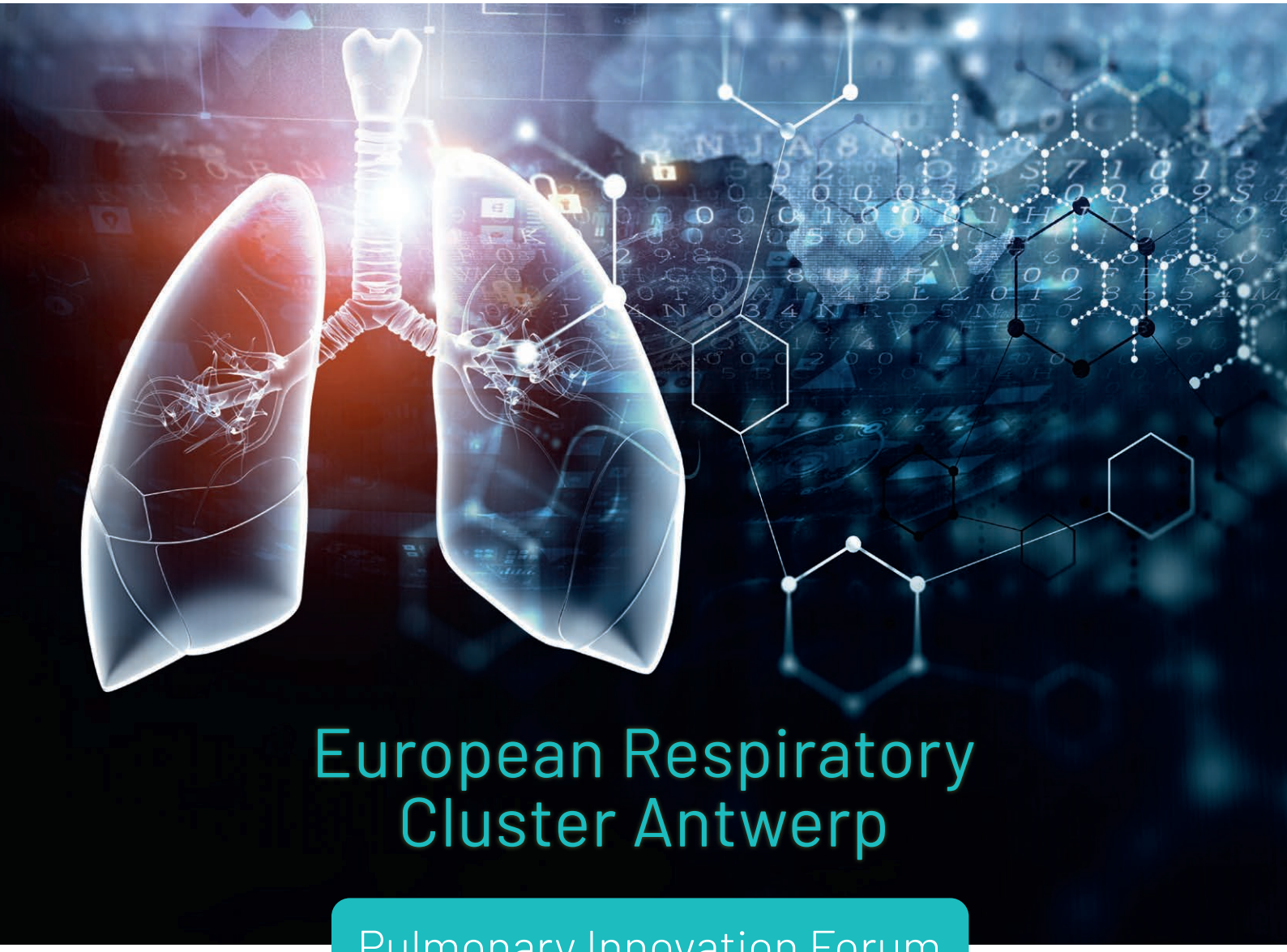
eu.reca
European Respiratory Cluster Antwerp



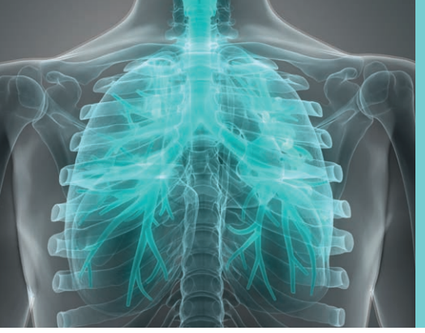
European Respiratory Cluster Antwerp

Pulmonary Innovation Forum

1th edition (2019)







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European Respiratory Cluster Antwerp

About eu.reca

One of the main ambitions of the European Respiratory Cluster Antwerp (eu.reca), is to facilitate innovation in the respiratory sector. We do so by stimulating debate among experts with knowledge of modern technology, unmet medical needs and industrial capabilities. Our cluster focusses strongly on the human lung, our activities are related to prevalence of disease, progress in inhaled medication, accuracy of drug deposition, outcomes of treatment and environmental impact on lung health. The main strength of eu.reca is the diversity of our membership. We have attracted both start-ups and big pharma, service providers and investors, patients and medical experts. It helps us in detecting innovation gaps and reaching new insights.

Over the past years we have found that many start- and scale-ups struggle to find the necessary funding, even today when the opportunities to pitch in front of investors, funds and grants, are ample. We believe this is due to a fundamental lack of knowledge within the investment community regarding the large potential of the respiratory sector. Therefore, eu.reca in collaboration with the Antwerp Province, has organized the first edition of the eu.reca Pulmonary Innovation Forum, a yearly event with the aim of giving insight into the medical needs in the respiratory sector and the innovative solutions provided by promising companies.

The innovation needs in the respiratory sector are real and acute. We are therefore happy that so many young and promising companies strive to find the necessary solutions. We hope you enjoy discovering them.

