

Mindset Pharma CEO, James Lanthier, Issues Letter to Shareholders Discussing Expansion of Drug Discovery Efforts into Novel Non-Hallucinogenic Therapeutics

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TORONTO, March 28, 2023 — [Mindset Pharma Inc.](#) (CSE: MSET) (FSE: 9DF) (OTCQB: MSSTF) (“Mindset” or the “Company”) today issued a letter to shareholders from James Lanthier, Chief Executive Officer of Mindset.

Dear Fellow Shareholders:

Mindset saw great progress and achievements at all levels in 2022, as we worked diligently towards our ultimate goals of bringing superior neuropsychiatric medications to patients with unmet needs. While the clinical development of our psychedelic therapeutic programs accelerates, we wanted to take a moment to help our shareholders better understand the future direction of our drug discovery program.

Mindset was one of the first biotech companies in the psychedelic space to apply state of the art medicinal chemistry and behavioural pharmacology techniques to novel scaffolds of psychedelic drugs with the goal of discovering new medicines. Our initial goal was to build on the growing clinical evidence around the “classic” psychedelic drugs by developing novel and patentable medicines with enhanced safety, efficacy, and optimized durations of action.

I’m delighted to say that, to date, we have exceeded even our own expectations toward this initial goal. Mindset entered 2023 with a robust pipeline of novel psychedelic-inspired drug candidates advancing towards first-in-human clinical trials. More importantly, these candidates are supported by an industry leading intellectual property (“IP”) portfolio.

MSP-1014

Mindset is planning to initiate human trials of its novel and patentable prodrug of psilocin, MSP-1014, shortly. MSP-1014 is our proprietary lead Family 1 drug candidate that we view as a best-in-class “second generation” psilocybin analog with improved safety, efficacy and tolerability signals. MSP-1014 is rapidly metabolized to psilocin, the main active metabolite of psilocybin, and is likely to exert similar efficacy and better tolerability to psilocybin in improving symptoms of depression in difficult to treat patient populations.

In November, Mindset announced data from preclinical studies examining MSP-1014 side-by-side to psilocybin across a battery of preclinical studies evaluating safety, behavioral and pharmacokinetics properties. The data shows that MSP-1014 attenuates the reduction of locomotor activity and body temperature seen with psilocybin, suggesting that the tolerability of MSP-1014 may be superior to psilocybin. Moreover, these improvements were evident in conjunction with increased effect in assays evaluating cardinal signs of 5-HT_{2A} target engagement, suggesting that it may be possible to achieve a similar or greater psychedelic effect with MSP-1014 as psilocybin, but with improved tolerability.

Family 2

The Family 2 program compounds are being developed as optimized next-generation psychedelic drug candidates for the treatment of mental health disorders in collaboration with the McQuade Center for Strategic Research and Development, LLC (“MSRD”), a member of the Otsuka family of pharmaceutical companies. In October of 2022, after extensive preclinical screening studies, Mindset announced the selection of MSP-2020 as its lead drug candidate, and MSP-2003, as a back-up drug candidate, to advance into IND-enabling studies with a leading global Contract Research Organization (“CRO”). In side-by-side comparisons to psilocybin and psilocin, both lead drug candidates elicit in vitro and preclinical

behavioral responses consistent with greater potency than LSD combined with a shorter psychedelic effect than psilocybin.

Bolstering Mindset's suite of pre-clinical drug candidates is one of the strongest IP platforms of any psychedelic biotech, with 16 patents filed to date covering 8 different novel chemical entity scaffolds, and 4 allowances and / or issued patents received from the USPTO covering both Family 1 (including MSP-1014) and Family 2 drug candidates.

In light of the success of its psychedelic therapeutic programs, Mindset is shifting its drug discovery efforts in a new complementary direction.

Non-Hallucinogenic Medicines with Broader Central Nervous System Therapeutic Applicability

Thanks to our early focus on novel drug development, Mindset's scientific team has developed a rich understanding of the structure-activity relationships ("SAR") of psychedelic drug structures. We are now applying this knowledge towards discovering novel psychedelic-inspired non-hallucinogenic drug candidates. This work has been underway for some time and, to date, Mindset has discovered multiple candidates with a promising preclinical profile.

Therapeutics that deliver pro-cognitive benefits at doses without hallucinogenic effects have the potential to treat substantially wider patient populations extending beyond depressive disorders. By reducing or removing the psychedelic effect, in-clinic supervision may not be necessary, reducing cost and improving convenience. Additionally, non-hallucinogenic drug candidates are potentially more appropriate for treating fragile population groups such as children or geriatric patients.

Mindset recently filed a U.S. provisional patent application expanding its breadth of non-hallucinogenic, psychedelic-inspired, compounds beyond its previously announced "Family 3." These new non-hallucinogenic compounds are derived from its non-tryptamine scaffolds, known as families 6–8. In preclinical screening, these candidates exhibit 5-HT_{2A} activation, but without the cardinal in vivo signs of a hallucinogenic effect.

We are eager to continue our discovery work surrounding these novel non-hallucinogenic psychedelic inspired compounds given the breadth of potential neurological and psychiatric disorders that they may address. We expect to make further announcements in the near future around additional IP filings in this field of research as our discovery work progresses.

On behalf of the Mindset management team and the Board of Directors, I sincerely thank you for your continued support of the company. I look forward to providing you with further updates as our progress continues.

Sincerely,

James Lanthier
CEO of Mindset Pharma

About Mindset Pharma Inc.

Mindset Pharma Inc. is a drug discovery and development company focused on creating optimized and patentable best-in-class innovative next-generation psychedelic medicines to treat neurological and

psychiatric disorders with unmet needs. Mindset was established in order to develop next-generation pharmaceutical assets that leverage the breakthrough therapeutic potential of psychedelic drugs. Mindset is developing several novel families of next-generation psychedelic compounds, as well as an innovative process to chemically synthesize psilocybins in addition to its own proprietary compounds. The company has a co-development agreement with the McQuade Center for Strategic Research and Development, a member of the Otsuka Pharmaceuticals family of companies, for its short-duration compounds, Mindset Families 2 & 4.

For further information on Mindset, please visit our website at www.mindsetpharma.com.

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