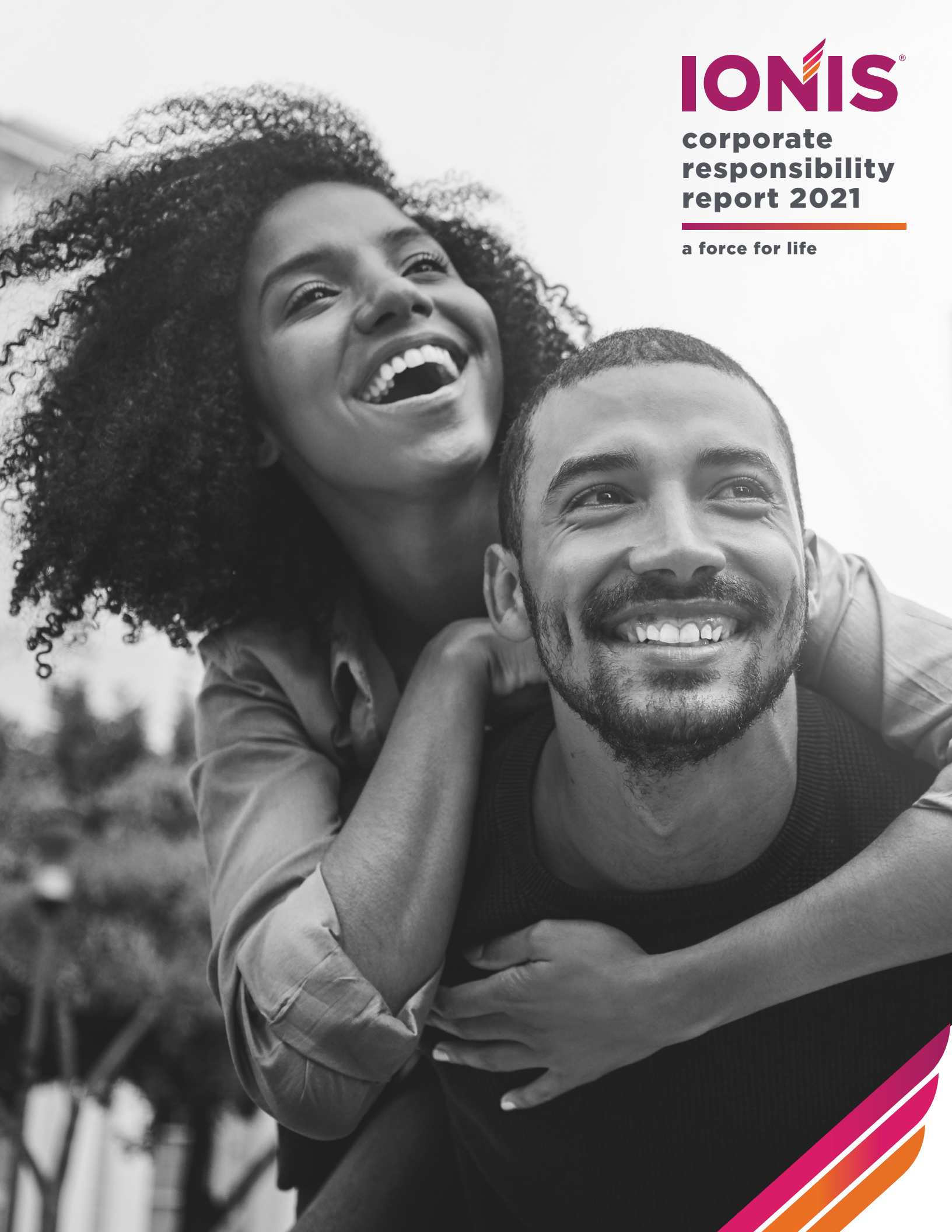

IONIS

corporate responsibility report 2021

a force for life

ABOUT IONIS

For more than 30 years, Ionis has been the leader in RNA-targeted therapy, pioneering new markets and changing standards of care with its novel antisense technology.

Ionis currently has three marketed medicines – SPINRAZA®, TEGSEDI® and WAYLIVRA® – and a premier late-stage pipeline highlighted by industry-leading neurological and cardiovascular franchises. Our scientific innovation began and continues with the knowledge that sick people depend on us. We pride ourselves on saying yes to patients who do not have any treatment.

