Brookhaven Lab, Stony Brook University receive $24M in federal research grants

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Two of Long Island's premier scientific research facilities, Brookhaven National Laboratory and Stony Brook University, have received a total of $24 million in federal grants to continue work on superconductors and to develop advanced storage batteries.

Brookhaven Lab's owner, the U.S. Department of Energy, announced that the lab would receive a $14 million, four-year extension of funding for the lab's Energy Frontier Research Center, which was established in 2009. It is one of 32 such centers nationally and studies superconductive materials that can transfer electricity with no resistance -- no loss of energy -- potentially revolutionizing the way energy is moved and stored.

Brookhaven's Energy Frontier Research Center, known as the Center for Emergent Superconductivity, partners with the University of Illinois and the Energy Department's Argonne National Laboratory. The center had been operating since 2009 under a $20 million grant.

Currently, superconduction requires extremely cold temperatures. "Finding the keys that unlock the secrets of high-temperature superconductivity would transform our ability to transport and store vast quantities of energy," Brookhaven senior physicist J.C. Séamus Davis said in a news release. Davis has directed the Center for Emergent Superconductivity from its inception and is also a professor at both Cornell University and the University of St. Andrews in Scotland.

Peter Johnson, who will replace Davis as director of the center on Aug. 1, said it employs about 15 of the lab's 2,800 workers and that the new funding announced Friday could add a few more positions.

Brookhaven's Center for Emergent Superconductivity was one of 22 that received renewed funding and 10 new centers selected...
from among 200 proposals for funding, the Energy Department said.

Stony Brook's $10 million award, also from the Energy Department, is for its Energy Frontier Research Center for basic research to begin in August on materials and components for batteries and other energy storage systems, seeking higher performance, longer and life and greater safety. Stony Brook's frontier research center is called the Center for Mesoscale Transport Properties, and Brookhaven Lab is one of its partners.

The battery grant is expected to add a few jobs at Stony Brook and Brookhaven Lab, said Stony Brook researcher Esther Takeuchi, who will be in charge of the Stony Brook effort.

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