

## Report on Research Compliance Volume 19, Number 2. January 27, 2022

### Creative Database Searches Needed to Pinpoint Studies Useful for 3Rs

---

By Jane Anderson

Identifying alternatives to the use of animals in research and potential ways to minimize animal stress—as mandated by the Animal Welfare Act—requires researchers to use advanced and creative literature search techniques, according to a federal library official.

Most studies aren't indexed to easily find research and information about "the 3Rs": replacement, reduction or refinement of animal use to minimize animal pain and distress while still meeting research goals, said Jessie Kull, Animal Welfare Information Center coordinator at the U.S. Department of Agriculture's National Agriculture Library.

"Typically, unless the research is focused on the 3Rs or its main objective or topic of the study, scientists won't mention or write explicitly about the 3Rs, making these papers and information extremely hard to identify in the literature, because the papers aren't being tagged or indexed on the back end," Kull said Dec. 9 during a webinar sponsored by the NIH Office of Laboratory Animal Welfare.<sup>[1]</sup>

"Additionally, some scientists may not even realize that the method or procedure that they're using would be considered a 3Rs method and, again, do not explicitly state anything about the 3Rs or animal use alternatives in their paper, such as maybe using an animal as its own control," Kull explained. Therefore, searching the literature using those three terms—replacement, reduction and refinement—probably won't yield good results, she said.

For example, Kull said, one study about dairy calves states, "This is the first study to demonstrate that pair housing improves the affective aspect of calf welfare." The study suggests that pair housing is a refinement method, she said, but "there isn't any mention about refinement specifically in this paper." It's possible to identify the study as one that identifies alternatives "by considering the context clues and interpreting the sentence as humans," but researchers can't rely on searches specifically on the 3Rs to identify a paper like this one, she said.

Still, that's what researchers often do, Kull said. "A lot of people searching in databases will likely use those 3Rs terms...in their actual search string to find this information. But if it's not in the paper, it's not going to come up in your results."

This document is only available to subscribers. Please log in or purchase access.

[Purchase Login](#)