



2023 CORPORATE RESPONSIBILITY REPORT



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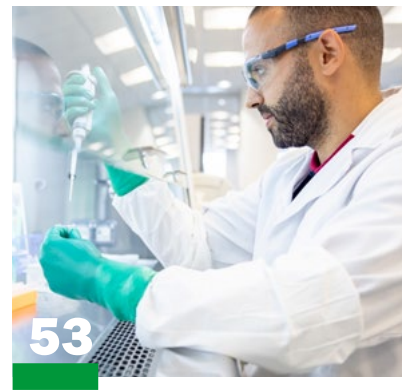
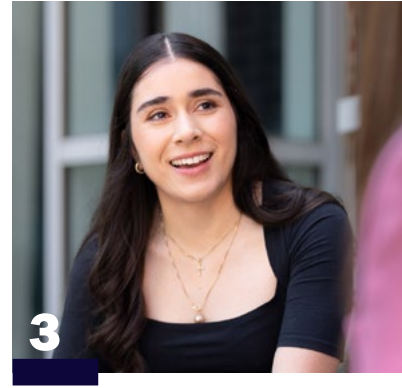
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Elizabeth lives with Friedreich ataxia. Watch her story on [Biogen.com](#).

OVERVIEW

Key awards

- ★ #33 on 2024 Just Capital's JUST 100
- ★ Named to the 2023 Dow Jones Sustainability World Index for 11th time, receiving the distinction of Top 1% S&P Global Corporate Sustainability Assessment Scores
- ★ 100% on the Human Rights Campaign's 2023 Best Place to Work for LGBTQ+ Equality for the 10th year in a row
- ★ 100% on the Disability Equality Index's 2023 Best Places to Work for Disability Inclusion for 6th year in a row

CEO letter

As we reflect on the past year and set our sights on the path ahead, I am truly inspired by the progress we have made to advance Biogen's enduring legacy of pioneering innovative science to deliver medicines that transform patients' lives and create enduring value for our communities and our shareholders. Our mission and business strategy are grounded in our commitment to responsible business, and in 2023, we refined our corporate responsibility strategy to advance our evolving business priorities and align with areas where we believe we can have the greatest impact.

Our commitment to access and health equity

Patients are at the heart of everything we do, and they inspire our unwavering commitment to excellence. Across the company, we continue to take meaningful action to advance equitable access to quality healthcare and medicines. To advance that vision from our pipeline to our commercialization strategies and beyond, we intend to focus on four key pillars: ensuring access to healthcare and medicines, navigating the unique patient journey, bolstering the clinical research ecosystem, and engaging and collaborating with the community.

In 2023, we advanced our pipeline of potential novel therapies and our goal of increasing representation of diverse populations in our clinical trials. We added four first-in-class medicines to our portfolio, the second most in the industry last year. In addition, SKYCLARYS®(omaveloxolone) recently became the first treatment approved in the U.S. and

the E.U. for patients, ages 16 and older, with Friedreich ataxia. In the U.S., more than 1,000 patients were using the therapy as of mid-February, representing nearly 25% of the eligible population, and we are working toward expanding access to even more people for this groundbreaking treatment. We also entered new markets with SPINRAZA®(nusinersen), which is now available in 70 countries, including 21 classified as low- to middle-income.

In April 2023, we received accelerated approval from the U.S Food and Drug Administration (FDA) for QALSODY®(tofersen) for the treatment of adults with amyotrophic lateral sclerosis (ALS), associated with a mutation in the superoxide dismutase 1 (SOD1) gene, making it the first approved treatment to target a genetic cause of ALS. This approval for a disease that affects an estimated 2,876 people worldwide reflected our core tenant of keeping patients at the forefront. We attained this milestone through the decades-long tenacity, determination and the profound commitment from the Biogen team to help people living with ALS. With the Early Access Programs and subsequent market approvals, approximately 470 patients are using this treatment as of December 2023.

We recognize health outcomes often depend on factors beyond the control of patients and their providers, such as disparities across age, gender, race, ethnicity, geographic locations globally and socioeconomic level. By increasing participation of underrepresented populations in clinical trials, as we have done in Alzheimer's disease and lupus, we believe we can better



I am truly inspired by the progress we have made to advance Biogen's enduring legacy of pioneering innovative science to deliver medicines that transform patients' lives and create enduring value for our communities and our shareholders.

Christopher A. Viehbacher
President and Chief Executive Officer

CEO letter

serve patients of many different profiles. In 2023, 89% of clinical trials delivered race and ethnicity enrollment targets that reflect the epidemiology of the disease. In the last year, we also bolstered our overall health equity efforts, working to embed it into the early research and drug development process.

Evolving our culture

Adapting our business and the way we operate are essential for us to thrive in a rapidly evolving healthcare landscape. In 2023, we embarked on a new operating model with increased accountability and empowering our teams to be closer to our customers. We have embraced change and a renewed focus on innovation to drive sustainable success. Employees drive our progress and our strong culture, and we are committed to maintaining our spirit of innovation and patient-centricity while advancing a more entrepreneurial business mindset and results-driven approach. One of the key takeaways from our 2023 internal survey is that 81% of employees are driven by and believe in Biogen's purpose. We intend to continue harnessing that passion.

Another competitive strength is our commitment to a diverse, equitable and inclusive workplace that we believe attracts and retains the world's brightest minds. While there is still work ahead, the composition of our employee base generally reflects that of the broader workforce. At the end of 2023, 48.6% of positions at the Director level and above were held by women, and 31.2% of U.S. roles at the Manager level and above were held by ethnic or racial minorities.

By staying true to our values and embracing our mission with passion, we believe we will continue to make a positive impact on the lives of patients and communities worldwide. That is the future we are working to create, and I hope the work reflected in this report inspires you to play an even greater part in it.

This diversity is also modeled by our Board of Directors and our leadership team. As of April 2024, 62% of non-employees on our Board self-identify as women and/or ethnic or racial minorities while 46.8% of those VP and above at Biogen are women. Last year, on behalf of Biogen, I received the Latino Corporate Directors Association's Corporate Visionary Award. It was an honor to celebrate that distinction, while also recognizing the progress we have made toward a more diverse and inclusive workplace.

Making meaningful contributions to communities

Looking beyond our current workforce, we see a need to strengthen and diversify the talent pipeline throughout our industry and we are taking steps to help build it. In 2023, we refreshed our Community Lab, our flagship science education program, which has reached more than 64,000 students since 2002. Under the new CoLab name, we are expanding the program's reach, those we expect to serve, as well as partnerships in our local communities.

Through the Biogen Foundation, we helped address social determinants of health, such as food security and access to healthcare, investing \$4.37 million in grantmaking. For example, with our work with the Greater Boston Food Bank and Food Bank of Central & Eastern North Carolina, among others, we provided more than 750,000 meals to local food-insecure families. We also deepened our community connections through more than 10,000 employee volunteer hours to global nonprofits. I look forward to the new Biogen Foundation partnerships we're developing in 2024 to further drive positive change in our communities.

Our employees recognize the link between human and environmental health, and we remain active in our sustainability efforts. By improving efficiency and reducing waste, as well as water and energy consumption, we are working to reduce costs and environmental impacts, including in our labs. In 2023, we became the first large biotech to get 100% of our labs certified through My Green Lab, a program recognized by the United Nations' Race to Zero campaign for setting the standard for best practices in laboratory sustainability.

Progress seldom happens in isolation, so I also would like to thank the countless people and institutions who collaborate on the important work covered in this report: our partners and suppliers, patients and patient advocates, thousands of clinical trial participants and their families, caregivers and medical professionals, community leaders and many others.

By staying true to our values and embracing our mission with passion, we believe we will continue to make a positive impact on the lives of patients and communities worldwide. That is the future we are working to create, and I hope the work reflected in this report inspires you to play an even greater part in it. Together, I believe we can develop the next generation of medicines; promote access and health equity across the healthcare ecosystem; and foster more vibrant, sustainable communities.

Regards,



Christopher A. Viehbacher
President and Chief Executive Officer

Caring deeply



35%

Increase in number of patients with access to tofersen through Biogen's Early Access Program.

70

Countries in which SPINRAZA® is now available, including 21 low- and middle-income countries.

81%

Of employee respondents to the annual pulse survey said they have a sense of purpose by doing meaningful work at Biogen.

Employees, through Biogen-enabled programs, supported community causes important to them, logging more than **10,000 VOLUNTEER HOURS.**

Achieving excellence



4

Approved first-in-class medicines added to our portfolio in 2023: LEQEMBI®, QALSODY®, SKYCLARYS® and ZURZUVAE™.

89%

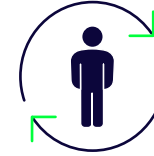
Of clinical trials delivered race and ethnicity enrollment targets that reflect the disease epidemiology.

Fostered an employee base reflective of the broader workforce, with **48.6%** of Director+ roles globally held by women and **31.2%** racial/ethnic representation across U.S. Manager+ roles.

100%

Of Biogen labs certified by My Green Lab, the first large biotech company to reach this milestone.

Changing lives



1ST

SKYCLARYS® became the **FIRST U.S.-** and **EU-APPROVED MEDICINE** for patients aged 16 and older to treat Friedreich ataxia.

1ST

U.S. FDA approved ZURZUVAE™, the **FIRST ORAL MEDICATION** indicated to treat postpartum depression.

\$29.2 M

In grants, medical grants, sponsorships, donations, matching gifts, fellowships and in-kind contributions from Biogen and the Biogen Foundation.

750,000+

Meals provided to local food-insecure families by the Biogen Foundation and employees.

Growing our purpose-driven organization

A leading biotechnology company, Biogen pioneers innovative science to deliver new medicines to transform patients’ lives and to work to create value for shareholders and our communities. We apply deep understanding of human biology and leverage different modalities with the aim of advancing first-in-class treatments or therapies. Our approach is to boldly advance rigorous science, balanced with return on investment, with the aim of delivering long-term sustainable growth.

Founded on scientific excellence in 1978, we have driven meaningful innovations, including a broad portfolio of medicines to treat multiple sclerosis, the first approved treatment for spinal muscular atrophy the first approved treatment for Friedreich ataxia and two co-developed treatments to address a defining pathology of Alzheimer’s disease. We complemented our pipeline with more assets in rare disease and in certain defined areas of immunology. Inspired by the imperative of equitable health access and building on our legacy of scientific leadership in tackling the toughest challenges, we believe our refreshed approach can help advance a pipeline of novel therapies while serving hundreds of thousands of people globally.

We believe in the life-changing power of science and see our business as a force for good through the patients we serve, the innovations we work to advance, the jobs we create and the communities we support. Looking to the future, we continue striving to serve humanity through science while working to advance a healthier, more sustainable and equitable world.

Evolving our corporate responsibility strategy

The past year was one of transformation for Biogen. We emerged with a renewed commitment to advancing our mission by making responsible business decisions in the best interests of our stakeholders and long-term value. Since our corporate responsibility strategy is deeply linked to our mission and business strategy, in 2023, we refined our strategy and programs to deepen our focus on areas that are consistent with our evolving business priorities and where we believe we can have the greatest impact while making sound capital allocation decisions.

Notably, we prioritized access and health equity; workforce engagement, well-being and diversity, equity and inclusion (DE&I); the environment and sustainable operations; and social impact and community engagement. In 2023, we once again tied a portion of our employees’ and executive officers’ compensation to advancing our corporate responsibility strategy. We met our scorecard goals of advancing our health equity and access strategy, DE&I and environmental impact.



We bolstered our efforts in access and health equity to work to serve a greater number and increasingly diverse set of patients, starting with more representative clinical trials. We have intensified our focus on employee engagement, inspiring colleagues across the company with our purpose, spirit of innovation and patient-centric culture while building on our strengths with our results-oriented mindset. We realigned our community engagement activities in the places where we operate, strengthening our focus on social determinants of health. We also enhanced our environmental strategy to accelerate our longstanding focus on generating business efficiencies alongside environmental progress.

As we look to 2024, our focus is on operational execution across all aspects of our business. We believe this will allow us to continue to advance our goal of the New Biogen Way that aims to create enhanced value for all our stakeholders: patients, shareholders, employees and society.

Advancing corporate responsibility governance

Guided by our purpose, Biogen is committed to progress on environmental, social and governance (ESG) issues. As set forth in our Corporate Governance Principles, our Board has oversight of Biogen's ESG and corporate responsibility strategy. Our Board regularly reviews its composition and aims to ensure it incorporates the experience, skills and diversity necessary for effective, independent oversight. The Board is made up of Directors with diverse skills and qualifications, including a range of professional and personal backgrounds as well as experience in corporate responsibility matters.

Our corporate responsibility strategy is integrated into our business strategy and guided by the company's CEO and Executive Committee (EC). It is stewarded by Corporate Affairs and actively managed through various cross-functional committees that engage around ESG issues, and work to comply with rapidly changing regulatory requirements. We provide a formal annual progress update to the Board of Directors.

Advancing an ethical culture

We are better positioned to deliver on our mission and strategy by maintaining high ethical standards.

Our values and credo

Our values-based culture guides every action we take, from pioneering new therapies to promoting more equitable health access. To continue to build on our strong culture, we introduced the New Biogen Way, aiming to maintain our spirit of innovation and patient-centricity while advancing a more entrepreneurial business mindset and results-focused approach. The New Biogen Way describes the mission and behaviors that provide the foundation for Biogen's next era. There are five essentials that we believe work together to help us successfully achieve our mission:

Pioneer: We boldly advance rigorous science to drive innovation in medicine.

Think broadly: We are humble and curious, integrating external and internal advances to successfully compete.

Drive results: We achieve high performance and have greater impact by being decisive and solution-oriented, while effectively managing risk.

Ethical: We act with the highest integrity with each other and all who place their trust in us.

Inclusive: We are open, embrace and leverage differences, and treat everyone with care and dignity.

We also updated our credo to highlight our forward-looking aspiration: **Caring deeply. Achieving excellence. Changing lives.**

Our Code of Business Conduct

For our Board and all employees, without exception, it is mandatory to comply with our Code of Business Conduct, ethical principles and the law. Our Code of Business Conduct, which includes eight ethical principles and also includes anti-discrimination and sexual harassment topics, applies to the Board and all employees.

Our Chief Compliance Officer reports to the Audit Committee of our Board of Directors. We monitor business activity for issues very closely, with compliance officers located throughout our global business who leverage technology and analytics to identify and address potential concerns. We also require every employee to report actual or suspected violations of the law or the Code of Business Conduct either to their manager, to a compliance officer or through an anonymous 24/7 helpline. Regardless of the type of misconduct reported, we do not tolerate retaliation against anyone who cooperates with an investigation or who makes a good-faith report of an alleged violation of laws, regulations, the Code of Business Conduct or our policies. We thoroughly investigate any and all claims of misconduct or retaliation against reporters of misconduct and take every appropriate step to address any legitimate concerns.



Left: Angela Hernandez prepares for a meeting in one of our shared spaces.

Promoting responsible operations

Maintaining high standards for corporate responsibility helps us deliver on our purpose and working to advance a healthier, more sustainable and equitable world.

Protecting human rights

To help identify and minimize potential human rights risks and potential impacts, we use processes that include the due diligence we conduct around potential business collaborations, partners and vendors, our ethics quality and compliance programs, our Enterprise Risk Management process and our supplier review efforts. We have not identified significant human rights risks in our own operations. We analyze risks to human rights violations in our supply chain each year.

Prioritizing privacy and cybersecurity

We believe maintaining appropriate privacy and cybersecurity practices is key to ensuring trust. The company's Board of Directors' Audit Committee has direct oversight and regularly reviews our cybersecurity and data privacy issues as part of our overall Enterprise Risk Management practices. We require all employees to participate in annual training on issues that include information security, and we publicly explain the policies and practices that we have developed to safeguard personal information and to comply with applicable data protection laws. Topics include collection, use, protection and sharing of personal information; storage, retention and security measures; and individual choices and rights, including children's privacy.

Promoting responsible operations

Honoring our principles, policies and positions

We are guided by principles, policies and positions that clarify expectations for ethical, accountable and sustainable ways of working. On our website, biogen.com, we publicly share our commitments around the following topics:

2023 Principles, policies and positions

Purpose and Performance	Access and Health Equity	Environment	Workforce	Additional 2023 Disclosures	Prior Disclosures
- Animal Welfare	- Access Programs	- Biodiversity	- Anti-Slavery and Human Trafficking Statement	- ESG Data Table	- 2022 ESG Report
- Code of Business Conduct	- Clinical Research and Bioethics	- Climate Change Position Statement	- Elements of Our Culture	- CDP Climate Change Disclosure	- 2021 Diversity, Equity and Inclusion Report
- Comprehensive Compliance Program	- Clinical Trial Transparency and Data Sharing	- Climate Strategy	- Environmental Health and Safety Policy	- Annual Report	- 2021 Year in Review
- Corporate Governance Principles	- Global Privacy Program	- Global Sustainability Policy	- Human Rights Position Statement	- U.S. Securities and Exchange Commission Form 10-K	- 2020 Year in Review
- Global Tax Policy	- Patient Safety	- Product Stewardship	- Pay Equity	- Independent Assurance Report to Biogen, Inc.	- 2019 Year in Review
- Political Contributions Policy	- Payments to Healthcare Professionals		- EEO Statement and Reports		- 2018 Corporate Social Responsibility Report
- Research Collaborations	- Pricing Principles				- 2017 Global Impact Report
- Supply Chain Responsibility					- 2016 Global Impact Report
- Supplier Diversity					- 2015 Corporate Citizenship Report
- Stem Cells					- 2014 Corporate Citizenship Report
- Transparency Reporting					- 2013 Corporate Citizenship Report
- U.K. Tax Strategy					

Engaging responsible suppliers

We expect our suppliers and business partners to operate with high ethical standards, adhering to our Code of Business Conduct, Human Rights Position Statement, and Anti-Slavery and Human Trafficking Statement.

Economic inclusion and supplier diversity is an important part of Biogen’s DE&I strategy. We aim to create economic opportunities for underrepresented communities by procuring materials and services from small business enterprises and from minority-; women-; veteran-; service-disabled veteran-; lesbian, gay, bisexual and transgender (LGBT+)-; and/or disability-owned business enterprises.

Small and/or diverse businesses interested in working with Biogen are encouraged to register via our Small and Diverse Supplier Registration Form, found on biogen.com, which allows easy identification for future opportunities. Since it may be difficult for smaller vendors to comply with our procurement requirements, we provide mentoring opportunities through relationships with advocacy organizations, have streamlined vendor onboarding, offer improved payment terms for small businesses and diverse suppliers and encourage teams to source from current suppliers who come from traditionally underrepresented groups. To further identify and support small and diverse suppliers, we attend advocacy and community events and are members of Diversity Alliance for Science, the Helix Supplier Diversity Forum and the Greater New England Minority Supplier Development Council.

Promoting diversity, equity and inclusion

Research has shown that companies can be more successful when their workforce broadly reflects the people they seek to serve and the communities where they live and work. We have long prioritized DE&I as a moral and business imperative, both internally and in the ways we engage with external stakeholders, most notably patients. Over the years, both internal and external stakeholders have said they see our commitment to DE&I as one of our core strengths.

2024 Global DE&I Strategy



EMPLOYEE EXPERIENCE

Building a thriving culture where every employee feels valued and empowered to contribute their unique talents and perspectives to our business.



ENABLING HEALTH EQUITY

Promoting a supportive health care ecosystem and driving efforts to better serve underrepresented and underserved populations within our therapeutic areas and in the communities where we operate so they can live fuller, healthier lives.



COMMUNITY ENGAGEMENT

Expanding our footprint beyond our walls and actively working to build a more equitable and inclusive society and economy.

Promoting diversity, equity and inclusion

DE&I governance and strategy

Our Board of Directors is regularly updated on our DE&I goals, strategy and progress. Biogen leadership and a cross-functional governing body of employees known as the DE&I Strategic Council help to advance our DE&I strategy. All Biogen employees are invited to actively contribute to our DE&I efforts through their daily work and our Employee Resource Groups and regional and functional DE&I councils. Executive sponsors help guide and champion these networks, which are open to everyone. Biogen is an equal opportunity employer and, as a member of the U.N. Global Compact, is committed to International Labor Organization (ILO) conventions on non-discrimination. Please see the Workforce section of this report for details.

We hold ourselves collectively accountable for our culture and performance, within the company, community and in the ways we understand and support underserved and underrepresented patients in the disease areas we treat.

DE&I reporting and disclosure

Committed to transparency in reporting, we publicly disclose EEO-1 data that provide a demographic breakdown of our workforce by gender globally and race and ethnicity in the U.S.



Employees have a meeting in a breakout meeting space.

Engaging diverse stakeholders

We believe that long-term business success is more likely when corporate strategy and decisions are informed by the operating context and an array of stakeholder needs and perspectives. Diverse perspectives help inform our strategies, and in 2023, Biogen's Board, leaders and employees regularly engaged with a wide variety of external audiences, including:

Patient Advocacy Groups (PAGs) through our work and event participation with groups such as The ALS Association, Alzheimer's Association, Balm in Gilead, Black Health Matters, Cure SMA, HEAL Collaborative, Friedreich's Ataxia Research Alliance, International Alliance of ALS/MND Associations (Europe), Lupus and Allied Diseases Association, Lupus Europe, Multiple Sclerosis Association of America, Muscular Dystrophy Association, National Alliance for Caregiving, National MS Society, Parkinson's Foundation, Parkinson's Europe, SMA Europe, UsAgainstAlzheimer's and many other groups around the world.

Healthcare organizations and professionals, such as BlackDoctor.org, The Center for Information and Study on Clinical Research Participation (CISCRP), COUCH Health (Health Equity in Clinical Research Academy for sites), CVS Health, Global Alzheimer's Platform Foundation, Global Genes, the National Minority Quality Forum (NMQF), PhRMA Clinical Trial Diversity Working Group, Proximity Health Solutions and the Society for Clinical Research Sites, among others.

Government bodies and regulators, such as the U.S. government through engagement with the U.S. Food and Drug Administration (FDA); the European Medicines Agency (EMA); or the Japanese Ministry of Health, Labour and Welfare to help ensure that new and innovative therapies are commercially available to the patients who need them.

Pharmaceutical industry and biotech associations, such as the Biopharma Sustainability Roundtable, the Biotechnology Innovation Organization, the European Federation of Pharmaceutical Industries & Associations, the International Federation of Pharmaceutical Manufacturers & Associations, the Massachusetts Biotechnology Council, Massachusetts Biotechnology Education Foundation, Medicine for Europe, the Pharmaceutical Environment Group, the Pharmaceutical Research and Manufacturers of America, and the Pharmaceutical Supply Chain Initiative, among others.

Universities, research institutions and centers of higher learning, such as our work with Lemelson-MIT, Morehouse School of Medicine, North Carolina Central University, Shaw University and Xavier University of Louisiana. This also encompasses our engagement with experts on issues that may be relevant to patients and other stakeholders.

Investors, analysts and ratings agencies through quarterly conference calls; analyst meetings; stockholder annual meeting; Form 10-K and other SEC-required filings; and our transparent responses to inquiries from organizations like S&P Global, JUST Capital and others.

Local, regional and global business and community associations, from our role chairing the Kendall Square (Cambridge, Massachusetts) Association Community Impact Working Group to co-chairing the World Business Council for Sustainable Development working group on climate and health.

Environmental groups, such as the Environmental League of Massachusetts and the Science Based Targets initiative (SBTi).

Nonprofit nongovernmental organizations (NGOs), through our participation in and sponsorship of events, our grant contributions and our volunteer service. In addition, Biogen is a member of the U.N. Global Compact.



Cleo, who lives with Alzheimer's disease, and Normaajo, his wife and caregiver.



ACCESS & HEALTH EQUITY

Advancing access and health equity so patients can live fuller, healthier lives



89%

Of clinical trials are expected to deliver race and ethnicity enrollment targets that reflect the epidemiology of the disease.



35%

Increase in the number of patients with access to tofersen through Biogen's Early Access Program.



SPINRAZA® is now available in **70** countries, including 21 low- and middle-income countries.

Key awards

- ★ Received a perfect score within the 2023 Dow Jones Sustainability Index (DJSI) category: Impact on Access to Healthcare
- ★ #33 in 2024 Just Capital's JUST 100



EXECUTIVE SUMMARY

Countless patients around the world face unmet medical needs due to complex and systemic barriers to care, such as racial discrimination, financial constraints and geographic limitations. There is an urgent need for solutions that promote equitable access. Driven by a heritage of scientific excellence, we strive to promote a supportive healthcare ecosystem and equitable access to the most innovative treatments for patients within our therapeutic areas so they can live fuller, healthier lives.

In 2023, we had the second-highest number of FDA approvals with four commercially available first-in-class medicines, working to increase access to treatment for patients in need, and we developed a comprehensive approach to health equity, focusing on four pillars: bolstering the clinical research ecosystem, supporting access to healthcare and medicines, engaging and collaborating with the community, and navigating the unique patient journey.

