

CDB SEMINAR

## **Stephen Minger**

R&D Leader Cell Technologies GE Healthcare Life Sciences

Thursday, April 1, 2010 16:30~17:30 C1F CDB Auditorium

## Therapeutic and Research Potential of Human Stem Cells

- How GE sees the future of stem cells -

## Summary

The real potential of stem cells has never been closer to reality as it is now, both in the therapy field and as an enabling technology in drug research and development. There has been significant interest in the therapeutic and scientific potential of stem cells since reconstitution of the haematopoietic system was first realized by bone marrow transplantation in the 1960s.

On the therapy side, the isolation of tissue-specific, multipotent stem cells from adult organs and the derivation of pluripotent human embryonic stem cells, could offer the potential for regeneration of a number of different tissues and organs susceptible to age-related degenerative conditions and traumatic injury.

While researchers around the world are looking at the possibilities to regenerate damaged tissues and organs, researchers are hoping to revolutionize drug discovery and investigation. The generation of specific populations of defined subtypes of human cells has tremendous potential to enhance the understanding of disease at a cellular level.

In May 2009, GE launched "Healthymagination" strategy to deliver better care to more people at lower cost committing \$6 Billion investment. In June 2009, GE Healthcare announced multi-year alliance with Geron. This program will use existing NIH-approved hESC provided by Geron to research, develop and commercialize hESC-based products for drug discovery. Prior to this move, in Jan 2009, GE Healthcare announced a partnership with Cytori Therapeutics, specialized in the regenerative medicine using adult adipose derived stem cells. These actions of GE clearly indicate its strong commitment for stem cell applications in both pharmaceutical and therapeutic fields.

The talk will cover; 1) Current status and future perspective of stem cell research, 2) ES cell potential in drug discovery, 3) INCell Analyzer application for stem cell research, 4) Future potential of stem cells for healthcare and how GE will contribute.

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