By Kerstin Nordstrom

DURHAM Duke University has been awarded a seven-year federal grant worth of up to $139 million to fund research aimed at creating effective HIV vaccines.

Duke will receive $19.9 million in the first year of the grant, which is funded by the National Institute of Allergy and Infectious Diseases, a part of the National Institutes of Health.

Worldwide, more than 7,000 people are infected with HIV each day. More than 1 million people are infected with HIV in the United States, with 20 percent unaware of their infection.

"Today's grant reaffirms our nation's commitment to HIV/AIDS research and underscores the Triangle's prominent role in this groundbreaking science," U.S. Rep. David Price, a Democrat from Chapel Hill, said in a statement Wednesday. "This award brings much hard work to fruition and is a testament to the quality of researchers and research programs at Duke. It is particularly exciting to focus on vaccine development, which may put us on a path to eradication of this devastating disease."

The research will focus on understanding so-called broadly neutralizing antibodies, which may be the key to an effective HIV vaccine.

Vaccines prevent disease by tricking our bodies into making antibodies – the exterminators of the immune system. Antibodies are proteins that weed out intruders such as viruses and bacteria, and ours are generally helpless against HIV, which causes AIDS.

But a tiny percentage of HIV-infected people are found to make broadly neutralizing antibodies. They are broad in that they can stamp out different strains of HIV. Such breadth is necessary for a universal vaccine as no one can know which strain they may encounter.

The grant creates a center at Duke University, named the Center for HIV/AIDS Vaccine Immunology-Immunogen Discovery. A second CHAVI-ID site was selected at the Scripps Research Institute in La Jolla, Calif.

Dr. Barton Haynes will direct the Duke CHAVI-ID. Haynes, a professor of medicine and immunology, has studied HIV for more than 22 years and was director of Duke's previous HIV center, the Center for HIV/AIDS Vaccine Immunology.

The Duke center will collaborate with partners from Oxford University in England, the University of Pennsylvania, Los Alamos National Laboratory and Harvard University.