TREATMENT OF MAJOR DEPRESSIVE DISORDER AND TREATMENT RESISTANT DEPRESSION WITH 5-MeO-DMT: IMPACT OF 25 YEARS OF NON-TRADITIONAL PUBLIC SCIENTIFIC COMMUNICATION AND EDUCATION ON CLINICAL DEVELOPMENT AND COMMERCIALIZATION

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Abstract

Over the past 25 years, the use of 5-MeO-DMT in informal and underground settings has contributed a substantial, yet underrecognized, body of knowledge relating to the efficacy of 5-MeO-DMT in alleviating depressive symptoms. Traditional models of drug development, typically characterized by structured trials and regulatory milestones, rarely consider findings from these alternative routes. The legal and regulatory barriers surrounding psychedelic compounds have delayed formal clinical investigation, while public channels and Indigenous knowledge have driven grassroots support and anecdotal evidence of therapeutic benefit. This article identifies critical communication gaps hindering the integration of 5-MeO-DMT into mainstream psychiatry, advocating for transparent data-sharing models that incorporate existing informal knowledge.

Introduction

5-MeO-DMT (5-methoxy-N,N-dimethyltryptamine) is a naturally occurring psychedelic tryptamine found in many plant species and secreted by the glands of the Sonoran Desert toad (*Incilius alvarius)*. Over the past 25 years, this compound has been administered to hundreds of individuals suffering from major depressive disorder (MDD), treatment-resistant depression (TRD), and post-traumatic stress disorder (PTSD). However, beyond the clinical setting, the compound has a history dating back to its use by Indigenous peoples in the 1400s. Thousands have experienced the compound's effects in less formal, non-clinical settings. Despite this extensive use and reports of significant therapeutic benefit, 5-MeO-DMT has not yet achieved regulatory approval for the treatment of depression or any other medical condition. Only recently

has this compound entered formal clinical trials [3], marking a significant shift in its scientific investigation.

The lack of regulatory approval, despite such a lengthy track record of use, raises important questions about the path that psychedelic compounds like 5-MeO-DMT take toward commercialization and clinical integration. Traditionally, pharmaceutical development follows a rigorous, structured pathway involving tightly regulated clinical trials. However, the exploration of 5-MeO-DMT as a potential therapeutic has occurred largely outside this framework, and has been led instead by underground practitioners, grassroots initiatives, and proactive citizens [4–6]. These efforts, emerging in response to cultural and legal restrictions surrounding psychedelic substances [7,8], have significantly contributed to the growing body of knowledge around 5-MeO-DMT. These efforts have also introduced obstacles that have not been observed in traditional pharmaceutical research and development pipelines. The fear of legal repercussion has forced most therapeutic operations underground, giving rise to inconsistent treatment protocols and inequities in intellectual property management, such as the improper patenting of psychedelic therapies.

Here, we highlight a need for reform relating to how information about psychedelic compounds with therapeutic potential is disseminated, particularly as they move toward clinical acceptance and societal destigmatization. Exploring the extensive history of 5-MeO-DMT case studies from licensed clinicians and internet sources providing firsthand accounts from patients and practitioners illuminates the wealth of public information available just below the surface of standardized academic and private sector research. The implications of this historic body of knowledge may affect clinical development processes through investments in clinical trials to regulatory decision-making. We propose that more robust and transparent communication pathways that incentivize open communication and data-sharing are essential to expedite the development of 5-MeO-DMT for treating depression and other psychiatric illnesses.

