

# EUROSTARS Project - Seeking partner for developing an oncopediatric diagnostic kit combining omics technologies

## Summary

Profile type

**Research & Development Request**

Company's country

**Spain**

POD reference

**RDRES20220727012**

Profile status

**PUBLISHED**

Type of partnership

**Research and development cooperation agreement**

Targeted countries

- Austria
- Belgium
- Czechia
- Croatia
- Greece
- Hungary
- Cyprus
- Bulgaria
- Finland
- France
- Denmark
- Iceland
- Canada
- Ireland
- Estonia
- Italy
- Turkey
- Netherlands
- Sweden
- Slovakia
- Switzerland
- Poland
- Slovenia

- Singapore
- Lithuania
- United Kingdom
- Latvia
- South Korea
- Malta
- Portugal
- Romania
- Israel
- Norway
- Luxembourg
- South Africa

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Term of validity

**27/07/2022****27/07/2023**

Last update

**27/07/2022**

## General Information

### Short summary

Spanish company is searching for a partner to complete a project for Eurostars call. The company is working in advanced genetics solutions to improve medical diagnoses of specific diseases. They are searching for another company to co-develop a new oncopediatric diagnostic kit based on NGS panel.

### Full description

- The project:

The aim of the project is to develop and analytically and clinically validate a commercial NGS-based gene panel useful for the diagnosis, prognosis and personalised treatment of paediatric cancer patients.

The gene panel proposed to be developed is based on capture technology and designed to work exclusively with DNA. Working solely with DNA for the detection of all genetic events will provide several advantages over the current offer.

Paediatric solid tumours require molecular studies according to current evidence, in order to make a correct diagnosis and search for therapeutic alternatives in advanced patients. The development and implementation of reliable NGS solutions that allow the detection of the main genetic biomarkers is, on many occasions, the only way to obtain an accurate diagnosis according to the international standard established by the WHO in a cost-efficient manner.

For a large number of aggressive paediatric solid tumours, relapse is a frequent reality, although the probability of

relapse or disease progression varies between tumour types and the disease risk group established at debut. In such a context of adverse prognosis, the use of NGS technology is gradually becoming a reality in hospitals worldwide, including those in Europe. The availability of gene panels properly validated in accordance with the new regulatory requirements for use in this clinical context is a guarantee of quality for the day-to-day work of patients.

- The programme:

Eurostars is the largest international funding programme for SMEs wishing to collaborate on R&D projects that create innovative products, processes or services for commercialization (<https://www.eurekanetwork.org/>).

- The partnership:

Genetic diagnostics company, specialising mainly in the diagnosis of rare diseases, cardiology, oncology and neurology, using automated platforms.

The focus of the company is on people and its mission is to generate a positive social impact through personalised medicine and improved clinical decision-making based on genomic data, increasing the quality of life of people living with genetic diseases and their families, thus contributing to the efficient and sustainable development of the healthcare system.

Among the main areas of specialisation of the company, we can find: Biomedicine, Biomedical Research, Genetics, Genomics, Genomics, Transcriptomics, Biotechnology, Genetic Diseases, Rare Diseases, Pharmacogenetics, Oncology, Genetic Diagnosis, Prenatal Diagnosis.

The company currently has five operational centres in Spain and markets its products and services in more than 30 countries. It has more than 200 highly qualified professionals specialised in different branches of knowledge.

The company has a strong track record of collaborations in research, development, and innovation projects with several companies and research institutions. We have previous experience in designing, developing and validating kits for the analysis of genetic alterations using next generation sequencing (NGS) techniques.

The company has also extensive experience in the design and validation of CE-IVD diagnostic kits and is certified according to UNE-EN ISO 13485 by the Spanish Agency of Drugs and Sanitary Products. The scope of certification is the design, development and production of sanitary products for in vitro diagnostics, including reagents and reactive products, calibrators and control materials for genetic testing, as well as software for bioinformatics analysis of genetic data.

- Timescales
  - Official deadline for the call: 15/09/2022
  - Deadline for the EoI: 31/08/2022
  - Anticipated duration of the project: 30-36 months

### Advantages and innovations

Although each of the diseases included in paediatric oncology may be considered rare, overall they constitute a major social problem. Tumours are the leading cause of infant mortality in Spain in all age groups, except for children under 1 year of age, according to the Spanish National Institute of Statistics. Despite the need to use NGS technology in paediatric cancer, the number of solutions available on the market for this group of patients is relatively small and the availability of products with CE marking according to regulation (EU) 2017/746, mandatory from 26 May, none.

Due to the large number of different entities of an extremely rare nature in many cases, there is a palpable shortage of customised NGS solutions for paediatric tumours. There is little competition and in fact, the products that have reached Spanish territory during the last 5 years are reduced to 2: Oncomine Childhood Cancer Research Assay (Thermo Fisher) and AmpliSeq Illumina Childhood Cancer Panel (Illumina).

As a consequence of the limited supply, research centres have tried to develop custom solutions for their patients. Certainly, this strategy has allowed molecular analysis of tens and hundreds of patients over the previous years, but such panels have not been validated according to current standards and are therefore not the best route for molecular analysis.

The development of a new panel, adapted to current knowledge and CE marked according to new quality standards, is essential to tackle this social problem. Although current knowledge is not yet sufficient to eradicate this disease, the implementation of the available evidence is an obligation. The existence of a good diagnostic kit is essential.

### Stage of development

**Under development**

IPR Status

**Secret know-how**

### Sustainable Development goals

• **Goal 3: Good Health and Well-being**

## Partner Sought

### Expected role of the partner

Companies based on Eurostars countries are expected as partners, with previous experience in European consortiums and expertise in epigenomics, preferably with experience in methylation studies performed on tumour tissue.

### Type of partnership

**Research and development cooperation agreement**

### Type and size of the partner

- **SME 11-49**
- **Big company**
- **SME <=10**
- **SME 50 - 249**

## Dissemination

Technology keywords

- **06001003 - Cytology, Cancerology, Oncology**
- **06002007 - In vitro Testing, Trials**
- **06003001 - Bioinformatics**
- **06001005 - Diagnostics, Diagnosis**
- **06003002 - Gene Expression, Proteome Research**

Targeted countries

- **Austria**
- **Belgium**
- **Czechia**
- **Croatia**
- **Greece**
- **Hungary**
- **Cyprus**
- **Bulgaria**
- **Finland**
- **France**
- **Denmark**
- **Iceland**
- **Canada**
- **Ireland**
- **Estonia**
- **Italy**
- **Turkey**
- **Netherlands**
- **Sweden**
- **Slovakia**
- **Switzerland**
- **Poland**
- **Slovenia**
- **Singapore**

Market keywords

- **05005009 - Paediatrics**
- **005001008 - Diagnostic test products and equipment**
- **05001002 - In-vitro diagnostics**
- **05005014 - Oncology**
- **05001005 - Molecular diagnosis**

Sector groups involved

- **Bio Chem Tech**
- **Healthcare**

- Lithuania
- United Kingdom
- Latvia
- South Korea
- Malta
- Portugal
- Romania
- Israel
- Norway
- Luxembourg
- South Africa