To bolster clinical research, we support a global, culturally diverse clinical research workforce and site locations, and have targets and goals to support our goal that our clinical trial enrollment reflects disease epidemiology. We work diligently with the aim that patients are aware of and encouraged to participate in clinical research. In 2023, we executed a multi-channeled strategy including development of Clinical Trial Diversity Plans, engaging community advisory boards, community and faith-based outreach, and site-led diversity recruitment initiatives. Our Global Access Mechanisms (GAMs) for patients include Early Access Programs (EAPs), Compassionate Use (CU), Post-Trial Access (PTA) and Humanitarian Access (HA).

In 2023, we also acquired Reata Pharmaceuticals (Reata) to help provide access to treatment for the 15,000 people worldwide living with Friedreich ataxia (FA). Through our acquisition of Reata, we are making a difference in the lives of patients with FA by offering SKYCLARYS® (omaveloxolone), the first and only approved treatment for FA in the U.S. and the EU.

We leverage the power of the healthcare community to support patients with hard-to-treat diseases, embracing inclusivity and supporting efforts that address stigma and cultural humility across health systems; seek to improve patients' health literacy; and assist them in navigating the health system. Our multi-pronged strategy helps us increase our organizational understanding of the challenges faced by patients on their health journey. We strive to reach patients through avenues they trust, acknowledging stigma and other sociocultural determinants that impact how care is accessed; support caregivers and communities; and embrace a one-size-doesn't-fit-all approach.

Biogen's Approach to Health Equity

ENSURING ACCESS TO HEALTHCARE AND MEDICINES

We work to strengthen health systems and provide patients, including those in low- and middle-income countries, access to medicines through flexible contracting and sustainable business models.

NAVIGATING THE UNIQUE PATIENT JOURNEY

We strive to reach patients through avenues they trust, acknowledging stigma and other sociocultural determinants that impact how care is accessed, support caregivers and communities, and embrace a "one-size-doesn't-fit-all" approach.

BOLSTERING THE CLINICAL RESEARCH ECOSYSTEM

We support a global, culturally diverse clinical research workforce and site locations, and have targets and goals for ensuring our clinical trial enrollment matches disease epidemiology. We work diligently to ensure patients are aware of and encouraged to participate in clinical research trials.

ENGAGING AND COLLABORATING WITH THE COMMUNITY

We embrace inclusivity and humility as we educate healthcare providers about diverse paradigms of patient care. We support efforts that address stigma and cultural competency across health systems, educate patients to improve health literacy and assist them in navigating the health system as well as encourage expansion into specialties and geographic spread (i.e., rural areas).



Working to drive trust for patients: Connecting diverse communities to clinical research

More than 33 million people worldwide¹ live with Alzheimer's disease (AD). In the U.S., AD disproportionately impacts Black, African American, Hispanic and Latino people,² yet historically, clinical trials have not always reflected the epidemiology of the disease.² To develop effective treatments for all those living with this disease, we believe clinical research must include diverse communities.

"One of the biggest barriers to reflect representation in clinical research is that people from diverse communities are not being approached about potentially participating, so they are simply not aware," says Kate Wilson, Biogen's Head of Clinical Trial Diversity. "To drive the kind of research that can support positive health outcomes for all, we want more people to know they have opportunities for care that may include clinical research. Awareness is the first step in enabling more people to make more informed choices for themselves."

In 2023, Biogen worked with K2 Medical Research (K2) to pilot a new approach to reaching underrepresented communities with an innovative Mobile Research Unit (MRU). The MRU reaches underserved and underrepresented communities in central Florida. By literally meeting people where they are – at senior health fairs, faith-based and community events, lunch-and-learn seminars and more – we are working to break down barriers to health access.

This work is urgent because health equity is urgent. The clinical development process must include trials with meaningful representation of the patient populations that will ultimately receive treatments, if commercially approved.

Kate Wilson
Biogen's Head of
Clinical Trial Diversity



The mobile units have become a familiar and trusted presence, led by a diverse team who share the language and cultural background of the communities they serve. As part of the program, MRU staff engage with residents, providing AD education, memory testing and biomarker screening right on the bus. Based on pre-screening results, eligible participants, if interested, can make an appointment at the clinical research site location for additional evaluation and potential screening for AD studies.

"This work is urgent because health equity is urgent. The clinical development process must include trials with meaningful representation of the patient populations that will ultimately receive treatments, if commercially approved," says Kate. "We also need people to help us conduct the research that will ultimately help them if there ever comes a time when they need treatment. We hope this outreach will change the trajectory of Alzheimer's research for all patients and their families."

Nearly 100 community events were held in 2023, pre-screening 834 potential study participants, with 62% representing Black and Hispanic populations. Hundreds of people have already been offered the chance to participate in Alzheimer's research, showing that a commitment to ongoing education and engagement can build trust. One 57-year-old participant said, "I felt truly cared for during my screening. It's amazing how much you can learn about your brain health in such a short visit."

"Members of the community tell us they would never have participated if the MRU wasn't right there outside their house, church or community center," says Sandra Carmona Torres, the Executive Director of Patient Engagement, Marketing & Diversity at K2. "They would not come out to the clinic if we didn't build that initial trust with them right in their own backyard."

Biogen has a similar outreach program in Washington, D.C., where we are connecting with diverse communities to identify patients living with lupus for potential participation in clinical trials. Through a collaboration with National Minority Quality Forum (NMQF), we engaged local community and faith-based organizations to educate, empower and enable underrepresented community members with greater access to local healthcare resources, including clinical research opportunities in their area. Inspired by the success of this approach, we aim to replicate this model in additional regions of the U.S., working to bridge the gap between underrepresented populations and potentially life-changing research.

1. More than 55 million people live with dementia worldwide. Alzheimer's contributes to 60–70% of cases. (60% = 33M).
2. 2023 Alzheimer's Disease Facts and Figures.

Bolstering the clinical research ecosystem

Biogen was founded on scientific excellence, and we strive to improve the lives of patients and their families through our work. We prioritize patient safety, continue to advance research and development, and work to include access and health equity considerations as early as possible in the therapeutics development cycle. We are proud of the progress we have made in areas of high unmet need and where we believe we can help build a culturally competent healthcare ecosystem and work to address the root causes of health inequities.

Prioritizing patient safety

Patient safety and well-being are our highest priority. We are committed to complete and timely evaluations of the benefits and to understand the risks of our therapies. Our Safety and Benefit Risk team reviews safety information, including any adverse events, received from various sources, including global clinical trials, published literature and post-approval. When a potential safety issue is identified, we seek to better understand the situation and report our findings to applicable regulatory agencies. We also communicate newly identified product safety information by updating product labels and through other communications, as appropriate, to help healthcare professionals, patients and other stakeholders make informed treatment choices. Additionally, in some instances, we conduct post-approval studies to evaluate therapies' long-term effects.

Driving research and development

Motivated by the potential to transform the lives of patients, we work in disease areas with some of the greatest unmet need. We work relentlessly, knowing that bold new possibilities await discovery.

1. In 2023, Biogen announced plans to reprioritize its resources in AD. Part of this included discontinuing the development and commercialization of ADUHELM® (aducanumab-awwa), and redeploying those resources into Biogen's AD franchise.
2. Alzheimer's Association. 2024 Alzheimer's Disease Facts and Figures. [alz.org/media/Documents/alzheimers-facts-and-figures-infographic.pdf](https://www.alz.org/media/Documents/alzheimers-facts-and-figures-infographic.pdf)
3. Alzheimer's News Today. Alzheimer's Disease Statistics. [alzheimersnewstoday.com/alzheimers-disease-statistics](https://www.alzheimersnewstoday.com/alzheimers-disease-statistics)
4. investors.biogen.com/news-releases/news-release-details/eisai-presents-new-leqemvir-irimb-investigational

Alzheimer's disease (AD)¹

AD, the most common form of dementia, is a progressive neurological illness that impairs thinking and the independence of millions of people worldwide.² Today, more than 6 million Americans and more than 33 million people worldwide live with AD – and these numbers are growing rapidly.³ In the U.S., Black, African American, Hispanic and Latino people are disproportionately more likely to develop AD as well as more likely to have missed diagnoses compared to non-Hispanic white Americans.²

In our tireless efforts to treat those living with AD, Biogen and Eisai presented new data in 2023 for use of LEQEMBI® at the 16th annual Clinical Trials on Alzheimer's Disease (CTAD) conference. Dual-acting LEQEMBI supports brain neuron function by removing highly toxic proteins (protofibrils) that can continue to cause neuronal injury and death even after amyloid plaque removal.⁴

Right: Sam, who lives with Friedreich ataxia.

+ LEARN MORE ABOUT HIM [HERE](#)



Friedreich ataxia (FA)

FA is a debilitating and life-shortening neuromuscular disease with a devastating impact on patients and their families. Most individuals begin experiencing symptoms between the ages of 5 and 18 years – stripping them of mobility, speech and independence over time. Yet, the intellectual capabilities of people with FA remain intact, which can cause frustration over the conflict between what their minds know they can do

Bolstering the clinical research ecosystem

and limitations their bodies are imposing.¹ To better meet the needs of patients with FA, we acquired Reata in July 2023. Now, we are able to offer a therapy to patients with FA and their families through SKYCLARYS® (omaveloxolone), the first and only approved treatment for FA in the U.S. and the EU for people 16 years and older.

Spinal muscular atrophy (SMA)

SMA is a leading cause of death for infants and toddlers and is marked by progressive muscle weakness and atrophy that can take away a child's ability to walk, eat and, ultimately, breathe.² One in 11,000 live births are affected in the U.S.³ There is a less than 2-year life expectancy in the majority of infants with the most severe form of SMA, if untreated.⁴ Biogen works tirelessly to develop treatments for patients with SMA. In 2023, we announced new data from our RESPOND study that showed improved motor function in most infants and toddlers treated with SPINRAZA after receiving ZOLGENSMA® gene therapy. At the SMA Research & Clinical Care Meeting

hosted by Cure SMA in June, we shared data on progress of the development of a novel device to enhance the patient experience, answering critical questions for the SMA community and offering hope for young patients.⁵

Postpartum depression (PPD)

Depression is a debilitating illness that is one of the leading contributors to disability worldwide⁶ and the second leading cause of disability in the U.S.⁷ PPD is one of the most common medical complications of pregnancy.⁸ In the U.S., PPD is estimated to affect approximately 1 in 8 women who have given birth.⁹ The experience of PPD casts a dark cloud over motherhood, hindering a new mother's ability to feel joy and connect with her baby at a time when bonding is crucial.

In December 2023, Biogen and Sage Therapeutics, Inc., announced ZURZUVAE™, a Schedule IV product, was newly available in the U.S. for the treatment of PPD in adults. ZURZUVAE is the first and only oral, 14-day treatment course for adults with PPD that can provide rapid improvements in depressive symptoms as early as the third day. We are in active discussions with national, regional and government payors to make this groundbreaking approach to PPD treatment more broadly available to new mothers who need it. In 2023, we introduced ZURZUVAE For You, which provides educational resources, help understanding insurance coverage and assistance navigating the prescription fulfillment process. The program also includes financial assistance, such as a copay assistance program, and product at no cost for eligible patients.¹⁰

Lupus

Lupus is a serious autoimmune disease that is three times more prevalent in Black and African American populations and twice as prevalent in Hispanic and Latino populations.¹¹ Patients from racial and ethnic minority groups also are more likely to develop severe manifestations of the disease.¹² Approximately 90% of people living with lupus are women – with three times the prevalence among American Indian/Alaska Native women compared to white women,¹³ making it even more important to take an intersectional approach as we strive to provide more options for physicians and the many diverse patients they treat. In 2023, we worked to continue developing what could potentially be the first lupus portfolio in the industry, with potentially first-in-class investigational drug in systemic lupus erythematosus (SLE) and cutaneous lupus erythematosus (CLE). As part of our commitment to people with CLE, last year we launched AMETHYST,

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4. www.ncbi.nlm.nih.gov/books/NBK558933
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13. Lim SS, Bayakly AR, Helmick CG, et al. The incidence and prevalence of systemic lupus erythematosus, 2002-2004: the Georgia lupus registry. *Arthritis Rheumatol* 2014;66:357–68.

Bolstering the clinical research ecosystem

a study to evaluate the efficacy and safety of litifilimab (BIIB059), a first-in-class, humanized IgG1 monoclonal antibody.¹ Through our drug candidates for SLE and CLE and AMETHYST, we are proud to endeavor to contribute to better quality of life for all patients with lupus worldwide.

Amyotrophic lateral sclerosis (ALS)

Superoxide dismutase 1 (SOD1)-ALS is a devastating, uniformly fatal² and ultra-rare genetic form of ALS.³⁻⁴ There are approximately 330 people in the U.S. living with the disease.⁵ In April 2023, Biogen received accelerated approval from the FDA for QALSODY®(tofersen) for treatment of adults with SOD1-ALS, making QALSODY the first approved treatment to target a genetic cause of ALS. Globally, in 2023, 241 new patients with SOD1-ALS began receiving QALSODY treatments through Biogen's EAP (467 cumulative to date). FDA approval also marked a pivotal moment in ALS research. For the first time, the community gained consensus that neurofilament can be used as a surrogate marker reasonably likely to predict clinical benefit in SOD1-ALS. This important scientific advancement may further accelerate innovative drug development for patients with ALS.

Multiple sclerosis (MS)

Multiple sclerosis (MS) is a complex, heterogeneous, chronic disease that requires individualized treatment throughout a person's life. The disease involves the central nervous system and disrupts the flow of information within the brain and between the brain and body, signaling unpredictable symptoms.⁶ There are approximately 2.8 million people



Citlali lives with multiple sclerosis.

living with MS worldwide,⁷ and racial disparities may explain differences in the course, incidence, prevalence and outcomes of the disease.⁸ Since our founding in 1978, we have been working to develop better treatments for MS. In 2023, we made progress on our BIIB091 clinical trial for a new formulation of an MS investigational drug, moving from Phase I to Phase II in October. This drug candidate, involving immediate release tablets of a non-covalent Bruton's tyrosine kinase inhibitor for relapsing forms of MS, in Phase 1 met its pharmacokinetic and pharmacodynamic goals.

In addition, we are continuously looking at other areas of unmet need where Biogen can make a difference in the lives of patients and their families.

Promoting representative clinical trials

Health outcomes often depend on factors beyond the control of patients and their providers, such as disparities across age, gender, race, ethnicity, geographic locations globally and socioeconomic level. By increasing participation of underrepresented populations in clinical trials, like in AD and lupus, we believe we can better serve patients of many different profiles.

We aim to ensure our clinical trial enrollment reflects the disease epidemiology and our multi-channeled strategy helps ensure patients are aware of potentially relevant participation options. Further, we strive to foster a culturally diverse clinical research workforce and site locations. Our approach involves developing Clinical Trial Diversity Plans that align with evolving national guidelines, focusing on community advisory boards, community and faith-based outreach and selecting clinical trial sites in the U.S. with high potential and experience in DE&I, including sites with diverse workforce, access to diverse patient populations and dedicated community outreach programs.

In 2023, we doubled the size of the clinical trial diversity team and set a bold goal that over 90% of studies recruiting in the U.S. would deliver race and ethnicity enrollment targets that reflect the epidemiology of disease. We ended the year with eight out of the nine studies (89%) enrolling on track to their U.S. diversity targets. While one study (ENVISION) did not fully deliver on our ambitious diversity goals, it still showed solid progress year-over-year in representation.

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6. www.nationalmssociety.org. What is MS.
7. National Multiple Sclerosis Society. Updated Atlas of MS Shows Over 2.8 Million People Worldwide Have Multiple Sclerosis – with Nearly 1 Million in the US. www.nationalmssociety.org/About-the-Society/News/Updated-Atlas-of-MS-Shows-Over-2.8-million-People#
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Bolstering the clinical research ecosystem

We also executed country-specific diversity strategies, with efforts underway in Argentina, Australia, Canada, Germany, the U.K. and the U.S. While we continue to make progress, we have come to understand that epidemiology data alone do not account for historical mistrust in clinical research, healthcare inequities and differences in health literacy. These hurdles have grounded us in the reality that our efforts will not bolster rapid change to the landscape of clinical trial diversity, but rather, they will result in slow, incremental victories toward closing the gaps.

Our clinical trial diversity ecosystem consists of internal and external collaborations across biopharma, regulatory, advocacy, workforce and policy consortia to continue to amplify commitments to clinical trial diversity as a critical component of health equity. Select 2023 progress on collaborative initiatives across therapeutic areas is outlined below:

AD: Taking a multi-channel approach, we implemented a broad media strategy; worked with the HEAL Collaborative and study sites to execute multiple faith-based events in three cities, reaching more than 2,000 people with community conversations around brain health, AD and clinical trials; and expanded our relationship with K2 Medical Research, a clinical trial site network in Florida to bring an MRU directly into underrepresented communities to deliver brain health education and offer potential opportunities for clinical research. (See the feature story in this section of the report.)

Lupus: We support program-level outreach and digital initiatives with key partners such as CVS Health, Lupus Foundation of America, BlackHealthMatters.com and NMQF. These efforts garnered approximately 2.6 million impressions, resulting in more than 1,900 visits to [Biogen Trial Link](#) and 486 referrals to clinical trial sites. We also collaborated with Proximity Learning to hold seven in-person seminars that reached 100 people and 15 webinars called “Better Together: Sharing our Lupus Stories” that reached 327,000 viewers to increase awareness of and access to clinical trials.

Movement disorders: To increase awareness of clinical trial access and participation among female and Hispanic/Latino populations, we created and distributed tailored materials; made funding available for site-led outreach, including five in-person seminars that reached 150 people with education about clinical trials for Parkinson’s disease (Parkinson’s); and collaborated with the Parkinson’s Foundation’s podcast, among other efforts.

Ensuring responsible product development

We believe responsible product development begins in the earliest stages of research and development (R&D), with clear guidelines around issues such as animal welfare, clinical research, bioethics and stem cells, clinical trial transparency and data sharing, product stewardship and research collaborations. Our approach to these and other issues is grounded in industry standards, best practices and consultations with stakeholder groups, and we transparently disclose our [Policies, Principles and Positions](#) on these and other issues.



FRANCE

Marlène Petrolo, William Roussel, Daniel Chambéry, Fabienne Monnet, Céline Adrait-Ludecke and Myriam Mailfait participated at the Course du Cerveau, a solidarity race that raises funds for medical research and awareness about multiple sclerosis. In 2023, the event brought together 300 people and fundraised more than €72,000.

Ensuring access to healthcare and medicines

Many people living with a rare disease do not have access to treatment programs of any kind. In some cases, we offer treatment where no options are otherwise available. Inspired by these patients, we are committed to enabling access throughout each person's treatment journey.

Last year, we accelerated our efforts to strengthen health systems and provide patients, including those in low- and middle-income countries, with access to medicines through multiple programs, flexible contracting and sustainable business models. In 2023, we received a perfect score with the Dow Jones Sustainability World Index (DJSI) category: Impact on Access to Healthcare.

Access to Medicine Technical Area

Stakeholder Priorities

Highlights of Biogen's Commitment

GOVERNANCE OF ACCESS



Governance, strategy and responsible business practices

Biogen is committed to responsible business practices, as outlined in our **Code of Business Conduct** and other policies. Biogen's Board of Directors governs Biogen's processes for maintaining the integrity of the company, including Environmental, Social and Governance (ESG) issues, following the company's **Corporate Governance Principles**. Biogen's corporate strategy includes building on our priorities for access and health equity. Our Early Access Principles + Program Overview is available [here](#). Visit our [Access page](#) for a description of Biogen's approach to off-label use.

Staff incentivization toward fostering access to medicine

Biogen staff are incentivized to advance the company strategy, which includes access and health equity as priorities.

Ethical marketing and disclosure policies

Biogen is committed to ethical marketing and to disclosure following the GRI, SASB and Stakeholder Capitalism metrics.

Prevention of corrupt or non-compliant activity in operations

Biogen's ethics and compliance policies and programs and **Code of Business Conduct** are designed, in part, to prevent corrupt or non-compliant activity in operations.

RESEARCH & DEVELOPMENT



Product Development, Access Planning and R&D Capacity Building

In 2020, Biogen launched three Health Equity Advisory Boards – access, clinical trials and policies – to better understand patient needs to improve access to our therapies, ensure clinical trials reflect the target population, and consider policies that support access and equity. We comply with government regulations and engage with regulatory agencies and others work to ensure that new and innovative therapies are commercially available to the patients who need them.

Underlines any clear benefit to lower- and middle-income countries: accessibility and availability are crucial

SMA treatment is available in 70 countries, including 21 low- and middle-income countries. In markets with low GDP per capita, we have engaged with innovative agreements to address each market's individual needs. It is our strong belief that the decision to treat should be between the physician and the family, without budget concerns. Our policy to promote access to SPINRAZA will help inform our approach to our broader portfolio of therapies.

Contributions to local R&D capacity are important re: empowering local researchers to address population needs

Biogen has a range of active initiatives to help foster local R&D capacity in diverse local populations. Announced in 2022, the Biogen-supported Xavier University of Louisiana's Biogen Sharp-Verret Award is a scholarship for underrepresented students pursuing neuroscience careers. We collaborate with Morehouse School of Medicine on a fellowship program that engages M.D. and Ph.D. students, aiming to advance health equity and improve patient experiences. The Biogen Foundation also has a collaboration with Massachusetts General Hospital (MGH) through the MGH Youth Neurology Education and Research Program. In 2016, Biogen helped create The Partnership, Inc.'s BioDiversity Fellows Program, which nurtures the potential leadership of mid-career professionals who are underrepresented in the life sciences industry. We also sponsor the Golden Ticket Award, a competitive process seeking to identify rising startup companies in the field of neuroscience. Each Biogen-LabCentral Golden Ticket includes up to one year of bench space for one scientist and the benefits of LabCentral's shared infrastructure and services at no cost to the contest winner.

Ensuring access to healthcare and medicines

Access to Medicine Technical Area

Stakeholder Priorities

Highlights of Biogen's Commitment

PRODUCT DELIVERY



Equitable access to products is primary focus

We strive to ensure broad access to our therapies through both public and private healthcare systems, and both before and after a therapy's potential regulatory approval. We run a wide range of Access Programs, as outlined in this report. Biogen also may offer financial assistance or help to secure reimbursement in public and private healthcare programs for eligible patients who are otherwise unable to access our medications.

In 2020, we initiated a pilot program in India to help expand access to SPINRAZA, including providing SPINRAZA free of charge to program participants, who were selected by an independent committee of medical experts. To date, 200 patients in India continue to receive SPINRAZA as part of this effort. We are exploring the potential for future expansion in other countries.

Highlights overcoming any local barriers in accessing hard-to-reach markets and patient populations

Biogen works to overcome barriers to access for underserved patient populations through our **Access Programs, Pricing Principles** and access efforts, such as a transportation support program for SPINRAZA patients who live hours from their site of care. For example, we have worked hard to ensure that SPINRAZA is available in 31 provinces, municipalities and autonomous regions across China so patients in remote areas like Gansu, Ningxia, Qinghai, Xinjiang and Inner Mongolia are able to access treatment through local hospitals.

We work with regulators, clinical researchers, ethicists, physicians and Patient Advocacy Groups, among others, to determine how best to address requests for access to our investigational therapies in a manner that is consistent with our patient-focused values and compliant with regulatory standards and protocols.

Includes sharing of intellectual property, strengthening of local or regional health systems, enabling of generic medication manufacturing and supply, product donations, product registration in high-burden countries, manufacturing/supply chain capacity-building, and inclusive business model

Health Systems Strengthening: In 2020, we began new programs designed to help strengthen healthcare systems. Collaborating with Harvard University's T.H. Chan School of Public Health's C-CHANGE (Harvard Chan C-CHANGE) program and Americares, we launched a **first-of-its-kind program** to help under-resourced healthcare clinics become more climate-resilient to help ensure continuity of access and care and improve measurable health outcomes. The Biogen Foundation supported CareMessage, the largest patient engagement platform in the U.S., which equips at-risk communities with access to accurate healthcare information using basic text and voice messages – key to reaching people who don't have broadband.

Manufacturing/Supply Chain Capacity Building: Biogen became one of the first contributors to Massachusetts Institute of Technology's (MIT) collaboration The AltHost Consortium, in 2020. AltHost works to advance the speed and productivity of alternative host cell research and manufacturing, with the aim to meet escalating needs for biologic drugs through improved product quality and increased volumetric productivity with a goal of improved access and lower costs.

Product Donations: Biogen runs relevant programs in a number of countries, as outlined in this report.