Frank Pieters
Chairman

Better treatment for respiratory diseases necessary

In June 2019 GINA published a new strategy report which represents one of the most important change in asthma management in 30 years. In spite of the progress in scientific insights in respiratory diseases, the unmet needs for respiratory diseases remain important and more investment in innovative research is needed.

GINA launched updated asthma treatment guidelines. Asthma affects 300 million people worldwide. The disease affects all age groups with an increasing prevalence in many developing countries and is correlated to environmental pollution. Asthma imposes a high burden on health care systems and on society through a loss of productivity and high health care costs and early death.

'Asthma is a chronic inflammatory disease of the airways with a great heterogenicity across the spectrum of the disease. Recently advances in our understanding of the asthma pathophysiology and the trigger mechanisms led to new insights', explains Professor Didier Cataldo of the University of Liège (Belgium). 'We are now able to subclassify asthma into a number of different phenotypes among multiple pathobiological driven clusters of the disease. The classification uses clinical characteristics and biomarkers to characterize asthmatic patients and improves the clinician's approach for more personalized management of asthma and precision-based care', said Didier Cataldo.

Prof. dr. Didier Cataldo

"The picture of asthma pathophysiology is becoming more complex... or is it simplified?"

'The GINA-guidelines no longer recommend treatment with short-acting beta2-agonist (SABA) for mild or moderate asthma and advice that all adults and adolescents should receive either symptom-driven (in mild asthma) or daily low dose inhaled corticosteroids', said Professor Cataldo. 'This is new and based on mortality data in low and moderate asthma patients. A combination of ICS-formoterol can now be prescribed for an "as needed" use and this warrants that the patient is treated with a minimal. If the disease remains uncontrolled GINA recommends low dose ICS-LABA (long-acting bronchodilator), followed by medium-dose ICS-LABA and for severe conditions high dose ICS-MABA and according to the phenotype associated with biologicals.' He pointed out that in addition to the optimal pharmacological treatment a lot of efforts are needed to increase the compliance of the patient to asthma therapy, which is calculated at 27% due to many factors.

Unmet needs persist for all respiratory diseases

"Respiratory diseases along in Europe are responsible for more than 600.000 deaths a year, more than 6 million hospital admissions and an annual cost of 380 billion euros. And on a global scale, the statistics are even more stunning: worldwide the prevalence of COPD is about 386 million with mortality of 2,8 million, lung cancer counts for 1,4 million cases and 180.000 deaths every year and is followed by tuberculosis which affected one-third of the global population and is followed by pulmonary arterial hypertense, cystic fibrosis and idiopathic pulmonary fibrosis", explains Professor Marc Decramer, KU Leuven (Belgium).

Prof. dr. Marc Decramer

'In spite of the high unmet needs for respiratory diseases, the probability of drugs entering the market is very low', pointed out professor Decramer. 'For respiratory diseases of the 165 drugs in the pipeline, only 3% entered the market, which is a fairly dramatic number in comparison with other therapeutic areas. For example, the probability that drugs enter the market for HIV/AIDS is 14%, for dermatology 11% and for cancer 7%. Also important is that unmet needs are seen at all levels of the respiratory diseases: in diagnosis, in specific biomarkers, in treatment, in global plans and implementation.'

At the disease level, there are specific parameters contributing to the unmet needs. 'For COPD, lung cancer and rare diseases, the present therapies have limited effects. For COPD the gain in lung function by pharmacotherapy is rather low', know Professor Decramer. 'For asthma more effective therapies are available but they are poorly implemented and patient adherence is disappointing. For tuberculosis effective therapies are available but resistance is growing due to a lack of global policy.'

Professor Decramer advocates for more investments in innovative research in all aspects of the disease from biomarkers, to innovative medicines and global policies to improve diagnoses, correct treatment and implementation of guidelines.

The GINA (Globallinitiative for Asthma) was launched in 1993 to increase awareness about asthma among health professionals, public health authorities and the community, and to improve prevention and management through a coordinated worldwide effort. GINA prepares scientific reports on asthma and invests in the identification of reasons for the increased prevalence of asthma, the study of the association between asthma and the environment, better management of asthma and improving the availability and accessibility of effective asthma therapy worldwide.

https://ginasthma.org/wp-content/uploads/2019/04/GINA-2019-main-Pocket-Guide-wms.pdf

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Aquilon Pharmaceuticals S.A.

Company presentation

Presentation of the activity

AquilonPharma is a PharmaTech company specialized in improving the efficacy of inhaled drugs.

Improving the efficacy of known inhaled drugs is Aquilon Pharma's core activity. To achieve this, we have developed a unique breakthrough functional excipient technology. This involves reformulating drugs with HP-Betadex, the best cyclodextrin family for inhalation, which makes inhaled drugs highly efficient through better lung deposition. With its scientific roots in Liège University (Belgium), Aquilon Pharma has, in a very short time, become an independent and multidisciplinary PharmaTech company with global ambitions, specialized in the improvement of the efficacy of inhaled drugs. Aquilon Pharma develops the AQ002 line in the treatment of Asthma and COPD.

