What Is BG18, and Can It Lead Us to an HIV Vaccine?

An $80,000 grant from The Campbell Foundation will help scientist Natalia Freund continue her HIV vaccine studies.

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The Campbell Foundation, which funds alternative HIV research, awarded an $80,000 grant to Natalia Freund, PhD, so she can continue her work developing a vaccine to prevent HIV.

Freund and her Tel Aviv University–based team have isolated a broadly neutralizing antibody called BG18 that when used in humanized mice has been shown to successfully reduce HIV viral loads, according to a Campbell Foundation press release. A small percentage of people living with HIV develop BG18. The antibody has been able to treat and prevent HIV in mice and macaques.

Natalie Freund, PhD, of Tel Aviv UniversityCourtesy of The Campbell Foundation

Freund heads the Laboratory for Human Antibody Responses at the Department of Microbiology and Clinical Immunology at Sackler Faculty of Medicine at Tel Aviv University.

Freund and her fellow researchers will first study the lineage of BG18. The next step, she says, will be to “reverse engineer what could have acted as an actual vaccine in one of these HIV-infected individuals who developed [the broadly neutralizing antibodies], with the goal of applying it in healthy uninfected people.”

In other words, the scientists hope to use BG18 as a template to create an HIV vaccine.

As Campbell Foundation trustee Bill Venuti says, “While much progress has been made in treating HIV/AIDS over the past few decades, finding a vaccine to prevent the disease has been elusive. We hope that with this grant The Campbell Foundation can play a role in furthering research that one day will lead to a cure.”

Based in Fort Lauderdale, Florida, The Campbell Foundation funds nontraditional, laboratory-based HIV research. It has awarded more than $11 million since it launched in 1995. The foundation will celebrate its 25th anniversary February 23.
