

# 2021: A YEAR OF GROWTH, TRANSITION AND MOMENTUM



*In 2021, The Jackson Laboratory achieved major success and has expanded the capacity to carry out our mission.*

At the end of 2021, and following an international search, JAX welcomed a new president and CEO, Lon Cardon, Ph.D., FMedSci, an internationally recognized human geneticist and demonstrated leader in academic, pharma and biotech research. He took the helm from Edison Liu, who had presided over an unprecedented decade of expansion that included the creation of The Jackson Laboratory for Genomic Medicine in Farmington, Conn. Ed's legacy also includes establishing the first endowed chairs at JAX, the highest accolade bestowed upon a faculty or staff member. In 2021 philanthropic gifts to JAX funded four new endowed chairs, bringing the total number of endowed chairs at JAX to 13. In addition to providing an important source of permanent funding for research, named endowed chairs enable JAX to recruit, retain and support the best scientists in the world. In 2021, JAX named the following as endowed chairs:

- Professor Gregory Carter, Ph.D.: The Bernard and Lusia Milch Endowed Chair, thanks to a gift from JAX donor Lusia Milch. Carter focuses on the fundamental biology of Alzheimer's disease, using big data to create a complete picture of the disease.
- Professor Elissa Chesler, Ph.D.: The Ann Watson Symington Chair in Addiction Research, previously made possible with a gift from the Watson family through the Arthur K. Watson Charitable Trust. Chesler is an interdisciplinary scientist developing integrative genetics and genomics methods to address the challenges of alcohol and substance use.
- Professor and Scientific Director Charles Lee, Ph.D., FACMG: The Robert Alvine Family Endowed Chair, thanks to a gift from Robert Alvine, chair emeritus of the JAX Board of Trustees. The gift permanently endows the leadership position at JAX Genomic Medicine in Farmington, Conn., and was established in honor of Liu and Auro Nair, Ph.D., executive vice president of The Jackson Laboratory and president, JAX® Mice, Clinical and Research Services.
- Professor Karolina Palucka, M.D., Ph.D.: The Edison T. Liu Endowed Chair in Cancer Research. This chair was established by more than 35 donors in honor of Professor, President Emeritus and Honorary Fellow Edison Liu, M.D. Palucka specializes in human immunology with a focus on experimental immunotherapy, including vaccines that target cancer.
- Roel Verhaak, Ph.D.: The Florine Deschenes Roux Chair for Genomics and Computational Biology, one of three faculty chairs that were established by a \$5 million gift from technology investor (and current chairman of the Laboratory's Board of Trustees) David Roux and his wife Barbara in 2014. Verhaak's focus is glioblastoma, a brain cancer that is incredibly difficult to treat.
- David E. Shaw, chair emeritus of the JAX Board of Trustees, made a gift to establish The David E. Shaw Family Endowed Chair for Innovation in honor of Liu and Kenneth "Ken" Paigen, Ph.D. (1927 – 2020). Paigen served as the Laboratory's director (the role now designated president and CEO) from 1989 to 2003. The chair will support a leader who will provide critical guidance to JAX faculty members to translate their basic science innovations to human impact especially through commercialization in line with the mission of JAX.

After nearly two years in the COVID-19 pandemic, JAX remains committed to its role in COVID-19 surveillance and helping our communities. JAX utilized its CLIA laboratory in Farmington, Conn., to conduct nearly 2 million COVID-19 tests for healthcare and community partners in both Connecticut and Maine. As the world faced new variants of the SARS-CoV-2 virus, JAX identified these strains using genomic sequencing. In Connecticut, JAX sequences every COVID-19 positive sample identified at the Lab to detect SARS-CoV-2 variants. Combined with efforts by Yale and other institutions, this results in 25 to 30% of the state's positive cases being sequenced, yielding important information about viral trends. In Maine, JAX conducts the majority of variant sequencing on positive COVID-19 samples for the state through the lab of Ryan Tewhey, Ph.D.

COVID-19 testing also helped to support the JAX bottom line, bringing in close to \$51 million for the 2021 fiscal year. Mouse sales came in at \$235 million, up from \$189 million the prior year.

Besides the addition of The Jackson Laboratory Japan, construction and renovation projects took place on JAX campuses in Maine and China:

- Phase III construction began for new animal care space at the Ellsworth, Maine, Charles E. Hewett Center.
- In Bar Harbor, construction continues on housing units, with target completion in August 2022, and design, permitting and construction management teams have been contracted for an onsite daycare center, expected to open by the end of 2023.
- Production facility renovations are underway at The Jackson Laboratory Anitech Biotechnology (Beijing) Limited in Beijing, China.

