CSPB Ragai Ibrahim Award – 2022 Recommendation

Award winner: **Purva Karia** for the paper “Karia P, Yoshioka K & Moeder W(2021)Multiple

phosphorylation events of the mitochondrial membrane protein TTM1 regulate cell death during senescence*”* published in the *Plant journal*. This article describes the role of the triphosphate tunnel metalloenzyme 1 (TTM1), located in the mitochondrial outer membrane, in senescence-associated cell death. This article establishes a new link between mitochondria, MAPK signaling and hormonal (ABA) regulation during senescence. The potential impact of this article is large, due to the breadth of the field and the little knowledge there currently is about mitochondrial involvement in program cell death in plants. The committee felt that Dr Karia research and writing contribution was very impressive since she is the one of three authors. The variety of techniques used in the article displayed her wide technical knowledge, and she was highly involved in the writing of the manuscript.

Honorable mention: **Samuel J. Livingston** for the paper “Livingston SJ, Bae EJ, Unda F, Hahn MG, Mansfield SD, Page JE & Samuels L (2021) Cannabis Glandular Trichome Cell Walls Undergo Remodeling to Store Specialized Metabolites” published in *Plant & Cell Physiology* (Editor’s choice)*.* The article describes the remodeling happening in the glandular trichome cell walls during the formation of the apoplastic cavity which accumulates and store the cannabinoid and terpenoid metabolites. The current research available on cannabis is very limited and this article brings novel and enlightening information on a fundamental development process. The article will be of clear impact for the industry and could provide knowledge transferable to other plant species. The committee appreciated the high quality of the figures, the remarkable combination of microscopy imaging with metabolite data, and the important contribution of Dr Livingston to the research and writing of the manuscript.