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NOVEMBER 29, 2021

A LETTER FROM OUR CEO

Brett P. Monia, Ph.D.
Chief Executive Officer

Over 30 years ago, Ionis was created with the belief that we could find a better way to design and develop drugs to address diseases that traditional pharmaceutical approaches could not address. This belief, and our unwavering commitment to the scientific process, led to the development of our pioneering antisense technology, an innovative platform for discovering first-in-class and best-in-class medicines. Today, our RNA-targeted therapies are tackling devastating diseases around the world, and we have a deep, late-stage pipeline of medicines in development that we hope will transform even more lives. We have achieved all this through our unique culture of saying "yes": "yes" to patients, "yes" to pursuing the scientific process, and "yes" to tireless innovation.

From the beginning, we sought to improve the lives of patients and their families. We know that sick people depend on us, and that through our work we can give those suffering from serious, rare or broad diseases, where a significant unmet need exists, the opportunity for a better life. It is a responsibility we take seriously. As such, corporate responsibility has always been central to our business. We operate with high ethical standards, by ensuring the safety of our clinical trials, working to build a diverse and inclusive workforce, and striving to reduce our environmental footprint.

2020 and 2021 were challenging years. However, I'm proud to say we have continued to drive our Environmental, Social, and Governance (ESG) agenda forward and achieved important accomplishments thanks to the dedication and hard work of our employees. We upgraded our operations to ensure safe access to medicines and maintained excellence in clinical trials and we redefined our working models to adjust to a remote working environment wherever possible. Despite the disruption of the COVID-19 pandemic, we continued to support local communities through our philanthropic work. We are pleased to share the details of our efforts in this inaugural Corporate Responsibility Report.

Throughout our history, we have always played the long game – whether relentlessly pursuing the development of ground-breaking medicines, or in building a resilient and sustainable business. Our management team and Board of Directors share my conviction that our corporate responsibility strategy will help us succeed financially and socially, enabling us to deliver more transformative medicines for many years to come.

Best regards,

Brett P. Monia, Ph.D.
Chief Executive Officer

NAVIGATING THE GLOBAL COVID-19 PANDEMIC

As the COVID-19 outbreak developed in early 2020, we were quick to implement a plan to keep our employees and patients safe and minimize disruption to the supply of medicines to our patients and clinical trials.

SUPPORTING OUR PEOPLE

To ensure the safety of our workforce, we asked employees to work from home when possible. Our informatics department stepped up to support the transition to remote working by ensuring everyone had access to the technology, software and training required. Essential employees in research and manufacturing were given the flexibility to determine on-site working hours. We also recognized the challenges faced by employees with children out of school and provided even greater flexibility for them.

Working closely with our employee benefits provider, we were able to roll out a range of health and wellness programs to help manage the additional stress that many experienced. We also provided extra holiday time, and periodically, we delivered boxes of fresh farm produce to all employees to thank them for their dedication and hard work.

CONTRIBUTING TO OUR COMMUNITIES

All produce deliveries made to employees were sourced through local farm-to-table businesses, and so the initiative had the added benefit of supporting community businesses. We continued to support patient and health organizations impacted by the pandemic. This included distributing care packages to people suffering from spinal muscular atrophy through the Cure SMA Care Center Network, and our Holiday Hope campaign that saw a dedicated group of our employees volunteer to deliver gifts to families impacted by ALS.

ENABLING ACCESS TO MEDICINES

It was essential that patients could continue to access our marketed medicines, even while sheltering in place. Therefore, we introduced a range of measures to help patients connect with our nurse case managers and have their medicines delivered to their homes on an ongoing basis. By implementing home nursing broadly, we were able to help those taking our medicines to continue to do so safely.

ADAPTING CLINICAL TRIALS

We took steps to ensure clinical trials continued safely and we implemented measures to allow us to continue working to create a new generation of medicines. We modified protocols to reduce patient and site burden by avoiding unnecessary visits to clinics and arranging remote data collection. The pandemic also enabled us to accelerate efforts to streamline clinical trials, especially remote site initiation and patient enrollment. The improvements will enable us to conduct clinical trials more efficiently and effectively going forward.

Maintaining safe operations throughout the pandemic was an important accomplishment for Ionis. We are extremely grateful to the dedication and resilience shown by our employees in adapting to and overcoming the challenges we faced.

EMBEDDING CORPORATE RESPONSIBILITY

Ionis was founded to create a better future for patients. We also want to be part of creating a better future more broadly, and, therefore, we endeavor to operate responsibly. Our success relies on persistent pursuit of the scientific process and a focus on long-term objectives. Our long-term focus naturally translates to our approach to corporate responsibility. In everything we do, we consider the long-term impact we can make across five key areas: patients, innovation, our employees, communities, and the environment.