Advancing the international growth strategy, JAX acquired Charles River Laboratories Japan's Research Models & Services business as a wholly owned subsidiary. The Japan-based organization, which is now called The Jackson Laboratory Japan, has approximately 250 employees and three production sites in Atsugi, Hino and Tsukuba, and an administrative office in Yokohama. The acquisition enables JAX to play an even more direct role in Japan, as well as Korea and Taiwan. With the addition of The Jackson Laboratory Japan, and new hires at our other campuses, JAX employed nearly 3,000 people in locations around the world by the end of 2021. JAX also added to its comprehensive benefits package by including two new benefits: parental paid leave, providing up to six consecutive weeks of 100% paid leave for eligible parents, and volunteer paid time off, which encourages employees to volunteer with a nonprofit organization of their choosing.

Fiscally, the Laboratory completed the year with a net operating surplus of \$29.4 million, favorable to budget by \$27.3 million. JAX 2021 revenue of \$551.1 million was favorable by 9.6% against budget and increased 14% from the prior year.

Overall, it was a record year for philanthropic gifts, totaling \$8.5 million in operating and non-operating revenue. In 2021, JAX was awarded more than \$140 million in new federal, peer-reviewed foundation and other external funding to propel research and education programs essential to its mission. More than 115 awards cover a broad range of the independent nonprofit biomedical research institution's focus areas, including cancer, addiction, neuroscience, education and genetics. Grant revenue finished the year at \$109.1 million, favorable to budget by \$3.7 million. JAX professors, leaders and researchers were honored with several prestigious awards in 2021, including:

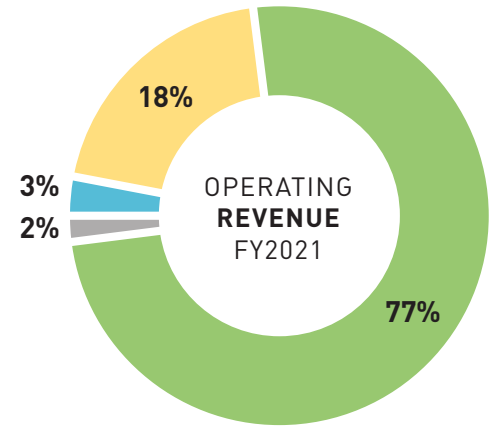
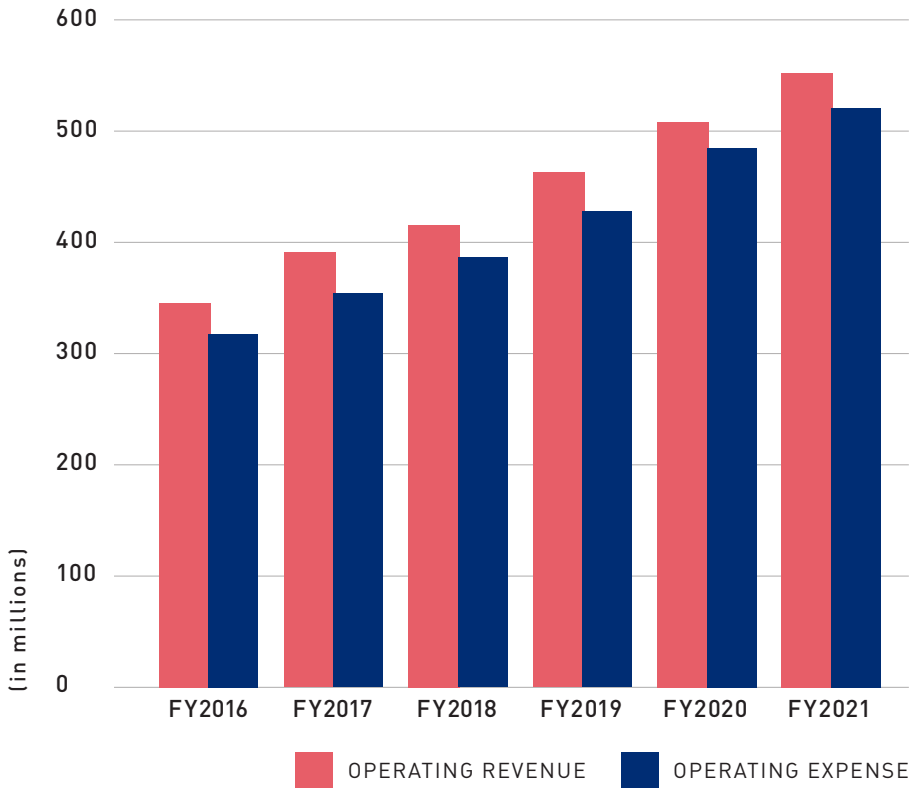
- Assistant Professor Albert Cheng, Ph.D., was honored with a Hartford Business Journal 40 Under Forty award. The award recognizes Cheng as one of Connecticut's up-and-coming leaders across multiple disciplines.
- Senior Director of Innovation and Product Development James Keck, Ph.D., was recognized as JAX's first-ever President's Innovation Fellow. The newly established award recognizes highly impactful innovation and creation of intellectual property by non-faculty JAX employees. Keck is a scientist leading product development within JAX® Mice, Clinical & Research Services, and is honored for his inventions to accelerate drug development.
- Se-Jin Lee, M.D., Ph.D., JAX Professor and UConn School of Medicine Presidential Distinguished Professor of Genetics and Genome Sciences, Lee was recognized this year for his "out-of-this-world" research project that sent "Mighty Mice" to space. Lee was awarded the prestigious 2020 International Space Station Research Development Conference Award.
- Professor, President Emeritus and Honorary Fellow Edison Liu, M.D., received multiple awards in his final months as president and CEO of The Jackson Laboratory. Among them were MaineBiz's 2021 Business Leader of the Year, Hartford Business Journal's 2021 C-Suite Honoree, *Maine Magazine's* Mainers of the Year and others.
- Cat Lutz, Ph.D., Senior Director of the Rare and Orphan Disease Center, was honored with the National Organization for Rare Disorders (NORD) Rare Impact Award. NORD honors individuals and organizations who are making important strides for individuals living with a rare disease — a disorder that impacts less than 200,000 people in the United States. Lutz was honored for her tireless efforts in rare disease research throughout her career.
- The director of Government and Community Relations, Lisa Roy was a Community Innovation and Leadership finalist for the 17th annual Women of Innovation Awards, a program presented by the Connecticut Technology Council and Connecticut Center for Advanced Technology that recognizes outstanding women in STEM.

