Bridging the gap: pig models in pain research

Chronic pain is an important global health problem affecting 20% of the population, yet no adequate treatment is available for this condition. Several animal models — particularly mice and rats — have been developed to evaluate pain mechanisms and potential treatments. However, many drugs showing promising results in preclinical studies have failed once tested in clinical trials, questioning the predictive value of these models.

Large animal models, phylogenetically closer to humans than rodents, might predict human biology and pharmacology in pain conditions more accurately. In a new Review, Suzan Meijs and colleagues at Aalborg University, Heidelberg University and MD Biosciences searched the literature for available pig models in pain research and compared them in term of duration and intensity. A comparison of pain assessment methods in porcine models and in humans revealed several areas of overlap, further supporting the value of pig models in translational pain research.

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Post COVID-19 colony management

Are you returning to animal research following the COVID-19 lockdown? There are important issues to consider when re-establishing your mouse colonies after a lockdown. Notably, reducing the size of your colony might have speeded up genetic drift and compromised the genetic integrity of your strains. The new conditions might also have affected the microbiome of your mice. In a new comment this month, Natalia Moncaut at University of Manchester and Sarah Hart-Johnson at The Francis Crick Institute discuss key issues that could affect the reproducibility of your experiments, and provide solutions to address them. See page 301

Published online: 25 October 2021 https://doi.org/10.1038/s41684-021-00888-8

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