

Applied science may yield more translational research publications than basic science

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While translational research can happen at any stage of the research process, a recent investigation of behavioral and social science research awards granted by the NIH between 2008 and 2014 revealed that applied science yielded a higher volume of translational research publications than basic science, according to a study published May 9, 2018 in the open-access journal *PLOS ONE* by Xueying Han from the Science and

Technology Policy Institute, USA, and colleagues.

The NIH prioritizes funding for translational research, or studies that apply findings from basic [science](#) to promote human health and well-being. Since there are many different definitions of translational research and important milestones in biomedical research have yet to be defined, it is difficult to track and quantify its progress.

In their new study, Han and colleagues investigated the amount of translational research produced from three types of NIH-funded research awards between 2008 and 2014: basic and applied research grants in the behavioral and social sciences, and the Clinical and Translational Science Award, a program that specifically targets translational research. They analyzed all publications produced from those 6,387 awards and they determined what percentage of those publications could be classified as translational research. From this analysis, the researchers found that 3.9% of publications produced by basic research awards, 7.4% produced by applied [research awards](#), and 13.4% of the CTSA program publications were translational.

The researchers' analysis of NIH-funded behavioral and social sciences research demonstrates a progression toward increased translational research as they moved across the research spectrum from basic science to applied science, with the targeted translational research program yielding the highest number of translational research publications. The researchers suggest that translational research can happen at any stage of research, with increasing frequency in applied science, and that targeted translational research programs such as CTSA appear to be effective at promoting the translation of basic and applied sciences into medical practices and meaningful health outcomes.

Xueying Han says: "Our findings suggest that translational research can happen at any stage along the research continuum, and that targeted

translational research programs, such as the Clinical and Translational Science Award Program, appear to be effective at increasing the translation of basic and applied research to health outcomes."

More information: Han X, Williams SR, Zuckerman BL (2018) A snapshot of translational research funded by the National Institutes of Health (NIH): A case study using behavioral and social science research awards and Clinical and Translational Science Awards funded publications. *PLoS ONE* 13(5): e0196545.

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