Thanks to the hard work and dedication of our employees, donors and partners, JAX experienced a remarkable year in 2021, and in this, our 93rd year, we are poised for even greater growth and global influence.

**Doug Abbott, CPA**  
**Chief Financial Officer, The Jackson Laboratory**

# FY2021 JAX ANNUAL REPORT

## OPERATING FINANCIALS BY YEAR

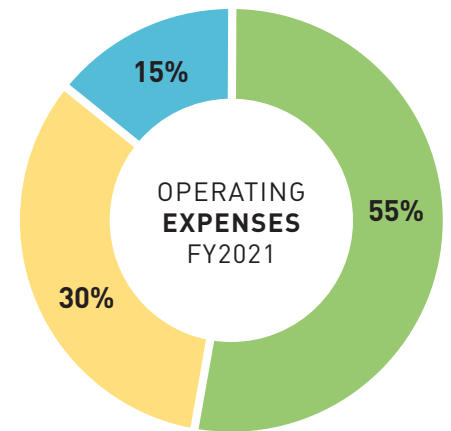


- GENETIC RESOURCES & CLINICAL RESEARCH SERVICES
- GOVERNMENT SUPPORT
- PRIVATE GIFTS & GRANTS
- OTHER

## ENDOWMENT VALUE BY YEAR



\*2021 endowment investment return of 15.8%



- GENETIC RESOURCES & CLINICAL RESEARCH SERVICES
- RESEARCH
- INSTITUTIONAL SUPPORT

## CONSOLIDATED BALANCE SHEETS

(in millions)

	2021	2020
<b>ASSETS</b>		
Cash and Equivalents	297.9	175.8
Net Receivables	62.5	67.8
Endowment Investments	445.6	386.9
Other Assets	94.1	36.6
Land, Buildings and Equipment	602.6	544.9
<b>Total Assets</b>	<b>1,502.7</b>	<b>1,212.0</b>
<b>LIABILITIES AND NET ASSETS</b>		
Current Liabilities	120.3	93.7
Bonds Payable, Net	345.1	199.7
Net Assets	1,037.3	918.6
<b>Total Liabilities and Net Assets</b>	<b>1,502.7</b>	<b>1,212.0</b>

## CONSOLIDATED STATEMENTS OF ACTIVITIES & CHANGES IN NET ASSETS

(in millions)

	2021	2020
<b>OPERATING REVENUE</b>		
Government, Foundation and Other Grants	109.5	106.9
Genetic Resources and Clinical Research Services	419.0	361.7
Investment Return	9.8	11.0
Philanthropic Gifts	4.5	4.0
Other	2.5	1.0
<b>Total Operating Revenue</b>	<b>545.3</b>	<b>484.6</b>
<b>OPERATING EXPENSES</b>		
Research	155.7	152.4
Genetic Resources and Clinical Research Services	280.5	241.8
Institutional Support	79.6	67.8
<b>Total Operating Expenses</b>	<b>515.8</b>	<b>462.0</b>
<b>Increase in Net Assets From Operating Activities</b>	<b>29.5</b>	<b>22.6</b>
<b>NON-OPERATING ACTIVITIES</b>		
Long-Term Investment Return, Net of Amount Used	52.1	47.9
Contributions for Plant & Endowment and Construction Grants	6.7	12.8
<b>Increase in Net Assets from Non-Operating Activities</b>	<b>58.8</b>	<b>60.7</b>
<b>Other Changes in Net Assets</b>	<b>30.5</b>	<b>0</b>
<b>Total Increase in Net Assets</b>	<b>118.8</b>	<b>83.3</b>