Fondation
Fournier-Majoie
pour l'innovation

Entreprendre pour vaincre le cancer

FONDATION RECONNUE D'UTILITÉ PUBLIQUE PAR ARRÊTÉ ROYAL

Activity Report 2017

Our Mission:

Since the start of its activities, in 2007, the Foundation Fournier-Majoie continues to support both financially and operationally «**researcher-inventor-entrepreneurs**», step by step, through their Research and Development programs in the identification of cancer biomarkers. On December 31st, 2017, the Foundation's total grants allocations to the projects accounted for 7.6 million euros, of which 7.5 million euros had already been paid out.

Major facts of 2017:

In order to strengthen the competencies required to execute the Foundation's mission in view of newly identified needs, the organization has evolved. Our Foundation is proud to announce the participation of:

- Mr. Rudy Dekeyser, Managing Partner of LSP's Health Economics Funds. Prior to joining LSP, Rudy was the co-founder of VIB (Vlaams Instituut voor Biotechnologie), Which he supported for many years. Rudy has been nominated as a Director of the Foundation.
- Mr. Vincent Brichard, Head of Business Unit for immunotherapeutics and was formerly Senior Vice-President of GlaxoSmithKline Vaccin. Vincent, who evaluated the perspectives of some of our projects, has joined our Scientific Investment Advisory Board (SIAB).

2017 brought three highlights for the Foundation Fournier-Majoie:

- Two projects supported by the Foundation for numerous years, have resulted in the signature of two exclusive worldwide marketing and licensing agreements.
- The 10th anniversary of the Foundation was celebrated during a charity event. On this occasion, Bernard Majoie President–Founder, entrusted his son Jérôme Majoie, with the responsibility for the Foundation's General Management.
- And the designation of Mr. Thibault Helleputte, CEO of DNAlytics (Louvain-la-Neuve), as the Foundation 2017 laureate.

Our activities in brief:

In 2017, the SIAB convened in May to review all ongoing projects founded by the Foundation. During this meeting, each laureate presented the state of their project, the key milestones that had been reached or were to be reached, the outlook and financial needs of their project. Our experts have provided valuable advice and expertise to the benefit of our laureates.

It was also the opportunity to present the analysis done of 7 potentially new projects.

Impact

Since 2007 the Foundation has supported 15 research groups linked to Belgian universities or to young innovative University spin offs. Their work has resulted in:

- The filing of 17 patents,
- The publication of 52 scientific articles in leading journals,
- The publication of a significant number of articles in scientific and daily press,
- The presentation of 38 scientific posters at international conferences (ASCO, AACR, EORTC ...),
- The creation of 30 jobs in innovative companies.

Project Portfolio

Pr. M. Mazzonne of the KULeuven and Vlaams Instituut voor Biotechnologie (VIB) – colorectal cancer (2010) (+ 4 Addenda)

There are over 7.000 new colon cancer cases registered in Belgium each year. Diagnostic methods and tests used to detect colon rectal cancer could really benefit from scientific advances in efficiency, cost and comfort.

In 2017 Monomark, a simple blood based test capable of identifying a genetic signature in monocytes (a particular type of white blood cells), entered into its clinical validation and routine use improvement phase. Industrial interest for this colorectal screening test is such that a worldwide exclusive marketing and licensing agreement has been signed with DNAlytics, a commercial and service company in the field of diagnostics.

DNAlytics – Colorectal cancer (2017)

DNAlytics (www.dnalytics.com), a UCLouvain spin-off, is a belgian company created in 2012 which bases its activities on a data mining technology platform and develops innovative data-driven precision medicines solutions through partnerships with healthcare players. This young company commercializes the results of Pr. Mazzonne's Research, under the name of Colonokit ®. In total 900 analyzed samples demonstrated that the sensitivity and specificity of the test were superior to 90%, the required threshold to reassure the relevancy of the test.

The launch of Colonokit® in the screening campaign as a validation prior to a colonoscopy could lead to a significant decrease in unnecessary or not urgent colonoscopies. The validation phase of the kit on a large scale, has been initiated in 2017 and will continue over an estimated period of two years. To this effect, the Foundation will advise and has lent financial aid in the form of a straight loan and a convertible loan to DNAlytics through this important development phase.

Pr. Vandesompele of UGhent Neuroblastoma – Rare cancer in children (2009 + renewal in 2013 + 3 Addenda)

Neuroblastoma, a tumor of the peripheral nervous system, is one of the most common cancers in young children and is the primary cause of pediatric cancer mortality. Its incidence is 1 in 100.000 and there are about 25 new cases in Belgium each year. The objective of the project was to develop a prognostic test capable of identifying very high risk patients, for whom conventional treatments are ineffective and exception therapies are warranted.

In 2015 the discovery of a ribonucleic acids (miRNA/mRNA) based signature was confirmed in serum and tissue samples. In 2017, these signatures were to be further validated in new EU and US sampling cohorts. Unfortunately, until now, it has proved impossible to analyze and validate the test based on qualitative and quantitative samples. The sizable challenges posed meant the prolongation, for 18 additional months, of the Foundation's aid to Pr. Vandesompele's team. We would like to thanks the Loterie National, our partner since the very beginning of this project.

