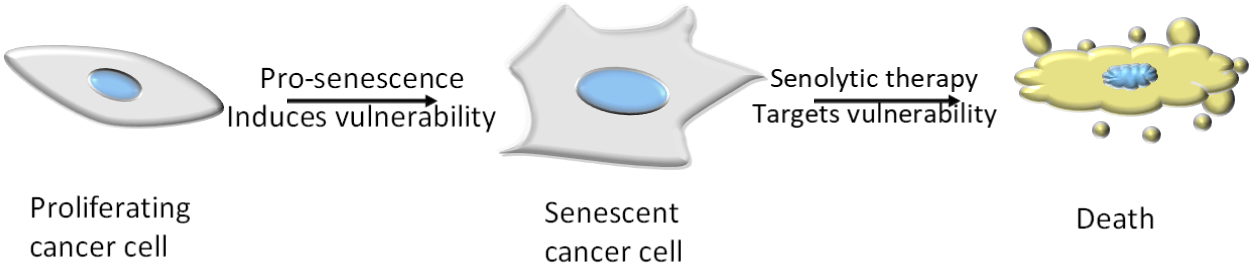
3. CONTINUOUS PATIENT MONITORING. Real-time, precise and reliable data are important for the treatment and coaching of patients. Biochemical tests can be performed in a clinical laboratory, but the procedures are slow with a typical reponse time of one day. Commercial monitoring sensors are available for glucose, but do not yet exist for other important substances such as peptides, proteins, hormones, pharmaceutical drugs, or nucleic acids. The Helia technology enables the continuous monitoring of such substances, for monitoring disease status and treatment effect. Applications are e.g. the monitoring of rapid inflammatory response (e.g. cytokines) and the monitoring and regulation of drug levels (e.g. antimicrobials), for more effective life-saving treatments and lower risks of toxicity.

The company was founded in December 2018.
The company is supported by non-dilutive funding.
The company seeks equity funding of 2M Euro.

Menno Prins, Founder/Director, contact@heliabiomonitoring.com

Oncosence

Oncosence was founded in 2017 based on groundbreaking work by Professor Rene Bernards form the Dutch Cancer Institute and Professor Andre Alimonti from The Institute for Oncology Research in Bellinzona, Switzerland. Oncosence is positioned to become the worldwide leader in developing senescence based strategies to fight cancer. Senescence, the process by which cells stop dividing and enter a state of growth arrest without undergoing cell death, is a promising area of cancer biology and ageing. This highly effective endogenous anti-cancer defence mechanism can be exploited therapeutically. Inducing senescence in a cancer cell results in a cell type specific vulnerability that can subsequently be targeted by drugs leading to death of the cancer cell. This strategy addresses crucial needs in the development of better cancer treatments as it may lead to overcoming drug resistance, improving responder rates of immunotherapy, improving efficacy of existing agents and reduction of side effects of existing (chemotherapy) treatments. There is a great interest from several pharma companies in this field.



Oncosence has exclusive access to drug discovery platforms that were developed by its founders. These platforms allow identification and pre-clinical validation of drug targets and compounds and have resulted in a product pipeline that Oncosence is planning to move forward. The product pipeline focuses on antibody based treatment for Castrate resistant prostate cancer as an initial indication. Several of the pipeline products are currently being tested under an MTA and will be in-licensed from pharma. The company has so far been funded by founders and management team. Oncosence is now looking to raise 8 million Euro to move these 2 programs to the clinic and to build out its pipeline. Oncosence is, additionally, actively exploring co-development options with biotech/pharma companies to bring in additional capital.

Rolf Jan Rutten

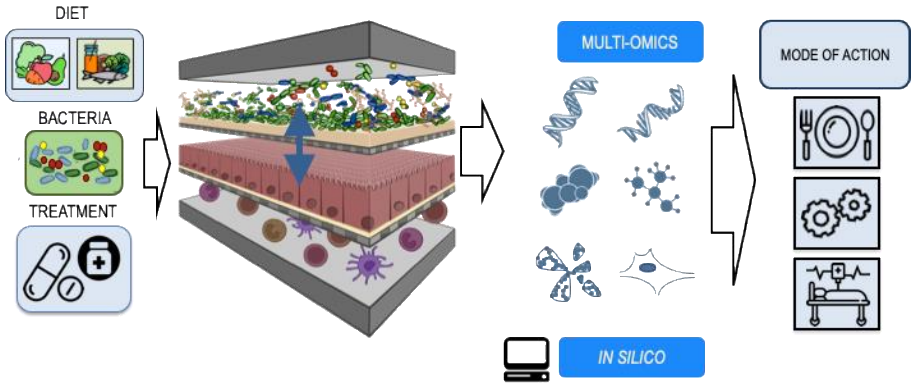
rjrutten@oncosence.com

HuMiX Biosciences

We believe the key to access our microbiome to our health and benefit is to understand the interaction between microbiome and the individual patient to improve quality of life.

Currently available R&D models of GUT diseases such as colorectal cancer or GUT inflammation prove inadequate and incomplete. In fact, two critical elements are often ignored: the human diet and the microbiome, and their interaction with the human host cells is not well studied.

From € 4.3 M government grants we have developed and validated HuMiX as an integrated *in vitro* and *in silico* human discovery platform for GUT microbiome - human host cell and immune cell interaction. Our studies show that synergistic interaction between microbiome, diet and host provides a combinatorial effect on reducing cancer progression. The model was also validated on GUT inflammation versus a well-accepted mouse inflammation model. Based on the HuMiX microfluidic model we can perform in-depth mode-of-action studies to identify and develop novel therapies in oncology, immunology and digestive tract diseases.



The total human microbiome-based drug and diagnostics market is expected to reach $9.9 billion by 2024. The nutritional market, including pre- and probiotic products, is estimated to reach $143 million in 2023. The CRC therapeutic field, one of the big 4 tumour treatment markets, is expected to reach $11 billion by 2025. Immune therapy will reach $201 Billion by 2023, predominantly in cancer.

HuMiX is a Luxembourg start-up in the Fit4Start accelerator program, to be incorporated by end of 2019. For seed and series-A financing we are raising €1.5 M to build the discovery screening platform and € 4.5 M to initiate the pre-clinical discovery pipeline development. We are also looking for strategic project partners.

HuMiX technology paper: https://www.nature.com/articles/ncomms11535

NutriHuMiX Oncology paper: https://doi.org/10.1016/j.celrep.2019.04.001

Kris Ver Donck, kris.ver.donck@humixbio.com, +32 476 607 034