

Technology Offer

Rapid preclinical validation of biomarkers and new related research tools

Summary

An East of England company are a leading research organisation providing tissue and diagnostic services to international pharmaceutical and diagnostics clients. Whole slide scanning and fully automated quantitative image analysis allow for high throughput validation of biomarkers. Importantly, early stage preclinical efficacy studies can be started simultaneously with toxicity studies. Technical and R&D co-operation is sought with biotechs and academia to validate further markers and methods.

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| Creation Date | 18 December 2014 |
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| Reference | 13 GB 4103 3RLL |

Details

Description

Pathology and its tools have been used for decades in the development of new drugs and diagnostic markers. Because of the complexity of in vivo tissue analysis in rodents and humans, the interpretation of analysis results has largely been manual, slow and prone to human error. Fortunately, the advent of modern technology has started to deliver more objective results, faster, and earlier in the development programme.

An East of England company are a leading industry accredited research organisation providing tissue and diagnostic services to international pharmaceutical and diagnostics clients. They have invested heavily in R&D in tissue and biomarker analysis, particularly the digitisation of tissues and related data storage, retrieval and discovery. This includes digital whole slide scanning and fully automated quantitative image analysis. The vast data sets (>130 biomarkers and 75,000 patient samples) have resulted in new IP and tools for objective and rapid assessment of the diseased state. Not only has the quantity risen drastically but also the accuracy of such testing. These more sensitive methods allow more accurate go-no go decision making.

Notably, three phenomena have emerged thanks to the new technology:

- Pathology is moving from tissue level to a molecular level;
- Not just toxicity, but efficacy as well can now be assessed in early preclinical and clinical trial programmes;
- IP and tools to develop point of care computer applications to provide accurate quantitative testing of companion diagnostics in the clinic.

The company is offering collaborative R&D and technical co-operation in two areas: preclinical testing of biomarkers and/or related methods and tools (and software). Such programmes are likely

to generate new IP that can be shared and commercialised. The company has experience in collaborating with partners both big and small.

Indications include but are not limited to oncology, cardiovascular, respiratory, metabolic, neurodegenerative, bone & joint disease.

Advantages and Innovations

The company has proprietary know-how in digital pathology and biomarker assay validation and testing in tissues. The company has a broad range of digital pathology platforms and multidisciplinary team of expert staff.

The advantages include taking the whole process to high-throughput screening. Equally importantly, efficacy studies can be started much earlier, as early as the toxicity studies and P of C clinical trials.

Stage of Development

Available for demonstration

IPR Status

Secret Know-how

Profile Origin

Private (in-house) research

Keywords

Technology

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|-----------|--------------------------------|
| 006002002 | Cellular and Molecular Biology |
| 006002005 | In vitro Testing, Trials |
| 006002008 | Toxicology |

Market

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|--------|-------------|
| 005001 | Diagnostic |
| 005002 | Therapeutic |

NACE

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| M.74.9.0 | Other professional, scientific and technical activities n.e.c. |
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Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: industry and academia.
- Specific area of activity of the partner: developers of drugs and diagnostics in the preclinical phase.
- Task to be performed by the partner sought: technical and R&D co-operation in either validation of biomarkers or novel tools and methods related to such.

Type of Partnership Considered

Technical cooperation agreement