

## Teams Booklet



## Table of Contents

Pitching Event Format .....	3
Pitching Event Agenda .....	4
Team Requirements and Judging Criteria.....	5
Teams Sessions Schedule . .....	8
The Judges.....	9
Competition Entries: Technology Description.....	13



## Pitching Event Format

The Pitching Event will feature two sessions: the feedback session (October, 16<sup>th</sup>) and the competition round (October, 17<sup>th</sup>). In the feedback session, each team will have a 25 minutes slot that will be divided into a 10 minutes presentation followed by a 15 minutes feedback period. In the competition round, each team will have a 15 minutes slot that will be divided into a 10 minutes presentation followed by a 5 minutes Q&A period. Only the members of the sessions' panels can provide feedback and ask questions.

- The **feedback session** provides each team an opportunity to learn from the presentation. The feedback panel will fill a dual role: (i) asking questions pertinent to the judging criteria and (ii) providing suggestions on how the team can improve the concepts of their innovation proposal and their presentation. After the **feedback session** each team will meet with a member of the panel, which will act as a mentor for the team in a one-to-one meeting, lasting around 90 minutes.
- The **competition round** will have a different set of judges assessing the teams. The judging panel will ask questions related to the judging criteria. After the competition round the judges will deliberate on the awards. The winning team will receive iMM support for patenting and direct access to an Entrepreneurship and Technology commercialization program.

## Pitching Event Agenda

---

### Main Schedule

October, 2 <sup>nd</sup>	Deadline to submit product concept (two-pager)
October, 10 <sup>th</sup>	Feedback with Pedro Vilarinho
October, 16 <sup>th</sup>	Feedback Session
October, 17 <sup>th</sup>	Competition Round

### October, 16th

9:30 – 12:30 with coffee break at 11:00	Meeting (iMM, Pasteur and Crick)
14:00 – 14:15	Loading presentations
14:15 – 14:30	Welcome & Judges introduction
14:30 – 16:30	Feedback Presentations
16:30 – 17:00	<b>Coffee Break</b>
17:00 – 19:00	One-to-one feedback
20:00	<b>Networking Dinner</b>

### October, 17<sup>th</sup>

09:00 – 09:15	Loading presentations
09:15 – 09:30	Welcome & Judges introduction
09:30 – 11:30	Competition Presentations
11:30 – 12:30	<b>Coffee Break</b>
12:30 – 13:00	Winners announcement & Closing session
13:00	<b>Networking lunch</b>

## **Team Requirements and Judging Criteria**

---

### **Team Requirements**

- One or more of the team members must have developed the technology underlying the proposed product or service.
- Teams must participate in all rounds of the competition, including the feedback round, and at least two team members must be present for the presentations (except when the project is promoted by just one person).
- A team, technology, product or service may compete only once.

### **Presentation Judging Criteria**

#### **The Purpose**

The purpose of the event is to educate scientists in technology commercialisation. The way the team communicates its innovation is highly valued, as well as the rationale employed to develop a match between a market and the technology. In other words, it is important to consider the contribution of the team in recognizing the opportunity sustained by the technology.

#### **The Product Idea and the Market Need**

Key factors in this category are uniqueness; innovativeness and a clear market need for the product or service concept. The presentation should clearly describe what the product or service concept is and does. The benefits of the product or service should be emphasized over the technical details on how it works. The presentation should also state what is innovative and unique about the product or service concept. Finally, there should be a clear description of how the product idea creates value in the marketplace. What real need does it fulfil (i.e., what market pain addresses)

#### **The Technology and the Development Plan**

The technology and the product concept should be clearly defined with emphasis placed on functionality. The team should clarify the current state of the product concept and attempt to outline the necessary technology or product development required for the next stage of commercialization. This element should include an estimate of necessary funds for continued development and an explanation of key assumptions in deriving those estimates. Included in these estimates should be a timeline of development. If the technology is at a very early stage idea phase, the team should offer assurances that it is feasible to create the product/service being proposed

## **The Market and the First Customer**

The market for the product or service should be clearly defined. The presentation should make clear that a reasonable effort has been made to segment and define the markets for the product or service. In particular, the presentation should make clear who the initial customers are and include characteristics of those customers. Examples of potential customers and primary market feedback are useful tools of explanation. Appropriate rationale and sources of market information used to define the initial market segment should be credible. Other factors, such as market growth rates and trends, sufficient market size to support the business development, and timeliness of the product or service idea to the initial market should be considered.