Patients	Innovation	Our Employees	Communities	Environment
At the core of everything we do is the belief in the potential of our medicines to transform lives	We are a science-centric organization dedicated to the perseverance and rigor that the scientific approach demands	We offer a rewarding and supportive environment that empowers our employees to thrive	We and our employees are proud of the work we do to support and uplift our communities	We believe we have a responsibility to help create a better future

IDENTIFYING OUR ESG PRIORITIES

We recognize the importance of Environmental, Social, and Governance (ESG) initiatives as it relates to our business strategy and risk assessment. During 2020 and 2021, we took steps to formalize our corporate responsibility program and began to report/capture the impact of our ESG efforts. As part of this work, we completed an assessment of the corporate responsibility initiatives most important to our business. These are:

- *Safety of patients in clinical trials*
- *Drug safety and supply chain management*
- *Access to medicines and tackling devastating diseases*
- *Human resources management*
- *Diversity, equity and inclusion*
- *Employee health & safety*
- *Governance and business ethics*

We have a relatively small environmental footprint, so our stewardship programs focus on improving eco-awareness, identifying efficiencies, and integrating more sustainable practices into our daily operations.

Our priority assessment considered investor and other stakeholder interests and is aligned with the requirements of ESG ratings agencies and with leading ESG frameworks, including the Sustainability Accounting Standards Board (SASB).

GOVERNANCE

OPERATING ETHICALLY PERMEATES OUR ENTIRE BUSINESS

We have always operated with high integrity, in compliance with both the letter and spirit of the law. As a company based in the United States, we are governed by and comply with U.S. federal law. Wherever we conduct business, we operate in compliance with all applicable national, state, and local laws, regulations, and judicial decrees.

A clear governance structure oversees every aspect of our operations and ensures we act with integrity while pursuing our business objectives.

INTEGRATING ESG INTO OVERSIGHT PRACTICES

Every level of management is involved in advancing our ESG efforts, and we plan to establish a formal Corporate Responsibility Steering Committee in 2022 to oversee and monitor the progress of our environmental, social, and governance initiatives. The committee will include the following management team members:

- Chief Executive Officer
- Executive Vice President of Legal, General Counsel, and Chief Compliance Officer
- Executive Vice President of Finance and Chief Financial Officer
- Senior Vice President of Human Resources
- Vice President of Marketing and Communications

The Corporate Responsibility Steering Committee will be part of our governance framework, which defines responsibilities and ensures we have the right systems and controls to oversee ethical operations across our business.

CORPORATE GOVERNANCE HIGHLIGHTS

Highlights of our approach to corporate governance include:

- Separate roles for the Chief Executive Officer and Chairman of the Board and appointment of an Independent Lead Director
- Three of 10 Directors are gender or racially diverse
- Eight of 10 Directors qualify as independent according to the applicable Nasdaq listing standards and rules and regulations of the U.S. Securities and Exchange Commission
- During 2020, each Director attended 75% or more of the aggregate number of meetings of the Board and the committees on which such Director served
- Stock ownership guidelines are in place for Directors and executive officers
- Anti-hedging and pledging policy for all employees, including executive officers
- Claw back policy that applies to all Section 16 officers

Through robust corporate governance, we aim to demonstrate accountability for corporate responsibility and build trust with stakeholders by reporting transparently.

ETHICS AND COMPLIANCE

Our Code of Ethics and Business Conduct policy sets out our expectations of all Ionis employees, including executive officers, and members of our Board of Directors. It also applies to all employees of our subsidiaries and affiliates worldwide. At the heart of the code is the principle that the patient comes first and that we owe it to patients to act with high ethical standards. Our Code of Ethics and Business Conduct describes the fundamental principles that guide us in all aspects of our business, including:

- Complying with applicable laws and regulations, including anti-bribery and anti-corruption laws
- Managing fairly and honestly, and setting clear objectives and high standards
- Interacting with healthcare professionals and

promoting products in accordance with applicable laws, regulations, codes and our policies

- Avoiding conflicts of interest, dishonesty and theft
- Making fair and accurate disclosures and prohibiting the use of material nonpublic information in the trading of securities
- Protecting intellectual property and confidential information
- Maintaining a confidential helpline for individuals to report concerns anonymously
- Prohibiting any form of retaliation with respect to good faith reports of suspected violations

Our Code of Ethics and Business Conduct cannot cover all circumstances, but we are committed to applying its underlying principles and overall philosophy to any situation not specifically addressed. Employees are encouraged to contact any member of management, human resources, or legal and compliance if they are ever uncertain about the most appropriate course of action. We also offer a confidential helpline for employees to report any issues anonymously.

