19 Years Searching for a Cure to AIDS

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Issues: Re: Philanthropy, Community Foundations, Corporate Giving Programs and Foundations, Family Foundations, Independent Foundations, Private Foundations, Private Operating Foundations, Public Foundations, Health, Technology

A lot has been accomplished over the years since HIV/AIDS first was discovered. Scientists have come a long way toward finding a cure, and in the process many of those afflicted with the disease are living much longer than in the past.

It's the incremental steps made by scientists around the world that have gotten us this far.

Critical to that research is funding. The Campbell Foundation in Fort Lauderdale, Fla., which always has encouraged early innovation, has spent the last 19 years providing grants to help plant the seeds that have led to cutting edge research around the world.

The foundation accepts proposals for one-year grants, which are vetted by a pro bono peer review board. The process is thorough and on par with reviews conducted by the National Institutes of Health.

During its 19 years in existence, The Campbell Foundation has given away almost $9 million dollars in grants to researchers around the world.

In 2013, Funders Concerned About AIDS ranked the foundation among the top HIV/AIDS funders in the country.

Just after the start of 2014, the Campbell Foundation awarded its first grant of the year to the White River Junction VA Medical Center in Vermont. Researchers there developed strong preliminary data showing that HSV-2 (the herpes simplex virus) exacerbates HIV due to a molecule (CXCL9) that increases the number of HIV target cells, which in turn reduces the effectiveness of tenofovir, an otherwise effective drug used to treat HIV. It's hoped that the nearly $80,000 grant will help researchers better understand whether by blocking CXCL9 – which is activated by the sexually transmitted virus herpes simplex

virus type-2 (HSV-2) – HIV-1 infection in women can be decreased and the efficacy of tenofovir can be improved.

One of the foundation's more recent successes has come in the form of a grant to a Lauren Sciences research team at Ben-Gurion University of the Negev in Israel. Scientists there were able to overcome the "blood brain barrier" that prevents the HIV-fighting drug tenofovir from passing into the brain to treat the neurological complications of HIV.

The blood-brain barrier exists at the shared boundary between the bloodstream and central nervous system tissues. In the early days of HIV/AIDS, patients often were afflicted with severe dementia. Even today, studies suggest that as many as half of those with HIV have some cognitive defects.

The project was hugely successful and with the one-year grant provided by The Campbell Foundation, researchers were able to show delivery of significant therapeutic quantities of tenofovir into the brain by intravenous administration, according to Lauren Sciences LLC's Chairman and CEO Susan Rosenbaum, who recently was invited to speak about the breakthrough at the Fourth Annual Conference of the American Society for Nanomedicine in Rockville, Md.
This system of synthetic nanoscale structures dubbed "V-Smart^{TM} technology" allows both intravenous and oral medications to pass through biological barriers and makes it possible to target exactly where the drug will be released in the brain, making it more effective and reducing unwanted side effects.

The goal is to be able to begin efficacy studies in HIV mice this year and to start clinical trials about two years after. And, if it works in humans, then we may have a new therapeutic for AIDS patients.

As the Campbell Foundation prepares for its 20-year anniversary in 2015, we hope that one day our mission is accomplished and a cure for AIDS is discovered.

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- See more at: http://www.cof.org/blogs/re-philanthropy/2014-05-07/19-years-searching-cure-aids#sthash.JDcgeEhK.dpuf