

2023 Environmental, Social and Governance Report



TABLE OF CONTENTS

Letter from the President.....3

About Us.....4

Our Approach to Sustainability.....6

Protecting Tomorrow Together.....8

Built for the Future.....10

Sustaining Biodiverse Ecosystems.....11

A Safe Place to Work.....12

Excellence in Animal Care.....13

The 2023 Environmental, Social, and Governance Report reflects JAX’s campuses in Bar Harbor, Maine; Ellsworth, Maine; Farmington, Connecticut; and Sacramento, California. Emission data available in this report reflects best of knowledge summary information gathered from January 1, 2023 to December 31, 2023.

Information in this ESG report is sourced from various internal and external sources and may be based on emerging or evolving practices. Uncertainties, inaccuracies or omissions in data potentially have compounding effects on the accuracy and completeness of resulting information reported herein. Accordingly, JAX makes no representations or warranties as to the quality, completeness, accuracy, or fitness for a particular purpose, and shall not be liable for any use by any party of, for any decision made or action taken by any party in reliance upon, or for any inaccuracies or errors in, or omissions from, such data. This ESG report provides general information regarding many of JAX’s policies, procedures, and positions relating to ESG issues. Although this report aims to present the general position of JAX, the policies, procedures, and positions discussed herein may be subject to approved exceptions.

LETTER FROM THE PRESIDENT

I am pleased to share The Jackson Laboratory’s Environmental, Social, and Governance Report. Our mission is clear: to discover precise genomic solutions for disease and empower the global biomedical community in its shared quest to improve human health. We acknowledge the intrinsic link between health and sustainability, encompassing environmental, social and economic dimensions. Therefore, fostering and promoting sustainability at JAX is more than a choice; it is fundamental to achieving our critical mission.

This report will highlight numerous examples of JAX’s commitment to sustainability, including the following:

- The new Rare Disease Translational Center is on track to be our second LEED-certified building with a strong emphasis on protecting the surrounding ecosystem. Upon completion, the RDTC will exemplify best sustainability practices with enhanced air quality standards, optimized energy performance and advanced water conservation systems.
- The Bar Harbor biomass plant provides approximately 75% of heating needs for the campus from over 11,000 tons of Maine made wood products. On average, the plant annually offsets 1.3M gallons of fuel oil.
- Our commuter programs and electric vehicle charging stations across our campuses incentivize greener modes of transportation for our employees.
- In 2023, JAX employees volunteered 2,692 hours of paid time off to support nonprofit organizations in our communities.

This year, our Sustainability Steering Committee will develop a Sustainability Action Plan, which will further define our road map and reflect our dedication to environmental stewardship while supporting our employees and the communities in which we operate.

As a nonprofit institution, we face unique challenges in reducing our environmental impact while safeguarding the wellbeing of our colleagues and the animals in our care. I am proud of the pioneering solutions JAX has developed and implemented thus far, establishing our leadership in sustainability. I am excited to build on this progress and guide JAX in advancing our mission to improve human health.




Lon R. Cardon, Ph.D., FMedSci
President and CEO



ABOUT US

The Jackson Laboratory is an independent, nonprofit biomedical research institution with a mission to discover precise genomic solutions for disease and empower the global biomedical community in the shared quest to improve human health. The JAX community, made up of more than 3,000 employees, is committed to reducing environmental impact and supporting economic development.

Founded in 1929 in Bar Harbor, Maine to uncover the genetic basis of cancer, JAX pioneered the use of laboratory mice as models for human disease. JAX researchers have made significant advances in the understanding of human biology and have directly contributed to the development of essential medical advances such as bone marrow and organ transplants, infertility treatments and the discovery of stem cells. At least 26 Nobel prizes are associated with JAX research, resources and education programs.

Today, JAX combines mouse genetics, human genomics, cell-based studies and computational modeling to define the underlying biology of a broad spectrum of diseases, and to advance treatments and cures for Alzheimer's disease, cancer, neurological and immune disorders, diabetes, aging, heart disease, rare diseases

and more. Over 60 principal investigators conduct interdisciplinary research at the flagship campus in Bar Harbor, Maine and at The Jackson Laboratory for Genomic Medicine in Farmington, Connecticut. JAX has been designated by the National Cancer Institute as one of just seven basic research cancer centers since 1983, and today supports additional research centers focused on addiction, aging, Alzheimer's, genomics and computational biology, precision genetics and rare disease to serve the pharmaceutical, life sciences and medical research communities with in vivo, cancer and stem cell services to advance research and drug development.