Hidden in plain sight: 25+ years of public knowledge and use of 5-MeO-DMT for psychiatric indications

Over the past 25 years, the therapeutic potential of 5-MeO-DMT has become increasingly evident through the work of dedicated practitioners whose use of the compound for psychiatric indications has remained largely underrecognized in traditional forums despite its profound clinical impact. Among these practitioners is Mark Seelig, Ph.D., M.Div., a clinical psychotherapist with over two decades of experience in treating psychiatric disorders including MDD and TRD. Dr. Seelig earned a Master of Divinity from the University of Göttingen in 1988, specializing in psychotherapy and substance-induced mystical states, followed by a Ph.D. in the Psychology of Religion from Frankfurt-Main University in 1995. With these qualifications, Dr. Seelig was able to diagnose and treat individuals with MDD and TRD during his two-decade career as a licensed clinical psychotherapist at the Habichtswaldklinik Kassel,

Germany (1998-2017). In his role there as the main therapist, he was responsible for diagnosing patients, developing therapeutic plans, leading individual and group therapy sessions, and coordinating with health insurance companies. Dr. Seelig's education, background, and professional experience satisfied the qualification regulations, in accordance with accepted medical practice, to make diagnoses, including MDD, TRD, and PTSD diagnoses at the Habichtswaldklinik.

In addition to his clinical work, Dr. Seelig's 5-MeO-DMT work began around 1997-1999 with recruitment through trusted network referrals outside of the clinic. He developed a treatment protocol emphasizing patient safety that includes a pre-treatment consultation, overnight psychedelic sessions, and post-session debriefs, followed by a check-in a few days or a week later, and a follow-up consultation or additional session about a week afterward to provide long-term support for his patients. Many patients remained in contact for years, reflecting the deep impact of 5-MeO-DMT therapy. Dr. Seelig's work with 5-MeO-DMT involved treating between 3,000 and 4,000 patients, with an estimated 20-30% presenting with MDD or TRD. Dr. Seelig oversaw the treatment of hundreds of MDD and TRD patients with 5-MeO-DMT, that he personally diagnosed, from the late 1990s through 2017, the time frame corresponding to his clinical work at Habichtswaldklinik. Diagnoses were made using appropriate standards for the time and region, with early work in Europe using ICD-9 standards, replaced by ICD-10 standards in later years and corresponding work in North America employing DSM-IV and -V standards during the appropriate time frames. His sessions utilized 5-MeO-DMT in a pure crystalline form that was typically administered in doses ranging from 8 mg to 25 mg and repeated up to three times in a day. To disseminate knowledge about 5-MeO-DMT therapy, Dr. Seelig has produced podcasts and given lectures at adult education programs, spiritual therapy centers, and universities throughout Germany from the mid-1980s to the 2000s. As a faculty mentor at the California Institute of Integral Studies (CIIS) in the early 2000s, Dr. Seelig lectured on his experiences with psychedelic therapy in which he emphasized its therapeutic potential.

During his work with 5-MeO-DMT from the late 1990s through 2017. Dr. Seelig observed that 5-MeO-DMT therapy consistently led to significant improvements in depression symptoms, emotional resilience, personal relationships, and professional engagement, with patients experiencing long-term mental health benefits typically after five to 10 sessions. Dr. Seelig maintained records of the 5-MeO-DMT treatments that he supervised, including with patients that he diagnosed as having MDD or TRD, and their positive responses. One such notable case involves a middle-aged man who, after being diagnosed with cancer, was unable to work and began experiencing symptoms of MDD including isolation, desperation, and occasional suicidal ideation. Following 5-MeO-DMT treatment, he experienced significant therapeutic improvements, resulting in positive transformation in both his personal and professional life. Another middle-aged woman, struggling with depressive states, isolation, and self-doubt triggered by work related challenges, experienced significant improvements after 5-MeO-DMT therapy, addressing early childhood abandonment issues, building new friendships, and regaining

confidence in her professional abilities. Another compelling case included a middle-aged veteran suffering from TRD after multiple military tours of duty who experienced self-doubt, feelings of inadequacy as a father and husband, and dark thoughts, finding no substantial relief through talk therapy and multiple pharmaceutical medications. After 5-MeO-DMT therapy, he connected with other veterans in group therapy, addressed deeper causes of his depression, tapered off his medication, and improved his relationship with his family. Finally, a young adult struggling with financial pressures, isolation, dark thoughts, and fear of social interactions, found no improvement despite trying various therapies. After undergoing 5-MeO-DMT therapy, he experienced significant professional improvements. These case studies highlight that patients diagnosed with MDD and TRD experienced significant improvements through treatments with 5-MeO-DMT.

