Psychedelic Resurgence

By ZOE CORBYN
Research into mind-altering drugs is back.

OU DON'T HAVE TO SPEND MUCH TIME at the six-day second international Psychedelic Science conference in downtown Oakland to learn that not all its 1,900 attendees are academic scientists, and that few are strangers to the power of mind-bending drugs.

On my first day, boarding the conference's sunset cruise of San Francisco Bay, I meet Chad, a middle-aged man dressed in jeans and a T-shirt, who says his trips with magic mushrooms have reawakened him to the beauty of existence. "I am here out of curiosity," he explains, adding that he has a desire to understand what he has experienced. "It is just really nice to know they are breaking through some of the barriers with formal research. God knows there is a lot of informal research."

As the sun sets behind the Golden Gate Bridge, I meet Seabrook. Wearing rings in both ears and a flower badge pinned to his cap, he says he has never had a bad trip in more than 20 LSD experiences. "The main thing I love about this is it is a reunion—I have so many old friends here it is like a family," he says.

At least half the attendees on the cruise disembark early in San Francisco to join a celebration of Bicycle Day, commemorating the day in April 1943 that the Swiss chemist Albert Hofman sampled the lysergic acid diethylamide compound that he'd discovered and then rode his bike home.

But dotted among the conference's psychedelic aficionados, who along with healers, artists, and activists make up the bulk of attendees, are members of another tribe. Researchers in psychiatry and psychology are here presenting their latest findings on the use of psychedelics to help treat anxiety disorders and addictions for which conventional treatments don't always work.

Distinguished by their suits and business dress, the researchers are for the most part keeping to themselves any personal experiences with the drugs. They stress the drugs' dangers as well as potential benefits. And I see none disembark for Bicycle Day. "We are a bunch of serious, sober academics," Charles Grob, a professor of psychiatry and pediatrics at the University of California at Los Angeles medical school, told me on the phone before the conference. Grob is presenting the published results of his study using psilocybin, the active ingredient in magic mushrooms, to treat severe anxiety in advanced-stage cancer patients.

I first get to know Grob—a personable man in a baggy suit with a beard and recently trimmed salt-and-pepper hair—the afternoon after the cruise, accompanying him to a nearby Starbucks to take a break from the conference's colorful crowds and locate some hot water in which to dunk his echinacea tea bag. "People want to talk to you, they get really interested, and they kind of get in your space, and it's like, 'I gotta get my echinacea tea,'" he says.

Grob later takes me on a tour through the exhibition hall, which contains a few research posters among the psychedelic artworks, books on the power, potential, and history of hallucinogens (including some that Grob himself wrote), demonstrations of alternative therapies, and a quiet corner where a man lies on cushions with blankets and a sleep mask on. As people greet Grob at the various stalls, and he is accosted by others along the way, it is clear that he has strong roots in this community. I'm reminded of something he said as we meandered back from Starbucks: "It is nice for researchers to get the positive feedback and validation from a crowd like this. They understand the importance of the work and the efforts that have been undertaken."

That Grob is in demand among the psychedelic enthusiasts isn't surprising. He and a handful of other researchers have made impressive strides in recent years in advancing a scientific case for using psychedelics to assist psychiatric therapy.

By ZOE CORBYN

OAKLAND, CALIF.
That will require new, more conventional sources of funds, a more self-sustaining dynamic. Five university research groups are active in the United States, and are all presenting at the conference. The two strands of research most advanced in the field are on psilocybin to treat anxiety in cancer patients and MDMA (Ecstasy) to treat those suffering from post-traumatic stress disorder.

This nascent and colorful corner of medical science is at something of a crossroads. If psychedelic drugs are ever to become a standard psychiatric tool, more, and larger, clinical trials will be needed first. That will require new, more conventional sources of funds, a more secure place for psychedelic research in academe, and perhaps an end to the cozy camaraderie with enthusiasts that is on display in Oakland.

The idea of using drugs best known for their mind-expanding properties for therapy is not new, but it has spent several decades in the scholarly wilderness. From the 1950s to the mid-1960s there was a major research effort to explore the use of hallucinogens, particularly LSD, for psychiatric disorders—though much of the work was of questionable scientific rigor and left a blemish on the field. During the period, an estimated 40,000 people worldwide were administered the drugs in the name of science. More than 1,000 academic papers were published spanning basic and treatment research, in which addiction (mostly alcoholism) and terminal-cancer anxiety were the most studied.

