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Problems with VVC changes to protocols

Veterinary verification and consultation (VVC) provides a streamlined way for the IACUC to make changes to existing approved protocols, and is important for minimizing regulatory burden. But because it circumvents the typical IACUC approval process there is potential for problems being missed. In this month's Protocol Review, a scenario brings up interesting questions regarding VVC and how problems should be reported to OLAW.

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Changing perceptions

Biomedical research using animal models has trended towards reductionist approaches that attempt to reduce variability as much as possible. The tendency to use inbred animals with little genetic diversity and limited microbial exposure may minimize potentially confounding factors in a given study, but this can foil attempts to translate findings from animal models to humans. People are just more complex. In a January Commentary, Caroline Zeiss of Yale University and Cory Brayton from Johns Hopkins discuss changing attitudes towards mouse genetics and microbial status and reiterate the need for proper reporting and clear definitions of the variables associated with any given mouse strain.

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Cracking big circuits

Optogenetics has been a game-changer for neuroscientists. With this technique, the intricate details of functional circuitry can now be routinely probed in awake-behaving animals, providing a critical causative link between the activity of specific cell-types and behavior. However, owing to limitations in delivery and activation of functional opsins (like channelrhodopsin) in neurons, optogenetics has been used predominantly in rodent models, especially in mice. For researchers studying more complex circuits and behaviors in primates, optogenetics has been difficult to widely adopt. In this Technology Feature, Michael Eisenstein explores how researchers are pushing the envelope of optogenetics to harness its power in primates, enabling them to make progress in understanding functional circuitry in animal models that are much closer to humans.

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