We communicate regularly with our employees about these standards and provide annual ethics training to senior management. We also make it clear that if an employee violates the Code of Ethics, disciplinary action may be taken, including suspension or termination of employment.

For more details on our Code of Ethics and governance policies, Board committee structure, or executive compensation, please refer to our 2021 Proxy Statement.

OUR CORPORATE RESPONSIBILITY

A FORCE FOR LIFE – FOCUS ON PATIENTS

We know that sick people depend on us. This knowledge comes with a responsibility to act with integrity, which we take very seriously.

ACCESS TO MEDICINES

At the core of everything we do is a belief in the potential of our medicines to transform lives. To fulfill this potential, we need to get our medicines to those who need them most. We take pride in making a positive difference in patients' lives. We work closely with patient advocacy organizations and communities around the world to identify and understand the needs of people we serve. As experts in living with their disease, their perspectives inform our approach to drug development.

We recently introduced initiatives to better match the demographics of our clinical trials with the demographics of patient populations, to improve access and ensure diversity. Working cross-functionally, we have been able to recruit participants who more closely represent the patient population that could benefit most from the medicine. For example, we have made excellent progress with the eplontersen program to ensure access and diversity. As of July 2021, enrollment is complete for the polyneuropathy indication pivotal program, and we have successfully ensured the patients recruited closely reflect the patient population for whom we are developing the treatment. We are going even further with the cardiomyopathy indication pivotal trial and believe it will be one of our most diverse clinical trials to date. The programs and partnerships we have established will serve us well moving forward and will be foundational to all our future clinical trial efforts.

There are currently over 11,000 patients worldwide taking SPINRAZA®. We are also working to broaden access to TEGSEDI® and WAYLIVRA® for patients in North America, Europe and Latin America, through our partnership with PTC Therapeutics International Limited and our distributorship with Swedish Orphan Biovitrum AB.

SAFETY OF CLINICAL TRIAL PARTICIPANTS

The safety and privacy of participants in our clinical trials is important to us. Therefore, we ensure our trials are conducted in line with the applicable guidelines. We have standard operating procedures to govern how we conduct clinical trials.

Independent ethics committees and institutional review boards and health authorities review and approve essential clinical trial documents, such as protocols and informed consent forms before they are implemented. During clinical trials, participants are treated by qualified doctors and their staff, who are trained on the administration of our investigational drugs. Our safety data review committees, and, for some studies, independent external Data and Safety Monitoring Boards (DSMB), monitor safety data across all study participants to identify potential issues or concerns, which are handled in accordance with our study plans.

During trials, we evaluate benefit to risk assessments, and share annual summary reports and post approval safety surveillance reports with health authorities. These include Development Safety Update Reports (DSURs), Periodic Benefit Risk Evaluation Reports (PBRER), Periodic Adverse Drug Experience Reports (PADER/PAER), and Investigator Brochures (IBs). All risks are disclosed in the summary sections of these reports.

To protect patient privacy, patient data are concealed and captured in systems that pass extensive validation processes. How the study data are to be used and who can access the data are disclosed in the study protocol, informed consent form and study plans.

DRUG SAFETY AND SUPPLY CHAIN MANAGEMENT

To ensure the safety of our medicines, we rigorously monitor our products throughout the manufacturing process. Raw materials, components, utilities and products are tested at every stage against pre-defined acceptance criteria using validated or compendial methods.

Testing methods are validated in line with international standards, such as those published by the ICH, to demonstrate consistent and valid results. All out-of-specification test results are investigated. No product is released for patient use without analytical results that comply with these standards, which are independently reviewed and approved by designated, trained personnel. We ensure that all testing of materials and products is in line with industry standards and regulatory expectations.

We use a Quality Management System (QMS) to provide governance oversight, control quality and monitor compliance. A Quality Management Review (QMR) is performed at least annually to update senior management on the compliance of the QMS against agreed metrics and external vendor performance.

Electronic change management

Change Management is embedded in the QMS via a systematic process that identifies required changes to systems, procedures and processes arising from external (regulatory agencies) and internal sources (continuous improvement initiatives, self-inspection programs). The process is applied across functions and the impact of any change is assessed in terms of risk to patient safety and product quality. Each change management process is monitored through implementation of change actions and, upon completion, the impact of the change and confirmation of completion is assessed. The process is fully documented throughout. Processes are also in place to share learnings from projects and inspections with the senior leadership through the QMR.

