

# Overview of the Heffter Research Institute

DAVID E. NICHOLS, PH.D.



David E. Nichols, Ph.D.



**H E F F T E R**  
RESEARCH INSTITUTE

THE STORY OF THE HEFFTER RESEARCH INSTITUTE (**heffter.org**) is a tale of what it takes to fight for the things you believe are really important—even when the “establishment” is trying to prove exactly the opposite.

It was 1993, in the aftermath of three decades of negative news that managed to forge a totally negative image of hallucinogens and related compounds (also called psychedelics). The result was the outlawing of those substances, which put a stop to several clinical studies that had been ongoing in the US, and prevented the initiation of any new clinical work. The exaggerated media hype of the 1960s had negatively colored popular opinion, as well as attitudes at national funding institutes, such as the National Institutes of Health (NIH), National Institute of Mental Health (NIMH), and the National Institute on Drug Abuse (NIDA). Therefore, taking the position that psychedelics might have useful medical value was still very controversial in 1993.

Despite the adverse climate, a small but enthusiastic group of scientists<sup>1</sup> remained convinced of the importance of psychedelics, believing they had great, unexplored potential that would require independently funded scientific research to discover their best uses in medical treatment. The early clinical studies had provided interesting anecdotal reports and promising outcomes, even though their methodology had been relatively rudimentary, and their results were widely questioned. We believed that the fact that we all were respected scientists in our particular fields of endeavor meant that what we said and did might carry some weight among establishment scientists and clinicians. Fortunately, that has proved to be the case.

The Heffter Research Institute was incorporated in New Mexico in 1993 as a non-profit, 501(c)(3) scientific organization to “promote research of the highest scientific quality with the classic hallucinogens and related compounds (sometimes called psychedelics) in order to contribute to a greater understanding of the mind, leading to the improvement of the human condition, and to alleviate suffering.” We have remained faithful to our mission. Since its inception, Heffter has been helping to design, review, and fund the leading studies on psilocybin-assisted therapy at prominent research institutions in the US and Europe. Our research has explored psilocybin for the treatment of cancer-related distress, addiction, for understanding the relationship between the psychedelic experience and spirituality, and for basic science research into the physiology of brain activity, cognition, and behavior. (I might note that my Purdue University laboratory was able to make a key improvement to the synthesis of psilocybin, so that it would be more available to investigators.)

The psychedelic research renaissance we are witnessing today must be at least partly attributed to Heffter Institute activities. The climate is now considerably different from what it was in 1993. As one example from that time, we spent countless hours debating whether to refer to our mission as focused on “hallucinogens” or “psychedelics.” In the scientific literature of the time, it was usual and accepted practice to refer to LSD, mescaline, and psilocybin as hallucinogenic substances. Nevertheless, the term is not an apt one for what these substances actually do; they only very rarely produce true hallucinations, which are experiences that cannot be distinguished from reality.

---

<sup>1</sup>Original board members of the Heffter Research Institute included Mark Geyer, Ph.D., George Greer, M.D., Charles Grob, M.D., Dennis McKenna, Ph.D., and David Nichols, Ph.D. Current members of the board include Robert Barnhart, Betsy Gordon, Roland Griffiths, Ph.D., Bill Linton, Cody Swift, Carey Turnbull, Claudia Turnbull, Franz Vollenweider, M.D., and our business manager Lynette Herring.

Many folks counseled us not to refer to these compounds as psychedelics; it was still too controversial, and might damage our cause. Yet, we went against that advice because psychedelic was a name that more accurately described the class of compounds and what they do. I might note that a major scientific review of the field that I wrote in 2004 was titled “Hallucinogens,” yet a more recent review published in 2016 in a mainstream scientific journal was titled, “Psychedelics.” When I submitted the manuscript for the latter to the journal for peer review, I still was not sure that the reviewers would allow me to refer to these substances as psychedelics. Now, however, the name psychedelics has become widely accepted, not only with the public, but also in most of the scientific and medical community.

