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Shedding ultraviolet light on welfare in laboratory rodents: suggestions for further research and refinement

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Abstract

The welfare of laboratory rats and mice is sought to be optimised through adjustment of a variety of environmental factors, including light intensity and photoperiodicity. However, the fact that rodents are able to perceive ultraviolet (UV) light tends to be ignored. The importance of being able — as a rodent — to utilise this part of the visual spectrum has not been studied in great detail, but suggestions, based on the evolutionary success of this trait, indicate that the deprivation of ultraviolet light in mice and rats could perhaps impact negatively on the welfare of these animals. Further research into the importance of having a UV light source available to rats and mice should be encouraged.

Keywords: *animal welfare, housing, rodents, ultraviolet, vision, visual perception*