

Technology Offer

High-end systems for small-sized animal imaging.

Summary

A Greek SME specialized in molecular imaging is offering three novel systems for small-sized animal imaging. Both public and private partners, of any size, active in the field of biomedical research are sought. The considered types of cooperation are services agreement and research cooperation agreement.

Expiration Date 03 November 2019

Reference TOGR20181026001

Details

Description

A Greek SME with significant research and professional experience in the field of biomedical engineering and mainly in the emerging molecular imaging technology has developed three innovative systems for small-sized animal imaging.

As regards their current activities, the Greek company provides advanced imaging services in the field of preclinical research for the study of new drugs, biomolecules, nanoparticles and animal diseases to both private and academic clients. These services include characterization of biomolecules and nanoparticles, functionalization, radiolabelling, ex vivo biodistribution and in vivo imaging with SPECT (Single Photon Emission Computed Tomography), CT (Computed Tomography) and PET (Positron Emission Tomography). On a contract basis they can undertake part of a study or perform an entire protocol, including both in vitro, ex vivo and in vivo study.

Recently the company extended also their imaging services towards imaging of samples such as implants, bones, teeth and other materials. In addition, they are also exploring radioisotopic imaging for monitoring the fate of nanoparticles in plants, as tools for efficient delivery of fertilizers in agriculture and other biotechnology domains.

Concerning the offered technology, the company has developed three high-end systems for mouse and rat imaging: a) a Micro Computed Tomography (microCT) with 50 micrometers (um) resolution, which provides high detail anatomical information and b) a Micro Single Photon Emission Computed Tomography (microSPECT) with 600 um resolution, for detailed functional studies, and c) a custom SPECT/PET/CT system, which is continuously optimized for improving performance and allows the imaging of higher energy isotopes and long lived isotopes.

In addition, the company owns an individually ventilated cages (IVC) system for animal hosting to support a full study in-house. Through strategic collaborations, they are able to enrich their imaging portfolio by including optical imaging and Magnetic Resonance Imaging (MRI), while developing new software tools for processing of multimodal data.

The proposed systems have already been successfully applied in various applications including nanomedicine, oncology, regenerative medicine, orthopaedics, cardiology and other model diseases providing comprehensive imaging support.

The Greek company is looking for interested partners from both academic and private sectors of which molecular imaging is a crucial part of their activities. For this reason, the Greek company offers the three different systems as alternatives in order to provide specialised imaging services at low cost, depending on each customer needs and capabilities under the framework of services agreement. Also, they are searching for academic and research groups in order to participate collaboratively in H2020 projects undertaking the performance of complete imaging studies for the in vivo evaluation of radiopharmaceuticals, nanoparticles and other biomolecules. The considered type of agreement is research cooperation agreement.

Advantages and Innovations

Small animal imaging is a well-proven tool for decreasing the cost, speeding up time and increasing accuracy of preclinical studies. However, the cost of setting up and maintaining an in vivo imaging facility is rather high for both private and public organizations.

For this reason, the Greek SME offers three different alternatives, in order to provide high-level imaging services, depending on each customer needs and capabilities. They undertake the performance of complete imaging studies for the in vivo evaluation of radiopharmaceuticals, nanoparticles and other biomolecules using their own imaging systems.

Furthermore, they can provide on-site imaging services by transferring small portable gamma cameras at the facilities of the clients. For instance, at the facilities of radiochemical groups who develop new radiopharmaceuticals, medical teams who use conventional radiopharmaceuticals to study biological processes and groups that study other biomolecules i.e. nanoparticles or biological mechanisms and have access to radiation.

Consequently, the main advantage that proposed technology provides to the clients/users is the significant reduction of time and cost. Also, the obtained in vivo results can increase the competence of proposed projects and of course the accuracy of research outcomes. In this way, research teams can gain access to specialized equipment, technology and tools and attract significant research funding by adding in vivo imaging in their portfolio.

The Greek enterprise is highly experienced on molecular imaging for small-sized animals having an excellent track of participation in various research and private projects. Their services portfolio covers a wide range of different applications including preclinical research, materials and biotechnology offered at competitive cost with high quality.

Stage of Development

Already on the market

Comments Regarding Stage of Development

The proposed imaging systems are already used in several projects under Framework Programme 7 (FP7) and Horizon 2020 (H2020), as well as in contracts with public and private organizations.

IPR Status

Secret Know-how, Other

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

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Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

2013

Turnover

<1M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
Greek
French

Client Country

Greece

Partner Sought

Type and Role of Partner Sought

The Greek company is willing to cooperate with academic and research groups, as well as private companies developing and studying new biomolecules, drugs, nanoparticles or disease models, who need to perform specialised imaging services. For this reason, the Greek company offers the three different systems in order to provide imaging services at low cost, depending on each customer needs and capabilities. The considered type of cooperation is services agreement.

Also, they are searching for academic and research groups in order to participate collaboratively in H2020 projects undertaking the performance of complete imaging studies for the in vivo evaluation of radiopharmaceuticals, nanoparticles and other biomolecules. The considered type of agreement is research cooperation agreement.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Services agreement

Research cooperation agreement