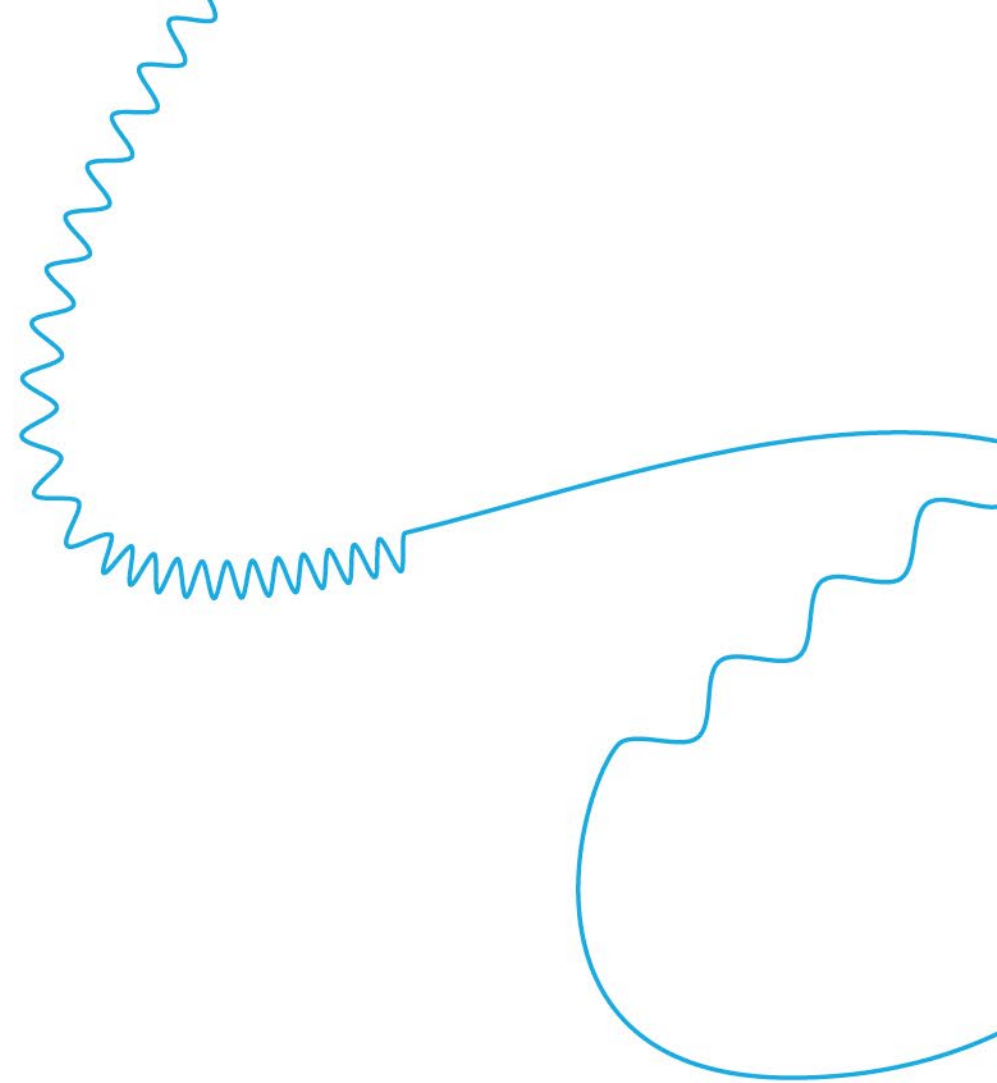




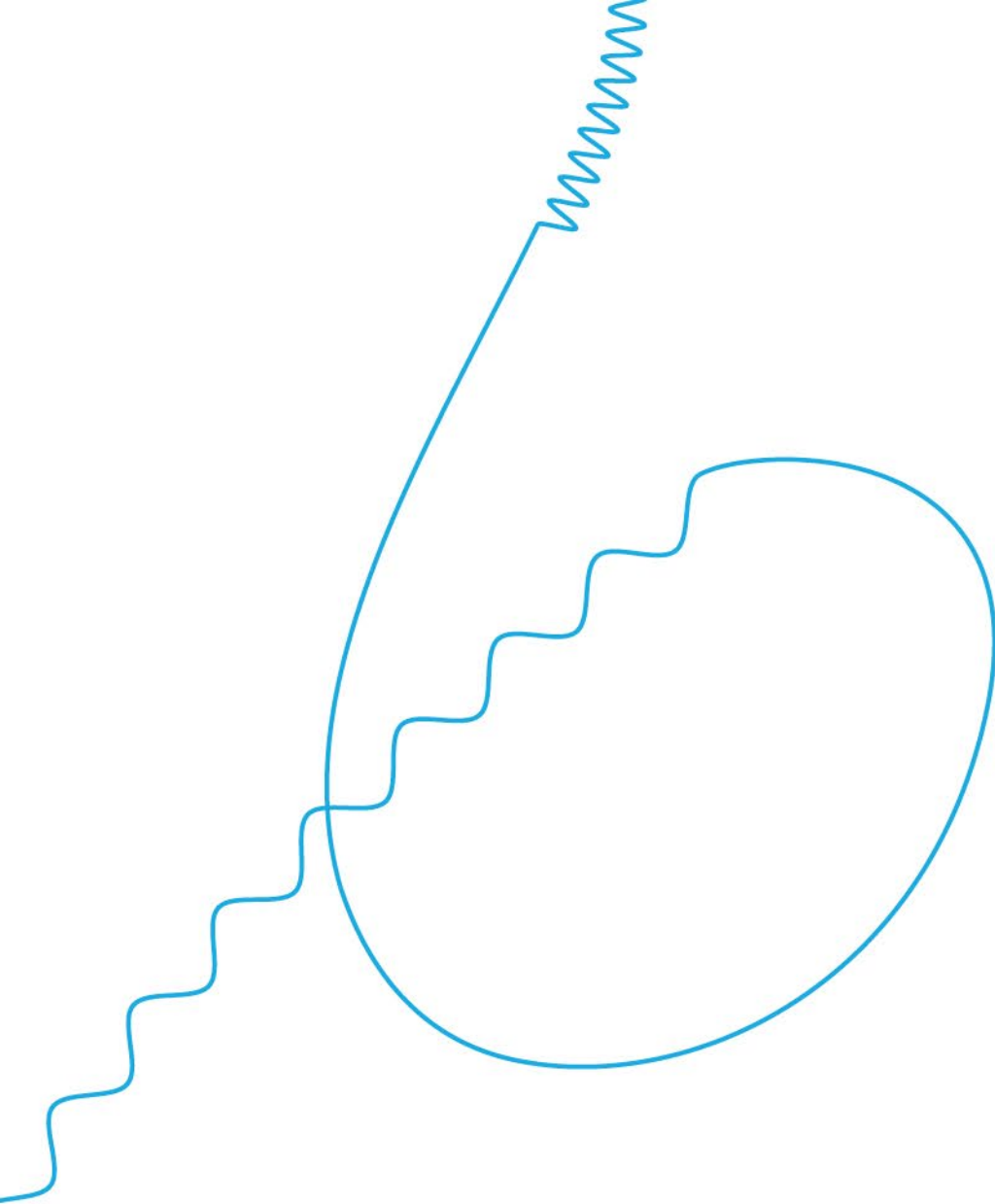
ESG DAY 2023

December 7, 2023



I Forward-Looking Statement Disclaimer

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including statements regarding: the potential for Moderna to launch up to 15 products in the next five years, including several respiratory vaccine launches by 2025; Moderna's ability to leverage its mRNA platform for pandemic readiness and to prepare for Disease X; Moderna's commitment to achieving net-zero carbon emissions in its global operations for Scopes 1 and 2 by 2030 and to defining a near-term science-based target and evaluating a long-term target for Scope 3; the potential of Moderna's mRNA platform for addressing rare diseases; Moderna's ability to enroll and retain diverse participants in its clinical trials; Moderna's implementation of its climate and environmental initiatives; and Moderna's efforts to embed sustainability across its supply-chain. In some cases, forward-looking statements can be identified by terminology such as "will," "may," "should," "could," "expects," "intends," "plans," "aims," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. The forward-looking statements in this presentation are neither promises nor guarantees, and you should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, many of which are beyond Moderna's control and which could cause actual results to differ materially from those expressed or implied by these forward-looking statements. These risks, uncertainties, and other factors include, among others, those risks and uncertainties described under the heading "Risk Factors" in Moderna's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the U.S. Securities and Exchange Commission (SEC), and in subsequent filings made by Moderna with the SEC, which are available on the SEC's website at www.sec.gov. Except as required by law, Moderna disclaims any intention or responsibility for updating or revising any forward-looking statements contained in this presentation in the event of new information, future developments or otherwise. These forward-looking statements are based on Moderna's current expectations and speak only as of the date of this presentation.



Introduction

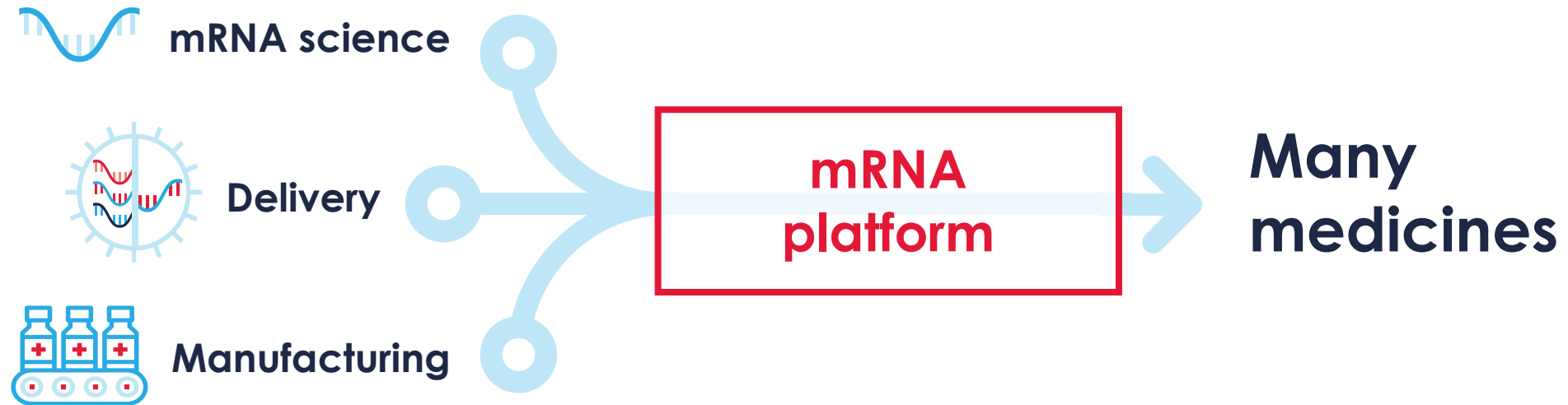
Stéphane Bancel
Chief Executive Officer



Our mission

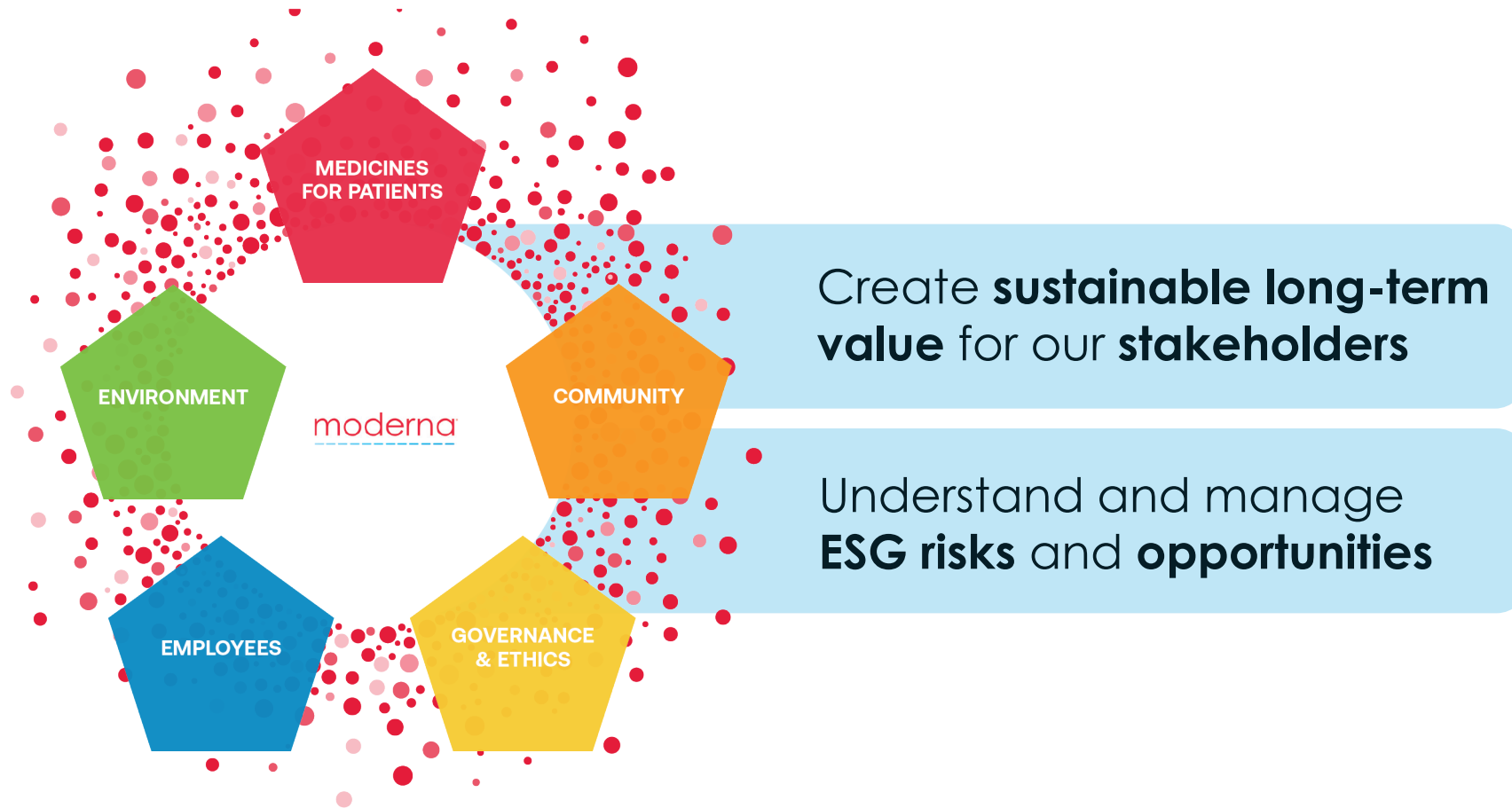
Deliver the greatest possible impact
to **people** through mRNA **medicines**.