So, here we are, 25 years after our founding, and still active. The Heffter Institute does not have huge name recognition because we are a virtual institute that primarily reviews and funds research, having no full-time employees, no actual facilities, minimal overhead costs, and no public relations or outreach staff. Other than our essentially cost-free twice-yearly newsletter, we have not spent significant resources on getting our story out. That approach has allowed us to put most of the precious funds we are able to raise directly into scientific research investigations. That has been a two-edged sword, however, because it also has kept recognition of our work largely out of the public eye, and that includes potential philanthropists that could embrace our cause. By the way, we thank MAPS for this opportunity to tell our story!

Even if you have not heard of Heffter, we did receive widespread media coverage after the 2016 publications of research reports of Heffter-supported studies of psilocybin-assisted therapy in cancer patients at Johns Hopkins University and New York University. Although continuing blogs on Facebook and elsewhere about the use of “mushrooms to treat depression,” rarely include the fact that most of those studies were supported by the Heffter Institute, you have heard about our work, whether or not you knew it.

Heffter has supported, or is supporting, clinical studies of the potential medical value of psychedelics, primarily psilocybin, at the University of Arizona, Harbor-UCLA, the University of New Mexico, Johns Hopkins University, the University of Wisconsin, New York University, the University of Alabama, Yale University, UCSF, and the University of Zürich Hospital. We supported the seminal studies on the use of psilocybin-assisted therapy for the treatment of depression and anxiety in cancer patients, and supported a pilot study of the same therapy for treating alcoholism and nicotine addiction. The results from these latter two studies were so encouraging we have expanded them to larger patient populations, which are currently ongoing. A small study of psilocybin-assisted therapy also has been

underway at the University of Alabama for treatment of cocaine addiction, and we have just approved a small safety study of psilocybin-assisted therapy for opioid addiction.

What do we hope to accomplish by supporting studies into so many different indications? Readers may not be aware that the FDA only allows new drug applications for a single indication; currently MDMA for PTSD, and psilocybin for depression. Moving drug development along to gain eventual FDA approval for prescription use requires many tens of millions of dollars, and MAPS members will already have seen the cost estimates to do that for MDMA. Similar costs are expected for the development of psilocybin therapy, a task that has been undertaken in the U.S. by the Usona Institute. Obviously, there are not enough philanthropists out there to fund development of psilocybin for all of the other possible indications we are studying. Therefore, our goal is, first of all, to explore the landscape of what is possible with psilocybin therapy. If psilocybin is ultimately approved by the FDA for treating depression, there have been some doubts that “off-label” (non-FDA-approved) use for any other

indication will be allowed. Those waters are untested, however, because there has never been any other drug class where its use may be appropriate for so many different indications: depression, anxiety, addictions of various types, and perhaps obsessive-compulsive and eating disorders, among others. If our trials are large enough to be confident that psilocybin therapy is efficacious for this host of disorders, we believe it is likely that at some point in the future properly trained clinicians will be able to use psilocybin therapy for indications not initially approved by the FDA, such as addictions. That is a debate for another time, but in the meantime, if our studies give positive results, at least we will have opened the door of possibilities for the range of psychiatric disorders that may yield to treatment with a psychedelic drug.

In my opinion, we are on the verge of a great revolution in the treatment of mental illnesses. Or, in the immortal words of Bob Dylan, “The times they are a changin’.” 🍄

**David Nichols, Ph.D.**, is Co-Founder and President of the Heffter Research Institute. He was a Distinguished Professor of Medicinal Chemistry and the Robert C. and Charlotte P. Anderson Chair in Pharmacology at the Purdue University College of Pharmacy and adjunct Professor of Pharmacology at the Indiana University School of Medicine. He is currently an Adjunct Professor at the University of North Carolina, Chapel Hill. His research has investigated the relationship between molecular structure and the action of psychedelic agents and other substances that modify behavioral states. He is recognized as one of the foremost experts on the medicinal chemistry of hallucinogens. He can be reached at [dave@heffter.org](mailto:dave@heffter.org).

---

*...if our studies give positive results,  
at least we will have opened the  
door of possibilities for the range of  
psychiatric disorders that may yield  
to treatment with a psychedelic drug.*

---