



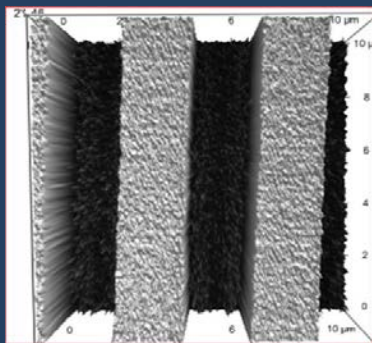
Technology Highlights:

Platform Technology - regenerative solution for tendon, nerve and bone repair.

Surface optimised for the physiological 'guidance' & signalling of cells.

Patent filed.

Experienced Biomaterials Research team.



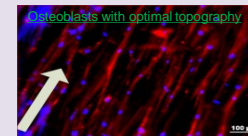
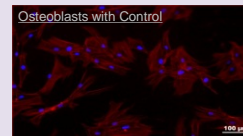
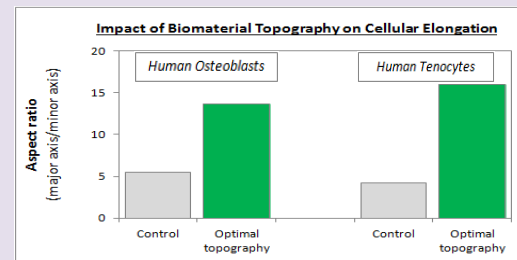
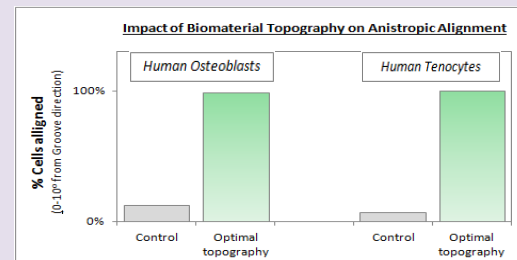
Market Opportunity

The application of biomaterials in regenerative medicine has for some time been restricted by the fact that **cells do not grow or behave in the same fashion on the material as they do in the body**. Cells that should grow in an organised, elongated fashion, often appear 'circular' and 'directionless', resulting in suboptimal tissue regeneration, inadequate recovery and pain for the patient. As a result, biomaterials are yet to reach their true potential in this multi-billion dollar global market.

Dr. Dimitrios Zeugolis and the Research team from the Network of Excellence for Functional Biomaterials (NFB), NUI Galway understand that cellular substrata are not smooth structures. The team has recently identified, validated and patent-protected an **optimal surface topography for musculoskeletal-derived cell growth and function**. Cell morphology and performance was shown to be closer to that of native tissue than what is typically seen growing on smooth or sub-optimal biomaterial surfaces. The optimal and other candidate surface topographies were shown to have no impact on cell viability.

Stage of Development

Extensive immunocytochemistry, proteomics and molecular validation using **human tenocytes** and **human osteoblasts** have been delivered (see illustrations), with similar studies on human neural cells underway. **Preclinical trials** for tendon repair, bone repair and peripheral nerve repair progressing.



Objective

We are keen to engage with potential investors and collaborators with an interest in licensing or co-developing high potential technologies.

If you are interested in learning more about this opportunity please contact:

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