Investing in a platform to deliver on the promise of mRNA



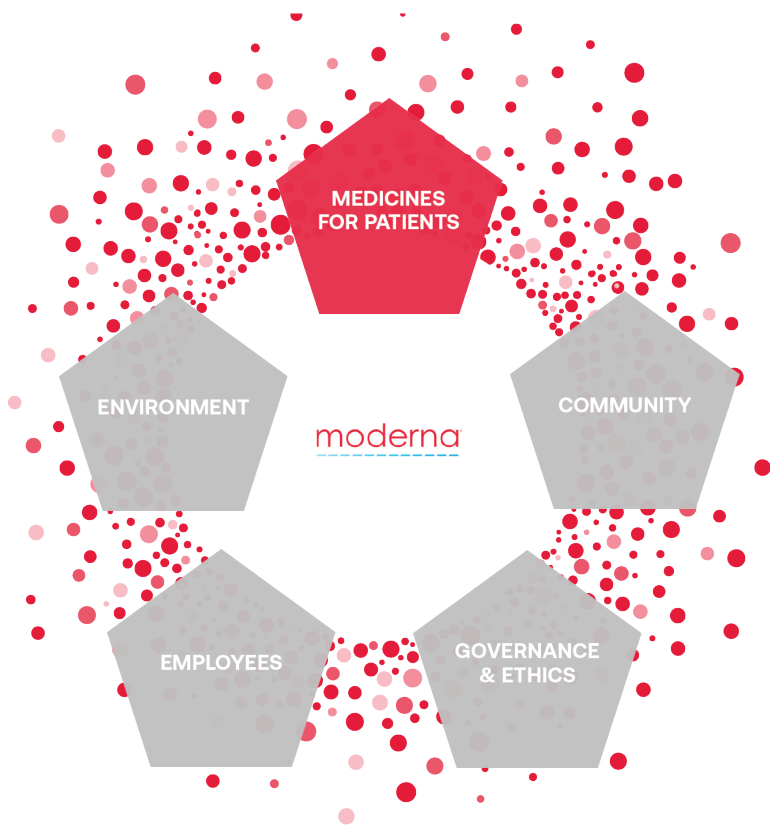
Our platform incorporates the advancements and inventions we've made and continue to make in mRNA science, delivery technologies and manufacturing processes

Moderna's ESG framework is critical to deliver on our mission



Deliver the greatest possible impact to **people** through mRNA **medicines**.

We believe that Moderna's mRNA platform has the ability to meet many unmet medical needs



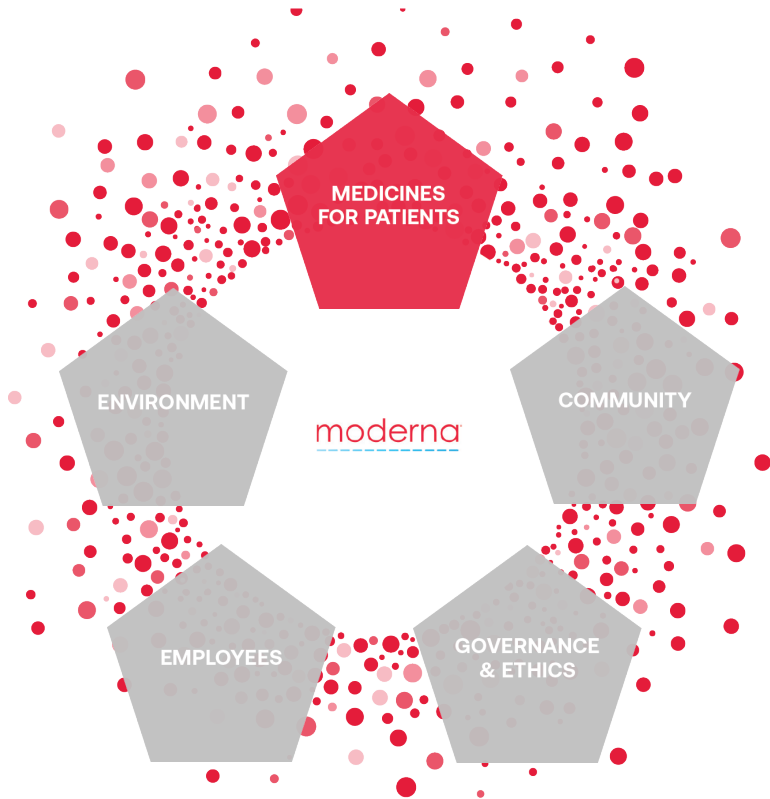
With the potential of our science comes a responsibility to the multitude of patients our technology could help

We are beginning to deliver great impact with our mRNA medicines
Anticipating up to 15 launches in the next 5 years¹

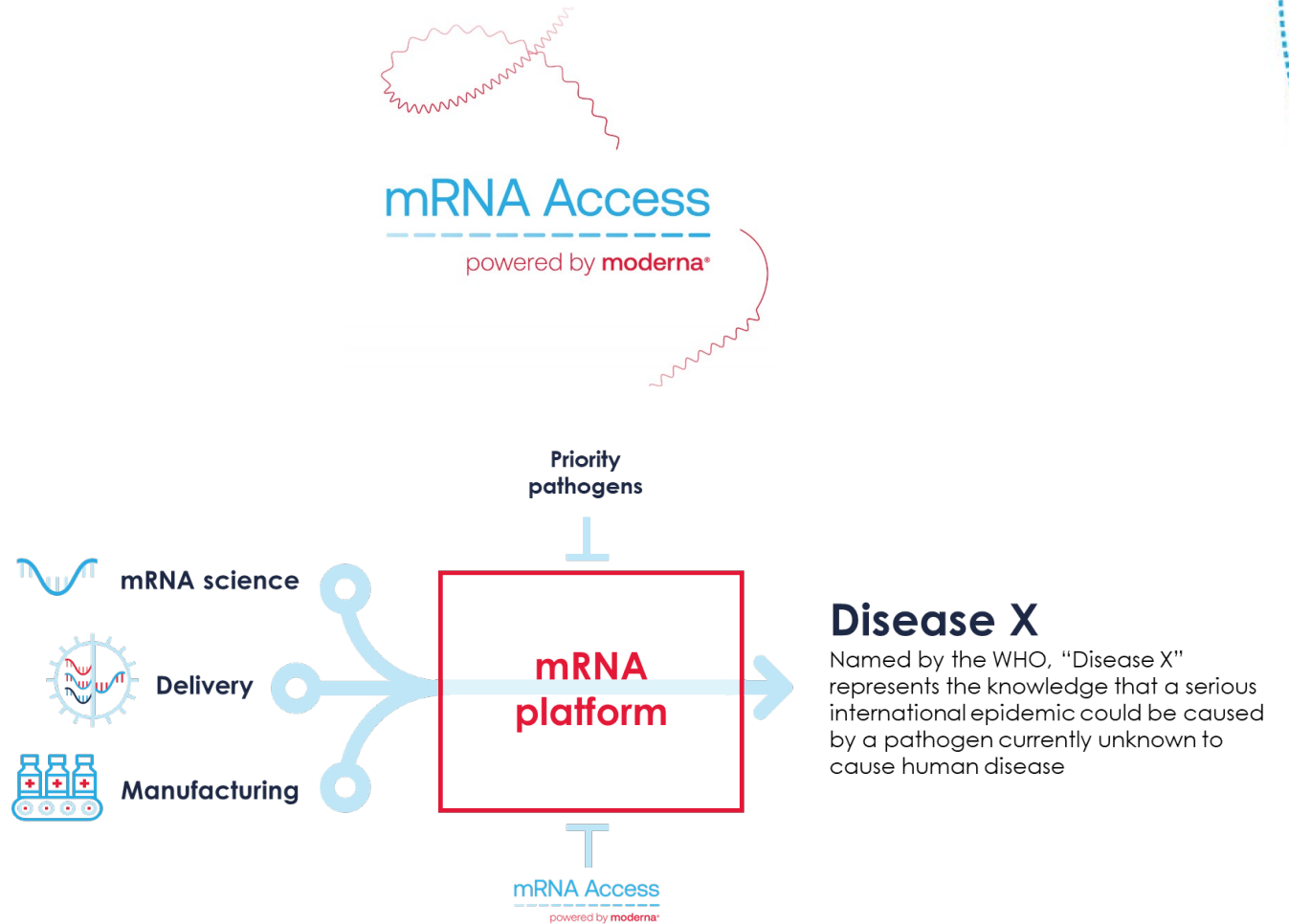
	Respiratory vaccines	Latent/other vaccines	Oncology	Rare disease			
by 2025	RSV (older adults) mRNA-1345	Seasonal Flu mRNA-1010					
	Flu/COVID mRNA-1083	NextGen COVID mRNA-1283					
by 2028	Flu/COVID/RSV NextGen	RSV/hMPV (older adults) mRNA-1365	CMV mRNA-1647	Norovirus (older adults) mRNA-1403/-05	INT (adjuvant melanoma) mRNA-4157	MMA mRNA-3705	PA mRNA-3927
	RSV 2-18Y mRNA-1345	Pandemic Flu mRNA-1018	EBV (IM) mRNA-1189	Lyme mRNA-1975/-82	INT (undisclosed indication) mRNA-4157	PKU mRNA-3210	GSD1α mRNA-3745
	NextGen Flu mRNA-1011/-1020	Endemic hCOV mRNA-1287	VZV mRNA-1468	HSV mRNA-1608	INT (adjuvant NSCLC) mRNA-4157		
					Subject to regulatory discussions ²		

1. Subject to positive clinical data and regulatory discussions/approvals.
2. Subject to future regulatory discussions, there may be potential for accelerated approval in some markets.

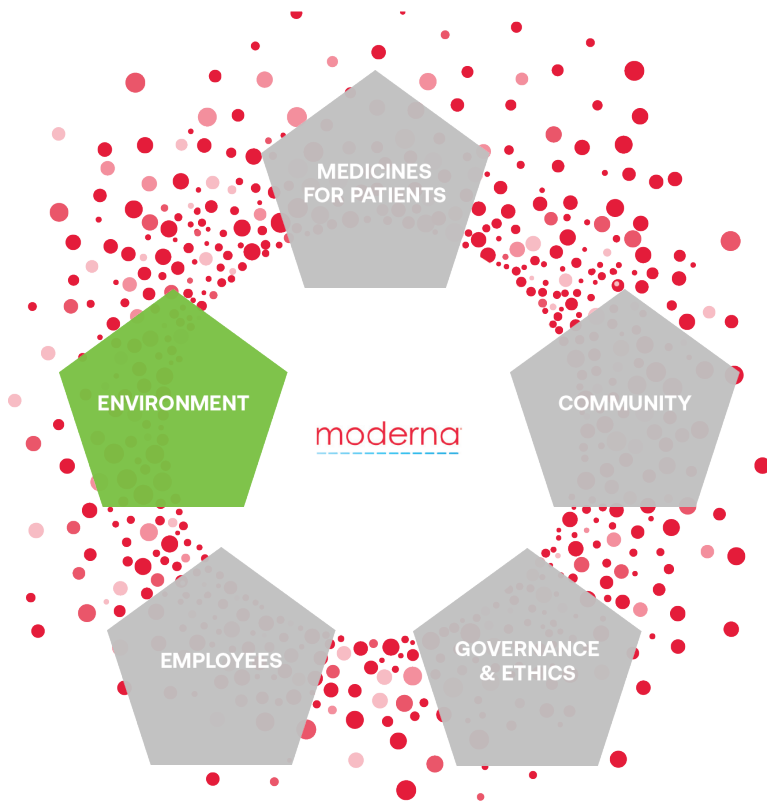
Leveraging our mRNA platform for pandemic readiness



The world needs novel, innovative approaches to address both known and emerging infectious diseases and we know that we can't do it alone



We are committed to building Moderna in a way that minimizes our impact on the environment



We believe that ensuring the health of our planet is critical to impacting human health

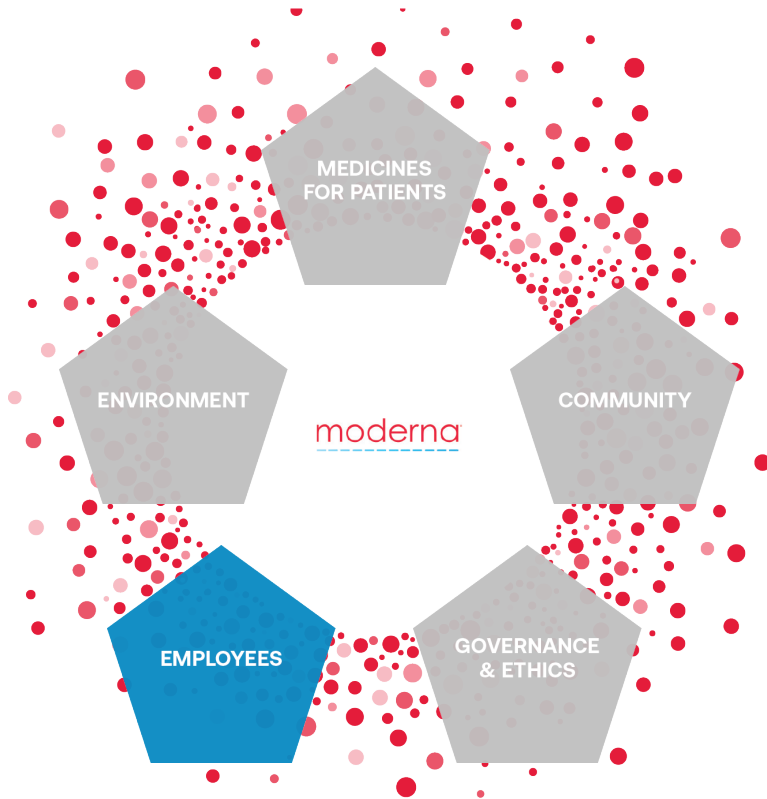


Moderna is committed to achieving net-zero carbon emissions in our global operations for Scopes 1 and 2 by 2030



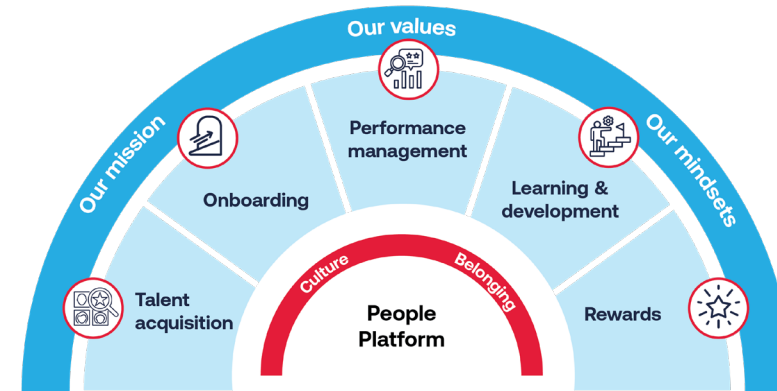
Moderna is committed to defining a near-term science-based target and evaluating a long-term target for Scope 3

