

## IN CONVERSTATION

## An Interview with Joel Stanley

Tanu Pandey, MD

*The Stanley Brothers, of which Joel is the oldest, are well known for their pioneering work in the production and use of cannabis products for medical disorders. They have been described as one of the finest cultivators and breeders of cannabis in the country and were prominently featured in Dr. Sanjay Gupta's "Weed" documentaries on the Cable News Network. They have also been featured on National Geographic's American Weed television show in 2012 and later in TIME, the New York Times, and People.*

### Tell us about the Stanley brothers and your cannabis business at CW Botanicals.

I am one of six brothers in this together. I am the oldest and the CEO of CW Botanicals based in Colorado. We started in the industry in 2008. We originally started because we believed that there was strong potential to help people who were going through chemotherapy and potentially even help treat the underlying cancer. We had a cousin at that time who was diagnosed with cancer, and he was our first patient. Back then we were what was known as "caregivers," and there weren't many dispensaries for medical marijuana. Caregivers like us would grow cannabis for a certain number of patients. We could grow a certain number of plants. Almost all of the people who came in contact with us had cancer. We did have a few Parkinson's disease and multiple sclerosis patients, but our main focus and passion was to help cancer patients offset the side effects of chemotherapy and survive those treatments.

We were interested in CBD (cannabidiol) from the beginning, even before we moved from Texas to Colorado to get into the industry. I did a significant amount of research then, and I could see that CBD appeared to be promising potentially for cancer and neurological disorders. The information we read about indicated strong anti-inflammatory and potentially anti-tumoral, anxiolytic, and neuroprotective effects of CBD. We began collecting as many strains of cannabis with high CBD that we could find. Most of our CBD-rich genetic strains come from wild hemp, which has been growing here

in the United States for a long time. We started breeding with these genetic strains to create a higher CBD level within the plant.

### What is Charlotte's Web, how was it produced, and what are its uses?

Charlotte's Web is our high CBD project. In February 2012, Paige Figi, mother of Charlotte, found us. She had been looking for people who had high CBD genetic strains for her daughter and found us to be professionals with high quality control. She explained to me what she wanted to do with the CBD for Charlotte, who was five at that time and suffering from intractable seizures due to Dravet's disease. That was a defining moment for us. It definitely changed our lives. The [marijuana] industry was very difficult [due to strict regulations and prohibitions regarding] banking, etc. We really needed a breakthrough, and Charlotte was the break we needed. We agreed to make a specific extract for her, and Paige worked in tandem with her neurologist to titrate the dosing for Charlotte. Her success was just phenomenal. She went from 300 to 400 grand mal tonic clonic seizures every week to none immediately. We did not think or know that it was the CBD that was working. We certainly hoped that that was the case. So we were prepared for it to be a fluke. But she kept getting better, and today she is 99.9% seizure free.

It did not really sink in [that we were getting these results] until we had ten, then 15, then 20 kids with intractable seizure disorders experiencing fantastic results with high-CBD marijuana. This is a patient

population that has exhausted the existing pharmaceutical options, so it was remarkable to witness this effect. Then it started sinking in that this really works. We then dedicated almost all our craft to CBD. We don't grow this product from seed—we use clones and tissue culture to basically raise the exact genetic replicates of this plant. Quality control is thus very important, though nature can vary these plants sometimes just like any other botanical product. The plants can get as high as 22% to 23% CBD, which is very high.

### What is "Realm of Caring (ROC)"?

Soon after Charlotte, we had a long waiting list for high-CBD products—we could clearly see the writing on the wall. After the first "Weed" documentary by Dr. Sanjay Gupta, our waiting list went from a few hundred to 15,000, which was overwhelming. We formed a not-for-profit organization called "Realm of Caring," the executive director of which is Heather Jackson whose son Zaki was the third kid to try the Charlotte's Web product with success. He is now seizure free for three years. He has Doose syndrome, and before he had up to 200 seizures a day, most commonly drop seizures. He went from wearing a helmet and being incontinent to wearing diapers and riding a bike during the first year of treatment. His story was very impressive. Heather has dedicated her life to the ROC.

A big part of ROC is to educate people, promote legislation, and support physicians in caring for patients who may benefit from marijuana. It is like a data-mining tool. We have an observational registry

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that is IRB approved for epilepsy. As a for-profit business, the Stanley Brothers have to be very careful about making any claims. We are not equipped to discuss dosing with families. The ROC was built to allow the families to interact with one another about titrating dosing for our various products and other issues related to medical marijuana.

In 2014, the same year that Colorado legalized industrial hemp, President Obama signed the Agricultural Act [of 2014] into law, thus permitting the growth of industrial hemp for research purposes, including marketing research. We were able to grow the Charlotte's Web product under these regulations and for the first time started shipping products outside Colorado state borders, which we could not do earlier. The United States is the largest importer of hemp products, yet 2014 was the first time domestic growth was permitted.

