

January 28, 2020

Dear Kannalife Shareholders,

Since our inception in 2010, Kannalife's mission, as "a phyto-medical company" has been to advance the scientific and potential therapeutic value of cannabaceae constituents, including cannabinoid compounds like cannabidiol (CBD) found in cannabis and hemp and terpenophenolic compounds found in *Humulus*, better known as Hops. Our extensive pre-clinical evaluation of CBD and certain phospholipids has brought forth the creation of novel, patented cannabidiol-like molecules and newly discovered compounds as potential treatments for

- Neurodegenerative diseases like Parkinson's Disease (PD), Alzheimer's Disease (AD);
- Oxidative stress related diseases such as Overt Hepatic Encephalopathy (OHE), Chronic Traumatic Encephalopathy (CTE); and
- Additional pathological conditions including Chemotherapy Induced Peripheral Neuropathy (CIPN), Diabetic Neuropathy (DN), and Traumatic Brain Injury (TBI).

Throughout this journey, we have taken a scientific, "by the book" approach regarding the research and development of any CBD based pharmaceutical, meeting the strict criteria set forth by the Drug Enforcement Agency (DEA) and Food and Drug Administration (FDA) to research and develop our target drug candidates. Our trade partners include Noramco, a world leader in the production of active pharmaceutical ingredients (API), and producer of pharmaceutical grade, highly purified cannabidiol (CBD). Noramco's CBD is currently under drug master file with the U.S. Food and Drug Administration (FDA). We have taken the high quality, high assurance road less traveled regarding CBD and have put Noramco's CBD together with our own proprietary vehicle compound in multiple feasibility and stability studies at Catalent Pharma Solutions, a world-renowned bulk pharmaceutical packaging company.

As a result of these relationships with Noramco and Catalent, we have the opportunity to participate in the future generic market arena for CBD approved pharmaceuticals through the FDA.

But we didn't stop there. We knew we had to try and improve some of the physical, chemical and pharmacological shortcomings of CBD and so we created a new class of CBD-like molecules to do just that. And we succeeded in those efforts, pioneering significant advancements in the science, research and development of these aforementioned compounds which have broad therapeutic application across a range of potential indications. Of significance is our research, development and advancement of our lead drug compound, KLS-13019, a compound we refer to as "CBD 2.0", has shown tremendous promise in the treatment of chemotherapy induced neuropathic pain (CIPN). We are currently investigating KLS-13019 in the prevention and the reversal of neuropathic pain and as a potential non-addictive alternative to opioids.

As we enter 2020, the company is embarking on a year of critical inflection points that culminate a decade dedicated to being a disruptive and innovative company that not only has advanced the science and potential of cannabinoid therapeutics like CBD, but has furthered the potential through invention, advancing the potential of CBD with cannabidiol-like compounds such as KLS-13019.

Beyond the scientific advancements, we have also witnessed significant evolution in the perception and acceptance of cannabis-derived therapeutics. In particular, the formation of a

regulatory framework via the DEA's recent rescheduling of the first FDA-approved cannabis-derived prescription drug from a Schedule I Controlled Substance to Schedule V provides Kannalife a much clearer and defined path forward.

As a pioneer in the pre-clinical research and development of CBD and the creation of new, patented cannabidiol-like molecules for certain disorders, our efforts have uniquely positioned us at the forefront of this new and promising marketplace. We are blessed to have the best shareholders, officers, directors, employees and third-party providers, all of whom have been supportive and have worked diligently to lay a successful foundation for our corporate success.

Our dedicated life sciences efforts are backed by a credo of being a data driven scientific based company. This practice enables us to enter 2020 with confidence, and with an unflappable sense of purpose and commitment to bring forward potential first line treatment options for patients suffering from neurodegenerative diseases, chronic pain management and oxidative stress related disorders.

Significant Achievements

Over the past several years, we have achieved what few, if any, other company have done in terms of successfully synthesizing, testing and patenting our proprietary CBD-like new chemical entities ("NCEs") known as the KLS Family of molecules, including KLS-13019, formulated and discovered a new patent pending phospholipid compound from the Humulus Cannabaceae and the development of a newly formulated pharmaceutical grade CBD drug candidate, KLS-13023.

As previously outlined above, KLS-13019 is part of an estate of NCEs underlying [U.S. Patent 9,611,213](#) titled "Functionalized 1,3 Benzene-diols and their Method of Use for the Treatment of Hepatic Encephalopathy." This patent is part of a divisional patent application by the company to the USPTO whereby the company sought separate claims for composition of matter, covered in Pat. 9,611,213 and separate claims for method of treatment; and [U.S. Patent 10,004,722](#) titled "Method for Treating Stress and Oxidative Stress with Novel Functionalized 1,3 Benzene-diols."

In early 2017 the Company began research in collaboration with Temple University under a Phase 1 STTR grant from the National Institutes of Health (NIH) - National Institute on Drug Abuse (NIDA)

In August 2019, our pre-clinical results from the NIH-NIDA grant study on the pharmacological comparisons between CBD and our leading drug candidate KLS-13019 for the potential treatment of Chemotherapy-Induced Peripheral Neuropathy (CIPN) were [published in the Journal of Molecular Neuroscience](#). The results revealed that KLS-13019 was up to 200 times more potent, 5 times safer and 1,000 times more effective than CBD for the potential treatment of CIPN.