Moderna seeks to attract and retain the best talent



We give our people a platform to change medicine and an opportunity to change the world

Building an innovative People Platform for our employees



Being recognized as a great place to work



3rd consecutive year #1 large employer in BioSpace's Best Places to Work

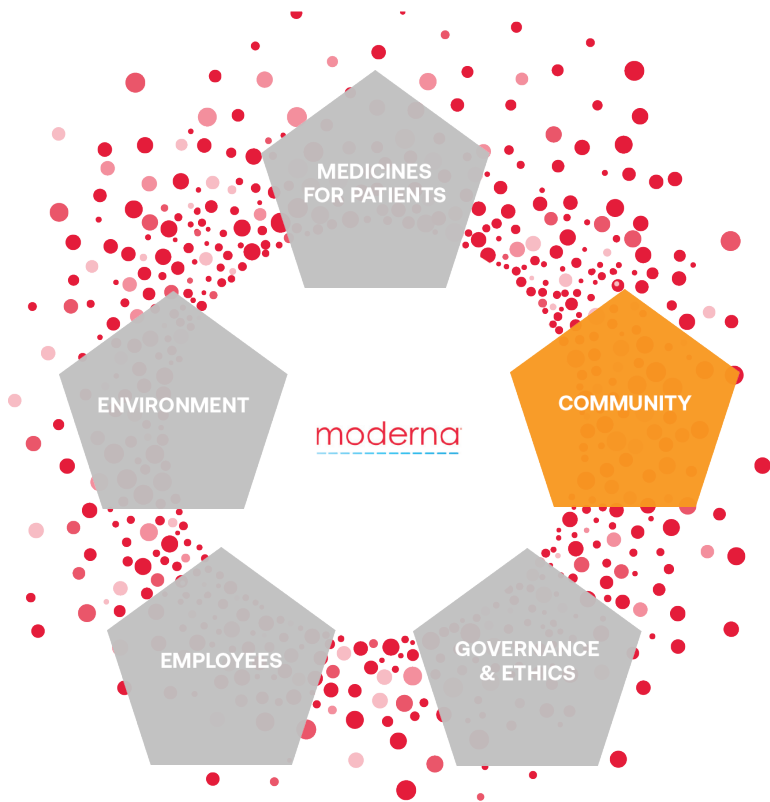


9th consecutive year ranked as one of the top employers by Science Careers



1st year recognized as Great Place to Work

Committed to having a positive impact on communities around the world



We are seeking partners that share our commitments to improving human health and closing opportunity gaps in our communities

Seed GLOBAL HEALTH

LIFE SCIENCE CARES boston

International Medical Corps

Heading Home

BOSTON MEDICAL CENTER

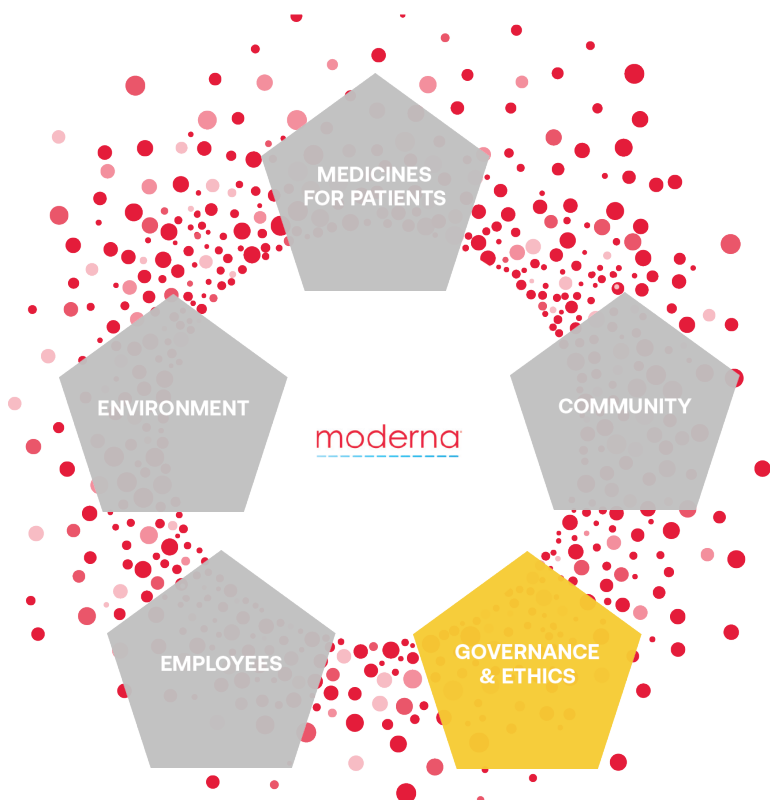
amref health africa

yearup

INTERNATIONAL RESCUE COMMITTEE

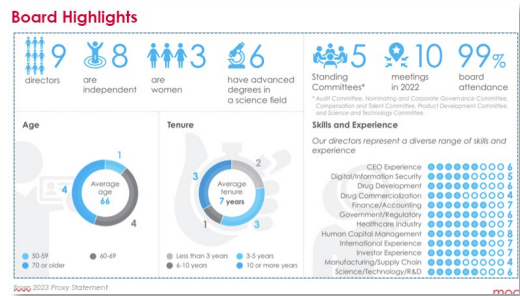
1,500 nonprofits globally supported in 2022

Building Moderna in the right way



Our continuous focus on quality, transparency, and ethical behavior is critical to building and maintaining trust with all our stakeholders

ESG accountability at Board and Executive Committee level



Continuing our journey to increase transparency and ESG reporting

Impacting Human Health
2022 ESG Report

moderna

Moderna in 2022

Key ESG Highlights

- Medicines for Patients:** 48/35 Development program Candidates in phase 3; \$3.3bn R&D invested in 2022; 12 programs in clinical and development; 9 molecules advancing in Phase 3 studies; 4 investigational medicines authorized for use.
- Employees:** 50% female employees; 41% female executives; 8 diverse executive leaders; 9 Academic to Industry transitions; Equal pay for equal work study.
- Environment:** Sustainability Strategy defined; Incorporating sustainability by design in all Phase 3 and late-stage clinical and R&D; Net-Zero carbon emissions by 2030; Decarbonizing our value chain; 2023 Scope 1 & 2 total gross carbon emissions established.
- Community:** 156% increase in volunteer hours from 2021; 63% employee participation in volunteering and/or giving; Working to advance Net-Zero carbon emissions by the Moderna Climate Resilience 1.5 by 2030; \$7.8 million in grants to the Moderna Charitable Foundation; \$4 million in employee philanthropy grants; \$800,000 in employee giving program; \$1 million in employee volunteer support.
- Governance & Ethics:** Incorporated ESG metrics in our Executive program in 2023 and 2022; Reworked Code of Ethics and Business Conduct; Launched Sustainable and Responsible Procurement program; Awards: BiSpace's Best Place to Work; Ranked number 1 in large pharma category in 2022; Science Careers' Top Employers program; Ranked for eight consecutive years (2017-2022) as a Science Careers' Top Employer.

Table 1: ENERGY and EMISSIONS DATA 2020 (base year) and 2022

Energy Consumption

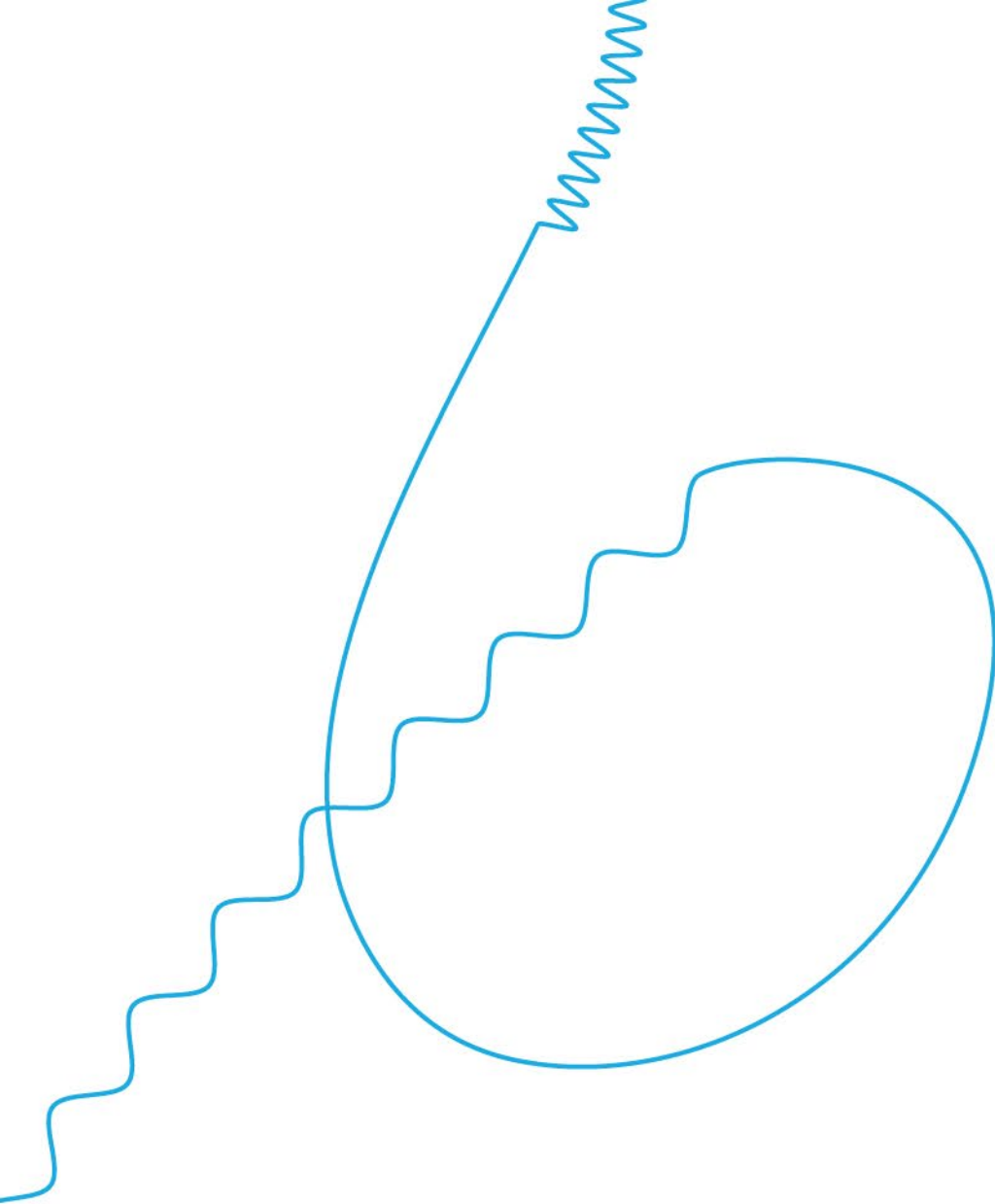
Category	2020	2021	2022
Scope 1	1,000	1,000	1,000
Scope 2	1,000	1,000	1,000
Scope 3	1,000	1,000	1,000

Table 2: GHG EMISSIONS DATA 2020 (base year) and 2022

Category	2020	2021	2022
Scope 1	1,000	1,000	1,000
Scope 2	1,000	1,000	1,000
Scope 3	1,000	1,000	1,000

ESG Day agenda

Welcome and Intro	Stéphane Bancel , <i>Chief Executive Officer</i>
Medicines for patients	Kyle Holen, M.D. , <i>Head of Development, Therapeutics and Oncology</i> Jameka Hill , <i>Senior Director, Patient Engagement & Clinical Trial Health Equity</i> Hamilton Bennett , <i>Senior Director, Vaccine Access & Partnerships</i> Guest speaker: Teresa Lambe, PhD, FRSB, OBE <i>Calleva Head of Vaccine Immunology and Professor of Vaccinology & Immunology and PSI Investigator, University of Oxford</i>
Environment	Deborah Donovan , <i>Senior Vice President, Environmental, Health & Safety</i>
Employees	Tracey Franklin , <i>Chief Human Resources Officer</i>
Communities	Katherine O'Malley , <i>Executive Director, Internal Communications and Employee Engagement</i>
Governance & Ethics	Shannon Klinger , <i>Chief Legal Officer and President, Moderna Charitable Foundation</i>
Conclusion	Stéphane Bancel , <i>Chief Executive Officer</i>
General Q&A	Stéphane Bancel, Kyle Holen, Hamilton Bennett, Deborah Donovan, Tracey Franklin, and Shannon Klinger



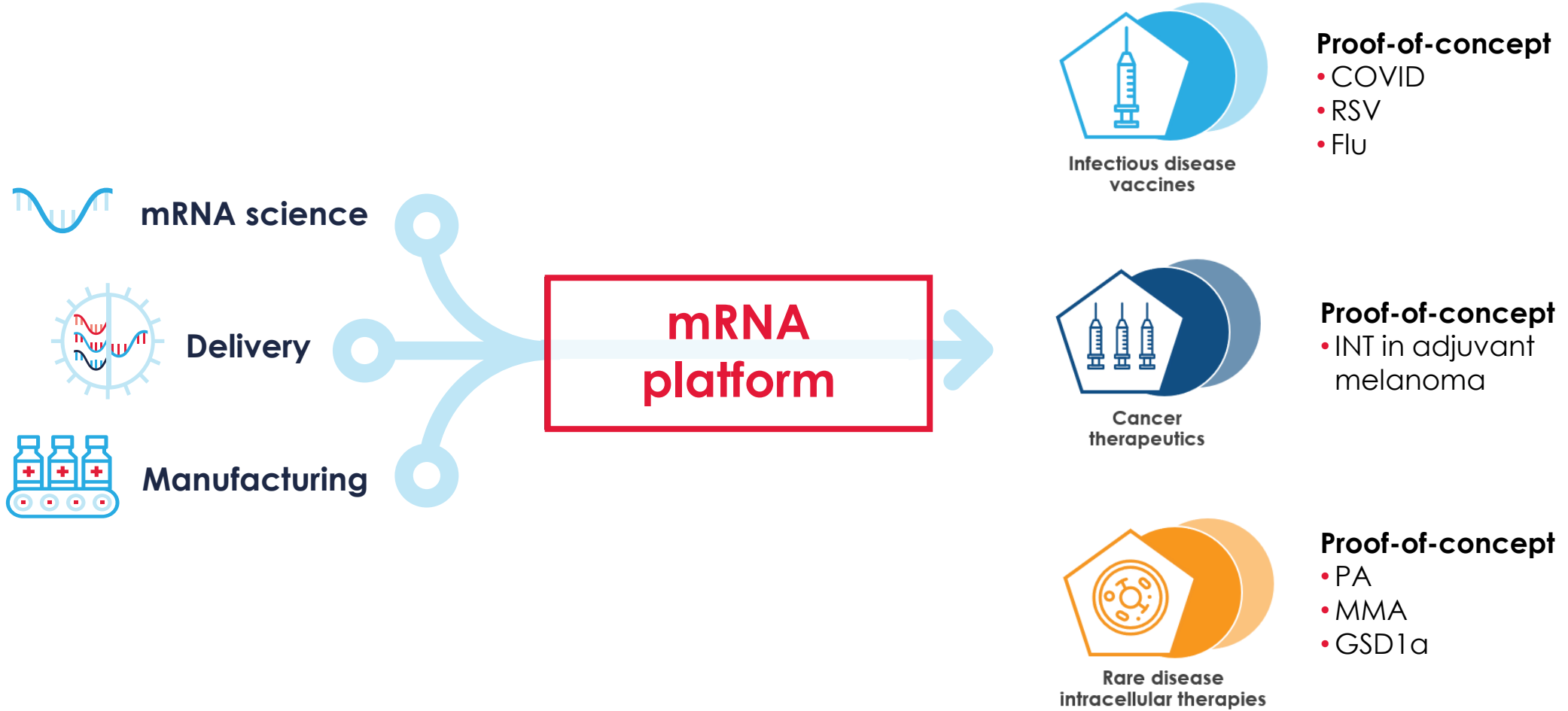
Medicines for patients

Kyle Holen, M.D.