Inclusive Business Model: We are committed to advancing DE&I initiatives via a multi-part strategy. As of Dec. 31, 2023, 48.6% of Director+ positions were held by women globally and 31.2% of Manager+ positions in the U.S. were held by ethnic or racial minorities. This diversity is also modeled by our Board of Directors and our leadership team. As of April 2024, the approximately 38% of non-employees of our Board self-identified as women and approximately 38% as a racial or ethnic minority; while 46.8% of those VP and above at Biogen are women.

Global Access Mechanisms

Earlier diagnosis and treatment have long been linked to better outcomes. Yet, around the world, many patients face access, geographic and/or political hurdles to receiving transformational medicines that have the potential to improve their treatment outcomes. That is why we regularly assess our approaches and have developed our GAMs to enable better access to our therapies.

We work with regulators, clinical researchers, ethicists, physicians, Patient Advocacy Groups (PAGs) and communities, among others, to determine how best to address requests for access to our investigational

therapies in ways that are consistent with our patient-focused values and compliant with regulatory standards and protocols.

GAMs include:

Early Access Programs (EAPs): Mechanisms that provide patients – both individuals and groups – with serious or life-threatening diseases who meet defined eligibility criteria with temporary access to an unapproved drug candidate. Access is provided in countries where Biogen plans to make the product commercially available as a temporary bridge until approval/reimbursement.

Ensuring access to healthcare and medicines

Compassionate Use (CU): Granted based on unsolicited requests from physicians that may be received at any time in a product's development. Biogen reviews the requests as received and determines if we can approve or will deny the requests based on our CU criteria.

Post-Trial Access (PTA): A mechanism that provides continued access to our medicines for clinical trial participants who do not have access to the Biogen product when their participation in the trial ends. Patients may not have access because of local reimbursement restrictions or because the product may not be approved/available yet, and PTA can provide a bridge to continued treatment until they can access the commercial product.

Humanitarian Access (HA): A new GAM, created to be indefinite and to run in low- and lower-middle-income countries where Biogen does not have plans to file/launch a product. We are involved in setting up these programs in anticipation of unsolicited requests for access. We currently have one HA program in India, a lower-middle-income country.

In 2023, we had four EAPs available in 42 countries. Last year, we also expanded programs like PTA, bridging access for patients participating in a Biogen clinical trial who were unable to obtain commercial access immediately upon study closure, and continued to offer HA in India, a country that has the infrastructure to properly treat, diagnose and monitor patients, but where a Biogen product is not available commercially.

To minimize delays in time to treatment around global access, we rolled out a new standard operating procedure for EAPs and CU that has better aligned the process and timing, assisted in decision making for patients and physicians, and standardized our approach for similar programs in the future. With this new framework and automated training, we have raised awareness and improved understanding of these important programs internally, and bolstered our governance to urgently address requests for those who need our treatments around the world.

Enabling access to our therapies

Early Access

FA: With our acquisition of Reata, we also inherited an active CU program for orelvekin in Germany. Through this program, we have been able to provide access to treatment for 83 patients since mid-2023.

SMA: SMA is a rare genetic condition where nerve cells in the spinal cord and brainstem do not work properly, resulting in progressive muscle atrophy and weakness. Nusinersen is used to treat SMA in pediatric and adult patients. Treatment requires an intrathecal injection administered by healthcare professionals and becomes challenging for patients and caregivers when factoring in varied healthcare systems and delayed or insufficient access to therapies in some countries.

We believe we are adept at managing the operations needed to provide treatment in countries where we have previously had little or no presence, providing access where our medicines can make a real difference. As of December 31, 2023, SPINRAZA is licensed for use and available in 70 countries, and more than 14,000 people globally have been treated with this medicine.

ALS: There are an estimated 2,876 people worldwide living with SOD1-ALS. Since the inception of our tofersen EAP in mid-2021, a total of 467 people living with SOD1-ALS have received access. In 2023 alone, a total of 241 patients from 31 different countries received access, a 35% increase in the number of patients reached and 13 new countries added since 2022.

Post-Trial Access

SMA: We designed a strategy for six SPINRAZA studies, creating the infrastructure, setup and governance so that patient transitions to the program can occur in 2024.

Humanitarian Access

SMA: Currently in its fourth year, our SPINRAZA HA Program in India demonstrates our long-term commitment to patient access; the program continues to treat 202 active patients and has had a total of 225 patients over time.

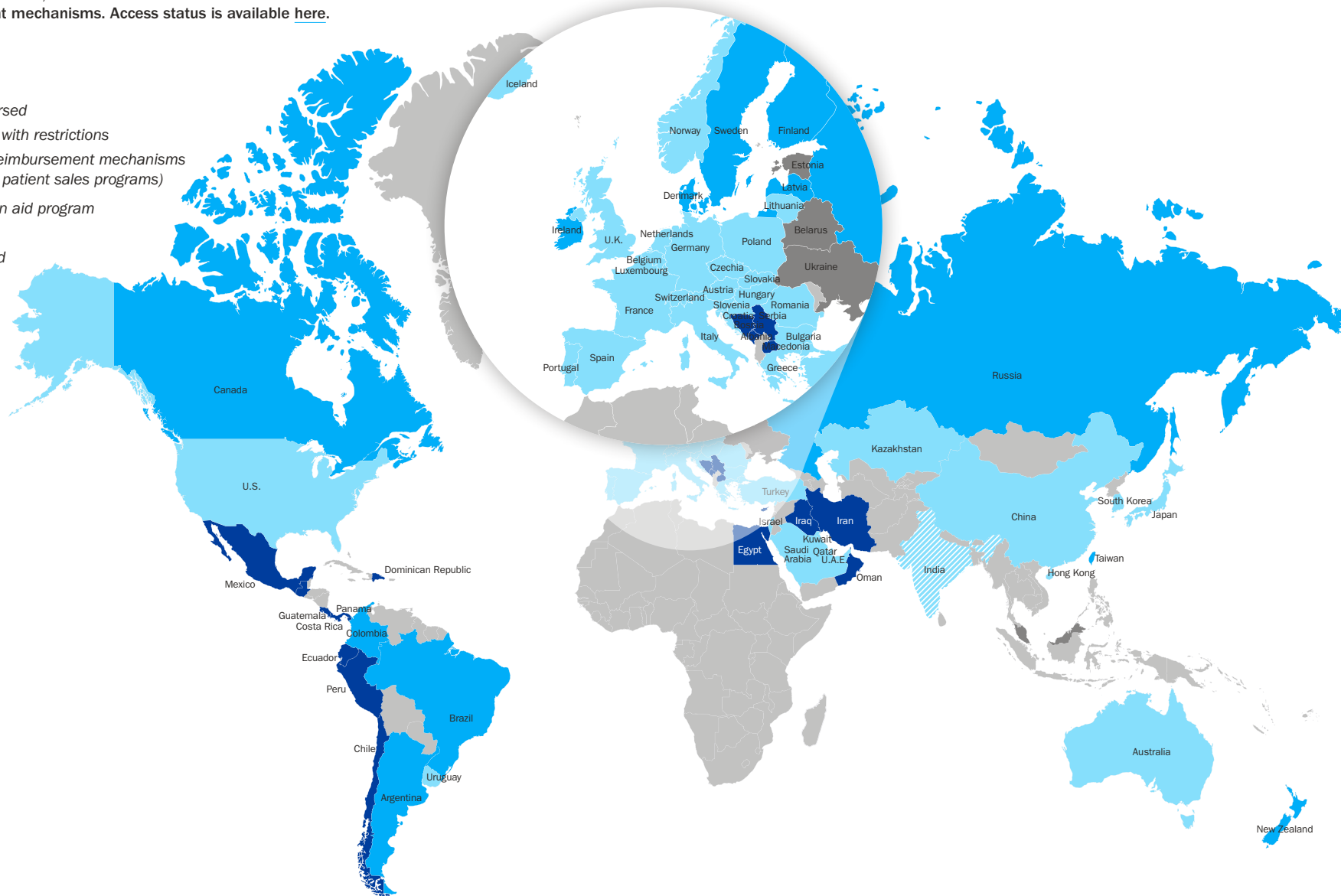
Ensuring access to healthcare and medicines

Worldwide Patient Access & Reimbursement for SPINRAZA

Patients in 70 countries or territories around the world now have access to SPINRAZA, via formal reimbursement and alternative reimbursement mechanisms. Access status is available [here](#).

Key

- Fully reimbursed
- Reimbursed with restrictions
- Alternative reimbursement mechanisms (e.g., named patient sales programs)
- ▨ Humanitarian aid program
- No access
- Not approved



SPOTLIGHT

Supporting affordability for patients

We believe in delivering comprehensive and consistent value for patients, providers and society. We seek value-based agreements and partnerships that maximize the benefit of our therapies. It is the shared responsibility of all healthcare stakeholders to find solutions that ensure people can afford new innovations. We partner with healthcare systems so people can access our medicines in a sustainable way, and we remain flexible to enable affordability for patients across economic circumstances. We are transparent about our Pricing Principles and continue to listen to stakeholders and take their perspectives into account as part of our pricing decisions. We regularly review our pricing strategies and follow Pricing Principles that include value to patients, current and future benefit to society, fulfilling our commitment to innovation, evolution toward value-based care, and affordability and sustainability.

In 2023, we paid particular attention to engaging our stakeholders compliantly on pricing considerations and sharing clear rationale on decision-making processes. As a result, we were pleased with the community response to pricing set for QALSODY and ZURZUVAE.

United Arab Emirates

Many patients living in the United Arab Emirates (UAE) either have limited insurance coverage or end up paying fully out-of-pocket. Sadly, this means many people are unable to afford the full course of their treatment plan and are forced to discontinue their treatment. To help patients with MS and SMA in the UAE, we developed a deep understanding of the country's reimbursement structure, so we could create an effective affordability program to ensure eligible patients have the medicine they need.

The Biogen *Joud* patient affordability program provides financial support for those living with MS or SMA. *Joud*, which means “giving with generosity” in Arabic, allows patients to receive variable support based on their ability to pay. Patients have access to treatment and other types of support as well, including an Access to Diagnosis program and Patient Adherence Program. *Joud* has expanded patient access in the UAE, with 27 people with MS receiving TYSABRI® or TECFIDERA® through the program and 15 patients with SMA receiving SPINRAZA through the program.

Engaging and collaborating with the community

We support efforts that reduce stigma around health conditions, promote culturally competent care, educate patients to improve health literacy and assist them in navigating the health system.

Promoting health equity

Despite scientific advancements in the health sector, systemic inequities continue to limit access and opportunity for certain communities, perpetuating poor health outcomes – even as certain disease states disproportionately impact historically marginalized and underserved communities.

In addition, health is influenced by non-medical factors, from environmental pollution to the availability of fresh, affordable foods. The conditions in which people are born, work, live and age must be considered when evaluating health inequities. Our team collaborates with key medical experts across our product portfolio and PAGs as we look to ensure health inequities do not limit access to quality healthcare.

Collaborating with stakeholders

We actively collaborate with patients, caregivers and community groups to understand the unique challenges they face and more effectively address barriers to improving health outcomes. For example, we expanded our Community Advisory Board – a diverse group of patient and community advocates of different races, ethnicities, ages, and genders and with different abilities who have helped inform and shape our educational and awareness activities. Their input led to the creation of the Participants' Rights Timeline, a resource that addresses past medical injustices and the progress that has been made to protect participants' rights and safety in clinical trials, along with Biogen Trial Link, a website to help connect patients, caregivers and healthcare professionals with education and information about our clinical trials. This work enhances awareness, provides transparency, addresses concerns people may have about participating in clinical trials and connects them to existing trials.

Engaging and collaborating with the community



Left: Cherie Butts, Medical Director of the Therapeutics Development Unit, collaborated with the National Academies of Science, Engineering, and Medicine in 2023.

Through our partnership with NMQF, the U.S. Clinical Trial Index was used to map Medicare and Medicaid participant data against clinical trial sites to identify gaps, improve access and inform site selection for our programs and studies in lupus, AD, Parkinson's and MS. We partnered with community and faith-based organizations to conduct educational seminars and health events to educate, empower and increase access of underrepresented community members to local healthcare resources, including clinical research opportunities in their area. In 2023, we held more than 35 events in the areas of lupus, AD and Parkinson's, reaching more than 773 attendees and more than 325,000 virtual views. Multiple pre- and post-event surveys show increased disease education, knowledge of clinical trials and interest in clinical trial participation.

To continue our history of scientific excellence and innovation, we need a diverse workforce comprised of people with a wide range of perspectives, experiences and ideas. We support the next generation of the biopharmaceutical workforce – one that is resilient, culturally aware

and interdisciplinary – through a collaboration with National Academies of Science, Engineering, and Medicine. Cherie Butts, Medical Director of the Therapeutics Development Unit, co-chaired a workshop on “Preparing the Future Workforce in Drug Research & Development.” The focus was identifying types of expertise and disciplines needed to achieve the aspirations for a transformed clinical trials enterprise and enable a workforce that can better support the evolving needs of all patients. More than 500 people participated in the event, across 36 U.S. states and territories and 13 countries, including Canada, Colombia, Egypt and India, and representing a variety of sectors, like academia, nonprofit, industry, government, professional society organizations and students. A resource was generated for workshop participants, which included information on more than 100 workforce training programs and activities focused on helping individuals become more culturally aware.

Through our partnership with Historically Black Colleges and Universities (HBCUs) and our student internship program, we help to develop future leaders from all backgrounds. In 2023, we piloted TED-style talks focused on mentorship, serving as the foundation for our commitment to mentoring diverse students from HBCUs, Hispanic-serving institutions, community-based organizations (CBOs), community colleges and state universities. Through these sessions, more than 140 students gained information and grew in confidence as they applied for internships, prepared for interviews and completed their onboarding at any organization, including Biogen. We also welcomed more than 50 interns from HBCUs, CBOs and state colleges/universities. One intern said, “My Biogen internship helped me gain new scientific skills, allowed me to network and learn more about the day-to-day in the industry and become better educated on future career options.” Another student said, “My internship project is really impactful and it aligns with my medium- and long-term career goals.”

Through our work with community partners, including Massachusetts General Hospital (MGH) and the Morehouse School of Medicine, we aim to inspire the next generation of life sciences professionals and to increase diversity in STEM, helping create a more inclusive environment where those from historically underrepresented groups feel valued and supported.

[+](#) [LEARN MORE ABOUT BIOGEN'S STEM PROGRAMS AND HOW WE'RE DRIVING A MORE DIVERSE HEALTHCARE ECOSYSTEM](#)

Navigating the unique patient journey

We strive to reach patients through avenues they trust, support caregivers and communities, and embrace a one-size-doesn't-fit-all approach.

Understanding the patient journey to inform our work

One important constant at Biogen is our commitment to ensuring quality patient experiences. Our Patient Advocacy team is incorporated into teams who are working on our therapeutic areas, prioritizing activities that have potential to deliver the greatest possible impact, from disease awareness to clinical trial enrollment. These insights help us play a more active role in people's treatment journeys – for example, equipping patients with questions to ask their providers, as well as other resources. In 2023, we implemented a Patient Navigator program, providing a knowledgeable, caring individual on-site at hospitals to guide patients through the system and standard treatment protocols.

We also work very closely with approximately 60 PAGs, including global PAG organizations in each disease state we serve. Beyond these, we build deep relationships with patient populations through collaborations with a variety of organizations for more comprehensive understanding of the needs of diverse patients. Some collaborations in 2023 include:

Supporting the children and adults living with SMA: We have supported Cure SMA's newborn screening efforts in the U.S. and, together, we achieved 100% newborn screening/testing in all 50 states. Through a collaboration with SMA Newborn Screening Alliance, we are also supporting screening of newborns in Europe, with the goal of having newborn-screening programs in all EU countries, including a test for SMA for all newborns by 2025. To date, 58% of children in geographical Europe have been screened for SMA at birth.

Also in collaboration with Cure SMA, we have helped to successfully recruit more SMA patients into clinical trials and to grow the number of adults joining/rejoining the SMA community. We have provided Cure SMA Adult packages to the more than 1,000 adults joining the community in the last few years. The package gives care and support to patients by way of SMA tools, resources and information on treatments.

Providing access to treatment for people living with MS: We supported transportation services provided by the MS Association to help people get to and from their treatments and healthcare appointments. Almost 1,300 rides were provided to people in 2023. We also provided door-to-door accessible transportation to meet eligible patients' specialized needs, like ambulance transportation for two bed-bound MS patients.

Educating patient advocates to better support people living with AD: For the first time, we held a joint patient advocacy breakfast with Eisai Global at CTAD's Alzheimer Congress. More than 30 representatives from 15 PAGs attended to learn more about latest clinical research on LEQEMBI and hear from Greg O'Brien, an award-winning journalist who turned his diagnosis of early AD into an opportunity to help educate others about the disease. The leadership teams of Biogen and Eisai also attended, including Eisai CEO Haruo Naito, underscoring our strong shared patient focus. After the meeting, Biogen and Eisai began working together to explore translating Greg's book and documentary into other languages to make his story accessible to more people worldwide.

Working closely with young people who face the life-changing diagnosis of FA: After our acquisition of Reata, we prioritized work with FA PAGs to learn about and work to meet the needs of the FA community. We forged a close relationship with Friedreich ataxia Research Alliance (FARA) and engaged immediately in their two largest events of the year: the Energy Ball, a large fundraising event; and a symposium they conducted with Children's Hospital of Philadelphia. Our work with FARA has enabled us to work closely with those living with FA, witnessing the determination of the many young people who face this life-changing diagnosis and leveraging their critical insights to inform our work in this space.

Navigating the unique patient journey

Learning from the ALS community: The ALS Association's ALS Focus team is a group whose purpose is to facilitate research from patients to learn the needs, preferences, perceptions and experiences of people living with ALS. We provided guidance around the survey questions before they were disseminated to the ALS community. Data were shared across the industry and with other PAGs for learning purposes.

Advancing treatments for patients living with rare diseases: We hosted an annual colloquium for n-Lox, a nonprofit focused on extremely rare diseases. Biogen CEO Chris Viehbacher delivered opening remarks, and Biogen employees engaged deeply in efforts to advance the dialogue around rare diseases.



Friends since middle school, Cleo and Normajo Moore have been married for 58 years. In that time, they supported each other through college, grew their careers, raised two children, became established leaders in their church – and faced Cleo's diagnosis of Alzheimer's disease.

Over the past 10 years, Alzheimer's disease has led to a reversal of the roles they used to hold throughout their marriage. Today, Normajo is Cleo's caregiver, a role she says requires even more patience than she had as an early childhood education teacher.

"He gets real upset if anybody comes in to do something in the house because he's used to doing it all. If he needed something done, Cleo could do it, but now he's not able to do it," Normajo said. "I'm learning how to hammer and I'm learning how to do things around the house. It's sad to see someone who's been in control of things really not know what's going on."

Cleo is one of 10 children, four of whom have been diagnosed with Alzheimer's disease or dementia. Their data may be helpful in shedding light on the disease, which Black and African American people in the U.S. are disproportionately more likely to develop than their non-Hispanic white counterparts.



Employees in Switzerland celebrate during Pride Month.



WORKFORCE

Advancing a workplace where everyone can thrive



Outperformed global benchmarks with Biogen's comprehensive total rewards package.



81% of employee respondents to the annual pulse survey said they have a sense of purpose by doing meaningful work at Biogen.



Fostered a workforce reflective of the broader population:

48.6% of Director+ roles held by women globally, and **31.2%** of Manager+ positions in the United States held by ethnic or racial minorities.

Key awards

- ★ #33 on Equileap's 2024 Global Gender Equality ranking
- ★ 100% on the Human Rights Campaign's 2023 Best Place to Work for LGBTQ+ Equality for the 10th year in a row
- ★ 100% on the Disability Equality Index's 2023 Best Places to Work for Disability Inclusion for 6th year in a row



EXECUTIVE SUMMARY

Our workforce is empowered to think broadly, to pioneer and to drive results as we work together to deliver on our mission. In our annual pulse employee survey, 81% of respondents stated that they have a sense of purpose by doing meaningful work at Biogen. To continue to build on our strong and caring culture, we introduced a new cultural framework, aiming to maintain our spirit of innovation and patient-centricity while advancing a more entrepreneurial business mindset and results-focused approach.

We believe our robust wellness initiatives and flexible work arrangements empower employees, increasing workplace satisfaction and allowing us to retain and attract key talent. We assessed our global benefits and we believe we remain competitive with other companies in terms of comprehensive total rewards, with 93% of Biogen affiliates at or above our industry peers' offerings. We also conducted an analysis to ensure our health plans are affordable for our U.S. employees.

We recognize that employees choose to stay at Biogen because of the strength of our professional development and career growth opportunities. We have enhanced our leadership training programs and continue to offer comprehensive virtual learning programs to support employees with their highly personalized development plans. Along with career development, we also offer training to enhance organizational understanding and cultural enrichment. To date, 83% of managers have accessed GlobeSmart®, which equips our global teams to work more effectively across cultures and strengthens our inclusive environment.

We believe having a diverse workforce allows us to tap into a broad range of skills, experiences and perspectives, which can lead to more innovative and effective solutions for our business and the people we serve. We are committed to fostering a workplace where everyone feels valued and able to reach their full potential.

Right: Dan Haro and Sandra Merisier walk between meetings.



STORY

Enhancing employee wellness through a holistic health approach

We believe employee wellness not only reflects Biogen’s purpose and values, but it is also a factor in business success. **Research** has shown that globally, employee burnout costs companies \$322 billion in turnover and lost productivity, and **one-third** of employee caregivers will voluntarily leave their jobs to attend to their caregiving responsibilities. We regularly review our employee benefit programs to ensure they support employees and promote multiple dimensions of health, including physical, financial, emotional and social well-being.

“Our well-being strategy is embedded in our company culture and not only encompasses benefits but also career, work policies and pay,” said Susan McGowan, Head of Global Benefits at Biogen. “While we take a data-driven approach to the development of our benefits programs – benchmarking against industry peers and understanding market trends – our offerings are shaped by employee feedback we receive through surveys and focus groups. This approach helps to ensure our programs reflect what’s most important to Biogen employees.”

The last year was a year of transition for Biogen and drove us to advance our employee wellness offerings. Before the U.S. approval of ZURZUVAE™, the first oral medication to treat postpartum depression, we launched our Seeing Depression campaign, which was aimed at helping build greater employee understanding of depression throughout the patient journey, including dynamics of mental health in the workplace. We also expanded **Mental Health First Aid** to more Biogen affiliates globally.

To support overall employee inclusion, we launched a global gender transition and pronouns guide to bolster employee knowledge of gender affirmation and care. And we enhanced our U.S. physical well-being reimbursement benefit from \$200 to \$800 per year to further help employees strengthen all facets of their well-being.

Our dedication to expanding employee wellness will extend into 2024. Notably, we will launch Spring Health, a global integrated mental health platform that delivers tailored care, such as digital health support, meditation exercises, coaching, counseling

Our well-being strategy is embedded in our company culture and not only encompasses benefits but also career, work policies and pay.

— Susan McGowan, Head of Global Benefits

and support for other wellness needs. In addition, we have expanded the list of eligible expenses covered under the U.S. fitness reimbursement program to include personal training and one-on-one fitness classes.

“At the end of the day, we believe meeting employees where they are on their well-being journey, with the tools and resources to achieve their best, contributes greatly to the health and happiness of our employees, the company and our communities,” Susan said.

[+ LEARN MORE ABOUT OUR BENEFITS HERE](#)

Providing benefits to support employees at home



FITNESS REIMBURSEMENT (U.S.)

2,840 unique employees used the fitness reimbursement.



PETCARE (U.S.)

760 PetCare uses out of a total of 2,875 backup care uses (26%).



TUITION REIMBURSEMENT (U.S.)

281 applications paid. \$964,000 paid total with an average of \$3,429 paid per application.



CONCIERGE SERVICES

1,018 unique employees used concierge services in 2023, making 3,478 requests and saving 11,477 hours.

OUTSIDE THE U.S.

78 applications paid. \$297,000 paid total with an average of \$3,809 paid per application.

Fostering a culture of well-being and engagement

We aim for every employee to experience a sense of well-being in our workplace and the broader world that allows employees to achieve excellence and to thrive.

Promoting employee wellness, health and safety

Providing competitive and comprehensive benefits

Our Total Rewards program is designed to meet the needs of employees in local markets and includes retirement savings plans, financial advising, Long-Term Incentive (LTI) plans and incentive grants, company-paid life insurance and disability coverage, tuition reimbursement and college-planning services. Our global employee assistance program, Employee and Family Solutions, provides around-the-clock support to all employees and their family members worldwide. Services are comprised of confidential counseling, legal and financial advice, access to child and elder care resources, support with drug or substance use disorders and more. We also offer concierge services to assist employees in their daily personal tasks, such as making dinner reservations and booking travel.

