

## PL6. CANNABIS SATIVA CONSTITUENTS, CANNFLAVINS: CHEMISTRY AND BIOLOGICAL ACTIVITIES

Mahmoud A. ElSohly<sup>1,2,3</sup> , Mohamed M. Radwan<sup>1</sup> 

<sup>1</sup>National Center for Natural Products Research, School of Pharmacy, University of Mississippi, University, MS 38677, USA

<sup>2</sup>Department of Pharmaceutics and Drug Delivery, University of Mississippi, University, MS 38677, USA

<sup>3</sup>ElSohly Laboratories, Inc., 5 Industrial Park Drive, Oxford, MS 38655, USA

More than 550 compounds were reported in cannabis plant. Besides cannabinoids and terpenes, flavonoids are one of the major classes of compounds that were isolated from *C. sativa*. More than 30 flavonoids belonging to seven basic chemical structures which can be glycosylated (C- or O-glycosides), prenylated, geranylated, or methylated. Orientin, vitexin, isovitexin, apigenin, luteolin, kaempferol and quercetin derivatives constitute the cannabis flavonoids. Cannflavins are prenylated methoxy luteolin derivatives. Four cannflavins have been isolated from cannabis, namely cannflavin A, cannflavin B, cannflavin C and isocannflavin B. In this presentation, focus will be on biosynthesis, pharmacology, and analysis of cannflavins.

**Keywords:** Cannabis; Cannflavins; Biosynthesis; Pharmacology; Analysis.

**Acknowledgements:** This work was supported in part by National Institute on Drug Abuse (NIDA), contract # N01DA-15-7793.

### REFERENCES

- [1] Radwan MM, Chandra S, Gul S, et al. Cannabinoids, phenolics, terpenes and alkaloids of cannabis. *Molecules* 2021; 26: 2774. <https://doi.org/10.3390/molecules26092774>
- [2] Abdel-Kader MS, Radwan MM, Metwaly AM, Eissa IH, Hazekamp A, Sohly MA. Chemistry and Biological Activities of Cannflavins of the Cannabis Plant. *Cannabis and Cannabinoid Research*. 2023 Sep 27. <https://doi.org/10.1089/can.2023.0128>