Comprehensive safety training

To ensure the highest safety standards, our team of researchers and developers receive training according to internationally recognized Good Laboratory Practice (GLP), Good Clinical Practice (GCP), Good Manufacturing Practice (GMP), Good Distribution Practice (GDP) and Good Pharmacovigilance Practice (GVP) standards. All employees involved in trials receive training according to Good Clinical Practice (GCP) global standards. Protocol-specific and safety-reporting training are also provided to prepare employees to conduct and document experimental drug studies.

The following commitments are defined and documented in our Development Quality Policy, which is part of the Development Quality Manual:

- Protect the rights, safety, and wellbeing of subjects
- Ensure the quality and integrity of studies
- Comply with GxP (GLP, GCP, GMP, GVP) and applicable regulatory requirements
- Maintain an effective and fit for purpose data quality management system
- Promote quality awareness
- Encourage continuous improvement

Rigorous supplier qualification

We use a rigorous qualification process when introducing vendors into our supply chain. The assessment is primarily focused on assuring the GxP compliance of vendor systems, processes and operations. However, when developing medicines for rare diseases, our ability to select vendors can be constrained, as there may only be one or two vendors that meet our needs. To mitigate supplier risk, we have an approved vendor list that is linked to our external audit program. The frequency of vendor audits is determined through a risk-based decision process.

A PASSION FOR INNOVATION

We are a science-centric organization, committed to the perseverance and grit that the scientific approach demands. We are guided by world-class scientists and business leaders whose passion to innovate is matched by their commitment to discover and deliver transformational medicines to patients.

For more than 30 years, we have been the leader in RNA-targeted therapy, pioneering new markets and changing standards of care with our antisense platform.

EXPANDING THE POSSIBILITIES OF SCIENCE AND INNOVATION

Our antisense technology is an efficient and widely applicable platform to treat diseases. It enables us to discover and develop medicines that we believe will fundamentally change the standards of care across a wide range of disease, including neurological and cardiovascular diseases.

Antisense medicines target RNA, the intermediary that conveys genetic information from gene to protein in all cells. We can use antisense technology to increase, decrease or alter the production of specific proteins. By creating a more efficient drug discovery and development platform, we aim to maximize the value of each of our medicines and provide treatment to those who need it most.

TACKLING DEVASTATING DISEASES

We are focused on delivering RNA-targeted therapeutics with transformational potential such as our marketed products for spinal muscular atrophy (SMA), hereditary transthyretin mediated amyloidosis (hATTR) and familial chylomicronaemia syndrome (FCS). Our antisense therapies are designed to disrupt diseases and, we hope, change their course. Our technology enables us to create medicines for the rarest of diseases to highly prevalent diseases.

SHARING THE BENEFITS OF ANTISENSE TECHNOLOGY – N-LOREM FOUNDATION

The power to develop treatments for patients with extremely rare diseases is a tremendous responsibility that we take seriously. We have donated our time, knowledge, and resources to discover and develop treatments for these diseases.

We are closely associated with the n-Lorem Foundation, a charitable organization established by Ionis' founder and former Chairman and CEO, Stanley T. Crooke, M.D., Ph.D. The mission of n-Lorem is to provide personalized antisense treatments to patients with ultra-rare diseases (afflicting fewer than 30 patients worldwide) – for free, for life. Given the rarity of the diseases in question, developing treatments is not commercially viable; however, n-Lorem's not-for-profit model offers hope to these patients. Ionis supports n-Lorem both financially, and with in-kind activities.

EMPOWERING OUR EMPLOYEES

We are committed to maintaining a small company culture, even as we grow in size. We value agility and flexibility and believe deeply that every one of us makes a huge contribution to our shared mission. Our strong corporate culture was one of Ionis' founding principles and has played an important part in our achievements to date. Everything we do starts with a focus on patients and a dedication to science and innovation.

Fairness and transparency guide our culture and our commitment to our employees. Our success depends on their hard work, creativity, commitment, and wellbeing. Our employees are our core resource, and we do everything possible to hire the very best in their fields and give them the tools they need to succeed. Our commitment to our employees has been rewarded with unusual longevity of tenure, which is a key advantage in the pursuit of real scientific advances. More than 50 employees, representing nearly 10% of our workforce, have been at Ionis for over 20 years, and six have been with the company for over 30 years.

