DISCOVERING NEW WAYS TO PROMOTE HEALING AND SLOW AGING. ENERGIZING SCIENTISTS. INSPIRING STUDENTS. MAKING SCIENCE ACCESSIBLE. FORGING COLLABORATIONS FOR A HEALTHY ENVIRONMENT. IGNITING MAINE’S INNOVATION ECONOMY.

Your support makes all the difference.

Thanks to you, the MDI Biological Laboratory is changing the world. Your energy and enthusiasm invigorate us; your generosity propels groundbreaking discoveries; your loyalty enables us to grow and plan for a bright future.

Together we are stronger. With your help we are becoming a world leader in regenerative and aging research, identifying new approaches to help us lead longer, healthier lives. Thank you for being part of this great scientific venture into improving human health and making a better world for all of us.

FROM OUR CHAIRMAN

In 2013, your generosity, coupled with the hard work of the faculty, trustees, and staff of the MDI Biological Laboratory, allowed us to reach a number of important milestones. The National Institutes of Health designated the Laboratory as a Center of Biomedical Research Excellence and awarded a $1.3 million grant to support the growth of the Davis Center for Regenerative Biology and Medicine.

We launched our first spinoff company to investigate a drug that promotes regeneration in zebrafish, and research has already confirmed that the drug significantly improves heart function in mice after a heart attack.

We expanded our outreach programs to continue breaking down the wall that too often exists between science and the public. Attendance at events like the MDI Science Cafés, Art Meets Science, and Family Science Night continues to grow, demonstrating that when science is accessible, people happily take advantage of the opportunity to learn more. Our college and high school education programs continue to provide hands-on training to ensure our students are prepared to excel in the jobs of the 21st century.

All of us on the Board of Trustees are excited about the direction the MDI Biological Laboratory is taking. We know that our lives, and our children’s and grandchildren’s lives, will be better because of the research conducted by its scientists. We know that the future of Maine’s economy will be brighter because of our research training programs and our ability to attract funding and innovative scientists to the state.

Thank you for generously supporting this work and for continuing to share your excitement for our mission. Together we will create a healthier world.

Peter J. Allen, M.D. Chairman
2013 IN REVIEW

- President Kevin Strange and assistant professor Vooi Yin launched Novo Biosciences, Inc., in February. The MDI Biological Laboratory’s first spinoff company will investigate the therapeutic potential of drugs that speed healing and stimulate regeneration of lost and damaged body parts. Currently, Novo Biosciences is studying “ZF143,” a drug that doubles the rate at which complex tissues regrow after injury in zebrafish.

Vooi Yin, who studies how zebrafish regrow damaged or amputated limbs and organs, discovered the dramatic effects of the new drug on regeneration. Since the company’s founding, ZF143 has been shown to have a profound effect on the restoration of heart function in mice following a heart attack.

- The MDI Biological Laboratory received a $13 million grant from the National Institutes of Health (NIH) in support of research aimed at enhancing tissue repair and regeneration, and extending healthy lifespan. The award designates the MDI Biological Laboratory as a Center of Biomedical Research Excellence and provides funding to the Davis Center for Regenerative Biology and Medicine for the next five years.

The grant supports the work of four faculty members and will create or sustain twenty-six high-quality jobs at the MDI Biological Laboratory. It also mandates growth. The Laboratory expects to recruit up to six new faculty members to the Davis Center over the course of the grant, thereby creating a critical mass of scientists with a focus on regenerative biology and establishing itself as a world leader in this rapidly emerging field.

- MDI Biological Laboratory assistant professor Aric Rogers received a prestigious “New Scholar in Aging” award from the Ellison Medical Foundation, a premier funder of cutting-edge biological research in aging. The award provides $400,000 over four years to support his research into conditions that increase lifespan and slow aging in the roundworm C. elegans.

Rogers joined the Laboratory in February 2013 after conducting postdoctoral research at the Buck Institute for Research in Aging in California. His work is also supported by a “Pathway to Independence” award from the National Institute of Aging, one of the National Institutes of Health.

DONOR PROFILE

PEGGY FORSTER

“I see the potential applications of the scientists’ work at the MDI Biological Laboratory, and I know it’s important. I have a cousin who was paralyzed in a terrible accident. That’s one reason I’m glad the Lab focuses on regeneration.” —PEGGY FORSTER

PEGGY FORSTER moved to Mount Desert Island in 2001 after a career as a librarian in New Hampshire. But she has known the MDI Biological Laboratory all her life. Her father was a leading kidney researcher and director of the Laboratory. “I saw how this place really energizes the scientists,” she says. “There’s such a free, exciting exchange of ideas. I got a sense in those early days of what science really is—how creative it is. The world wouldn’t go forward without science and art. That’s why I support science in general and the MDI Biological Laboratory in particular. I love the buzz around the Lab now. When I visit, I can tell it’s thriving.”
TRUSTEE PROFILE

JOHN HAYS

“The MDI Biological Laboratory’s environmental work has national and global implications. Our gifts help find solutions to difficult problems that threaten our health and future. What could be more important?”

