INVEST IN **APHIOS PHARMA LLC**

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Developing Nanotechnology Solutions for Human Health and Well Being

PITCH VIDEO | INVESTOR PANEL

EARLY BIRD TERMS: $3,300 LEFT

$96,700

raised from 80 investors

INVEST
min $250

$ 0

INVEST

WATCH FOR UPDATES

INVESTMENT TERMS

~~$71M~~ **$70M** valuation cap | **Future Equity**
Early Bird Bonus: First $100K will invest in a SAFE with a $70M valuation cap and 10% discount

because of the flagship pain relief...

aphios.com/investors/investors-overview/aphios-pharma-llc

Woburn MA

Technology | Marketplace | Minority Owned | Social Impact | Health and Fitness

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Highlights

1. Green biotech developing sustained release nanoencapsulated cannabinoids for highly unmet chronic medical needs ✨
2. ESG opportunity addressing a $10B market for cancer pain, $5B for opioid use disorder, $20B for anxiety etc. ✨
3. Aphios has spent $47 million to date on developing enabling drug manufacturing and drug delivery technologies ✨
4. Established supercritical fluid manufacturing facility for 1,000 kg pharma-grade cannabinoids per yr under cGMP ✨
5. Our proprietary manufacturing and nanoencapsulation technologies are protected by 16 issued and 4 pending patents ✨

Our Team

Trevor P. Castor President and CEO

Dr. Castor has developed green enabling platforms for improving drug discovery and manufacturing, and nanotechnology drug delivery in an environmentally sustainable manner and nanoencapsulated cannabinoids for cancer pain, MS and opioid use disorder.

Medical marijuana has proven to be partially effective for cancer pain, opioid addiction and Multiple Sclerosis. These effects are acute and not effective for the treatment for chronic diseases such as pain and opioid addiction. With nanoencapsulation, we can improve the delivery and efficacy of cannabinoids.

Dr. Val Livada Business Advisor

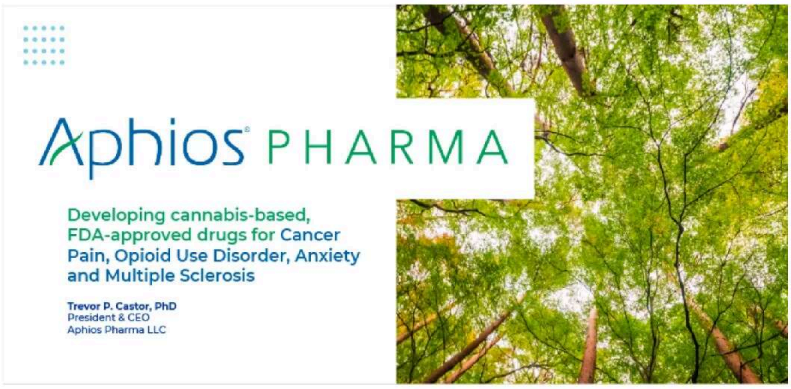
Dr. Val R. Livada is Founder and CEO of Weybridge Partners which is focused on successful technology commercialization. He was a Senior Lecturer (retired) on Corporate Entrepreneurship at the Sloan School of Management, MIT, Cambridge, MA.

Judith Castor Director, Regulatory and Clinical Affairs

Dr. Judith Palmer-Castor is a behavioral health scientist with a broad range of clinical and regulatory experiences including Phase II/III clinical trials for a cancer supportive care compound, Phase II for HIV and Phase I for Alzheimer's disease.

SEE MORE

Inspired by Nature, Enabled by Science®



About Aphios Pharma

We are dedicated to the discovery, delivery, development and commercialization of cannabis and hemp-based drugs for Central and Peripheral Nervous System disorders.

Our initial product targets are pain, including cancer-induced peripheral neuropathic pain (CIPNP), opioid use disorder (OUD), anxiety and Multiple Sclerosis (MS).

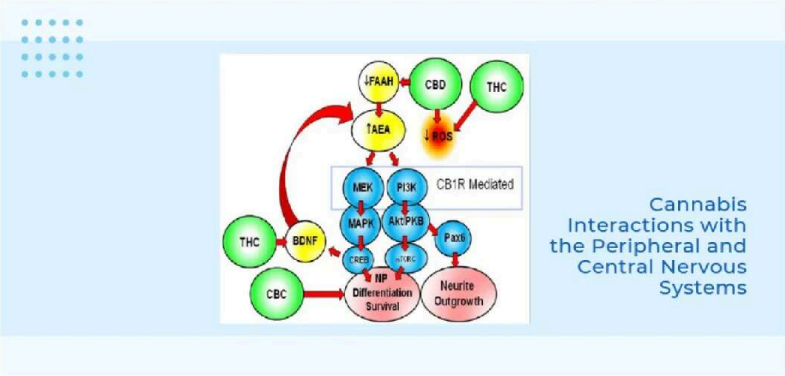
What are Internal Cannabinoids?