## **The Competitive Advantage**

Analysis of competing technologies is essential to clearly define the product or service idea's advantage. The presentation should clearly define barriers to market entry and state the competitive advantage of the product or service offering. Additionally, the intellectual property position of the product or service idea should be discussed.

## **The Presentation**

In the feedback and competition presentations, the teams will deliver a ten-minute presentation. The presentations expand on the information provided in the submitted two-pager. The teams are asked to address the current state of the technology and the feasibility of developing it for the suggested application, potential market barriers, competitive advantage and whether there is a window of opportunity in the market for enabling the success of the idea. The feedback presentation is an opportunity to gain helpful feedback on presentation style, format, content, and structure.

The opening of the presentation should capture the audience's attention and clearly convey the opportunity underlying the product or service concept while previewing the presentation for the listeners. Visuals should be simple, clear, and effective with good use of tables and charts. The presentation should be delivered with enthusiasm, confidence, and focus and should be closed strongly. Lastly, the question and answer session is important. The team should attempt to clearly address the assessment panel's questions in a concise and informative manner.

## **Additional Guidance.**

- A well-developed business plan will not place a team in a stronger position relative to a team that has no business plan.
- As a technology commercialization rather than a business plan event, the competition does not address: expanded distribution and marketing strategies, detailed financial analyses, finalized team and advisory panels, etc..

- The technology can be, but does not need to be, brand new technology or necessarily 'high-tech'. The concept can utilize existing technology and/or modification of existing technology for a creative new product/service.
- The members of the panel will be looking for the team's understanding of their product's place within a market and the identification of a clear and logical target customer with a real need that the product addresses. The team needs to have a clear picture of the development necessary for the technology and the proposed product.
- If a team's concept is just at the idea stage, the team needs to be able to assure the judges that the technology is feasible. The team does, however, need to have a product in mind, not just a technology. If this is an early stage idea, the team needs to be able to offer assurances that it is feasible to create the product/service.
- To be judged highly, the team members do not have to assume that the team can or will be the ones to take the idea to market.
- For a good entry, it should be reasonable to assume that the product could be built and sold at enough of a profit, to enough of the targeted customers, to sustain a business. The technologies do not need to be "investors ready".
- The closer the team members are to the inception or invention of their technological innovation, the stronger their position will be in the judges' eyes. In other words, a presentation made by the inventors will score more highly than one by those only peripherally involved in the birth of the technology.

## Teams Schedule

---

Team presentations will take place in both days. Teams will start approximately every 30 minutes in the feedback session and every 20 minutes in the competition round in the order-listed below.

### October, 16<sup>th</sup>

Time	Team
14:30 – 15:00	Gonçalo Bernardes
15:00 – 15:30	João Lacerda
15:30 – 16:00	Lina Perez
16:00 – 16:30	Luís Graça

### October, 17<sup>th</sup>

Time	Team Order
09:30 – 10:00	Luís Graça
10:00 – 10:30	Lina Perez
10:30 – 11:00	João Lacerda
11:00 – 11:30	Gonçalo Bernardes

## The Judges

---

### **Ana Filipa Chaves Bernardo**

#### **Consultant**

Filipa graduated in Biology and has several post-graduate courses: Pharmaceutical Medicine - IMI PharmaTrain, Pre-clinical Development, Research Methodology and Statistics.

Experienced Project Management Consultant with a demonstrated history of working in the pharmaceuticals industry and supporting entrepreneurs. She has worked in EuroTrials and Roche Innovation Center, and collaborated in COHiTEC. Skilled in Product Development Strategy, Clinical Trials Designing and Implementation, Regulatory Requirements and R&D Projects management.

### **Veronique Birault, Ph.D**

#### **Head of Translation at the Francis Crick Institute**

Dr Veronique joined the Crick Institute in September 2015 and is accountable for one of the 5 strategic pillars of the Crick; to accelerate scientific discoveries to generate health and wealth benefits. Since joining the Crick she has established translational science capabilities, and operational structure to enable a diverse portfolio of translatable projects and 3 spin outs.

