

GB Sciences Files Patent Application for Chronic Pain and Heart Therapies

LAS VEGAS, May 23, 2017 /PRNewswire/ -- GB Sciences, Inc. (OTCQB: GBLX) is pleased to announce the filing of its latest patent application by its wholly-owned subsidiary, Growbiox Life Sciences, LLC for the treatment of chronic pain and heart therapies based on myrcene-containing complex mixtures ("MCCM").

The current US opioid epidemic, along with growing public and government concern regarding opioid abuse, makes new pain treatments a promising field of research and development. Our novel pain formulations are also substantially free of delta-9 tetrahydrocannabinol ("THC"), which minimizes their potential for abuse. Pain management represents an estimated health burden of between \$560 to \$650 billion dollars for chronic pain and between \$17 to \$20 billion dollars for immunological/neuropathic pain in the US alone. In addition, our novel heart disease formulations address the \$316 billion dollar heart therapy market in the US.

Our current drug discovery efforts were accelerated through the powerful combination of GB Sciences' proprietary *in silico* prediction approach, termed the GB Sciences' Network Pharmacology Platform ("NPP"), and GB Sciences' proven high-throughput screening techniques using cell-based models. The current provisional patent application covers myrcene-containing complex mixtures capable of targeting the non-traditional cannabinoid receptor, TRPV1. Our latest patent application complements the issued TRPV1 patent that GB Sciences licensed from Makai Biotechnology in December of 2016.

"Many cannabis researchers have theorized that the role of terpenes in cannabis-based therapies is to act as so-called 'Entourage' components. We show that the TRPV1 receptor is a target for these 'Entourage' compounds, a molecular interaction that had previously been demonstrated for several of the cannabinoids," said Dr. Andrea Small-Howard, Chief Science Officer of GB Sciences, Inc. *"We have demonstrated that beta-myrcene is the most significant of several terpenes derived from the cannabis plant that are capable of activating the TRPV1 receptor. Myrcene, like capsaicin, causes TRPV1 desensitization after prolonged exposure, and should therefore prove useful in treating chronic pain. In creating our novel MCCM mixtures for pain, we have also demonstrated that other terpenes and cannabinoids present in the complex mixture, including those that do not demonstrate significant TRPV1 agonist activity on their own, act in combination to increase the efficacy of myrcene. Unlike other pain medications, we leverage molecular synergies among cannabis-plant compounds to target multiple receptors within pain-sensing neural bundles to increase their combined effectiveness at pain relief."*

"These new chronic pain and heart formulas adhere to GB Science's strategy of commercializing complex mixtures of cannabis-derived compounds whose pharmaceutical activity does not require THC. Instead, the purified THC is sold as a certified raw ingredient or used in co-branded dispensary products," explains John Poss, Chairman and CEO of GB Sciences, Inc.

About GB Sciences, Inc.

GB Sciences, Inc. (GBLX) is a diverse cannabis company, focused on standardized cultivation and production methods; as well as biopharmaceutical research and development. The Company's goal is creating safe, standardized, pharmaceutical-grade, cannabinoid therapies that target a variety of medical conditions. To learn more about GB Sciences, Inc., go to: <http://gbsciences.com>.

Forward-Looking Statements

This press release may contain statements relating to future results or events, which are forward-looking statements. Words such as "expects", "intends", "plans", "may", "could", "should", "anticipates", "likely", "believes" and words of similar import may identify forward-looking statements. These statements are not historical facts, but instead represent only the Company's belief regarding future events, many of which, by their nature, are inherently uncertain and outside of the Company's control. It is possible that the Company's actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements. Further, information concerning the Company and its business, including factors that potentially could materially affect the Company's business and financial and other results, are contained in the Company's filings with the Securities and Exchange Commission, available at www.sec.gov. All forward-looking statements included in this press release are made only as of the date of this press release, and we do not undertake any obligation to publicly update or correct any forward-looking statements to reflect events or circumstances that subsequently occur or of which we hereafter become aware.

Note: Although the Company's research and development activities are not illegal, the production and sale of cannabis products violate federal laws as they presently exist.

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