

# INNOVATION PAVILION



## 1 Biofine – Mike Cassata, Co-Founder

Biofine has developed a cost-effective, carbon-efficient technique for conversion of renewable lignocellulose to chemicals and fuels hitherto made from fossil resources. The process exhibits a life cycle carbon saving of near 100% compared to equivalent fossil-based production.

## 2 University of Maine – Dr. Mehdi Tajvidi, Assistant Professor, Nanomaterials

Dr. Tajvidi is developing alternative multi-functional, biodegradable, protective packaging materials from renewable forest resources that are lightweight and have thermal insulation properties. His technology uses cellulose nanofibrils (CNF), tiny particles of wood pulp, as a binder to produce a foam-like matrix to safeguard fragile items while protecting them from extreme temperatures.

## 3 GO Lab, Inc. – Joshua Henry, President

GO Lab, Inc. is a cutting-edge R&D firm dedicated to developing advanced building products for the rapidly growing high-performance construction market. Founded by GO Logic in 2017, the company identifies critical gaps in the building products marketplace, assesses the potential for new high-performance products and systems to fill them, and responds with cost-effective, environmentally sustainable, market-ready solutions.

## 4 University of Maine – Dr. Michael Mason, Professor, Chemical and Biomedical Engineering

In response to current orthopedic metals which are too dense and stiff, prone to infection, and often require follow-up surgeries for removal, Dr. Mason has developed a nanocellulose composite orthopedic implant material that is affordable, customizable, and promotes the growth of strong natural bone while safely dissolving over time, eliminating the need for costly and permanent metallic foreign devices.

## 5 Maine Coasters & Bio-Boards – Kai Smith, Founder

Maine Coasters & Bio-Boards manufactures beverage coasters and other paperboard products for the beer industry and other hospitality and retail customers. With a patent pending, their company's first product is a branded, promotional beer coaster, made from Maine softwood and hardwood pulps combined with brewery waste (or "spent grain" as it's known), which is left over from the brewing process.

## 6 University of Maine – Dr. Kristy Townsend, Assistant Professor, Neurobiology

Peripheral neuropathy – the death of nerves in our extremities, skin, and underlying tissues – is a painful and debilitating condition affecting diabetics, chemotherapy patients, and others suffering from over 30 different medical conditions. With a lack of sensitive detection methods, Dr. Townsend has created a new medical device enabling nerve function measurements for an earlier and more reliable diagnosis, providing hope for millions of peripheral neuropathy patients worldwide.

## 7 Novo Biosciences, Inc. – Kevin Strange, Co-Founder and CEO

Novo Biosciences, Inc. is a regenerative medicine company developing first-in-class small molecule therapies to activate endogenous tissue regeneration processes. Their lead drug candidate trodusquemine (aka MSI-1436) significantly slows degenerative changes in skeletal and heart muscle in a mouse Duchenne muscular dystrophy (DMD) model and stimulates regeneration of injured heart, skeletal muscle, skin, bone, nerve, connective and vascular tissues, and complex organs in lower vertebrates and mammals.

## 8 Maine Biosensors LLC – Dr. Nuri Emanetoglu, Associate Professor, Electrical & Computer Engineering

Dr. Emanetoglu has developed a bee hive monitoring system to evaluate and track a bee colony's health. His technology tracks the activity level of a bee hive and compares current activity data with the hive's past activity levels, other hives in the same apiary, and weather conditions to determine if a bee colony is healthy. Tracking activity levels instead of the weight of the hive can result in earlier detection of anomalies, including declining health as well as swarming.

## 9 Ocean Renewable Power Company (ORPC) – John Ferland, President and COO

ORPC brings marine renewable energy technology and project development solutions to its community and industrial partners, specializing in microgrid to utility-scale river and tidal energy applications and underwater mobile power supplies for offshore energy applications.