This enhanced scientific understanding regarding the mechanism of action of KLS-13019 in the CIPN model is best seen the [Mechanism of Action \(MOA\) animation](#) describing how KLS-13019 works to reverse the toxic side effects of cancer chemotherapy.

The NIH-NIDA phase 1 grant has been recently completed with animal behavioral pharmacology results soon to be published by Temple University. We anticipate this additional data from this groundbreaking study will be published in the first half of this year followed by clinical trials for KLS-13019 as a potential therapeutic agent for the treatment of CIPN.

Why this grant study is so important, revolves around two critical elements underlying our intellectual property and current socio-economic factors. The first is validation of our technology, the second succession. The grant study allowed for research into the potential use of KLS-13019 for CIPN and its potential succession as the alternative to the current first line use of opioids for treatment of neuropathic pain. KLS-13019 can be a viable non-addictive alternative to opioids in the treatment of neuropathic and chronic pain, thus potentially reducing addictive dependence of opioids in the treatment of chronic and neuropathic pain.

After the NIH-NIDA phase 1 are published by Temple University, we look to take KLS-13019 into a Phase 2 NIH-NIDA grant application as we move closer to filing an Investigational New Drug application (IND) with the FDA.

The global market for neuropathic pain was valued at more than \$5 Billion in 2015, and in 2016, CIPN accounted for more than 42 percent of market revenue. It's estimated that by 2024, the total global neuropathic pain market will be worth more than \$8.3 Billion,¹⁻² representing a tremendous market opportunity for us in the years ahead.

As recognition and reinforcement of this potential of KLS-13019, Time Magazine profiled its development, calling it a “super-CBD” molecule in its annual *TIME Marijuana: The Medical Movement* paperback book. More recently, Biospace profiled the company's research in [CBD: Perils, Promise and Development for Neuropathic Pain](#).

In January 2020, the company released an [update to shareholders](#) on our own global patent cooperation treaty (PCT) application [WIPO/PCT Patent WO2015/106108A2](#). Since the filing of the PCT Patent in 2015, the company has received patent approval in the U.S., Japan and Russia – a very significant accomplishment and milestone for Kannalife. Furthermore, Kannalife's application for patent protection of its intellectual property has been accepted in the European Union (EU) China and Australia. The company is awaiting notice from Canada, Brazil and India for notice of acceptance, in addition to anticipating receipt of patent grants from the EU, China and Australia during the first-half of 2020.

Our PCT patent includes several other molecules in addition to KLS-13019 and has been filed for the potential to treat diseases associated with free radical mediated stress and oxidative stress including Hepatic Encephalopathy (HE), Parkinson's disease, Alzheimer's, Huntington's disease, traumatic head injury, stroke, epilepsy, neuropathic pain, Chronic Traumatic Encephalopathy (CTE), Post Cardiac Arrest Hypoxic Ischemic Encephalopathy, and Epileptic Encephalopathy.

Another of Kannalife's patent pending novel CBD-like molecules is being groomed as consumer product to be commercialized under the trademark Atopidine™. The International Cosmetic Ingredient Nomenclature Committee assigned an International Nomenclature Cosmetic Ingredient name “Limonenyldihydroxybenzyl Ethoxycarbonyl Azetidine” (“LEA”) to Atopidine™, which has been shown in pre-clinical research to exhibit strong anti-inflammatory and antioxidant potential in addressing a number of consumer skin and personal care needs.

Our Future Outlook

There is a remarkable amount of potential ahead for Kannalife in both the next year and the next decade. As we continue navigating through the emerging cannabinoid therapeutics market, now as a publicly traded company, there are several distinct areas of scientific research and development that we are focused on driving forward.

We see great opportunity arising from our investments in our science and intellectual property. Ten years ago we called ourselves a phyto-medical company and today we are proving that pharmaceutical advancements can and do come from nature. While we are indeed a leading pioneer in the research, development and patenting of CBD-like molecules and remain ahead of the curve, we still have a lot of work to do. In a marketplace that needs to see CBD get beyond the C-Store countertop sale to consumers, we remain dedicated to bringing CBD and our CBD-like NCEs through human clinical trials so that patients in need of the upside of cannabinoid therapeutics can rely on a tried, tested and true process of prescribed medicine.

When I pause to reflect on how far we've come over the past ten years and how much further we can go in the next several years, I couldn't be more excited and optimistic.

As always, I am grateful and thankful for your support and interest in Kannalife.

Sincerely,

Dean Petkanas
Chief Executive Officer of Kannalife, Inc.

1. **BioSpace**. *Neuropathic Pain Market: lucrative opportunities and Fast Growth by 2026*. Accessed at <https://www.biospace.com/article/neuropathic-pain-market-lucrative-opportunities-and-fast-growth-by-2026/>
2. **Research Reporting Insights**. *Neuropathic Pain Market*. Accessed at <https://www.researchreportinsights.com/report/sample/110114956/Neuropathic-Pain-Market>.