

Virtual DANDRITE Lecture

Thursday 21 January 2021

15.00 – 16.00

Online via Zoom

Please find Zoom link via the Outlook calendar invitation. If you have not received this, please write an e-mail to Kathrine: kh@dandrite.au.dk



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Cannabinoids in stress and depression: state of the art and challenges

Significant limitations with the currently available antidepressant treatment strategies have inspired research on finding new and more efficient drugs to treat depression. Converging preclinical and clinical data suggest a role for cannabinoids in the modulation of stress adaptation and depression. Augmentation of endocannabinoid signaling promotes stress adaptation and antidepressant effects. Moreover, natural and synthetic cannabinoids have also been explored for their therapeutic potential in stress-related psychiatric disorders, including depression. My research has focused on the pharmacological properties of Cannabidiol (CBD), a non-psychoactive component of *Cannabis sativa*, as a promising new antidepressant. CBD has a complex pharmacology, with the ability to interact with multiple neurotransmitter systems involved in depression, including the serotonergic, glutamatergic, and endocannabinoid systems. We have shown that CBD induces rapid and sustained antidepressant effect in different animal models. Such effects involve a rapid increase in neuroplasticity in the prefrontal cortex associated with the modulation of neurotrophins levels and glutamatergic signaling.

The lecture will present a comprehensive and critical overview of the current evidence related to the antidepressant effects of CBD, including new unpublished results from our group. Finally, challenges and perspectives for future research will be discussed.