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TTS Pharma's CBD Animal Studies Show Anti-Inflammatory Potential

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Executive Summary

Can cannabinoids provide therapeutic benefits to consumers? A new animal study by the UK's TTS Pharma suggests anti-inflammatory properties for CBD, according to the company's director of Medical Affairs, Rob Walton.



Source: Shutterstock

Thanks to research funded by the Welsh government, the UK's TTS Pharma is exploring possible health benefits of cannabidiol.

In collaboration with TTS Pharma, researchers at the University of Aberystwyth – including Dr Debbie Nash – are investigating whether washes with crude cannabis extract, cannabinoids such as CBD, CBD-A and CBG and other natural compounds can treat endometritis-related uterine inflammation in animals like horses and cattle.

The company hopes that this work could provide a foundation for future research into the health benefits of hemp in humans.

“We have data showing that cannabinoids will actually reduce production of the mediators of inflammation in the uterus, which seems pretty convincing” explained TTS Pharma’s Rob Walton, in an exclusive interview.

“We've only looked at the moment on one of the mediators IL6, and that's inhibited in a dose dependent way,” added Walton, who is director of Medical Affairs at TTS Pharma.

While these are only pre-clinical trials and are a long way off being able to show an empirical basis for CBD health benefits in humans, the results are encouraging.

Helping Farmers

For farmers, endometritis is a big problem, as it reduces the fertility of their livestock, Walton pointed out.

Currently the condition is treated with antibiotics but given that endometriosis is a form of chronic inflammation Walton said that antibiotics “often don't fix it”.

Given the push to reduce antibiotic use in both animals and humans, TTS Pharma could be onto a winner if it could show CBD to be effective.

“Antibiotic resistance is a huge problem for humans,” Walton noted. “So, anything which could actually suppress this chronic inflammation without using them be a would be a good thing. There is a wide range of potential uses which we have only just begun to explore”

Walton speculated that this research could support existing evidence suggesting anti-inflammatory effects of CBD in skincare products, for example.

“There are a wide range of skin conditions where inflammation is an issue, such as eczema and psoriasis,” he commented. “Although, of course, we don't actually have the data what an effective dose might be.”

Human Studies Needed

The key with dermatology applications, however, is how much CBD actually gets absorbed and therefore not only reaches the source of inflammation but also adds to the general level of CBD in the system, he continued.

“There's some data with regards to animal applications,” Walton explained. “But if you're applying it to inflamed skin in humans, I think you would need to do some testing to see what the blood levels being achieved actually are, just to make sure that you aren't reaching toxic levels.”

On the other hand, epilepsy drugs like GW Pharmaceuticals' Epidiolex and Sativex use quite high doses of CBD, and the side effects that they're experiencing, are not serious, he added. “So, the risk benefit equation seems reasonable.”

“There's a lot more research to be done on this,” he added. “It's possible to deliver CBD in relatively high concentrations in creams – and CBD is fat soluble – so I think any application in skin products would be interesting.”

“These are some of the ideas that we have to move things forward,” Walton concluded. “We are also working on extending the use of cannabinoids in other animal species and of course in humans where there is a tremendous need for new anti-inflammatory treatments for infection and in immunity.”