Pain Management

Premier Biomedical stock is traded on the OTCQB under the symbol “BIEI”
Visit us at www.premierbiomedical.com
Outline

• What Are Cannabinoids?
• Hemp vs. Marijuana?
• What Are Hemp Derived Cannabinoids?
• How Do Cannabinoids Work?
  – What is the Endocannabinoid System?
  – Interactions Between the Body and Cannabinoids
• Legal Issues
• Premier Biomedical’s Products
• Testimonials
What are Cannabinoids?

• Naturally occurring compounds found in Cannabis plants (Hemp, Marijuana) and certain other plants.
• Cannabis contains over 480 natural compounds
  – 66 have been classified as “cannabinoids”
  – Over 100 Terpenes (also found in essential oils)
  – A multitude of Flavonoids add to the healing properties of the plant
    • “entourage effect” (whole plant/full spectrum therapeutic agents).
• Cannabidiol (CBD) accounts for up to 40% of the resin.
• THC (delta-9-tetrahydrocannabinol, or Δ9-THC) is the psychoactive component of the tetrahydrocannabinol subclass.
• Cannabinoids and terpenes interact and modulate each other’s effects. This synergy produces more powerful, and sometimes gentler, effects than single molecule substances.
Hemp vs. Marijuana

- Hemp and Marijuana are both members of the cannabis plant family (genus), and same species (Cannabis Sativa).
- Cannabis Sativa bred for high THC content is referred to as Marijuana
- Cannabis Sativa bred for industrial uses (paper, clothing, oils, topical ointments, etc.) is called hemp.
- Hemp contains CBD along with ~ 0.3 to 1.5% THC
- Marijuana is typically 5 to 10%THC. Medical marijuana may contain upwards of 20%THC, with prize strains going up to 30% THC.
What Are Hemp Derived Cannabinoids?

• Cannabinoids derived from plants are referred to in general as phytocannabinoids.
• Cannabinoids (particularly CBD) derived from Industrial Hemp are:
  – Non-psychoactive
  – Non-euphoric
  – Non-habit Forming
  – Legal throughout the USA, and most of the world
  – Contain the same medicinal properties of marijuana derived CBD (but at lower concentrations)
What is the Endocannabinoid System?

- A physiologic system in every human and almost every animal
- Involved in establishing and maintaining human health
- Cannabinoids produced inside the body are referred to as endogenous cannabinoids or endocannabinoids.
- Endocannabinoids and their receptors are found throughout the body
  - Brain
  - Glands
  - Connective tissues
  - Organs
  - Immune cells
- In each tissue, the cannabinoid system performs different tasks, but the goal is always the same: homeostasis, the maintenance of a stable internal environment despite fluctuations in the external environment.
Interactions Between the Body and Cannabinoids

• Cannabinoid receptors are present throughout the body, embedded in cell membranes
• Researchers have identified two cannabinoid receptors:
  – CB1, predominantly present in the nervous system, connective tissues, gonads, glands, and organs
  – CB2, predominantly found in the immune system and its associated structures.
• Many tissues contain both CB1 and CB2 receptors, each linked to a different action
Interactions Between the Body and Cannabinoids

CB1 Receptors work in the Nervous System

• CB1 receptors can slow down the release of neurotransmitters at the molecular level
• Changing the amount of neurotransmitters crossing the synaptic cleft has therapeutic implications for pain, mood, seizure activity, memory, etc.
Interactions Between the Body and Cannabinoids

CB2 Receptors work in the Immune System. Activating them will:

• Decrease cell response lowering inflammation
• Facilitate lots of enzymatic activity
Interactions Between the Body and Cannabinoids

**Seizures**
System Involved: Nervous
Pathology: Overactivation of electrical signaling between neurons

**Crohn’s Disease**
System Involved: Immune and Digestive
Pathology: Overactivation of immune system against bowel wall

**Chronic Pain**
System Involved: Immune and Nervous
Pathology: Overactivation of immune system and/or pain fibers in an area of the body
Legal Issues

- 2014 Farm Bill legalized growing hemp in US (Sec. 7606)
- The Government recognized the medicinal value of cannabinoids in April, 1999 when it filed the patent “Cannabinoids as Antioxidants and Neuroprotectants” (US#6,630,507 B1)
Legal Issues

• DEA wrongfully issues statement classifying hemp derived products as Schedule 1 drugs in Dec-16.

• This action puts entire industry in chaos.

• In April, 2017, DEA retracts its re-classification
  – “The new drug code (7350) established in [the Rule] does not include materials or products that are excluded from the definition of marijuana set forth in the Controlled Substances Act (CSA). The new drug code includes only those extracts that fall within the CSA definition of marijuana. If a product consisted solely of parts of the cannabis plant excluded from the CSA definition of marijuana, such product would not be included in the new drug code (7350) or in the drug code for marijuana (7360).”

• Confusion persists, but Hemp Oil CBD is legal!
Premier Biomedical’s Products

Topical application of CBD products provide absorption over a longer period of time resulting in more uniform and longer relief.

Our Topical Patches are:

• Made with all natural ingredients
• Contain no chemical enhancers
• Hypoallergenic and water-resistant
• Lab tested pesticide- and solvent-free
• Latex-free pharmaceutical grade adhesive
• Delivers relief for up to 96 hours
• 2x2 Square patch with rounded corners
• 50 mg of certified pure CBD per patch
• Tan colored patch for discrete use
Premier Biomedical’s Products

Premier Biomedical’s Pain Relieving Roll-On contains an isolated CBD industrial hemp based product that you can use discreetly, anywhere on your body.