- **AQ001S** as POC Step-Stone
- **AQ002S** with very solid potential
- **AQ002P** as early stage development thanks to a BioWin Grant
- **AQ002M** that will be the "Groundbreaker" in inhaled fixed ICS-LABA combinations which are the basic treatment option for asthma patients

ICS-LABA can be delivered via several types of devices, however it is not commonly delivered via SoftMist nebulization. Vibrating mesh nebulizers have become the first choice for new nebulized pharmaceutical drug developments. Unfortunately, there is no ICS-LABA in solution available yet for these devices. **Aquilon Pharma's AQ002S solution for nebulization is the key.** The small airways are the major site of lung inflammation and airflow limitation in asthma or other lung disease and should be the target of inhaled drugs. Unfortunately, due to typical aerosol properties, the current drug powder formulations have a high deposition in the upper airways (mouth, throat and upper trachea) causing local side effects. **Aquilon Pharma's dry powder formulation AQ002P is the key. The functional excipient is the core of the "Golf Ball Effect", leading to accurate and high deposition in the deep lung.**

By reformulating existing ICS and LABA with its functional proprietary excipient, Aquilon Pharma makes ICS-LABA combinations soluble in water. This allows **AQ002M** compatible with any type of nebulizer or SoftMist inhaler. ICS-LABA can be delivered via several types of devices, however it is not commonly delivered via SoftMist inhaler. Unfortunately, there is no ICS-LABA in liquid formulation available yet for these devices. **Aquilon Pharma's AQ002M formulation is the key.** Aquilon Pharma is currently the ONLY Pharma Tech company, able of formulating an Ultra Low Dose fixed ICS-LABA combination for lung delivery through SoftMist Inhaler.

Medical Advantages of our product formulations

Thanks to Aquilon Pharma's functional excipient, our products

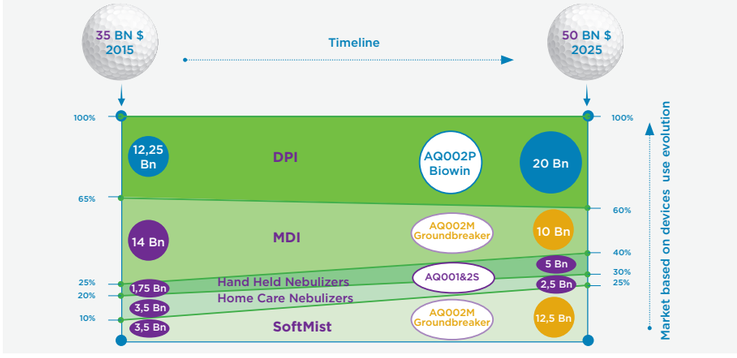
- Show prolonged airway activity for the same drug concentration
- Have a better diffusion in the lungs
- Are more efficient than existing suspensions at a lower dose
- Improve the efficiency of the administration
- Are compatible with SoftMist Inhaler (low carbon footprint, hand-held)
- Minimize the risk of side effects
- Minimize the risk of misuse

Presentation of the market & Growth potential

The Prevalence of Asthma & COPD is worldwide >6% of the world wide population and is growing to reach >8%. The markets are growing faster than the prediction, especially in China. Our Target market is $2-4bn (5-10% of the w.w. market)
7 patients die every 10 minutes of asthma that is the leading chronic disease in children
Worldwide COPD and Asthma Markets are valued to $35bn and 339 millions of patients are suffering from asthma in 2015.

We expected $50bn and 450 million people suffering from Asthma in 2025.

Market potential and financial score



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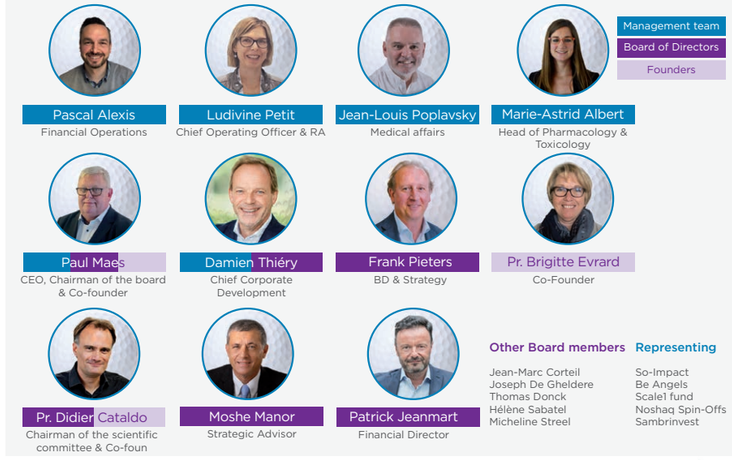
Presentation of the management and board members & Structure of the organization

Focus on Management

Aquilon Pharma management team and BoD* is composed of experienced people with a deep expertise around inhalation – 12 internal people and about 50 external people (CRO & CMO)



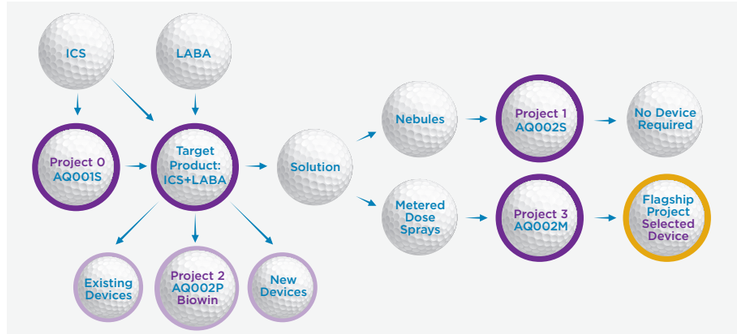
Technical and commercial opportunities

Aquilon Pharma's functional excipient technology improves both the pharmacology and the lung deposition of existing drugs. It also allows to make other, known drugs inhalable. This is a real revolution in the efficacy of inhaled drugs.

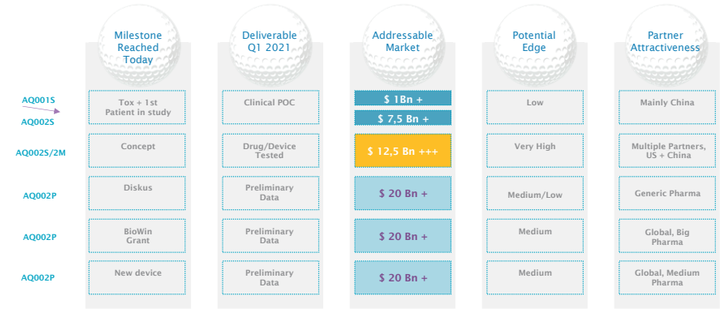
Aquilon Pharma has a formulation platform for both liquids (solutions) and dry powders. **AQ001&2S** and **AQ002P** are Aquilon Pharma's first innovative products. The functional excipient technology makes Corticosteroids soluble in water and suitable for dry powder formulations.

