

Study seeking to isolate antibodies against rabies virus

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Few people die from rabid animal bites in the United States thanks to the near-universal availability of human rabies immune globulin and rabies vaccine, which are given as separate shots as soon as possible after exposure to the rabies virus.

That isn't the case in resource-poor countries. Around the world, an estimated 60,000 people die from rabies every year because they can't afford or don't have prompt access to the necessary combined treatment.

Immune globulin (the antibody part of the blood) is obtained from people who have previously been vaccinated against rabies. Rabies-vaccinated donors are few and far between in many countries, however, and as a result immune globulin is often in short supply.

To meet the challenge, James Crowe Jr., MD, and his colleagues in the Vanderbilt Vaccine Center have begun an effort to isolate [human monoclonal antibodies](#) against the [rabies virus](#). Monoclonal antibodies can be mass-produced and manufactured as biological drugs.

If the research is successful, anti-rabies [monoclonal antibodies](#) could be developed as the standard treatment for animal bites throughout the world, Crowe said. That would solve the chronic shortage of human [rabies immune globulin](#) and save many lives.

Because identifying the initial antibodies as candidates for development is a small project, Crowe's lab is pursuing a "crowdfunding" approach to

raising the \$18,000 it needs to complete the research by the end of 2018 rather than apply for government or foundation support.

"Crowdfunding allows people who are interested in this work to participate and support it directly," said Crowe, the Ann Scott Carell Professor in the Departments of Pediatrics and Pathology, Microbiology and Immunology in the Vanderbilt University School of Medicine.

"The funding mechanism allows us to update the donors directly in real-time on our progress," Crowe added. Donors also can submit questions or comments for the researchers.

More information: For more information, see [experiment.com/projects/potent ... t-for-rabies-disease](https://www.experiment.com/projects/potent-t-for-rabies-disease)

Provided by Vanderbilt University

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