In addition to basic research and the preclinical pipeline, JAX supports a variety of efforts that connect directly to the clinical community and the patients they serve. Working with disease foundations, patient families and the biomedical community, JAX's Rare Disease Translational Center in Bar Harbor generates, validates and distributes novel mouse models that are potential preclinical models for rare and orphan diseases. Led by JAX with funding from the Harold Alfond™ Foundation, the Maine Cancer Genomics Initiative is an alliance of Maine oncology providers focused on reducing disparities in access to advanced technologies for cancer care and precision

medicine. MCGI has provided innovative cancer genomic testing, education and clinical trials' infrastructures to one of the most rural areas in the country, and has become a model for personalized cancer care in a rural setting.

JAX also empowers the next generation of scientists through comprehensive genomics education programs for high school, undergraduate, postbaccalaureate, graduate and postdoctoral learners focused on careers in the biomedical sciences. Programs combine conceptual education with the science communication, collaboration, translational and skills training required to succeed in modern scientific and clinical settings. JAX courses and workshops serve those same audiences, as well as

clinicians, research assistants, scientists, lab technicians and science teachers. Through funding from Howard Hughes Medical Institute, National Institutes of Health, National Science Foundation and others, as well as academic partnerships with Tufts University, The University of Maine, University of Connecticut Health and Northeastern University's Roux Institute, JAX's in-person, virtual and online education programs reach thousand of learners across the U.S. and the globe.

For more information about JAX's research, resources and educational programs, please visit www.jax.org.

OUR APPROACH TO SUSTAINABILITY



At JAX, sustainability is anchored in reducing the environmental impact of our operations while advancing genomic research. We are an active member of our local communities and the global healthcare sector, upholding our responsibility to advance solutions that improve human health.

PROTECTING THE ENVIRONMENT

We are committed to reducing the environmental impact of our laboratories, aligning this with our mission and empowering others on that journey. We are investing in our facilities and reviewing our policies to reduce the resource intensity of our campuses. At the same time, JAX is creating opportunities for our talented workforce to integrate sustainable practices into their research and daily operations.

Under the direction of our leadership team, JAX continues to take steps to diminish waste, energy consumption and water use across all areas of operation, continuing our legacy of green innovation. Notable achievements include our LEED Gold-certified genomic research facility in Farmington, Connecticut and our advanced biomass boiler in Bar Harbor, Maine, which exemplifies state-of-the-art sustainable energy use.

EMPOWERING INDIVIDUALS

Our dedication to social responsibility is integral to everything we do. We are committed to creating an environment where every individual can thrive. Our approach is holistic, focusing on nurturing a workforce that reflects the global community we

serve. This effort is supported by our partnerships with academic institutions, which enhance our ability to offer research training to a wide array of learners.

The JAX Genomic Education team designs an extensive array of educational programs and provides scholarships for a variety of budding and seasoned learners. Our educational approach empowers our staff, trainees and visitors by valuing and enhancing their skills.

JAX is deeply committed to educational outreach, aiming to inspire and teach the next generation of scientists. We offer a variety of programs, including internships, fellowships and professional development courses designed to enhance scientific knowledge and skills. The JAX Summer Student Program provides high school and college students with hands-on research experience under the mentorship of world-class scientists. Our long-standing partnerships with schools and educational institutions allow us to provide resources and opportunities for learning about genetics and biomedical research, further developing lifelong learning and a strong foundation in STEM education.

We strengthen our social fabric through essential networking, mentoring and career development opportunities. The impact of our innovative biomedical advancements are communicated through a variety of platforms across our organization. Regular performance dialogs and professional development opportunities ensure JAX's workforce is at the forefront of groundbreaking research.

GOVERNANCE

The JAX Board of Trustees upholds our governance framework and ensures strategic oversight and adherence to JAX's mission and values. Our institution prioritizes financial integrity, demonstrated by adhering to rigorous auditing processes and transparent financial reporting. JAX complies with all relevant legal and regulatory requirements, ensuring an environment of accountability. Ethical research practices are a cornerstone, guided by an Institutional Review Board that oversees research protocols to meet all ethical standards and best practices. Continuous improvement is encouraged through regular assessments to drive growth and innovation.

By embedding these principles in its governance structure and maintaining the highest ethical standards, JAX creates an environment that is optimally conducive to innovative research and delivering on our quest to improve human health.

Reducing our environmental impact has always been a priority for JAX. Founded in 1929, our campus in Bar Harbor, Maine, is nestled within Acadia National Park, serving as a constant reminder of the interconnectedness between our work and the local and global ecosystems we influence. In fact, the island's atmosphere was pivotal in the early days of mouse husbandry, and played a critical role in investigating the genetic basis of cancer through mammalian models.





