

# IDeA in Maine

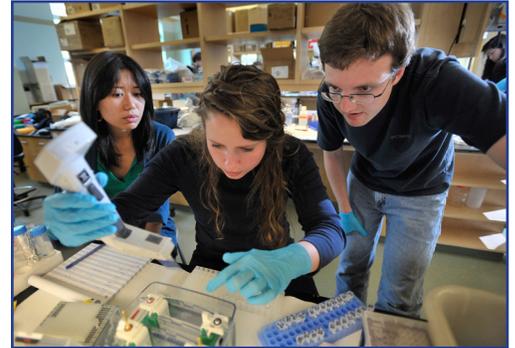
Institutional Development Awards from the National Institute of General Medical Sciences

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## Enhancing Maine's Competitiveness

The IDeA program is building Maine's research capacity by supporting biomedical research and training in laboratories and academic institutions across the state. Comprising two main components, Centers of Biomedical Research Excellence (COBRE) and Institutional Development Award Networks of Biomedical Research Excellence (INBRE), the IDeA program focuses on states like Maine that historically have had low levels of NIH funding. IDeA supports:

- basic, clinical, and translational research
- faculty development
- infrastructure improvements



With IDeA funding, Maine scientists are increasing our understanding of heart disease, cancer, chronic pain, aging, neurodegenerative diseases, diabetes, and regeneration. They are hiring and training new members of the skilled Maine workforce while their work attracts new funding into the state.

**\$144 MILLION**

in IDeA research funding awarded in Maine since 2001

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**\$138 MILLION**

in additional funding secured to date as a result of IDeA-funded research

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**>205 NEW JOBS**

created in Maine by the IDeA program

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**4 CENTERS OF BIOMEDICAL RESEARCH EXCELLENCE**

conducting cutting-edge research with human health impacts

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**1 IDeA NETWORK OF BIOMEDICAL RESEARCH EXCELLENCE**

a statewide partnership to strengthen Maine's research capacity

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# IDeA in Maine . . .

*The four research centers (COBREs) and the research and training network (INBRE) funded by the IDeA program reach across Maine from Biddeford to Fort Kent. Each has a unique biomedical focus.*

## **Maine Medical Center Research Institute**

**Contact:** Don Wojchowski, Ph.D. • 207-396-8258 • [wojchd@mmc.org](mailto:wojchd@mmc.org)

**COBRE focus:** Vascular Biology

**Funding:** \$26 million from 2000 to 2016

The focus of this center is to reveal the molecular mechanisms that regulate the development and repair of blood vessels, how and when new blood vessels are created, and the mechanisms of inflammation. The novel technologies and state-of-the-art core facilities provided by the center have resulted in advances in our understanding of heart disease, cancer, and obesity and maintain MMCRI researchers at the cutting edge of biomedical sciences related to cardiometabolic diseases.

**Contact:** Robert Friesel, Ph.D. • 207-396-8147 • [friesr@mmc.org](mailto:friesr@mmc.org)

**COBRE focus:** Stem Cell Biology and Regenerative Medicine

**Funding:** \$26 million from 2003 to 2018

The goals of this COBRE are to discover new ways to treat injured or diseased cells within blood, bone, muscle, cardiac vessels and kidneys. This research has resulted in novel insights into adipocyte and kidney progenitor cell regeneration, and has led to new NIH R01 and contract awards, upgrades for core facilities, and reinforced underwriting for several research faculty and staff.

## **MDI Biological Laboratory**

**Contact:** Kevin Strange, Ph.D. • 207-288-3605 • [kstrange@mdibl.org](mailto:kstrange@mdibl.org)

**COBRE focus:** Comparative Biology of Tissue Repair, Regeneration, and Aging

**Funding:** \$13 million from 2013 to 2018

By defining the cellular and molecular mechanisms by which some organisms are able to regenerate injured or diseased tissues and organs, this center's scientists seek to develop therapies that will enhance healing and regeneration in humans. Their research has the potential to improve the treatment of a broad range of diseases and injuries, and slow the degenerative changes associated with aging. Using this approach, one center investigator has been awarded a patent for the use of MSI-1436 in treating heart tissue damage and another has received provisional patent protection for two additional compounds that may prevent chemotherapy induced nerve damage.

## **University of New England**

**Contact:** Ian Meng, Ph.D. • 207-749-3954 • [imeng@une.edu](mailto:imeng@une.edu)

**COBRE focus:** Pain and Sensory Function

**Funding:** \$10 million from 2012 to 2017

This COBRE is built around a core group of neuroscientists, pharmacologists and chemists whose research explores the neurobiology of pain. It supports an invitro drug discovery core that works with academic and industry partners to design and employ new tests for drug screening and development with the ultimate goal of discovering novel treatments and therapies for pain. Most recently scientists in the center developed histological processing methods for Transwell membrane inserts, a cell culture product of Corning, Inc.

## **MDI Biological Laboratory, Lead Institution**

**Contact:** James Coffman, Ph.D. • 207-288-3605 • [jcoffman@mdibl.org](mailto:jcoffman@mdibl.org)

**INBRE focus:** Comparative Functional Genomics

**Funding:** \$68 million from 2001 to 2019

**Research and Academic Institutions:** *MDI Biological Laboratory, The Jackson Laboratory, University of Maine, Bates, Bowdoin, and Colby Colleges, College of the Atlantic, Southern Maine Community College, University of Maine Honors College, and the University of Maine at Farmington, Fort Kent, Machias, and Presque Isle*

The Maine INBRE provides research support and core facilities to young investigators and creates research and training opportunities for undergraduate and graduate students. It serves as a pipeline for students to pursue health research careers while enhancing the scientific and technical knowledge of Maine's workforce.