*SVP, Head of Development,
Therapeutics and Oncology, Research
& Development*

moderna®

We leverage our mRNA platform to create modalities



Our pipeline demonstrates Moderna's potential impact across many diseases

			Preclinical	Phase 1	Phase 2	Phase 3	Licensed
Respiratory Infectious Diseases	mRNA-1273	SARS-CoV-2					
	mRNA-1345	RSV (older adults)					
	mRNA-1010	Seasonal Flu (HA)					
	mRNA-1283	SARS-CoV-2					
	mRNA-1083	Flu + COVID					
	mRNA-1020/-1030	Seasonal Flu (HA+NA)					
	mRNA-1345	RSV (pediatrics)					
	mRNA-1230	Flu + COVID + RSV					
	mRNA-1045	RSV + Flu					
	mRNA-1011/-1012	Seasonal Flu (HA)					
	mRNA-1018	Pandemic Flu					
	mRNA-1287	Endemic HCoV					
	mRNA-1365	RSV + hMPV					
Latent and other	mRNA-1647	CMV					
	mRNA-1893	Zika					
	mRNA-1189	EBV					
	mRNA-1574/-1644	HIV					
	mRNA-1215	Nipah					
	mRNA-1195	EBV Therapeutic					
	mRNA-1468	VZV					
	mRNA-1608	HSV					
	mRNA-1403/-1405	Norovirus					
	mRNA-1975/-1982	Lyme					
	mRNA-1769	Mpox					
Rare Disease	mRNA-3927	PA					
	mRNA-3705	MMA					
	mRNA-3745	GSD1a					
	mRNA-3692	CFTR (Vertex)					
	mRNA-3351	CN-1					
	mRNA-3602	PKU					
	mRNA-3139	OTC					
Oncology	mRNA-4157	INT (Merck)					
	mRNA-5671	KRAS					
	mRNA-2752	Triplet					
	mRNA-4359	Checkpoint Vaccine					
Autoimmune	mRNA-6981	PD-L1					
Cardiovascular	mRNA-0184	Relaxin					

Rare diseases are not rare

How many people have rare diseases?

Rare diseases may be **inherited**, which means they are passed down through families. They often affect children **early in life**.

Rare diseases each affect **less than 200,000** people in the US.¹ But, taken together, rare diseases **are not** actually rare:



~1 in 10 people

in the US are living with a type of rare disease, including rare cancers¹



3.5-5.9%

of the world's population has a rare disease²



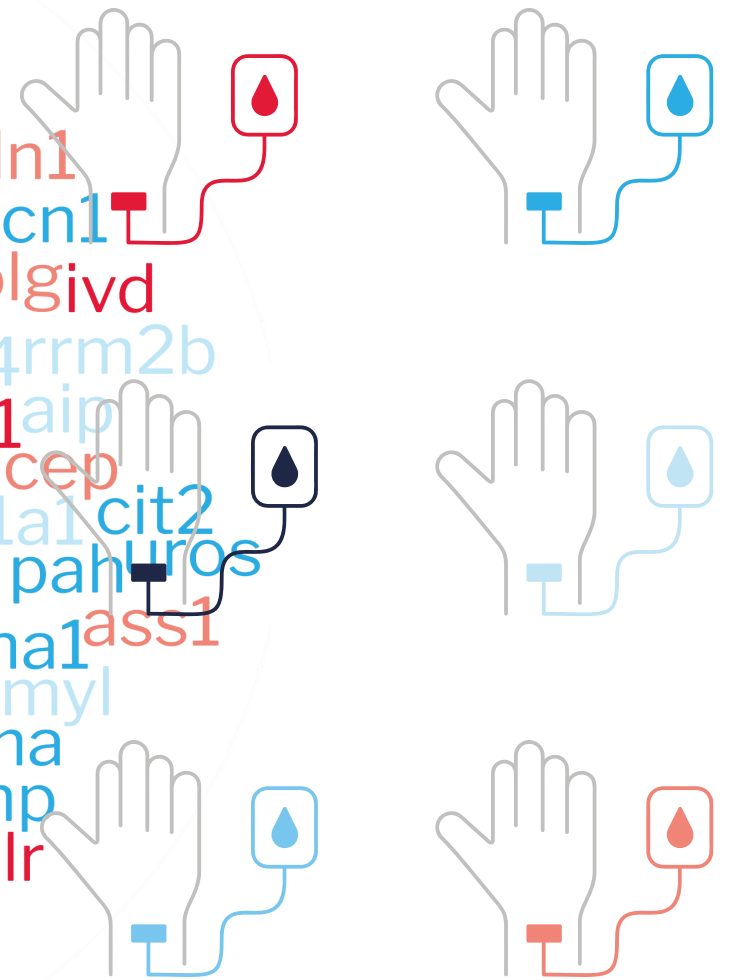
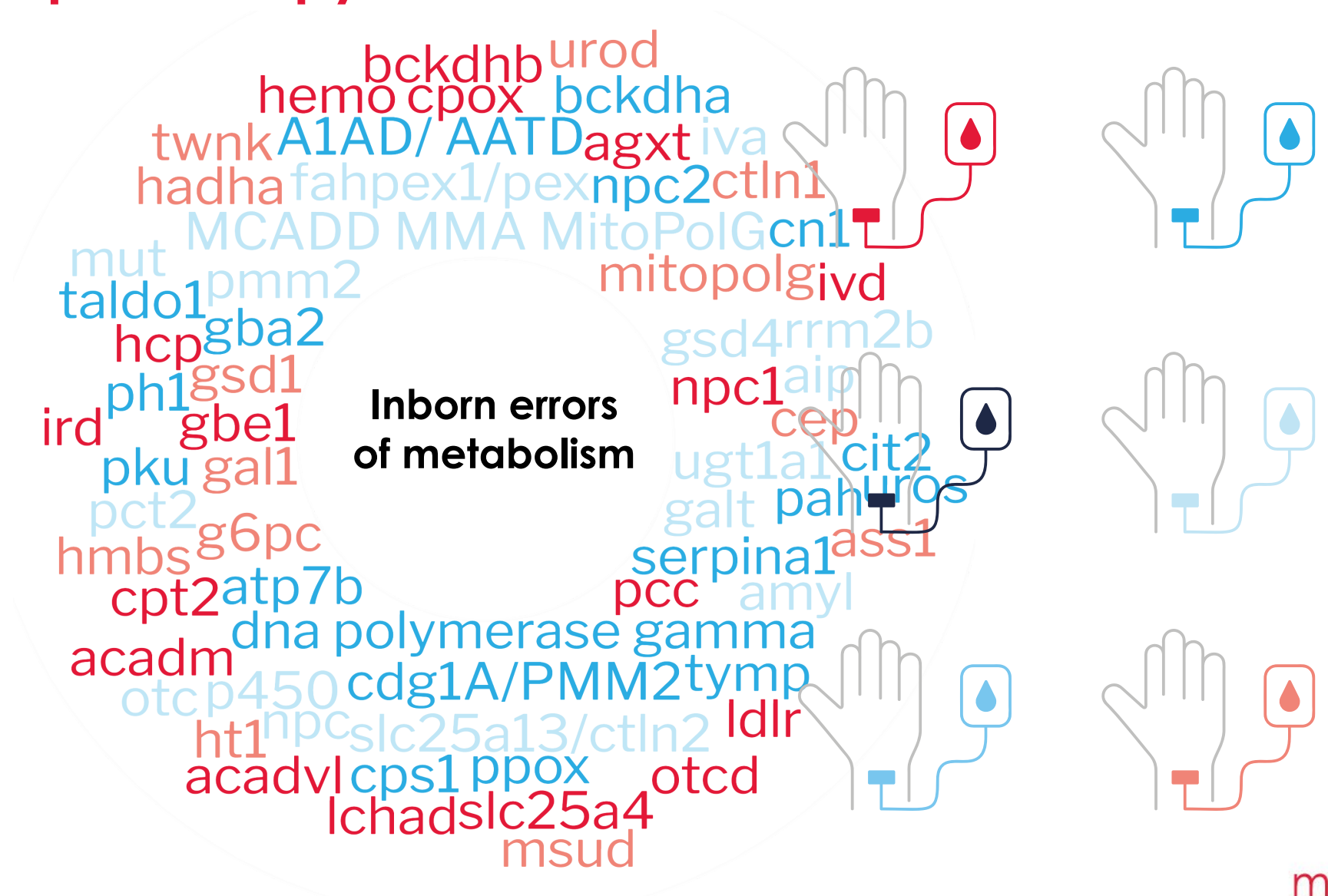
263-446 million

people worldwide, at any given time, are living with a rare disease²

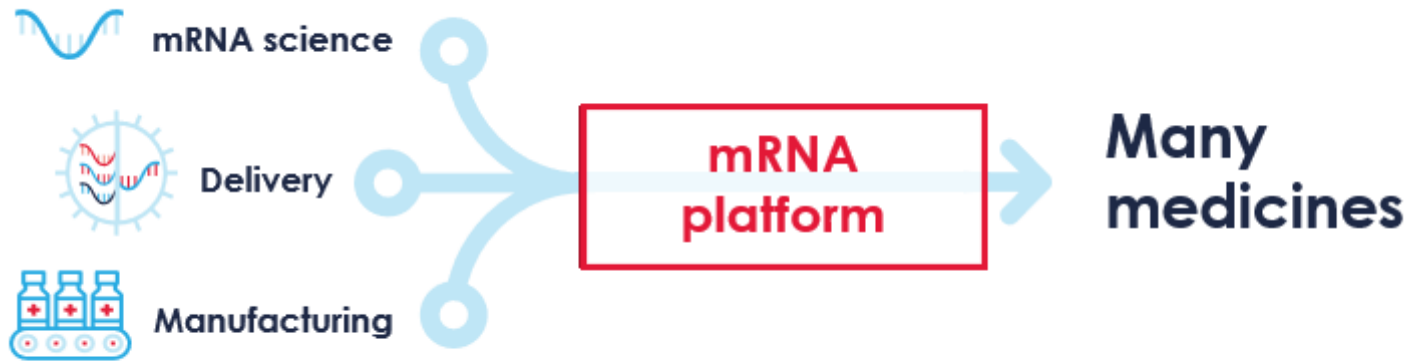
1. <https://rarediseases.org/wp-content/uploads/2019/01/RDD-FAQ-2019.pdf>

2. <https://www.nature.com/articles/s41431-019-0508-0>

The challenge: There are many rare diseases and each disease requires a unique therapy



Moderna's mRNA platform is positioned to address the therapeutic and regulatory challenge



Engaging with global regulators with innovative approaches to approval leveraging platform data

We've seen proof of concept across our rare disease programs

We expect to have significant impact across many rare diseases



Propionic acidemia (PA)

PPA: Overall Phase 1/2 clinical experience

As of August 25, 2023, twenty participants have been dosed

- Twelve participants have >1 year of dosing
- 19.1 cumulative patient-years of experience on study drug
- Longest duration of treatment is 2.4 years and median duration 0.9 years
- Over 433 intravenous doses administered
- Study is ongoing; independent safety monitoring committee approved moving to fifth cohort (0.9 mg/kg)
- The majority of participants have elected to continue on Open Label Extension (OLE) study
- Generally well-tolerated to date
- No dose limiting toxicities
- Three cases of drug related serious adverse events reported in two participants (Vascular device infection Grade 2, Infusion site erythema Grade 2, and Pancreatitis Grade 3¹)
- Mild to moderate infusion related reactions were reported in <10% of doses administered

¹ Patient had a history of recurrent pancreatitis prior to enrollment



Methylmalonic acidemia (MMA)

MMA: mRNA-3705-P101: clinical experience to date

As of August 25, 2023*:

- Eleven participants have been dosed, with a total of 221 doses administered
- Total cumulative treatment duration among all participants is ~10.5 patient-years
 - Median treatment duration among all participants is 1.02 patient-years
 - Maximum participant treatment duration is 1.95 patient-years
- Study is ongoing; final participant in Cohort 4 expected to be enrolled soon
- Generally well-tolerated to date with no discontinuations due to safety and no events meeting protocol-defined dose-limiting toxicity criteria
- All participants who have completed the treatment period of the main study have opted to enter a long-term extension study

*Data include both on-going mRNA-3705-P101 and Extension studies



Glycogen storage disease (GSD1a)

GSD1A: Overall clinical experience of mRNA-3745

As presented at 9/8/22 R&D Day

Patient 1

- Female, 21 years old
- GSD1a diagnosed at 6 months of age, managed with cornstarch
- Genotype: c.379_380dup (homo)

Patient 2

- Female, 18 years old
- GSD1a diagnosed at 2 years of age, managed with cornstarch
- Genotype: c.562G>C c.883C>T (compound het)

Safety

- Intravenous infusion of mRNA-3745 with LNP2 without pre-medication was very well tolerated with only mild AEs
- No vital signs changes up to 12 hours post-infusion
- No serious adverse events
- No meaningful changes in safety labs, including hematology and liver function
- Follow up ongoing