—JOHN HAYS, CHRISTIE’S

TRUSTEE PROFILE

JOHN HAYS

“Thanks to a generous gift from the international auction house, Christie’s (see facing page), the MDI Biological Laboratory established a series of Human and Environmental Sustainability Summits as part of its commitment to bring people together to improve human and environmental health.”

“Finding Common Ground,” the inaugural summit, was inspired by the MDI Biological Laboratory’s history of environmental research and the work of staff scientist Jane Disney (see below). Leading innovators discussed their challenges and successes bringing stakeholders together to tackle formidable environmental issues. Thanks to generous support from Christie’s, the second annual Environmental Sustainability Summit will be held August 13–15, 2014, and focus on the human health effects of arsenic.

“BioTrails, a new program combining public participation with DNA-based species identification, held its first outreach event in September. Over the course of two weekends, volunteers collected small organisms from eelgrass beds in Frenchman Bay and compared identification techniques in the MDI Biological Laboratory’s teaching laboratory.”

Offered in partnership with the National Park Service and the School of Education and Research Center, BioTrails seeks to improve the accuracy of field research, especially research conducted by non-scientist volunteers, that monitors changes in animal and plant populations. Framed prints of favorite plants from Acadia were auctioned off at the Star Point Society’s 2013 gala to raise funds for the program, which is also supported by the National Science Foundation.

Staff scientist Jane Disney continued her work bringing people together to build a healthy, productive future for Frenchman Bay, which lies to the north and east of Mount Desert Island. The Alex C. Walker, Long Cove, and National Fish and Wildlife foundations supported the collaborative project to restore eelgrass beds, which shelter young fish and shellfish in shallow waters.

In 2013, Disney continued her “Seagrasses in Classes” program in local middle schools as well as inland cities. She offered two weeklong “Young Environmental Leaders” programs and served as director of the broad-based stakeholder group, Frenchman Bay Partners.”

JOHN HAYS is a trustee of the MDI Biological Laboratory and deputy chairman of Christie’s. When a recent sale went particularly well, he and the auction house decided to make a significant gift where it would have worldwide impact. Their donation launched the Human and Environmental Sustainability Summits at the MDI Biological Laboratory—annual conferences that gather diverse stakeholders together to create and deploy concrete action plans. The 2014 summit focuses on the environmental and health consequences of arsenic in food and water. “The summits address universal issues,” Hays says. “They leverage the power of many, which is a tradition of the Lab as well. This gift was a slam dunk for us.”
2013 IN REVIEW

At the MDI Biological Laboratory, we believe that science is best when it’s shared. We are committed to removing barriers that isolate scientists, and we create programs that engage the public and promote understanding and enthusiasm for science.

The MDI Science Cafés attracted standing-room-only crowds to the Asticou Inn in Northeast Harbor in summer and McKays Public House in Bar Harbor in winter and spring. Nearly one thousand people heard firsthand from scientists about cutting-edge research that makes a difference in people’s lives.

Topics in 2013 ranged from chaos theory to aging to the great Pacific garbage patch. The MDI Biological Laboratory’s Science Cafés are part of an international movement to promote informal science education and lively interactions with scientists.

Nearly three hundred people attended the opening reception of the second annual Art Meets Science exhibit in July. Artists Ben Lincoln, Nancy Munier, and Katie Noble Churchill undertook collaborations with MDI Biological Laboratory scientists Dustin Updike, Voot Yin, and Jane Disney. Collaborating artists and scientists discussed their experiences and resulted artwork before an audience of more than one hundred at a science café in July.

Docent-led tours of the exhibit ran throughout the summer. Each tour featured visits to labs in the Davis Center for Regenerative Biology and Medicine, and many tour participants who came to see the artwork left with a new interest in the science of the MDI Biological Laboratory and a better understanding of its work to improve human health and well-being.

Children and their families crowded around microscopes and research demonstrations at the annual Family Science Night in July. In 2013, the Machias Savings Bank began sponsoring the street-fair-like event that draws close to two hundred participants (see page 8).