Veronique has sixteen years' drug discovery and development experience in industry. She has led multidisciplinary research teams and provided strategic leadership on translational work and clinical research programmes. She has worked in immuno-inflammation and respiratory areas, and delivered projects suitable for development to the clinic or to enhance disease pathway understanding. She led the allergic inflammation Discovery Performance Unit at GSK, and her last role there was to establish and execute a plan to implement experimental medicine in order to change the way medicines are developed.

Veronique's business acumen has been honed through developing business plans and securing funding, creating spinouts, and delivering the plans with teams. She also mentors young entrepreneurs.

### **António Dinis**

#### **Director of Marketing and Communication at Hovione**

António is the Director of Marketing and Communication at Hovione having joined the company in 2007. He has 20 years of commercial, marketing and managerial experience mostly in the Pharmaceutical Contract Manufacturing industry. Prior to joining Hovione, António worked at DSM Bakery Ingredients



in Portugal starting in 1998, where he served as Supply Chain Manager. Since 2008 António has been a business mentor for entrepreneurs through the COHiTEC program and Building Global Innovators. He earned his bachelor degree in chemistry from the University Nova de Lisboa and a M.B.A. from the Nova School of Business and Economics Lisboa.

**Richard Hampson**

**CTO @Thelial Technologies**

Richard is a biomedical scientist by training, completing his Ph.D. research at the Imperial Cancer Research Fund, London. Following post-doctoral work at Harvard University and King's College London he moved to the biotechnology industry, first as a research group leader and then as co-founder, CSO and since summer 2016 CEO of Thelial Technologies S.A.. He is author of more than 15 peer reviewed publications and co-inventor on two granted patents and more than 10 applications.

**José Pereira Leal**

**Scientific director, HealthCare City by Nova Medical School, Lisboa**

Founder and Executive Director of Ophiomics - Precision Medicine, Scientific Director of Healthcare City, and an industry led incubator acting in the health and well-being domains; Coordinator of the national scientific infrastructure BioData.pt; Principal Investigator of the Computational Genomics Institute at the Instituto Gulbenkian de Ciência.

**Pedro Moura**

**GM @ Merck Portugal**

Pedro Moura is the General Manager at Merck Portugal. Previously he was Europe (Big5 & Western EU) Oncology Franchise Lead at Global Merck headquarters, CEO at WYNN Industrial Solutions SA, Board Member and General Manager at Generis, General Manager at Ciclum Farma (STADA), Commercial Director (Hospital business) at Rhône-Poulenc Rorer, Business Unit Manager at Rhône-Poulenc Rorer, Product Manager at Hoffmann-La Roche (Roche Portugal) and Medical representative at Hoffmann-La Roche (Roche Portugal). He has an degree in Hospital Pharmacy from the University of Porto (Portugal), an MBA from Lisbon Catholic University and an executive education accreditation in Leadership and Strategy in Pharmaceuticals and Biotech from Harvard University (HBS, Boston, USA).

**Paulo Osswald**

**Co-founder and CFO at Phyzat Biopharmaceuticals**

Paulo is co-founder and CFO at Phyzat Biopharmaceuticals. For over 10 years he has been consultant in structuring, evaluation and financing of tech-based startups and served as member of the board in some of them.

He is invited professor at Católica Porto Business School and University of Porto Faculty of Engineering. Paulo has an MBA by Porto Business School and a degree in Mechanical Engineering from FEUP.