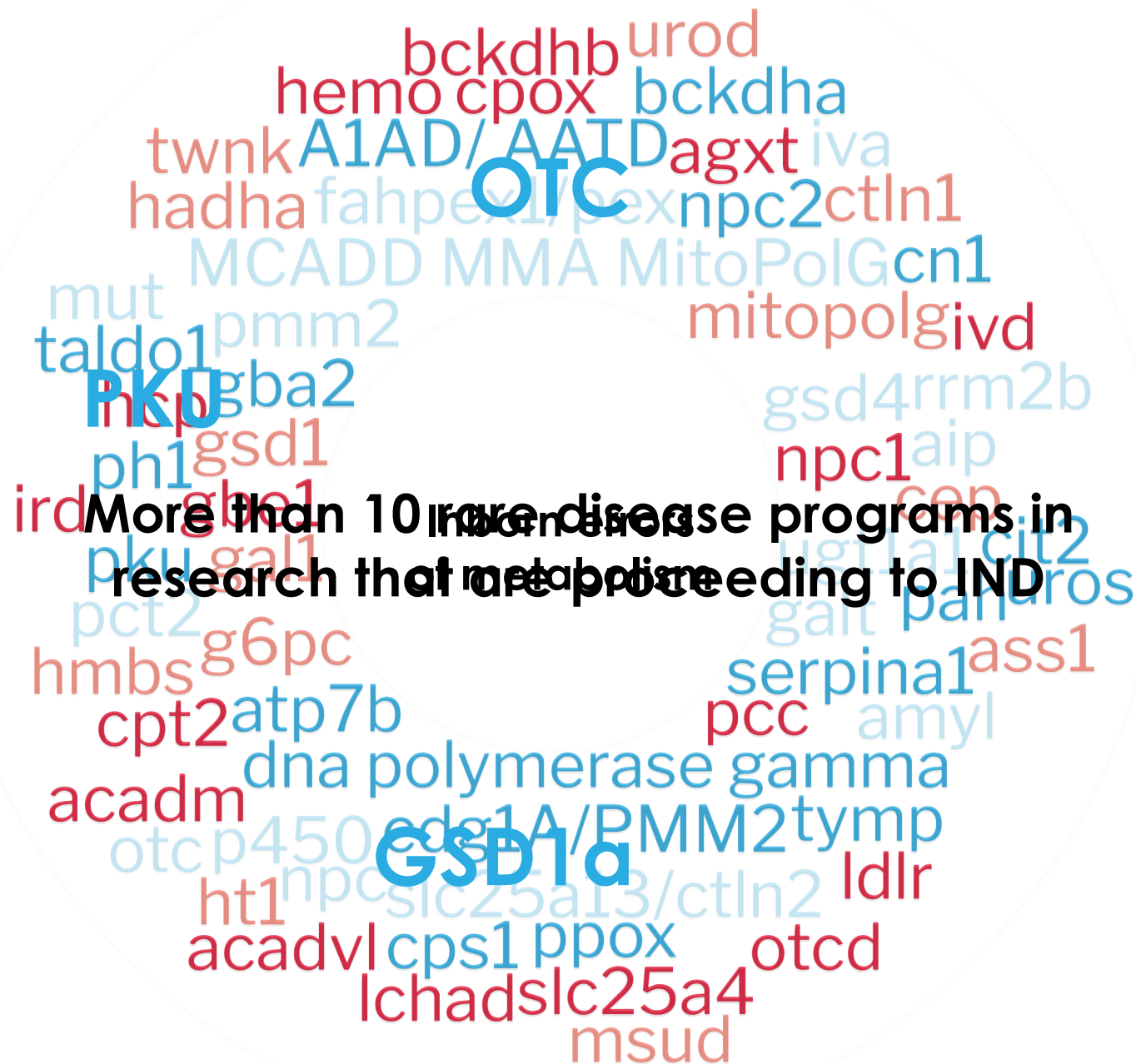
Emerging efficacy after one dose of mRNA-3745

- Both Patient 1 and Patient 2 able to complete full fast (limited to 8 hours)
- Glucose and lactate maintained throughout the fast
- Improved fasting tolerance maintained through Day 8 with slight decrease versus Day 3 measurement, consistent with G6Pase enzyme half-life

We are inspired by the impact that we can have on patients and their families

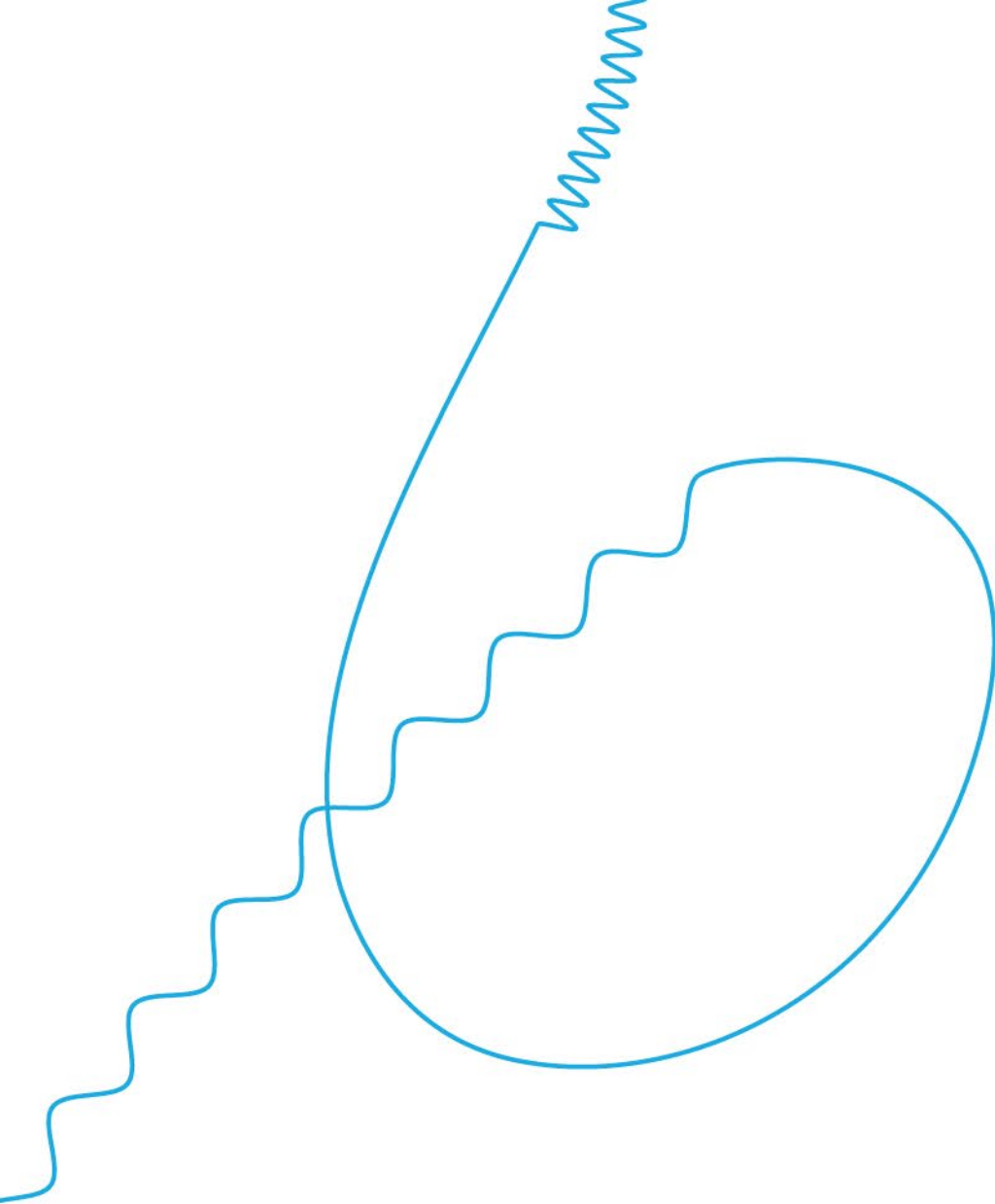


Future



Rare disease Voice of the Patient: Jordan's story





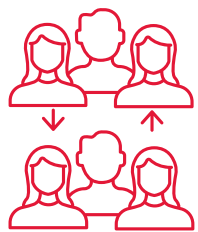
Inclusive Research

Jameka Hill

*Senior Director, Patient Engagement &
Clinical Trial Health Equity*

moderna®

Race, ethnicity, age, and sex can all impact how different people respond to the same medicine or vaccine



At Moderna, a clinical trial can be qualified as “diverse” in healthy volunteer trials when:

37%

of the sample population are from Global Ethnic Majority¹ (GEM) groups

50%

female assigned at birth

Balance across age cohorts

Moderna is engaging clinical trial sites in 32 countries to address health inequalities and disparities on a global scale

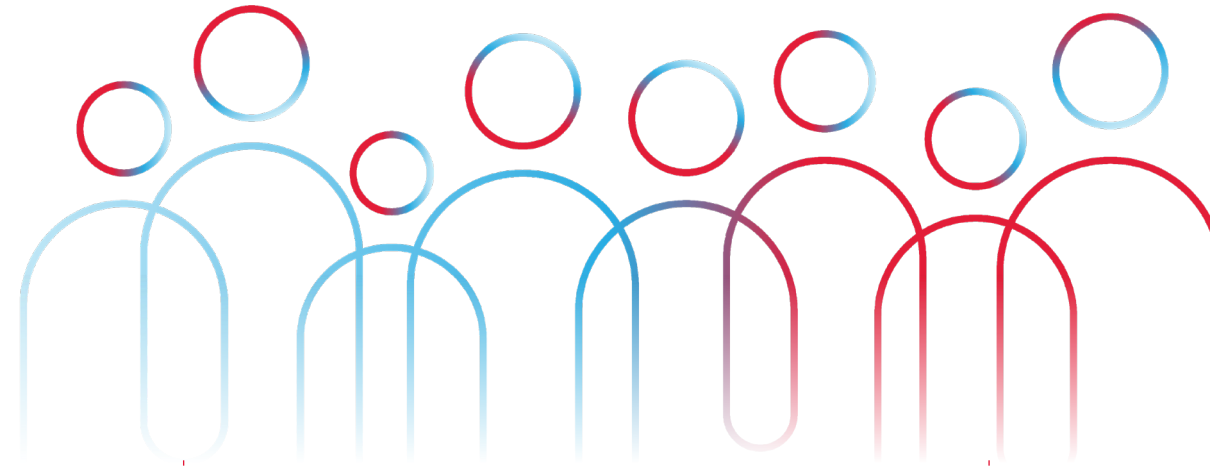
A world map with 32 countries highlighted in a solid blue color. The highlighted countries include the United States, Canada, Mexico, Australia, New Zealand, South Africa, and several countries in Europe, Asia, and South America. The rest of the world's landmasses are shown in light gray.

© 2023 Mapbox © OpenStreetMap

1. GEM = "Global majority" is a collective term for non-white people of African, Asian, Latin American, and Arab descent, who constitute approximately 85 percent of the global population.

Moderna persistently advances inclusive research

A committed approach towards offering equal healthcare accessibility to all groups is achievable and necessary



Ethnicity

38%

Moderna average

Global Ethnic Majority (GEM) enrollment across 37 infectious disease trials in U.S.¹

Sex

52%

Moderna average

Female enrollment across 36 infectious disease trials in U.S.²

Age

39%

Moderna average

65+ enrollment across 24 infectious disease trials; only inclusive of trials that enroll 65+ year old participants in U.S.

Data as of 17 November 2023.

1. Industry average for U.S. Global Ethnic Majority enrollment is approximately 22% Flores LE, Frontera WR, Andrasik MP, et al. Assessment of the Inclusion of Racial/Ethnic Minority, Female, and Older Individuals in Vaccine Clinical Trials. JAMA Netw Open. 2021;4(2):e2037640. doi:10.1001/jamanetworkopen.2020.37640, available at <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2776562>

2. Excluded one 100% female trial

By focusing on awareness, access, and flexibility, we make clinical trials more inclusive

Driving strategy and managing initiatives to build trust and ensure traditionally underrepresented groups can be better engaged in our trials

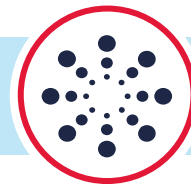
Embedding the importance of diversity in clinical trials into our company's culture

Establishing demographic objectives and diversity plans for each trial

Selecting trial sites with inclusion in mind

Developing outreach and education tailored to specific populations

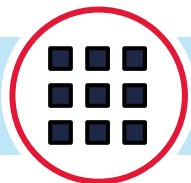
Leveraging dashboard and metrics to measure performance and provide transparency



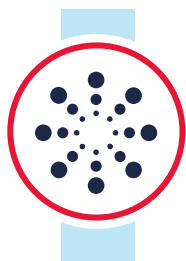
Increasing awareness



Bringing trials into communities



Providing options



Increasing awareness

Moderna aims to be inclusive for people in all communities with our clinical trial branding and outreach strategies

Build awareness and trust

Educate about clinical trials through programs and community partnerships

Support health literacy and languages

Offer materials, consent forms, and trial support in native languages to improve understanding about trial expectations

Engage and foster community relationships

Partner with community leaders and diverse clinical trial sites to provide culturally competent support

moderna | Clinical Trials What are Clinical Trials Why Participate Our Commitment For Researchers Moderna Community

Join the
Moderna Community

Discover new treatments. Advance medical research. Potentially gain access to investigational treatments.

At Moderna, we are dedicated to creating and developing innovative mRNA vaccines and therapies for a wide range of diseases that impact people's lives, but we can't do it alone. We invite you to partner with us on our journey to bring a new generation of transformative medicines to the world. Only people can help save people.

Tell us a little bit about yourself 1/3
Fields marked with asterisk (*) are mandatory.