But as the drugs burst from the confines of the lab—with assistance from researchers such as the infamous Timothy Leary, of Harvard—and became a signature of the counterculture movement, moral and health concerns triggered national alarm. Politicians and then regulators stepped in, and by 1970 the U.S. government had classified hallucinogens as “Schedule I” substances with no accepted medical use. (MDMA was added in 1985—“psychedelics” is a catch-all that loosely takes it in, along with hallucinogens and related compounds.) Academic work on possible therapeutic effects came to a standstill.

However, not everyone lost interest. Charles Grob was a college dropout in 1972 when he heard a talk in New York City by one of the early-era researchers, Stanislav Grof, based at the Maryland Psychiatric Research Center. At the Spring Grove State Hospital, outside Baltimore, Grof had administered an LSD treatment to terminal cancer patients to relieve their emotional and physical suffering, and Grob was inspired to want to help them, too. “I realized that my life’s dream was to do research with psychedelics,” he says. His father told him that he had better get his credentials first.

Grob did, but quickly found that psychedelic medicine was not welcome in academe. “It was virtually taboo even to talk about it,” he says. He spent nearly 15 years climbing the professional ladder with residency, fellowship, and faculty positions, returning to his life’s path only in the early 1990s, when the Food and Drug Administration quietly signaled a willingness to approve new psychedelic research in human subjects. (Treatment research would remain off limits for another 10 years.)

In 1993, Grob began the first government-approved study of the safety of MDMA—a necessary precursor to moving it forward as a therapy—publishing the results in 1996.

And in 2004 he finally began the study he’d dreamed of for more than 30 years. Continuing the work of his hero Grof, he began a 12-person pilot trial to test psilocybin’s efficacy in treating anxiety in patients with advanced-stage cancer, publishing the results in 2011. The first study since the early 1970s of the therapeutic potential of a hallucinogen for cancer patients, it suggested a positive effect on mood and anxiety.

On my second evening in Oakland, I attend a conference dinner that is again a celebration of psychedelic culture. But there are limits. A section of the program on conference decorum reads: “Out of respect for this work that happens within the regulatory and legal system, we request that you limit your engagement with psychedelic and other illegal drugs at the conference to the realm of intellectual discussion.”

I mingle with a group of friendly non-scientists including Mona, a great-grandmother who persuaded her therapist to administer her LSD and swears it cured her depression. That the powerful and even transcendent experiences created by these drugs could be useful treatments is blindingly obvious to Mona and her friends, but they accept that if the wider society is going to take that seriously, scientific study is needed. “Our culture works on that paradigm,” says Terry, a spiritual counselor.

The evening begins with a tribute to the life of a recently deceased psychedelic elder, the 60s-era researcher Myron Stolaroff, and ends in psychedelic splendor with a dance performance against a backdrop of swirling colors and patterns. Some scientists embrace the spirit of the occasion. The keynote speaker is James Dwyer, a professor of neurosurgery at Stanford University who begins his talk on the science of compassion and psychedelics by removing his dress shirt to reveal a well-worn Grateful Dead T-shirt. The audience claps and cheers.

Dwyer’s keynote offers heavy praise to the two private organizations largely responsible for Grob’s and a handful of other researchers’ being able to begin the work of the modern era. Those groups, the Multidisciplinary...
Doses of Calm

Twenty-one times now, a cancer patient suffering from anxiety has shown up early in the morning at Stephen Ross's New York University lab, clasped hands with two therapists, and taken a dose of psilocybin, the active ingredient in magic mushrooms. When the effects of the drug start to take hold, the patient lies down on a couch in the lab—which could pass for a living room—and is given eye shades and headphones playing music he or she has chosen in advance. The therapists stay on hand as the patient has a hallucinogenic experience, until, near the end of the day, the effects wear off and they can all go home.

Ross, director of NYU's psychedelic-research group, is leading a Phase 2 clinical trial of the treatment. It began in 2009 and has so far seen 21 of 32 patients dosed. Each makes two visits to the lab, about two months apart, receiving psilocybin at one appointment and a placebo on another (although patients have little trouble telling the difference). Before taking the drug, each patient has attended a series of meetings with therapists to prepare for the experience.

Exactly how psilocybin might help treat people's severe anxiety is unclear. Ross says it may "dislodge them from their stuck perceptions or state of fear," allowing them to respond more actively to psychotherapy. "It is not just the drug itself but a kind of medication-assisted psychotherapy model," he says, adding that the researchers disabuse participants of the notion that "here is the drug, here is an experience, you will get better.