**Mallory Perrin-Wolff, Ph.D**

**Head of Incentive Research Programs and Partnerships Department Development Department  
Institut Pasteur, Paris, France**

Mallory Perrin-Wolff has joined the Institut Pasteur in Paris late 2014 as the head of the Incentive Research Programs and Partnerships Department, part of the Development Department. Her current goals and challenges are (1) to source, launch and support a series of strategic research programs by using Institut Pasteur seed funding for the early-stage and (2) to seek partnerships for further development and funding for those programs. She was previously Director of Strategic Partnerships & Alliances at Inserm Transfert with a specific goal on Open innovation area. She has a 15-year experience in the Technology Transfer covering biomedical research and human health. She joined Inserm Transfert in 2006 where she progressively became a Business Development/Licensing executive, in charge of the Immunology-inflammation domain with a strong focus on biopharmaceuticals (therapeutic monoclonal antibodies and technology platforms). She has a broad experience of public-private partnership between the academic research and worldwide Biotech/biopharma Industry developing Open innovation deals, early-stage in-licensing, technical evaluation and alliance management. Mallory holds a Ph.D in Immunology and Molecular pharmacology (University Paris Descartes, France) with extensive experience in oncology and endocrinology area (post-doctoral and Inserm scientific positions).

**Cristina Simões**

**Coordinator at HiTECH@Lisbon**

Cristina Simões is currently a business strategy and business development advisor and coordinates HiTECH@Lisbon, a training program in technology commercialization. She has been CEO of a born global biotech start-up. Besides those activities she was an invited professor at ISCTE-IUL Business School. She has more than 20 years of experience in general management and management consulting.

She began her career (1986) as Human Resources and Public Relations Manager. Cumulatively she worked as Business Trainer and Team's Coach. In 1989 during the MBA program she taught at FEP (Economics Faculty of Porto University) and at IESF (Higher Education Institute for Financial Studies) in Porto until 1995. In 1990 she returned to the business world joining her family business and successfully headed the strategic turnaround of a Portuguese family business to a business unit of an American multinational company. She managed IIT Industries Portugal until 2008. She holds a degree in Sociology awarded by Universidade Nova de Lisboa, a MBA awarded by EGP University of Porto (nowadays Porto Business School), a postgraduate Ms in Economic and Social International Relations by Minho University and a DBA (Doctorate in Business Administration) by ISCTE-Lisbon University Institute. In 2010 she attended the Senior Executive Programme at the London Business School and since 2002 she holds the Green Belt degree of the Value Based Six Sigma Management of Michigan University.

### **Nicolas Torno**

#### **Associate Vice President Technology Transfer and Industrial Partnership**

#### **Head of Patents and Inventions**

*Institut Pasteur – Paris since 2010*

Nicolas Torno manages the IP portfolio of Institut Pasteur (400 patent families) with a team of 12 colleagues including 5 patent Attorneys and an accountant. He is the in-house general counsel for IP matters and he also defines general strategies and procedures. He worked on different broad international litigations and negotiations, such as in the field of HIV-1, HIV-2, HBV and HPV. He did 6 USPTO interviews for selected cases. He co-chairs the AIPPI Biotech French group. His role then extended throughout the Technology Transfer activities of Institut Pasteur comprising Business Development – Industrial and Institutional relations – contract review and amendments, negotiations, promotion of new economic models through the valo3.0 initiative, and managing the TTO and Compliance Office.

He is a biochemist with also post-graduate education in management and industrial property with additional experience in scientific research and project management. After 18 years of practice, he developed strong experience in all IP matters including management, licensing, collaboration, settlement and litigation.