First Name * Last Name *

Email Address *

Next >



Bringing trials into communities

Increasing accessibility requires novel solutions



Pharmacies & community clinics

Local pharmacies and community clinics provide space and resources for running clinical trials



Mobile units

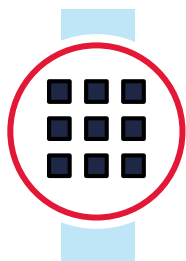
Mobile health units to bring trials directly to participants



Pop-up clinics

Temporary clinics in accessible community spaces support trial awareness, education

By building strong partnerships and meeting patients where they are, we are able to dramatically increase participation from underserved communities



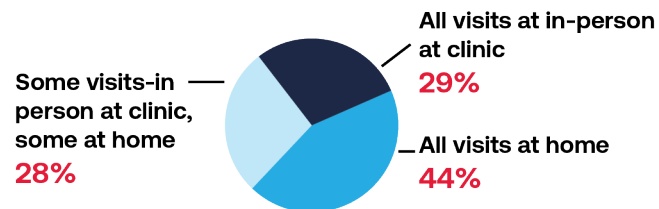
Providing options

We are offering flexible trial visit options because no single solution works for everyone

Everyone is different

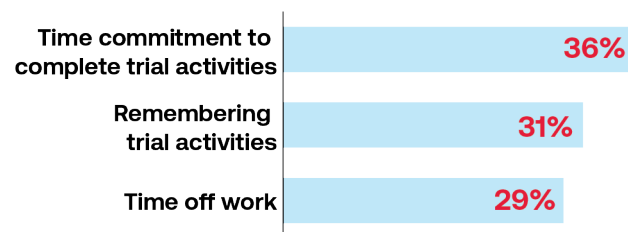
Visit location preference

If you could choose the location of clinical trial visits, which would you prefer?



Challenges

What would be the top 3 challenges for enrolling your child and participating in a clinical trial?



Solutions offer choice

Home visits

Let participants choose to have a study visit at home for appropriate protocol assessments

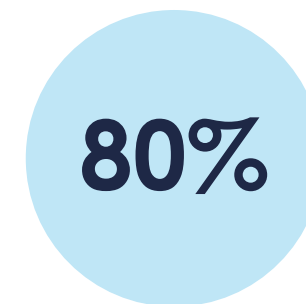
Telemedicine

Support for visits when participants cannot easily travel to the trial site clinic

Travel / Stipend / Reimbursement

Participant payments to cover appropriate reimbursements and limit out-of-pocket expenses

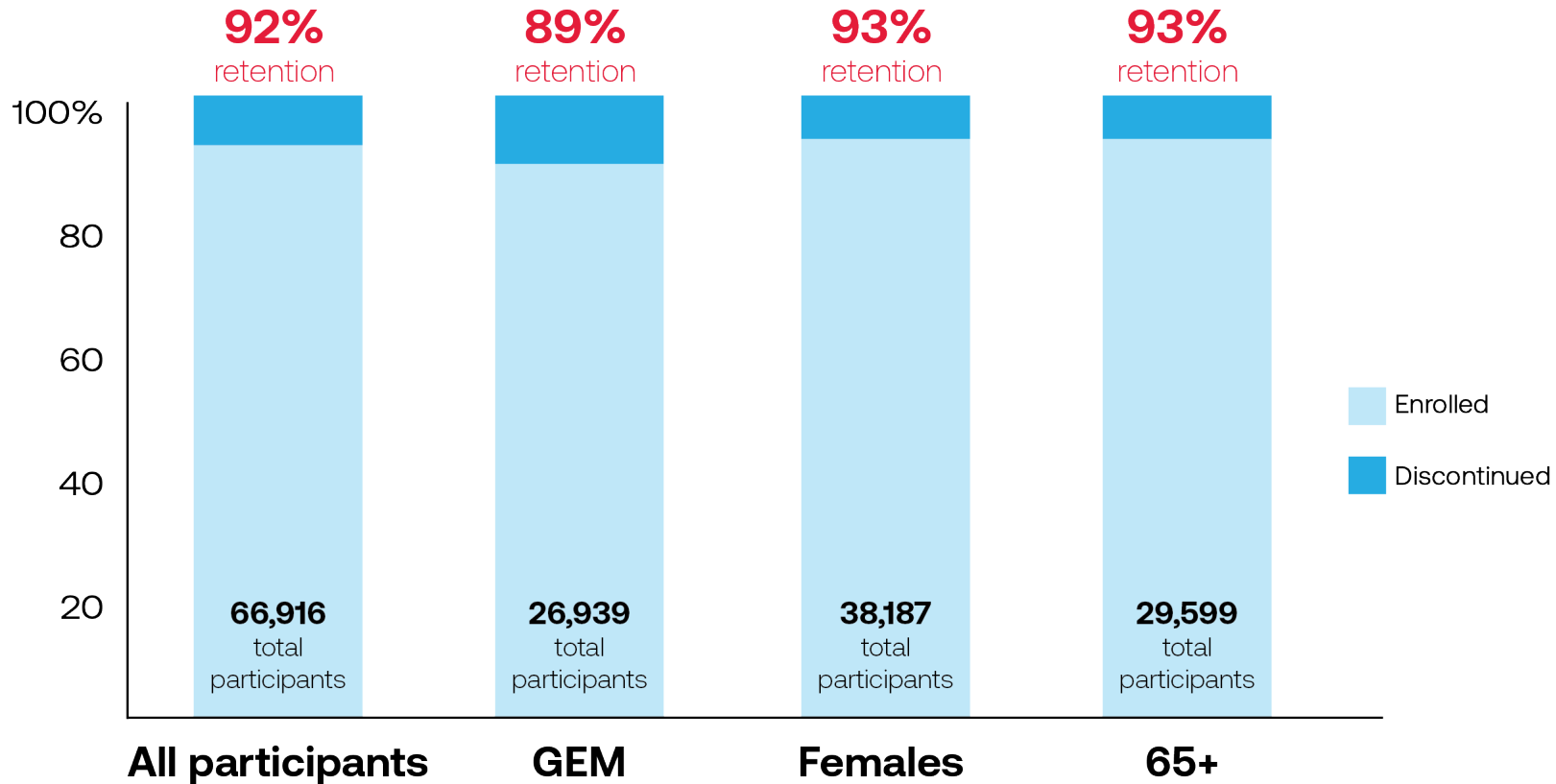
Results



80% of Moderna trials in 2023 include **visit optionality** for at least a portion of the schedule of events

We are enrolling and retaining diverse participants

Infectious disease trial enrollment and retention by demographic



Discontinued = patients who have withdrawn due to withdrawn consent, or physician decision, or adverse event
 Enrollment and discontinuation across 28 infectious disease trials, excludes Covid-19 clinical trials

Data as of 17 November 2023

We are increasing accessibility to potential therapies of tomorrow



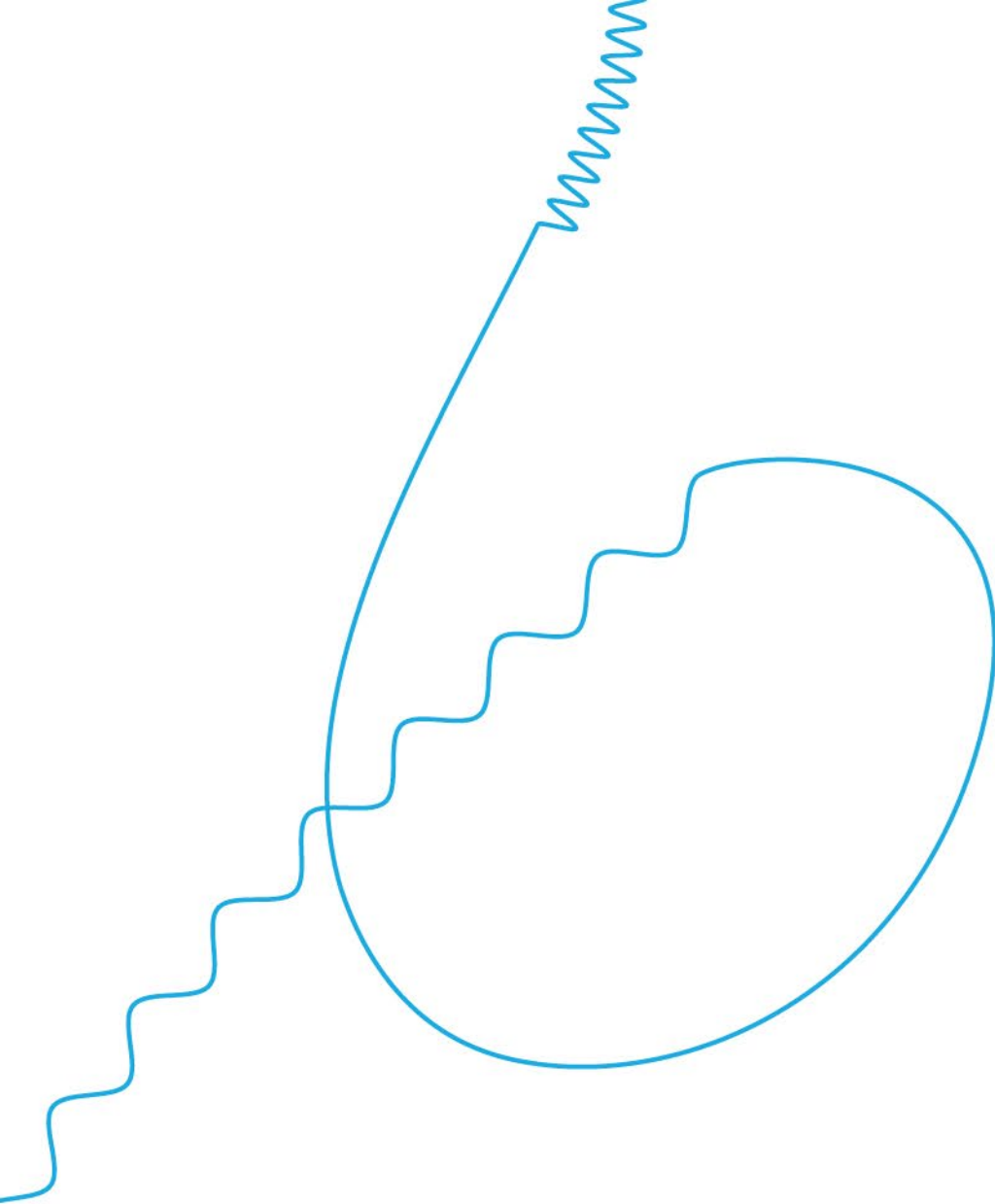
Moderna takes a holistic approach to who is participating in our research



Our approach to inclusive research builds confidence in our data and trust in our communities



Data we collect represent populations most at risk and likely to use our products



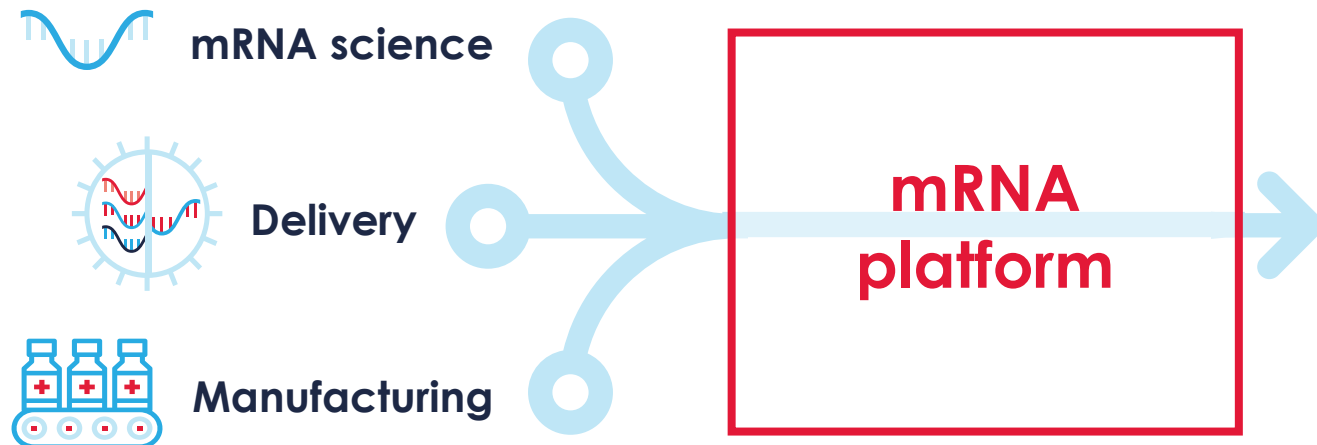
Pandemic preparedness

Hamilton Bennett

Senior Director, Vaccine Access & Partnerships

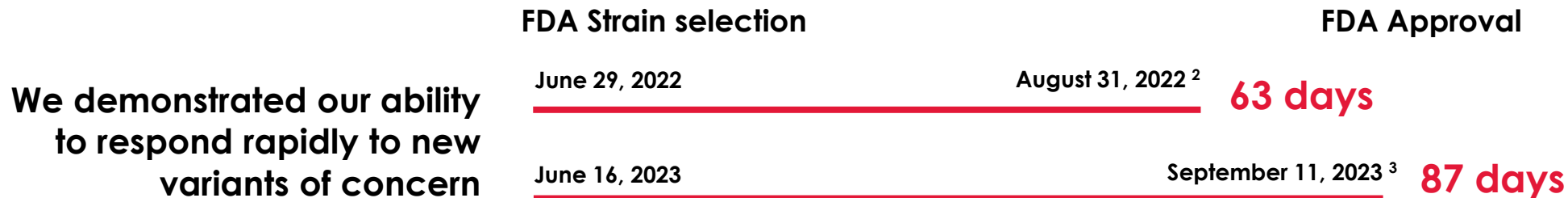


Moderna used our platform to rapidly respond to the greatest public health threat of our time



COVID-19 Vaccine

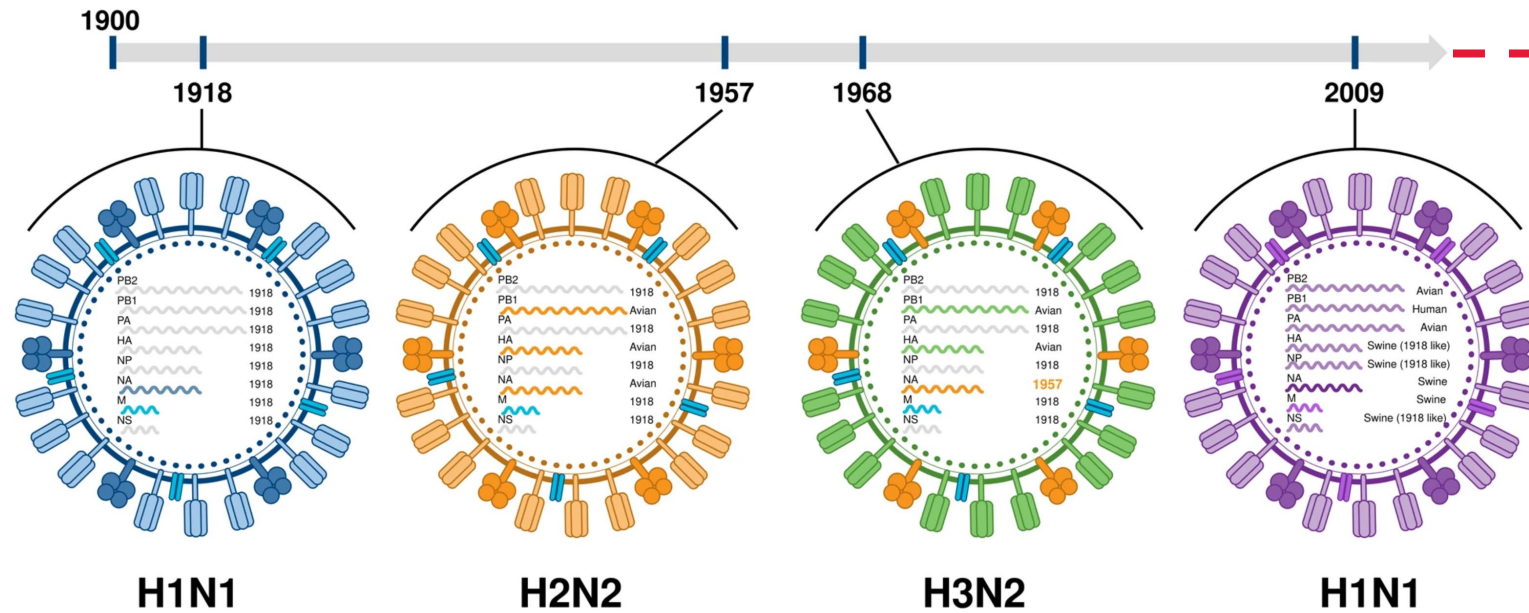
- Less than 1 year to EUA authorization
- 25% delivered to LMICs¹ in 2021
- Lowest tier pricing for Gavi countries
- Commitment to not enforce our patents in LMICs¹