Pr. Swinnen of the Katholic Universiteit Leuven (KUL) Renal Carcinoma (2009 + renewal in 2013 + 3 Addenda)

Renal carcinoma is one of the most common kidney cancers. It accounts for 330.000 newly diagnosed cases annually and 140.000 deaths worldwide (of which about 1.500 in Belgium). Current diagnostic and prognostic tools have limited utility. The needs for novel, more selective and specific biomarkers are of major interest in the stratification of cancer cases, according to their risk of recurrence and the monitoring of the patient's response to treatments. In 2016 a signature was identified. However, it requires to be validated by the analysis of a large number of complementary samples, which implies the use of a high debit mass spectrometry. In early 2018 Pr. Swinnen's research team will acquire such a highly efficient platform, allowing them to reach an important milestone in the validation of his research.

Pr. Callewaert (UGhent) Liver Cancer (2009 + renewal in 2010+ 1 addendum)

Hepatocellular carcinoma is one of the most common liver cancers. It accounts for 600 new cases each year in Belgium. Indeed, chronic liver inflammation (hepatitis B or C) could lead to fibrosis and subsequently cirrhosis, which then could end as a liver cancer. If detected at an early stage less than 20% of all hepatocarcinoma can be successfully treated with surgery. If the cancer cannot be completely eradicated the disease is usually fatal within 3 to 6 months.

Pr. Callewaert developed an early predictive test (GlycoFibro Test) capable of defining the evolution of the disease just by a drop of blood. The technical and clinical validation stage of the project has been completed. In 2016 a commercialization license was signed with Helena Biosciences, an internationally recognized company for its commercial competencies in distributing diagnostic tests (medical and clinical) using electrophoresis, a technique used for the test to separate macromolecules (such as proteins, DNA ...) when going through an electric field. The test called Glyco Liver Profile® will enter commercialization in the second half of 2018.

This project is the first successful support given by the Foundation to a university research project, which brings to the patients and the medical community an early stage predictive test in favor of the prevention of liver cancers. The Foundation congratulates Pr. Callewaert and his team for the accomplished work.

Camel-IDS (2015)

Camel-IDS (www.camel-ids.com), incorporated in 2014, is a spin-off company from the Vrije Universiteit Brussel (VUB) which develops diagnostics and therapeutics targeting certain cancer types. The platform uses nanobodies (antibodies found in the immune system of camelids in general and more particularly in lamas), selected for their tropism towards specific tumor cells.

These nanobodies are used as transport vehicles for radio-isotopes which will penetrate within the cancer cells. The cancer cells are subsequently killed by the radio-activity released by radio-isotope. In addition to their therapeutic potential these combinations, when used at low doses, also have the ability to serve as diagnosis of cancer via imaging.

This approach could potentially be applied to a wide range of cancers provided the targeting nanobody can be generated in lamas. In 2016 Camel-IDS started a phase I study to evaluate the absorption, elimination and safety of the vector-radioelement combination in healthy volunteers. The first results obtained in 2017 are on line with the company expectations, allowing Camel IDS to pursue Phase Ib and II clinical trials in specific cancer indications.

In September 2017 Mrs. Ruth Devenyns was appointed CEO of Camel IDS and is actively involved in the capital increase needed to continue the clinical studies, the optimization of the manufacturing and the continuation of the platform deployment and the source of new products in new indications.

Biogazelle (2013)

In 2016, the Foundation Fournier-Majoie has increased its support to Biogazelle (www.biogazelle.com), a spin-off company of Ghent University. Biogazelle develops solutions and markets specialized services with regards to the transcriptome*, allowing among other things, the identification of active and inactive genes, essential support in the diagnosis of genetic abnormalities.

This technology, is often used by other Foundation laureates. Starting from its experience with micro-RNAs Biogazelle has developed expertise in regards to «long non coding RNAs (lncRNA's) ». This competency has enabled the company to sign a deal with the Californian biotech company Ionis Pharmaceuticals who specialize in the research and development of innovative RNA based therapeutics. This collaboration led researchers to perform in vitro and in vivo studies on multiple families of compounds on which complementary analyses were done in 2017, opening new perspectives for Biogazelle.

* Transcriptome is the full range of all RNA molecules expressed from the transcription of DNA's genetic information.

Events and Partnerships 2017

In order to expand its network of experts and promote its activities, the Foundation has increased its presence at Belgian and foreign conferences in the field of oncology, innovation, translational research and philanthropy. More particularly: Flanders Bio, Welbio, Knowledge for Growth, CRIG and Biofit.

10th anniversary – Charity evening

November 9th, 2017, the Foundation gathered 250 guests to a charity event, allowing Bernard and Jérôme Majoie to present the review of 10 year's activities and present the future and new orientations of the Foundation. A landmark moment was the operational management hand over from the Founder to his son.

It was the occasion for Jérôme Majoie to launch the 9th call for project, aimed at Researchers-Finders who want to become Entrepreneurs by creating their start up in oncology. Projects will need to bring true innovations in the field of diagnostics, therapeutics, Medical imaging or Medtech.

During the charity evening an auction took place lead by Me Cédric Liénard and headed by Mr. Gérald Watelet, where numerous lots were sold.

The Foundation would like to thank warmly all actors and participants of this event for their support, commitment and generosity.

ROTHSCHILD · ABN·AMRO · Fondation Roi Baudouin — Agir ensemble pour une société meilleure · Loterie Nationale Loterij