## Competition Entries: Technology Description

In Alphabetical Order of the team name

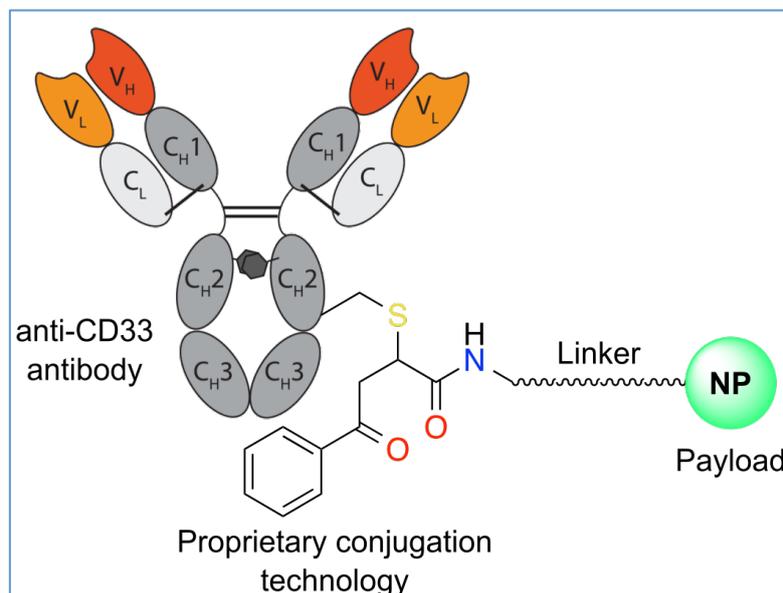
### Team 1: KurKemia

#### Team members:

- Gonçalo Bernardes (Group Leader),
- Tiago Rodrigues (Senior Scientist – Marie Skłodowska-Curie Fellow),
- Miguel Mateus (MIT Portugal PhD candidate),
- Lavinia Dunsmore (BBSRC DTP PhD candidate)

#### What is your product or service?

An ADC (Antibody Drug Conjugate) to target AML (Acute Myeloid Leukemia), composed of a novel Antibody and a linker developed by our lab and a Natural Product for which we have discovered a novel mechanism of action



#### What is the technology that underlies your product/service?

1. A Mechanism of Action that we discovered for a Natural Product that targets AML
2. To avoid toxicity, we conjugate the Natural Product with an Antibody that targets AML diseased cells

### **How is your underlying technology unique?**

1. The mechanism of action was not known and has not been used before
2. We have developed a novel antibody

### **Is your product or service innovative? How?**

It will be a novel Therapy for a disease that has no cure in many cases and even when the therapy works, it has serious adverse effects

### **How would you define the best initial set of customers? (Who will buy it?)**

Depending on the results of the drug trials, it may either be approved as:

1. A first line treatment for AML or
2. As a second line treatment for AML patients that have not responded to existing treatments

However, we intend to partner / license the technology to companies that have the scale and resources to bring this to the marketplace

### **What marketplace need does your product or service address better than any other option? (Why will they buy it?)**

There is no cure for AML in most of the cases (see below). We aim to change that, as well as to avoid the adverse effects caused by existing treatments.

### **Describe how you create value for your customers.**

Curing AML in cases where it is not curable today and with lower adverse effects than existing therapies

### **What is the market and its size?**

There is a vast unmet medical need for the treatment of patients with Acute Myeloid Leukemia (AML).

ca. 20,000 new cases are reported per year, with a very poor prognosis having resulted in ca. 10,000 deaths in 2014 (data for the USA).

Current treatment alternatives cost between 55kUSD and 286kUSD with terrible adverse effects and do not always work.

For patients older than 60 years of age that cannot undergo intensive chemotherapy regimens, the median survival time is only 5–10 months. Even in the case of younger patients, AML is only curable in 35–40% of the cases.

**How do you anticipate developing IP protection/strategy for your technology?**

We have already file for a patent on September 8th 2017 in the UK, covering the mechanism of action we discovered for the Natural Product

We will keep analyzing the need to protect other components of the IP as we keep developing the project

## Team 2: TriVir

**Team members:** JLacerda Lab iMM

### What is your product or service?

Develop a cryobank of advanced therapy medical products (ATMP) containing T cells specific for Epstein-Barr Virus (EBV), cytomegalovirus (CMV) and BK virus (BKV) from volunteer donors with the most common haplotypes to be used as an off-the-shelf treatment for patients in need.

### What is the technology that underlies your product/service?

Development of ATMP under GMP conditions and establishment of a cryobank with above mentioned T cell lines ready to be used by patients in need.

### How is your underlying technology unique?

Our group has access to the national registry of bone marrow donors and is currently analyzing the most frequent antigens and haplotypes in a pool of more than 400,000 volunteer donors. Once identified the donors with an HLA profile that would cover the large majority of the population, we will test the frequency of EBV, CMV and BKV specific T cells, allowing us to select the best donors to derive T cell lines from and establish the cryobank of third party cells as an off-the-shelf therapy.

