



Cornell University
Cornell Center for Materials Research

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The Cornell Center for Materials Research Announces the Fall 2017 JumpStart Funded Companies

Ithaca, NY - The Cornell Center for Materials Research JumpStart program, supported by Empire State Development's Division of Science, Technology and Innovation (NYSTAR), is designed to help New York State's small businesses develop and improve their products through university collaborations, with the ultimate goals of revenue growth and job creation. JumpStart projects receive up to \$5,000 in matching funds for project costs that include faculty and research staff, facilities, services, supplies, and materials. Since the program's inception, 82 companies have benefited from this program.

During the 2017 fall semester, five companies have been awarded funding to participate in the following collaborations:

Cryomech, Inc. (Syracuse) will collaborate with Meredith Silberstein, Professor at the Sibley School of Mechanical and Aerospace Engineering, to improve the lifetime of polymer seals currently used in their Gifford McMahon cold head products.

Millennium Carbon, LLC (Old Bethpage) will collaborate with Emmanuel Giannelis, Professor of Materials Science and Engineering, to optimize plant operations for the production of activated carbon used in Ultracapacitors.

Paramount Products 1, LLC (Rye) will collaborate with Jed Sparks, Professor of Ecology and Evolutionary Biology, to study the movement of a new agricultural adjuvant called Polymer Taxi by applying it to the surface of plant leaves and exposing it to the effects of rain, dew, fog or irrigation.

Repairogen, Inc. (Ithaca) will collaborate with Brett Fors, Professor of Chemistry and Chemical Biology, to develop new synthetic methods for large scale production of two active ingredients currently derived in small quantities from natural plant sources.

Vergason Technology, Inc. (Van Etten) will collaborate with Christopher Ober, Professor of Materials Science and Engineering, to optimize the intermediate layer between the substrate material and their finished SuperChrome PVD coating.

About Empire State Development's Division of Science, Technology and Innovation

Empire State Development's Division of Science, Technology and Innovation (NYSTAR) supports collaborative industry/academic partnerships to foster integrated approaches for developing and commercializing innovative technologies. NYSTAR serves as a resource for small and start-up technology companies. For more information, please visit www.esd.ny.gov/nystar/.

About the Cornell Center for Materials Research (CCMR)

The Cornell Center for Materials Research is a National Science Foundation and New York State funded interdisciplinary research center at Cornell University whose mission is to advance, explore, and exploit the forefront of the science and engineering of advanced materials. This objective is pursued through fundamental, experimental and theoretical studies. Three other complementary functions complete the CCMR's mission: educational outreach to teachers and students; industrial outreach and knowledge transfer; and the operation of shared instrumentation in support of materials research both on and off campus. www.ccmr.cornell.edu/industry

About Cryomech Inc.

Cryomech is a leader in Cryorefrigerator (Cryocooler) design and manufacturing. Founded in 1963 by William E. Gifford, the inventor of the Gifford-McMahon Cycle and the Pulse Tube Cycle. Cryomech manufactures the largest variety of single-stage Gifford-McMahon Cycle Cryorefrigerators available anywhere. <http://www.cryomech.com/>

About Millennium Carbon, LLC

Millennium Carbon is a manufacturer of premium Activated Carbon that is attractive for energy storage. Millennium Carbon processes macadamia nutshell feedstock to produce Activated Carbon through a two-stage pyrolysis and steam activation facility located in Kawaihae on Hawaii Island. The plant can process upwards of 12,000 tons of macadamia nutshells per year. Activated Carbon is a highly porous substance that confers benefits in various industrial and consumer applications including in filtration, emissions, and pollution remediation. Millennium Carbon's premium grade Activated Carbon has unique properties that make it particularly attractive for the manufacture of Ultracapacitors, an advanced energy storage device with significant benefits relative to conventional batteries. <http://www.millcarbon.com/>

About Paramount Products 1, LLC

Paramount Products 1, is the exclusive manufacturer and distributor of Polymer Taxi agricultural products. By increasing retention rates, and helping to ensure more thorough target coverage, Polymer Taxi can reduce the amount of pre-harvest chemical applications, resulting in significant cost savings. Polymer Taxi Extend absorbs and redistributes moisture, inhibiting water loss and post-harvest spoilage. <http://www.polymertaxi.com/>

About Repairogen, Inc.

Repairogen, Inc. is developing cosmetic products that incorporate a proprietary technology from Weill Cornell Medical College. They have identified naturally occurring compounds that can penetrate the skin and significantly reduce multiple signs of premature aging. They plan to market and sell anti-aging skin care ingredients and topical formulations in an innovative skincare product line. <http://www.repairogen.com/>

About Vergason Technology, Inc.

Vergason Technology, Inc. (VTI) is a leader in vacuum coating. Through a process known as PVD, or physical vapor deposition, thin film metal coatings are applied to plastic, glass, or metal substrates used in a wide variety of industrial/commercial applications including performance coatings for wear components such as drill bits and cutting tools; reflective and decorative coatings for plastic substrates such as automotive headlamps, tail lamps and trim components; white goods/appliance trim components; EMI/RFI performance coatings for conductive and shielding of electronics, and much more. <http://vergason.com/>