To ensure we are providing competitive and comprehensive well-being support in all the geographies where we do business, we benchmarked our offerings against industry peers and market trends. While our initial analysis showed a positive finding with three-quarters of affiliates at or above local benchmarks, we raised the bar to have 90% of affiliates at or above benchmark by the end of 2023. After working with our affiliates to close important gaps, our subsequent review demonstrated that we exceeded this goal, with 93% of the countries above benchmark at the end of 2023.

By the end of 2023, our offices in 93% of the countries in which we operate had wellness programs at or above market, exceeding our goal of 90%.

It is generally recognized that healthcare costs are more affordable for those outside the U.S. To assess the burden on U.S. employees, we conducted an analysis to confirm our benefits program costs are equitable and to help ensure that our U.S. healthcare program is affordable for our employees. Projected medical expenses were compared to actual individual income to determine the percentage of income spent on healthcare. We exceeded benchmarks with overall very strong healthcare affordability.

Employees eligible for our annual bonus plan develop individual goals that align with and help execute Biogen’s overall strategic goals. Based upon the company’s performance against our corporate goals and individual performance, the annual bonus is designed to align financial rewards with the company’s pay for performance philosophy. Additionally, we offer LTIs in the form of stock grants to all employees of the company, representing an important element of compensation designed to drive results in an industry vying for talent while rewarding employees for company success.



Employees and their loved ones can access quality care and support across four dimensions of wellness: physical, financial, social and emotional.

Fostering a culture of well-being and engagement

Overview of key Biogen employee benefits

Employee benefit	100% of employees	90% or more employees	More than two-thirds of employees	Under consideration
FINANCIAL SUPPORT				
16 weeks paid birth-parent leave with 100% base pay		F/P		Global standard that all affiliate offerings are at or above local market relative to peers
8 weeks paid parental leave for non-birth parents			F/P	Global standard that all affiliate offerings are at or above local market relative to peers
8 weeks paid caregiver leave for any employee caring for a seriously ill family member			F/P	Global standard that all affiliate offerings are at or above local market relative to peers
Up to 5 days paid bereavement leave for death of family member, including pregnancy loss		F/P		Global standard that all affiliate offerings are at or above local market relative to peers
Up to \$10,000 (lifetime maximum of \$20,000) for adoption/surrogacy expenses			F/P	
\$1,000 for expenses associated with a birth doula			F/P	
Remote/hybrid employees eligible for a \$1,500 stipend to purchase home office equipment		F/P		
Medical travel coverage			F/P	
Paid time off	F/P			
Sick leave	F/P			
PRACTICAL SUPPORT				
On-site childcare			F/P	
Subsidized backup child and elder care with Bright Horizons			F/P	Evaluating capability to expand globally
Subsidized backup pet care			F/P	
Child and elder care resource and referral service	F/P			
Fitness facilities/virtual exercise classes			F/P	
Gym, fitness class, exercise equipment financial reimbursement			F/P	
Meditation courses	F/P			
No-cost access to mental health support (app, virtual counselor)	F/P			
Employee Resource Network	F/P			
Concierge services			F/P	
TIME AND FLEXIBILITY				
Flexible work arrangements	F/P			
8 hours paid time off to volunteer	F/P			
1 month paid sabbatical every 6 years	F/P			

Full-time (F): At Biogen, employees are eligible to receive benefits if they are regularly scheduled to work 40 hours per week.

Part-time (P): At Biogen, employees working fewer than 40 hours per week are considered part-time. Part-time employees working 20 or more hours per week are generally eligible for the same benefit as full-time employees with some benefits, such as vacation, pro-rated.

Fostering a culture of well-being and engagement

Mental health support

We continued to offer employees and their families convenient, free opportunities to support positive mental health and increase resilience. We make professional mental health consultants, online resources, and the health and happiness app Headspace available to employees.

U.S. offices also include reflection rooms, which are non-denominational spaces that are open to everyone for religious observations, personal meditation or just to step away from work for a moment to promote well-being.

Caring for caregivers

Parental leave and benefits

In the U.S., our maternity leave policy ensures that employees receive 100% of their base pay for up to 16 weeks, including eight weeks of short-term disability benefits and eight weeks of parental bonding leave. Non-birth parents, whether through adoption or surrogacy, are entitled to eight weeks of paid parental bonding leave.

For employees undergoing adoption or surrogacy, we offer reimbursement of up to \$10,000 (with a lifetime maximum of \$20,000) for related expenses. This benefit covers a range of costs, such as adoption and surrogacy fees, court and attorney fees, travel and lodging expenses, agency and placement fees, medical expenses for the birth mother and child prior to adoption or surrogacy, immigration fees, immunization and translation fees.

Additionally, all U.S. benefits-eligible employees may receive up to \$1,000 in reimbursement for expenses associated with birth doula services, which can include physical and emotional support provided to employees and their partners throughout pregnancy, childbirth and the postpartum period.

We provide on-site lactation rooms, on-site childcare facilities and breastfeeding support. In addition, we partner with Bright Horizons to offer early childhood education for infants through kindergarten prep and summer programs.

Right: Mochi and Boba are successfully navigating their crate training thanks to Biogen's PetCare benefit.



I was ecstatic to find out about emergency back-up PetCare after I got my two Boxer puppies, Mochi and Boba. The drop-in visits through Rover and Wag (two national pet-service businesses) have helped so much with their crate training period and have saved me from making daily 30-minute trips home during the workday.

—
Dondrea Purnell, Quality Control Associate in Virology at the Research Triangle Park, North Carolina, office

Fostering a culture of well-being and engagement

Outside the U.S., our benefits vary by country, and we regularly re-assess our offerings to help ensure we meet or exceed legal requirements and market standards. In 2023, for example, we enhanced paternity leave for our affiliates in Latin America and Switzerland, and we broadened adoption and surrogacy leave in our affiliates in Argentina, Mexico and Switzerland. We benchmark our programs regularly to ensure they are locally competitive.

Paid caregiver leave and support

Informed by our core business, we work hard to care for caregivers, for example by offering elder care planning and support. While the U.S. Family and Medical Leave Act and similar state laws generally offer up to 12 weeks of unpaid job-protected leave for caregivers of seriously ill family members, we go beyond providing time off by offering our U.S. employees full salary continuation for up to eight weeks of their caregiver leave, with additional unpaid leave available. As regulations and standards for paid leave differ across U.S. states and countries, we proactively assess leave practices to align them with the diverse needs of our employees, market practices and business priorities.

We also recognize that our employees’ pets are a key part of their families. We added company-paid pet care support, providing access to dog walkers, pet sitters and more for employees’ pets through PetCare.

Engaging our colleagues

Biogen’s Caring Deeply culture is one element that attracts top candidates to our company and a reason employees choose to stay. We seek to inspire employees through our purpose, mission and values – advancing a results-focused mindset. In 2023, our annual pulse survey revealed that while employees experienced uncertainty about Biogen’s direction, employee commitment to Biogen’s mission remains steadfast: Approximately 81% of participating employee respondents said they have a sense of purpose by doing meaningful work at Biogen, underscoring how deeply invested employees are with Biogen’s values and culture.



Fifty Employee Resource Group (ERG) members from eight of our ERGs were interviewed in a listening exercise to understand the perspective of employees on the range of benefits offered by Biogen:

88% stated that the benefits provided by Biogen offer enough flexibility to meet personal needs.

96% said that Biogen’s core benefits, such as healthcare and retirement savings, are competitive and support employee well-being.

We also gather employee feedback in several ways, ranging from global employee engagement surveys to performance appraisals to listening sessions facilitated by our Global Diversity, Equity & Inclusion team and more, helping to ensure ongoing pathways to engagement. We act on what we hear, promoting engagement through day-to-day work, onsite and virtual events and learning opportunities, and access to a variety of Employee Resource Groups (ERGs), among other opportunities.

Thrive@Biogen fosters constructive relationships between every manager and their direct reports. Beginning with an open 1:1 conversation and the creation of individualized plans for engagement and retention, regular meetings help to address barriers and celebrate progress. Thrive conversations are now fully integrated into formal quarterly performance appraisal discussions.



SWITZERLAND

Giusy Campanelli and Isabella Giovinzio, with 11 other employee volunteers, helped set up for the EuroGames, a premier multi-sports event celebrating diversity in sexual orientation and gender identity, by decorating the main square; setting up barriers, banners and signs; and constructing food stands.

Fostering a culture of well-being and engagement

In addition, employees and managers complement their formal appraisals with ongoing informal conversations to address goals, objectives and barriers to performance. We encourage constructive and honest discussions delivered in a caring way and through a lens of inclusion. Moreover, we take a multidimensional view of employee performance, soliciting feedback from peers, direct reports and other employees along with observations from direct managers on particular goals and objectives.

Offering flexible work arrangements

Our Ways of Working program allows employees the flexibility to manage their professional and personal responsibilities, providing telecommuting and flextime as well as part-time and job-sharing options. Roles include:

Hybrid: Split time on and off campus.

Off-Campus: Job tasks can be performed off campus and no consistent campus presence is needed.

Field: Tasks such as sales responsibilities are completed in the field.

On-Campus: All or most job responsibilities are performed on a Biogen campus.

We prioritize time away from work to allow our employees to relax, recharge and recover. New employees with Biogen are eligible for 15 days of paid time off, which increases one day annually during the next 10 years of service. Bonus vacation days are awarded to long-service employees at 15, 20 and 25 years of service. Employees also have the flexibility to use sick days for their own short-term illness or to care for a sick family member.

We observed 10 U.S. holidays, including providing employees with additional time off to celebrate personal days of significance. In 2024, we added two U.S. federal holidays – Indigenous Peoples' Day and Veterans Day – to reflect our commitment to diverse communities. Three personal days of significance (floating holidays) allow for further opportunities for time off. During the summer, employees in non-essential roles can also take advantage of "Summer Fridays," where offices close at 1 p.m.



I had many rewarding experiences because of the time off. I have been learning Japanese tea-making for more than 30 years. Because of the sabbatical, I could dedicate time to learn more about tea-making activities, and to be able to focus on what it takes to host so many guests in a beautiful tea room. Visiting the Community Lab in Cambridge was the most interesting activity for my sabbatical because I spent time with both Japanese and American students, which inspired me a lot. I appreciate Biogen's sabbatical program.

Takako Mitsui, Head of Corporate Affairs for Biogen Japan

Takako spent her four-week sabbatical experience progressing a level in her soba noodle-making certification; deepening her skills to hold a Japanese tea ceremony, a ceremonial preparation and presentation of green tea; and accompanying students from her former high school to attend Biogen's Community Lab. The four Japanese students spent a week learning hands-on science alongside U.S. peers. The picture above shows her engaged in one of her favorite hobbies: Japanese tea-making.

Fostering a culture of well-being and engagement

Recognizing the positive impact of collective time away from the office, we end the year with a company-wide shutdown from December 25 through January 1. In 2023, we also provided three additional collective days off as wellness days to allow employees space to truly disconnect and enjoy uninterrupted time to focus on themselves. Wellness days took place the week of Thanksgiving for employees located in the United States; employees outside the U.S. received these additional days off before the end-of-year shutdown.

Employee sabbaticals

After six years of employment with Biogen, employees can participate in our paid month-long sabbatical program to acquire new skills, travel, volunteer or spend time with loved ones. In 2023, 492 employees enjoyed a sabbatical.

Time off for civic engagement

At Biogen, we are strong supporters of civic engagement. Employees receive a day off to volunteer each year and are also provided with paid time off to vote or volunteer at polling locations.

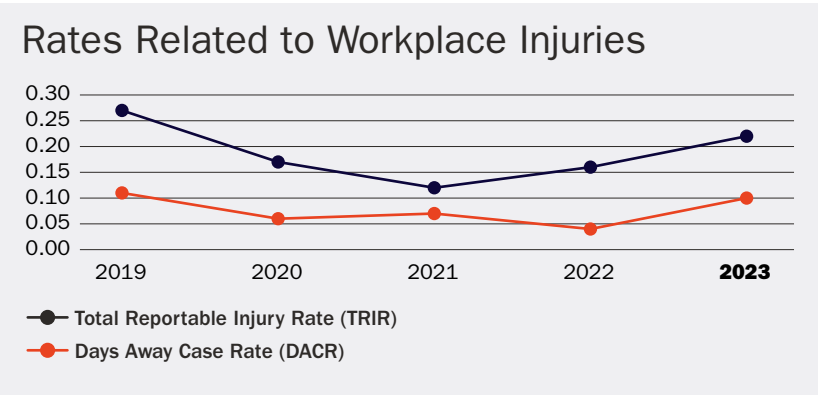
Reducing risk and promoting health and safety

We expect every employee to advance health and safety, whether they work in a lab, office or manufacturing plant. We integrate Human Performance principles into Biogen’s Environmental, Health and Safety (EHS) programs. This approach encourages proactive and collaborative problem solving through practices such as Open Reports and Work Observation and Risk Conversations.

We maintain a robust EHS management system, which documents all of our Occupational Health & Safety (OHS) management practices, including: risk and hazards assessments to identify what could cause harm in the workplace; prioritization and integration of action plans with quantified targets to address those risks; integration of actions to prepare for and respond to emergency situations; evaluation of progress in reducing/preventing health issues/risks against targets; procedures to investigate

work-related injuries, ill health, diseases and incidents; training to employees and contractors to raise awareness and reduce operational health & safety incidents; training to employees and contractors to raise awareness and reduce operational health & safety incidents and results of both internal inspections and independent external verification through ISO45001 and Carolina STAR. We also introduced safety criteria in procurement and contractual requirements.

In 2023, our Days Away Case Rate (DACR), which monitors the frequency of work-related illnesses and injuries that lead to a work absence, and our Total Recordable Injury Rate (TRIR) were both below the industry average. For our average DACR, we are ranked second among a peer group of 15 pharmaceutical/biotechnology leaders assessed every three years on this metric. We also have targets to reduce health and safety incidents to continue to strengthen the safety of our workplace.



EHS awards

Every year, we recognize employees who have gone beyond their core job responsibilities to promote health and safety for their colleagues, patients and our products, communities and the environment. In 2023, 70 individuals were recognized as EHS site award winners. The EHS leadership team then reviewed these winners to determine the following Global EHS Award winners:



BE SAFE

Recognizes individuals or teams that positively influenced health and safety issues.

The winner identified an improved isoflurane vaporizer with a lower air flow, making it safer for scientists using the equipment.



BE WELL

For a project, initiative or program that improved wellness.

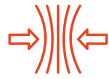
Biogen Poland volunteers launched the Biogen4us initiative to promote a culture of personal development and wellness, focusing on social interactions, energy management and well-being.



BE SUSTAINABLE

For a project, initiative or program that engaged Biogen employees and raised environmental awareness or improved environmental performance.

The Green IT Team delivered carbon footprint reductions in the Data Center and through Cloud Cost Optimization Program.



BE RESILIENT

Recognizes individuals or teams that enhanced work processes or systems to better recover from challenges and adapt work practices under dynamic conditions.

Biogen InfoBatch Batch Reporting software was upgraded, resulting in significant time savings from the previous method.

Supporting growth and opportunity

We strive to provide rewarding growth opportunities for all employees, creating a more skilled and engaged workforce. Biogen supports employees with training and professional development opportunities, regular assessments of individual performance and job-related feedback, and efforts to promote internal mobility, as well as access to a variety of ERGs.



Kedwin Rosa Pagan and Chaomin Li in one of Biogen's Cambridge labs.

Supporting growth and opportunity

Encouraging learning and development

Professional development can be achieved through various avenues at Biogen, including onsite learning, challenging assignments, mentoring, and in-person and online training. In 2023, employees dedicated an average of 37.4 hours to learning and development, including career- and skills-related training.

Orbit rotational program

Through our Orbit rotational program, employees who pursue short-term growth assignments beyond their current roles can broaden their experience, strengthen internal networks and contribute to meeting company deliverables. Since the program's inception in 2021, 1,221 employees have participated.

Our learning programs

We offer our employees a variety of learning and career development opportunities to help them flourish and achieve their professional goals:

Professional development: The Franklin Covey platform is available at all levels of the company to provide training and assessment services in the areas of individual effectiveness, leadership and business execution. We help our employees strengthen trust to build credibility, improve relationships and deliver results, positively impacting our culture and business performance. Our pilot program, which launched in early 2024, included 104 participants, with the potential to greatly expand the program.

The Partnership Programs: Continuing to bolster our talent pipeline with a diverse mix of leaders, our three Partnership Programs – BioDiversity Fellows Program, Associates Program and Mid-Career Leadership Accelerator Program – are focused on professionals in Massachusetts and North Carolina and aim to strengthen the leadership and career growth of our employees of color. In 2023, 115 employees took part in the year-long programs, building their business acumen and their relationship and organizational skills.



104

Participants
in Franklin Covey
pilot program

115

Diverse employees
in The Partnership
Programs

153

Employees in
Leadership
Development
Coaching program

276

Mentorship
pairs in Torch

Leadership development: Through this nomination-based program, selected employees participate in a six-month opportunity where they have unlimited access to professional coaches to develop critical professional skills, mindsets and behavior. In 2023, 153 employees participated in activities that allowed them to assess and understand their professional strengths and needs, clarify their value and capabilities, and plan their career future.

Torch: This six-month mentoring program pairs mentors who have significant business experience and mentees based on a skills assessment and mutual goals alignment. In 2023, 276 mentorship pairs were created.

LinkedIn Learning: All employees have access to LinkedIn Learning (LIL), an online learning platform that provides video courses taught by industry experts in business, creative and technological skills. In 2023, 82% of employees took advantage of accessing the platform.

Apprenticeships

Through our membership in the North Carolina Life Sciences Apprenticeship Consortium, we implement and sponsor a biotech apprenticeship program, offering apprentices structured, on-the-job learning.

Advancing diversity, equity and inclusion

We are committed to fostering a flourishing community where everyone feels valued and able to reach their full potential.

Strengthening our inclusive culture

Our diverse workforce allows us to tap into a broad range of skills, experiences and perspectives, which can lead to more innovative and effective solutions for our business and the patients we serve. Given its importance to our success, we seek to cultivate a work environment where all employees are empowered to contribute and express themselves authentically.

To this end, we re-envisioned and expanded our inclusion efforts in 2023 as part of our new cultural framework. Highlights include:

Redesigning our ERGs with clearer roles and responsibilities and launching a regional DE&I council for our global colleagues around the world.

Holding our third annual Week of Understanding, deepening a sense of connection and belonging for all employees. More than 1,300 employees attended 21 events that celebrated our differences and cultivated greater insight into relevant issues and experiences within our company and around the world.



Left: At our South Korea affiliate, a collective drawing was created, forming a symbol of what the Week of Understanding represents. The picture features many of the people, innovations and ideas that make Biogen, Biogen.

Creating a global gender transition guide and a global gender pronouns guide. The Global DE&I team created this document in partnership with ReachOUT, our LGBTQ+ ERG, and other internal allies. These guides strengthen employees' knowledge of the power of using gender pronouns, as well as provide a resource for employees who are considering gender-affirming care.

Participating in the Secretary of Defense Executive Fellows program, a yearlong executive-level fellowship that connects high-performing military officers with senior executives from industry to glean business practices, learn about corporate realities and gather insights to improve the U.S. Department of Defense's operational and organizational thinking.

Enhancing understanding of employee capability

Current events and societal concerns also influence our workplace. In 2023, our DE&I team held 19 listening sessions with 2,200 employees to provide a supportive forum for engagement around potentially challenging issues such as the earthquakes in Turkey and Syria, the U.S. Supreme Court overturning affirmative action in universities, personal financial health and mental well-being.

Along with the listening sessions, to help our global workforce collaborate with people from other countries and cultures, we provided access to GlobeSmart®, an online platform that offers resources to bring awareness of work style preferences and that provides customized guidance for working more inclusively with others and general cultural information. This past year, we further embedded GlobeSmart to equip leadership teams to work more effectively across cultures, creating a cohort of GlobeSmart®champions to conduct team sessions around the world. Since the program's launch in 2022, 83% of people managers have accessed it to better understand their work styles and further their cultural knowledge.

Reverse mentoring program

For a year, senior-level leaders were mentored by junior-level colleagues to drive cultural awareness in our Research Triangle Park Pharmaceutical Operations and Technology function. By sparking knowledge transfer and encouraging bidirectional learning, mentors shared their daily lived experiences, which included managing bias, microaggressions on the job and work-life balance. Mentees were encouraged to exercise self-introspection and lean in to their commitment of allyship as a leader.

Employee Resource Groups

OUR IMPACT ↓

Advances climate, health and equity at work, in employees' personal lives and in the communities where we live and work.



WOMEN'S INNOVATION NETWORK (WIN)

Creates networking, mentoring and learning opportunities for women and allies worldwide.

ACCESSIBILITY

Supports employees with disabilities and employees who are caregivers of individuals with disabilities.

IGNITE

Focuses on professional development and networking.



REACHOUT ↑

Supports a best-in-class working environment for LGBTQ+ employees and embraces all LGBTQ+ employees and their allies.

BIOPEN VETERANS NETWORK ↑

Encourages veterans and allies of veterans to connect and support one another.

PARENTING NETWORK GROUP (PNG)

Provides support, networking and development opportunities to working parents and caregivers, as well as helps employees navigate the challenges of work-life balance.

MOSAIC

Fosters awareness and appreciation of different cultural backgrounds, in addition to promoting networking and development opportunities for members.

Advancing diversity, equity and inclusion

Inclusion around the world

Our mission to create an inclusive culture also extends worldwide. Below are examples of the difference we're making globally:

The Australia affiliate developed a Reconciliation Action Plan to strengthen the relationship between Aboriginal and Torres Strait Islander peoples and non-Indigenous peoples.

The Germany affiliate embarked on an #areyoubiased campaign, releasing videos that explored and clarified the prejudices encountered by both Biogen employees and the patients whom we serve to confront our preconceived notions.

Biogen Taiwan was recognized for leading in inclusion in the first Taiwan LGBTIQ+ Inclusive Workplace Index, awarded because of their high marks in their inclusion commitment, policy and benefits, internal support system, internal training and external awareness.

Promoting diversity

It takes ongoing focus to ensure a workforce that represents diverse backgrounds, including race and ethnicity, people with disabilities, those who identify as LGBTQ+, veterans and others. In 2023, our efforts resulted in a U.S. employee population that is broadly reflective of the composition of the U.S. workforce overall, with 31.2% of roles Manager-level and above in the U.S. held by racially and ethnically diverse employees as we progress toward our goal of 34% in these positions by 2026.

Self-identification in the United States

Employee self-identification serves as a valuable tool for organizations to gauge their progress on DE&I initiatives. Just 10% of Fortune 500 companies publicly share employee self-identification data, and we're proud to be among this leading group.

Our current practice involves encouraging U.S. employees to voluntarily disclose demographic information, including race, ethnicity, gender, disability, veteran status, and sexual orientation and/or gender identity. While we maintain the confidentiality of each individual's information, these demographic data play a crucial role in helping us identify potential barriers to employment, advancement, retention, engagement and inclusion.



1,300

employees attended

21 events during Week of Understanding.

19 listening sessions with

2,200

employees held by the DE&I team to broaden employee awareness of current events and issues.

We believe the collected information allows us to allocate resources effectively, establish and cultivate relevant ERGs, tailor benefits to meet specific needs, identify potential areas of bias and propel initiatives that foster inclusion. In 2023, we ran a successful self-ID campaign in the U.S., aimed at increasing response rates overall.

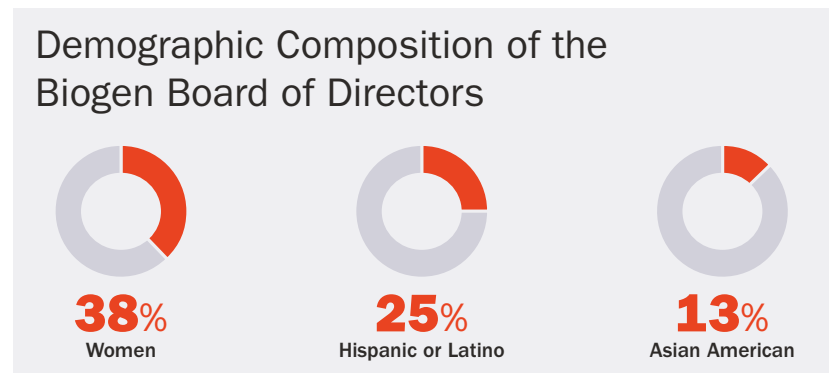
Gender equity

We strive to reach gender parity in roles at the Director level and above by 2026. Along with that, we are also focused on ensuring equal pay for equal work as outlined in our Philosophy on Pay Equity. As of 2023, 48.6% of global Director-level positions and above were held by women – a percentage that is at or above female workforce participation rates in all countries where we operate.