While Dr. Seelig's work was not published in peer-reviewed journals, the information flowed through the existing and transparent public channels that had been built among clinicians interested in psychedelic therapies and among patient groups. The interaction between Dr. Seelig and his various patients were understandably covered by doctor-patient-confidentiality, though the recruitment of patients by word-of-mouth referrals nonetheless became prevalent and represented public dissemination of 5-MeO-DMT's ability to treat MDD and TRD. For example, in 2000, following the initiation of 5-MeO-DMT therapy to treat MDD that began in 1999, one patient described above referred another individual to Dr. Seelig. The referred patient, a middle-aged woman struggling with depressive states, began a successful course of treatment with Dr. Seelig in 2000. Patients talked to future patients and clinicians talked amongst each other. Reciprocal referrals between clinicians and Dr. Seelig, who began communicating with fellow physicians and therapists about his 5-MeO-DMT treatments in 1998, were common. The information spread around the world, but did not achieve the level of prominence or acceptance as would have been achieved through peer-reviewed publication and presentations at large international conferences.

Additionally, the internet has become a vast repository of anonymous self-reports detailing the therapeutic use of 5-MeO-DMT, particularly on platforms like Erowid, DMT-Nexus, Reddit, and dedicated forums, where individuals share personal experiences of its psychoactive effects and perceived benefits for mental health conditions such as depression and anxiety [9–11]. Many 5-MeO-DMT practitioners offered services through social media platforms like Instagram, where they were directly contacted for guidance or facilitation. This significant body of non-clinical, community driven data underscores the need for structured clinical research and intellectual property strategies to advance the therapeutic applications of 5-MeO-DMT, while acknowledging the extensive data already circulating in public domains.

Traditional communication pathways for clinical research and development pipelines

In traditional drug development, well-established routes exist through which scientific findings and clinical research progress are communicated to the broader public and the regulatory community. These pathways have proven highly effective in advancing medical treatments from initial discovery to clinical use. However, information flows relating to conventional medicines follow specific, structured approaches that differ greatly from the non-traditional routes through which information is provided for substances like 5-MeO-DMT. Drug development pathways may flow through universities and research institutions, large pharmaceutical companies, or smaller biotechnology companies. Overlap between these entities is often observed, with academic institutions partnering with the private sector to undertake research in exchange for funding. Through these partnerships, intellectual property ownership and preferred communication avenues vary [12,13].

Communications about drug development originating from universities and research institutions are most often disseminated through peer-reviewed publications and conference presentations. This pipeline frequently begins with preclinical research and drug discovery, and promising candidate drugs may be funneled to further clinical research undertaken by a research institution or a private-sector pharmaceutical company. The discovery of pregabalin (sold under the brand name Lyrica) by Richard Bruce Silverman, a Professor of Chemistry at Northwestern University, exemplifies a best-case scenario of transferring a discovery made at an academic institution to regulatory and commercial success [14]. However, this case study also highlights the risk to academic scientists and researchers when engaging with large, for-profit pharmaceutical companies. Following the synthesis of several γ-Aminobutyric acid analogues hypothesized to treat epileptic seizures, Silverman's lab sent the molecules to Parke-Davis Pharmaceuticals (later a subsidiary of Pfizer) for testing. Northwestern subsequently licensed pregabalin to Parke-Davis, who furthered development of the drug, resulting in FDA approval in 2004 for neuropathic pain, fibromyalgia, and adjunctive treatment of partial-onset seizures. Notably, Silverman and colleagues initially communicated their findings through traditional academic channels, sharing the lab's drug development discovery in peer-reviewed journals. However, once rights to pregabalin were acquired by Pfizer and the drug became a commercial asset, information dissemination became more restricted, controlled largely by Pfizer to protect their intellectual property rights and maintain market exclusivity [15]. Pfizer's patents surrounding pregabalin allowed the company to assert legal ownership over its further development, effectively cutting Silverman and his lab out of direct involvement [15]. This shift from open, academic communications to a closely-guarded corporate approach contrasts the differing priorities of entities involved in the world of drug development. It is imperative to consider case studies like this in pursuing further research with psychedelic compounds such as 5-MeO-DMT to balance the interests in the public, while providing sufficient, trusted information flow to allow for timely regulatory approval and commercialization. In the context of 5-MeO-DMT, it is also important to disseminate and amplify the decades of public use and disclosure to ensure efficient and equitable review of intellectual property.

