

# A SPECIALTY LIFE SCIENCES COMPANY

Corporate Presentation  
February 2024



OTCQB: FRANKFURT:  
RVVTF 31R

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# FORWARD LOOKING STATEMENTS

Certain statements contained in this presentation constitute forward-looking information within the meaning of securities laws. Forward-looking information may relate to our future outlook and anticipated events or results and may include statements regarding our future financial position, business strategy, budgets, litigation, projected costs, capital expenditures, financial results, taxes and plans and objectives. In some cases, forward-looking information can be identified by terms such as “may”, “will”, “should”, “expect”, “plan”, “anticipate”, “believe”, “intend”, “estimate”, “predict”, “potential”, “continue” or other similar expressions concerning matters that are not historical facts. These statements are based on certain factors and assumptions regarding, among other things, expected growth, results of operations, performance, and business prospects and opportunities. While we consider these assumptions to be reasonable based on information currently available to us, they may prove to be incorrect. Forward looking-information is also subject to certain factors, including risks and uncertainties that could cause actual results to differ materially from what we currently expect. These factors include, among other things, the availability of funds and resources to pursue development projects, the successful and timely completion of clinical studies, and the ability to take advantage of business opportunities, the granting of necessary approvals by regulatory authorities, and general economic, market and business conditions. For more exhaustive information on these risks and uncertainties you should refer to our most recently filed Annual Information Form which is available at [www.sedar.com](http://www.sedar.com). Forward-looking information contained in this presentation is based on our current estimates, expectations and projections, which we believe are reasonable as of the current date. You should not place undue importance on forward-looking information and should not rely upon this information as of any other date. While we may elect to, we are under no obligation and do not undertake to update this information at any particular time.

# REVIVE THERAPEUTICS



Focused on the development of therapeutics and diagnostics for infectious diseases, bioweapons and substance abuse



Advancing novel use of Bucillamine for Long COVID and companion diagnostic, and medical countermeasures

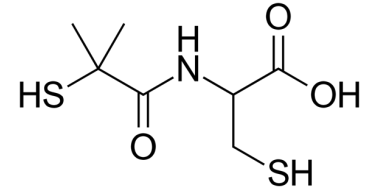


Developing oral Psilocybin for substance abuse disorders

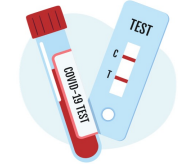


Robust patent portfolio covering methods and compositions of drugs, delivery, and diagnostics

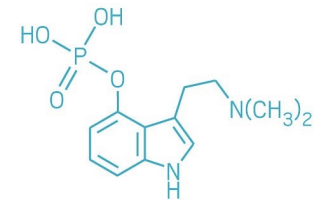
## Bucillamine



## LONG COVID DIAGNOSTIC



## Psilocybin



# STRATEGY



## Clinical development

- Bucillamine and diagnostic for Long COVID
- Bucillamine for Nerve Agent Exposure
- Psilocybin for substance abuse



## Target Markets

- Infectious Diseases
- Mental Health
- Rare Disorders



## Intellectual Property

- Novel Uses
- Formulations
- Delivery Systems



## FDA Designations

- Orphan Drug
- Fast Track
- Breakthrough Therapy



# INTELLECTUAL PROPERTY PORTFOLIO

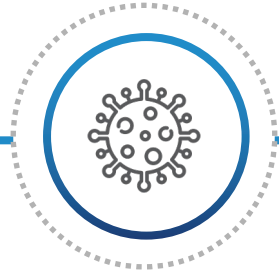
Title	USPTO No.	Status
Use of Bucillamine in the Treatment of Infectious Diseases, including COVID-19	62/991,996	Non-Provisional patent filed
Use of Bucillamine in the Treatment of Gout	US9662305	Granted - May 30, 2017
Use of Bucillamine in the Treatment of Neurological Brain Injury and Migraines	63/546405	Provisional patent filed
Method and use of Bucillamine in the Prevention and Treatment of Stroke	PCT/CA2023/050425	Non-Provisional patent filed
Bucillamine in the treatment of a victim exposed to a chemical warfare agent	63/529230	Provisional patent filed
Drug Delivery System	US 8642088 US 9545423 US 10104888	Issued on February 4, 2014 Issued on January 17, 2017 Issued on October 23, 2018
LONG COVID - Blood Biomarkers, Diagnosis and Treatment of Long-COVID	PCT/CA2023/050145 PCT/CA2023/051292 No. 63/433,425	Provisional patent filed
Methods for the Extraction and Crystallization of Psilocybin	62/985,360	Provisional patent filed
Psilocybin in the Treatment of Neurological Brain Injury	63/011,493	Provisional patent filed
Use of Psilocybin in the Treatment of Cancer	63/133,913	Provisional patent filed
Psilocybin Pharmaceutical Combination Therapies	63/125,106	Provisional patent filed
Use of Cannabidiol in the Treatment of Autoimmune Hepatitis	US 8242178	Issued on August 14, 2012