### Is your product or service innovative? How?

It involves the establishment of a cryobank of third party T cells specific for viruses responsible for life-threatening diseases in immunocompromised patients. Ideally, in this setting, the preferred donor would be the original transplant donor in recipients of bone marrow transplantation. However, since these infectious complications post-transplant warrant immediate attention and, nowadays, most allogeneic transplants use unrelated donors, sometimes from distant countries, a cryobank of ready to use tri-virus specific T cells from third party donors can be life saving.

It should be noted that this field is rapidly advancing in the US and, to a lesser extent, in Europe, with several companies aiming to provide a similar service for all or some of these viruses.

How would you define the best initial set of customers? (Who will buy it?) What marketplace need does your product or service address better than any other option? (Why will they buy it?)

Patients with persistent CMV, EBV or BKV virus infection after bone marrow or solid organ transplantation. These complications frequently require prolonged hospitalizations with expensive drugs and have an appreciable degree of mortality.

**Describe how you create value for your customers.**

These infections are potentially life threatening and extremely costly for the national health service. Providing a ready to use cell therapy can become the therapy of choice in the future.

**What is the market and its size?**

A cryobank of tri-virus specific T cells from selected donors spanning the majority of eligible patients from Portugal, which are very close to the genetic profile of the Spanish population, could be used by patients from the Iberian Peninsula. There is also a great unmet need for these therapies in Spain. We would estimate that up to 150 patients could benefit annually with this treatment in both Portugal and Spain.

**How do you anticipate developing IP protection/strategy for your technology?**

It would follow guidelines established at iMM, with further advise from legal department.

### **Team 3: Páez Team**

#### **Team members:**

- Lina Marcela Gallego-Paez
- Nuno L. Barbosa-Morais
- Marta Sofia Alves-Martins
- Luís Costa (consultant).

#### **What is your product or service?**

1. Biomarkers for colorectal cancer (CRC) expected to assist prognosis assessment and therapeutic decision-making.
2. Treatment strategies that can be implemented alone or in conjunction with conventional chemotherapy settings.

#### **What is the technology that underlies your product/service?**

Our products will be derivatives of a novel classification for CRC patients developed by our team, which is associated to tumour-specific alternative splicing (AS) dysregulation. This classification was revealed through a bioinformatics analysis of publicly available molecular and clinical data for CRC with further validation using CRC tumour samples from the iMM Biobank.

After the functional implications of the AS-related prognostic signature are well characterised in vitro and in vivo, we will employ xenograft models to test responsiveness to therapy. Finally, we foresee a potential for the development of treatment strategies specifically targeting AS, including the use of antisense oligonucleotides (ASOs), SMaRT (Spliceosome-mediated RNA trans-splicing), and small molecule modulators of splicing.

#### **How is your underlying technology unique?**

Our technology uniquely explores transcriptomic alterations in CRC, going beyond classical gene expression analysis to reveal dysregulation of AS, which has been characterized as a new hallmark of cancer with high potential as therapeutic target. Moreover, our strategy is supported by four features uniquely converging at iMM: 1) experience in transcriptomic data analysis and in definition of molecular signatures and prognostic factors in cancer of the Computational Biology laboratory; 2) experience in characterisation of molecular markers in cancer of the Clinical Oncology Unit; 3) advantageous access to clinically annotated CRC samples at the iMM Biobank; and 4) Availability of state-of-the-art facilities (e.g. Histology, Microscopy, Zebrafish and Mouse units). This exceptional integration of skills and access to clinical samples and research facilities is, to our knowledge, unparalleled in Portugal.

### **Is your product or service innovative? How?**

Our developed CRC classification is able to distinguish a subpopulation of patients with poor prognosis, independently of the prognostic value assigned to gene expression, tumour stage and age (the most commonly used prognostic markers for the disease). This association between a gene expression-independent signature of AS dysregulation and patients' survival is unprecedented for CRC, and highlights the innovative property of our approach of revealing prognostic value and therapeutic potential of changes in the balance of distinct transcripts (and eventually distinct proteins) expressed from the same gene, which in turns can directly affect metabolic and proliferative activities of tumour cells.