A second major route for traditional, mainstream drug development is through large pharmaceutical companies. In this model, new discoveries are often initially kept as trade secrets, with the goal of maintaining a competitive edge in the market. Once a company is ready to proceed with clinical trials, findings are typically patented and then published in coordination with trial results. A notable example of this is the development of atypical antipsychotics like aripiprazole (sold under the brand names Abilify and Aristada), where clinical findings were closely guarded until late in the process, after which patents were filed and clinical trial results published almost simultaneously [16]. This strategy allows large companies to maintain control over intellectual property while navigating the regulatory pathway toward commercialization. While generics may eventually obtain FDA approval [17], the financial benefit of these strategic, structured, and highly coordinated communications can be substantial. For example, Otsuka and Bristol-Myers Squibb, which jointly developed the drug and hold patents and branding rights to Abilify, reported profits of $3,500,000,000 in 2010 for this drug alone [18].

In recent years, a proliferation of small biotechnology companies emphasizing early-stage innovation has provided an alternative option in drug discovery and information dissemination. Smaller companies often file patent applications early in the development process, prior to entering clinical trials. While this is helpful in obtaining intellectual property rights and demonstrates value to potential investors or partners, such applications may claim theoretical or prophetic inventions, lacking supporting data or novelty [19,20]. In tandem with pursuit of patent rights, smaller startup organizations in the psychedelic sector often publish early data in the hopes of spurring investment, even if clinical trials are still in their nascent stages. This route contrasts with the more secretive approach of larger companies, as small entities rely on visibility and external investment to drive their development efforts forward.

Unique challenges in communicating research and clinical information related to psychedelic therapeutics

The communication of research and clinical information in the realm of psychedelic therapeutics, such as 5-MeO-DMT, faces several unique and significant challenges. The legal status and scheduled nature of these drugs has historically rendered public communications risky to both practitioners and citizens engaged in psychedelic drug use [21–23]. Obstacles also stem from cultural stigma and structural limitations within the mainstream scientific community. Indigenous cultures with long-standing practices of using psychoactive plants and fungi have generally not been afforded a platform and are at-risk of appropriation by for-profit ventures [24–26]. Thus, many barriers have hindered the development and integration of psychedelics into mainstream clinical practice, in turn complicating the path to regulatory approval and commercialization.

One of the most prominent challenges is the questionable and often changing legal status of psychedelic substances. Many psychedelics, including 5-MeO-DMT, have been classified as

controlled substances under national and international drug control laws [7,8]. This has made conducting formal research difficult, requiring special licenses and approvals that are not necessary for other therapeutic compounds or conducting work in geographic regions where the practices remain illegal. Even as laws around psychedelics are slowly evolving in various jurisdictions [7], legal uncertainty creates an ongoing barrier to widespread clinical trials and open scientific communication.

Due to compounding issues of legal status and stigma, few traditional forums for publication of psychedelic research have historically existed. Mainstream medical and psychiatric journals reluctant to publish studies on psychedelics lead to fewer opportunities for researchers to disseminate their findings. Until recently [27,28], established forums for presenting research on psychedelic therapies were few. This limits the visibility of ongoing research and makes it difficult for scientists, clinicians, practitioners, and citizens to engage in the information exchange essential for advancing knowledge in this sector.

