

Preventing GVHD by protecting gut stem cells

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A protein that protects stem cells in the gut relieves a potentially lethal complication of bone marrow transplantation in mice, according to a study published online on January 31 in the *Journal of Experimental Medicine*.

Bone marrow transplantation can cure diseases such as leukemia but it can also lead to a potentially fatal complication known as graft-versus-host disease (GVHD).

A group led by Takanori Teshima at Kyushu University in Japan found that mice treated with a protein called R-spondin1 developed less severe GVHD after bone marrow transplantation.

R-spondin worked by protecting intestinal [stem cells](#), which help to regenerate damaged tissues and thus dampen [inflammation](#).

Whether R-spondin1 is therapeutic for human bone marrow transplant patients remains to be explored.

More information: Takashima, S., et al. 2011. J. Exp. Med. [doi:10.1084/jem.20101559](https://doi.org/10.1084/jem.20101559)

Provided by Rockefeller University

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