We went on two locations to ask a few of those involved in the release of the CBD-crew. First part was with Jorge Cervantes and the second part was with Shanti and Jaime...

Above left
Jorge Cervantes

Below
Howard Marks (Mr. Nice), Jaime of Resin Seeds and Scott Blakey (Shantibaba)

Above right
CBD-rich strains:
- Z 6 (project Z)
- CBD Critical Mass (CBD-crew)
Does it feel the same to work alone or with a crew of like minded companies? Do you see the CBD-crew as a growing concern for like minded companies and individuals?

**Jorge:** It is much more stimulating to work with smart, accomplished peers. We are on the same page and function much better as a group.

Collaboration among businesses that complement one another is always smart. A strong working relationship with like-minded individuals gives a natural advantage to research and dissemination of information and products.

Will we expect to see more strains CBDed so to speak in the future?

**Jorge:** In this industry based on piracy, we will see more CBD strains than ever before. But, just like Jaime and Shanti point out, good seeds require time, scientific knowhow and hard work. A handful of seed companies will do what it takes. Now CBD-rich strains are becoming known in California and other medical states in the USA. It will take time before they become popular in Europe and the world. I will certainly cover most of those developments on my new website www.jorgecervantes.tv

Together with the growing number of US states that have medical marijuana laws and new countries having programs that allow patients to access cannabis as a medicine (i.e. Canada and Israel) I feel that the interest of the pharmaceutical industry for cannabinoids has been on a positive trend during the past year. What is your opinion?

**Jorge:** You hit it on the nose! Cannabinoids are very interesting molecules, few medicines offer such a wide range of positive effects and very low toxicity. The pharmacological industry is moved by profits and a naturally occurring plant molecule cannot be patented. Consider the costs to register a new medication, in the USA it is about $800'000'000 (yes, 800 million dollars!). It is easy to understand why until a few years ago nobody was interested in investing in this market. The leading pharmaceutical company dealing with cannabinoids is GW pharmaceuticals, based in the UK. Their sublingual spray, Sativex, has a 1:1 ratio between THC:CBD. Of course their product is fully standardized, one of the important requirements in the pharmaceutical world. But standardization is very difficult if not impossible to achieve in a herbal product. We know that there are many variables that can influence the production of cannabinoids, like light intensity, temperatures, fertilization, etc. The only way to play the game is to grow your plants and then extract the cannabinoids. Once extracted in a laboratory, you can produce a truly standardized product. On the other hand patients seem to prefer the natural solution to the standardized products, most often because they are able to self-titrate (find the right dosage) when they inhale from a vaporizer or smoke directly. By inhaling, patients also experience a faster onset of the positive effects of cannabinoids.

Last but not least is the money! The July...
Hello Jaime and Shanti, so glad to have you on Weed World for this chat on CBD-crew. We spoke already with Jorge Cervantes and since you both announced this new project of yours during the last Spannabis fair in Barcelona, could you tell us more about it?

Jaime: As you remember the first time we tested the 1:1 ratio of THC: CBD in Cannatonic (a strain I created for Resin Seeds) was also during a Spannabis fair, the 2009 edition, when we gave a sample to analyze by CANNA laboratories. From that moment on I have been working with Shantibaba on CBD since we were both genuinely interested in bringing this powerful molecule to patients.

Shanti: That’s right mate, during the past decade science has demonstrated that CBD is a potent antioxidant with strong anti-inflammatory qualities. Jaime and I both believe that patients should be given a chance to cultivate and employ CBD-rich cannabis to self-medicate. We wish to offer a well tested natural alternative in a seed form.

Most cannabis is bred for the “high” THC content. What else about CBD-rich strains makes them such desirable strains for patients?

Jaime: Cannabidiol —CBD— is a compound in Cannabis that offers various beneficial properties. Taken alone, CBD is not psychoactive; when mixed with THC it tends to smooth and modulate the euphoric effects of THC, often this is something patients tend to dislike in high THC strains. After decades only high-THC Cannabis, CBD-rich strains are now being grown by and for medical patients. CBD has demonstrated neuro-protective effects in some pathological conditions, and its anti-cancer potential is currently being explored at several academic research centers worldwide (try to search “CBD cancer Guzman” on google for more insights).

Shanti: The reduced psychoactivity of CBD-rich cannabis makes it an appealing treatment option for patients seeking anti-inflammatory, anti-pain, anti-anxiety and/or anti-spasm effects without discourting euphoria or lethargy. Scientific and clinical studies indicate that CBD could be effective in easing symptoms of a wide range of difficult-to-control conditions, including: rheumatoid arthritis, diabetes, alcoholism, PTSD, epilepsy, antibiotic-resistant infections and neurological disorders.

And the CBD-crew, how did it come about? It is not every day you see two seed companies collaborating so closely?

Jaime: I fully agree with Shanti, plenty of time-consuming work here! Furthermore with Cannatonic we discovered that only 50% of the plants grown were CBD rich. This means that out of a packet of 10 seeds you would only find 5 plants that were really CBD-rich. Our goal was to overcome this problem and offer seeds that are 100% CBD-rich, which for patients would mean that they do not need to test samples to select a mother for producing their own medicine.

When will the CBD-crew debut its new product line?

Jaime: By end of August 2011 we will select medical cannabis growers around the world to test the new experimental crosses we made using legendary genetics of Mr. Nice Seed Bank and Resin Seeds as starting points. We are fortunate to work with growers that can have access to a lab to test their plants during the growing season.

Shanti: Each test grower will receive 10 seeds of a new CBD-rich cross - our goal is for many growers in different climates to grow out 10 seeds and analyze a sample of each plant so ultimately we can ve-
rify that we reached our goal of offering 100% CBD-rich seeds to patients. If we succeed, then we'll start selling those new varieties, which could happen somewhere during November 2011. Check out www.cbdcrew.org for more info and updates.

I have not seen the cannabis market/community showing much awareness of CBD itself or the fact that not all plants growing from a seed packet of CBD-rich seeds actually contain CBD. Do you really think there is a future for those hit and miss CBD seed strains?

Jaime: Good point. I also saw new seed companies that mention CBD-potent strains in their catalogue but offer no test results to back up their claims. At the end people should really grow at least 10 seeds of a CBD-rich strain and test all of those seeds for their cannabinoids content - there is no other way to prove it! I saw many patients in North America that tried Cannatonic. These patients really felt an improvement in the quality of their lives. These are the patients we want to help without any cheap marketing tricks!

Shanti: Correct Jaime! I also noticed that during the last Medical Cannabis Cup in San Francisco there was new prize for CBD-rich strains. I feel the revolution is coming and slowly patients will start to try the effects of CBD for themselves:

there is nothing more convincing than a patient that can testify the effects of this molecule and suggest it to other patients! Let's not forget that CBD was always present in hashish, like charas and Moroccan, where the resin from many different plants is mixed together. **We are just aiming to have that THC:CBD ratio combination in one bud!**