Pharmaceutical development traditionally benefits from incremental advances, wherein new drugs are developed based on the successes of previous treatments. However, there lacks an analogous framework for psychedelic compounds such as 5-MeO-DMT, particularly due to historical legal barriers. The result of this is that psychedelic research does not have a "first success" to build upon – without an initial breakthrough drug that has successfully navigated the regulatory and commercial landscape, future development is hindered by a lack of precedents. The FDA recently rejected Lykos Therapeutics' application for MDMA-assisted therapy for treating post-traumatic stress disorder (PTSD), following earlier concerns raised by an advisory committee [29]. This decision has broader implications for the psychedelic sector and exemplifies the roadblocks faced by those pursuing mainstream regulatory pathways for psychedelic medicines.

Communication and dissemination

Due to the unique legal and cultural challenges surrounding the exploration of 5-MeO-DMT as a therapeutic medicine, relevant communication and dissemination of knowledge has followed unconventional pathways. Peer-reviewed publications and conference platforms have been largely unavailable to underground practitioners, those using the drug as part of traditional and cultural practice, and citizen advocates. As a result, methods of information transmission have relied upon word-of-mouth communications, underground networks organizing niche talks and gatherings, and anonymous internet discussions [30]. While this grassroots form of knowledge-sharing has been vital in shaping our understanding of 5-MeO-DMT as a therapeutic compound and has allowed those interested in the field access to information, albeit via non-traditional channels, there exist inherent limitations in these modalities as evidenced by the absence of peer-reviewed publications, patent documents, and clinical trials.

Despite growing awareness of 5-MeO-DMT's therapeutic potential amongst researchers in academic institutions, the lack of communications in the form of peer-reviewed journal articles has significantly slowed academic and clinical research. While cognizant of 5-MeO-DMT's underground use and anecdotal evidence, scientists have struggled to solicit grants to study the drug – this is a direct consequence of absent publications, which are necessary communications required by granting bodies prior to funding novel research programs [31,32]. In addition to the barriers facing academic researchers, pharmaceutical companies have also been reluctant to invest in drug development pipelines for 5-MeO-DMT. Lack of peer-reviewed data exhibiting safety and efficacy, untested markets, and absence of precedent set by competitors have rendered the venture high-risk, especially with no established regulatory framework in place for psychedelic compounds.

Understanding current limitations that are directly due to the lack of public, recognized information conveyed in traditional media informs the development of necessary next steps. The absence of traditional, structured, scientific communication has directly hindered the ability of researchers to secure funding and conduct rigorous preclinical and clinical studies. This has led to the reluctance of pharmaceutical companies to invest in 5-MeO-DMT research and development pipelines. The example of 5-MeO-DMT highlights the need to identify and initiate more equitable and integrated knowledge-sharing in the field of psychedelic therapies, ultimately leading to more timely research and clinical development.

Exploring Drug Development Pipelines: An Analysis of Escitalopram and 5-MeO-DMT

Traditional drug discovery and development pipelines may take a decade or longer to move a drug from initial research to market launch. This pipeline typically involves a step-by-step flow through milestone phases: identification of potential therapeutic molecules, preclinical investigations into target molecules, submission of an Investigational New Drug (IND) application to the FDA, commencement of clinical trials, subsequent submission of a New Drug Application (NDA), and ultimately, regulatory approval. Each phase of this methodical timeline helps minimize risk, ensures safety of novel compounds, and provides a structured pathway to commercialization.