# PRODUCT PIPELINE

## Focus on Infectious Diseases, Medical Countermeasures, Substance Abuse

Product	Indication	Stage of Development	Regulatory Status
Bucillamine <i>(Oral Tablet)</i>	Infectious Diseases COVID-19	Completed Phase 3	Determining next steps and international opps
Bucillamine <i>(Oral Tablet)</i>	Infectious Diseases Long COVID	Phase 2	IND filing for clinical study
Bucillamine	Medical Countermeasures Nerve Agent	Pre-clinical	Defence R&D Canada – Research funded by Suffield Research Centre, Canadian Department of National Defence
Diagnostic Rapid Test	LONG COVID	Pre-commercial prototype	Preparing submission for FDA approval pathway
Oral Psilocybin <i>(Oral Capsule)</i>	Substance Use Disorder Methamphetamine	Phase 1/2	Preparing end-of-Phase 2 meeting with FDA

# INFECTIOUS DISEASE OPPORTUNITY



## Bucillamine potential for COVID-19

- Potential treatment for reduction in hospitalizations, clinical symptoms and for long COVID



## Bucillamine Safety Profile

- Well-known safety profile and prescribed for arthritis in Japan and South Korea for over 30 years



## Revive's clinical history with Bucillamine

- Completed Phase 3 study for COVID-19 in over 700 subjects; determining clinical application for long COVID
- Obtained 2 FDA INDs with Bucillamine and FDA orphan drug status (cystinuria, ischemia-reperfusion)
- FDA Phase 2 clinical study for acute gout flares and cystinuria



## Bucillamine scientific rationale as an intervention for COVID-19 (see Appendix)

- BUC is 16x more potent than particularly N-acetylcysteine (NAC); NAC has shown to prevent acute lung injury caused by influenza virus
- BUC shown superior function in restoring glutathione and therefore greater potential to prevent acute lung injury during influenza infection
- BUC also shown to prevent oxidative and reperfusion injury in heart and liver tissues
- BUC proven safety and MOA similar to NAC, but with much higher potency

# LONG COVID OPPORTUNITY

**The Problem:** *No diagnostic test = unnecessary testing*

**The Solution:** *LAB/POC Test Saves \$385K / patient*

Impacts 40+ complex multi-system (including Digestive, Brain + Cardiovascular)

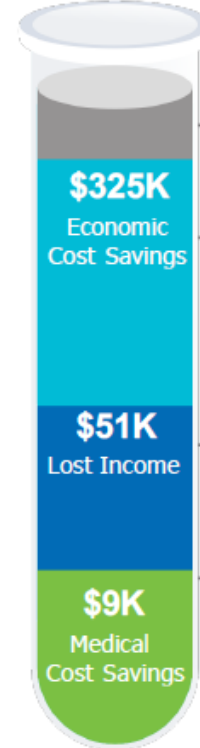
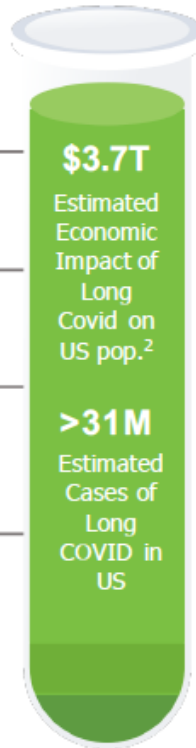
No single test exists causing process of elimination testing

Cases (est):

US 31 million  
Global 189 million

Economic Impact (est):

US. \$3.7 trillion



One Test (Lab/POC rapid test)

Cost savings

Lost Income	\$51,000 / patient
Medical Cost	\$9,000 / patient
Economic	<u>\$325,000 / patient</u>
	\$385,000

A rapid test is portable and can be used in a wide array of settings (doctor offices, clinics, ER's, hospitals, urgent care, and remote)

A rapid test can be used by public health and Dept of Defense for disease surveillance and research

(1) "Global prevalence for Long-Covid-19 overall .32 (95% CI: 0.xx,0.xx), at 30, 60, 90, and 120 days after infection were estimated to be 0.37 (95% CI: 0.26,0.49), 0.25 (95% CI: 0.15,0.38), 0.32 (95% CI: 0.14,0.57) and 0.49 (95% CI: 0.40,0.59), respectively. Source: Chen Chen et al., *The Journal of Infectious Diseases*, jiac136, <https://doi.org/10.1093/infdis/jiac136>. Published: 16 April 2022.