We, as humans, have an inherent endocannabinoid or internal cannabinoid system – anandamide (AEA) is stimulated by fatty acid hydrolase (FAAH) enzyme.

Unbalances in our internal endocannabinoid system can create unbalances in our health and our abilities to respond to negative health intrusions.

Cannabis and hemp can help. Cannabis consists of 60 - 100 bioactive compounds including Δ9-THC and CBD. Hemp primarily contains CBD.

Cannabis/Hemp have complicated interactions with the Peripheral and Central Nervous Systems and can help rebalance our endocannabinoid system.



The Problem: Pain, Anxiety, Opioids, MS

Millions suffer from pain and anxiety -

- 50% of cancer patients experience untreated pain
- Pain from diseases such as MS, age, and injuries

Opioids can be an effective treatment, yet Opioid Use Disorder is a massive problem -

- Common treatments for Opioid Use Disorder are ineffective

Cannabis can be an effective treatment, but. . . . .there are problems -

The Problem with External Cannabinoids

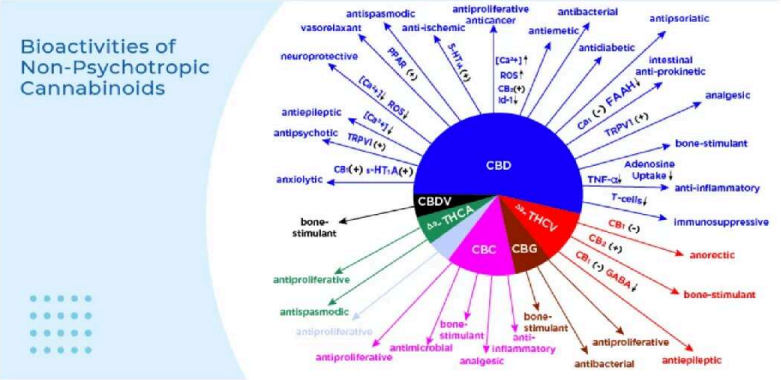
When Cannabis is smoked or inhaled, cannabinoids are rapidly absorbed. Cannabinoid composition is not consistent, making it difficult to dose. The impact is very short-lived or acute and not adequate for chronic use.

When cannabinoids are taken orally, they are rapidly degraded and excreted from our bodies. They are difficult to administer orally because they are hydrophobic with poor bioavailability (~ 6%) which results in over 90 percent loss from the body.

Cannabinoids can help but we need to keep them in the body longer and protect them from degradation. We can do so by encapsulating cannabinoids in

nanoparticles.

Cancer pain and opioid addiction are primarily treated with synthetic drugs, such as opioids, that have significant adverse side-effects such as addiction.



Our Solution: Sustained Release Nanoparticles

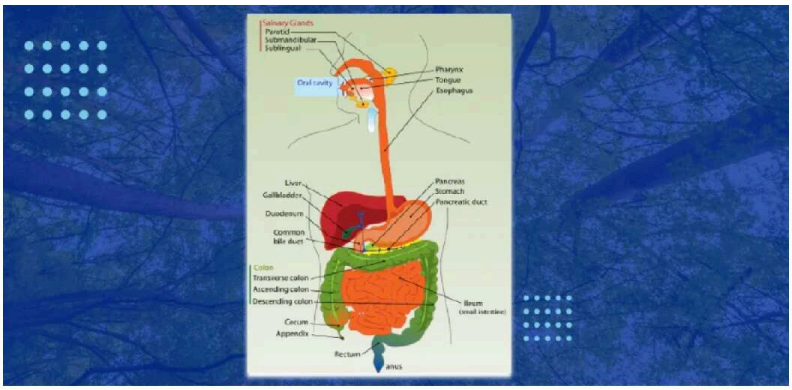
Keep specific, bioactive cannabinoids in the body longer.

Improve stability from oxygen degradation, and protect from enzymes in digestive tract and stomach acids.

Prevent first-pass metabolism by liver enzymes, and keep nanoparticles in circulation longer using pegylation.

Sustained release from breakdown of biodegradable polymers increases bioavailability from ~6%, reduces dosing, improves compliance and efficacy.

Transition acute impact drugs into a sustained release drugs for chronic indications.



