Animal study registries: Understanding the pros and cons

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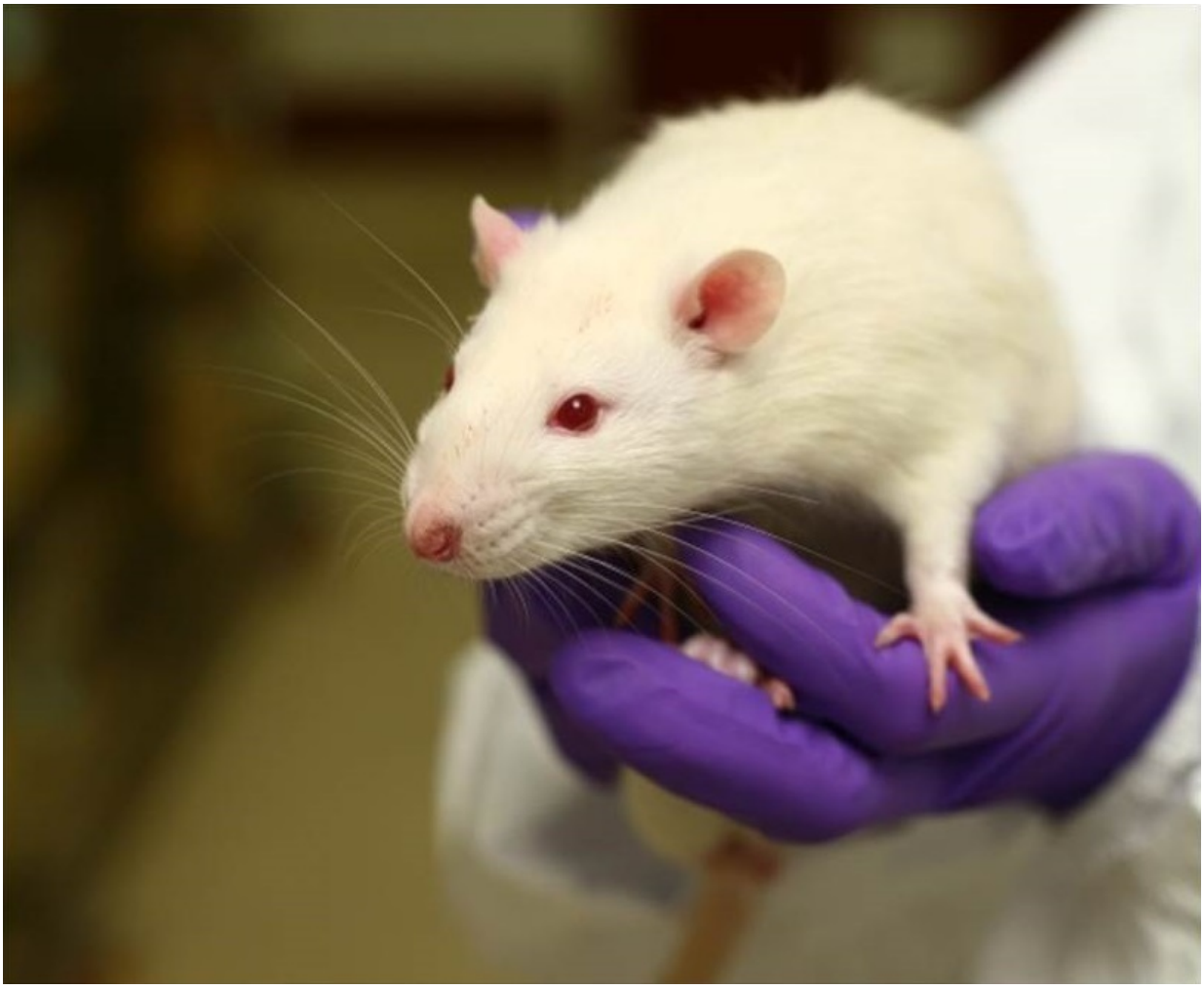

A biodegradable silk implant stops epilepsy progressing in rats. Credit: Flickr user Understanding Animal Research

Improvements in our understanding of disease and new treatment options are often rooted in findings from research conducted on animals. However, in recent years, several scientific reports have questioned the way animal research is conducted and reported. Too often results of animal studies are not published. Furthermore, those results that are published are often not reproducible in other labs.

Because results from animal research inform the planning of new animal research as well as research with human participants, accurate and complete reporting of animal research is essential to reduce harm to clinical trial participants and patients, to optimize allocation of funding, and, also very importantly, to effectively refine and reduce unnecessary animal research. The current discussions regarding "publication bias" and the "reproducibility crisis" have initiated debate on new measures that can help to increase value and reduce waste in animal research. A controversial topic in this debate is whether registries that list all ongoing and past animal studies should be established, similar to those that already exist for clinical trials.

Reasonable decision-making on such animal study registries (ASRs) depends strongly on knowledge about relevant characteristics of ASRs and conflicting stakeholder interests. A recent interview study with experts from animal and clinical research, industry, and regulatory bodies publishing 10 November in the open-access journal PLOS Biology presents a comprehensive and structured account of 130 issues and arguments around potentially implementing ASRs.

All stakeholder groups agreed that ASRs could improve the quality and refinement of animal studies in various ways while allowing their number to be reduced. However, members from all stakeholder groups were also concerned with the potential for theft of research ideas and higher administrative burdens. Controversial arguments were identified on whether ASRs would reduce or increase creativity in animal research.

The interviews also revealed a set of governance measures that might help to minimize or even eliminate potential burdens to animal researchers that might come with the implementation of ASRs. A crucial measure in this regard might include a confidentiality time frame for accessing prospectively registered animal studies. Another facilitator might be harmonized reporting requirements across ASRs, ethics reviews, lab notebooks, and journal submissions.

The comprehensive information gathered in this study helps to balance the ongoing debate on ASRs and thus facilitate evidence-based policy making for ethical animal research.

More information: Wieschowski S, Silva DS, Strech D (2016) Animal Study Registries: Results from a Stakeholder Analysis on Potential Strengths, Weaknesses, Facilitators, and Barriers. PLoS Biol 14(11): e2000391. DOI: 10.1371/journal.pbio.2000391