

Partnering Opportunity

Profile Status: Published

Technology Offer

French SME offers a breakthrough technology to visualize and quantify DNA.

Summary

A French biotechnology SME has developed an innovative DNA labelling technology for real-time imaging of living cells or organisms. This patented technology has been applied to various fields of investigation such as virus/viral vector high resolution imaging, compound screening, chromatin dynamics study in mammalian cells and yeast. Partners sought are academic or industry labs willing to use the technology under a research or technical cooperation agreement or also a licence agreement.

Creation Date 23 April 2019
Expiration Date 17 May 2020
Reference TOFR20190410001

Details

Description

French-based company has developed an innovative autofluorescent DNA labelling technology allowing for the first time to visualize and quantify double-stranded DNA (dsDNA) in real-time. Founded in 2014, the company is a spin-off of a worldwide renowned research and development laboratory.

The offered technology has been shown to minimally affect DNA metabolism and not restricted to repetitive sequences compared to up to now labeling methods (such as FROS, TALE, CRISPR..), its high sensitivity allows single copy detection of DNA in living cells. It can be used in different biologic models ranging from bacteria, yeast, insects, mammalian cells to viruses and viral vectors.

Applied in virology field, the autofluorescent system enables to decipher the biology of a virus, from its entry into the cell to the lysis, through the whole viral cycle. It allows to determine infection kinetics, replication and propagation of the virus, and permits to understand the mode of action of a compound in development. This technology is time efficient and delivers a quantitative and qualitative readout that standard virology techniques cannot reach up to now.

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The screening of antiviral activities or oncolytic modulators of candidate drugs is then made faster and easier, and can be done on High Content or Throughput Screening platforms.
(in attachments, three examples of viruses labelled with the proprietary technology)

Used in viral vectors, the technology may be useful in gene transfer studies.
Applied in fundamental molecular biology, this technology facilitate the study of the dynamics of repair mechanisms, replication, transcription and recombination.
In developmental biology, the solution has been used in whole organism such as drosophila to follow embryogenesis.

Partners should be interested in developing a new technology to visualize dsDNA in their study model and have an interest in its applications in various fields described above.
The French company is now seeking for academic research centers and universities (under research or technical cooperation agreement), and/or pharmaceutical companies (under license agreement) depending on the partners' expertise and project.

Advantages and Innovations

During the five last years, the French-based SME has been awarded at a national contest for innovative companies and has been designated in its field as one of the top 10 biotech companies by an international magazine exploring technological trends in the pharma and life sciences industry.

Advantages of the technology:

- patented technology, exclusive worldwide license
- live cell imaging
- no fixation
- no extraction
- no reagents
- combinable with classical staining techniques such as immunofluorescence
- multiple (combinable) systems available for simultaneous multi-loci detection

Application areas:

- double stranded DNA
- drug candidate screening
- models: yeast, virus, bacteria, insect, mammalian cells
- chromatin dynamics
- developmental biology
- human and animal health

Stage of Development

Already on the market

Comments Regarding Stage of Development

Partners willing to use the system have to adapt it to their model.

IPR Status

Patents granted

Profile Origin

COSME

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

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Open for EOI : **Yes**

Dissemination

Relevant Sector Groups

Bio Chem Tech

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
French

Client Country

France

Partner Sought

Type and Role of Partner Sought

The SME is looking for pharmaceutical industries and academic partners willing to use the technology for internal research.

The French company proposes a collaboration under research or technical cooperation agreements for partners such as academic research centers and universities.

A license agreement is sought for pharmaceutical companies interested.

The French company will provide its expertise, guidance and technical support to help partners to validate the technology in their specific application.

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

License agreement

Technical cooperation agreement

Research cooperation agreement

Attachments



