

## Human umbilical cord blood mesenchymal stem cell promotes neurogenesis in an animal model of Alzheimer's disease

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Human umbilical cord blood-derived mesenchymal stem cell (hUCB-MSC) has been regarded as a fascinating candidate of stem cell therapy in Alzheimer's disease (AD). Recently, we reported that transplantation of hUCB-MSC reduced amyloid plaques via release of soluble intercellular adhesion molecule-1 in vitro and in vivo. In addition, we observed that a certain secreted proteins of hUCB-MSC stimulate neurogenesis in a transgenic mice model of AD. These data suggested that secreted proteins of hUCB-MSC act simultaneously in microenvironment of AD. Based on these findings, we already finished Phase I clinical trial in Korea. In this presentation, I will briefly introduce our efforts to develop hUCB-MSC therapeutics for AD from the bench to clinical trial.

### Biography

Chang has completed his Ph.D in 2005 from Gwangju-Institute of Science & Technology (GIST) and postdoctoral studies from Korea-Institute of Science & Technology (KIST). Now, he is the director of research division II in R&D Center of MEDIPOST Co., Ltd which is a leading biopharmaceutical company of cord blood MSC therapeutics in South Korea. He also has been worked as a project manager for phase I clinical trial for AD using hUCB-MSC. He has published more than 13 papers after 2008 in reputed journals regarding stem cells and serving as an editorial board member of World Journal of Stem Cells.

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