Kansas citizens' attempts to legalize medical cannabis before 2018 began opening the path to cannabis and industrial hemp legislation. Advocates, lobbyists, lawmakers, and patients have believed that legislation would be passed and signed to allow access to plant medicine. It is essential to recognize their dedication and commitment to time, energy, finances, and sacrifices over the years to be recognized and respected by lawmakers and the community.

This law is about Humanness and Compassion.

The legalization of medical cannabis use is a more honest policy than the de facto legalization of adultuse under liberal medical cannabis regulation. Legalization removes all criminal penalties for medical cannabis use and allows the production and sale of medical cannabis.

Kansas patients are at the mercy of lawmakers. Lawmakers and key decision makers - at no fault of their own - continue to be bombarded with biased information by individuals who proclaim to "have the right" answer or solution. Each session, lawmakers are expected to review hundreds of proposed legislation. They depend on accurate data to gain the understanding and education of cannabis medicine benefits. It is our responsibility to not only advocate but we must also educate.

The reality is this, "Kansas has already missed the opportunity to compete in a market that could have provided significant economic and medical access." Kansas is now a hole in the middle of the USA. With only four other states not legalizing access, we are forcing patients to become criminals as they seek relief and invest in surrounding states for their medicine.

However, Kansas now has the opportunity to host the creation of a public-private partnership (P3) **Research & Development Clinical Trial Program** focused on treating qualified conditions. The study can include and is not limited to the following:

- Evaluation of clinical or behavioral intervention
- Addiction treatment, opioid displacement
- PTSD, mental health
- Creation of FDA-recognized medical cannabis product(s)
- Development of whole plant, to include all roots, in medicinal cannabis (THC, CBD, and other compounds) found in the plant and not *missing* all the beneficial root compounds used in current pharmaceuticals today.
- Utilization of "tissue culture" for starting the plant material, which guarantees plant outcome replicability and virtually eliminates "genetic drift," which changes the medicinal output of the plant from harvest to harvest also eliminating the use of pesticides, fungicides and any other poisons thus preventing the toxic path big tobacco has already taken. This method establishes contaminate-free and clean cultivation, which allows a true pharmaceutical medicine to be produced.
- Derive benefit from compounds that exist, currently used by pharmaceutical companies in various medicinal applications, such as pain killers, analgesics, anti-inflammatory, and diabetes medications. These are known as Pentacyclic Triterpene Ketones, such as Friedelin and Choline.
- Will apply full plant extraction technologies to produce highly refined (nanoparticles) powders
  for enhanced medicine delivery using specialized capsules and inhalers and negating the need to
  "smoke" your medicine.

## Chain of Custody Security R&D

In addition to creating medical cannabis products, this program has the opportunity to participate in a DOD's counterfeit material prevention strategy that includes collaboration to reduce counterfeit, authentic, and conforming applications. Using innovative software applications may provide opportunities to add capabilities cost-effectively and improve operations by addressing gaps from third-party providers. Based on personalization and anti-counterfeiting software that, combined with optical and digital authentication methods, are currently being used to meet high-security inventory demands in the commercial and military industry. This software can identify and authenticate without adding additional hardware to the plants, such as RFID, chips, bar codes, quick response codes, or serial numbers. This technology identifies counterfeit goods by using authentication methods strongly resistant to replication and tampering.

The technology will be available to law enforcement on mobile devices providing data analytics capability and therefore contributing to preventing the use of black market cannabis.

Through this public-private partnership research, Kansas has the opportunity to be recognized as THE leader in the development of medical cannabis products that will require the issuance of a USFDA drug filing for an Investigational New Drug and a Schedule I DEA License. This license would allow us to study the treatment of particular clinical indications or other qualified clinical conditions as outlined in a bill.

Concerning partnering companies, we believe it essential to set the criteria as such:

- The company owns no more than 20 percent of any cannabis license in any other state.
- Has not incurred any penalty fine by cannabis regulators in any other state
- Best satisfies the following additional criteria:
- 1. Operation as a company registered in Kansas for at least 12 months before the effective date of this act;
- 2. the degree of subject matter expertise of company personnel in each Kansas-licensed area of work, including medical and pharmaceutical research;
- 3. The degree to which the qualified partnering has access to innovative medicinal delivery modes that do not involve the combustion of marijuana and will conduct further research and development regarding such delivery modes;
- 4. Have previously been awarded a hemp license in Kansas;
- 5. Partnering companies have had successful experience in executing prior agreements with one or more Kansas institutions for research related to hemp or medical cannabis; the lowest proposed reliance upon federal, state, and local government funding.