1. LMICs: Low- and middle-income countries
 2. FDA Authorization for Emergency Use of Omicron-Targeting Bivalent COVID-19 Booster Vaccine for Adults 18 Years and Older. <https://investors.modernatx.com/news/news-details/2022/Moderna-Receives-FDA-Authorization-for-Emergency-Use-of-Omicron-Targeting-Bivalent-COVID-19-Booster-Vaccine-for-Adults-18-Years-and-Older/default.aspx>
 3. FDA approval (12+) and authorization (6m-11 yrs) granted on September 11th, 2023 of XBB.1.5 monovalent vaccine. <https://news.modernatx.com/news/news-details/2023/Moderna-Receives-U.S.-FDA-Approval-for-Updated-COVID-19-Vaccine/default.aspx>

Influenza continues to be a significant pandemic threat

Influenza pandemics occur when a novel reassortant virus is introduced to the population

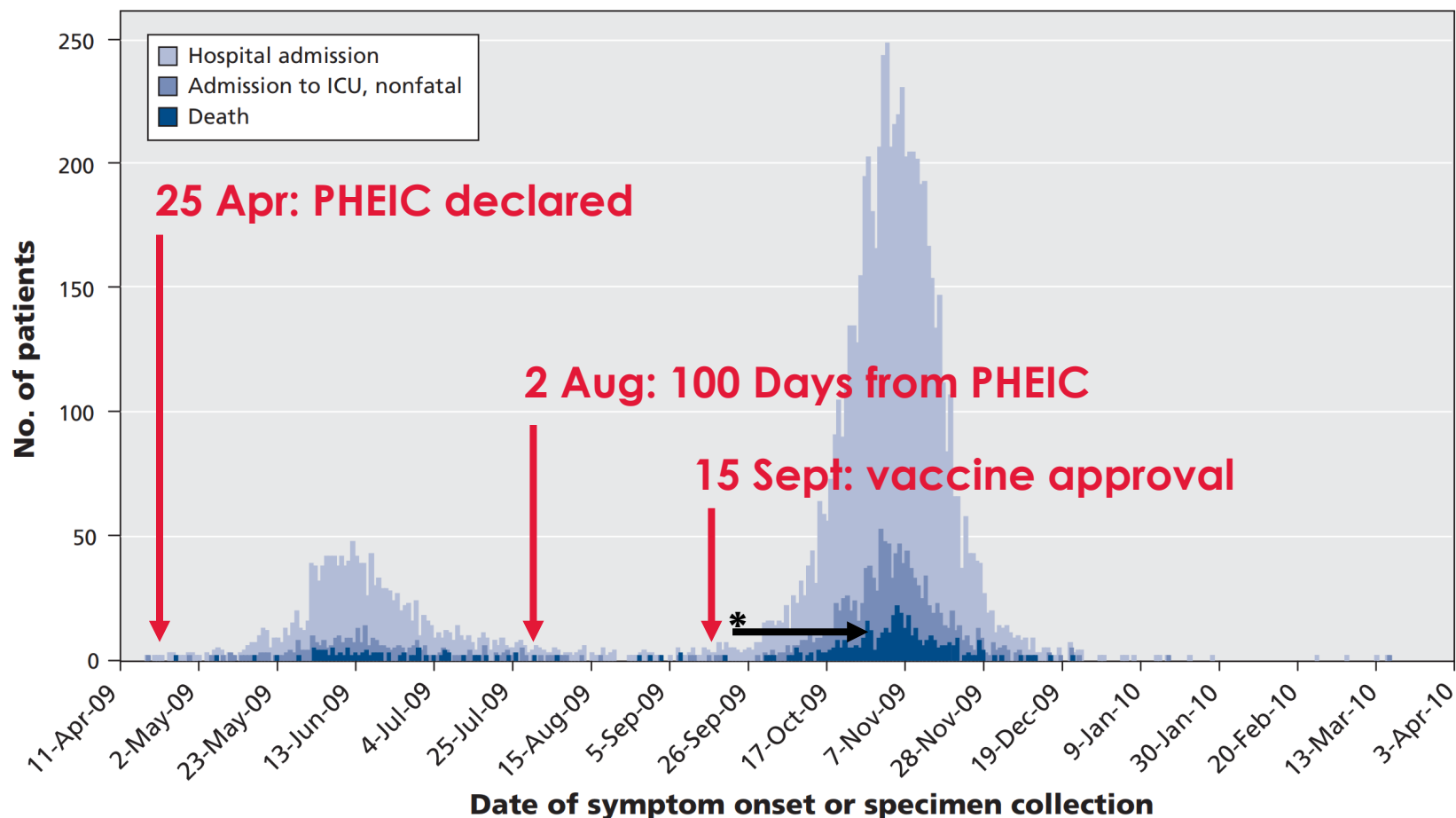


Moderna initiated a Phase 1/2 clinical study of mRNA-1018 against H5 and H7

Source: <https://www.nature.com/articles/s12276-021-00603-0>

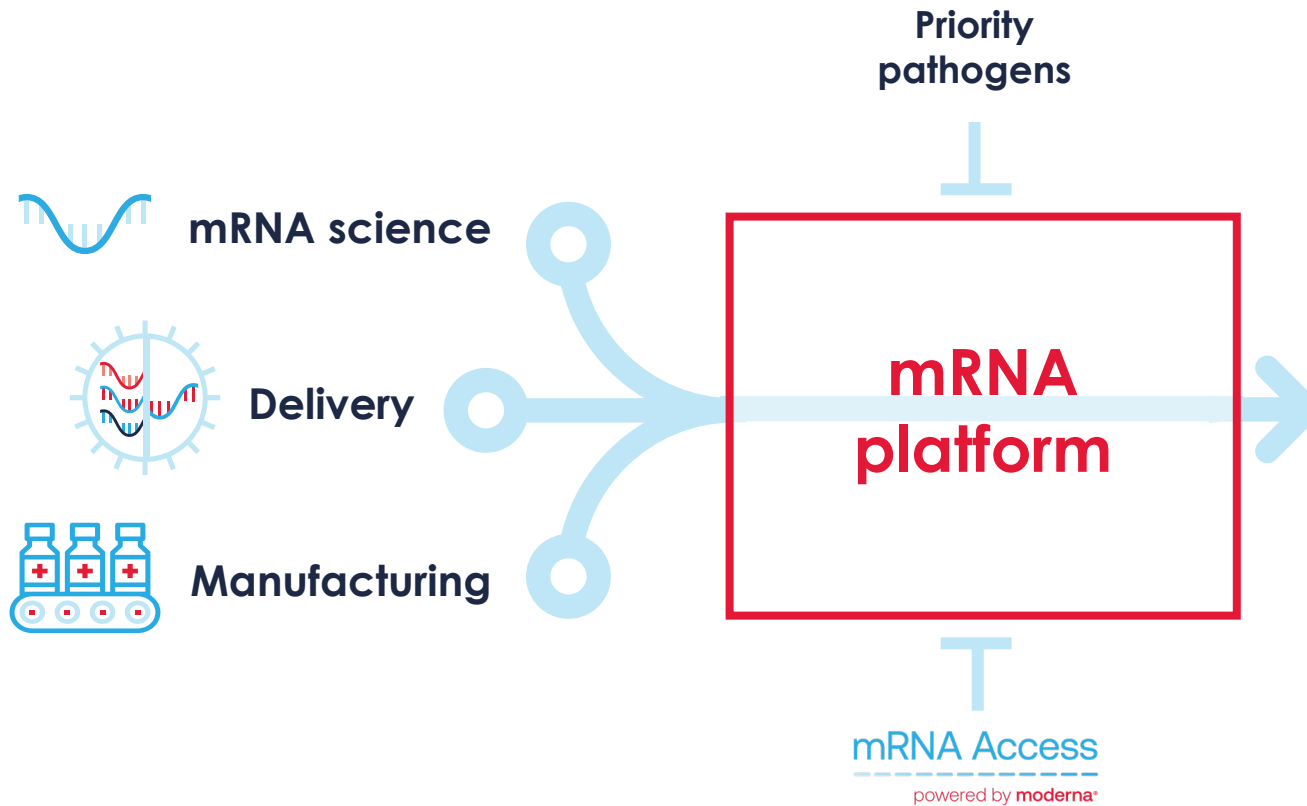
A rapid response could prevent the surge of hospitalizations and deaths seen in previous pandemics

Incidence of hospital admissions and severe outcomes during the first and second waves of pandemic (H1N1) 2009 in Canada



<https://www.cmaj.ca/content/182/18/1981>
 PHEIC: Public Health Emergency of International Concern

Our Global Health portfolio will continue to explore the potential of our platform for Disease X



Disease X

Named by the WHO, “Disease X” represents the knowledge that a serious international epidemic could be caused by a pathogen currently unknown to cause human disease

Moderna is pursuing a pipeline of Priority Pathogens in readiness for Disease X

Priority Pathogen	PC	P1	P2	P3	Comm.	Collaborators
COVID-19 mRNA-1273						BARDA/NIAID
MERS-CoV --						--
Pandemic flu (H5, H7) mRNA-1018						
Zika mRNA-1893						BARDA
Chikungunya mRNA-1388						--
Nipah mRNA-1215						NIH
Mpox mRNA-1769						--
Ebola --						UTMB/JPEO
Marburg --						UTMB/JPEO

As of November 2023

Source: Compiled from Global Health groups.

Abbreviations: CCHF, Crimean Congo Hemorrhage Fever; HIV, human immunodeficiency viruses; MERS-CoV, Middle East respiratory syndrome coronavirus; SFTS, Severe fever with thrombocytopenia syndrome; BARDA, Biomedical Advanced Research and Development Authority; NIAID, National Institute of Allergy and Infectious Diseases; IAVI, International AIDS Vaccine Initiative; BMGF, Bill & Melinda Gates Foundation; NIH, National Institute of Health; UTMB, University of Texas Medical Branch; KNIH, Korea National Institute of Health. JPEO, Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense.

Priority Pathogen	PC	P1	P2	P3	Comm.	Collaborators
Lassa --						UTMB/JPEO
CCHF --						--
Rift Valley Fever --						--
SFTS --						KNIH
HIV mRNA-1644						IAVI / Others
HIV mRNA-1574						IAVI/BMGF/ NIAID & Others
Dengue --						--
Malaria --						--
Tuberculosis --						--

mRNA Access powered by Moderna

Researchers at collaborating institutions take advantage of our mRNA platform to develop mRNA medicines, assays and animal models for emerging and neglected diseases

Promising programs can leverage Moderna's Early Development Engine to accelerate vaccine development to the clinic



Global partner list*



*non-exhaustive

Guest speaker



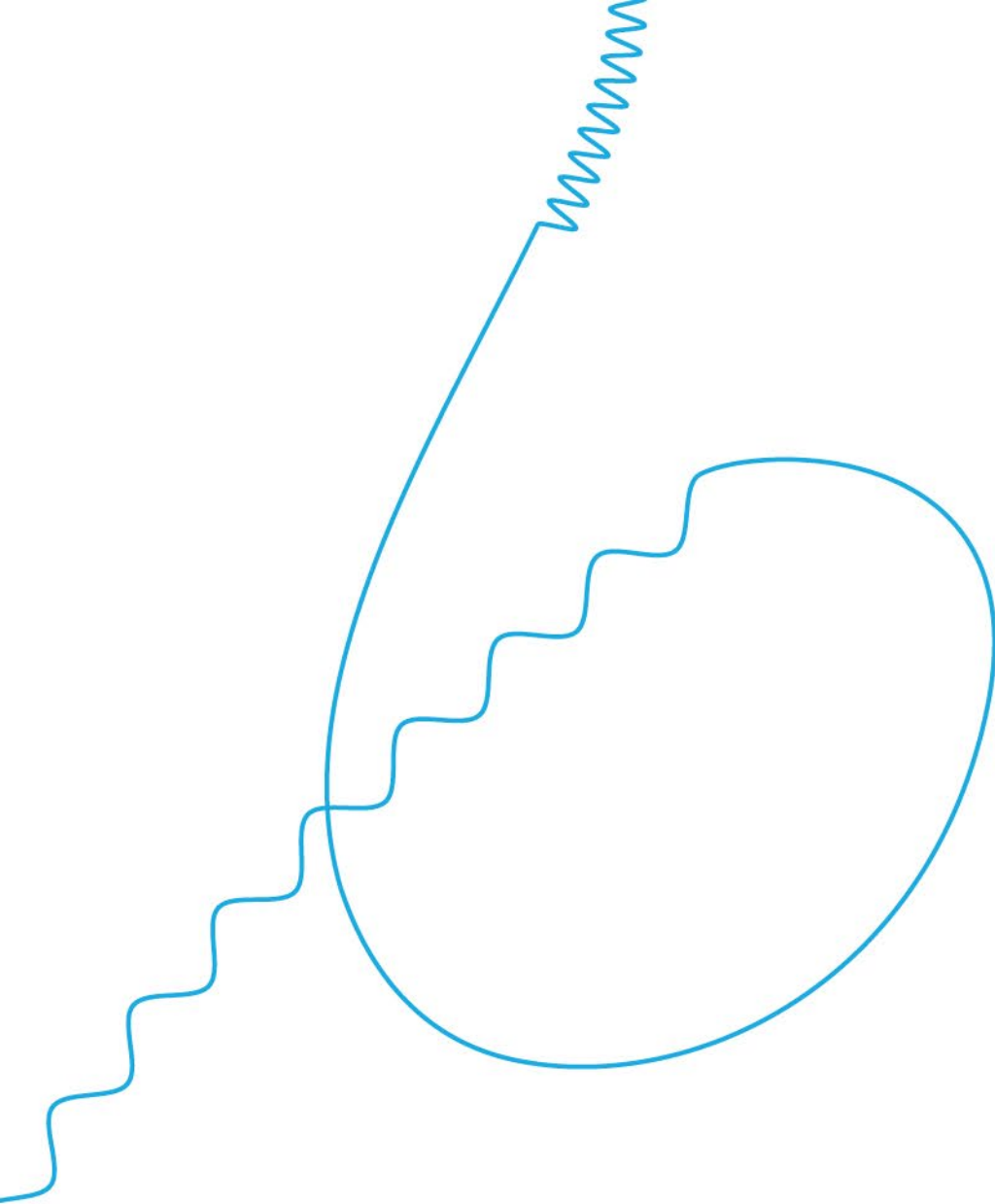
Teresa Lambe, Ph.D.
Professor Of Vaccinology
& Immunology, Calleva
Head Of Vaccine
Immunology



Our mRNA Access program enables us to work on emerging pathogens across the globe



Note: adapted from CEPI; locations are approximate



Environment

Deborah Donovan

*Senior Vice President, Environmental,
Health, and Safety*

moderna®

Climate impacts on people and ecosystems are more widespread and severe than expected



“Climate change affects the social and environmental determinants of health. It has profound implications for health, wellbeing and healthcare systems everywhere. Climate change is the single biggest health threat facing humanity...”