We work hard to create a rewarding and supportive environment that empowers our employees to thrive. We are proud to have been named one of the Best Places to Work in San Diego in 2020 and one of the Top Biotech Companies in San Diego in 2021 by the San Diego Business Journal.

EMPLOYEE RECRUITMENT, DEVELOPMENT AND RETENTION

We have processes in place to ensure fair and equitable recruitment of the best and most qualified candidates, and we cast a wide net when searching for talent. We offer internships to promising students to nurture their interest in the biotech and pharmaceutical sectors. Whether we are hiring entry-level, mid-career, or executive level candidates, we look beyond a candidate's academic qualifications to identify valuable experience and skills. We welcome fresh perspectives and aim to strike a balance between promoting from within and hiring from the outside.

New employees enter a peer mentoring buddy program, and comprehensive training and development plans are offered for employees at all levels. Our training and development program, referred to as The Learning Continuum, supports the development of our employees as they progress through their career. We offer integration programs, science classes for non-scientists, a manager's book club, soft skills training, English language skills, supervisory capabilities, and leadership development programs. Most of the training sessions are co-facilitated by a member of the HR team and a functional area vice president from across the organization. In 2020, we offered 43 training sessions in The Learning Continuum, with 762 attendees.

EMPLOYEE WELLBEING AND BENEFITS

In line with our goal to attract and keep the best people, we ensure our employees are compensated according to market, internal equity, and performance factors. We also offer a comprehensive benefits package.

- 401k plan including a 100% company match on the first 5% of employee contributions
- Stock options/Restricted Stock Units (RSUs) and Employee Stock Purchase Plan
- Annual performance-based bonus and merit increases
- Medical, dental and vision plans
- Life insurance, AD&D, short-term and long-term disability plans
- Flexible spending accounts for health and dependent day-care needs
- Paid vacation, sick days, holidays, parental leave, and paid time off for volunteering

To support the overall health of our employees, we provide a range of wellbeing and stress management tools and programs, including:

- Onsite gym with group fitness classes and company-wide wellness challenges
- Regular wellness tips/resources shared with employees each month
- Employee Assistance Program providing phone, online and face-to-face counselling sessions

longevity of tenure

50+

(~10%) employees

20+

years

the learning continuum

43

training sessions offered

762

colleagues attended

below average turnover

11.5%

turnover rate in the US

- Mental/behavioral health benefits through our healthcare insurance
- Online resources through LinkedIn Learning on topics such as work-life integration, avoiding burnout, managing stress, and working from home
- Mental health first aid training for HR team and selected leaders
- Flexible work schedules

Our efforts to provide a supportive and rewarding working environment have translated into high employee retention and remarkable longevity of staff. Total turnover in 2020 was 11.5%, which was well below the U.S. average according to the U.S. Bureau of Statistics.

DIVERSITY & INCLUSION

We strive to create an environment that values different perspectives, where all employees are encouraged to contribute wholeheartedly and reach their full potential. Encouraging diversity has always been part of our corporate culture and we work hard to promote fairness, inclusion and equity.

In 2020, we launched Employee Resource Groups (ERGs) to promote diversity and inclusion within our organization. The groups are employee-led and focused on a particular dimension of diversity. ERGs give colleagues the opportunity to discuss issues around diversity and inclusion, and are designed to support our business goals, diversify our leadership, build cultural awareness, and promote an inclusive and supportive culture.

Employee-led ERGs at Ionis include:

- LGBTQIA+
- Women's Empowerment
- Diversity Discussion Group
- The Parent Network
- Mental Health & Wellness
- Minority Student Outreach
- STEM Program to Improve Underrepresented Minorities in Life Sciences

In line with our commitment to diversity and inclusion, we are pleased to release our diversity and inclusion data for the first time.

	EEO Category	Female	Male	% Female	% Male
642	**TOTAL**	**329**	**313**	**51%**	**49%**
50	Executive/Senior-Level Officials and Managers	12	38	24%	76%
177	First/Mid-Level Officials and Managers	81	96	46%	54%
344	Professionals	189	155	55%	45%
71	Support Workers	47	24	66%	34%

	EEO Category	People of Color	White	% People of Color	% White
642	**TOTAL**	**271**	**371**	**42%**	**58%**
50	Executive/Senior-Level Officials and Managers	14	36	28%	72%
177	First/Mid-Level Officials and Managers	61	116	34%	66%
344	Professionals	164	180	48%	52%
71	Support Workers	32	39	45%	55%

Diversity statistics as of June 30th, 2021

HEALTH & SAFETY

We strive to protect the health and safety of all employees, contractors, and visitors, and we aim to provide an injury-free workplace.