Perfectly exemplifying this development path is the antidepressant drug escitalopram, branded as Lexapro. Developed by Lundbeck and Forest Laboratories, research began in 1997 and built upon the first success of citalopram, a selective serotonin reuptake inhibitor (SSRI) [33]. Preclinical and clinical trials demonstrated that escitalopram, the S-enantiomer of citalopram, had fewer side effects and faster onset of action compared to its racemate [34]. An IND was filed for Lexapro and was approved by the FDA in 2002 [35], with subsequent approval of the drug in the same year by the European Medicines Agency [36]. The publication of pivotal clinical trial data played a key role in the approval of Lexapro. Early studies and clinical trials published in peer-reviewed journals compared escitalopram to both placebo and other antidepressants, demonstrating its superiority

in efficacy and tolerability [34,37–39]. These publications provided a scientific foundation for regulatory approval and broad acceptance of Lexapro by the psychiatric community.

Unlike antidepressants such as escitalopram, the discovery of 5-MeO-DMT as a potential therapeutic has not followed traditional pharmaceutical development pipelines. In addition to use of 5-MeO-DMT in various forms by Indigenous groups tracing back to the 1400s[1], the compound has been identified in both plant sources [41]and the secretions of the Colorado River toad [36]. After 5-MeO-DMT was chemically synthesized in 1936 [40], the compound gained further attention in the 1980s through underground spiritual and therapeutic practices. The prominent psychedelic chemist Alexander Shulgin variously reported the use and effects of 5-MeO-DMT over several decades [42,43]. Despite this, use of 5-MeO-DMT remained outside formal clinical investigation for decades due to legal restrictions [8]. Recently, renewed interest in the therapeutic potential of psychedelic compounds has led to greater awareness of 5-MeO-DMT. By 2021, clinical studies [44] began focusing on 5-MeO-DMT's potential to treat various psychiatric conditions such as depression, marking a shift from anecdotal to formal scientific exploration. This timeline underscores both the compound's cultural significance and its long-delayed entry into clinical research.

Following a non-traditional pathway, the evolution of 5-MeO-DMT's therapeutic potential as an antidepressant has evolved outside of a structured pipeline. Drugs like Lexapro have progressed through a well-established sequence – beginning with molecule identification, preclinical research, peer-reviewed publications, clinical trials, and eventual FDA approval. While this pathway for 5-MeO-DMT is in nascent phases, we are provided with a unique opportunity to integrate nontraditional knowledge into more formal research frameworks to accelerate research and clinical development. Rather than ignoring, dismissing, or undervaluing decades of underground use and centuries of Indigenous cultural practices, modern scientific approaches could build upon these experiences by combining anecdotal data with contemporary clinical trials. Expanded preclinical research into 5-MeO-DMT's mechanisms of action will help bolster the therapeutic effects well-known to those experienced with this compound. Further validation of underground and anecdotal data through clinical studies may be expedited if researchers and entities engage with practitioners and groups known to use this compound. This holistic approach may not only benefit 5-MeO-DMT but also serve as a model for developing other psychedelic compounds.

Paths forward from current limitations: towards an integrated, scientific understanding of 5-MeO-DMT as a therapeutic compound

The global burden of major depressive disorder (MDD) and other mood disorders is immense, with estimates placing 5% of the adult population as being affected with MDD [45]. The need to expedite research into novel antidepressant drugs and therapeutic compounds is pressing, and the promising potential of 5-MeO-DMT demands attention [4,46]. However, inefficiencies and

communication barriers surrounding 5-MeO-DMT's development have significantly delayed its formal clinical validation, regulatory approval, and widespread clinical use. Challenges such as legal status, uncredited histories of cultural use, lack of "first success", and stigmatization of psychedelic drugs all contribute to 5-MeO-DMT's status as an unapproved and unregulated therapeutic that individuals continue to seek out in underground practices. The absence of traditional validation has left this compound, and psychedelic therapeutics more broadly, in the dark.