(2) "The Economic Cost of Long COVID: An Update," David M. Cutler, Harvard University, July 22, 2022, [https://scholar.harvard.edu/files/cutler/files/long\\_covid\\_update\\_7-22.pdf](https://scholar.harvard.edu/files/cutler/files/long_covid_update_7-22.pdf)

(3) Josef, C et al and Fraser, D. "Elevated vascular transformation blood biomarkers in Long-COVID indicate angiogenesis as a key pathophysiological mechanism." *Molecular Medicine* 28, 122 (2022).

<https://doi.org/10.1186/s10020-022-00548-8>



# PSYCHEDELICS PROGRAMS



## Psilocybin for Substance Abuse Disorders Program

- Collaboration with University of Wisconsin-Madison for the clinical development of Methamphetamine use disorder



## Novel Psilocybin Biosynthesis Enzymatic Platform

- Collaboration with NCSU, under Dr. Gavin Williams, to develop a simple method for rapidly producing psilocybin using an engineered enzymatic pathway in E. coli

**NC STATE**  
**UNIVERSITY**

# FORMULATION & DELIVERY TECHNOLOGY

## Delivering naturally extracted and synthetic psychedelics



### DELIVERY SYSTEM

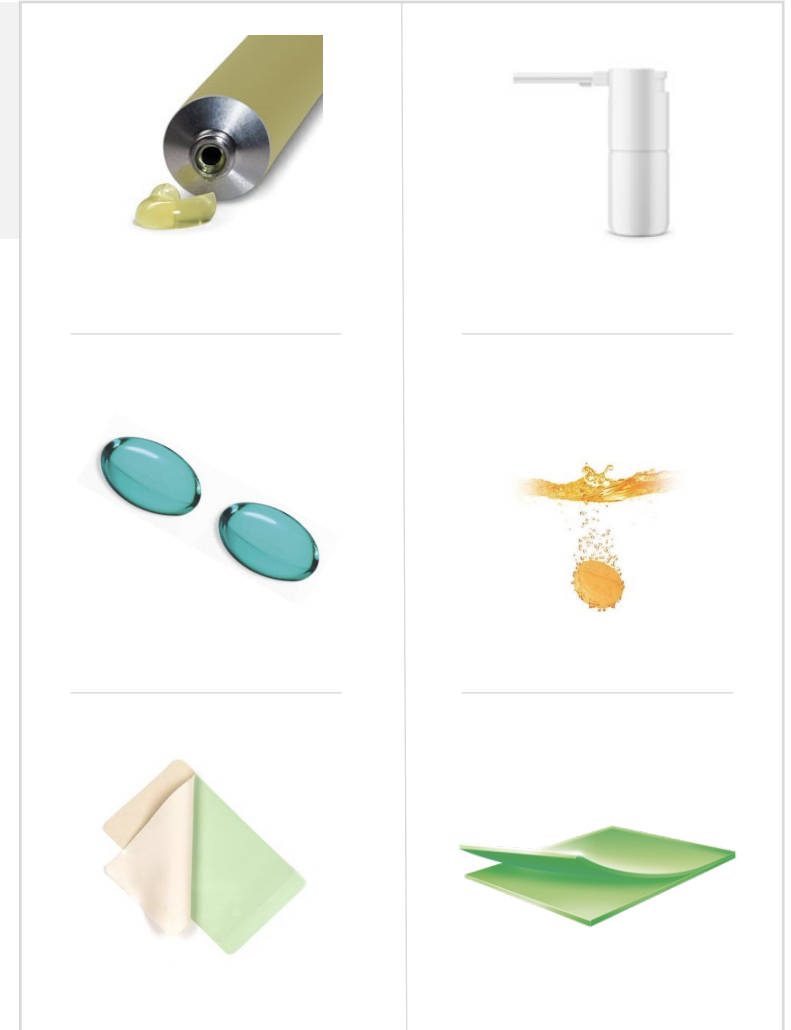
Combines **Tannin** (antibacterial, antifungal, antioxidant, wound healing) and **Chitosan** (blood-clotting and antimicrobial) composites

- ✓ Releases (rapid, controlled, sustained), improved bioavailability, no first-pass metabolism



### PSILOCYBIN

Precise dosed formulations



# STRATEGIC PARTNERS




UNIVERSITY OF  
**WATERLOO**

Bucillamine  
Formulation



DRDC  
RDDC  
Canada

Bucillamine  
Chemical Warfare



**LAWSON**  
HEALTH RESEARCH INSTITUTE

Long COVID Rapid Test



**NC STATE**  
UNIVERSITY

Psilocybin Biosynthesis



**WISCONSIN**  
UNIVERSITY OF WISCONSIN-MADISON

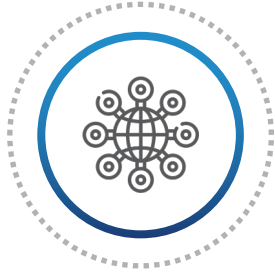
Clinical Research  
Psilocybin

# EXPECTED MILESTONES

H1  
2024

- FDA meeting for Bucillamine to treat LONG COVID
- FDA meeting for LONG COVID Lab and Rapid Test diagnostic development
- Results of Bucillamine for nerve agent exposure at DRDC
- Interim-results of Phase 1/2 study for Psilocybin (Methamphetamine Use Disorder) at University of Wisconsin
- Complete reformulation of Bucillamine IV for future studies in infectious diseases and rare disorders

# TEAM



## Management

- **Michael Frank**  
Chairman and CEO
- **Carmelo Marrelli**  
Chief Financial Officer
- **Derrick Welsh**  
COO, Psilocin Pharma Corp.



