DOI: 10.1111/bph.14627

Themed Section: 8th European Workshop on Cannabinoid Research

EDITORIAL

Cannabinoids and their actions: An update

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The first themed issue on Cannabinoids Editorial (Alexander & Randall, 2007) discussed why … why the themed issue, why the topic, and why *BJP*? The responses to these three questions are largely unchanged. A themed issue is a ready focus for authors and readers. The 2007 themed issue was based around the 3rd European Workshop on Cannabinoid Research and provided a rich source of both reviews and research papers. *BJP* has always championed cannabinoid research with numerous high-quality examples of research and scholarship to which to point. The 8th European Workshop on Cannabinoid Research took place in Roehampton, West London, in August/September 2017. It involved speakers from four continents and gave rise to the review articles and research papers presented in this themed issue.

The review articles underline the breadth of action of cannabinoids/endocannabinoids, encompassing examples of cell determination (Garcia-Arencibia, Molina-Holgado, & Molina-Holgado, 2019) to cell death (Fernandez-Ruiz, 2019). There are reviews on more translational aspects of cannabinoids. Burkhard Hinz and Robert Ramer describe anti-tumour actions of cannabinoids (Hinz & Ramer, 2019), while Barbara Malinowska and colleagues look at the mechanisms of action and potential therapeutic significance of cannabinoids in different aspects of hypertension (Malinowska, Toczek, Pedzinska-Betiuk, & Schlicker, 2019). Kasia Starowicz (Malek & Starowicz, 2019) and Dave Finn (Okine, Gaspar, & Finn, 2019), with their respective colleagues, describe aspects of cannabinoids in joint repair problems and targetting non-canonical pathways in pain. In between, Harald Hansenand and Vana Vasiliki describe the variation and potential influences of endocannabinoid-like compounds in the intestine (Hansen & Vana, 2019).

The research papers in this themed issue focus on the broad spectrum of cannabinoid actions. For example, the fundamentals of cannabidiol analogue action at **CB_1** and **CB_2 receptors** are investigated by Rob Laprairie and colleagues (Tham et al., 2019), inflammatory signalling changes in endocannabinoids in a colon cancer cell line from Chris Fowler and colleagues (Alhouayek, Rankin, Gouveia-Figueira, & Fowler, 2019), while a preliminary characterisation of a novel CB_2 receptor agonist PET ligand is described by Guy Bormans and colleagues (Attili et al., 2019).

The rest of the research papers look at cannabinoids in animal models with diverse elements of a CNS focus. Thus, one paper focusses on prefrontal cortex regulation of pain (Rea, McGowan, Corcoran, Roche, & Finn, 2019), while another looks at species differences in cannabinoid-induced convulsions (Whalley et al., 2019), and a third investigates endocannabinoid regulation of feeding (Sticht et al., 2019). Two papers look at features of reward and dependency: One looks at the roles of CB_1 and CB_2 receptors on behavioural responses to cocaine (Gobira et al., 2019). The second looks at **cannabidiol**, a non-euphoric plant cannabinoid and its effects on cognition and withdrawal to **Δ^9-tetrahydrocannabinol (THC)**, the classical euphoric plant cannabinoid (Myers, Siegele, Foss, Tuma, & Ward, 2019). The two remaining papers look at different aspects of muscular and neurodegeneration: One focusses on non-euphoric plant cannabinoids in an mdx mouse dystrophic model (Iannotti et al., 2019), while the second looks at astroglial CB_2 receptor regulation of a mouse model of ALS (Espejo-Porras et al., 2019).

Overall, this themed issue underlines the diversity and translatability of cannabinoids. Furthermore, it underlines that despite the human multimillennial history of exploitation of the *Cannabis* plant, we are still learning a great deal about the compounds from the plant and the endogenous cannabinoid system which the plant has allowed us to identify.

We suspect this will not be the last themed issue on cannabinoids in the *British Journal of Pharmacology*, and we look forward to the next edition with some anticipation.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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