NSF Stories

NSF and Micron invest in STEM teacher training to support future microelectronics workforce

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Today, the U.S. National Science Foundation and the Micron Foundation announced an investment in four projects to advance STEM education training to foster a more robust microelectronics workforce. The investment, made possible through a Dear Colleague Letter, will support the development of highly effective K-12 teachers in high-need, underresourced school districts. Teachers will be more equipped to meet the needs of learners as they engage with concepts key to careers in microelectronics.

Microchips are used for everything from cellular telephones to medical equipment to data centers, making them indispensable in American's day-to-day lives. "With a continuing global shortage of

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microchips, it is imperative that the U.S. invest in a strong microelectronics workforce, especially at the K-12 educational level, to retain the nation's leading edge in emergent technologies," said NSF assistant director for STEM Education, James L. Moore III. "By improving K-12 educational pathways and opportunities for students underrepresented in STEM, NSF is creating a more diverse and expansive network of STEM professionals, including K-12 teachers, to support this mission."

NSF is working to achieve this through the Robert Noyce Teacher Scholarship Program (Noyce). Noyce addresses grand challenges in recruiting, preparing, and retaining skilled elementary and secondary STEM teachers and teacher leaders in high-need and underresourced school districts. This program also supports research on STEM teacher effectiveness and retention.

The Noyce awards funded through this partnership focus on developing more efficient training for pre-service teachers and developing and supporting in-service teachers to better prepare a growing STEM workforce. Pre-service teachers are candidates enrolled in an educational program who are pursuing their teacher certification. Both pre-service and in-service teachers will receive more hands-on STEM training that will deepen their understanding of scientific research, as well as specialized training to meet the unique needs of diverse and global student populations.

The awards of each project are listed below:

- **Catalyzing STEM Education Part II: Preparing STEM Educators for High-Need School Districts**, Nazareth College of Rochester.
- **Developing Effective Mathematics and Science Teachers by Expanding Partnerships with High-Need School Districts with Diverse Student Populations**, Millersville University.
- **Creating Research Experience for Science Teachers (CREST): Preparing Scholars to Teach Through Inquiry**, Eastern Washington University.
- **Authentic Summer Research Experiences for STEM Pre-Service Teachers**, Georgia Tech Research Corporation.

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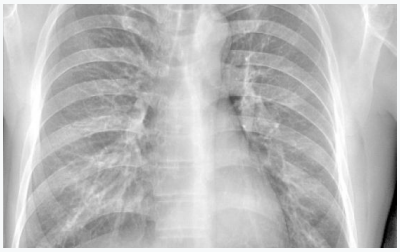

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