



Pierre Fabre Pharmaceuticals and the start-up BioSerenity join forces to develop the first connected fabric for the detection and medical monitoring of urinary disorders

CASTRES (France). - May 14th, 2018 - Pierre Fabre Pharmaceuticals and French startup BioSerenity announced the signature of an agreement on the co-development, market access and distribution of connected medical devices for managing urinary incontinence. This agreement follows an initial collaboration phase launched at the end of 2016, during which several connected fabric prototypes were developed by BioSerenity with the assistance of staff from Pierre Fabre Pharmaceuticals. The new phase of this partnership will concern the manufacture and marketing of a connected fabric that will diagnose, assess and carry out medical monitoring of urinary disorders caused by an overactive bladder. This chronic illness affects almost 20% of men and women over the age of 40, whose daily lives are severely marred by this pathology.

The connected fabric, in underwear form, is worn around the abdominal area. With its biometric sensors recording the various operating parameters of the urinary device, it continuously detects and quantifies the patient's urinary problems, then forwards the readings recorded on a mobile app to a secure Cloud platform that can be consulted by the urologist for ongoing medical monitoring.

According to the terms of the agreement, Pierre Fabre Pharmaceuticals will co-finance R&D for this connected device. Subsequently, Pierre Fabre will have exclusive selling rights for the system in France and worldwide. The financial terms were not revealed.

A “win-win” partnership for a revolutionary connected fabric

BioSerenity, which took 1st place at the UroTech Challenge, a hackathon organized by Pierre Fabre Pharmaceuticals concerning overactive bladder in November 2016, has already attracted the interest of urologists and patients from API (an association that assists patients with incontinence) with its revolutionary device.

“Connected fabric offers a unique opportunity to radically change the lives of patients and prescribers. It could provide a more precise diagnosis from readings collected in real life conditions and improve patient comfort during examination, with fewer potential side effects. In terms of the treatment pathway, it’s also simpler and more cost-effective,” explained Xavier Gamé, Professor of Urology at Toulouse University Hospital

Staff from BioSerenity and Pierre Fabre Pharmaceuticals worked together closely over the last 18 months. BioSerenity concentrated on developing the first prototypes of this connected medical device, by focusing on treatment of urinary disorders and data interpretation. For its part, Pierre Fabre Pharmaceuticals focused on the device being put into use and integrated into the patient's treatment pathway to improve quality of life, and also on its added value as a diagnosis and medical monitoring tool for prescribers. The partners are continuing to examine development and market access opportunities for this new medical device to define a suitable business model.

This new agreement will lead to the development of a whole connected range for the diagnosis, treatment and monitoring of patients suffering from various forms of urinary incontinence.

“This co-development project is totally consistent with our strategy in Urology. In parallel to our pharmaceuticals, it is indeed important to develop services, tools and solutions that improve comfort of treatment for patients and facilitate the work of prescribers,” stressed Dominique Authié, Director of Operations, France, Pierre Fabre Pharmaceuticals.

“We were impressed by the different perspective and creative energy throughout our collaboration with Pierre Fabre Pharmaceuticals, who opened up their pharmaceutical expertise to us. Now, we’re going to work together on getting our connected medical device reimbursed. We’re also going to explore new avenues, for example, in the field of medical artificial intelligence, or open up to new sectors in which Pierre Fabre is a leading player,” added Pierre-Yves Frouin, CEO of BioSerenity,



Key figures (France)

- 5 million patients treated for urinary disorders by 1300 urologists. Prevalence increases in a linear manner with age.
- 150 000 urodynamic assessments are conducted each year in hospitals.

“A collaboration above all based on co-creation and sharing of expertise”

Pierre-Yves Frouin, CEO of BioSerenity, which operates from the ICM (Brain & Spine Institute) at Pitié-Salpêtrière Hospital in Paris.

*“The Uro-Tech Challenge 2016 was our first hackathon. It was an ideal opportunity for us to look for new e-health solutions in urology along with staff from Pierre Fabre Pharmaceuticals and participate in a ‘team building’ event for our startup by sending several of our engineers to take part in brainstorming in a different creative ambiance. Beyond the exploratory aspect, there was the possibility of developing a new companion diagnostic activity in the overactive bladder field with a recognized laboratory such as Pierre Fabre. **Our collaboration over the last 18 months has above all been based on co-creation and sharing of expertise.** BioSerenity worked on development of the connected medical device, data interpretation and the “promise” for patients and prescribers, while Pierre Fabre Pharmaceuticals was more focused on market access, patient and prescriber experience, the treatment pathway approach and the related business model. “A hackathon was an original start to our collaboration. Beyond this, we were impressed by the different perspective and creative energy throughout our collaboration with Pierre Fabre Pharmaceuticals, who opened up their pharmaceutical expertise from working with urologists to us. Now, we’re going to work together on getting our connected medical device reimbursed.”*



About BioSerenity

BioSerenity, which was set up in 2014 by Pierre-Yves Frouin, operates from the ICM Brain & Spine Institute (icm-institute.org) and shares an Artificial Intelligence laboratory with them.

