



Breakthroughs in the Science of Cellular Agriculture are Producing the Therapeutics that Will Advance Neuroscience and Improve the Mental Wellness of Mankind

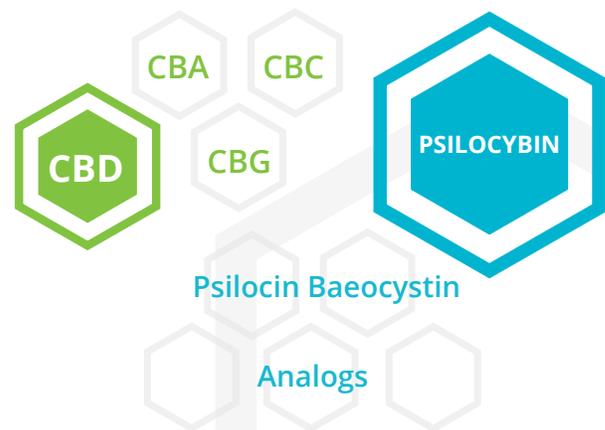
Yeast has been used since the earliest days of mankind to make bread, wine and beer. In the process of fermentation, yeast cells transform sugar into the natural molecules necessary for the production of many of our foods and beverages. Mankind has selectively modified yeast as well as bacteria and even developed cell-free expression systems to turn these organisms and systems into robust biotechnology platforms capable of producing an amazing range of molecules and compounds.

Many high value therapeutic compounds such as human growth hormone, insulin and blood clotting factors are already produced using genetically modified yeast. It's also been shown that a number of phytochemicals that are extracted from plants and other molecules can be more efficiently produced, with less natural resources and environmental impact, utilizing yeast as a biochemical factory instead of extracting these compounds from agricultural feedstock.

CB Therapeutics has spent the last four years developing and refining multiple Cellular Agriculture platforms utilizing several different types of hosts and systems, including yeast, bacteria and cell-free expression systems. CB Therapeutics has recently achieved the production of some of the most promising therapeutic molecules and compounds for use in Neuroscience research and drug discovery. Our advances in synthetic genomics, bio-engineering and cellular production processes are producing a number of phyto-chemicals faster, more sustainably, at greater yields and with pharmaceutical-grade purity and consistency than through conventional agriculture and extraction.



Although there are many families of therapeutic compounds that may achieve their potential as therapeutics to meet unmet medical needs through Cellular Agriculture production methods, CB Therapeutics has focused on two of the most promising in Neuroscience. Cannabinoids such as CBD and THC as well as many rare variations including, CBA, CBC and CBG, THCO or THCV, and Tryptamine-based compounds such as psilocybin, psilocin and baecystin as well as their analogs. CB Therapeutics is continuing to improve the development and production of these compounds as well as partnering with medical professionals and some of the top hospitals in the nation on clinical trials for these high therapeutic potential biosynthetic compounds.



Cultures have used psychoactive plants as medicines since the dawn of man. Many of these civilizations used these plants at low dosages for their therapeutic value and not only for their spiritual and hallucinogenic properties. Even though these other plant derived compounds have been utilized for humanity's benefit for thousands of years, only recently have medical and mental health researchers begun to understand the broad application and significant therapeutic value of cannabinoids and tryptamines.



For more information visit www.cbthera.com

Solving mankind's most challenging mental healthcare and social problems

15%



EXPERIENCE PTSD IN THEIR LIFETIME

1 IN 5 SUFFER FROM DEPRESSION



20M+

SUBSTANCE ABUSE DISORDER



100+M

ARE TREATMENT RESISTANT



Much has been written on tryptamines positive attributes and their potential for the treatment of depression, PTSD, addiction and a host of physical and emotional maladies. Almost 1 in 5 people suffer from severe depression at some point in their lives and more than 100 million are treatment resistant, without any treatments in the market that have shown durable, lasting effects. 15% of the population experiences PTSD in their lifetimes. Addiction has become the scourge of mankind, destroying lives, families and the fabric of our society.

Tryptamines are currently being evaluated in Phase 2 clinical trials for the treatment of depression. Research conducted at Johns Hopkins University has confirmed that psychedelic experiences at high doses of psilocybin and other tryptamines provide a rapid, significant and enduring therapeutic benefit for the treatment of depression. The early data was so convincing that the FDA granted psilocybin as a "Breakthrough Therapy" for the treatment of Treatment resistant Depression (TRD) and Major Depressive Disorder (MDD).

The FDA has also approved GW Pharmaceuticals' Epidiolex™, a medicine derived from cannabis, to treat two severe forms of epilepsy. Further clinical development of cannabidiol (CBD) and other cannabinoids as well as tryptamines and their analogs into FDA-approved therapies for the treatment of pain, anxiety, PTSD, Alzheimer's and addiction will prove that Mother Nature's ancient medicines can make a powerful difference in people's lives and improve the future of our civilization.

A key differentiation of the CB Therapeutics BioPlatform is its ability to make analogs of many of these tryptamine compounds, allowing for a library of hundreds of different variants of these molecules. Many of these may be more effective as treatments, and some may not exhibit the hallucinogen properties while still retaining the therapeutic benefits. This could transform the treatment paradigm for these promising therapeutics. The ability to produce specific pure cannabinoids and tryptamines to customize compounds for combination therapies, applications and products could create a whole new landscape for cannabinoid and tryptamine therapeutics. CB Therapeutics has built a high-throughput Synthetic Biology infrastructure that allows for streamlined iterations and optimization of bioprocesses for large scale production.

"We believe that Synthetic Biology and Cellular Agriculture are mankind's next, greatest innovation to improve how we will live our lives. We are advancing the science of yeast and cellular agriculture to research, develop and produce the molecules, compounds and rare ingredients to advance Neuroscience and bring these therapeutics to the clinic and the marketplace. By discovering and applying both ancient and cutting-edge innovations in Neuroscience and Cellular Agriculture, we are borrowing the very best ideas from Mother Nature and reproducing and reprogramming them to solve mankind's most challenging mental healthcare and social problems." - Sher Ali Butt, CEO CB Therapeutics

About CB Therapeutics

CB Therapeutics is a highly focused and motivated team of scientists and professionals that has already significantly advanced the science of Cellular Agriculture and Neuroscience with a number of patents and patent applications. After more than four years of research and development, efficient use of capital and applied expertise in synthetic genomics, bio-engineering and cellular production processes, the team is currently producing a number of high value molecules and cannabinoid and tryptamine compounds. A 7000+ sf fully-licensed commercial batch facility in San Diego County, California includes research labs, offices and a production facility for laboratory scale and pilot production runs and is equipped with a suite of bench-top and large-scale fermenters for multiple biosynthetic production applications.



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