Aquilon Pharma's excipient technology makes all liquid formulations for nebulization compatible with all types of nebulizers and is the ONLY development company capable of formulating an Ultra Low Dose Budesonide-Formoterol for lung delivery through SoftMist **AQ002M**.

Aquilon Pharma's Pipeline



Conclusions: Unique Selling Proposition of the Aquilon Pipeline



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ArtiQ

Company presentation

ArtiQ aims to become the trusted partner of medical practitioners for diagnosis, treatment, and follow-up of respiratory problems. We can accomplish that with our first product: CE marked medical software for automated interpretation of pulmonary function tests (PFTs), ArtiQ.PFT; currently already used for the diagnostic assessment of more than 40.000 patients in 2 hospitals. In clinical validation, our powerful AI-based software gave objective and reliable interpretations, with superior diagnostic accuracy and virtually no eyes-on time.

PFTs are a standard tool of secondary care worldwide and thus represent a large established customer base. Our product is immediately available, can be easily implemented, and it is ready for international rollout. Considering the current testing reimbursement policies (ranging from 100-200 euro in Western Europe) the number of customers (11.000 in Europe and USA), and the number of performed tests (>120.000.000 worldwide), we are estimating a recurrent total addressable market of 300 million EUR's.

Go-to-market and faster growth is by partnering with manufacturers of PFT machines and/or their distributors, and EPR providers. The distribution agreement is signed with the largest distributor of PFT machines in BELUX. We started with Europe, in the Q4 2020 we plan to have all cleared to enter the US market.

The founding team is highly motivated, experienced and well qualified. ArtiQ is led by a committed CEO with a solid background in AI and PFTs (respiratory diagnostics). The strategy is steered by an experienced entrepreneur with knowledge in growing healthcare companies from zero to trade sales. Two renowned pulmonologists direct the medical vision, they are established key opinion leaders at the national and international level.

The team is strengthened with the lead developer with experience in deploying cloud solutions and product manager with a long experience in placing products in international markets. A knowledgeable PhD student supports research. Shortly, the team will be reinforced with a data engineer and sales manager.

We firmly believe that we can drastically improve clinical interpretation of the pulmonary function, and further advance respiratory healthcare with new products in the pipeline such as: ArtiQ.GP, for giving more diagnostic power to general practitioners, ArtiQ.Trials, for supporting clinical trials geared to develop respiratory drugs more efficiently, and ArtiQ.Treatment for providing prediction of patient outcomes after interventions. We aim to become a software technology leader in respiratory medicine.

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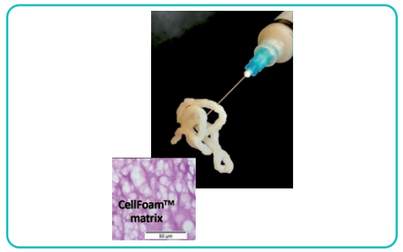
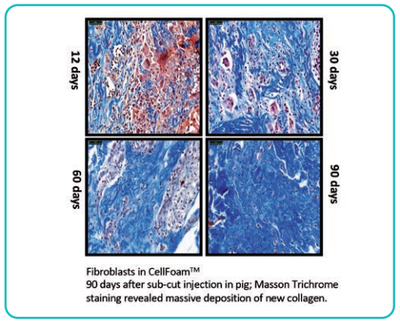
BioChange

Company presentation

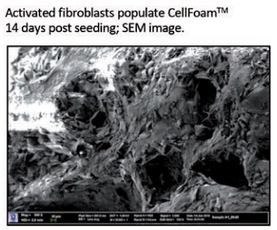
A leader in functional tissue scaffolds



CellFoam™ is a bio-adhesive 3D foam structure which starts as flowable and sets into a functional tissue graft within the target tissue. It is made of natural materials, fully biocompatible and biodegradable, rich with cell adhesion sites (RGD motifs), which makes it an ideal scaffold for stimulating cells. CellFoam™ is an injectable agent therefore compatible with minimally invasive treatments. Once injected into the tissue it stabilizes; and over time the cells in its surrounding are stimulated to grow and form new tissue. As such, CellFoam™ is ideal for multiple unmet applications in regenerative medicine and tissue engineering, from in-vivo tissue remodeling to tissue printing.



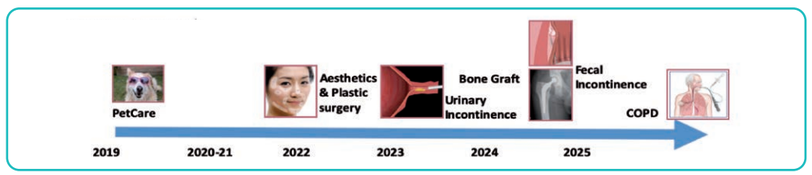
Fibroblasts in CellFoam™
90 days after sub-cut injection in pig; Masson Trichrome staining revealed massive deposition of new collagen.



Activated fibroblasts populate CellFoam™
14 days post seeding; SEM image.

Business Strategy: From PetCare to Unmet Medical Needs

BioChange plans fast start of sales with a veterinary products. Also developing medical products that answer unmet needs.

