

NIEHS: Making a Mark on Translational Research Science

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The National Institute of Environmental Health Science (NIEHS) is introducing a new paradigm for conducting, communicating, and evaluating translational research efforts in environmental health science. In “Expanding the Concept of Translational Research: Making a Place for Environmental Health Sciences,” Pettibone et al. (2018) use the concepts of translational research proposed by earlier authors to inform an innovative approach to thinking about the dynamic nature of environmental health research as it moves in multiple directions. This new framework reflects a broad range of environmental health research activities that are conducted as part of translational research, while still incorporating the traditional clinical translational research activities.

Translational research is embedded in NIEHS’s mission of discovering how the environment affects people to promote healthier lives, and is a core concept within our (NIEHS’s) strategic plan. “While translational approaches in medical research are sometimes referred to as bench-to-bedside, NIEHS research results in much broader applications, which have in common an emphasis on preventing adverse health consequences from environmental exposure. NIEHS research moves through multiple translational pathways, not just to the bedside, but to the community, to individual behaviors and choices, and to wider public policy changes and public health practice” (NIEHS 2012). As such, translational research is conducted and supported throughout the institute, in our extramural grant program, in our intramural research, and in the work of the National Toxicology Program, to inform regulatory programs, activities, and policies.

As the leadership team of the Institute, we anticipate that the framework will have many benefits. Establishing a shared

understanding and common vocabulary for discussing translational research in the environmental health sciences context supports our strategic plan and provides a structure for researchers to clearly articulate the complex, multiyear process of scientific discovery and impacts. The framework can be used as a tool to categorize and evaluate research as it moves across, around, within, and through translational phases. It enables us to discern and give more recognition to important handoffs that were previously grouped together as “basic” or “discovery” research. We expect the framework will be used to help identify and address bottlenecks that may occur in moving ideas through the various phases of the translational research process. And we hope that it will be used prospectively by both researchers and program staff to identify opportunities for collaborations and handoffs that accelerate the development of actionable steps for improving human health.

We invite the research community to test this expanded model of translational research. More information on the framework and tools to help tell translational stories are available at www.niehs.nih.gov/translation.

References

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