We have implemented a safety management system that uses risk metrics, monitoring, auditing, and target setting to continuously improve occupational health and work safety. Regular safety training is provided to all laboratory and manufacturing employees, and health and safety compliance is audited routinely. We regularly assess health-related risks to employees, contractors and visitors and proactively manage those risks across our operations.

	2018	2019	2020
Recordable Injury Rate	1.6	0.6	1.0
Lost Time Injury Rate	0.4	0.0	0.5

Workplace safety statistics

A COMMITMENT TO OUR COMMUNITIES

Although our primary focus is our patients, our work also touches their families, communities, and healthcare providers. We want to have a positive influence on the communities in which we work and live.

We are also an active participant in the scientific and academic communities and are immensely proud of the contributions we have made to advancing science and technology. As the leader in RNA-targeted therapies, our advances in research have helped drive the biotech and pharmaceutical industries forward, unlocking new possibilities for curing disease and transforming lives across the globe.

SUPPORTING HEALTHCARE COMMUNITIES

Giving back is in our RNA. We are proud of the work we do to support and uplift our community and of the many contributions made by our employees. To support these efforts, we provide up to two days per year of paid time off to volunteer for patient-focused 501(c)(3) non-profit organizations. We also have a workplace giving platform that enables employees to donate to any 501(c)(3) organization.

We partner with many organizations, and in 2020 donated approximately $2 million to charitable groups, including about $1.4 million to n-Lorem. Ionis' financial and scientific contributions to n-Lorem, a non-profit organization, support the funding and development of free antisense treatment for ultra-rare diseases. We also coordinated volunteering days and provided in-kind support to a range of organizations, including:

- ALS Association, Greater San Diego Chapter: dedicated to finding a cure for ALS and to improving the lives of those living with and affected by ALS
- ADAPT Functional Movement Center: providing a complete integrative recovery experience for individuals with chronic neurological conditions
- Emily's Entourage: dedicated to advancing research for rare mutations of Cystic Fibrosis
- Life Science Cares: leveraging the influence of the life science industry to address issues of poverty and inequality in Boston, San Diego, Philadelphia, and the San Francisco Bay Area
- Ocean Discovery Institute: inspiring the next generation of science leaders and creating learning experiences for young people traditionally excluded from science due to race, income status, and educational opportunity
- n-Lorem: supporting the funding and development of free antisense treatment for ultra-rare diseases

We also created a $25,000 scholarship to help patients with amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease) participate in physical and mental wellness programs.

Since the onset of the pandemic, we focused on finding COVID-safe and virtual opportunities to which to lend our support. For example, our ALS Holiday Hope Campaign involved 30 volunteers arranging and delivering COVID-safe gifts to almost 200 families impacted by ALS. We expect community engagement and in-person volunteer opportunities to increase once the pandemic subsides.

CONTRIBUTION TO THE SCIENTIFIC COMMUNITY

We are driven by the belief that our work is bigger than we are. We are part of a broader mission to improve patients' lives through innovation. For this reason, we often share our science, work with partner organizations to broaden the potential applications of our technology, and we ask that all our partners and collaborators contribute to our integrated safety database. Anything learned about safety is included and shared across our platform. This helps us understand precisely how our medicines work and ensures we identify safety signals early.

Uniquely among our peers, we foster an academic working environment. Our scientists are expected to publish and present their work, both internally and externally to peers. We want to ensure our science is peer-reviewed, while protecting our intellectual property. Our employees are encouraged to explore new ideas and interact with the broader scientific community.

A RESPECT FOR THE ENVIRONMENT

We are a responsible corporate and global citizen, and we try to minimize the impact of our operations on our local communities. We also look to minimize our contribution to global challenges such as climate change.

Because we are based in California, we are bound by some of the most stringent environmental regulations in the world. We rely on energy, water, and raw materials in our production process, and we endeavor to use these resources as efficiently and sustainably as possible. We monitor our resource consumption and manage waste at our manufacturing and research facilities to minimize our impact on the environment and protect human health. We review production processes regularly to improve the efficiency and yield of complex chemistries used in the production of pharmaceuticals.

ENERGY

Our Carlsbad headquarters and R&D campus was designed and built to meet energy-efficient LEED Gold standards.

In 2018, we were one of the first businesses in the region to construct a solar farm to increase our use of renewable energy sources in powering our operations. The combined 910 KW capacity solar photovoltaic system includes over 1,000 panels.