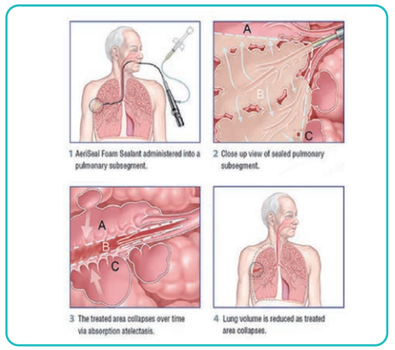


BioChange is constantly researching the potential of CellFoam™. It was so far proven to:

- Resolve urinary incontinence (dogs)
- Stimulate bone growth (dogs)
- Stimulate neo-collagenesis in skin (pigs)

Lung volume reduction

Reducing the volume of nonfunctional emphysematous lung tissue allows space for less damaged lung tissue to expand and function more effectively. Few product attempt to achieve minimally invasive lung volume reduction, however not have solved the challenge well. Some suffer from significant morbidity and other from selective efficacy. Alternative minimally invasive approaches using bronchoscopic techniques include valves, coils, vapour thermal ablation, and sclerosant agents. Coils and valves have not been very successful given their efficacy deficiency in preventing collateral ventilation. A sealant AeriSeal has also been attempted with glutaraldehyde as crosslinker. Results so far in a randomized trial with Aeriseal sealant indicate significant improvement in 50% of patients (n=95). Some experienced an improvement of more than 100% increase in FEV1.



Yet, significant safety issues limit its current utility. This is due to the use of toxic crosslinker with poor biocompatibility. AeriSeal treatment is not currently available on the market, and has been returned to preclinical trials in an effort to try and reduce inflammation and create a more bio-compatible and predictable response. The injectable scaffold named PulmFoam™ will remodel the hyperinflated segments and promote their safe reduction into non-ventilated connective tissue. Once this is achieved, the Ventilation/Prefusion mismatch is expected to be improved significantly. The treated lung segment will collapse right after application of the PulmFoam™ and within a few weeks will be remodeled into connective tissue. In comparison to the competition, it will be much safer than AeriSeal and will be able to deal with heterogenous as well as humongous emphysema.

Team

Randa Abbas, PhD: R&D Director

Seasoned biomaterials R&D developer, with 12 years of management experience at Enzymotec (NASDAQ: ENZY), Syneron Candela (NASDAQ: ELOS) and SynthMed.

Ishay Attar, Chairman & Founder

Serial innovator and seasoned entrepreneur. 11 years of experience in leading biomaterials ventures including founding of LifeBond and Eximore, among others.

Dr Ofir Artzi, MD, CMO

Heading the Center for Aesthetic Dermatology in Ichilov Medical Center.

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InhaTarget Therapeutics

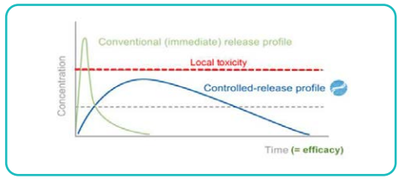
Company presentation

InhaTarget Therapeutics develops new lung cancer treatment modalities by inhalation in combinations (Add-on treatment) with current standards of care (immunotherapy, iv chemotherapy, surgery):

- Improved patient care (less toxicity and increased efficacy)
- Outpatient care

Core Technologies:

Innovative and targeted formulations of inhaled chemotherapy products (Dry Powder for Inhalation – "DPI"):



- Cisplatin-based DPI: PK, Tox & Efficacy in animal models
- Cancer cell targeting (paclitaxel-based DPI): in vitro targeting, PK, Efficacy in animal models

Business model:

- Human proof of concept (Phase IIb) on first indications and sell/license the project to Big Pharma
- Provide a ready-to-use manufacturing site for late-stage clinical trials and commercialization

History:

Spin-off project of the ULB Laboratory of Pharmaceutics and Biopharmaceutics (LPB)

- Multiple theses on anticancer DPI formulations (15+ years)
- Many industrial inhalation projects in in the lab (1 on the market: Braltus®)
- 3 patent families in-licensed from ULB

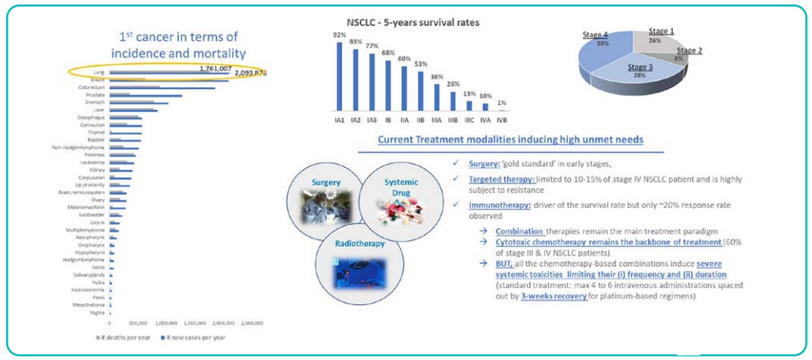
Current financing and future developments:

- Company incorporated in August 2019
- Funded for the next 3 years (Serie A in December 2019: 5.6M€ + 2.5M€ non-dilutive)
  - GMP Manufacturing and stability studies
  - Reach Phase I/IIa for lead product (Cisplatin-DPI)
  - Pursue preclinical studies on other candidates in the pipeline (Lung Cancer-cell Targeting + others)

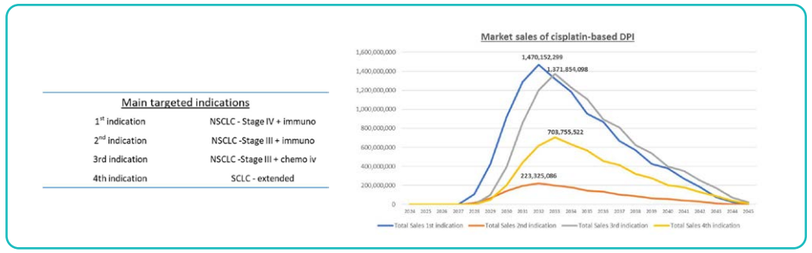
Therapeutic values of lead product:

- Increased efficacy of IV-DPI chemo combo and continuous local aggression of the lung tumours during off-periods for patients treated by immunotherapy and/or chemotherapy
  - Safe daily administration of chemotherapy (overcome lung & systemic toxicity)
  - Ambulatory care (at home)
- Activation of a systemic antitumor immune response (reinforce immunotherapy response).
  - Local activation and stimulation of antigen release (abscopal effect)
  - Safe, continuous & prolonged local effect vs peak/short effect of IV chemotherapy
- Therapeutic effect of the DPI as such, which provides a highly favourable benefit/risk ratio of chemotherapy
  - Unprecedented indications of chemotherapy (immunotherapy PDL1>50%, adjuvant to surgery, radiotherapy, kidney failure patients,...)