### **Which medical conditions do you believe marijuana can be useful for? Though it has been legalized in several states for medical use, do health insurance plans cover the treatments?**

From first-hand anecdotal experience only—no claims, just observations—we have seen improvement in Parkinson's disease. One severely affected patient used it and stopped shaking entirely, resulting in a much better quality of life. A variation of cannabinoid therapy may be helpful in neurological conditions like neurodegenerative disorders, multiple sclerosis, muscle spasticity of any type, autoimmune diseases like Crohn's disease, etc. A couple of our employees [believe that] THC and

CBD are effective due to their anti-inflammatory effect. Cancer patients benefit the most. They are not hippies or potheads but mostly little old ladies with wasting and chemotherapy-related side effects that respond very well. THC can stimulate the appetite and suppress nausea and vomiting. These people start eating well and gaining weight in a few weeks. Families often call us with descriptions of the improved quality of life of patients. Health insurance companies do not cover treatments yet. Heather Jackson says that she will continue to push for insurance coverage. We hope that this will happen within the next few years when we have more evidence.

### **How do you decide dosing and regimen when you dispense these products?**

We defer to the ROC and demand that patients have appropriate physicians who supervise the treatment. We do not recommend doses and regimens. We try to get families to interact and connect with each other and their physicians through the ROC to help each other based on their experiences. There are no robust data available that we or the physicians and families can rely on. Physicians don't know how to do this. That's why we always look for physician advocacy because without physician advocacy these families are on their own.

### **What are the unique barriers to research and development of medical marijuana, especially regulatory issues? Are you involved in any clinical trials or other research pertaining to medical marijuana?**

There are tremendous barriers that

we face. The ball is moving forward though. Formerly all the research projects that were approved were the ones related to abuse only. Cannabis research is starting to get funded now for use as a medical product that is not related to abuse. However, DEA will not allow the institutions to access their cannabis supply from groups like us. We tried to provide high CBD genetic strains to a scientist for research, and though both of us called the DEA, they refused to let us do so. No research is being permitted in the private sector. Federal and state regulations are severely limiting the cannabis sources for research. Some of us have significant experience and genetic strains that need study. We have a deep understanding of the subject but cannot engage in the research. Colorado allotted \$10 million for cannabis research based on our work, but when we applied for funding, we were denied, and all the money went exclusively to federally funded organizations. [I'm] not quite sure why that is because we have strong clinical protocols at the ROC, which is a non-profit entity. Even though they mentioned Charlotte's Web repeatedly in their proposal, we never got a dime from them.

### **Decriminalization and legalization of marijuana have been hot topics of debate. What are the advantages and disadvantages in your opinion?**

This is a big problem. We have 5% of the world's population, and we have 25% of the world's inmates—mostly incarcerated for non-violent crimes related to possession of

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drugs. The social impact of this is tremendous. The authorities must stop jailing people and using our tax dollars to imprison people for possession of a non-toxic plant that may be their medicine. This destroys lives and wastes resources. Ending this prohibition is wise because in spite of the laws, pot is available freely on the black market without regulation. It's better to tax and regulate. I personally am not a user, and I don't support the stoner culture. But I support its legalizing for adults. It's safer than alcohol and a more healthy choice if people are taking something recreationally. But this is not the most important part. This is perhaps only important socially. The more important thing is legalization of medical marijuana.

### **Are you worried about side effects from medical marijuana?**

Not so much the side effects as perhaps drug interactions. Liver enzymes in the cytochrome P450 system metabolize opioids and most anti-convulsants and benzodiazepines as well as THC and CBD. Patients may be on one or more of these medications. Grapefruit juice can also interact with marijuana. Such interactions can cause high serum levels of one or the other compound that can be dangerous. The side effects are not so worrisome as drug interactions.

### **How can patients get in touch with you? Do you need a prescription to sell marijuana for medical purposes?**

When patients might benefit from high CBD and low THC product, they don't have to move to Colorado or another state where medical marijuana is legal. We can ship it to them as a hemp product. But if they have persistent symptoms and may need higher THC marijuana, then they do have to move to a state where it is legal. Many people are interested in taking these high-CBD products preventatively, for dementia for example, so we ship them. We have two dispensaries and a medical marijuana grove in Colorado Springs for THC variety. Patients need a recommendation from a doctor in Colorado Springs and must register with the state medical marijuana registry.

### **How do you maintain quality control, and do you employ safety measures for your clients?**

We grow our products in green houses, and we don't pay high electricity bills. We make our plants in an FDA-approved facility for quality control. We comply with all manufacturing practices.

### **Do you have a message for primary care physicians and the medical community in general on how to engage with what has**

### **traditionally been a controversial issue for a long time but is fast changing?**

Every time I speak to the medical community lately there is definitely a growing number of doctors who believe in medical marijuana. But there are still quite a few who are skeptical due to lack of data. So I would ask that the medical community help us get the data. They can help us open doors by speaking to their parent institutions about the need for researching this drug. There are many hurdles. There are several institutions that wanted to conduct research with us, but their legal counsel would not allow them to do so. So to the providers who say we need more data: Please come help us get those data. We need your help.

### **With fear of social ostracizing, legal hassles, and complications from your products, what makes you do this work?**

A while ago we were asking ourselves the same question, but it's just like any other business. We follow regulations and have profit margins. We were initially subjected to disapproval by the Christian community, by our neighbors, and friends, but after Charlotte things have changed. People see how we have helped so many. We love what we do. I mean, what could be better?

*SGIM*