

NEWS UPDATE

VERDANT OASIS grows and processes industrial hemp in Europe and is positioned to meet the increased global demand for high quality hemp through vertically integrated operations from seed to finished product. Verdant Oasis owns intellectual property to develop exclusive hemp products developed from EU Commission seed bank-certified, genotyped strains used for human use and DNA analysis to show we process from true industrial hemp - no marijuana hybrids and no CBD isolates which are drugs! In addition, we employ Eco-Farming practices and utilize proprietary CO₂ extraction and refining technology that results in a true botanical all-encompassing essence of hemp and its family of active components beyond Full Spectrum - what we call our **Panoramic Essence Hemp Extract™**

NOEL/GRAS Update

Prior to the passage of the Farm Bill 2018, hemp stalk was the only legal allowable part of the plant to process from that contained phytocannabinoids. With the bill signed into law, the more concentrated leaf, flower, and bud (aerial parts) can now be legally processed providing for a more robust profile of actives. Couple this, with the recent new IP extraction technology VO has employed to produce a Panoramic Essence Hemp Extract (see next page), VO had to abandon the NOEL study it was conducting on its stalk material. Essentially, we would not be able to submit stalk material for the Self Affirmed GRAS application since only aerial parts material will be offered moving forward. We have engaged the Institute of Industrial Organic Chemistry, Poland to conduct the NOEL on our new Panoramic Essence Hemp Oil processed from aerial parts utilizing our new IP. The result is the most comprehensive array of hemp phytoactives being offered to the marketplace. Dr. Bujalska-Zadrozny will be providing all of our clients monthly updates as to its completion (see her profile to the right). When finalized, it will be submitted to GRAS Associates in the US who have unparalleled expertise in GRAS filings, having completed ~15% of all GRAS notices received by the FDA since 2008.

MEET OUR PARTNER CONDUCTING VERDANT OASIS NOEL STUDY

Institute of Industrial Organic Chemistry, Pszczyna, Poland

ŁUKASIEWICZ RESEARCH NETWORK - INSTITUTE OF INDUSTRIAL ORGANIC CHEMISTRY BRANCH PSZCZYNA (IPO) is a leading research and development center with more than 65 years experience conducting a wide variety of toxicological and ecotoxicological studies. The IPO also conducts pre-clinical and clinical studies for companies worldwide and actively participates in the international EU and OECD research projects. Many of the studies performed are to evaluate possible harmful effects of various chemical substances on human health, animals and the natural environment. During the last 65 years the Institute has developed and established its position as one of the best-known research centers at home and abroad.

The IPO is the first in Poland to hold the Statements of GLP Compliance for all toxicological and ecotoxicological testing and studies. The GLP Certificates guarantee that our studies are accepted worldwide and conducted in compliance with the OECD, EU, EMA, ICH, EPA, EPPO, SETAC, ESCORT, IOBC, BART, and ISO Guidelines as well as Good Laboratory Practices.



MEET THE DIRECTOR OF OUR NEW MEDICAL/SCIENTIFIC ADVISORY BOARD

Magdalena Bujalska-Zadrozny, PhD is a behavioral pharmacologist, served as Deputy Dean for Science at the Faculty of Pharmacy on Warsaw Medical University for 4 years, and heads up their Pharmacodynamics and Pathophysiology Department. Dr. Bujalska-Zadrozny's scientific interests have focused on the etiology of various types of pain. She is the author of 73 publications, both original and review papers, that include works related to the cannabinoid system. In 2010, the results of her research lead to two patents granted in EU and the US on analgesic pharmaceutical compositions for oral administration (EU EP2714042A1, US 9101577B2).

Dr. Bujalska-Zadrozny has conducted pre-clinical studies and clinical trials. Since 2016, she serves as the President of the Polish Pharmacological Society and involved in the examination of pain processes and new pain therapies. Her research team is experienced in preclinical evaluation of the biological effects of cannabinoids as putative analgesic, antiepileptic, antidepressant and neuroprotective agents. Her work has shed light on cannabinoid supplementation enhancing the analgesic effects of classic analgesics, e.g. opioids or nonsteroidal anti-inflammatory drugs.