Looking ahead, we aim to conduct a pay equity analysis in 2024, focusing on gender globally and race and ethnicity in the U.S., where the law permits the collection of racial and ethnic data. We recognize the importance of pay equity to help ensure employees are treated fairly by eliminating wage disparities.

Diversity within our Board of Directors

Our Board regularly reviews its composition and aims to ensure it incorporates the experience, skills and diversity necessary for effective, independent oversight. The Board is made up of Directors with diverse skills and qualifications, including a range of professional and personal backgrounds. In April 2024, approximately 38% of the Board self-identified as women, 13% as Asian American and 25% as Hispanic or Latino.



Advancing diversity, equity and inclusion

STORY

Being your authentic self at work: Kali's story



In elementary school, Kali first realized that her gender was not aligned with the one she was assigned at birth. Her first attempt to reveal her identity was met with harsh criticism, so from that point on, she shielded her true identity from others. "I hadn't really received any support externally for being who I was," she reflects. "That always made me keep it close to the chest."

Not being able to be herself took a toll on Kali's overall mental health. So, five years ago, she decided she needed to formally transition. Soon thereafter, Kali joined Biogen as a contractor and was quickly offered a full-time position, at which time she launched her gender transition process.

Initially reluctant to tell most colleagues about her transition, she was heartened when her manager offered her full support and reached out to Biogen's Human Resources department on her behalf. "We formed a small team and discussed

how I wanted the announcement to occur," Kali said. "It made my coming out very supportive – so much, in fact, that it went better than expected. I spent two hours just responding to all the positive emails and words of encouragement."

"We aspire for every employee to feel a sense of belonging at Biogen," said Kendra Thomas, Biogen's Head of Diversity, Equity & Inclusion. "Ensuring our workplace is inclusive and open to diverse ideas is key for employees to have these types of discussions with their managers and colleagues. I'm proud that my team could support Kali during this transformative time in her life."

While her gender transition has not been without hardships, Kali has no regrets. Before she transitioned, she felt like she was doing what she could to survive, but now she is able to thrive. "I've had such an excellent experience with support from everyone," she said. "Honestly, it's one of the best decisions I've ever made."



\$156 M

In supplier diversity spend, 6.6% of our total addressable U.S. spend.



5/6 diverse supplier groups spending targets met.

Supplier diversity

To ensure that small and diverse firms have an opportunity to compete for Biogen's business, our Supplier Diversity Program includes minority-, women-, veteran-, service-disabled veteran-, LGBTQ- and disability-owned enterprises, as well as small businesses as defined by the U.S. Small Business Administration. As part of our purchasing procedures, we look to work with diverse suppliers that offer high standards of business ethics, service and quality.

In 2023, we drafted a Supplier Diversity Program Statement, summarizing the purpose, scope and key principles of our Supplier Diversity Program. It details reporting methods, how the program is managed and the diversity classifications that are tracked. We also established initiatives allowing for easier identification of diverse vendors through Biogen's RFX tool and a diverse vendor registration portal, providing a central listing of diverse vendors for current and potential sourcing opportunities. To expand supplier diversity awareness internally, we held a company-wide listening session and presented program information and goals to business unit leaders and procurement category leads.

Our supplier diversity spend for the year was \$156 million, 6.6% of our total addressable U.S. spend. By the end of the government fiscal year in October 2023, we met spending targets among five of six of our diverse supplier groups, falling short only on service-disabled veteran spend.



Employees celebrate after sorting 3,575 pounds of potatoes for distribution at Second Harvest, the largest food rescue organization in Canada.



COMMUNITY IMPACT

Collaborating with community members to drive meaningful impact and lasting outcomes



\$29.2M+

In grants, sponsorships, donations and in-kind contributions from Biogen and the Biogen Foundation.



750,000+

Meals provided to local food-insecure families.



10,000+

Volunteer hours logged by employees.



2,100+

Students participated in the Biogen Community Lab.

Key awards

- ★ #1 on the 2023 JUST 100 list for Employee-Led Giving and Volunteering
- ★ Recognized as a 2023 Top Charitable Contributor by the Boston Business Journal
- ★ Recognized on the 2023 Triangle Business Journal's Largest Corporate Philanthropists list



EXECUTIVE SUMMARY

We are driven to transform lives and create value for society, not only through our medicines but also by contributing funding, time and other support to our communities around the world. In 2023, Biogen and the Biogen Foundation contributed more than \$29.2 million in grants, medical grants, fellowships, matching gifts, sponsorships, donations and in-kind contributions.

Our community approach is dedicated to advancing better health by connecting high-need patients to quality care and training new and diverse talent to build a more inclusive healthcare ecosystem. Through the Biogen Foundation, we also seek to address social determinants of health, with a special focus on food insecurity. Together with inspiring nonprofit organizations, we helped provide more than 750,000 meals to families.

Caring Deeply for our communities is a core pillar of Biogen's culture. In 2023, employees volunteered more than 10,000 hours and contributed more than \$3.3 million in donations with Biogen Foundation match. Together, Biogen, the Biogen Foundation and Biogen employees also provided relief for communities affected by disasters, including more than \$450,000 in response to the earthquakes in Turkey and Syria.

Right: Employees in Japan led a chair yoga exercise class for elderly residents at a nursing home. At the same nursing home, more than 20 employees helped residents participate in a group chorus and book reading session.



Our values in action

Our rich history of community involvement reflects Biogen's ethical and inclusive culture and our credo of **Caring Deeply**. We invest in our communities through a variety of initiatives, including in-kind donations, corporate and Foundation grants, medical grants, sponsorships, fellowships and matching gifts. In 2023, Biogen and the Biogen Foundation contributed more than \$29.2 million worldwide.

Corporate giving

Biogen's corporate global grants and giving strategy aims to catalyze scientific innovation, address unmet patient needs and advance medical and disease education. In 2023, we awarded more than \$700,000 in grants to support independent medical educational activities for healthcare providers and researchers, educational activities for patients or caregivers, research fellowships for university faculty and infrastructure upgrades for healthcare organizations and institutions. We also contributed more than \$21 million in sponsorships to eligible organizations in connection with events and initiatives aligned with our medicines and therapeutic areas, supporting progress for patients.

Biogen Foundation

The Biogen Foundation is committed to advancing better health by engaging our employees and collaborating with high-impact partners in local communities. We activate our mission by working for equitable access to healthcare, addressing social determinants of health and building a more diverse healthcare workforce. The Biogen Foundation also powers employee impact, matching employee donations and supporting employee volunteerism. In 2023, the Biogen Foundation invested \$4.37 million in grantmaking for our local and global communities.



TAIWAN

Victor Chung, Audrey Hu, May Hwang, William Huang, Molly Chan and Catherine Tsai, along with other employees, sorted through and conducted a health check of hundreds of pairs of donated shoes for Step30 International Ministries. The shoes needed to be closely inspected to ensure there was no presence of jiggers, parasitic fleas that pose a significant health risk to impoverished people in East Asia.

Advancing health equity and improving health outcomes

To advance better health in our communities, we collaborate with employees and nonprofit partners to build a more inclusive healthcare ecosystem that can improve patient outcomes. Biogen and the Biogen Foundation have a particular focus on training new and diverse healthcare providers, targeting social determinants of health and reaching high-need patients.

Training a more diverse workforce

According to the Commonwealth Fund, "a diverse and representative health care workforce improves patients' access to care, their perceptions of the care they receive and their health outcomes, especially for patients of color." Guided by the conviction that diversity enriches our sector and improves learnings and outcomes, in 2023, Biogen and the Biogen Foundation worked with community partners to reach thousands of students through sciences classes, exhibits, fellowships and more.

Collaborations

With the support of the Biogen Foundation, Massachusetts General Hospital marked the fourth anniversary of the Mass General Youth Neurology Education and Research Program. Since 2020, the program has equipped 118 student interns with paid and mentored neurology research experiences and reached more than 500 participants in didactic learning sessions with leading neurologists and neuroscientists from diverse backgrounds.

In 2023, the Biogen Foundation also funded a new mental health curriculum as part of the North Carolina-based Duke University's Summer Training in Academic Research Program, an eight-week summer research opportunity for students to learn about clinical research. As part of this process, students completed a peer-reviewed research paper, supported by Duke University faculty mentors. The curriculum offered seven lectures focused on mental health topics, including changes in mental health

Advancing health equity and improving health outcomes



Left: Community Lab students Hafsa and Ishitha use chromatography to search for contamination in a mock-medicine.

from childhood to old age and harnessing motivation to enhance learning and overcome anxiety. The Foundation also supported the [Kenan Fellows Program for Teacher Leadership](#) at North Carolina State University, which provided [fellowships for local teachers](#) to engage in projects that would help students learn about local STEM career pathways and build career-ready skills.

Biogen also invests in collaborations to help diversify our [internship and co-op](#) cohorts. Biogen University Programs provides mentorships and financial support at Historically Black Colleges and Universities (HBCUs) and local community colleges. In 2023, we mentored students from Morehouse School of Medicine, North Carolina Central University, Shaw University and Xavier University of Louisiana. Biogen also supports [Project Onramp](#), a [Life Science Cares](#) program, through which Biogen offered paid summer internships, welcoming passionate and motivated four-year college students from low-income backgrounds interested in the life sciences industry.

The CoLab

Founded in 2002, the [Biogen Community Lab](#) is the longest-running hands-on corporate community science lab in the U.S. Traditionally, Community Lab classes have been led by Biogen employees, reaching middle and high school students. Since its inception, it has reached more than 64,000 students in 40 countries.

In 2023, the Community Lab piloted a new model, inviting an outside partner, [Lemelson-MIT](#), to offer new programming in the space. Following the pilot's success, Biogen is expanding the approach, inviting additional collaborators and local teachers to scale high-impact science education programs for middle and high school students, as well as young adults, at the Biogen Community Labs in Massachusetts and North Carolina. This refreshed approach will allow the Biogen "CoLab" to reach a greater diversity of students with a broader range of programming, ultimately creating a more diverse and effective healthcare ecosystem.

Right: Community Lab students Joey, Ramon and Troy use gel electrophoresis to determine the molecular makeup of a range of dyes.



Advancing health equity and improving health outcomes

STAR

In 2018, the Biogen Foundation founded the **STAR** (Science, Teacher support, Access and Readiness) initiative, a four-year, \$10 million commitment to catalyze the growth of STEM ecosystems across the Cambridge and Somerville school districts and to address equity in STEM professions. STAR brings together four high-performing nonprofits and two school districts to provide a network for students grades 6–12 that are historically underrepresented in STEM college and career pathways, including students of color, economically disadvantaged students and English language learners. Ultimately, the program aims to help young people access and succeed in STEM learning opportunities while developing a lasting passion for science and discovery. Now in its sixth year, STAR has served more than 4,000 students and more than 600 educators in Cambridge and Somerville. Through STAR, participating students have enrolled in and passed higher-level STEM courses at a higher rate than their peers.

Targeting social determinants of health

Social determinants of health are the non-medical considerations, such as housing quality or neighborhood safety, that influence an individual's health outcomes. According to the [World Health Organization](#), “social determinants can be more important than health care or lifestyle choices in influencing health.” Targeting social determinants of health – particularly food insecurity – is an important part of the Biogen Foundation's approach.

In 2023, the Biogen Foundation supported a range of high-impact organizations addressing food insecurity globally, including [Action Against Hunger](#), [Food Bank of Central and Eastern North Carolina](#), [Food For Free](#), [Greater Boston Food Bank](#) and [Inter-Faith Food Shuttle](#). These grantees encompass a wide spectrum of approaches to addressing food insecurity, ranging from operating community gardens to emergency food services, but all share the fundamental belief in food as medicine and in ending food insecurity as a barrier to health.

Right: Employees volunteer with Meals on Wheels of Wake County, driving eight routes with varying stops to deliver meals to approximately 76 homebound seniors in our community.



Teresa Cachero, Chair of the Biogen Foundation, and Biogen employees volunteer at The Greater Boston Food Bank's annual Day of Giving Telethon, raising more than \$285,500 for food-insecure members of the Boston community.

Organizing and participating in Caring Deeply events alongside fellow Biogen colleagues has been transformative to say the least. Through selfless acts, we've sparked ripples of positive change within Biogen and our community, discovering the profound joy in making a difference. Each act of service reminded us of our contribution to a brighter, more compassionate world.

Buthainah Al Rifaie (U.S.)

Biogen and Food For Free have been partners for nearly a decade, beginning when the Biogen Foundation funded the launch of Food For Free's “Heat-n-Eats” meal program. In 2019, Biogen built out a custom kitchen for the nonprofit to use at its Cambridge headquarters and to serve as the anchor point for much of Food For Free's operations. This kitchen is home to six weekly volunteer sessions that repurpose rescued prepared food into nourishing, single-serving frozen meals.

Prescribing food, revolutionizing health: The transformative impact of food as medicine

In Massachusetts, **one in three residents** face a silent yet pervasive threat: food insecurity. Many struggle daily to afford nutritious meals, forcing agonizing choices between basic needs like rent, medication and groceries.

But food insecurity isn't just about hunger. It can be the linchpin in a cascade of health issues, from mental health challenges like depression and anxiety to chronic conditions such as diabetes and heart disease. It can make it more difficult for adults to work and for children to learn. Lack of access to nutritious food sentences vulnerable people to a cycle of ill health and economic hardship.

To help address this issue, the Biogen Foundation supports a range of high-impact nonprofit programs, including **The Greater Boston Food Bank's Mobile Markets**. Through Mobile Markets set up at eight community health centers across the Greater Boston area, patients, caregivers and other community members can "shop" at tables set up like a farmers market and choose from a diverse selection of fresh produce, dairy products and high-protein foods.

"The Greater Boston Food Bank's Mobile Markets provide a non-stigmatizing way for community members to receive healthy foods from their health care center. Anchoring them in the medical home has made patients feel welcomed and cared for wholly by their medical provider," shared Lauren Fiechtner, M.D., M.P.H., Director of Nutrition, Division of Gastroenterology and General Academic Pediatrics at Mass General for Children and Senior Health and Research Advisor at The Greater Boston Food Bank.



"We need [fruit and vegetables], so I make the effort to get it because it's something very important. Sometimes one does not have enough to buy fruit," a frequent Mobile Market patron shared. "I am a single mother; I earn very little and so the market is a help. I feel that it helps me a lot."

The power of Mobile Markets was underscored by a 2023 study in the **New England Journal of Medicine's Catalyst Innovations in Care Delivery**, which found that community health center patients who participated in The Greater Boston Food Bank Mobile Markets experienced a reduction in depressive symptoms over a three-year period. Mental health improved for all Mobile Market participants, with people who were diagnosed with moderate or severe depression before they began shopping at the market experiencing the largest

Anchoring [healthy foods] in the medical home has made patients feel welcomed and cared for wholly by their medical provider.



Above: Tables are set up with fresh produce for community members at the Greater Lawrence Family Health Center Mobile Market.

Left: Fresh produce is packaged and ready for community members at the Cambridge Health Alliance Revere Care Center Mobile Market.

improvement. A majority of study participants were enrolled in Medicaid and spoke Spanish as a primary language, and about half received Supplemental Nutrition Assistance Program benefits.

"It is important to remember that community-based interventions may have important positive effects that go beyond their primary outcome," said study senior author Yorghos Tripodis, Professor of Biostatistics. "Furthermore, this study emphasizes the importance of food security in various aspects of a person's health."

The Biogen Foundation has proudly partnered with The Greater Boston Food Bank for more than three decades, investing countless volunteer hours and \$1.7 million, the equivalent of 3.4 million healthy meals for our neighbors in need.

Advancing health equity and improving health outcomes



Left: Students at Camp Harbor View's Summer Camp.

In 2024, the Biogen Foundation is building on our work with social determinants of health through a new partnership with [Camp Harbor View](#), a Boston-based nonprofit that works with more than 1,000 youth and their families. We are proud to support Camp Harbor View's Family Health Initiative, a program that will provide health advocacy to families through a social and emotional learning curriculum, clinical services and food assistance. Each year for the next three years, this grant will support more than 220 young people and their families.

In 2023 the Biogen Foundation also supported education, a major social determinant of health, addressing the needs of our local primary and secondary schools. This included \$164,000 in grants to Cambridge Public Schools, Somerville Public Schools and Durham Public Schools, as well as matching gift contributions from employees.

Reaching high-need patients

Many complex issues result in disparities in access to primary care in our local communities and around the world. We are working to address these barriers so the most vulnerable patients can find their way to the care they need.

In 2023, Biogen became a founding partner of The Robert A. Ingram Institute for Equitable Healthcare Access. The Institute will address the coordination of health support for patients in rural communities, implementing new care delivery models and enhancing access to health screenings.

With grantee [CareMessage](#), the Biogen Foundation reached nearly 60,000 patients in 2023 through CareMessage's patient activation platform that enables free and charitable clinics to communicate with patients, driving access to care and ultimately improving health outcomes. The Biogen Foundation also supported the [Durham Public Schools Foundation's Wellness, Healing, Opportunity, Learning & Equity \(WHOLE\) Schools Movement](#), a program that engages adults and students in Durham Public Schools with mental health programs and support.



Left: Yoko Horikoshi, Yuki Endo and Xin Fu clean rooms at Ronald McDonald House at Tokyo University Hospital for families with a child receiving treatment for a rare disease.

Advancing health equity and improving health outcomes



Left: Dr. Adlia Ebeid examines a patient at San José Clinic in Houston, Texas, one of the first clinics to pilot the Climate Resilience for Frontline Clinics Toolkit created by AmeriCares and The Center for Climate, Health, and the Global Environment at Harvard T.H. Chan School of Public Health.

In 2023, AmeriCares and the Center for Climate, Health and the Global Environment at the Harvard T.H. Chan School of Public Health, with founding support from Biogen, promoted the newly released [Climate Resilience for Frontline Clinics Toolkit](#). A first-of-its-kind resource, the toolkit is designed to help under-resourced healthcare clinics become more climate-resilient, promote continuity of health access and improve measurable health outcomes. In its first year, the free resources were downloaded more than 13,000 times by clinic providers and administrators and translated into Spanish to reach a broader audience. Clinicians described the resources as eye-opening, making an immediate, substantive difference in their awareness of climate-related hazards and in their ability to care for patients and counsel them in preparation for heat waves and other dangerous events. Trainings on the toolkit continue for clinics throughout the U.S. The toolkit has also been shared at global gatherings, including COP28, and on [heat.gov](#), the U.S. government's heat portal. Work is ongoing with international organizations to bring this support to frontline healthcare providers worldwide.



UNITED KINGDOM

Rachel Stewart, Elza Shibu Pynadath, Emma Seymour, Sophia Sethi and other Biogen volunteers painted sheds, planters and benches at Boyn Grove Dementia Day Centre's sensory garden. Boyn Grove offers stimulating activities for its members while their caregivers take a break.

I loved meeting fellow Biogen employees who I don't interact with on a day-to-day basis and also team members who I do work with but have never got to know (in five years!)

— Volunteer at Boyn Grove



Activating employees

True to the Biogen ethos of Caring Deeply, employees volunteered more than 10,000 hours and contributed more than \$3.3 million, with Biogen Foundation match, to 28 countries.

Caring Deeply is part of what we do at Biogen. This extends beyond our work or immediate family to give back and to never forget our shared humanity.

— Val O’Leary (Ireland)

CANADA

KC Galang, Rochelle Miranda, Karim Vassanji and Patricia Lavorata, along with 17 other employees, sorted potatoes at Second Harvest, the largest food rescue organization in Canada.



+ Look throughout the report for the Caring Deeply icon to see other ways our employees have volunteered throughout the year.



SOUTH KOREA

Kyle Han, Jihyun Youk, Heejung Park and Se Eun Hwang prepared food for more than 300 elderly residents with limited mobility or disabilities at Mapo Senior Welfare Center.



GERMANY

Daniela Weiss, a year-round volunteer with First Responder Chiemsee Nord e.V., accesses medical equipment and tools in a special emergency vehicle. Daniela is trained to provide first aid in remote and rural areas to bridge the response time until an ambulance arrives on the scene.

To me, there is nothing more important than helping people and, if possible, saving their lives. It’s really great to invest your free time in something so meaningful.

— Daniela Weiss

UNITED KINGDOM

25 employees transformed the outdoor space, painting fences and decking and jet washing outdoor shelters, at the Kiddies’ Cabin, the U.K. National Health Service’s nursery for children of healthcare providers.



ITALY

Silvia Lo Santo, Orietta Tipà, Giorgio Traversini, Filomena Sessa, Luca Viviani and Silvia Di Mastromatteo weeded around Parco Villa Gregoriana. Employees volunteered more than 70 hours cleaning the area surrounding both Parco Villa Gregoriana and the medieval Torba Monastery, two protected historic and environmental sites.





Some Biogen labs began using Biotix pipette tips, which contain 30% less plastic than other products.



ENVIRONMENT

Taking meaningful action to protect the environment and impact health and equity



100%

Of Biogen's labs certified by My Green Lab, the first large biotech to reach this milestone.



8

Product life cycle assessments completed to date.



66%

Of waste is reused, recycled, donated or composted, an increase of ~20% from 2022.

Key awards

- ★ Named to the 2023 Dow Jones Sustainability World Index for 11th time, receiving the distinction of Top 1% Standard & Poor's Global Corporate Sustainability Assessment Scores
- ★ Included in the 2024 S&P Global Sustainability Yearbook for the 7th year
- ★ Named to Newsweek's America's Greenest Companies 2024



EXECUTIVE SUMMARY

Acting on our understanding of the deep links between health and the environment, we refined our sustainability strategy to focus on three core pillars: responsible product development, sustainable operations and engaged suppliers.

In 2023, we became the first large biotech to have 100% of our labs certified via the My Green Lab program, with nearly 54% of our labs earning Green certification, the highest level possible. We also completed four product life cycle assessments (LCAs) for a total of eight LCAs completed to date.

Additionally, we maintained 100% renewable electricity across our sites and offices; and ensured that 66% of waste is reused, recycled, donated or composted, an increase of nearly 20% from 2022.

Last year, we also conducted an ESG risk assessment that reviewed more than 1,000 direct and partner (Tier II) supplier sites. We also are pleased that as of April 2024, 32% of our top 80% of suppliers, by 2023 spend, have set climate targets approved or pending approval by the Science Based Targets initiative.

We achieved these and other milestones and delivered cost savings thanks to the strong interest in sustainability among our employees. In 2023, more than 23% of our colleagues engaged in our environmental efforts, notably ourIMPACT, our Employee Resource Group (ERG) focused on sustainability.



Right: Biogen's recycling program for pipette tip boxes is helping to reduce waste.

Solothurn site champions sustainability

“As a pharmaceutical company, we’re in the business of improving lives, so we need to do our best to manufacture medicines in an environmentally sensitive way because human health and environmental health are deeply linked,” said Jose Sanchez, General Manager for Biogen’s Solothurn manufacturing facility, located in Switzerland.

Delivering on that ambition requires a forward-looking mindset and understanding that goals for planet, productivity and profit aren’t at odds. That perspective seems to permeate the site’s sustainability efforts – from reducing energy use to managing organic waste to engaging the local community. “We need to be aware of rising expectations. Here in Switzerland, there is significant respect for the environment, which sets the bar high,” Jose said.

The team in Solothurn is rising to challenge as the first Biogen facility to receive certification for ISO 14001, environmental management systems, and 45001, occupational health and safety management systems, one of the most difficult international certifications to obtain. The certification process involved more than a dozen colleagues and helped introduce even higher standards and enhance the site’s ways of working. The site adopted additional international sustainability standards through My Green Lab, a nonprofit recognized by the U.N. Race to Zero. In 2022, all of the site’s laboratories achieved Green-level certification, the highest possible, by

implementing 82–94% of identified opportunities for action, with progress continuing throughout 2023. Read more on My Green Lab [here](#).

With studies suggesting that the pharmaceutical industry’s biggest environmental impact comes from energy associated with manufacturing, energy efficiency is a priority. In 2023, the Solothurn team conducted feasibility studies for a planned solar power system. “We estimate that photovoltaics could contribute 6–11% of the site’s overall electricity, improving resilience and reducing carbon emissions,” noted Mirko Zanon, Head of Facility Engineering.

The team also developed a comprehensive waste collection system that sorts 12 categories of waste – from paper to organic materials – for recycling. A group of employees dedicated to waste works with external partners to find sustainable alternatives, like diverting expired raw materials to biogas plants instead of incineration. Seemingly small actions add up: In 2023, Biogen planned to reuse propylene glycol from maintenance activities and replaced the site’s single-use mops with reusable alternatives, which can reduce environmental impacts and the costs associated with materials, transport and waste. Together, these and other efforts are expected to eliminate at least 70–90 tons of waste annually, while also reducing costs for the company and mitigating potential supply chain risks.

“A passion for sustainability inspires my colleagues to find process improvements that benefit the company in other ways, as well. In turn, our environmental goals help us attract and retain top talent who want to work for a company that takes sustainability seriously,” Jose said.