Plant Research & Development will focus on three (3) main clinical cannabis deliveries in unit dose form:

- i) Pharmaceutical inhaler dry mist delivery system
- ii) Oral capsule, pharmaceutical delivery released in the intestines for expeditious efficacy
- iii) Oral sprays, drops, suppositories, transdermal patches, sublingual delivery, gelatinous dissolving cubes, and strips

This P3 Research and Development will lead to this *nation's first study focused on dosing medical cannabis medicine deliveries*. Goals for the P3 R&D would be to:

- Prove it is safe and effective at treating a particular clinical condition(s)
- Gather patient outcomes from qualifying conditions
- Establish a therapeutic effect as a result of cannabis use
- Advanced pharmaceutical technology through instate manufacturing
- Demonstrate beneficial gain through pharmaceutical delivery
- Prove efficacy and bioavailability on improved methods of delivering clinical cannabis
- Prove formulations and technology
- Specifically, target preferred delivery
- Creation of one or more Kansas clinical trial programs related to the dosing of clinical cannabis and gathering of data related to that dosing
- Will undertake clinical trial program between qualified Kansas institutions of higher education R&D trials and the partnership with their choice of qualified company(s)
- As part of the Research & Development programs allow Kansas institutions of higher education to cultivate, process, and dispense clinical cannabis through its partnerships with Kansas-qualified companies
- All Kansas residents who qualify with clinical conditions shall be able to register *and* be enrolled in the clinical trial program
- All residents who qualify through clinical conditions shall be able to purchase clinical cannabis
  from qualified Kansas institutions on higher education research and development trials through
  the qualified companies involved
- All clinical cannabis produced as part of the clinical trial program or programs shall be traced and tracked from in vitro-to-dispensed sale by way of an anti-counterfeit technology
- Kansas law enforcement shall be able to access all data gathered as part of the clinical trial program or programs and have the ability to access through a QR Code.
- Clinical Trials will include relationships with schools to assist in meeting the demand for workers skilled in the cannabis industry (attracts more enrollment dollars not just focused on sports)
- Can establish Clinical Trial curriculums
- Establishing a portfolio data of case studies and projects to demonstrate sector-specific cannabis knowledge
- The Clinical Trial procedures will prove the therapeutic effects of cannabis.
- Kansas can provide a platform that has the opportunity to position its institutions of higher learning as research leaders in an emerging industry
- R&D Clinical Trials for Kansas institutes of higher learning and their qualified KS partners can do this under the R&D under the University but may not openly sell to the public
- Develop dosage for ranges of qualified conditions as outlined in this legislation
- The focused cultivation and extraction of plants for pharmaceutical medicine

After listening to lawmakers, I have been committed to sourcing the latest technology resources and attracting them to Kansas. Kansas has the opportunity to become **the brand** by building a Medical Cannabis Research and Development Platform for their people who would no longer be "criminal drug runners" crossing into other states. The medical 86-year-old patient would no longer be breaking the law, the prescribing physician would no longer be a drug pusher, and the pharmacist would no longer be dispensing illegal drugs.

Blessed and honored to be a Native American Medicine Woman, Elders taught me that Creator blessed our earth with Plant Medicine People to use for healing. Unfortunately, many have misused, made false claims, and continued to create "medicines" that are not precisely targeting conditions. We have incredibly ill people crossing into neighboring states to receive "medicine" or purchase unregulated and dangerous products because they want to have some quality of life.

As a new transplant to Kansas, my family and I are committed to bringing the best of what we have learned in this industry to our new community. I have personally experienced "what works and the worst of what does not work" in this emerging industry.

Thank you for your courage, focus, and contemplation in considering drafting and passing 2023 Medical Cannabis legislation.

When appropriate, I shall stand for questions.