

# Blood-boosting antibody could end the

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## need for transfusions

By Patrick Sawyer

SCIENTISTS have discovered an antibody that forces the body to keep producing blood in a development that could remove the need for transfusions and help fight diseases.

Researchers at the University of Virginia School of Medicine found that mice who were injected with a particu-

lar antibody began producing large numbers of red blood cells. They believe the discovery could be a significant step forward in the battle against anaemia and may help sufferers of diabetes, kidney disease and cancer.

Scientists say that with further development the discovery could lead to doctors being able to turn on red blood cell production in humans whenever

necessary. The technique could be used to treat people who refuse blood transfusions because of their religious beliefs, such as Jehovah's Witnesses. It could also be deployed on the battlefield, to stabilise wounded soldiers until they can receive a transfusion.

The discovery came about as an unintended side-effect of a routine laboratory experiment on mice by research-

ers examining the role of cells in the lungs that act as messengers to the body's immune system.

The team, led by Thomas J Braciale, professor of pathology and microbiology, concluded that injecting the antibody induced "stress erythropoiesis", in which the body produces red blood cells because of injury or other trauma - in short they had found a switch

which could be used to prompt the production of red blood cells.

More research is needed before the new technique can be tested on people, but Prof Braciale said he was optimistic about the possibilities, based on the findings so far. He said: "We're very excited to see where this goes."

The research was published in the *Journal of Clinical Investigation*.