When a patient is under the effects of the drug, therapists sit by quietly unless the person wants to talk or appears to be distressed. After the drug has worn off, integrative psychotherapy sessions begin, aimed at helping subjects fuse their psilocybin experiences into their lives. Follow-up meetings continue for six months after the last dosing session to look for any changes in anxiety, depression, or pain.

A similar trial taking place at the Johns Hopkins University has treated 30 out of 44 patients. Both studies are expected to be complete next year, and are similar to a pilot study at the University of California at Los Angeles, in which 12 people with advanced-stage cancer were given a slightly lower dose of psilocybin. The UCLA study, published in the Archives of General Psychiatry in 2011, demonstrated the safety of administering moderate doses of the drug. Answers to questionnaires given to participants suggested a positive effect on mood and anxiety.

The idea of using hallucinogens for cancer anxiety has even deeper roots, in research from the 1950s and 1960s in which LSD was given to terminally ill cancer patients. Stanislav Grof, of the Maryland Psychiatric Research Center, administered LSD-assisted psychotherapy to about 60 patients at the Spring Grove State Hospital, outside Baltimore, and several hundred received the drug from Eric Kast, of the Chicago Medical School. The studies were uncontrolled (Grof's work was cut short by political and cultural pressures) but showed promising improvements in mood and anxiety and a diminished need for narcotic pain medication.

Ross told attendees of the Psychedelic Science conference this year that anecdotal reports from his patients have been "remarkable," and that data analyzed from the first five patients seem to show a "general trend" of falling anxiety after psilocybin treatment, but that it was too early to draw firm conclusions. "I think we have to look at the data. It looks as though there may be an effect, but there may not be," he says. Ross is particularly interested to see if psilocybin can lead to reductions in pain, something that the UCLA study did not observe.

--C.C.

Continued From Preceding Page

H EFFT ER S DECISION to focus on psilocybin is strategic. In the 1950s and 1960s, it was LSD that was identified as a promising therapy for anxiety and addiction; the pharmaceutically similar psilocybin not only is shorter-acting and therefore easier to manage clinically, but also does not carry the cultural and political baggage from the 1960s that LSD does. Most people have never heard of psilocybin. "With psilocybin you can work and stay under the radar, which is definitely what Heffter has been trying to do," says Nicolas Langlitz, an assistant professor in anthropology at the New School. His book Neuropsychéthica: The Revival of Hallucinogen Research Since the Decade of the Brain (University of California Press) was published last year.

That is not to say that research on LSD is completely defunct. A private psychiatrist from Switzerland supported by MAPS is at the conference to present results of a 12-participant pilot trial using the drug to treat anxiety in people with life-threatening illnesses. The first study of the therapeutic use of LSD in over 15 years, it was important to do given LSD's symbolic importance, says Rick Doblin, MAPS's executive director.

The LSD presentation draws a good crowd. Like the other talks that I attend, it begins with a light introduction and history of the field before going deep into the science. It could be any mainstream science conference, except that the presenters are talking about having administered drugs illegal in any other context. Enthusiasts walk in and out, but many sit mesmerized, nodding approvingly and concentrating hard. They doubtless come away with the gist, even if the nuances get lost. "Do you know what a longitudinal study is?" asks one listener at the end of the LSD talk—a curious mind at work trying to marry his own experiences to what the research shows.

JUNE 7, 2013
Psychedelic medicine has made a remarkable comeback, given that public attitudes to the drugs remain negative. Researchers in the field refer to the resurgence as if it had a capital R, as in Renaissance. Getting research under way is still time-consuming and complex—on top of approval by institutional review boards and the FDA, researchers must obtain state and federal licenses to use any Schedule I substance, along with a pure source of the drug. But all that is at least possible, researchers point out, and universities departments, once reluctant, are now supportive of the work. "This is the second phase of the resurgence," says Stephen Ross, an associate professor of psychiatry at NYU who directs its psychedelic-research group and is leading the project on psilocybin for cancer anxiety. "The first phase was just being able to get it started again."

Psilocybin research has raised the stakes. To move into the mainstream, researchers may need to qualify for funding. "In all likelihood, we will have to go to the government," says Grob. "And when they do, we think it will create more resistance."

