

## Nirvana Life Sciences Inc. Announces a Method for Producing MDMA that Reduces Manufacturing Time by Two Thirds

VANCOUVER, BC, Sept. 7, 2022 /CNW/ - Nirvana Life Sciences Inc. (Nirvana or the "Company") (CSE: NIRV), a western Canadian based life sciences company aimed at developing psychedelic therapeutic medicines, including non-addictive chronic pain and relapse preventing pharmaceutical medicines and formulations to be used in trauma work, is pleased to report the development of a more efficient method for producing MDMA.

Nirvana Life Sciences Inc. is pleased to announce the development of a novel method of producing MDMA (3,4-methylenedioxy methamphetamine) that greatly reduces manufacturing time. This 3-step synthesis, starting from the precursor safrole, takes as little as 24 hours to complete, depending upon which method of reduction of the ketone to the secondary amine is being used. This is approximately one third of the time that's required to complete current production methods using iso-safrole as an intermediate. Nirvana has filed an Application with the US Patent Office for this invention.

MDMA was first synthesized in 1912, but it was not researched for its therapeutic potential until just recently. The drug is a potent central nervous system (CNS) stimulant the varies greatly in effect from other common stimulants found in the same phenethylamine family of compounds. It is currently being studied and used for the treatment of a wide range of psychiatric disorders such as Post Traumatic Stress Disorder (PTSD), depression and anxiety to name a few. MDMA assisted psychotherapy is currently in phase three clinical trials for the treatment of PTSD in the US, Canada, and Israel. This year the FDA expanded access to MDMA, allowing for its compassionate use in clinical settings by patients who have had no success with other FDA approved treatment options.

MDMA effectively shuts down the brain's fight-or-flight response and creates a sense of empathy in patients, allowing them to process trauma more effectively. The drug increases the amount of serotonin in the synaptic clefts of serotonergic neurons. It also binds to various serotonin receptors and activates them in excess, while simultaneously reducing the reuptake of other neurotransmitters, which is the drugs primary mechanism of action.

Lead chemist and Head of Innovation for Nirvana Life Sciences Inc., Robert August, was one of the first researchers to successfully crystallize MDMA HCI Monohydrate, a novel form of MDMA with increased bioavailability and efficacy. The method of synthesis that he developed can also be seamlessly integrated into the production of MDMA HCI Monohydrate, of which Nirvana Life Sciences Inc. recently announced a patent pending for. With the growing surge in interest in the research of MDMA in the past few years, and the increasing potentials of its use in therapeutic settings, Nirvana believes that this breakthrough is a significant advance in the emerging psychedelic medicines space.

Mr. Robert August stated: "As a chemist working hard to advance the field of pharmaceutical psychedelics with new and improved therapeutic medications and their methods of manufacturing, bringing this synthesis route and the monohydrate variant forward for research is an important development. Not only will it save time and money in the production of MDMA, but it also works well

with the crystallization of MDMA as a monohydrate. It is my hope that this advancement will break down some of the barriers to effective production, research and therapeutic use of these compounds."

## About Nirvana Life Sciences Inc.

Nirvana Life Sciences Inc. has been founded with a simple objective of researching and developing non-addictive pain management and relapse prevention products that mitigate the symptoms of chronic pain and support patients who battle with addiction. Nirvana believes that pairing naturally sourced psychedelics with modern medicine holds the promise of delivering non-addictive therapeutic solutions. Backed by a team of global leading researchers, Nirvana will develop life changing therapies for those suffering from pain and addiction and consequently alleviate the fiscally strained medical system.

## **Forward Looking Statements**

This news release contains certain forward-looking statements and forward-looking information (collectively referred to herein as forward- looking statements") within the meaning of Canadian securities laws including, without limitation, statements with respect to the future investments by the Company. All statements other than statements of historical fact are forward-looking statements. Undue reliance should not be placed on forward-looking statements, which are inherently uncertain, are based on estimates and assumptions, and are subject to known and unknown risks and uncertainties (both general and specific) that contribute to the possibility that the future events or circumstances contemplated by the forward- looking statements will not occur. Although the Company believes that the expectations reflected in the forward-looking statements contained in this press release, and the assumptions on which such forward-looking statements are made, are reasonable, there can be no assurance that such expectations will prove to be correct. Readers are cautioned not to place undue reliance on forward-looking statements included in this document, as there can be no assurance that the plans, intentions or expectations upon which the forward-looking statements are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will not occur, which may cause the Company's actual performance and results in future periods to differ materially from any estimates or projections of future performance or results expressed or implied by such forwardlooking statements. The forward-looking statements contained in this news release are made as of the date hereof and the Company does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, except as required by applicable law. The forward-looking statements contained herein are expressly gualified by this cautionary statement.

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