Market:



Market potential:



Main targeted indications	
1st indication	NSCLC - Stage IV + immuno
2nd indication	NSCLC -Stage III + immuno
3rd indication	NSCLC -Stage III + chemo iv
4th indication	SCLC - extended

Team & contacts:

Management Team

CEO frederic.de.coninck@inhatarget.com
Business Engineer –RTTP, CPVA
Background: Innovative project management, Life science Technology Transfer; IP Strategy, Finance, taxes,

CSO remi.rosiere@inhatarget.com
Pharmacist and PhD - inventor
Background: R&D expert in DPI formulations (production & analysis) and early-stage preclinical development

COO (identified but not disclosed yet)
Bio-engineer + Business & Health Economics
Background: Clinical Regulatory Affairs, CMC writing, EMA and FDA Scientific Advice procedures

Co-founders & Scientific advisors

Scientific Advisor karim.amighi@ulb.ac.be
Pharmacist and PhD, Pr., Inventor & Head of LPB
Background: multiple pharma project manager – 1 inhalation product on the market, 4 products under dvpt, 14 patents

Scientific Advisor nathalie.wauthoz@ulb.ac.be
Pharmacist and PhD, Pr. & Inventor
Background: research focus on the development of DPIs for the treatment of different diseases (lung cancer, asthma, COPD)

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MEWay Pharma

Company presentation

MEWay presents The InHealer - Creating a New Inhaler Segment, combining advantages of current technologies

MEway Pharma is building the next generation of respiratory treatments devices by bridging the gap between nebulization and inhalation technologies.

The global respiratory market is over $30B annually and still growing above average. Respiratory diseases such as Asthma and COPD (Chronic Obstructive Pulmonary Diseases) are on sharp rise.

While nebulization are a better way to bring drugs into the lungs, medically wise, it is only <5% of the market, which is dominated by MDI and Dry Powder inhalers.

During the company's initial phase, we have demonstrated that we can bring our cutting-edge flow technology to the respiratory- drug-delivery world. Now we are looking to turn this into real-world products in two further steps. We believe that we have to potential to create disruptive devices in this $30B market.

We have completed a lab- prototype, fully functional which demonstrates cutting edge features. We are aiming to develop the home care device within a year and later the InHealer, the novel handheld device two years later.

The InHealer aims at becoming the first of a new class of respiratory inhaler devices, delivering medication more accurately and in short inhalation time to the lungs.

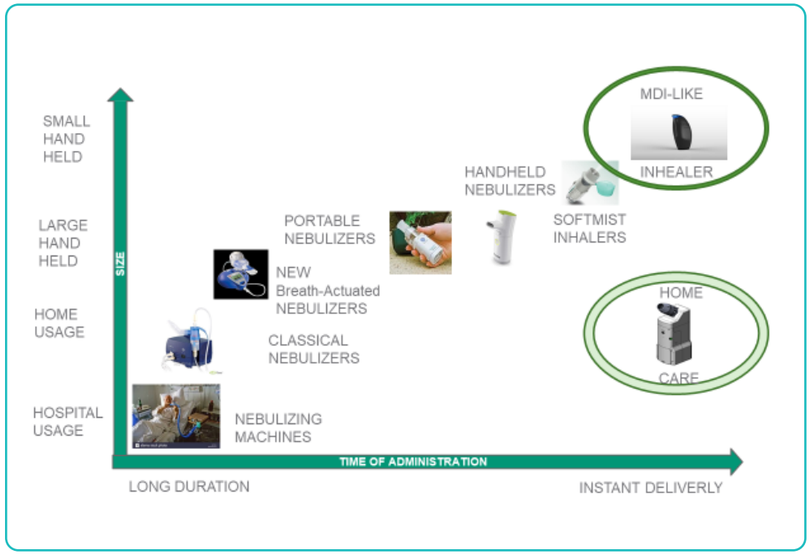
MEway Pharma has gathered a team of respiratory world experts who have all been involved in groundbreaking respiratory activity in leading companies, along with medical devices and pharma experts. The company is Israel-Belgian based.

We are seeking initial investment of €1.25M for the completion of the home care device (including manufacturing and regulatory).

In a second round, we will further seek €3-5m for the completion of the InHealer device.

Corporate Goal

Position the InHealer as ultimate improvement in the The Soft Mist Nebulizers Segment:



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Pharmadevices

Company presentation

Presentation of the activity
Pharmadevices Srl is an Italian start-up aiming at transforming ideas into business opportunities. Currently, the Company is focused on the development of new capsule-based Dry Powder Inhaler (DPI) Devices.

Presentation of the market
Pulmonary Drug Delivery market is composed by Aerosol, Metered Dose Inhaler (MDI) and Dry Powder Inhaler (DPI). Based on 2017 Grand View Research's report and many others, the current Worldwide market value is 36 $ Billion (year 2016) with a forecast to reach 55 $ Billion in 2025. The DPI market represents 25% of this market and its CAGR (6,5%) is more interesting in comparison to the other devices.

