Center for Stem Cell Biology and Regenerative Medicine Division of Somatic Stem Cell Research 体性幹細胞研究分野

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Somatic stem cells, which are derived from mesoderm, include mesenchymal stromal cells (MSCs), blood cells, and other mesenchymal tissues. MSCs exist in the interstitium of systemic organs; they have self-renewal ability, migrate to the sites of inflammation and tissue damage, and exert anti-inflammatory effects and tissue-repair ability. Among various somatic stem cells, we focused on umbilical cord blood (CB) and umbilical cord-derived MSCs (UC-MSCs) and we explored new immune and regenerative gene/cell therapies using CB and UC-MSCs. Another mission is to manage the IMSUT-HLC cell processing facility (IMSUT-HLC-CPF) for translational research. To achieve the high-quality processing and tests for UC-MSCs therapy, IMSUT-HLC-CPF obtained manufacturing license as the first national University in 2023.

Cord blood and umbilical cord-derived cells for immune-cell therapy and regenerative medicine

Sudo K, Takahashi A, Hori A, Miharu Y, Nagaya N, Mori Y, Ogami K, Nagamura-Inoue T

We explored new immune and regenerative gene/ cell therapies using umbilical cord blood (CB) and umbilical cord-derived MSCs (UC-MSCs) with high quality and safety standards. For the high quality and safety standards

In addition, it is our mission to keep the IMSUT-HLC cell processing facility clean and functional to enable high-quality manufacturing for translation al gene and cell therapy. To achieve this mission IM-SUT-HLC-CPF obtained manufacturing license for UC-MSCs therapy as the first national University in 2023.

Publications

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