If psilocybin research ever does attract significant federal funds, it would certainly be easy for a politician to grab a few headlines and perhaps vote by condemning tax dollars going to hallucinogens. And the researchers' friendly associations with the psychedelic community might work as a treatment and to working out safety parameters for moving forward with the therapeutic work.

And the older generation that reignited the research now has younger successors in place. One of them is Matthew Johnson, an associate professor at Johns Hopkins leading the trial there in psilocybin for cigarette addiction, who studied under Griffiths. His predecessors have made working in the field easier, Johnson says. "Because they stuck out their heads and showed that this isn't goofy, folks like me can push ahead with it." In 2008, NYU's psychedelic-research group began running a program to train psychedelic psychotherapists for its cancer study. "We have a lot of trainees who say, 'We want to do this research in the future,'" says Ross.

Yet it is also painfully apparent that the field still has a long way to climb before it reaches the mainstream and sees psychedelics used to treat patients outside of research trials. Researchers estimate that the total number of people treated in the modern, decade-long era of clinical psychedelic research is just in the hundreds. Several specialists I contacted either weren't aware of the research taking place or saw it as a sideshow. "I do not follow this literature enough to have a firm opinion," said Edna Foa, a professor of clinical psychology in psychiatry at the University of Pennsylvania. "I am aware that people have reported articles on Ecstasy, but I have not read these articles," said Richard McNally, a professor of psychology at Harvard University and an expert on eating disorders. "There are so many more important and interesting issues out there concerning PTSD. This is just an idiosyncratic thing on the sidelines."

All that makes a booming challenge for the field look all the larger. To really advance, the researchers need to move from exploratory Phase 2 trials to larger Phase 3 trials that could confirm a new treatment's effectiveness. The costs of such trials are likely to be beyond the reach of what groups like Heffter and MAPS can afford on their own. MAPS estimates that $15-million is needed to complete both Phase 2 and Phase 3 of its research on MDMA for post-traumatic stress—most of which is taking place outside academia—but has thus far raised only $5-million (a bequest from the software pioneer Ashawna Hailey; both MAPS and Heffter have big-donor psychedelic enthusiasts in the tech industry). There is no interest from the pharmaceutical industry, which doesn't see much profit potential in unpatented drugs administered to a patient only a few times in the course of treatment.

That leaves the government, in the form of the National Institutes of Health or, perhaps, in the case of PTSD studies, the Department of Defense (though MAPS says conversations with Pentagon officials so far have been only about in-kind support, such as helping recruit subjects)."We will have to go to the government," says Grob of the research on psilocybin for cancer anxiety. Griffiths agrees: "To really move this forward, ultimately we need more established and larger sources of funding such as NIH." However, no one in the modern era has yet received any direct public funds for clinical-treatment research with MDMA or hallucinogens. Michael Bogenschutz, a professor of psychiatry at the University of New Mexico's School of Medicine who is leading the trial on using psilocybin for alcohol dependence, has tried and failed to win NIH grants for psychedelic medicine. "It was really clear that it was considered too speculative," he says. Grob believes that the NIH's reticence is a throwback to the 1960s. "There is a great reluctance even to acknowledge its potential merit," he says. "NIH is a very conservative organization."

For their part, the NIH institutes I contacted say there is no policy of exclusion—simply a highly competitive grant-review process. And they cite examples of how the NIH has supported some of the research indirectly, either through general grants to the centers where it has been conducted or via funds for basic human-subject research into the general effects of the drugs. "Peer-review evaluations ... have apparently not been compelling enough to receive fundable scores in the highly competitive grant-review process," said a statement released by the National Institute of Mental Health. The National Institute on Drug Abuse echoed that, adding that it had not received many applications to study the potential benefits of "drugs of abuse". "NIDA will fund those research proposals that meet accepted standards of scientific design and, on the basis of peer review, public-health significance, and Institute priorities, are competitive with other applications that qualify for funding."

The researchers plan to keep trying to sway the NIH with their results and evidence of growing recognition and stature inside medical science. However, those efforts also risk attracting negative attention from outside academia. Psychedelic researchers and supporters alike fear that their work, like that of the earlier era, could be shut down at any moment by a conservative backlash. A bad outcome for a trial participant or a sense that the research, with its promising findings, is somehow encouraging young people to experiment with drugs could end the studies prematurely. "The average person has no clue that this is restarted," says Ross. "And when they do, we think it will create more resistance."

"To really move this forward, ultimately we need more established and larger sources of funding such as NIH."