Our investment in technology and infrastructure, including the implementation of solar energy and energy efficiency plans, has helped us reduce our electricity consumption over time.

WATER

Our water use is regularly monitored and evaluated to identify opportunities for reducing and minimizing consumption. Conservation measures include using recycled water for landscaping.

WASTE MANAGEMENT

We have programs to minimize waste, and review waste disposal alternatives and recycling. We recycle paper, cardboard, plastics, and glass waste, and we provide training in waste management to all lab employees and contract workers at our facilities. Routine audits are conducted on procedures and practices at third-party waste management sites. We are committed to annual goals for source reduction, reuse, recycling and disposal to reduce hazardous and non-hazardous waste generation.

OUR ONGOING FOCUS ON ESG

As a company that has operated responsibly, we are proud of all we have achieved in pursuit of our ESG agenda despite the disruption of the pandemic. Publishing this report is another step in formalizing our ESG efforts. Going forward, we will monitor our progress and report transparently against any ESG targets we set.

SUSTAINABLE ACCOUNTING STANDARDS BOARD (SASB) DATA TABLE

As part of our priority assessment, we leveraged biotechnology and pharmaceuticals industry guidance from the Sustainability Accounting Standards Board (SASB). That data table can be found below.

Topic	Accounting Metric	SASB Code	Location/Response
Safety of Clinical Trial Participants	Discussion, by world region, of management process for ensuring quality and patient safety during clinical trials	HC-BP-210a.1	Corporate Responsibility Report, Page 8
	Number of FDA Sponsor Inspections related to clinical trial management and pharmacovigilance that resulted in: (1) Voluntary Action Indicated (VAI) and (2) Official Action Indicated (OAI)	HC-BP-210a.2	"In 2020, there were no FDA Good Clinical Practice (GCP) Investigator Site inspections that resulted in Voluntary Action Indicated (VAI) or Official Action Indicated (OAI). "
Access To Medicines	Description of actions and initiatives to promote access to health care products for priority diseases and in priority countries as defined by the Access to Medicine Index	HC-BP-240a.1	Corporate Responsibility Report, Page 7
	List of products on the WHO List of Prequalified Medicinal Products as part of its Prequalification of Medicines Programme (PQP)	HC-BP-240a.2	No Ionis products are on the WHO List at time of reporting.
Drug Safety	List of products listed in the Food and Drug Administration's (FDA) MedWatch Safety Alerts for Human Medical Products database	HC-BP-250a.1	There were no Ionis products listed on FDA MedWatch at the time of reporting. Please visit the FDA MedWatch website for more information.
	Number of fatalities associated with products as reported in the FDA Adverse Event Reporting System	HC-BP-250a.2	There were no Ionis products listed on FDA MedWatch at the time of reporting. Please visit the FDA MedWatch website for more information.
	Number of recalls issued, total units recalled	HC-BP-250a.3	Corporate Responsibility Report, Page 8
	Number of FDA enforcement actions taken in response to violations of current Good Manufacturing Practices (cGMP), by type	HC-BP-250a.5	Corporate Responsibility Report, Page 8
Ethical Marketing	Total amount of monetary losses as a result of legal proceedings associated with false marketing claims	HC-BP-270a.1	In 2020, there were no monetary losses as a result of legal proceedings associated with false marketing claims.
	Description of code of ethics governing promotion of off-label use of products	HC-BP-270a.2	Code of Ethics and Business Conduct, Page 4
Employee Recruitment, Development & Retention	Discussion of talent recruitment and retention efforts for scientists and research and development personnel	HC-BP-330a.1	Corporate Responsibility Report, Page 11
	(1) Voluntary and (2) involuntary turnover rate for: (a) executives/senior managers, (b) midlevel managers, (c) professionals, and (d) all others	HC-BP-330a.2	Corporate Responsibility Report, Page 12
Supply Chain Management	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	HC-BP-430a.1	Corporate Responsibility Report, Page 8
Business Ethics	Total amount of monetary losses as a result of legal proceedings associated with corruption and bribery	HC-BP-510a.1	In 2020, there were no monetary losses as a result of legal proceedings associated with corruption and bribery.
	Description of code of ethics governing interactions with health care professionals	HC-BP-510a.2	Code of Ethics and Business Conduct, Page 3
Activity Metrics	Number of Patients Treated	HC-BP-000.A	Corporate Responsibility Report, Page 7
	Number of drugs (1) in portfolio and (2) in research and development (Phases 1-3)	HC-BP-000.B	Ionis Pipeline