PROTECTING TOMORROW TOGETHER

JAX’s innovative spirit drives us to address the unique environmental challenges of our work. Our vivaria require around-the-clock care for thousands of mice and the humans working alongside them. These special circumstances demand more resources than a typical laboratory. Recognizing this, we have taken and continue to take steps to implement environmentally friendly practices and reduce our consumption while honoring our commitment to conducting life-saving science.

This ESG report signifies our 2023 calendar year reporting for Scope 1 and 2 emissions. The data includes our Bar Harbor, Ellsworth, Farmington and Sacramento locations. In the coming years, we will expand our reporting scope to include Scope 3 emissions with a limited approach in 2025.

Sustainability is integrated throughout our operations. JAX has been awarded the Greenovation award by Kimberly-Clark’s RightCycle program every year since 2019. Most laboratory PPE is laundered by a Clean Green TRSA-certified company, significantly reducing waste, water and energy usage. Eligible bedding from our operations is composted locally to further reduce waste and JAX participates in a glove recycling program.

In 2011, we unveiled a biomass boiler on our Bar Harbor campus that produces renewable energy from locally sourced Maine-wood pellets. The boiler reduces our dependency on fuel oil and supports

domestic energy consumption while contributing to the local economy. In 2023, the boiler produced approximately 75% of our heating profile in Bar Harbor and contributed nearly 600,000 kWh of electricity.

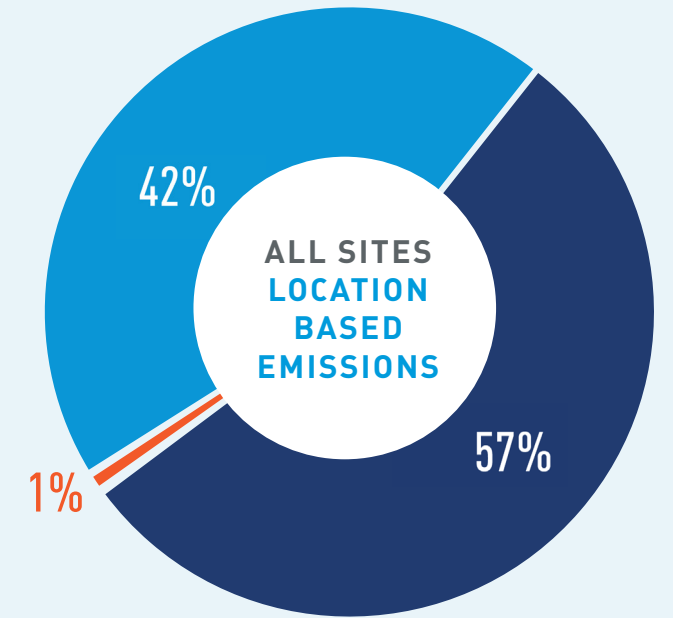
JAX’s facility in Ellsworth, Maine, showcases the next generation of innovation at the laboratory. This first-of-its-kind automated facility leverages advanced technology for highly efficient processes.

With its LEED Gold certification, JAX’s Farmington, Connecticut campus features an enhanced focus on the special features of this building that include an enhanced focus on water conservation and management, achieving a 31% reduction in water usage through low-flow showers, fixtures and sinks. Additionally, the energy-efficient building was constructed with numerous sustainable and local resources such as FCI-certified wood products and domestically sourced limestone.

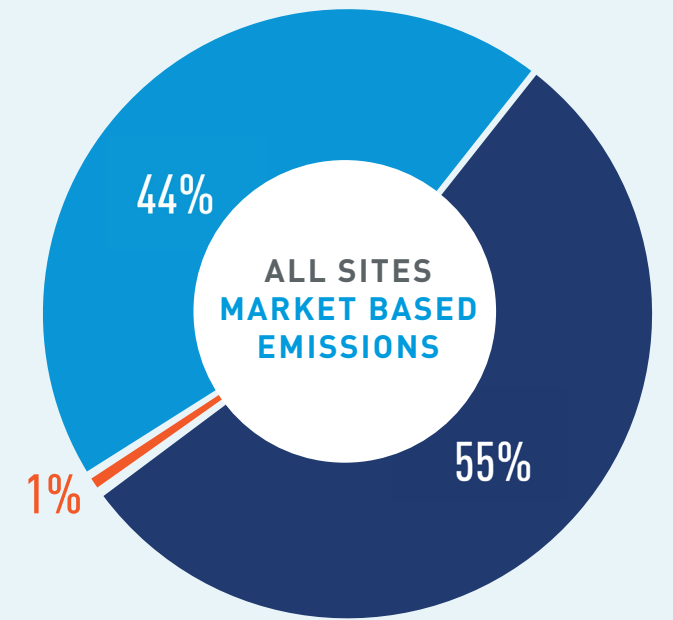
These are just a few examples of resource efficiency at JAX. Our sustainability journey continues into 2024, as we research more ways to reduce and divert waste, conserve water and energy and integrate sustainability into everything we do.

