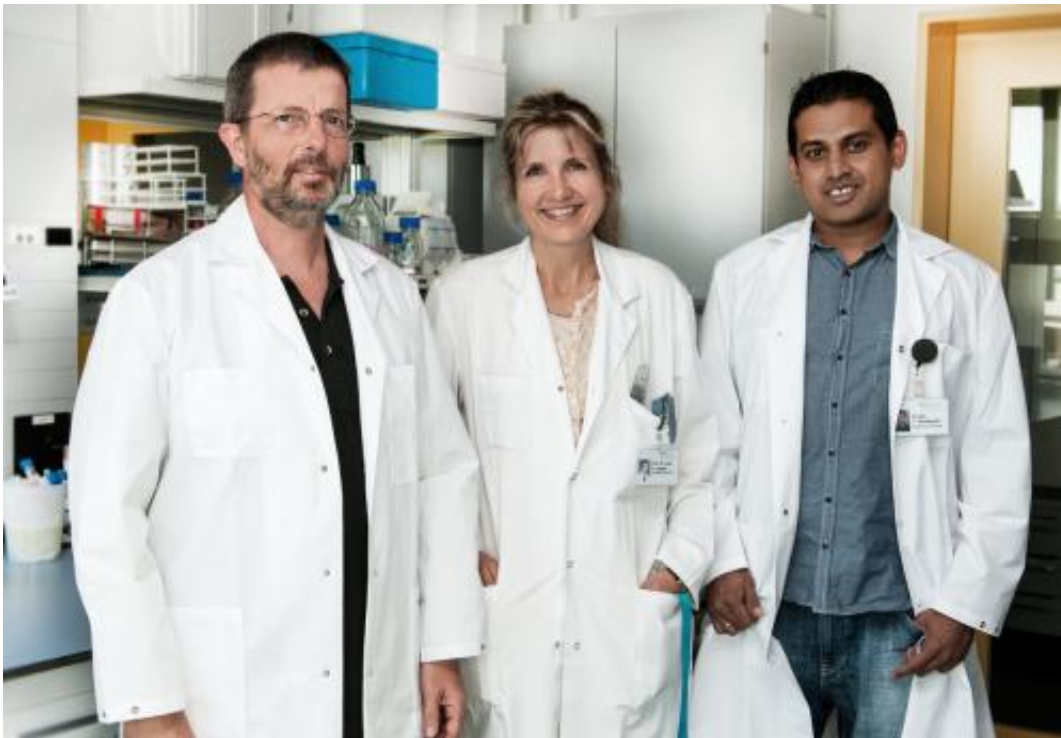


# Hand transplantation: A Swiss research success

August 22 2013

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The successful research trio (from left): Robert Rieben, Esther Vögelin and Thusitha Gajanayake. Credit: Tanja Kocher

Hope for hand amputees: researchers at Inselspital and the University of Bern have successfully tested a new method for local immunosuppression.

Every year, 15 to 20 people in Switzerland lose a hand in an accident.

Provided suitable preconditions are met, a hand transplant is the best treatment method, particularly for patients who have lost both hands. The main problem with this treatment is that patients have to be immunosuppressed, i.e. their total immune system has to be brought down with drugs to prevent their organism rejecting the foreign tissue. This treatment is associated with undesirable side effects and impairments to the quality of life. Until now though, patients have had no other option.

In [laboratory experiments](#) on rats, it has now been possible to replace systemic (total) immunosuppression with a local treatment of the transplanted limb. This has been successfully achieved by a research team from the Department of Plastic and Hand Surgery, Inselspital, and the Department of Clinical Research (DKF) of the University of Bern under the direction of scientist Dr Thusitha Gajanayake from Sri Lanka. Professor Robert Rieben from the DKF, Head of Research in [hand transplantation](#): "The results are very promising. Just a single treatment results in the complete prevention of a rejection reaction." Professor Esther Vögelin, Senior Consultant and Co-Director of the Department of Plastic and Hand Surgery: "This laboratory success means that in future hand [transplant patients](#) can hope for a significant improvement in quality of life, because systemic immunosuppression could be reduced or omitted altogether.

The Bern research team is now working with great zeal towards its long-term goal of performing a [hand transplant](#) in Switzerland. In the longer term this should be done with an optimised approach to [immunosuppression](#). In fact the latter would be a world's first. On 2 September, international experts from the USA, India and Austria will discuss the new method at the invitation of the DKF research team in Bern.

Provided by University of Bern

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