BioSerenity has developed several ranges of connected solutions together with the pharmaceutical industry to facilitate patient diagnosis and monitoring, particularly for epilepsy, tracking heart problems, monitoring pregnancy and sleep disorders.

The medical technology company has raised 17 million euros since its founding, including 15 million in September 2017 to accelerate its industrialization and international development.

BioSerenity currently employs 90 people and has opened offices in France, China and the United States.

For more information: www.bioserenity.com



“Pierre Fabre Pharmaceutical's first major project in the digital sphere”

Olivier Siegler, Digital Director, Pierre Fabre

“In addition to traditional marketing, digital technology allows us to introduce innovative business models to develop products and services that really meet patients’ and prescribers’ needs. Last year, the Group successfully launched several initiatives (Slim Massage Coach for Elancyl) (Serious game for Pierre Fabre Oral Care) to train dentists in handling patient stress). In addition, the hackathons we organized are part of a fundamental strategy opening up new avenues to explore with startups, with the goal of improving prevention, assistance with diagnosis, adherence, prediction and support. At the Uro-Tech Challenge 2016, BioSerenity quickly stood out from the rest by assembling its various blocks (sensors, mobiles, digital services) that are applied to several therapies. Very soon thereafter, we worked on a proof-of-concept, which resulted in the launch last January of a comprehensive connected fabric solution to assist diagnosis in cases of overactive bladder. This is a major project for Pierre Fabre Pharmaceuticals in the digital sphere. We are also starting to invest in Artificial Intelligence (AI) at clinical research level. With Microsoft, we have organized the first AI Health Challenge in France, which involves identifying a melanoma from dermoscopic images of a beauty spot. It’s the equivalent of a hackathon but for image recognition. And this is only the start. For a group of our size, it’s important to collaborate in ‘open innovation’ mode to open up new horizons.”



“In the future, assessments will increasingly be conducted at patients’ homes under physiological conditions.”

Xavier Gamé, Professor of Urology at Toulouse University Hospital, sponsor doctor in charge of the board on connected fabric as a diagnostic tool

*“We have very few reliable tools for understanding the circumstances and mechanisms of incontinence, which patients often have difficulty describing. Firstly: the voiding diary in which the patient keeps a record of voiding. The aim being to assist analysis of the discomfort caused by incontinence. This tool can also be used to check or monitor the result of a medical treatment and/or surgery. Secondly: a urodynamic assessment in hospital or a clinic, which is not systematically carried out in cases of overactive bladder. It’s an invasive examination, sometimes poorly tolerated and stressful for the patient, and is practiced outside of real life conditions. In this respect, the connected fabric developed with BioSerenity offers **a unique opportunity to radically change the lives of patients and prescribers**. It will be a valuable tool for assessing all lower urinary tract symptoms. Its main advantages are a more precise diagnosis from readings collected in real life conditions and improved patient comfort during examination with less potential side effects (particularly urinary infection). In terms of the treatment pathway, it’s also simpler and more cost-effective: the patient avoids going back to the hospital for examinations, and readings are sent to the prescriber’s computer to ensure better follow-up and more effective treatment.” Beyond this, connected solutions contribute to efforts to transfer healthcare outside of hospitals. In the future, assessments will increasingly be conducted at patients’ homes, without hospitalization, under physiological conditions.”*





About Pierre Fabre

With a portfolio representing a continuum of activities spanning from prescription drugs and consumer healthcare products to dermo-cosmetics, Pierre Fabre is the 2nd largest dermo-cosmetics laboratory in the world, the 2nd largest private French pharmaceutical group and the market leader in France for products sold over the counter in pharmacies. Its portfolio includes several global brands and franchises among which Eau Thermale Avène, Klorane, Ducray, René Furterer, A-Derma, Galénic, Elancyl, Naturactive, Pierre Fabre Health Care, Pierre Fabre Oral Care, Pierre Fabre Dermatologie and Pierre Fabre Oncologie.

In 2017, Pierre Fabre generated 2,318 million euros in revenues, of which 62% came from its international business and 61% from its dermo-cosmetics division. Pierre Fabre, which has always been headquartered in the South-West of France, counts about 13,500 employees worldwide, owns subsidiaries and offices in 47 countries and enjoys distribution agreements in over 130 countries. In 2017, Pierre Fabre dedicated ca. 175 million euros to R&D efforts, split between oncology, central nervous system, consumer healthcare, dermatology and dermo-cosmetics.

Pierre Fabre is 86%-owned by the Pierre Fabre Foundation, a government-recognized public-interest foundation, and secondarily by its own employees through an international employee stock ownership plan.

The independent French certification group AFNOR audited Pierre Fabre for its corporate social responsibility policy at the “exemplary” level, according to the ISO 26000 standard for CSR.

For more information, please visit www.pierre-fabre.com

Contacts :

Pierre Fabre Valérie Roucoules valerie.roucoules@pierre-fabre.com (33) 1 49 10 83 84

BioSerenity Pierre-Yves Frouin corporate@bioserenity.com (33) 1 84 25 64 27