ALL SITES CONSUMPTION

CATEGORY	CONSUMPTION	UNIT
Fuel Oil	58,204	US gallon
Natural Gas	112,392	MMBtu
Propane	1,553,463	US gallon
Biomass	22,754,260	pound
Refrigerants	12	pound
Diesel	8,552	US gallon
Gasoline	9,000	US gallon
Electricity	51,061,638	kWh
Renewable Energy	1,961,000	kWh



SCOPE	SOURCE	GHG MTCDE
1	Heat	16,515
1	Car Fleet	164
1	Refrigerants	22
2	Purchased Electricity	12,280



SCOPE	SOURCE	GHG MTCDE
1	Heat	16,515
1	Car Fleet	164
1	Refrigerants	22
2	Purchased Electricity	13,353

BUILT FOR THE FUTURE

JAX's Ellsworth facility exemplifies our commitment to carbon reduction. The facility substantially reduced embodied carbon emissions by repurposing a 140,000-square-foot former warehouse into a state-of-the-art vivarium. During the construction process, materials chosen to minimize environmental impact included low-volatile organic compound coatings, Marmoleum flooring and carpeting made from recycled plastic bottles.

Sophisticated air handling systems maintain a safe environment and prevent cross-contamination. An advanced building automation system monitors thousands of points, including airflows, pressures, temperatures and filter loading, allowing for precise control of humidity and temperature to ensure optimal conditions for animals and humans and maximum energy efficiency.

Energy conservation is a fundamental aspect of the design philosophy at the Ellsworth facility. Simple, yet effective solutions like tubular daylighting devices that bring natural light into corridors reduce dependence on artificial lighting. Additionally, energy recovery systems are used to precondition incoming air and water, enhancing overall efficiency. The facility also incorporates advanced options such as boiler stack economizers, boiler flue gas recirculation, high-efficiency magnetic bearing chillers, variable frequency drives, and, notably, the most recently constructed animal rooms are outfitted with dimmable LED lighting. While LED lighting might seem like an obvious choice, it required extensive studies to ensure no negative impact on animals before it was approved for installation. This demonstrates one of the many unique challenges of sustainable design for vivarium facilities.

Surrounding the facility, stormwater management was addressed using existing infrastructure complemented by new installations like dry stream beds planted with native grasses, shrubs and trees. This area collects runoff from the parking lot while providing an essential native habitat for pollinators.



Solar tube installation.

Sustainability is a top priority at JAX, and future projects and considerations to enhance energy performance in Ellsworth include implementing a heat recovery system for our steam deaerator, evaluating the ability to optimize air change rates and improving process water recovery.



SUSTAINING BIODIVERSE ECOSYSTEMS

At JAX, we understand how important it is to protect the ecosystems around our campuses. That's why we are taking bold and innovative steps to preserve and restore these natural environments and promote biodiversity.

Our Bar Harbor campus is surrounded by Acadia National Park on three sides. We've made significant efforts to blend our campus with the national park, ensuring that our presence enhances, rather than detracts from, the natural beauty. For more than a decade, we've been working with the National Park Service to remove invasive species. They maintain a footpath that winds through JAX's 35 acres of undeveloped land. On the main campus, between 80-85% of the formally landscaped area is planted with native woody species. The remaining 15-20% of formal areas are planted with traditional, noninvasive, woody plants, pollinator friendly annuals and herbaceous perennials. We have a community garden in Bar Harbor that volunteers upkeep, giving employees and their families a place to grow food and build a sense of community.

At our Ellsworth campus, we have created curved islands in our parking lot, creating ample space to plant shade trees. These trees help reduce pollutants and lower temperatures. When entering the facility, employees and visitors cross a native dry stream bed that captures runoff from the surrounding parking lots.

JAX built the Farmington campus on a previously developed, impervious site. Now, 50% of the site has been restored to green space. The campus sits on a 20,000-gallon underground water tank that stores rainwater for irrigation, and it features ecologically dense bioswales. Planted with native species, these bioswales improve water quality and reduce flooding by letting water soak into the ground. They also provide habitats for many bird species, insects and other animals.