Sustainability efforts can help strengthen our culture. For example, the ourIMPACT ERG has



Above: The Solothurn team works together to advance sustainability, health and safety.

40 passionate members in Solothurn who promote biodiversity via on-site beehives; a planned bike/e-bike rental program; and a popular free employee carpool service, which can help reduce emissions while bringing colleagues together. As part of the Biogen Creek Aquatic Discovery Program, employees volunteer to engage the community’s next generation of scientific thinkers in monitoring the quality of water in a creek that runs alongside our site, sparking a love of the environment early on. The program reached 35 school-aged children at each event in 2023. It was complemented by other community outreach efforts such as a “Repair, Don’t Replace” program focused on fixing phones and other electronics instead of discarding them.

“A better future starts with a shift in mindset. With sustainability as a goal, a passionate community of employees can work together to drive meaningful change through many small steps,” Jose said. “By looking at our operations through a sustainability lens, we’re also enhancing safety and quality, improving efficiency and reducing cost, which are all critical for our business. It’s all interrelated.”

Our strategy and approach to cross-cutting issues

Our strategy

We regularly review our environmental commitments within the context of our business performance, changing regulatory requirements, customer expectations and the broader marketplace.

Engaging with external stakeholders, our peers and communities

We believe that diverse perspectives can better position us to meet today’s challenges and plan for an uncertain future. As such, our environmental approach is informed by a variety of sources, including our ESG materiality assessment; issues monitoring; and regular engagement with a range of stakeholders, including those noted in the [Overview section](#) of this report.

In 2023, this approach helped us refine our environmental strategy across three core pillars:

RESPONSIBLE PRODUCT DEVELOPMENT



SUSTAINABLE OPERATIONS



ENGAGED SUPPLIERS



We expect to continue to evolve our approach and re-evaluate targets and timelines as we work to remain compliant with relevant laws and standards, and as we address context-specific opportunities and cross-cutting issues like those outlined below.

Tapping into employee passion

Caring deeply about the environment, we incorporate sustainability into our daily work. For example, 733 employees are actively involved in the My Green Lab program, with approximately 83 of them serving as Lab Ambassadors. We also collaborate and share new ideas throughout the company. Our Innovation Day showcased sustainable packaging and process sustainability projects, further engaging employees around opportunities to drive efficiency and reduce environmental impact.

More than 23% of employees participated in our environmental programs. Many tapped into their passion by coming together through ourIMPACT. In 2023, it offered programs, such as a carpooling service at our Solothurn site, and held more than 25 special events that advanced education, provided a platform for action and created community. Examples include zero-waste site planning sessions, clinics to “green” the setup of mobile phones and other electronic devices, bike repair workshops, environmental cleanup events, tours of our on-site beehives that support local ecosystems, and webinars on plant-based diets to promote employee and planetary health.



COLOMBIA

Andrea Da Pieve and other employee volunteers in Colombia planted 100 native trees and restored a school park.

Our strategy and approach to cross-cutting issues

Addressing cross-cutting issues

We continued to monitor and act on a range of sustainability concerns, from working to reduce plastic use to promoting ecosystem health with beehives at five Biogen sites. We also are focused on energy, water and waste, as outlined in this section.

Energy and emissions

Given rapidly evolving stakeholder expectations, our business performance and overall market conditions, in 2023 we began a strategic review of our greenhouse gas emissions reduction goals. That process is well underway, and we remain committed to complying with all applicable regulatory requirements, including science-based climate targets and disclosures.

Our approach includes direct purchase of green power, virtual power purchasing agreements (VPPAs) and purchasing unbundled renewable energy credits (RECs). Last year, we continued to invest in 100% renewable electricity, which we have maintained since 2014. We also worked to increase efficiency and lower our electricity usage, reducing both our Scope 1 and 2 emissions.

Water use and quality

Water is one key to community and ecosystem health, so we strive to use less; recycle more; and follow stringent water quality and safety standards, such as the EU's Strategic Approach to Pharmaceuticals in the Environment. In 2023, we experienced a slight decrease in our water use and identified ways to further reduce our impact, increasing the percentage of water that is reused or recycled from 4% in 2021 to 5.48% at the end of 2023.

For example, in Cambridge, Massachusetts, we identified an opportunity to improve the efficiency of a condensate cooling system. We designed three systems to capture and "reclaim" the discharge water for reuse in our cooling towers, a modification that will save 912,500 gallons of incoming and discharge water usage annually – nearly 10% of the site's total – while maintaining water quality.



66%

Of waste is reused, recycled, donated or composted, an increase of nearly 20% from 2022.

We also included water impacts in our product LCAs. To complement our internal water risk assessments, which show a low level of potential exposure, in 2023, we assessed hundreds of direct and Tier II+ critical supplier sites and found no sites with high-risk profiles. We also report our water policies, programs and progress to CDP, earning a "B" rating in 2023.

Waste reduction and management

We use techniques that allow us to recycle and reprocess the elements needed in medicine production, conserving valuable resources. We continue to focus on circular design thinking. By the end of 2023, 66% of waste was reused, recycled, donated or composted, an increase of approximately 20% compared to 2022.

For example, we implemented a new approach to waste collection in our manufacturing facility in Solothurn, expanding an already extensive recycling system to include aluminum cans, Styrofoam and organic material. Site efforts have eliminated at least 70–90 tons of waste annually, while also helping to reduce potential supply chain risks. For additional detail, see the Solothurn story in this section of the report.

Through these and other efforts, we reduced hazardous waste by 11% and total non-hazardous waste by 5% in 2023 compared to 2022.

We also achieved 95% diversion of waste from landfills globally, a metric that is slightly lower than in previous years due to supplier challenges in North Carolina, which we are working to address.

Pharmaceuticals in the environment

We also strive to ensure our therapies end up only where intended. Following the EU's Strategic Approach to Pharmaceuticals in the Environment, we meet or exceed all local standards for wastewater. We also engage with the Pharmaceutical Product Stewardship Work Group to inform our approach to the appropriate disposal of unused medicines and maintain compliance with multijurisdictional requirements to provide product take-back, including sharps management.

Responsible product development

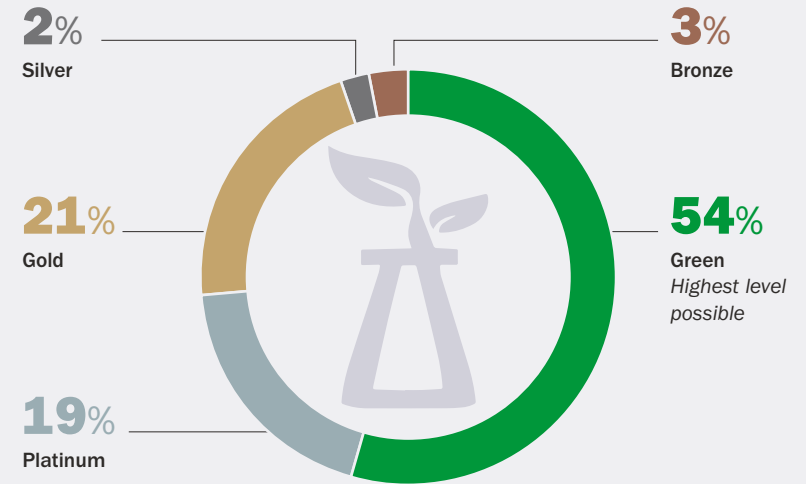
Our Principles of Sustainable Drug Development promote health, safety and sustainability in our work to discover, develop and manufacture new medicines that could transform the lives of those who need our therapies. In 2023, we achieved several important product sustainability milestones, from our labs through to packaging and end-of-life.



Left: Through the My Green Lab initiative, laboratories in Cambridge, Massachusetts, adopted Polycarbin as a solution for recycling single-use scientific plastics.

Certified 100% of Biogen labs by the end of 2023

Through the My Green Lab initiative, laboratories in Cambridge, Massachusetts, adopted Polycarbin as a solution for recycling single-use scientific plastics.



Greening our labs

According to the international nonprofit My Green Lab, laboratories are some of the most resource-intensive buildings of any kind and typically consume four times more water and 10 times more energy than offices do. As such, we are proud that we became the first large pharmaceutical company to certify 100% of its labs through the My Green Lab program, which has been recognized by the U.N. Race to Zero campaign as the leading standard for laboratory sustainability. Thanks to the commitment to continuous improvement across our labs in Europe, South America and the U.S. and the diligence of our employees, we achieved this milestone two years before our target.

Responsible product development

Assessments through My Green Lab cover 14 topics, including purchasing, resource management, energy, water and waste, as well as considerations ranging from plug loads to fume hoods. The process helps labs identify opportunities to improve, with labs given several months to implement changes. Nearly 54% of labs achieved Green lab status, the highest certification level possible.

For example, a Biogen lab in Cambridge, Massachusetts, began using Biotix pipette tips, which contain 30% less plastic than other products, and adopted Polycarbin as a solution for the closed-loop recycling of single-use scientific plastics such as pipette tip boxes. This resulted in the recycling of approximately 411 kilograms of plastic between May–December 2023. The team is now helping to share this information with colleagues in other labs to encourage its widespread adoption.

Conducting product life cycle assessments

Improving efficiency begins with data to identify the greatest opportunities for positive impact. In 2023, we conducted four LCAs of the ways our products impact the environment across the entire life cycle, for a total of eight LCAs to date.

We quantified the potential environmental impacts of TYSABRI® (both subcutaneous and IV-administered), including land use, energy consumption, water use, greenhouse gas emissions and air pollution impacts for products distributed in four markets where we have seen strong stakeholder interest in these issues: France, Germany, Sweden and the U.K. We analyzed topics that include:

- Material selection, from the weights and plastics for vials to boxes, cartons, leaflets and labels.
- Energy use, including manufacturing, distribution and cold storage.
- Medical waste and disposal, including incineration at end-of-life.

We found that a small number of energy-related processes have an outsized contribution to the energy demand footprint of the product configurations we analyzed. Notably, the same product has a greater climate impact in two of the markets we analyzed because those countries have a far greater reliance on coal in their electric grids. That is one reason why we ask our suppliers about their commitment

Right: Nicole Harris is a My Green Lab Ambassador in Cambridge, Massachusetts.



Responsible product development

to renewable electricity. We also found that the product's environmental footprint is significantly influenced by which specific delivery kit is used, a decision that is made by medical providers, not by Biogen.

These findings underscore the benefit of taking a holistic approach and opportunities to engage and share information with key players across the value chain, such as suppliers making choices about renewable energy options or hospitals purchasing delivery kits, or regulators who may require specific types of packaging or inserts. We also are focusing on areas we can more directly impact, developing an action plan to lessen the environmental footprint of the product. More sustainable choices also can address customer preferences and potentially improve the patient experience.

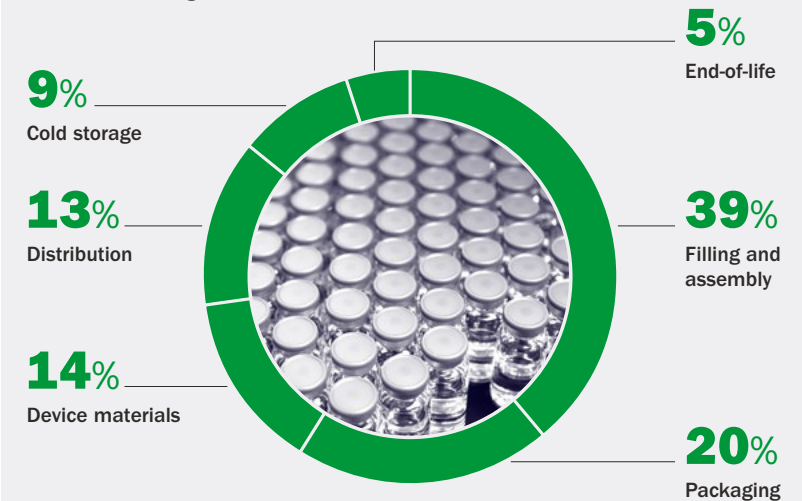
Making progress on packaging

We are thinking broadly about ways to deliver the best packaging solution for patients by considering simplification of the materials used in our devices and packaging, which we believe can promote access to medicine and sustainable health. Our ambition is to eliminate PVC from new product packaging in every case where alternative options can ensure quality and patient safety that is as good as or better than current approaches, while remaining compliant with waste management requirements in every market we serve.

To advance our goal, in 2023, we began evaluating the use of PVC alternatives to advance our long-term goal of more sustainable primary product packaging, including the next generation of medicine-delivery mechanisms. A few potential solutions involving innovative alternative materials showed promising results in early stability studies. We also made progress on removing plastic material from our secondary packaging, evaluating options for our legacy packaging programs and working closely with external experts to develop innovative materials. Our logistics team finalized qualification of a returnable cold chain shipper. This is part of our efforts to reduce the impact of cold storage, which can be a significant contributor to greenhouse gas emissions for pharmaceutical companies.

TYSABRI's carbon footprint

Many of the contributors to the product's carbon footprint are not within Biogen's direct control



To accelerate our efforts, we secured new lab equipment that enables in-house development and testing of product packaging options, providing greater agility and potential cost savings. Although it can take time to bring new pharmaceutical packaging to market while ensuring patient safety, product quality and compliance with regulatory requirements, we are optimistic that some of these innovations may be available as early as 2026.

Sustainable operations

Our approach to operations is informed by recognized international standards for best practices in Environment, Health and Safety (EHS) management. To ensure we remain in line with evolving expectations, we engage in a detailed external audit every few years. We are pleased that our North Carolina sites continue to be recognized by the Carolina Star Program, and our Solothurn facility is ISO 14001 and 45001 certified.

To help evaluate future sustainability improvements to our manufacturing processes, we developed a Green Scorecard that incorporates insights around efficiency and safety, two dimensions of process sustainability. We quantify process efficiency using different iterations of the process mass intensity (PMI) metric. The safety score relates to the relative safety of the raw materials used. We will implement the Green Scorecard to guide sustainability comparisons over the lifetime of relevant programs and between different initiatives, helping to identify opportunities for sustainable process improvements.



RESEARCH TRIANGLE PARK, NORTH CAROLINA

Muneeb Khan and Talonda Broadnax, along with 33 other employees, cultivated garden space with Foundation grantee Inter-Faith Food Shuttle at Food Shuttle Farm, Camden St. Learning Garden and Geer St. Learning Garden.

CDP CLIMATE SCORE

On a standard third-party assessment of climate commitments and initiatives, we outperformed the pharmaceutical industry as a whole.

Biogen

B

Pharmaceutical industry

C

Increasing energy efficiency

Increasing efficiency is one part of well-run business operations. We consider environmental impact and total cost of ownership when making purchasing and maintenance decisions, generally taking an end-of-life approach to major equipment changes.

For example, in 2023, our North Carolina site upgraded to a higher-efficiency boiler with an economizer. We anticipate that this equipment may transition to serve as a backup to ensure operational continuity as we eventually transition to electric options that meet evolving regulatory requirements and reduce emissions. Last year, we also completed a feasibility study to help evaluate the potential for an on-site solar system to help power our manufacturing facility in Solothurn. For more, read [“Solothurn site champions sustainability.”](#)

As of the end of 2023, electric vehicle (EV) options are available in approximately 35 countries where our employees may use corporate fleet vehicles. While there are barriers to adoption in various markets, this approach gives employees who use a Biogen fleet vehicle an additional option. In a number of locations, we also have installed chargers that can be used by fleet vehicles, employees who drive EVs and visitors to our facilities.

Engaged suppliers

As is the case for most companies, our greatest environmental impact involves our value chain. We are working to advance more sustainable procurement to guide us toward more sustainable choices and undergird our approach to this critical area.

Engaging suppliers to reduce environmental impact

We use a variety of approaches to engage suppliers around business and environmental concerns. By the end of 2023, we had assessed hundreds of key suppliers representing the majority of our spend, with our Supply Chain Sustainability CLEAN (Conscious Logistic Environment Action Network) designed to incorporate environmental impacts into supplier decisions, including emissions associated with distribution and logistics, cold chain solutions and packaging materials. Additionally, in partnership with Eisai, in 2023 we assessed 100% of key suppliers for LEQEMBI®, examining the impact of raw materials to promote a more sustainable and resilient supply chain for the manufacturing of that therapy.

We also track supplier commitments to renewable electricity and science-based climate targets. As of April 2024, 26% of our top 50% of suppliers, by 2023 spend, had committed to 100% renewable electricity by 2040; and 32% of our top 80% of suppliers¹ had near- and/or long-term targets approved or pending approval by the SBTi.



32%
Of our top 80% of suppliers¹ have targets approved or pending approval by the SBTi.



21.4%²
Decline of overall Scope 3 emissions from 2022.

Energize-ing change

Industry collaborations also can play a role. With nine other pharmaceutical companies, **in 2021**, we helped to launch Energize, a program with the bold ambition to decarbonize the pharmaceutical sector. The program helps pharmaceutical suppliers learn more about and increase their access to the renewable energy market. By the end of 2023, the program had expanded to include 20 leading pharmaceutical and biotech companies, engaged **more than 500 suppliers** and won the **CPHI sustainability award**.

1. By 2023 spend, as of April 26, 2024, inclusive of near- and long-term targets.
2. Emissions decreased approximately 20% from our 2019 baseline.



REPORTING

Advancing transparency on ESG issues

Highlights

- ★ Aligned disclosures with TCFD and SASB
- ★ Secured limited third-party assurance on ~55 data points
- ★ Advanced transparency via CDP, MSCI and ISS, among others

About this report

We have long been committed to transparency through a variety of channels, from participation in ratings programs as the Dow Jones Sustainability World Index to content shared in this report. Our approach to disclosures reflects our business priorities and evolving stakeholder expectations, including key issues illuminated by our environment, social and governance (ESG) materiality assessment (see illustration on next page).

This report also is guided by the GRI Standards (formerly, Global Reporting Initiative) principles for defining report content. The GRI content index provides a view of the material questions and relevant indicators that are addressed throughout this document and through supplemental disclosures. This report includes disclosures aligned to the International Sustainability Standards Board’s SASB Standards and the Task Force on Climate-related Financial Disclosures (TCFD).

Scope of this report

Unless otherwise indicated, Biogen’s 2023 Corporate Responsibility Report reflects data from the period January 1, 2023 – December 31, 2023. We make every effort to note any instances where information reflects activities that may have begun in 2023 but were publicly disclosed in 2024. Additionally, some commitments and programs discussed in this report began prior to 2023 and may extend into 2024 and beyond. The report was published in April 2024.

The financial indicators include the company’s consolidated financial statements. Data in this report cover the company’s global operations and consolidated subsidiaries. Our operations in 2023 encompassed our major facilities in Massachusetts and North Carolina in the United States and in Switzerland. Our global offices and commercial vehicles are also covered in this report. Unless otherwise noted, social indicators include full-time Biogen employees.

Environmental indicators include impacts from 100% of Biogen operations including owned and leased facilities. Air emissions and waste data exclude small commercial and sales offices. CO₂ and dry ice, other non-material factors and Reata-acquisition-specific metrics have been excluded

from Scope 1 and Scope 2 data where applicable, based on identification below Biogen’s 5% materiality threshold. Sources of greenhouse gas (GHG) emissions include electricity, natural gas, diesel, gasoline/petrol and refrigerants. Water use includes municipal water, groundwater, fresh surface water, rainwater and wastewater. Primary sources of waste include Biogen’s operations, as outlined above, and include non-hazardous, hazardous and biohazardous waste. GHG emissions data were informed by the World Resources Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol: A corporate accounting and reporting standard, revised edition (WRI/WBCSD GHG Protocol).

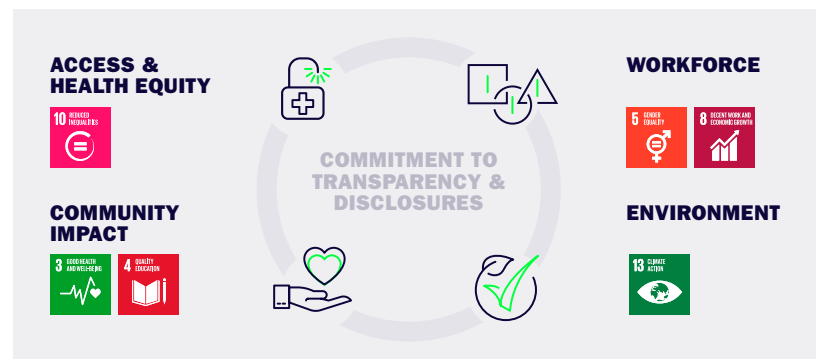
Third-party assurance

Environmental Resources Management Certification and Verification Services (ERM CVS) assured 2023 data for several indicators, including greenhouse gas (GHG) emissions and select environmental and social indicators. The [Independent Assurance Report](#) provides details of the assurance scope, assurance standards used, work undertaken and conclusions.

U.N. Sustainable Development Goals alignment

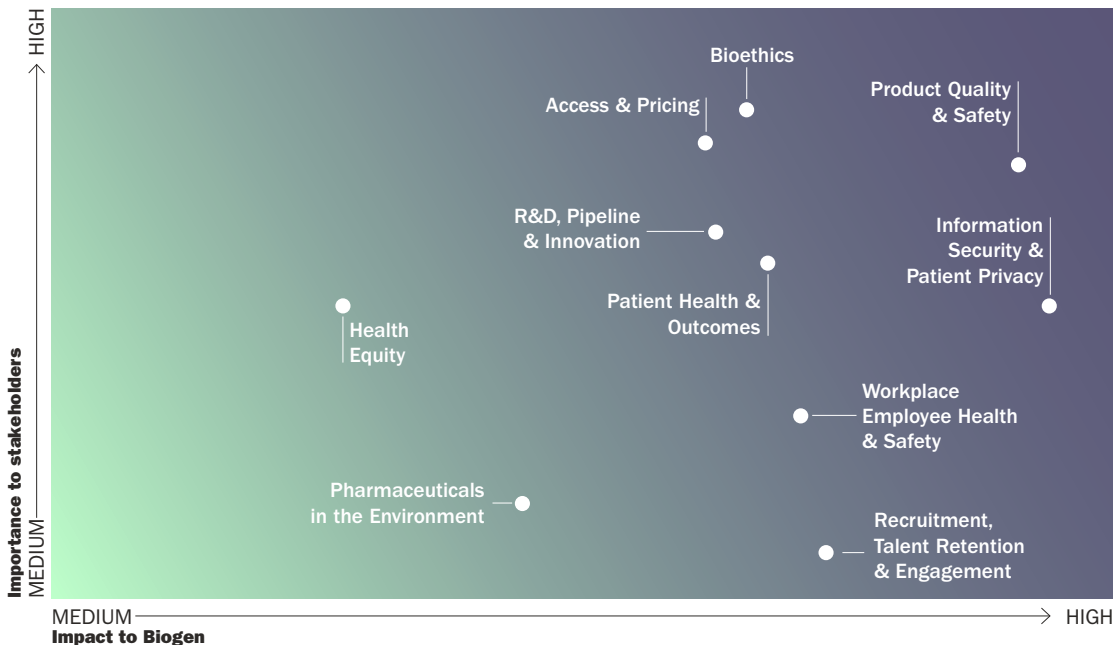
As a signatory to the United Nations Global Compact, we communicate about the ways that our business may help advance many of the 17 United Nations Sustainable Development Goals (SDGs), with an emphasis on those most relevant to our business, including:

- Access & Health Equity: SDG 10
- Community Impact: SDG 13
- Workforce: SDGs 5 and 8
- Environment: SDG 13



About this report

Materiality Grid



Above: Conducted in 2021, Biogen's ESG materiality assessment involved outreach to more than 5,000 stakeholders, spanning employees, healthcare professionals, patient advocates, government officials and community groups. Our next assessment will take place in 2024, ensuring ongoing evaluation of our materiality.

Access & Pricing

Expanding the availability of affordable medicines for patients, including to the world's poor, by improving the obtainability of medicines and developing appropriate pricing models. This encompasses working with patient advocacy groups (PAGs).

Bioethics

Addressing ethical issues emerging from advances in biology, medicine and technology, linked to public health, public policy, law, environment and well-being.

Health Equity

Allowing people to attain their full health potential so that no one is marginalized based on their social position or other circumstances.

Information Security & Patient Privacy

Adopting and implementing policies and practices that safeguard the privacy of patient information and protect data from unintended intruders.

Patient Health & Outcomes

Ensuring that patients are properly and effectively informed regarding medicine usage and the continuous improvement in health outcomes occurring as a result of usage. Outcomes may be measured clinically (e.g., physical examination, laboratory testing and imaging), self-reported or observed.

Pharmaceuticals in the Environment

Addressing types of environmental pollution from discarded pharmaceuticals, including in rivers, lakes and other bodies of water, and assessing and mitigating possible impacts and health risks.