Growth potential
With its new disruptive DPI inhaler (Patent Pending), Pharmadevices can grow considerably in this challenging market by offering an ease-to-use technology. Moreover, Pharmadevices can also offer to its potential Customers a Network able to support Pharma Companies being interested in getting into this exiciting Market as well as the Companies which already operate in this Market segment.

Presentation of the management and board members
Alberto Mercandelli, Managing Director:
Currently Sales Manager and Inhalation Solution Product Manager for an Italian Capsule Fillers manufacturer

Prof. Francesca Buttini, Scientific Advisor:
Associate professor at the Food and Drug University of Parma, Head of the Team who develop pulmonary drugs, especially the formulations for the dry powder inhalers.

Dr. Stefano Console, Scientific and Marketing Advisor:
He has 25 years of experience in the pharmaceutical and fine chemical business

Ing. Alberto Stancari, Advisor:
With more than 20 years of experience, he is skilled in lean production, lean supply chain and strategic planning.

Ing. Franco Consoli, Advisor:
With more than 35 years of experience he is skilled in Production and Logistic Processes as well as Industrial Innovation

Structure of the organization
Pharmadevices Srl is a single shareholder Start-up driven by Alberto Mercandelli as Managing Director, taking care of Sales and Marketing activities.

Prof. Buttini is the Scientific Advisor of the Company and Dr. Stefano Console is the Scientific and Marketing advisor. Ing Alberto Stancari is the Strategic and Financial Advisor. Ing Franco Consoli is the Production, Logisitic and Innovation Advisor.

Future needs focus on including in the Company skilled people being specialized in Science, Engineering, IT and Marketing

Technical and commercial opportunities
By investing in Pharmadevices Srl, an Industrial Partner has the opportunity to contribute to the development of this DPI device which can be also considered as a drug device platform, in that different applications have already been planned.

On the other hand, from the commercial point of view, Financial Investors have the possibility to evaluate different exit strategies according to their investment requirements.

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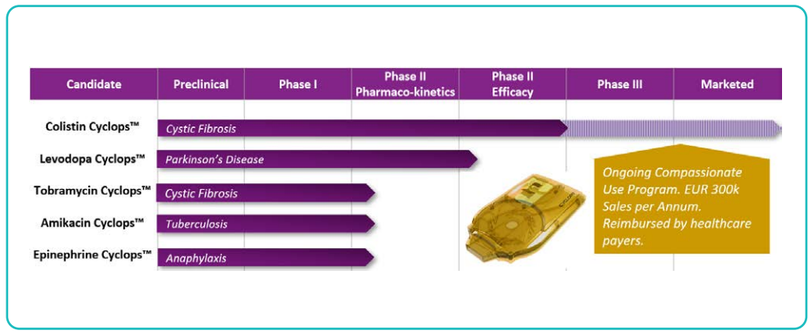
PureIMS

Company presentation

PureIMS is a (bio)pharmaceutical company based in Roden, the Netherlands. Core activities are: development, manufacturing and commercialization of inhaled drugs for patients with diseases such as cystic fibrosis, non-cystic fibrosis bronchiectasis, tuberculosis, Parkinson's disease and anaphylaxis. The unmet need in each of these therapeutic indications provides a commercially attractive growth market.

Cyclops™, our proprietary disposable dry powder inhaler (DPI), forms the innovative heart of our therapeutic products. Cyclops™ is an easy-to-use, pre-loaded and disposable DPI. It uses the patient's breath to drive a sophisticated yet simple mechanism. Upon inhalation, the dry powder formulation is circulated and broken into small particles appropriately sized for inhalation.

Cyclops™ has several advantages compared to standard-of-care products across key therapeutic areas. The figure below shows an image of the Cyclops™ and the most advanced products in our pipeline.



All our products are available for exclusive partnering. Most important markets are infectious diseases, Parkinson's disease and anaphylaxis. In addition, our DPI is also available for semi-exclusive partnering for proprietary drugs in the pipelines of potential licensees. Business-wise we have a global focus and are not oriented on specific geographical areas.

Our aim is to co-develop the products towards market authorization under a partnership/licensing agreement. We expect partnering/licensing deals for at least 2 products in the coming 5 years, and aim to extend our pipeline with other interesting drug candidates.

PureIMS is an SME with a straightforward organization structure: Dr. Reinier Schwietert (CEO) assisted by a Management Assistant, Chief Manufacturing Officer, Head QC/ Principal Scientist, Pharmaceutical & Clinical Program Manager and R&D Scientists. The company is supported by a board of KOLs and several consultants.

PureIMS strategy is focused on expanding our pipeline, extending our Cyclops™ platform and partnering our products to boost clinical development and commercialization. Semi-exclusive partnering of the Cyclops™ platform for application to proprietary drugs of future licensees complements PureIMS' business proposition.

RespirAI Medical
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Israël

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nimrod@bng-ls.com

RespirAI Medical

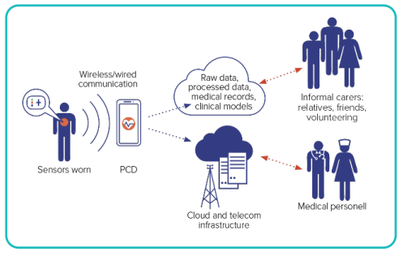
Company presentation

Pulmonary Diseases Home Monitoring Platform

RespirAI Medical develops an innovative Respiratory Artificial Intelligence home monitoring platform that enables patients, their families and care providers to improve the management of multiple pulmonary and cardiac chronic diseases.

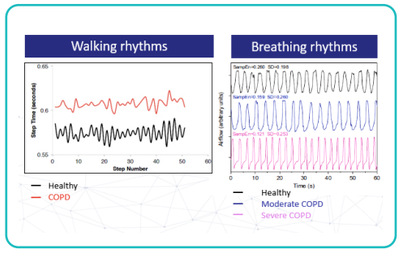
The RespirAI system measures the following parameters, which monitor the disease status and predicates its worsening:

- Multiple Markers (Breathing / Walking Bio Coupling, heart rate, pulse, temperature etc.)
- Drug Compliance
- Physical Activity
- General Feeling



The device is based on an invention of researchers from the University of Nebraska which developed a novel marker that aims to early detect COPD exacerbations.