The Market: Opportunity

Market	Pain	Opioid Use Disorder	Anxiety	Multiple Scclerosis
Characteristics	• Chemotherapy induced Perpheral Neuropacthic Pain • 50% cancer patients • 42.4% of pain mkt	• 500K deaths in 2 decades • OUD drugs are opioids • CBD alleviate cue-induced OUD and satisfies opioid receptors	• Generalized anxiety disorder • Affects 13% people in US • Lower productivity, higer drug/alcohol use	• 400K US, 500K EU • Neuroinflammation and Neurodegeneration targets
TAM	$9.9B by 2027	$4.9B by 2027	$19.8B by 2028	$42B by 2028
SAM	$4.5B by 2027	$2.5B by 2027	$2.0B by 2028	$1B by 2028
Growth Rate	5.6% CAGR	8.7% CAGR	2.4% CARGR	6.3% CAGR

The Market: Competition

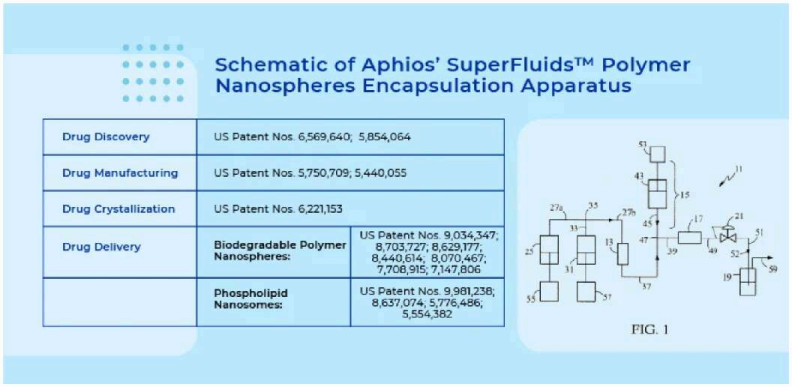
Traction: Research & Collaborations

- Development of Δ9-THC, A Natural Cannabinoid Product, NCI, NIH and Nanoencapsulated Δ9-THC for Marijuana Addiction, NIDA, NIH
- Development of cGMP Manufacturing Process for CBD from Cannabis sativa, NIDA, NIH
- Collaboration with Rhodes Pharma to nanoencapsulate Δ9-THC in biodegradable polymer nanospheres & phospholipid nanosomes
- Collaboration with Alexza Pharmaceuticals to manufacture Δ9-THC and Δ9 THCA
- Collaboration with Prosulus Pharma to manufacture transdermal patches of Δ9-THC and CBD

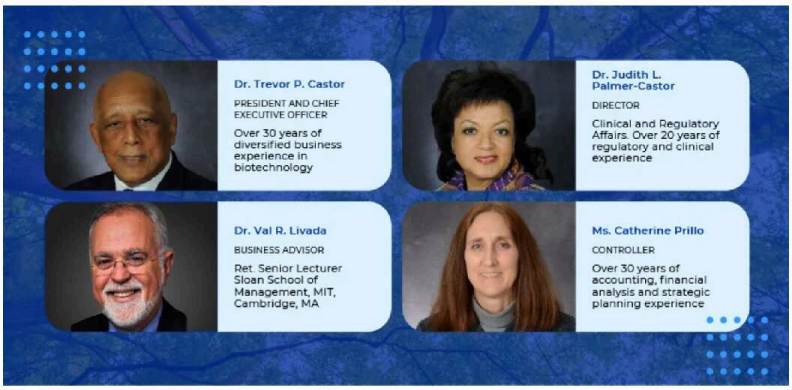
Traction: Manufacturing & Agreements

- Developed proprietary technologies for manufacturing and nanoencapsulation of pharmaceutical-grade cannabinoids
- Established supercritical fluid manufacturing facility for 1,000 kg/yr pharma-grade cannabinoids under cGMP and fully equipped Schedule I BSL-2 labs
- Inventory of 1.8 kilograms of cannabinoids (CBD, CBDA, Δ9-THC, Δ 9-THCA, CBG, CBC, CBN)
- Sixteen (16) patents on drug discovery, manufacturing and nanotechnology drug delivery and four (4) pending
- Mutual Nondisclosure Agreements (mNDAs) with GW Pharma, Erie Management Group, Fujimoto Pharmaceuticals, Royal Emerald Pharmaceuticals

Traction: Intellectual Property



Our Team: Management



Our Team: Scientific Advisors

Our Team: Key Opinion Leader

Key Opinion Leader

"I am enthusiastic about Aphios Pharma's plans to manufacture and deliver cannabinoids for clinical research studies which follow cGMP. Aphios has a proven track record .... and this latest endeavor represents an important milestone for patients exploring cannabinoid-based therapies... Aphios is clearly invested in facilitating research and clinical endeavors which are likely to advance the science of cannabinoid-based medicines, and with the launch of this program, Aphios stands uniquely poised to make highly significant contributions to science and medicine."