### **How would you define the best initial set of customers? (Who will buy it?) What marketplace need does your product or service address better than any other option? (Why will they buy it?)**

The initial set of customers (namely oncologist) and marketplace will both rely on our established collaborations with medical community at Hospital de Santa Maria, including Prof. Luis Costa, director of the Oncology Division and already consultant in this project. The two main needs that our products meet are 1) Methods to predict prognosis and response to therapies (currently, 40% of patients show disease recurrence after first-line treatment), and 2) Treatment options for patients who have exhausted all other therapeutic strategies.

### **Describe how you create value for your customers.**

1. Developing an AS signature-based diagnose protocol for CRC, implemented through a "doctor-friendly" software that can potentiate the usage of this instrument for diagnosis by clinicians.
2. Creating a therapeutic strategy with extra clinical benefit (effectiveness and safety). As proof of concept, many of the most promising RNA-based approaches in early clinical or preclinical development are showing substantially improved clinical performance relative to their predecessors, due to high target specificity, an ability to address previously inaccessible drug targets, limited systemic exposure and toxicity, as well as extended half-life permitting infrequent dosing.

### **What is the market and its size?**

115 oncologists registered in the National Health Service, treating 80.000 active patients of CRC in Portugal.

### **How do you anticipate developing IP protection/strategy for your technology?**

The IP protection strategy is anticipated as patents for the prognostic and predictive biomarkers as well as for newly developed therapeutic drugs.

#### **Team 4: Graça Team**

- Valter R Fonseca
- Vasco C Romão
- João Eurico Fonseca
- Luis Graca

#### **What is your product or service?**

Sjögren's syndrome is a frequent systemic autoimmune disease with high risk for subsequent development of haematological malignancies. Currently, diagnosis of SS requires eye examination, blood tests, and a small surgery for lip biopsy. Our product is a diagnostic test that can be performed with the same blood sample required for the conventional tests, and has the potential to replace the need for lip biopsy.

#### **What is the technology that underlies your product/service?**

The blood test relies on the identification of specific T cell subsets by flow cytometry, an approached being increasingly used for medical diagnosis.

#### **How is your underlying technology unique?**

Our team optimized and validated the use of flow cytometry to identify human blood Tfr cells for the first time, as we firstly described the ontogeny of blood Tfr cells in humans (Fonseca VR et al. Sci Immunol 2017); and we subsequently validated the use of Tfr/Tfh ratio as diagnostic for SS (Fonseca, submitted). The IP has been protected.

#### **Is your product or service innovative? How?**

Our product (blood Tfr / Tfh ratio) is so far, the first blood parameter which can discriminate Sjögren's syndrome patients with and without pathological involvement of salivary glands. Therefore, this ratio can replace the routine use of invasive lip biopsy in clinical assessment of Sjögren's syndrome patients.

#### **How would you define the best initial set of customers? (Who will buy it?) What marketplace need does your product or service address better than any other option? (Why will they buy it?)**

The Portuguese National Health System will be our initial set of customers, as our product can replace an invasive procedure with potential morbidity for the patients in a cost-effective manner (lip biopsy is an expensive procedure, regarding both material and personnel required). Moreover, in Portugal, the expertise required to perform lip biopsy, preclude its global use (in every hospital) to every patient with the clinical suspicion of Sjögren syndrome. Our product only requires a routine blood collection.

In near future, our product could also be used by the Pharma Industry, as it clearly identifies two subgroups within the clinical heterogeneity of Sjögren's syndrome. With the increasing number of new pharmaceutical agents targeting specific cells and

molecules, the selection of better candidates for different therapies is critical. The use of blood Tfr / Tfh ratio as a biomarker of disturbed cell interactions leading to autoantibody production might identify Sjögren's syndrome patients more suitable for therapies targeting these cell interactions.

**Describe how you create value for your customers.**

The use of blood Tfr / Tfh ratio in the initial clinical evaluation of Sjögren's syndrome patients will be a cost-effective minimally-invasive procedure with high accuracy.

**What is the market and its size?**

Sjögren syndrome is the second most common systemic autoimmune disease. Sjögren's syndrome prevalence ranges between 0.01 and 0.72% and its incidence is estimated to be 3 to 11 cases per 100.000 individuals. Thus, there is a substantial number of patients who will benefit from our product.

**How do you anticipate developing IP protection/strategy for your technology?**

We already have a provisional patent request for our product, and we are submitting the patent request.