

Press Release

Cell Guidance Systems, Cambridge, UK August 9th 2011.

Cell Guidance Systems awarded £100k for the development of next generation growth factors

Technological development is punctuated by advances that allow entire fields to move forward. Cell Guidance Systems, (www.cellgs.com) a stem cell tools company based in Cambridge, is developing a proprietary STAR growth factor technology which is set to have a wide impact on stem cell sciences and accelerate the development of many new cellular therapies. The company has just been awarded £100,000 grant funding by the government-backed Technology Strategy Board to support further development of the technology.

Growth factors are naturally occurring protein messengers which are used to control the development and maintenance of cells. Recombinant growth factors are widely used in research, biomanufacturing and medicine and are vitally important for the development of emerging field of cell-based therapies. However, growth factors are hugely expensive and poor quality. Unless this changes, many stem cell therapies will struggle to be cost effective.

The Company's STAR (Serial Tethered ARray) growth factor technology works by tethering multiple growth factors to a liquid phase, flexible backbone such that the growth factors form a cluster array, like beads on a string. When this array comes into contact with a cell, multiple growth factor receptors can be bound at the same time. This results in much stronger binding and increased biological activity.

Dr Michael Jones, CEO of Cell Guidance Systems explains "Many processes in stem cell science are currently expensive and inefficient because recombinant growth factors have much poorer potency than their natural counterparts. STAR growth factors mimic a natural mechanism to make sure cells can develop in the same way that occurs in living tissues. The first STAR growth factor is due for commercial launch in August. The funding from TSB will be invaluable to help us develop a wider range of STAR growth factors with a particular focus on their use in development of blood cells".

There are many cellular therapies which may benefit from this effect. To begin with, Cell Guidance Systems is focussing on the use of the technology to aid development of blood cells for transfusion and the use of cord blood alternatives to bone marrow transplant. As with other cellular therapies, the huge costs of growth factors are inhibiting progress, making the generation of blood cells commercially unfeasible.

Notes to Editors

Cell Guidance Systems is a research reagents business, developing a range of synergistic technologies to accelerate and enable stem cell science. Our core research capabilities are based around culture of hPSCs and growth factors. The Company has licensed and developed technologies that address essential elements of stem cell scientists work flow. The company has offices in the UK and US.

The **Technology Strategy Board** is a business-led government body which works to create economic growth by ensuring that the UK is a global leader in innovation. Sponsored by the Department for Business, Innovation and Skills (BIS), the Technology Strategy Board brings together business, research and the public sector, supporting and accelerating the development of innovative products and services to meet market needs, tackle major societal challenges and help build the future economy. The funding was awarded through the Grant for Research and Development scheme, which offers funding to small and medium-sized enterprises to engage in R&D projects in the strategically important areas of science, engineering and technology, from which successful new products, processes and services could emerge. For more information please visit www.innovateuk.org.