To reinforce the importance of scientists making themselves and their work accessible, every college and high school student participating in a summer internship at the MDI Biological Laboratory is required to design and implement an activity for Family Science Night. The activities target children ages five through twelve, and each conveys a basic scientific concept.
2013 IN REVIEW

➤ The leading Maine business publication, MaineBiz, named MDI Biological Laboratory president Kevin Strange and assistant professor Voor Yin to their 2013 “Next” List of ten people shaping the future of Maine’s economy. “Although their fields of endeavor are as far-flung as the parts of Maine from which they come,” MaineBiz says of their ten awardees, “they all hold tremendous promise for the state.”

MaineBiz took note of Strange and Yin after the founding of Novo Biosciences, Inc., MDI Biological Laboratory’s first spinoff company that investigates the therapeutic potential of compounds to speed healing and regeneration (see page 3).

➤ Maine’s future workforce became more scientifically savvy thanks to nine courses offered at the MDI Biological Laboratory for more than one hundred Maine undergraduates. Follow-up studies show that 90 percent of these students will pursue careers or graduate education in medicine or science.

Forty college and high school students spent their summers working alongside leading scientists in their laboratories at Salisbury Cove. In 2013, the Laboratory also began offering academic-year research fellowships to students from the MDI High School.

➤ Education programs at the MDI Biological Laboratory ranged from middle school to medical school students, and brought groups of physicians and international scientists to Maine, many for the first time. The Biophysical Society and the National Association of Biology Teachers, among others, used the Laboratory’s conference facilities and became better acquainted with science in Maine.

The MDI Biological Laboratory hosts six courses for medical students and physicians that focus on enhancing the practitioners’ scientific literacy, making it possible for them to understand and evaluate new developments in science throughout their careers. In 2013, the American Society of Nephrology began sponsoring an annual course at the Laboratory as part of an initiative to foster interest in kidney specialization for physicians, and the National Institutes of Health awarded a five-year grant to support a course here on kidney physiology for medical residents from the Beth Israel Deaconess Medical Center in Boston.
STATEMENT OF ACTIVITIES

MDI BIOLOGICAL LABORATORY

Year ended December 31, 2013 (with summarized financial information for the prior year*)

OPERATING ACTIVITIES

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<th>Liabilities &amp; Net Assets</th>
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<th>Temporarily Restricted</th>
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<td>Support &amp; Revenue</td>
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<td>Contributions &amp; Private Grants</td>
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<td>Investment Return Utilized</td>
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<td>Interest &amp; Other Income</td>
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<td>Total Support &amp; Revenue</td>
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Expenditures

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<td>Depreciation &amp; Amortization</td>
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<td>Change in Net Assets from Operating Activities</td>
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NON-OPERATING ACTIVITIES

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<th>Liabilities &amp; Net Assets</th>
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<td>Total Change in Net Assets</td>
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* Prior year has been restated to account for reclassification adjustment to indirect cost rate.

The financial statements of the MDI Biological Laboratory for the fiscal year ending December 31, 2013, were audited by Madsen, McFarland, and Wegew, LLC, and are available at www.mdibl.org/financial.
The MDI Biological Laboratory is extremely grateful to the donors listed on the following pages. This list represents contributions made from January 1, 2021 to May 31, 2022. Every effort has been made to ensure the accuracy of this list. Our sincere apologies if any omissions or errors have occurred.

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$2,500 to $4,999

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Director of Education and Conferences
LOOKING FORWARD
LONGER, HEALTHIER LIVES

Thanks to the support of our generous donors, the MDI Biological Laboratory is building a critical mass of outstanding researchers in aging and regenerative biology. We aren’t afraid to be a little bit different than other research institutions. We will continue to grow while doing what we do best: identifying effective and efficient solutions to pressing biological questions, and using those solutions to enhance healing and help people live longer, healthier lives.

Over the next five years, we will recruit four to six innovative new scientists to the Davis Center for Regenerative Biology and Medicine. The $13 million award designating the MDI Biological Laboratory as a Center for Biomedical Research Excellence will assist with that effort, as well contributions to the Discovery Fund, the MDI Biological Laboratory’s annual fund. We are growing, but we will remain an agile, lean institution, able to respond quickly to new opportunities.

In 2013, the MDI Biological Laboratory was 15 years old. We were founded in Maine and have always been a Maine institution, though our influence has spread worldwide. We have always attracted top-notch scientists to Maine, while our world-class education programs make it clear to students and future physicians that they don’t need to leave Maine to have exciting careers in science and medicine. Being in Maine has made a difference to us, and we are pleased to be making a difference to Maine.
OUR MISSION

The MDI Biological Laboratory is a nonprofit, independent biomedical research institution dedicated to improving human health and well-being through basic research, education, and ventures that transform discoveries into cures.