

Report on Research Compliance Volume 18, Number 7. June 24, 2021 NIH Embraces Recommendations to Enhance Rigor in Studies Using Animals

By Theresa Defino

"Investigators need NIH's support and active participation to increase the rigor and transparency of their research. NIH must obtain and commit sufficient financial resources toward improvements and also effectively use incentives and oversight in the grant application, review, and funding process."

So states a passage in a new report presented to NIH Director Francis Collins from one of many working groups that provide input to his Advisory Committee to the Director (ACD). [1]

While the statement may have a familiar ring to it, it's important to note that the topic here is animal—not human subjects—research.

Another sentence in the same paragraph in the ACD Working Group on Enhancing Rigor, Transparency, and Translatability in Animal Research: Final Report notes that NIH can "also uniquely help investigators by identifying and promulgating best practices, investing in strengthening the animal research statistical workforce, and working to educate the scientific community and the public about ongoing challenges and achievements."

Barbara Wold, the Bren professor of molecular biology at the Merkin Institute for Translational Research at the California Institute of Technology, co-chaired the working group with Larry Tabak, Collins' principal deputy director. Wold presented the working group's final report and recommendations at the ACD's June 11 meeting, [2] and acknowledged they are "numerous and a bit complex." The working group has been impaneled for nearly two years. [3]

The focus on research using animals, in addition to NIH's overall emphasis on increasing rigor and reproducibility more generally, is necessary because "there are some special and additional challenges that come with working with animals. One of them, of course, is the major, ethical consideration," Wold said.

Investigators using animals "need to follow the three Rs for animal research, and that means reducing and using as few animals as possible, and getting the most information from the animals that we do use," she said. In addition to reduction, the other Rs are replacement and refinement. "There's a counter tension that comes with rigor, and that is to use a large enough number in order to achieve appropriate statistical power, without going over the top and wasting any animals," she said. Husbandry issues also come into play, Wold added.

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