At our Sacramento, California campus, we have focused on planting native, drought-tolerant species and reducing lawn space. This approach protects ecosystem health by minimizing rainwater runoff and soil erosion. By supporting native plant communities, our landscaping efforts help conserve biodiversity and promote overall environmental sustainability.

Across all our campuses, JAX is rethinking lawn space and integrating native plants while leaving room for employees to gather. All leaves and grass clippings are composted. The compost is used feed established plants. Mulch is added to flower beds to reduce water and fertilizer consumption and we mulch planting beds to cut down on water and fertilizer needs. We have improved our drainage systems to reduce erosion and sediment runoff into nearby streams. Additionally, we have switched to electric tools to lower our energy use and reduce emissions and pollutants.



A SAFE PLACE TO WORK

Our commitment to fostering a safe, productive and healthy work environment underpins every aspect of our operations. Our core values drive our intrepid spirit, collaborative science and shape our approach to Environmental Health and Safety standards. By prioritizing EHS, we enhance all other organizational pillars, cultivating a safety and wellness culture that supports our staff and their families.

We manage EHS risks and measure performance through a proven management system that drives continuous improvement. Key initiatives in 2023 included global audits and refreshing our means to measure effectiveness. In 2024, our objectives are aimed at fostering a maturing EHS framework, ergonomics and employee engagement.

Recognizing the physical demands of certain roles, especially within animal care operations, we require all new hires to complete a comprehensive 16-session conditioning class. These classes include personalized assessments that lead to customized programs focusing on strength and flexibility to promote safe working practices. They are led by internally certified athletic trainers; fitness specialists; and strength and conditioning coaches.

In 2024, we will introduce a tenure conditioning program for long-term employees. This two-day, hands-on course acts as an ergonomic refresher for team members in animal care operations who have been with JAX for more than two years, ensuring ongoing education and safety in the workplace.

Further, our occupational health staff conducts one-on-one ergonomic assessments and equips all employees, including remote staff, with the necessary ergonomic tools to promote a safe and comfortable working environment. Each campus is equipped with a fitness center and offers a range of classes, including on-demand options for our remote workforce. We also provide nutrition and mindfulness classes to enhance physical and mental well-being.

Our Employee and Student Assistance Program (ESAP) extends comprehensive support to all household members. This program includes a range of benefits, including mental health and financial planning assistance, and resources for parents, eldercare and pet care. A key focus for 2024 is enhancing the connectivity and accessibility of our ESAP resources.

EXCELLENCE IN ANIMAL CARE

As the most utilized animal in biomedical research, mice are central to many medical breakthroughs that directly impact all of humankind. Over 13,000 mouse strains supplied by The Jackson Laboratory play a central role in this research and are used in 68 countries and by more than 2,400 organizations. Our mice are featured in countless peer-reviewed manuscripts and FDA IND submissions, and have been linked to 26 Nobel Prizes. This scientific success is only possible by supplying the scientific community with the highest quality mice — mice bred and reared with their wellbeing in mind.

Our commitment to animal care transcends regulatory compliance; it is about cultivating a culture of respect, compassion and ethical responsibility toward the animals in our care. We foster transparency and ethical reflection among our researchers and staff, encouraging ongoing education and improvement in our animal care practices.

This approach is multifaceted, with built-in redundancies that include the following:

A COMPREHENSIVE VETERINARY PROGRAM

Our expert group of on-site veterinarians provide clinical and programmatic support to our animal program. These veterinarians have specialized training that allows them to focus on clinical care, surgical excellence, research on emerging themes and diagnostic support. We have on-call veterinary staff 24/7, 365 days a year, so we can rapidly and reliably respond to evolving needs.

STAFF SUPPORT

To provide exceptional animal husbandry, we offer robust technician training that includes hands-on handling and didactic laboratory animal science classes.

INTENTIONAL FOCUS ON THE THREE Rs

Replacement, reduction and refinement are a central part of our training process and our day-to-day work culture. We champion the use of alternative methods to animal testing wherever possible, such as employing 3D printing technologies to reduce the need for animal involvement in our research. We utilize advanced statistical techniques and rigorous research to ensure that every animal's contribution is reproducible and meaningful. Finally, we continually enhance our animal care practices, employing the most humane methods in animal housing, care and management.

EXTERNAL ACCOUNTABILITY

JAX has maintained continuous AAALACi accreditation in Maine beginning in 1967, and in Sacramento beginning in 2004. JAX is OLAW assured.

We are globally recognized as leaders in biomedical animal research. Our team is featured in numerous peer-reviewed publications focused on the best care and use of these animals. We regularly generate and present care-centric internal research projects at national conferences and consult with outside institutes looking to improve their vivaria programs.



THE JACKSON
LABORATORY