Product Quality & Safety

Pursuing high standards in product quality and safety, including management systems and auditing, that meet or exceed regulatory requirements.

R&D, Pipeline & Innovation

Developing innovative products that treat systemic, challenging and complex medical issues and address the unmet medical needs of patients around the globe.

Recruitment, Talent Retention & Employee Engagement

Attracting and retaining top talent while also finding ways to keep employees motivated and committed to the company.

Workplace Employee Health & Safety

Undertaking efforts to assess and mitigate potential risks that could impact the health, safety or welfare of workers and implementing activities or programs to provide employees with a safe and healthy workplace.

ESG data table

ERM CVS provided limited third-party assurance on data related to climate and energy, water, waste, social and safety (bolded data points).

	GRI code	Units	2020	2021	2022	2023
GOVERNANCE						
About Biogen						
Revenue	201-1	Million USD	13,445	10,982	10,173	9,836
R&D Spend		Million USD	3,991	2,501	2,231	2,462
No. of Employees	2-7	#	9,340	9,832	8,725	7,570
No. of FTEs	2-7	#	9,192	9,586	8,610	7,455
No. of R&D Employees	2-7	#	2,284	2,366	1,613	1,364
Workforce Located in U.S.	2-7	%	N/A	57	57	55
ESG Ratings, Rankings, and Assessments¹						
S&P Global Corporate Sustainability Assessment (DJSI)		Score	85 (Industry Leader)	84 (Industry Leader)	71	69 (Industry Leader)
MSCI		Rating	A	A	AA	AA
ISS ESG		Rating	C+ (Prime)	C+ (Prime)	C+ (Prime)	B- (Prime)
Sustainalytics		Risk Score	23.5	21.3	22.3	22.2
Human Rights Campaign's Corporate Equality Index		%	100	100	100	100
Disability Equality Index's Best Places to Work		%	100	100	100	100
CDP Climate Change		Rating	B+	B	B	B
CDP Water		Rating	B	B	B	B
100 Best Corporate Citizens		Rank	62	17	30	15
JUST Capital's America's Most Just Companies		Rank	150	36	41	33
United Nations Global Compact		Signatory or Participant	✓	✓	✓	✓
Pharmaceutical Supply Chain Initiative Member		Signatory or Participant	✓	✓	✓	✓

ESG data table

	GRI code	Units	2020	2021	2022	2023
ENVIRONMENTAL						
Climate						
Scope 1 (Fossil Fuels and Refrigerants)	305-1	MT CO ₂ e	57,553	63,182	64,867	57,237
Scope 2 – Market Based (Electricity and Steam)	305-2	MT CO ₂ e	280	268	335	373
Total Scope 1 & 2 (Market Based)	305-1, 305-2	MT CO ₂ e	57,833	63,450	65,202	57,611
Total Purchased Carbon Offsets ²	305-5	MT CO ₂ e	29,637	0	0	0
Scope 2 – Location Based (Electricity and Steam)	305-2	MT CO ₂ e	36,953	34,262	31,765	31,059
Scope 3 ^{3,4}	305-3	MT CO ₂ e	348,911	406,442	434,635	304,105
› Category 1 – Purchased Goods and Service ⁵		MT CO ₂ e	254,670	321,610	334,900	225,728
› Category 2 – Capital Goods ⁶		MT CO ₂ e	41,356	34,506	40,859	27,466
› Category 3 – Fuel- and Energy-Related Activities		MT CO ₂ e	8,755	11,793	12,219	10,325
› Category 4 – Upstream Transportation and Distribution ⁷		MT CO ₂ e	17,701	17,148	13,622	10,609
› Category 5 – Waste Generated in Operations		MT CO ₂ e	487	354	457	503
› Category 6 – Business Travel		MT CO ₂ e	4,038	2,232	10,240	10,740
› Category 7 – Employee Commuting ⁸		MT CO ₂ e	2,661	2,227	11,458	11,932
› Category 7 – Employee Work from Home		MT CO ₂ e	9,531	9,652	1,702	1,581
› Category 8 – Upstream Leased Assets		MT CO ₂ e	0	0	0	0
› Category 12 – End-of-Life Treatment of Sold Products		MT CO ₂ e	9,141	7,003	9,177	5,220
Scope 3 (percent of Scope 1, 2 & 3)	305-3	%	86	86	87	84
Total Value Chain (Scope 1, 2 & 3)	305-1, 305-2, 305-3	MT CO ₂ e	406,139	469,909	499,837	361,715
Suppliers that Set or Pledged to Set a Climate Goal via the Science Based Targets Initiative		%	N/A	18	23	32
Suppliers that have Committed to 100% Renewable Energy by 2040		%	N/A	26	37	26
Air Quality						
CO Emissions	305-1, 305-2, 305-3	MT	6.9	4.5	9.3	8.7
NO _x Emissions	305-1, 305-2, 305-3	MT	19.8	13.3	18.9	17.5
SO _x Emissions	305-1, 305-2, 305-3	MT	2.9	1.9	3.2	2.3
VOCs Emissions	305-1, 305-2, 305-3	MT	0.9	1.0	5.2	5.1
Energy						
Total Energy Use		MWh	444,147	471,895	474,160	435,314
Renewable Electricity		MWh	139,958	143,470	136,356	133,329
› PPA/Direct Contract	302-1	MWh	4,498	44,627	38,422	36,210
› Renewable Energy Certificates	302-1	MWh	135,460	98,843	97,934	97,119
› On-Site Generation	302-1	MWh	0	0	0	0

ESG data table

	GRI code	Units	2020	2021	2022	2023
Non-Renewable Energy		MWh	304,189	328,452	337,804	301,985
› Fossil Fuels (Gas, Oil, Diesel, Gasoline)	302-1	MWh	303,576	327,337	337,323	301,550
› Municipal Steam	302-1	MWh	490	980	393	296
› Electricity	302-1	MWh	124	108	89	140
Energy Intensity	302-3	MWh/MM USD revenue	33	43	47	37
Global Renewable Electricity ⁹		%	100	100	100	100
Renewable Energy (% of Total Energy)		%	N/A	N/A	N/A	31
Water						
Water Use (ex. Non-Contact Cooling Water)	303-3, 303-5	Million Cubic Meters (m ³)	1.035	1.090	1.064	1.068
Water Use Intensity		m ³ /MM USD revenue	77	99	104	109
Water Reused/Recycled ¹⁰		%	7	4	6	5
Water Withdrawal		Million m ³	1.265	1.216	1.237	1.197
› Municipal Supply (Potable & Gray Water)	303-3	Million m ³	0.590	0.581	1.018	1.009
› Fresh Surface Water (Non-Contact Cooling)	303-3	Million m ³	0.303	0.166	0.218	0.187
› Rainwater	303-3	Million m ³	0.0010	0.0010	0.0010	0.0009
Water Discharges		Million m ³	0.806	0.893	0.941	0.894
› Fresh Surface Water	303-4	Million m ³	0.303	0.166	0.218	0.187
› Wastewater	303-4	Million m ³	0.503	0.727	0.723	0.707
Waste						
Non-hazardous Waste¹¹	306-3	MT	2,841	3,510	4,224	4,012
› Reused ¹²	306-3	MT	39	76	127	195
› Recycled ¹³	306-3	MT	527.0	497.8	639.1	648.1
› Composted	306-3	MT	909	200	1,574	1,800
› Energy Recovery via Anaerobic Digestion	306-3	MT	0	0	0	0
› Waste to Energy ¹⁴	306-3	MT	879	1,361	1,336	1,154
› Incineration	306-3	MT	455	1,367	429	12
› Landfill	306-3	MT	32	6	119	203
› Non-hazardous Waste Intensity	306-3	MT/MM USD Revenue	0.21	0.32	0.41	0.41
› Waste to Landfill Diversion	306-4, 306-5	%	99	100	97	95
› Recovery & Recycling Rate (Non-hazardous Waste)	306-4, 306-5	%	52	22	55	66
Total Hazardous and Biohazardous Waste	306-4, 306-5	MT	208	269	237	208

ESG data table

	GRI code	Units	2020	2021	2022	2023
SOCIAL						
Community Engagement and Giving						
Total Foundation Grants ¹⁵		Million USD	16.4	6.1	5.8	4.4
Employee Matching Gifts Program ¹⁶		Million USD	2.5	2.1	2.1	1.7
Corporate Grants and Sponsorships ¹⁷		Million USD	72.4	71.0	52.5	22.5
Volunteer Hours		Hours	4,369	14,493	15,485	10,071
Responsible Supply Chain						
Supplier Diversity Spend		Million USD	173	230	196	156
Supplier Diversity Spend of Total U.S. Spend		%	8.1	11.8	11.0	6.6
Workforce						
Women in:						
› Workforce	2-7, 405-1	%	53.5	53.9	52.8	53.0
› Management (Level 9+) ¹⁸	2-7, 405-1	%	51.7	53.1	52.2	52.7
› Director Level and Above	2-7, 405-1	%	49.0	47.6	47.4	48.6
› Management in Revenue-Generating Functions (Level 9+) ¹⁹	2-7, 405-1	%	52.3	53.4	52.6	53.7
› STEM-Related Positions ²⁰	2-7, 405-1	%	44.6	48.8	49.8	49.4
› Top Management (VP+)	2-7, 405-1	%	42.9	44.6	45.1	46.8
› Executive Team	2-7, 405-1	%	29	25	46	46
› Board of Directors	2-7, 405-1	%	17	23	18	33
Demographics in Workforce (U.S. Only)						
› Asian American	405-1	%	16.9	17.4	17.6	18.1
› Black or African American	405-1	%	12.2	11.6	10.7	11.2
› Hispanic or Latino	405-1	%	5.1	4.8	3.8	3.6
› Indigenous or Native American	405-1	%	0.3	0.4	0.2	0.3
› Native Hawaiian or Other Pacific Islander	405-1	%	0.1	0.1	0.1	0.1
› White	405-1	%	63.4	63.6	59.2	58.0
› Two or More Races	405-1	%	1.1	1.5	1.8	1.6
› No Response	405-1	%	0.5	0.6	6.6	7.2

ESG data table

	GRI code	Units	2020	2021	2022	2023
Demographics in Management (U.S. Only; Level 9+)						
› Asian American		%	18.5	19.5	19.7	20.2
› Black or African American		%	5.3	6.6	5.5	5.4
› Hispanic or Latino		%	4.9	4.7	3.6	3.6
› Indigenous or Native American		%	0.1	0.2	0.2	0.2
› White		%	69.4	67.1	63.4	62.5
Director-Level and Above Positions Held by Racial Minorities (U.S. Only)	2–9, 405–1	%	28	26	27	31.2
Other Underrepresented Groups						
› Workforce Age 29 or Younger	405–1	%	9.8	8.5	8.1	10.0
› Workforce Age 30 to 50	405–1	%	67.8	67.8	61.4	65.0
› Workforce Age 51 or Older	405–1	%	22.5	23.7	30.5	25.0
Demographics in Board of Directors²¹						
› Asian American	2–9, 405–1	#	N/A	N/A	N/A	1
› Hispanic or Latino	2–9, 405–1	#	N/A	2	2	2
› White	2–9, 405–1	#	N/A	9	7	5
› Did Not Disclose Demographic Background	2–9, 405–1	#	N/A	1	1	1
Represented by Union/Collective Bargaining Agreement	2–30	%	26	28	26	9
Talent Attraction, Retention & Turnover						
Employee Satisfaction		%	86	73	75	62
Engagement Survey Response Rate		%	74	71	75	73
Open Positions filled by Internal Candidates	401–1	%	19.5	23.4	31.0	27.0
Training and Development	404–1	Avg Hours/Employee	38	32	32	37
Turnover Rate						
› Voluntary Turnover	401–1	%	7.2	11.0	14.8	10.1
› Involuntary Turnover	401–1	%	1.8	3.0	9.6	22.9
Gender Pay Assessment²²						
› Executives	405–2	%	N/A	1.02	1.02	1.02
› Management	405–2	%	N/A	0.95	1.00	0.96
› All Other Professionals	405–2	%	N/A	0.99	0.99	1.03

ESG data table

	GRI code	Units	2020	2021	2022	2023
Occupational Health and Safety						
Employee and Type 1 Contractor Total Recordable Incident Rate (TRIR)	403-9	Cases/200,000 working hours	0.17	0.12	0.16	0.22
Employee and Type 1 Contractor Days Away Case Rate (DACR)	403-9	Cases/200,000 working hours	0.06	0.07	0.04	0.10
3-Year Average DACR Industry Rank	403-9	Rank	2	2	2	2
Number of Fatalities for Employees	403-9	#	0	0	0	0
Number of Fatalities for Contractors	403-9	#	0	0	0	0
Motor Vehicle Collisions (U.S. Fleet) ²³	403-9	Collisions/million miles	6.9	4.5	3.5	3.6

Footnotes for the ESG Data table

1. Year of the result is based on the ranking publication year, which may use data from other time periods per the publication's methodology.
2. 2020 was the last year Biogen purchased carbon offsets as part of our climate strategy.
3. Scope 3 Categories 10, 11, 13, 14 and 15 were determined to be not applicable or negligible.
4. Scope 3, Category 9 is identified as an immaterial category of emissions. However, we do plan to disclose data when it has met our data quality requirements.
5. Metric reflects data collection from 90% of the top suppliers. Biogen recognizes a decrease in the 2023 value due to updated emission factors and a decrease in spend due to business climate.
6. Metric reflects data collection from 90% of the top suppliers. Biogen recognizes a decrease in the 2023 value due to updated emission factors and a decrease in spend due to business climate.
7. Metric reflects data collection from 90% of the top suppliers.
8. Reflects ongoing shift toward hybrid and in-person work.
9. Biogen maintained 100% renewable electricity (as defined by RE100) in all markets where we operate.
10. Data reflect percentage of reclaimed water on-site, harvested rainwater and municipal gray water compared to total water use.
11. All waste disposal methods are covered in these metrics; no waste is disposed of by other methods.
12. Data include non-hazardous waste generated by Biogen operations (e.g., non-hazardous solid waste and trucked off wastewater). Waste derived from construction and demolition debris, incinerator ash and other contractor activities is not included.
13. Re-use continued to increase for a variety of reasons, notably the donation of material goods in Cambridge, Massachusetts.
14. Biogen uses both co-processing programs and non-hazardous waste with energy recovery, which is generated by incineration.
15. Includes all grants awarded by the Biogen Foundation exclusive of the Biogen Foundation's Employee Matching Gifts Program. Total in foundation grants is inclusive of STAR Initiative investment.
16. Employee matching gifts consists of Foundation giving through 1:1 and 2:1 donation campaigns. With Foundation match, Biogen employees donated more than \$3.3 million to organizations around the world.
17. Corporate Grants and Sponsorships includes Global Medical Grants and Patient Education Grants, General Grants, Infrastructure Grants, Fellowships and Sponsorships.
18. Percentage includes employees at Manager level and above.
19. Includes Manager-level employees and above. Revenue-generating functions include Pharmaceutical Operations & Technology, Commercial, Research & Development, Worldwide Medical and Biosimilars.
20. STEM-related Positions (Science, Technology, Engineering and Mathematics) roles at Biogen are defined by specific "job families" as assigned to job positions and include categories such as Worldwide Medical, Technical Development, Research & Development, Quality, Pre-Clinical Safety, Manufacturing, IT, Engineering, Clinical Sciences and Biotherapeutic & Medicinal Sciences.
21. Racial and ethnic demographics that do not apply are excluded from the calculation.
22. The gender pay assessment includes data covering all permanent global employees adjusted for the number of women and men at each level within the organization for base compensation only. The ratio is calculated by averaging the mean base pay for women in the stated role in comparison to the mean base pay of men in a similar role.
23. Collisions metric is compiled based on data from Wheels, Biogen's primary fleet management firm.

SASB index

Code	Accounting Metric	2023 Response
HC-BP-210a.1	Discussion, by region, of management process for ensuring quality and patient safety during clinical trials	<p>Biogen has a Global Pharmacovigilance (PV) team that includes medical and scientific professionals with extensive safety clinical, and/or healthcare experience. They are trained in PV and health authority regulations relevant to medicinal product safety in the markets where Biogen operates.</p> <p>Biogen's safety signal management processes, combined with our robust safety governance framework, allow Biogen to determine if new safety information on our products (a "signal") poses a risk to patients and how best to manage, mitigate and communicate the risk. All safety and benefit/risk decisions for marketed and investigational products are made at the Safety Monitoring Committee (SMC). The Safety team collaborates with Regulatory Affairs and others within Biogen to communicate product information in a timely, transparent and accurate manner to regulatory agencies and other stakeholders across the globe.</p> <p>In addition to complying with our company's global standards, the conduct of our clinical trials adheres to the International Council for Harmonization Good Clinical Practice (ICH GCP) standards and to the principles that have their origin in the Declaration of Helsinki, supporting high-quality data clinical trials.</p> <p>Each country has its own regulatory authority with its own regulations or laws for conducting clinical trials. Relevant regulatory authorities review and approve Biogen's proposed protocol and ensure that clinical trials follow national regulations. An Institutional Review Board (IRB) or Ethics Committee (EC) is an independent committee that includes medical, scientific and non-scientific members, whose responsibility is to protect the rights, welfare, safety and well-being of clinical trial participants. Each clinical trial location is monitored by a specific IRB/EC. It is responsible for reviewing all clinical trials as well as conducting ongoing reviews of active clinical trials.</p> <p>For more information, please visit Biogen's clinical trials webpage or Biogen's patient-centric clinical trials website.</p>
HC-BP-210a.2	Number of inspections related to clinical trial management and pharmacovigilance that resulted in: (1) Voluntary Action Indicated (VAI) and (2) Official Action Indicated (OAI)	<p>Biogen is committed to collaborating with regulatory agencies on a wide range of issues, including clinical trial management and pharmacovigilance and taking any actions that are needed.</p> <p>In 2023, five FDA inspections took place at two Biogen facilities in Solothurn, Switzerland, and Research Triangle Park, North Carolina. Four inspections resulted with Voluntary Action Indicated (VAI) and one inspection resulted in No Action Indicated (NAI).</p> <p>No inspections resulted in OAI in 2023.</p> <p>In 2023, three U.S. FDA inspections took place at three different clinical sites that conduct clinical research for Biogen. One clinical site was located in the U.S. and two in Poland. All inspections were classified as NAI. No inspections resulted in OAI in 2023.</p>
HC-BP-210a.3	Total amount of monetary losses as a result of legal proceedings associated with clinical trials in developing countries	Biogen did not sustain any monetary losses in 2023 as a result of legal proceedings associated with clinical trials in developing countries.
HC-BP-240a.1	Description of actions and initiatives to promote access to healthcare products for priority diseases and in priority countries as defined by the Access to Medicine Index	<p>While not listed as a company in scope for the 2023 Access to Medicine Index ("Index"), Biogen is deeply committed to access and health equity across all parts of our business. To further advance Biogen's global access and health equity strategy, we engaged with external stakeholders and cross-functional senior Biogen leaders and developed a new strategic framework to galvanize our efforts. Our framework consists of four pillars: ensuring access to healthcare and medicines, navigating the unique patient journey, bolstering the clinical research ecosystem, and engaging and collaborating with the community.</p> <p>We also are advancing our portfolio and pipeline, which includes a focus on diseases and conditions prioritized by the Index, including Alzheimer's disease and depression. Additionally, Biogen therapies support patients in a number of countries included in the Index, such as Brazil, China, India and Mexico. Across the markets where we operate, we actively work with a variety of stakeholders to understand opportunities to meet patient needs and promote health access. For additional detail on this and other relevant programs, please see the Access and Health Equity section of Biogen's 2023 Corporate Responsibility Report.</p>
HC-BP-240a.2	List of products on the WHO List of Prequalified Medicinal Products as part of its Prequalification of Medicines Programme (PQP)	Biogen has no products on the WHO List of Prequalified Medicinal Products .

SASB index

Code	Accounting Metric	2023 Response
HC-BP-240b.1	Number of settlements of Abbreviated New Drug Application (ANDA) litigation that involved payments and/or provisions to delay bringing an authorized generic product to market for a defined time period	Biogen does not comment on confidential legal matters.
HC-BP-240b.2	Percentage change in: (1) average list price and (2) average net price across U.S. product portfolio compared to previous reporting period	<p>In 2023, we saw a list price increase of 5.18% and a net price increase of 1.64% across our U.S. product portfolio as compared to the previous year.</p> <p>We regularly review our pricing strategy and prioritize patient access to our therapies. We have a value-based contracting program designed to align the price of our therapies to the value our therapies deliver to patients. We also work with regulators, clinical researchers, ethicists, physicians and patient advocacy groups and communities, among others, to determine how best to address requests for access to our investigational therapies in a manner that is consistent with our patient-focused values and compliant with regulatory standards and protocols.</p> <p>Additional information: Biogen Pricing Principles</p>
HC-BP-240b.3	Percentage change in: (1) list price and (2) net price of product with largest increase compared to previous reporting period	<p>We regularly review our pricing strategy and prioritize patient access to our therapies. We have a value-based contracting program designed to align the price of our therapies to the value our therapies deliver to patients. We also work with regulators, clinical researchers, ethicists, physicians and patient advocacy organizations and communities, among others, to determine how best to address requests for access to our investigational therapies in a manner that is consistent with our patient-focused values and compliant with regulatory standards and protocols.</p> <p>Additional information is available here: Biogen Pricing Principles</p>
HC-BP-250a.1	Products listed in public medical product safety or adverse event alert databases	There were no listings relevant to Biogen's products on the FDA's MedWatch Safety Alerts for Human Medical Products database in 2023.
HC-BP-250a.2	Number of fatalities associated with products	All information related to fatalities associated with Biogen products is available via the FDA Adverse Event Reporting System .
HC-BP-250a.3	(1) Number of recalls issued, (2) total units recalled	There were no recalls or units issued or recalled in 2023.
HC-BP-250a.4	Total amount of product accepted for take-back, reuse, or disposal	Biogen does not track the amount of product accepted for takeback, reuse or disposal; the volume of Biogen products is too low to warrant managing our own product takeback, reuse or disposal program. Biogen does, however, participate in several take-back programs across various U.S. states and counties, and several other countries. In addition, Biogen provides guidance on appropriate disposal methods for our products.
HC-BP-250a.5	Number of enforcement actions taken in response to violations of current Good Manufacturing Practices (cGMP) or equivalent standards, by type	Biogen did not receive any FDA enforcement actions associated with Form FDA-483 observations including warning letters, seizures, recalls or a consent decree in 2023.

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Code	Accounting Metric	2023 Response
HC-BP-260a.1	Description of methods and technologies used to maintain traceability of products throughout the supply chain and prevent counterfeiting	<p>Counterfeiting is now one of the largest criminal enterprises in the world, and no industry is exempt from this growing threat. Patient safety is our no. 1 priority, and we take the issue of counterfeit, falsified drugs very seriously. The main goal of our Product Security function is to implement a holistic strategy to proactively identify, mitigate and manage illicit trade risks that could potentially jeopardize the health and safety of patients who take our drugs or, secondarily, impact trust and reputation. We aim to disrupt diversion, counterfeiting, theft and other nefarious activities through the following five pillars:</p> <ul style="list-style-type: none"> • Threat Assessments: Identify, assess and mitigate risks and vulnerabilities across the supply chain. • Auditing: Audit supply chain partners to ensure industry best practice requirements are met regarding product security. • Monitoring: Monitor markets, channels, supply chain, customer complaints and other network elements to detect illicit trade signals and potential threats to supply chain resiliency and robustness. • Investigations: Respond to incidents with robust investigation and enforcement capability, including legal action to stop and deter illicit trade. • Product Security: Ensure we have the appropriate level of security measures for products and supply chain nodes to minimize the threat of counterfeits, diversions and thefts for the purpose of ensuring patient safety. <p>In addition to the above, a majority of our global production is serialized, meeting all global compliance requirements. Whenever we serialize, we also aggregate the serialization information to enable Track&Trace. We have implemented Track&Trace capabilities at our main distribution sites in the U.S. and EU, beyond compliance requirements, to provide additional elements of traceability.</p>
HC-BP-260a.2	Discussion of process for alerting customers and business partners of potential or known risks associated with counterfeit products	<p>Biogen employs quality governed processes to manage the handling of suspect or illegitimate medicinal products: Upon detecting a potential or known product security risk, the event is captured as a complaint into the TrackWise system for formal tracking. Furthermore, there are requirements on segregation of product and the investigation process. Once the product is physically acquired, the technical product complaints group performs an investigation to verify if the product is genuine or falsified. If determined that the suspected product is falsified, potentially falsified or at high risk of being falsified, a global distributed material review board (DMRB) must be completed, defining further specific market actions and communications. As necessary, all impacted competent authorities and impacted distribution partners are then notified. Once a case is closed, Biogen notifies the applicable authorities and impacted trading partners.</p> <p>In addition to the above internal processes, Biogen also participates in industry-wide systems and processes utilizing serialization data. If one of these systems or processes indicates suspect or illegitimate product will trigger the internal process described above.</p>
HC-BP-260a.3	Number of actions that led to raids, seizure, arrests, and/or filing of criminal charges related to counterfeit products	Biogen did not take any actions in 2023 that led to raids, seizures, arrests and/or filing of criminal charges related to counterfeit products.
HC-BP-270a.1	Total amount of monetary losses as a result of legal proceedings associated with false marketing claims	Biogen discloses all material legal and regulatory proceedings in our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q .
HC-BP-270a.2	Description of code of ethics governing promotion of off-label use of products	Please see our Code of Business Conduct .

