

# NSF Centers Will Use Nano-Interface Control and Bioengineering for Materials by Design

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The National Science Foundation (NSF) has established two new Materials Research Science and Engineering Centers (MRSECs) at Yale University and the University of Washington, with a combined NSF investment of up to \$14 million over the next six years. The centers will also receive substantial support from the participating academic institutions, state governments and industry.

The Center for Research on Interface Structure and Phenomena will investigate the electronic, magnetic and chemical properties of complex oxide materials and their interfaces, with potential applications to magnetic storage, spintronics, and chemical sensing. The Center is a partnership between Yale University, Brookhaven National Laboratory and Southern Connecticut State University. The Genetically Engineered Materials Science and Engineering Center at the University of Washington will support innovative research and education that integrates modern biology with state-of-the-art chemical synthesis to construct hybrid materials that cannot be achieved through traditional biology or Chemistry.

Each award is initially for six years; renewed NSF support is possible through competitive review in the fifth year of the award.

In addition to the two new centers, another eleven existing MRSECs successfully renewed support in open competition in FY 2005. (A total

of 29 Centers are currently supported by the MRSEC program with annual NSF support of \$52.5 million.) Each Center has made a substantial commitment to effectively integrate its educational activities with its scientific research program, and to fully develop its human resource potential. The educational outreach activities can range from the elementary school to the postgraduate level. Additionally, the MRSECs constitute a national network of Centers that seeks increased impact on materials science and education beyond what is expected from any one Center.

"Advanced materials are the hidden 'stuff' that enables the modern world to function," said Lance Haworth, Executive Officer for DMR's Division of Materials Research. "Fundamental research on materials is essential to the nation's health, prosperity and welfare. New materials are key to a whole range of rapidly changing technologies such as energy, computers and communications, transportation and increasingly health- and medicine-related technologies as well. These two new awards join a vigorous network of NSF-funded interdisciplinary Centers that are doing exciting work at the frontiers of materials research and preparing the next generation of materials researchers."

Source: NSF

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