## Clinical & Regulatory

- **Dr. Kelly McKee, Jr., MD, MPH**  
Chief Scientific Officer, Consultant
- **Dr. Arshi Kizilbash, M.D.**  
Medical Advisor, Consultant
- **Dr. Onesmo Mpanju, PhD**  
FDA Regulatory Affairs, Consultant
- **Dr. John Fahy, MD**  
Pulmonary and critical care,  
Scientific & Clinical, Consultant
- **Dr. Douglas Fraser**  
Scientist, Critical Care Physician



## Board of Directors

- **Michael Frank**  
Chairman and CEO
- **William Jackson**  
Director
- **Joshua Herman**  
Director
- **Christian Scovenna**  
Director
- **Andrew Lindzon**  
Director

# STOCK INFORMATION



## Ticker

RVV (CSE) | RVVTF (OTCQB) | 31R (Frankfurt)



## 52-Week High/Low

CAD \$0.14 / \$0.02



## Market Cap

CAD ~ \$12,500,000



## Share Price

CAD \$0.03 (Feb 27, 2024)



## Capital Structure

418,564,269 common shares  
35,320,334 stock options  
63,317,263 warrants (\$0.05 - \$0.20)

# APPENDIX – BUCILLAMINE SCIENTIFIC RATIONALE FOR COVID-19

Current antiviral interventions for influenza have exhibited modest efficacy, especially in improving mortality in at-risk populations, such as the elderly.<sup>1,2</sup> Novel antivirals have been plagued by poor oral bioavailability and lack of efficacy when not delivered early.<sup>1</sup> This is because these drugs mostly act to prevent the early processes of virus binding to cells or viral replication.<sup>2</sup> Thiols, particularly N-acetylcysteine (NAC), with antioxidant and reducing activity have been investigated as effective therapies that abrogate the potential for influenza to cause severe disease.<sup>3,4,5</sup> Restoration of glutathione, the major intracellular thiol antioxidant, is a critical functional activity of NAC.<sup>6</sup> Reactive oxygen species (ROS) generation during influenza virus infection aggravate destructive inflammation and programmed death of epithelial cells.<sup>7</sup> Studies in human cells and animal models have shown that NAC works to prevent acute lung injury caused by influenza virus infection through inhibition of these ROS-mediated mechanisms.<sup>4,7</sup> NAC has been investigated clinically and found to significantly attenuate clinical symptoms associated with influenza infection, especially in elderly at-risk patients.<sup>5</sup> While NAC is easily taken up by cells and has low toxicity, clinical efficacy has required long-term and high-dose administration because of modest relative potency, limiting its clinical applicability.

Bucillamine (N-(mercapto-2-methylpropionyl)-L-cysteine), which has a well-known safety profile and is prescribed in the treatment of rheumatoid arthritis in Japan and South Korea for over 30 years, is a cysteine derivative with 2 thiol groups that is 16-fold more potent than NAC as a thiol donor in vivo, giving it vastly superior function in restoring glutathione and therefore greater potential to prevent acute lung injury during influenza infection.<sup>8</sup> Bucillamine has also been shown to prevent oxidative and reperfusion injury in heart and liver tissues<sup>8</sup> and is highly cell permeable for efficient delivery into cells.<sup>8,9</sup> Bucillamine has unrealized potential for the treatment of influenza with both proven safety and proven mechanism of action similar to that of NAC, but with much higher potency, mitigating the previous obstacles to using thiols therapeutically. It is also reasonable to hypothesize that similar processes related to ROS are involved in acute lung injury during nCov-19 infection, possibly justifying the investigation of Bucillamine as an intervention for COVID-19.

# APPENDIX – BUCILLAMINE SCIENTIFIC RATIONALE FOR COVID-19

## References

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8. [Horowitz LD. Bucillamine: a potent thiol donor with multiple clinical applications. Cardiovasc Drug Rev. 2003 Summer;21\(2\):77-90.](#)
9. [Sagawa A, Fujisaku A, Ohnishi K et al. A multicentre trial of bucillamine in the treatment of early rheumatoid arthritis \(SNOW study\). Mod Rheumatol. 2011 Jun;21\(3\):251-7. doi: 10.1007/s10165-010-0385-4](#)