Dr. Staci A. Gruber, Associate Professor of Psychiatry,
Harvard Medical School, McLean Hospital, Belmont, MA

OUR TEAM

Key Opinion Leader

"I have read through your SBIR Phase I grant submission titled "Nanoformulation of CBD for Chemotherapy Induced Peripheral Neuropathic Pain (CIPNP)" with attention to your efforts to improve the pharmacokinetics of CBD using Aphios Patented nanoformulation to improve the pharmacodynamics of CBD in a model of CIPN-induced pain. There is a great need for novel medications in CIPN in order to reduce the under-utilization of these effective chemotherapeutics. The neuropathy and pain induced by chemotherapeutics results in dose limiting and incomplete destruction of the cancer. .....I am excited about and intrigued with the potential of the nanoformulations of CBD."

Dr. Todd W. Vanderah, Professor and Head, Department of Pharmacology, University of Arizona

OUR TEAM

Key Opinion Leader

"We are quite interested and excited about your planned research on nanoencapsulated Cannabidiol (CBD) to develop an "Opioid Addiction Therapeutic." It is my understanding that this product could also have an analgesic effect, thus providing a prophylactic as well as therapeutic role for patients. In 2017, I was appointed by Alabama Governor Robert Bentley to serve on the Governor's Task Force on Opioid Addiction and Abuse. I would be delighted to provide your team with advice on both progressing your molecule to and in the clinic. At that stage, we would explore participating in your clinical trials to bring much needed non-opioid therapeutics to people suffering from Opioid Use Disorder."

Dr. Brent Boyett DMD, DO, DFSAM, Chief Medical Officer and Founder, Drug & Alcohol Treatment Centers, Pathway Healthcare

OUR TEAM

Key Opinion Leader

"Aphios under the leadership of Dr. Trevor P. Castor has pioneered the application of supercritical fluid technologies: to drug delivery systems, the extraction of bioactive natural and marine products, nanoparticulate synthesis, and more recently in the field of cannabis science & technology. .... Under Dr. Castor's leadership, Aphios has a successful record of developing extraction and formulation technologies as applied to drugs such as Taxol, THC, several bioactive marine products which will now be focused in this new company on cannabidiol on a nanoscale to achieve solubilization and facilitate sustained release of CBD."

Dr. Jerry W. King, retired University Professor and Supercritical Fluid Technology expert and author, Fayetteville, AR.

Our Plan: Research & Clinical Strategy

Isolate and manufacture specific cannabis drugs using patented environmental-friendly supercritical carbon dioxide extraction and chromatographic purification technologies.

Nanoencapsulate these drugs in biodegradable polymer nanospheres utilizing patented supercritical fluid technologies to significantly improve oral bioavailability and sustain release over 8-24 hours.

Conduct rigorous Phase 2 clinical trials to demonstrate safety and efficacy.

Our Plan: Product Development Schedule

	Y01	Y02	Y03	Y04
Manufacturing of Pharmaceutical Grade CBD				
Scale-up of Polymer Nanospheres (PNS™) Technology				
Nanoencapsulation of Purified CBD				
In Vitro and In Vivo Studies				
Investigational New Drug (IND) Enabling Studies				
File IND with the FDA for Nanoencapsulated Cannabinoids				
Conduct Phase 2 Clinical Trials under 505b(2) Pathway				
Conduct Phase 3 Pivotal Clinical Trials on Safety & Efficacy				
Obtain FDA approval of New Drug Application (NDA)				

Our Plan: Funding History, Ask and Exit

Our Plan: Business Development Strategy

Aphios® Pharma LLC strategic commercialization and exit plans will follow one or more of three strategic options:

(1) Establish a strategic corporate partnership or M&A with a multinational pharmaceutical company such as Jazz Pharma, Merck, Biogen, AbbVie or Pfizer to develop and commercialize nanocannabinoids on a worldwide basis

(2) In this option, we will seek to out-license nanocannabinoids as early as possible in the development cycle, on a regional basis

(3) In this option, we will raise $100M in an IPO to continue clinical development and commercialization of nanocannabinoids for CIPNP, anxiety, opioid use disorder, and/or Multiple Sclerosis

Investors in the A round can exit on the execution of an M&A in Option 1 or IPO in Option 3

Exit Strategy: Multiple Opportunities