

# *Identifying human Embryonic Stem Cell Using Signal Characteristic Analysis [hE{SC}<sup>2</sup>AN] Device*

## **STEM CELL IDENTIFYER SCI-04**

### **Market Need and Market**

The largest need is in the treatment of diseases of the central nervous system and cancer. Skin and soft tissue repair as well as diabetes mellitus and heart will be other major markets.

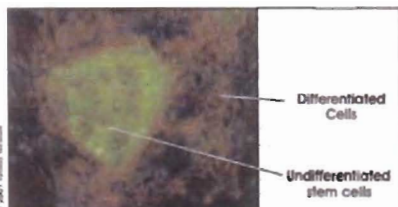


Figure E.L.3. Microscopic Image of Fluorescent-Labeled Stem Cell.

- World Market \$26.6B in 2005
- World Market \$56.2 B in 2010
- World Market \$96.3 B in 2015

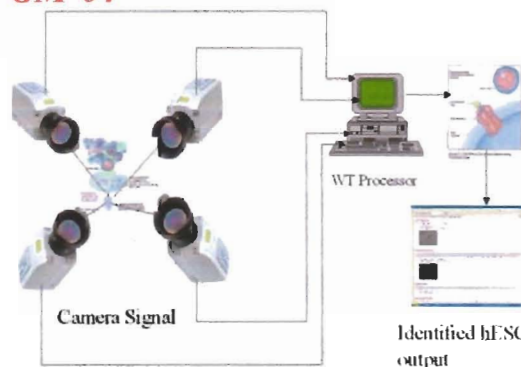
### **Why NIR IMAGING?**

- Provides an additional and accurate channel for hESC identification
- Need?
  - Better accuracy
- Solution - Wavelet Transform image processing techniques

### **Possible Risk Factors of improperly Identifying Stem Cells**

If stem cells are improperly identified after they differentiate using surface markers and grafted in human organs with specific need to save human life from a disease like diabetes, Parkinson's disease or a heart condition, it can lead to tumors that may endanger the patient's life. This may in some case lead to loss of life.

## **GRAFT MAPPER GM-04**



**DDI and its products can detect and identify stem cells precisely**

### **Competitors**

DDI's competitors have devices which are costly inaccurate and inefficient in identifying stem cells.

### **Funding needs**

Phase	Amount
1st Phase	\$6 M
2nd Phase	\$4 M
Total	\$10 M

### **Product IP**

DDI's IP is well protected via utility patents and copyrights. FDA, USA certification ongoing

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