- Made with all natural ingredients
- 110 mg of certified pure CBD oil
- Pleasant Sage Aroma
- Infused with Red Palm oil and eucalyptus oil for added pain relief
- Rich golden color
- Quickly absorbed and easily applied
Premier Biomedical’s Products

Premier Biomedical’s Pain Relieving Enhanced CBD Roll-On is easily applied directly to the skin, for relief of minor aches and pains.

- 120 mg of CBD in each 10 ml roll-on bottle
- Infused with essential oils for pain relief, stress relief and reducing inflammation
- Easily applied anywhere on the body
- Gentle lavender aroma
- Creamy and quick drying
- Dries clear; no oily residue
- Water based
Premier Biomedical’s Planned Products

• An array of topical patch sizes, shapes, strengths and designs
  – Smaller bandage-sized day patch
  – Joint and knuckle patches for high flex areas
  – Mega patch for wide-spread pain

• Enhanced formulations for stronger relief
  – Increased CBD content
  – Variety of scents
  – Natural pain relievers (Salicylate)
  – Synthetic pain relievers (Lidocaine, etc.)
Distribution Network

In addition to internet sales outlets, we are building a network of distributors throughout the world.

– North America
– Europe
– Asia
– South America
– Australia
Target Markets

Target medical and healthcare organizations with large populations of patients who are routinely prescribed opioids for their pain.

• Professional Sports Players (past and present)
• Veterans (through the VA Hospital network)
• Chronic pain sufferers
  – Fibromyalgia
  – Polymyalgia
  – Neuropathic pain
  – Trauma victims
  – Arthritis
  – Etc.
Market and Drivers

• Pain Management Market
  – Size Estimates Up To $112 B Annually Worldwide
  – Fastest Growing Industry
  – Competitor To Lyrica®, Cymbalta®, Fentanyl*, etc.

• Pressure To Find Opioid-free Alternatives
  – 28,000 Opioid-related Deaths in 2015 (US only)
  – Government Action
  – AMA, CDC, FDA, NIH -- Guidelines/Restrictions

* Major side effects have been reported with these competitor products
I have had severe polymyalgia throughout my body, but predominantly in my shoulders and arms. I have been unable to sleep through the night without pain for the past ten years. The only relief up until now has been through the use of opioids (Oxycodone/OxyContin). My husband, Bud, has severe arthritis in his fingers and has been unable to make a tight fist due to the severe arthritic pain.

We got some of your roll-on, and Bud applied it to my shoulders, back and arms. Immediately after rubbing the oil in, Bud experienced relief of pain in his fingers and was able to clench his fist without pain, and I was able to sleep soundly all night without pain. A real two-fer!

I have experienced similar pain relief from using your skin patch. I have never felt so wonderful! Your products have allowed me to reduce my dependence on dangerous narcotic opioids for my pain relief.

June DeRaud
Hubbard, OH
I just wanted to take a minute to thank you for helping my wife with her chronic pain. She has been dealing with chronic jaw pain (TMJ) for the better part of ten years. We have been to numerous doctors and spent thousands of dollars with little or no relief. She has dealt with jaw pain and debilitating migraines for years and held out little hope that anyone could help her.

The CBD pain patch you created has proven to be just what she needed. It helped alleviate her daily pain and reduced her intake of other pain medication, especially prescribed opioids. The patch lasted for four days and made a real difference in her life: it saved our marriage and gave her a new outlook on her daily life!

Thank you so much, Premier Biomedical, you helped us.

Stephen Harder
Construction Manager
I am a 58-year-old white female, also an investor in your company. That is how I found out about the pain patch and when it became available for purchase. I was diagnosed with Fibromyalgia in the 1980’s. Since then I have gotten a bulging disc in my lower back and arthritis in my T-connectors in my spine. I have been taking some type of opioids since the 1980’s and more recently for the past 17 years I have been taking Methadone (14) 10 mg for pain and Oxycodone (4) 10 mg for breakthrough pain.

**After putting the patch on, my pain completely disappeared!** Read that again ... my pain completely disappeared! The patch did come loose from my skin after 1-1/2 days so I put it back into the pouch it came in overnight and took a shower in the morning then put it back on with an additional bandage patch over the top and it stayed on. It continued working up until about 3-1/2 days (minus the time I had it off) then my pain came back. Unfortunately, I am on Social Security Disability and cannot afford to use the patches instead of the pain pills due to cost. I am anxiously awaiting the insurance companies to catch up and start letting us get these on our insurance. After all, it benefits them as well.

Diane Knuckles
Tennessee
I am a white female, 58 years of age. I have been diagnosed with both chronic osteo, and sero-negative arthritis. I also suffer from Facet’s disease, herniated and bulging discs spinal stenosis. I favored and guarded my L knee for over 30 years due to a traumatic injury sustained as a young teen. Because of this, I put undue pressure on the right foot causing trauma to the ankle area. The ankle is continually swollen, complicated by severe venous insufficiency. Pain is reported at a constant 8 to 9 on a scale of 10. I am currently using a 25 mg Fentanyl patch, with 7.5mg Hydrocodone used for breakthrough pain. I also utilize Meloxicam at a 15mg. dose each morning to help control inflammation.

My nephew provided me with a pain patch and I put it directly on the affected area, which remained relatively pain free for approximately 3-1/2 days, after which the patch came off on its own. I anticipate a day when I and others can utilize your product for both a safer and effective manner of pain relief, free of man-made opioids and similar pain relief methods.

Kari
Location Unknown
Testimonials (cont)

This CBD roll on needs to be in every first aid kit and medicine cabinet in America. It helps soothe minor sunburn pain, headaches, back pain, sports related muscle pain, knee pain, bursitis and even calms my phantom limb pain. **Opioids, Lyrica and Cymbalta could never even touch my phantom limb pain.** I want to take a bath in this oil, that’s how good it works and smells.

Raymond C.
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