

## Breakthrough for bone marrow transplant recipients: Lab-grown blood stem cells produced for first time

After 20 years of trying, scientists have transformed mature cells into primordial blood cells that regenerate themselves and the components of blood. The work, described [May 17] in *Nature* offers hope to people with leukemia and other blood disorders who need bone-marrow transplants but can't find a compatible donor. If the findings translate into the clinic, these patients could receive lab-grown versions of their own healthy cells.

One team, led by stem-cell biologist George Daley of Boston Children's Hospital in Massachusetts, created human cells that act like blood stem cells, although they are not identical to those found in nature. A second team, led by stem-cell biologist Shahin Rafii of Weill Cornell Medical College in New York City, turned mature cells from mice into fully fledged blood stem cells.

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Time will determine which approach succeeds. But the latest advances have buoyed the spirits of researchers who have been frustrated by their inability to generate blood stem cells from iPS cells. "A lot of people have become jaded, saying that these cells don't exist in nature and you can't just push them into becoming anything else," [Mick Bhatia, a stem-cell researcher at McMaster University, who was not involved with either study] says.

[Read the Daley study [here](#).]

Read the Rafii study [here](#).]

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Lab-grown blood stem cells produced at last](#)**