Here are a few of Dr. Bujalska-Zadrozny' published works:

- 1) Bujalska M. **Effect of cannabinoid receptor agonists on streptozotocin-induced hyperalgesia in diabetic neuropathy.** Pharmacology. 2008;82(3):193-200.
- 2) Bujalska-Zadrozny M, de Cordé A, Pawlik K. **Influence of nitric oxide synthase or cyclooxygenase inhibitors on cannabinoids activity in streptozotocin-induced neuropathy.** Pharmacol Rep. 2015;67(2):209-16.
- 3) Kleczkowska P, Smaga I, Filip M, Bujalska-Zadrozny M. **Cannabinoid Ligands and Alcohol Addiction: A Promising Therapeutic Tool or a Humbug?** Neurotox Res. 2016 Jan;29(1):173-96.
- 4) Kleczkowska P, Smaga I, Filip M, Bujalska-Zadrozny M. **Are Alcohol Anti-relapsing and Alcohol Withdrawal Drugs Useful in Cannabinoid Users?** Neurotox Res. 2016, Nov;30(4):698-714
- 5) Lesniak A, Chmielewska D, Poznanski P, Bujalska-Zadrozny M, Strzemecka J, Sacharczuk M. **Divergent Response to Cannabinoid Receptor Stimulation in High and Low Stress-Induced Analgesia Mouse Lines Is Associated with Differential G-Protein Activation.** Neuroscience. 2019;404:246-258.



Verdant Oasis

Panoramic Entourage Hemp Oil™

Capturing The True Essence Of Hemp's Active Components

COMMITMENT TO INNOVATION

Verdant Oasis has partnered with new key members to join our scientific team with the expressed purpose of utilizing their unique extraction IP. This has resulted in the ability for VO to offer a superior profile oil compared to the previous legal stalk oil of the past. In addition, extracting from the aerial parts affords us a more robust profile to work with and has resulted in something very special to offer the marketplace.

We all know the issues surrounding the loosely coined term Full Spectrum Hemp Oil and how abused this term is in the marketplace. Verdant Oasis and its team of experts have now produced the most comprehensive array of active compounds found in hemp coined our Panoramic Entourage Hemp Oil - it represents the true essence of this most important botanical.

Figure 1 shows an enhanced view of our new Panoramic Entourage Hemp Oil that is not only significantly higher in minor phytocannabinoids including more defined levels of CBDV, CBG, CBC and CBGV, but also CBE and the new class of compounds called Cannflavins (A, B and C).

Figure 2 shows our past VO Hemp Stalk Oil vs CBD isolate. While the stalk was the legal part of the plant to extract from, it is not the most phytocannabinoid concentrated part of hemp. Nevertheless, the presence of many additional peaks are found as compared to a mostly flat lined isolate.

Figure 3 shows our new Panoramic Entourage Hemp Oil from aerial parts vs CBD isolate. As you can see, while our previous stalk oil (pre Farm Bill 2018) had a nice profile compared to CBD isolate, the new aerial parts extracted oil (post Farm Bill) has a SIGNIFICANTLY superior phytocannabinoid and hemp active profile compared to both CBD isolate and our stalk oil.

For Further Information, please contact:

Carl Germano, CNS, CDN
 carl@verdant oasis.net
 (914) 671 7016

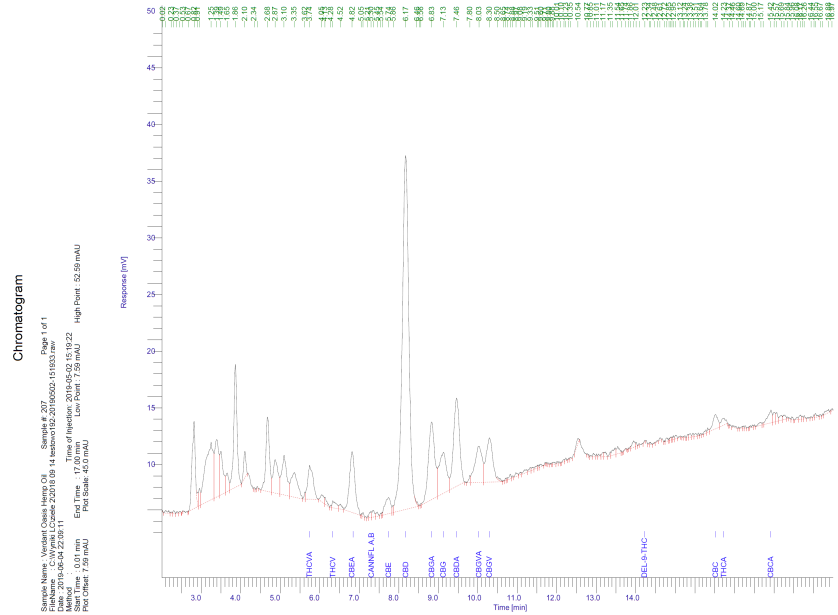


Figure 1: VO New Panoramic Entourage Hemp Oil

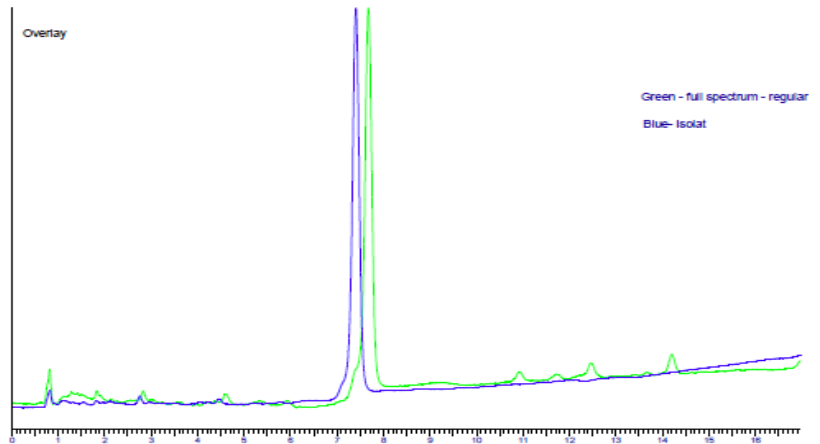


Figure 2: VO Hemp Stalk Oil vs CBD Isolate

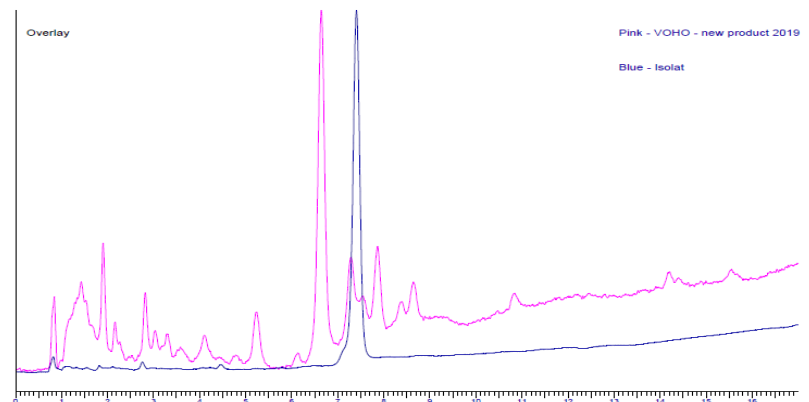


Figure 3: VO Hemp Aerial Oil vs CBD Isolate



Verdant Oasis Panoramic Entourage Hemp Oil™

COMMITMENT TO QUALITY

- VO Uses EU Commission Seed Bank Acceptable Hemp Strains For Human Use
- * No CBD Isolates - clearly drugs under DSHEA Federal Law (legal opinion letter on file)
 - * No Marijuana Hybrid Strains that have never been used for human use (legal opinion letter on file)
 - * DNA Analysis that shows we process from industrial hemp - not marijuana/hybrids
 - * Beautiful Panoramic Entourage Hemp Oil Including Phytocannabinoids and CannFlavins
 - * European Eco-Farming Practices
 - * USDA & EU Organic Available
 - * Clean, CO₂ Extraction
 - * Independently Tested for Purity & Quality Tested for Over 300 Pesticides/Herbicides
 - * No ETO or Gamma Irradiation
 - * No Organic Solvents
 - * Allergen Free (FALCPA), ISO 9001 Compliant, HACCP Certified & FSMA Registered Facility
 - * Certified Kosher & Halal Suitable

Available in Powder, Oil, & Water Soluble Oil

For Further Information, please contact:

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