To gain wider acceptance, it is imperative that the scientific and pharmaceutical community facilitate research communications and data-sharing in peer-reviewed journals and publications. This will exhibit legitimization of 5-MeO-DMT to research granting bodies and private investors, in turn supporting increased rigorous and standardized studies investigating the drug's potential. The robust design of and subsequent data produced by clinical trials are pivotal requirements of regulatory bodies such as the FDA, and demonstrating efficacy and safety under well-defined conditions is an essential step towards regulatory approval. While the historical communications around 5-MeO-DMT experimentation and foundational underground use are an important body of work to build on, regulators are limited in how much weight they can place on such information due to its non-standardized nature. However, underground use and knowledge remain viable as public domain information in the context of patents, where the absence of regulatory limitations allows for broader inclusion of known practices.

A current, significant challenge in 5-MeO-DMT's timeline relates to intellectual property in the form of patents. As a key part of drug development, patents provide legal protection and create financial incentives for companies to invest in research and commercialization. 5-MeO-DMT, however, is not easily patentable as it is a naturally occurring substance – this presents a barrier to fundraising since patents are often viewed by investors and stakeholders as valuable. Despite this, attempts to patent various aspects of 5-MeO-DMT are on the rise, often in inefficient and questionable ways that fail to meet the full disclosure requirements of the patenting process [19]. Publicly available information about the history of 5-MeO-DMT's use is attainable, though not necessarily in traditional scientific media. Due to the lack of awareness of these nontraditional public sources by patent offices and, potentially, by patent applicants, and dearth of peer-reviewed publications and patent documents, there is a serious risk of inefficient use of resources and granting of overly broad patents as parties mistakenly seek to monopolize concepts that are already in the public domain. This leads to wasted resources in filing, asserting, and defending these intellectual property claims. Furthermore, rights of Indigenous groups with long histories of psychedelic use for cultural practice are consistently ignored as intellectual property in the pursuit of patent rights [19,25,26], and providing a platform and obtaining consent to share this knowledge is important in working towards an integrated and holistic communication, research, development, and patenting profile of 5-MeO-DMT and other psychedelic agents.

Better paths in the future

To accelerate the clinical development and commercialization of 5-MeO-DMT and other potentially transformative psychedelic therapies, it is essential to explore new, more efficient pathways that incentivize openness and collaboration while still maintaining rigorous standards for safety and efficacy. Looking ahead, several key strategies could help overcome the current barriers to progress and unlock the full therapeutic potential of 5-MeO-DMT and similar compounds.

Creating incentives for open communication and data sharing in a structured and equitable manner could be achieved through funding opportunities tied to open-data initiatives or partnerships between public research institutions and privately held companies focused on psychedelic therapies. Establishing protected disclosure pathways that allow researchers to share early findings without jeopardizing their intellectual property or potential criminal prosecution would encourage greater early-stage collaboration and foster a more open exchange of knowledge, ultimately accelerating the pace of drug discovery and development. Altering regulatory frameworks and establishing expedited review processes for compounds like 5-MeO-DMT with a demonstrated history of safe use in non-traditional settings may be particularly beneficial to the public good and would acknowledge the unique nature and history of psychedelic drugs. Finally, changes to FDA regulations and decision-making may be particularly promising pathways towards bringing psychedelic therapies like 5-MeO-DMT to market. Permitting the review of historic, non-peer-reviewed data as part of pre-clinical data packages and offering abbreviated or waived Phase I/II trials for psychedelic compounds with demonstrated safety would significantly reduce development timelines and honor the existing wealth of non-traditional data.

While specific structural, legal, and regulatory mechanisms for implementing these changes may require further discussion and refinement, the overarching goal is clear: better, more equitable communication systems can provide a framework for robust and efficient drug development of psychedelic compounds. Creating pathways for open dialogue, transparent data sharing, and regulatory flexibility will allow the therapeutic potential of 5-MeO-DMT and other psychedelics to be realized more quickly and effectively, bringing much-needed treatments to patients across the globe. Ultimately, these reforms would help bridge the gap between non-traditional, citizen-led research and the rigorous standards required for clinical use, paving the way for a new era of innovation in mental health treatment.

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