



Cybin Announces Publication of Research Manuscript in the Journal of Medicinal Chemistry

April 18, 2024

- Publication explores structure-activity relationships ("SAR") of a broad range of 2C-X analogs -

- Innovative research led to the discovery of CYB210010, a potent and long-acting serotonin 5-HT₂ receptor agonist with favorable pharmacokinetic properties -

TORONTO--(BUSINESS WIRE)-- [Cybin](#) Inc. (NYSE American:CYBN) (Cboe CA:CYBN) ("**Cybin**" or the "**Company**"), a clinical-stage biopharmaceutical company committed to revolutionizing mental healthcare by developing new and innovative next-generation psychedelic-based treatment options, today announced that its research manuscript, entitled "Synthesis and Structure-Activity Relationships of 2,5-dimethoxy-4-substituted phenethylamines and the discovery of CYB210010: A potent, orally bioavailable and long-acting serotonin 5-HT₂ receptor agonist," has been published in the *Journal of Medicinal Chemistry*, a prestigious bi-weekly peer-reviewed publication.

"We are delighted that our research on phenethylamine serotonin 5-HT₂ receptor agonists was published in this important journal," said Doug Drysdale, Chief Executive Officer of Cybin. "This study is an example of our expanding scope of innovative development work beyond our clinical tryptamine programs. This publication is a testament not only to our scientific leadership in the field of 5-HT₂ receptor agonists, the receptor family believed to mediate the therapeutic effects of classic psychedelics, but also to the depth and breadth of our expertise as we continue to advance the study of the role of next-generation psychedelic-based treatment options for mental health and neurological disorders."

"In the past decade, there has been a revival of interest in serotonin (5-HT)-based psychedelics as pharmacotherapeutics for neuropsychiatric disorders," said Geoff Varty, Ph.D., Head of R&D of Cybin. "Given the clinical potential of 2C-X phenethylamines, our studies explored the SARs of a broad range of 2C-X analogs, focusing on 4-thio derivatives, to identify novel 5-HT₂ receptor ligands with unique pharmacodynamic ("PD") and pharmacokinetic ("PK") properties. We synthesized 39 proprietary 4-substituted-2,5-dimethoxyphenethylamines and these phenethylamines were profiled for their ability to interact with the serotonin system and to induce psychedelic-like effects in preclinical models. This research led to the discovery of CYB210010, a potent and long-acting serotonin 5-HT₂ receptor agonist with favorable PK and PD properties," concluded Dr. Varty.

Future investigations will focus on the development of CYB210010 and related molecules as novel therapeutics for psychiatric and neurological disorders with unmet needs.

[Click here](#) to view the full publication.

Title: Synthesis and Structure-Activity Relationships of 2,5-dimethoxy-4-substituted phenethylamines and the discovery of CYB210010: A potent, orally bioavailable and long-acting serotonin 5-HT₂ receptor agonist

Authors: Geoff Varty, Clint Canal, Tina Mueller, Josh Hartsel, Richa Tyagi, Ken Avery, Mike Morgan, Amy Reichelt, Pradip Pathare, Erik Stang, Mike Palfreyman, Alex Nivorozhkin

About Cybin

Cybin is a clinical-stage biopharmaceutical company on a mission to create safe and effective psychedelic-based therapeutics to address the large unmet need for new and innovative treatment options for people who suffer from mental health conditions.

Cybin's goal of revolutionizing mental healthcare is supported by a network of world-class partners and internationally recognized scientists aimed at progressing proprietary drug discovery platforms, innovative drug delivery systems, and novel formulation approaches and treatment regimens. The Company is currently developing CYB003, a proprietary deuterated psilocybin analog for the treatment of major depressive disorder and CYB004, a proprietary deuterated DMT molecule for generalized anxiety disorder and has a research pipeline of investigational psychedelic-based compounds.

Headquartered in Canada and founded in 2019, Cybin is operational in Canada, the United States, the United Kingdom, the Netherlands and Ireland. For company updates and to learn more about Cybin, visit www.cybin.com or follow the team on X, LinkedIn, YouTube and Instagram.

Cautionary Notes and Forward-Looking Statements

Certain statements in this news release relating to the Company are forward-looking statements and are prospective in nature. Forward-looking statements are not based on historical facts, but rather on current expectations and projections about future events and are therefore subject to risks and uncertainties which could cause actual results to differ materially from the future results expressed or implied by the forward-looking statements. These statements generally can be identified by the use of forward-looking words such as “may”, “should”, “could”, “intend”, “estimate”, “plan”, “anticipate”, “expect”, “believe” or “continue”, or the negative thereof or similar variations. Forward-looking statements in this news release include statements regarding the development of CYB210010; and the Company’s proprietary drug discovery platforms, innovative drug delivery systems, novel formulation approaches and treatment regimens for mental health conditions.

These forward-looking statements are based on reasonable assumptions and estimates of management of the Company at the time such statements were made. Actual future results may differ materially as forward-looking statements involve known and unknown risks, uncertainties, and other factors which may cause the actual results, performance, or achievements of the Company to materially differ from any future results, performance, or achievements expressed or implied by such forward-looking statements. Such factors, among other things, include: fluctuations in general macroeconomic conditions; fluctuations in securities markets; expectations regarding the size of the psychedelics market; the ability of the Company to successfully achieve its business objectives; plans for growth; political, social and environmental uncertainties; employee relations; the presence of laws and regulations that may impose restrictions in the markets where the Company operates; implications of disease outbreaks on the Company’s operations; and the risk factors set out in each of the Company’s management’s discussion and analysis for the three and nine month periods ended December 31, 2023 and the Company’s annual information form for the year ended March 31, 2023, which are available under the Company’s profile on www.sedarplus.ca and with the U.S. Securities and Exchange Commission on EDGAR at www.sec.gov. Although the forward-looking statements contained in this news release are based upon what management of the Company believes, or believed at the time, to be reasonable assumptions, the Company cannot assure shareholders that actual results will be consistent with such forward-looking statements, as there may be other factors that cause results not to be as anticipated, estimated or intended. Readers should not place undue reliance on the forward-looking statements and information contained in this news release. The Company assumes no obligation to update the forward-looking statements of beliefs, opinions, projections, or other factors, should they change, except as required by law.

Cybin makes no medical, treatment or health benefit claims about Cybin’s proposed products. The U.S. Food and Drug Administration, Health Canada or other similar regulatory authorities have not evaluated claims regarding psilocybin, psychedelic tryptamine, tryptamine derivatives or other psychedelic compounds. The efficacy of such products has not been confirmed by approved research. There is no assurance that the use of psilocybin, psychedelic tryptamine, tryptamine derivatives or other psychedelic compounds can diagnose, treat, cure or prevent any disease or condition. Rigorous scientific research and clinical trials are needed. Cybin has not conducted clinical trials for the use of its proposed products. Any references to quality, consistency, efficacy and safety of potential products do not imply that Cybin verified such in clinical trials or that Cybin will complete such trials. If Cybin cannot obtain the approvals or research necessary to commercialize its business, it may have a material adverse effect on Cybin’s performance and operations.

Neither the Cboe Canada, nor the NYSE American LLC stock exchange have approved or disapproved the contents of this news release and are not responsible for the adequacy and accuracy of the contents herein. 

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