SASB index

Code	Accounting Metric	2023 Response
HC-BP-330a.1	Discussion of talent recruitment and retention efforts for scientists and research and development personnel	<p>We are actively involved in many industry programs that allow us to increase the visibility of Biogen as a purpose-driven company with a wide variety of career opportunities and a culture focused on helping employees thrive.</p> <p>We have a particular focus on increasing visibility and engagement with communities historically underrepresented and underserved in biotech, including through our engagement with groups such as Women of Color in Pharma (WOCIP) and American Women in Science (AWIS), among many others.</p> <p>Biogen has a range of active initiatives to help build a diverse talent pipeline. For example, the Biogen CoLab is the longest-running hands-on corporate science education program in the U.S. Announced in 2022, the Biogen-supported Xavier University of Louisiana's Biogen Sharp-Verret Award is a scholarship for underrepresented students pursuing neuroscience careers. The Youth Neurology Education and Research Program, a collaboration with Massachusetts General Hospital, gives the next generation in-depth exposure to the field of neurology. Through a collaboration with Morehouse School of Medicine, we welcomed our first intern cohort from Historically Black Colleges and Universities (HBCUs) to our Summer Health Equity Fellowship Program in 2020. The fellowship program, which engages M.D. and Ph.D. students, aims to advance health equity and improve patient experiences. In 2016, Biogen helped create The Partnership, Inc.'s BioDiversity Fellows Program, which nurtures the potential leadership of mid-career professionals who are underrepresented in the life sciences industry.</p> <p>We also have continued to expand our focus on talent retention, growth and engagement by recognizing employee contributions through awards and through programs such as Thrive@Biogen. A broader discussion of those efforts can be found in the Workforce section of the 2023 Corporate Responsibility Report.</p>
HC-BP-330a.2	(1) Voluntary and (2) involuntary turnover rate for: (a) executives/senior managers, (b) mid-level managers, (c) professionals, and (d) all others	<p>Total Turnover Rate: 33%</p> <p>Voluntary Turnover Rate: 10.1%</p> <p>Involuntary Turnover Rate: 22.9%</p> <p>Please see disclosures in the ESG Data Table.</p>
HC-BP-430a.1	Percentage of (1) entity's facilities and (2) Tier I suppliers' facilities participating in the Rx-360 International Pharmaceutical Supply Chain Consortium audit program or equivalent third-party audit programs for integrity of supply chain and ingredients	Biogen outsources anywhere from 35% to 45% of external supplier audits. We perform the majority of our audits through our own audit program using outsourced support or the use of third-party auditors depending on the type of service provided, risk and availability.
HC-BP-510a.1	Total amount of monetary losses as a result of legal proceedings associated with corruption and bribery	Biogen discloses all material legal and regulatory proceedings in our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q .
HC-BP-510a.2	Description of code of ethics governing interactions with health care professionals	We comply with the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) Code of Practice, the Pharmaceutical Research and Manufacturers of America's (PhRMA) Code on Interactions with Healthcare Professionals, the European Federation of Pharmaceutical Industries and Associations (EFPIA) Code of Practice, and other applicable country codes of practice where Biogen interacts and engages with healthcare professionals and other relevant external stakeholders.
HC-BP-000.A	Number of patients treated	Biogen has treated more than 2 million patients worldwide from 1996 through the end of 2023.
HC-BP-000.B	Number of drugs (1) in portfolio and (2) in research and development (Phases 1–3)	As of report publication, Biogen has 15 marketed therapies, as outlined on Product Portfolio and continued development of approximately 21 clinical programs in our pipeline, 8 of which are in Phase 3 or filed, in areas such as Alzheimer's disease, depression, multiple sclerosis, amyotrophic lateral sclerosis, stroke, Parkinson's disease and other movement disorders.

Task Force on Climate-related Financial Disclosures (TCFD) Statement

Biogen supports the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to enhance transparency on climate-related matters. This statement represents our fourth disclosure aligned with the TCFD recommendations. It covers all facilities and operations globally which are owned by Biogen or for which the company has operational control. Our [CDP Climate Change disclosure](#) provides further background on our approach to climate change and should be read alongside these disclosures. Our CDP responses are available at www.cdp.net.

Governance

TCFD recommendations for disclosures on Governance:

- Describe the board's oversight of climate-related risks and opportunities.
- Describe management's role in assessing and managing climate-related risks and opportunities.

As set forth in our Corporate Governance Principles, our Board of Directors has oversight of Biogen's environmental, social and governance (ESG) issues and corporate responsibility strategy. Biogen's Board of Directors has oversight of environment, social and governance (ESG) issues, and management reports to the Board on these matters at least once each year. Our corporate responsibility strategy is integrated into our business strategy and guided by the company's CEO and Executive Committee (EC). It is stewarded by Corporate Affairs and actively managed through various cross-functional committees that engage around ESG issues, and work to ensure compliance with rapidly changing regulatory requirements. We provide a formal annual progress update to the Board of Directors.

Biogen's Enterprise Risk Management (ERM) process helps ensure climate-related risks and opportunities are appropriately reflected in broader business planning. With input from Biogen Environment, Health and Safety (EHS) leaders, among others, our ERM team monitors strategic climate-related risks across all aspects of our business and utilizes climate scenarios as part of its assessments. The ERM team evaluates identified risks, including any climate-related physical and transitional risks, and engages with leaders who oversee and run day-to-day environmental programs. The ERM team provides updates on an ongoing basis on their findings and activities to the ERM Committee, including those with environmental oversight, as well as the Board of Directors.

Strategy

TCFD recommendations for disclosures on Strategy:

- Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
- Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
- Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

As a standard business practice, Biogen regularly evaluates our climate-related commitments and initiatives. This includes identifying climate-related risks and opportunities and their potential impacts on our business under different climate-related scenarios.

TCFD statement

Based on our most recent assessments, we have identified the following short-, medium- and long-term risks and opportunities:

Risks and Opportunities Identified	Time Horizon (short-, medium-, long-term)	Potential Impacts	Management Approach
Increased frequency of extreme weather and climate-related natural disasters	Short-, medium- and long-term	Biogen sites are not expected to face an increased material risk of extreme weather through 2040. Four third-party manufacturing sites are “at-risk” due to their location in southern Europe and California.	Suppliers “at risk” for potential climate impacts will be prioritized for assessment, which can help Biogen better understand mitigation steps being taken and needed in the future.
Expectation for sustainable and/or low-carbon products and services from healthcare providers in some countries	Medium- and long-term	As health systems begin to look at the environmental impacts of the products they purchase, competitive products having lower environmental impacts might succeed in various markets, which could impact Biogen’s market access and revenue in some countries. The potential risks and opportunities to Biogen relate to our ability to demonstrate and/or improve the sustainability of our products and packaging, while meeting other customer requirements.	Biogen is promoting sustainability across our products and operations. For example, the company has introduced principles of Sustainable Drug Development and focused on identifying opportunities for sustainable packaging. To advance these goals, Biogen participated in the My Green Lab program, a certification recognized by the United Nations’ Race to Zero campaign for setting the standard for best practices in laboratory sustainability. In 2023, 100% of Biogen labs were certified by My Green Lab, the first large biotech to achieve this milestone, with 54% achieving green designation, the highest possible in the program. Biogen also has completed life cycle assessments (LCAs) on three biosimilar products in four markets and several final formulations to TYSABRI® for a total of eight completed LCAs. We are in the process of conducting one additional product LCA. We are also working to evaluate alternative materials and approaches for primary medicine delivery with a reduced environmental footprint. Biogen has published updates on these efforts in our Corporate Responsibility Report .
Ban and/or restrictions on the sale or use of petrol and diesel vehicles in some markets	Short- and medium-term	Some local, state and national governments are banning or restricting sales of internal combustion engine (ICE) vehicles, which could impact some vehicles in our commercial fleet. For example, an increase in the number and/or scope of clean air zones being established at the local and/or regional level might restrict Biogen’s fossil fuel vehicles from entering those regions or require us to pay a surcharge for access. We monitor developments closely and do not anticipate a material impact from either of these potential changes.	As of the end of 2023, electric vehicle (EV) options are available in approximately 35 countries where our employees may use corporate fleet vehicles. While there are barriers to adoption in various markets, this approach gives employees who use a Biogen fleet vehicle an additional option. In a number of locations, we also have installed chargers that can be used by fleet vehicles, employees who drive EVs and visitors to our facilities. We see potential for additional progress as external barriers are addressed, including lack of sufficient charging infrastructure and constraints pertaining to vehicle cost and availability in major markets.
Carbon pricing and future environmental taxation	Medium- and long-term	Carbon pricing and/or environmental taxation may increase in many large markets where we operate.	We see increasing efficiencies as one part of well-run business operations, with emissions reductions one consideration as we make decisions about equipment, energy, materials and other matters. An effective climate strategy can mitigate our exposure to future carbon pricing and/or environmental taxation.

Risk Management

TCFD recommendations for disclosures on Risk Management:

- Describe the organization's processes for identifying and assessing climate-related risks.
- Describe the organization's processes for managing climate-related risks.
- Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

We identify and assess climate-related risks – both physical risks and transitional risks – by using the Global Enabling Sustainability Initiative (GeSI)-CDP Scenario Analysis Toolkit (the Toolkit). Our most recent assessment of physical risks included screening studies of two future climatic scenarios to explore our physical climate-related risks, notably water scarcity, inland/coastal floods, extreme heat, tornados, hurricanes and wildfires.

Representative Concentration Pathways (RCP) 4.5 (+2°C) and RCP 8.5 (+4°C) were the selected scenarios for this study with projected impacts out from 2020 to 2030 and 2040 or 2050 depending on the criteria data set available. These scenarios were applied to Biogen's three manufacturing and R&D locations and 10 of the contract manufacturing organization sites we rely on to manufacture our products. Commercial sites, which consist of leased office space, were not included in the screening studies, because we determined that they posed a low material risk. The outcome of these studies across the 13 sites was combined with a revenue-based assessment to identify short-, medium- and/or long-term risks. Subsequently, we expanded our assessment of physical risks to include our most critical suppliers.

We also utilize the Toolkit to identify and assess the risks and opportunities associated with the transition to a low-carbon economy. For this purpose, in 2020, we adopted two climate scenarios: the IEA INDC Scenario (~3°C) as a base case and the IEA WEO 450 Scenario (~2°C) as a higher ambition case toward meeting the Paris Agreement to understand policy and technology impacts through 2040. Risks and opportunities were assessed at an enterprise level as well as specific to our biosimilar product segment.

Identified material risks and opportunities are reported to the ERM team, Corporate Responsibility function and EHS leadership overseeing our environmental goals, which reports to the Executive Leadership Team and Board of Directors. Through this layered accountability, we consider and address material risks and opportunities that may impact our business model, as well as mitigation measures that are in place or need to be refreshed and/or adopted. Please see the "Governance" section of this disclosure for detail.

Metrics and Targets

TCFD recommendations for disclosures on Metrics and Targets:

- Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
- Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.
- Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Our overall strategy to manage and mitigate climate-related risks includes a focus on science-based metrics and targets, which are consistent with the aims of the Paris Agreement and keeping temperature rise to 1.5°C. We are committed to increasing efficiency and strengthening resilience.

We track our performance and disclose our progress around related climate-related risks and opportunities, as well as our Scope 1, 2 and 3 emissions through our annual Corporate Responsibility Report. The GRI-aligned content provides robust disclosure of our annual environmental metrics, including those we use to assess climate-related risks and opportunities and in efforts to reduce our emissions. Additional annual updates to metrics associated with greenhouse gas emissions, energy and water are disclosed through the CDP Climate Change Questionnaire and the CDP Water Security Questionnaire.

GRI content index

Biogen has reported the information cited in this GRI content index for the period from January 1, 2023, to December 31, 2023 with reference to the GRI Standards.

GRI Standard	Disclosure	Location
GRI 2: General Disclosures 2022	2-1 Organizational details	Item 1., Business, 2023 Annual Report
	2-2 Entities included in the organization's sustainability reporting	Item 1., Business, 2023 Annual Report
	2-3 Reporting period, frequency and contact point	Data cover fiscal year ending Dec. 31, 2023. (Some activities from 2024 are also included, which is noted.) We report on an annual basis. Biogen contact: responsibility@biogen.com
	2-4 Restatements of information	Restatements for previous disclosed metrics are identified in the ESG Data Table
	2-5 External assurance	Independent Assurance Statement of ESG Data Table
	2-6 Activities, value chain and other business relationships	Item 1., Business, 2023 Annual Report
	2-7 Employees	Item 1., Business, 2023 Annual Report, Corporate Responsibility Report , ESG Data Table
	2-8 Workers who are not employees	Item 1., Business, 2023 Annual Report
	2-9 Governance structure and composition	Executive Leadership, Board of Directors, Corporate Governance Documents
	2-10 Nomination and selection of the highest governance body	Executive Leadership, Board of Directors, Corporate Governance Documents
	2-11 Chair of the highest governance body	Executive Leadership, Board of Directors, Corporate Governance Documents
	2-12 Role of the highest governance body in overseeing the management of impacts	Executive Leadership, Board of Directors, Corporate Governance Documents
	2-13 Delegation of responsibility for managing impacts	Executive Leadership, Board of Directors, Corporate Governance Documents
	2-14 Role of the highest governance body in sustainability reporting	Executive Leadership, Board of Directors, Corporate Governance Documents
	2-15 Conflicts of Interest	Code of Business Conduct
	2-16 Communication of critical concerns	Code of Business Conduct
	2-17 Collective knowledge of the highest governance body	Executive Leadership, Board of Directors, Corporate Governance Documents
	2-18 Evaluation of the performance of the highest governance body	Consolidated Financial Statements , Item 1., Business, 2023 Annual Report, Independent Assurance Statement to Biogen, Inc. , Corporate Responsibility Report , Reporting section , ESG materiality assessment
	2-19 Remuneration policies	Proxy , Executive Compensation Matters
	2-20 Process to determine remuneration	Proxy , Compensation Committee Report
	2-21 Annual total compensation ratio	Proxy , CEO Pay Ratio
	2-22 Statement on sustainable development strategy	Corporate Responsibility Report , Overview section
	2-23 Policy commitments	Principles, Policies & Positions
	2-24 Embedding policy commitments	Principles, Policies & Positions

GRI content index

GRI Standard	Disclosure	Location
	2–25 Processes to remediate negative impacts	Corporate Responsibility Report, Workforce section
	2–26 Mechanisms for seeking advice and raising concerns	Code of Business Conduct
	2–27 Compliance with laws and regulations	Principles, Policies & Positions, Item 1., Business, 2023 Annual Report
	2–28 Membership associations	Corporate Responsibility Report, Overview and Community sections
	2–29 Approach to stakeholder engagement	Executive Leadership, Board of Directors, Corporate Governance Documents Corporate Responsibility Report, Overview; Access & Health Equity; Community; Reporting sections
	2–30 Collective bargaining agreements	ESG Data Table
GRI 3: Material Topics 2022	3–1 Process to determine material topics	Corporate Responsibility Report, Reporting section
	3–2 List of material topics	Corporate Responsibility Report, Reporting section
	3–3 Management of material topics	Corporate Responsibility Report, Reporting section
GRI 201: Economic Performance 2016	201–1 Direct economic value generated and distributed	Item 6., Selected Financial Data, 2023 Annual Report, Political Contribution Disclosures, Corporate Responsibility Report, ESG Data Table
	201–2 Financial implications and other risks and opportunities due to climate change	Corporate Responsibility Report, TCFD disclosure, 2023 CDP Climate Change disclosure
	201–3 Defined benefit plan obligations and other retirement plans	Corporate Responsibility Report, Workforce section
	201–4 Financial assistance received from government	Consolidated Financial Statements, Item 1., Business, 2023 Annual Report
GRI 203: Indirect Economic Impacts 2016	203–2 Significant indirect economic impacts	Item 1., Business, 2023 Annual Report, Corporate Responsibility Report, Community section and ESG Data Table
GRI 205: Anti-corruption 2016	205–1 Operations assessed for risks related to corruption	Item 1A., Risk Factors, 2023 Annual Report
	205–2 Communication and training about anti-corruption policies and procedures	Corporate Responsibility Report, Workforce section, Code of Business Conduct 2023 Annual Report, Quarterly Reports on Form 10-Q
GRI 206: Anti-competitive Behavior 2016	206–1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	2023 Annual Report, Quarterly Reports on Form 10-Q
GRI 207: Tax 2019	207–1 Approach to tax	Global Tax Policy, U.K. Tax Strategy
	207–2 Tax governance, control, and risk management	Global Tax Policy, U.K. Tax Strategy
	207–3 Stakeholder engagement and management of concerns related to tax	Global Tax Policy, U.K. Tax Strategy
GRI 302: Energy 2016	302–1 Energy consumption within the organization	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	302–2 Energy consumption outside of the organization	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	302–3 Energy intensity	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	302–4 Reduction of energy consumption	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	302–5 Reductions in energy requirements of products and services	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure

GRI content index

GRI Standard	Disclosure	Location
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	303-2 Management of water discharge-related impacts	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	303-3 Water withdrawal	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	303-4 Water discharge	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
	303-5 Water consumption	Corporate Responsibility Report, Environment section and ESG Data Table 2023 CDP Climate Change disclosure
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Corporate Responsibility Report and ESG Data Table, 2023 CDP Water disclosure
	305-2 Energy indirect (Scope 2) GHG emissions	Corporate Responsibility Report and ESG Data Table, 2023 CDP Water disclosure
	305-3 Other indirect (Scope 3) GHG emissions	Corporate Responsibility Report and ESG Data Table, 2023 CDP Water disclosure
	305-4 GHG emissions intensity	Corporate Responsibility Report and ESG Data Table, 2023 CDP Water disclosure
	305-5 Reduction of GHG emissions	Corporate Responsibility Report and ESG Data Table, 2023 CDP Water disclosure
	305-6 Emissions of ozone-depleting substances (ODS)	Corporate Responsibility Report and ESG Data Table, 2023 CDP Water disclosure
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Corporate Responsibility Report and ESG Data Table, 2023 CDP Water disclosure
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Corporate Responsibility Report, ESG Data Table
	306-2 Management of significant waste-related impacts	Corporate Responsibility Report, Environment section
	306-3 Waste generated	Corporate Responsibility Report, ESG Data Table
	306-4 Waste diverted from disposal	Corporate Responsibility Report, ESG Data Table
	306-5 Waste directed to disposal	Corporate Responsibility Report, ESG Data Table
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Corporate Responsibility Report, Environment section
	308-2 Negative environmental impacts in the supply chain and actions taken	Corporate Responsibility Report, Environment section
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Corporate Responsibility Report, ESG Data Table
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Corporate Responsibility Report, Workforce section
	401-3 Parental leave	Corporate Responsibility Report, Workforce section

GRI content index

GRI Standard	Disclosure	Location
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Environmental, Health and Safety Policy Statement
	403-3 Occupational health services	Environmental, Health and Safety Policy Statement
	403-4 Worker participation, consultation, and communication on occupational health and safety	Environmental, Health and Safety Policy Statement
	403-5 Worker training on occupational health and safety	Environmental, Health and Safety Policy Statement Corporate Responsibility Report, ESG Data Table
	403-6 Promotion of worker health	Corporate Responsibility Report, Workforce section
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Environmental, Health and Safety Policy Statement , Corporate Responsibility Report, Workforce section
	403-8 Workers covered by an occupational health and safety management system	Environmental, Health and Safety Policy Statement , Corporate Responsibility Report, Workforce section
	403-9 Work-related injuries	Environmental, Health and Safety Policy Statement , Corporate Responsibility Report, ESG Data Table
	403-10 Work-related ill health	Environmental, Health and Safety Policy Statement , Corporate Responsibility Report, ESG Data Table
	GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee
404-2 Programs for upgrading employee skills and transition assistance programs		Corporate Responsibility Report, Workforce section
404-3 Percentage of employees receiving regular performance and career development reviews		Corporate Responsibility Report, Workforce section, ESG Data Table
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Item 1., Business, 2023 Annual Report, Board of Directors , Corporate Responsibility Report Report, Overview and Workforce sections, ESG Data Table
	405-2 Ratio of basic salary and remuneration of women to men	Corporate Responsibility Report, Workforce section and ESG Data Table
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Corporate Responsibility Report, Community section
	413-2 Operations with significant actual and potential negative impacts on local communities	Corporate Responsibility Report, Community section
GRI 414: Supplier Social Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken	Corporate Responsibility Report, Responsible Supply Chain Statement 2023, Code of Business Conduct
GRI 415: Public Policy 2016	415-1 Political contributions	Political Contributions Disclosures
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Corporate Responsibility Report, Overview and Environment sections Principles, Policies & Positions
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	FDA website
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	Principles, Policies & Positions
	417-2 Incidents of non-compliance concerning product and service information and labeling	Principles, Policies & Positions
	417-3 Incidents of non-compliance concerning marketing communications	Principles, Policies & Positions
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Corporate Responsibility Report, ESG Data Table

Safe harbor

This report contains forward-looking statements relating to: our strategy and plans; potential of, and expectations for, our commercial business and pipeline programs; capital allocation and investment strategy; clinical development programs, clinical trials, and data readouts and presentations; regulatory discussions, submissions, filings and approvals; the potential benefits and impacts of our corporate responsibility actions; the potential benefits, safety, and efficacy of our and our collaboration partners' products and investigational therapies; the anticipated benefits and potential of investments, cost-saving initiatives, actions to improve risk profile and productivity of R&D pipeline, collaborations and business development activities; and our future financial and operating results. These forward-looking statements may be accompanied by such words as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "intend," "may," "plan," "potential," "possible," "prospect," "will," "would" and other words and terms of similar meaning. Drug development and commercialization involve a high degree of risk, and only a small number of research and development programs result in commercialization of a product. Results in early-stage clinical trials may not be indicative of full results or results from later-stage or larger-scale clinical trials and do not ensure regulatory approval. You should not place undue reliance on these statements.

These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including: our dependence on sales from our products; uncertainty of long-term success in developing, licensing, or acquiring other product candidates or additional indications for existing products; failure to compete effectively due to significant product competition in the markets for our products; failure to successfully execute or realize the anticipated benefits of our strategic and growth initiatives; difficulties in obtaining and maintaining adequate coverage, pricing and reimbursement for our products; our dependence on collaborators and third parties for the development, regulatory approval, and commercialization of products and other aspects of our business, which are outside of our full control; the potential impact of the conflict in Ukraine and the Middle East; risks associated with current and potential future healthcare reforms; risks related to commercialization of biosimilars; failure to obtain, protect and enforce our data, intellectual property, and other proprietary rights and

the risks and uncertainties relating to intellectual property claims and challenges; the risk that positive results in a clinical trial may not be replicated in subsequent or confirmatory trials or success in early-stage clinical trials may not be predictive of results in later-stage or large-scale clinical trials or trials in other potential indications; risks associated with clinical trials, including our ability to adequately manage clinical activities, unexpected concerns that may arise from additional data or analysis obtained during clinical trials, the risk that regulatory authorities may require additional information or further studies, or may fail to approve or may delay approval of our drug candidates; the occurrence of adverse safety events, restrictions on use of our products, or product liability claims; risks relating to technology failures or breaches; problems with our manufacturing processes; risks relating to management and personnel changes, including attracting and retaining personnel; failure to comply with legal and regulatory requirements; the risks of doing business internationally, including currency exchange rate fluctuations; risks relating to investment in our manufacturing capacity; risks relating to the distribution and sale by third parties of counterfeit or unfit versions of our products; risks relating to the use of social media for our business; results of operations and financial condition; fluctuations in our operating results; risks related to investment in properties; the market, interest, and credit risks associated with our investment portfolio; risks relating to share repurchase programs; risks relating to access to capital and credit markets; risks related to indebtedness; change in control provisions in certain of our collaboration agreements; fluctuations in our effective tax rate; environmental risks; and any other risks and uncertainties that are described in other reports we have filed with the U.S. Securities and Exchange Commission. These statements speak only as of the date of this letter. We do not undertake any obligation to publicly update any forward-looking statements.

2023 CORPORATE RESPONSIBILITY REPORT

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