Synopsis of Original Research Paper

# Treatment of congenital severe skin disorders with hematopoietic stem cells obtained from induced pluripotent stem cells (iPSCs)

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Epidermolysis bullosa (EB) is a group of genodermatoses that cause blister formations from the congenital abnormality of anchor proteins between the epidermis and the dermis. There have been several strategies for the treatment of EB, and so far, cell therapies are the most promising approach because of the potential of systemic effects. We have proved that stem cell therapies, including bone marrow transplantation, hematopoietic stem cell transplantation, can ameliorate the phenotype and survival prognosis in the junctional EB model mice that lack type XVII collagen (Col17). In this study we explore more efficient approaches of stem cell therapies for EB, including intramedullary transplantation, mesenchymal stromal/stem cell infusion, application of induced pluripotent stem cells (iPSCs), and investigate factors in association with transdifferentiation from bone marrow-derived stem cells into keratinocytes.