

CASE STUDY: **UoM Electrical Perfusion Bioreactor** – **functional tissue growth unit**

OVERVIEW

This dynamic and novel bioreactor system has the capability to reduce the number of animals needed for 3D acellular and cellular product assessment.

It provides an effective and reproducible in-vitro tool that can be utilised to assess 3D biomaterials in a scientific manner previously not possible.

The commercial applications of this technology cover three broad areas:

- Tissue growth for clinical application
- Scaffold assessment and development of scaffold material
- Provide more complex tissue materials for in vitro testing

When this project was introduced to FIS360 it was at the concept stage with a plan to prove the concept of the device. After working closely with the team to design a complimentary technical and commercial development plan, a funding application was submitted to UK Research Council.

This funding has allowed the prototype to be built and tested in the lab and to develop the commercial case including the provision of a market understanding study and clarifying the route and timeline to market for the technology / product.

The IP strategy has also been developed and the novel aspects of the technology identified.

Non-confidential information and data has been shared with potential project partners / licensees to gather their interest.

FIS360 have also worked closely with the team to implement the project plan which has included approaching industry project partners, considering product standards and regulations.

NEXT STEPS

Technology demonstrator units of the bioreactor are being produced for industrial evaluation.

Additional project development funding has been applied for in collaboration with the identified project development partners.

FIS360 will continue to support the team and technology development to ensure evaluation licensees with development partners are completed appropriately in advance of commercial licensees being negotiated and agreed.

FIS360 will continue to work in an advisory and project management / implementation capacity when the additional project funding is confirmed towards the realisation of multiple commercial licences.

FIS360 will work with the research team to develop a full project report and impact case study..