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**Joan Ferrini-Mundy\***, National Science Foundation, North Arlington, Virginia. *Studying mathematics learning and improving mathematics teaching: building careers of integrated scholarship and practice.*

I cannot imagine a more exciting time for those who are committed to the improvement of undergraduate mathematics teaching. The research base for informing curricular and instructional practice is solidifying and expanding. There are new approaches and tools for research that emphasize the problems of instructional practice and the importance of design and implementation, and there are new opportunities for collaborations with experts across many domains. Technology to support student learning is widely accessible, and that same technology opens novel ways to study student learning. Attention to "mathematical practice" in the preK-12 arena and the mathematics community's report, *The Mathematical Sciences in 2025*, help shape possibilities for undergraduate mathematics. The Federal government has made the improvement of undergraduate science, technology, engineering, and mathematics education a government-wide priority. The Project NExT community is poised to lead the way to significant change and improvement of mathematics learning experiences for the next generations, while focusing both on what is enduring in undergraduate mathematics teaching and learning and on creating pathways to shape what is needed for tomorrow. (Received October 27, 2015)