The innovative bio-coupling marker measures the synchronization between breathing and walking and leverages artificial intelligence (AI) capabilities to improve efficacy of the measurements for every patient, in early detection of COPD exacerbations. With higher disease severity, the more abnormal the ability to synchronize breathing and walking becomes.



RespirAI developed a first prototype that was tested in several studies on healthy and COPD subjects. The last study was tested on 19 patients in 2 US sites. Initial results demonstrated the ability to capture trends in the measured parameter and show promising results.

More than 1 B people suffer from acute or chronic pulmonary conditions and each year 4 B people die from them globally. The global respiratory diagnostic and monitoring device market was valued at $4.35 billion in 2015, and it is growing at a CAGR of 8.1%. RespirAI platform first indication is Chronic Obstructive Pulmonary Disease (COPD) - a chronic lung and airways disease in which the airways are constricted, making it difficult to breath. It is the 4th cause of death in the world, 3rd in the US and the only chronic disease on the rise.

There are more than 16 M people in the US alone and more than 65 M patients globally. The disease causes a high burden on the healthcare systems; more than 70% of COPD-related healthcare costs are consequences of emergency and hospital stays for the treatment of exacerbations. In the US, there are about 8 M COPD-related physician office or hospital outpatient visits, 1.5 M emergency department visits and over 673 K hospitalizations per year. The most common cause of death occurs after a COPD exacerbation. Roughly 10% of patients will die during the hospital stay following an exacerbation and the 2-year mortality rate following hospitalization is ~50%.

Our patented home-monitoring wearable technology enable chronic patients, their families and healthcare professionals to take proactive measures and prevent exacerbations and unnecessary hospitalizations. We identify multiple stakeholders which can support the company growth in coming years:

- Hospitals - Monitor patients at homes. Pay for readmissions.
- Insurers - Utilize Home Care services. Pay for admissions and management.
- Home Care Agencies - Patient management & home monitoring services for hospitals & insurers.
- Patients - Pay per use

There is a clear unmet need to develop a clinically useful home monitoring management tool that will enable patients, their families and physicians to:

- Monitor their disease status continuously
- Follow and patient medication adherence
- Detect exacerbations early
- Improve disease management
- Save high costs to the healthcare system

We believe the RespirAI platform can become the standard of care solution with the potential to:

- Monitor pulmonary and cardiac chronic conditions
- Become a powerful tool for personalized medicine
- Supporting rehabilitation processes

The Team

Nimrod Bin-Nun, CEO
Over 13 years of extensive experience in global Pharma, Medical Devices and Diagnostics companies in Financial, Business Development and managerial positions.

Assaf Gur, CTO
A Medical Devices professional with more than 20 years' experience in senior management positions in medical device companies. Assaf specialized in leading multidisciplinary teams in the development and registration of medical devices.

Amir Bar-Shai, MD, SAB Member
Head of Division of Pulmonary Medicine, Barzilai Medical Center

Frank Pieters, SAB Member
Respiratory industry expert. CEO 'P&L Projects', chairman of the board at Softhale NV, head of strategy and business development at Aquilon.

We are raising $2.5M as a seed funding to support the company to finalize the feasibility, prototyping and V&V stages, perform validation trial and get regulatory approvals in the EU and the US, estimated to 2022.

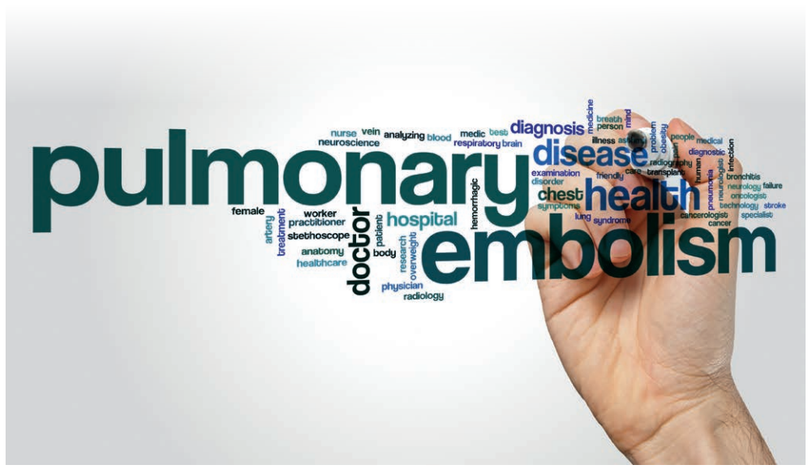
Thank you

Eu.reca wants to express its gratitude towards all speakers and attendees of this successful 1th edition of the Pulmonary Innovation Forum. Many thanks to Aquilon, ArtiQ, BioChange, InhaTarget Therapeutics, RespirAI Medical, PUREIMS, MEWay Pharma and Pharmadevices for the interesting company pitches. And a special thanks to prof. dr Cataldo and prof. dr. Decramer whose interesting presentations illustrated the need to improve respiratory therapies and products, as well as the challenges with regard to introducing new products.

Get connected

If you want to learn more about one of the companies presented in this brochure, please reach out to them directly through their contact information mentioned on the designated company pages.

For all remaining questions contact us at **info@eureca.world**.



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As a nonprofit organization, we are always welcoming structural sponsors wishing to support developments in the respiratory field, who share the same vision and mission and who are prepared to step into a transparent, long-term relationship, both strategically and financially. Sponsorship is possible as structural partner and/or as workstream partner.

Contact us for more information at info@eureca.world.

We hope to establish a beneficial and long-term collaboration.



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