

# Trend in publications in embryonic stem cell, human embryonic stem cell and induced pluripotent stem cell research



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Research in stem cell is an exciting yet complex and controversial in the field of biomedical science. This field holds strong potential to revolutionize to treat human diseases in 21<sup>st</sup> century. Countries across the globe funding huge amount in stem cell research and its applications. However, there are always controversial issues in human stem cell research concerned with ethical and regulatory criteria's associated with nation's policies [1].

Stem cell research has provoked a strong debate regarding the ethics and regulation of the research and resulting therapies. Moral status of the embryo was in the limelight initially, but after the discovery of induced pluripotent stem cell (iPS cell) raised the possibility that embryonic stem cell (ES cell) research would no longer be necessary, thereby showing a way for future scientists.

Figure - 1 Global publication count. Graph shows data for all stem cells (Stem Cells), ES cells (all organisms; ESCs), hES cells (hESCs), and iPS cells (iPSCs) from 1996-2012 [2].

The stem cell field continues to rely both on ES and iPS cell research for the proper understanding of pluripotency and potential applications [3].

iPS cell research is also under the scanner of ethical considerations in terms of how they may be used and tissue ownership issue. From the year 2003 – 2012 the graph is sigmoid in nature for the research publications (figure 1). This increase is not uniform across all stem cell research areas. There is a slow progress observed in the field of ES and hES compared with overall stem cell field. In contrary, iPS cell publications have shown explosive growth, which is considered as a new and promising field of research. Even, iPS cell publication volumes surpassed that of hES cell. However, both cell types continue to be highly active areas. It is with great interest and anticipation that we watch the further development of this exciting field of science.

**Abbreviations**

Embryonic stem cell (ES cell), human embryonic stem cells (hESCs), induced pluripotent stem cell (iPS cell)

**Key words**

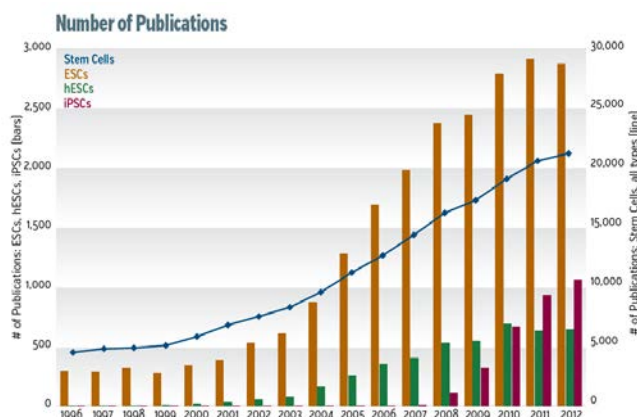
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**Competing interests**

None declared.

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