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**Cornell Center for Materials Research**

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**The Cornell Center for Materials Research Announces the  
Spring 2018 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, 87 companies have benefited from this program.

During the 2018 spring semester, seven companies have been awarded funding to participate in the following collaborations:

Íko Systems Inc. (Ithaca) and Re-Nuble Inc. (Brooklyn), in collaboration with Neil Mattson, Professor and greenhouse extension specialist in the Department of Horticulture, will develop pre-seeded growth media that have been recycled and infused with Re-Nuble organic nutrients formulated specifically for use in the Íko grow system.

Ionica Sciences Inc., (Ithaca) awarded a second semester of funding to collaborate with Christopher Umbach, Professor of Materials Science and Engineering, to optimize the surface preparation methods of a structured metal substrate that will significantly improve its ability to enhance Raman signal intensity. The goal is to easily translate this into a scalable process for commercial production.

Lab141, Inc. (Brooklyn and Syracuse) will collaborate with Anil Netravali, Professor of Fiber Science and Apparel Design, to perform microscopic analysis, seam strength, and repeated washing trials on fabric samples joined by an adhesive bonding technology.

Optimax Systems, Inc. (Ontario) will collaborate with Rebecca Williams and Teresa Porri from Cornell's Biotechnology Resource Center's imaging facility on the development of new methods to inspect optical substrate quality using micro X-Ray CT scanning and Raman spectroscopy.

Vital Vio, Inc. (Troy) will collaborate with Warren Zipfel, Professor of Biomedical Engineering, on the characterization of phosphorous wavelength conversion coatings for use on antibacterial LED lamps.

Zymtronix Catalytic Systems, Inc. (Ithaca) will collaborate with Christopher (Kit) Umbach, Professor of Materials Science and Engineering, to characterize specific porosity and strength characteristics of porous customizable materials for biocatalytic reactors.

**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/](http://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](http://www.ccmr.cornell.edu/industry)

### **About Íko Systems Inc.**

A team of engineers, designers, and botanists at Cornell University have come together to solve food problems through design and technology. Their first product, Íko One, is a smart herb garden designed to fit into your home and engineered to grow tasty and healthy culinary herbs. Íko One's isolated environment allows for climate control, providing optimized growth for each plant. This unique hydroponic system can mimic the climate of anywhere in the world, allowing you to grow and taste oregano from Italy, basil from California, and thyme from the Mediterranean.

[www.iko.systems/](http://www.iko.systems/)

### **About Re-Nuble Inc.**

Re-Nuble's vision is to create closed loop agriculture systems throughout America in which food waste does not exist, chemical additives have no place, and growers feed their local communities not landfills. Their goal is to ensure pre-consumed, food waste unable to be redirected for human or animal consumption is recycled in a safe, sustainable manner. Re-Nuble offers a unique line of value added agricultural products sourced from produce waste that would otherwise end up in landfills.

[www.re-nuble.com/](http://www.re-nuble.com/)

### **About Ionica Sciences**

Ionica Sciences is based in Ithaca, NY, at the McGovern Center Life Sciences Incubator on the Cornell University campus. Ionica Sciences' focus is developing a disease diagnostic platform using a universal Surface Enhanced Raman Scattering (SERS) active substrate modified with a modular, indication-specific recognition element for detecting infectious diseases. The first test under development is a sensitive, specific, and direct assay for Lyme disease in humans and animals. The application of Ionica Sciences' diagnostic platform to this indication will allow demonstration of its efficacy. <http://www.ionicasci.com/>

### **About Lab141 Inc.**

Lab141 is an advanced manufacturer for fashion. Our technology and manufacturing facility enables fashion designers to offer their styles, made-to-measure – NO SIZES, it just fits, made in New York within a few days.

<http://www.lab141.com>

### **About Optimax**

Since its founding in 1991, Optimax has been building optics behind the latest breakthrough technologies in aerospace, defense, and consumer electronics. Optimax manufacturing programs benefit mankind and projects that defend our freedom. Their know-how, innovation and speed enable quicker production of precision optics to meet emerging market needs. Some of the most sophisticated programs in the world trust Optimax to produce the most complex optics reliably. <https://www.optimaxsi.com/>

### **About Vital Vio, Inc.**

Vital Vio is a health care solutions company that has reinvented disinfection, providing facilities managers and home-owners new tools to continuously kill germs, with the flip of a light switch. The company's VioSafe™ White Light Disinfection™ technology is suitable for continuous human exposure. Used in combination with traditional intermittent cleaning in environments such as hospitals, homes, public spaces, and workplaces, Vital Vio's technology multi-tasks to safely, effectively, and continuously kill bacteria and other harmful organisms on surfaces, while also illuminating the room. [www.vitalvio.com/](http://www.vitalvio.com/)

### **About ZYMtronix Catalytic Systems**

ZYMtronix is commercializing an enzyme immobilization technology that significantly enhances the catalytic efficiency and bioprocessing performance. [www.zymtronix.com](http://www.zymtronix.com)