Call for a Coordinated Cure Effort

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Several top researchers, a noted AIDS activist and two industry scientists have called for a collaborative and coordinated effort to find ways to eradicate HIV from the body, according to an article they've written in the March 6 issue of *Science* and reported on by aidsmap. They claim that eradication will be extremely difficult to achieve, but that failing to shoot for it is unacceptable.

The group responsible for the article, led by Douglas Richman, MD, director of the Center for AIDS Research at the University of California in San Diego, points out that although funding is available through the National Institutes of Health (NIH) for individual researchers working on specific aspects of eradication, there is no coordinated effort, as has been instituted in recent years in the search for an effective HIV vaccine.

One of the key eradication challenges is the incomplete knowledge about how HIV manages to persist despite being almost completely shut down by the most potent antiretroviral (ARV) drugs. Robert Siliciano, MD, from Johns Hopkins University in Baltimore, gave the opening plenary lecture at the recent 16th Conference on Retroviruses and Opportunistic Infections in Montreal on this topic.

Siliciano explained that a tiny—one in a million—subset of latent infected CD4 cells manages to continue producing HIV at extremely low levels in people on ARV therapy. Moreover, there may be other cells, called macrophages, that continue to produce low levels of virus as well. Scientists are not entirely clear how these cells manage to evade the HIV-blocking effects of ARV therapy.

Another scientist who coauthored the *Science* article, David Margolis, MD, from the University of North Carolina in Chapel Hill, has long sought drugs that could activate, or "wake up," these latent cells so that they would be accessible to ARV treatment. The challenge, however, is how to activate only those cells infected with HIV, and not uninfected cells. Broad level activation of all resting cells would be fatal.

The article's authors argue that only a collaborative effort involving the government, the pharmaceutical industry and private donors has the potential to overcome the challenges involved in eradication research. They are advocating for what they call a "collaboratory," where the various stakeholders share both data and resources and work together in tackling the vital scientific questions that remain unanswered.

Cure-based research is a cause that was championed by longtime AIDS activist Martin Delaney, who died six weeks ago from liver cancer. Delaney coauthored the article, which was dedicated to his memory.