World Resources Institute, March 20, 2023, "10 Big Findings from the 2023 IPCC Report on Climate Change."

Source: National Oceanic and Atmospheric Administration

Climate policy developments over time

Before 2015

1972
UN Environment Program (**UNEP**) is formed

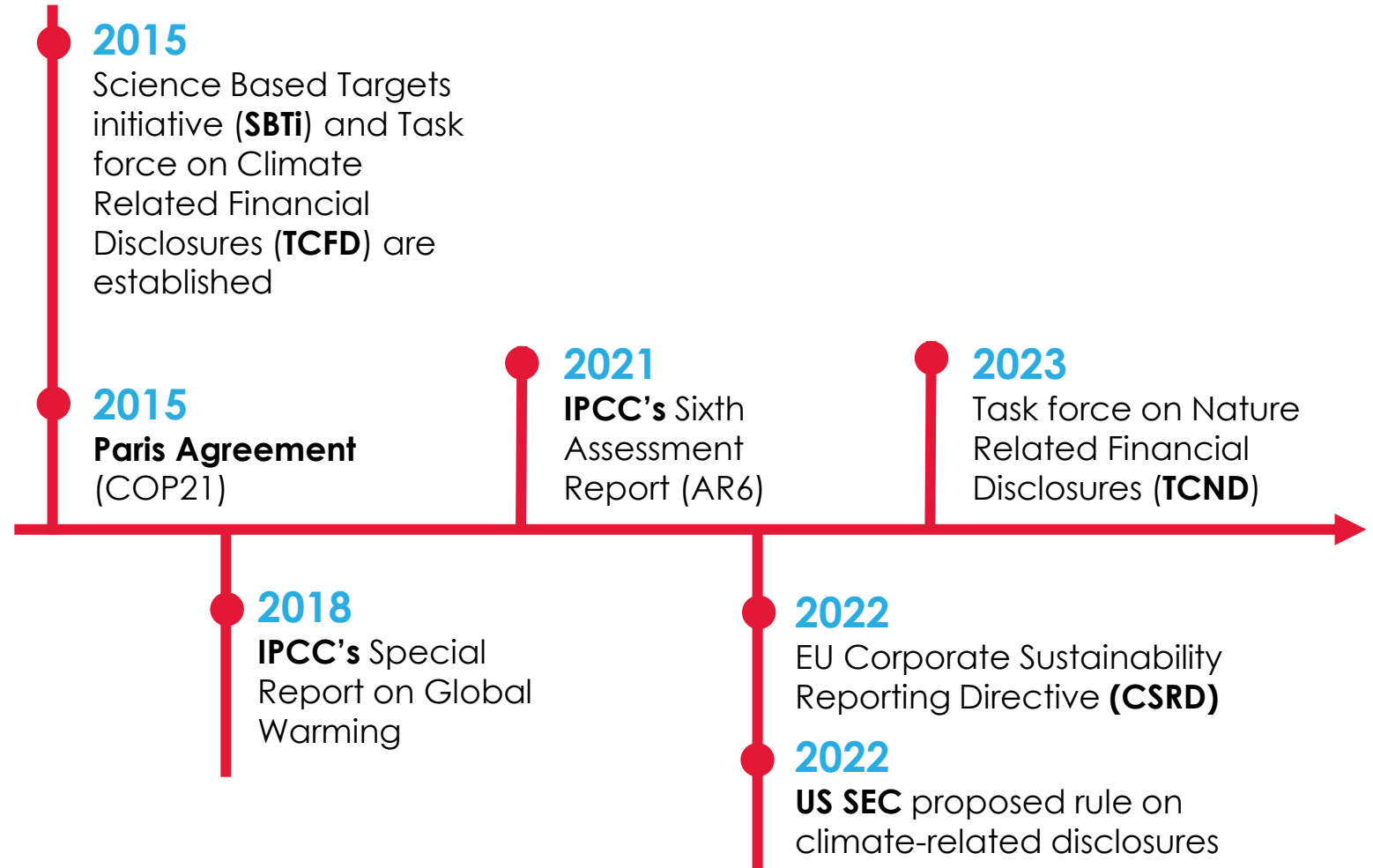
1988
Intergovernmental Panel on Climate Change (**IPCC**) is established

1990
IPCC's First Assessment Report (AR1)

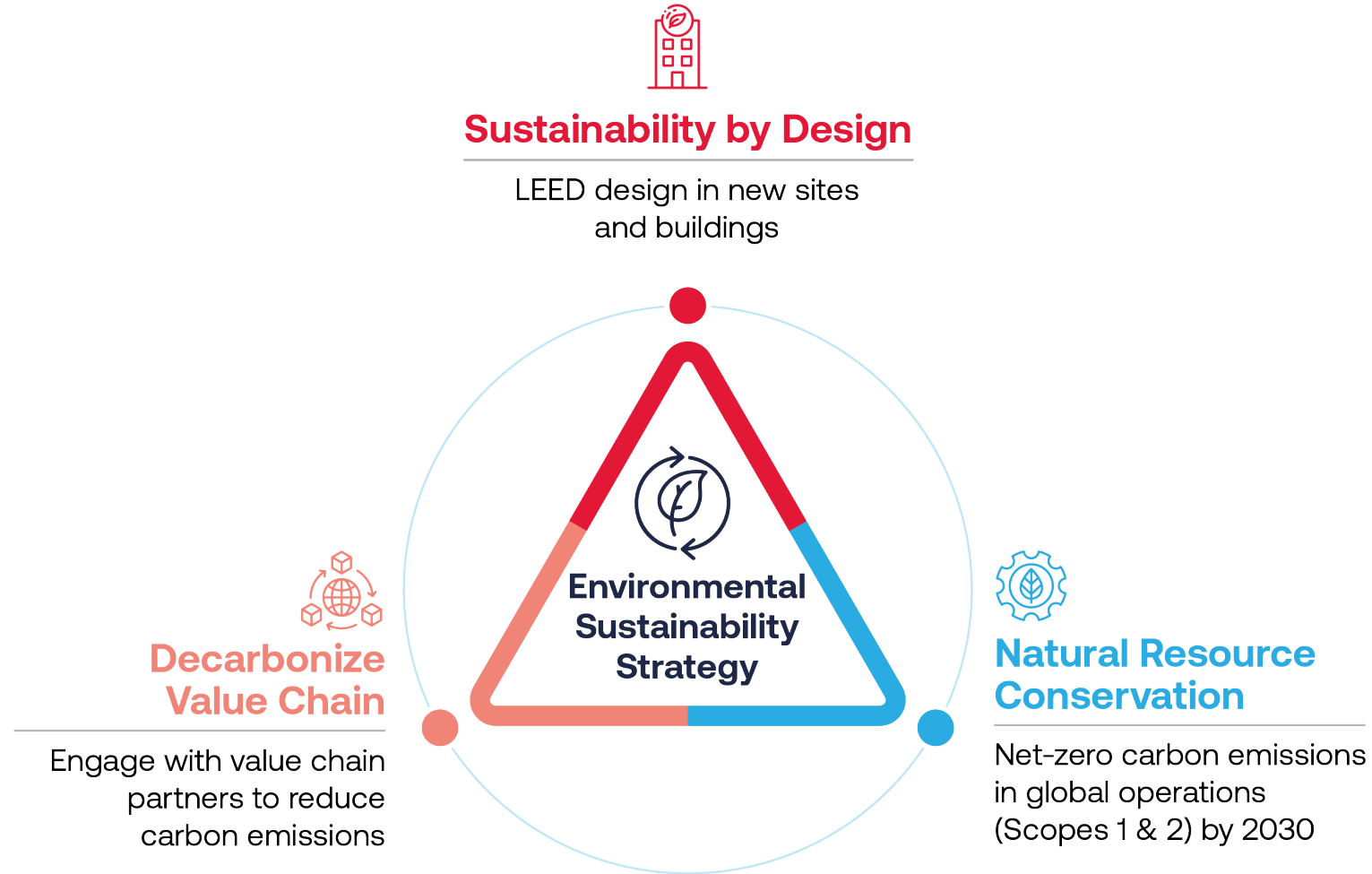
1992
UN Framework Convention on Climate Change is established

1995
First Conference of the Parties (**COP1**)

1997
Kyoto Protocol adopted (COP3)



As we scale our company, we are committed to protecting the planet



Progress in 2023 on climate-related sustainability initiatives is driving impact

Initiated **Climate Risk and Scenario Analysis**

IMPACT

Increasing understanding of **climate-related risks**

Collected and disclosed **Scope 3, water intake and waste generation** metrics

IMPACT

Enhancing reporting of **key performance indicators**

First time submission of **CDP Climate Change** disclosure

IMPACT

Aligning disclosures with **standard frameworks**

Enhanced assurance of energy and greenhouse gas from 'limited' to '**reasonable assurance**'

IMPACT

Preparing to **meet expectations** of proposed SEC regulations on climate disclosures



Sustainability by design strategy drives action, resulting in impact

Actions

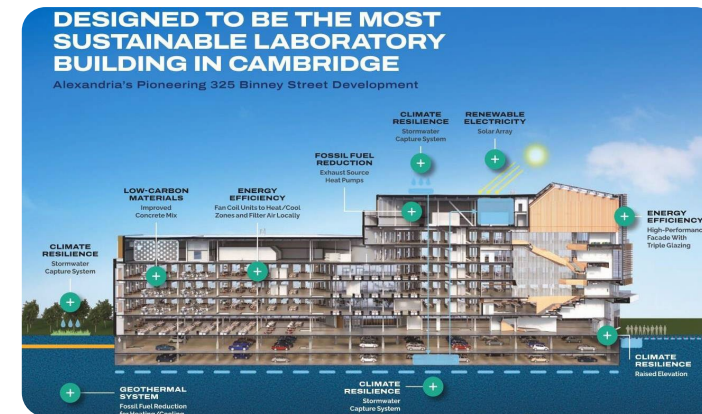
Incorporated sustainability into facility design reviews

Installed heat pumps and electric boilers in new facilities

Set expectations for LEED standards in new facilities

Impacts

- Supporting sustainability initiatives
- Reducing greenhouse gases and air pollutants emissions from combustion
- Improving energy and water efficiency



Sustainability and LEED standards incorporated for new buildings

- Cambridge, MA USA (Corporate Head Quarters)
- Laval, Canada (Manufacturing)
- Harwell, UK (Manufacturing)
- Melbourne, Australia (Manufacturing)
- Marlborough, MA USA (Manufacturing)



Natural resource conservation strategy drives action, resulting in impact

Actions

Performed **Energy and Water Assessment** at our main manufacturing facility

Initiated **MyGreenLab assessments**

Completed **waste assessment** at main manufacturing facility

Impacts

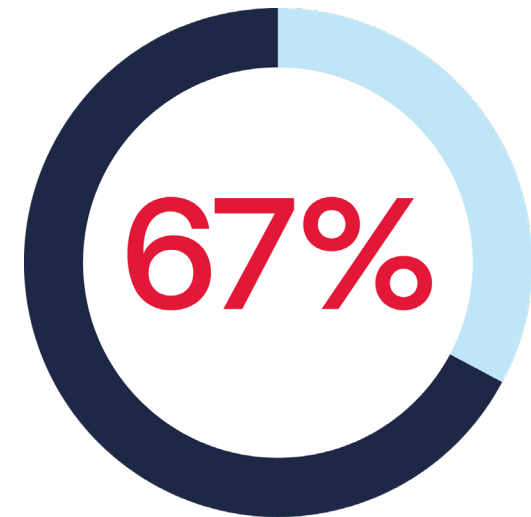
- Advancing development of net-zero roadmap
- Identification of energy efficiency opportunities and incorporation of new technologies
- Raising awareness of energy and water consumption and waste generation for improvement in operational efficiencies





Decarbonization of value chain strategy drives action, resulting in impact

Actions	Impacts
Completed and assured Scope 3 reporting	<ul style="list-style-type: none"> Improvement on program oversight and accounting
Started supplier engagement	<ul style="list-style-type: none"> Identifying top impact suppliers
Subsidized green transportation	<ul style="list-style-type: none"> Enabling employees to make greener choices



67% of our suppliers by emissions have an SBTi target or commitment

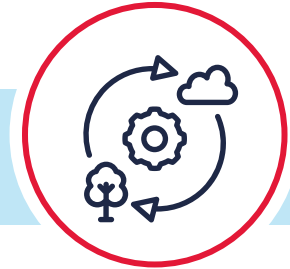
We will continue our journey and focus on key milestones



Incorporate **climate risk and scenario analysis** into our risk management programs

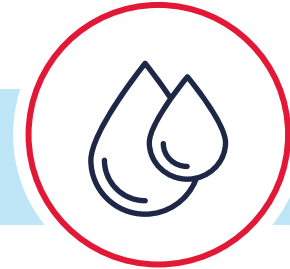


Submit **GHG reduction roadmap** for official validation by SBTi

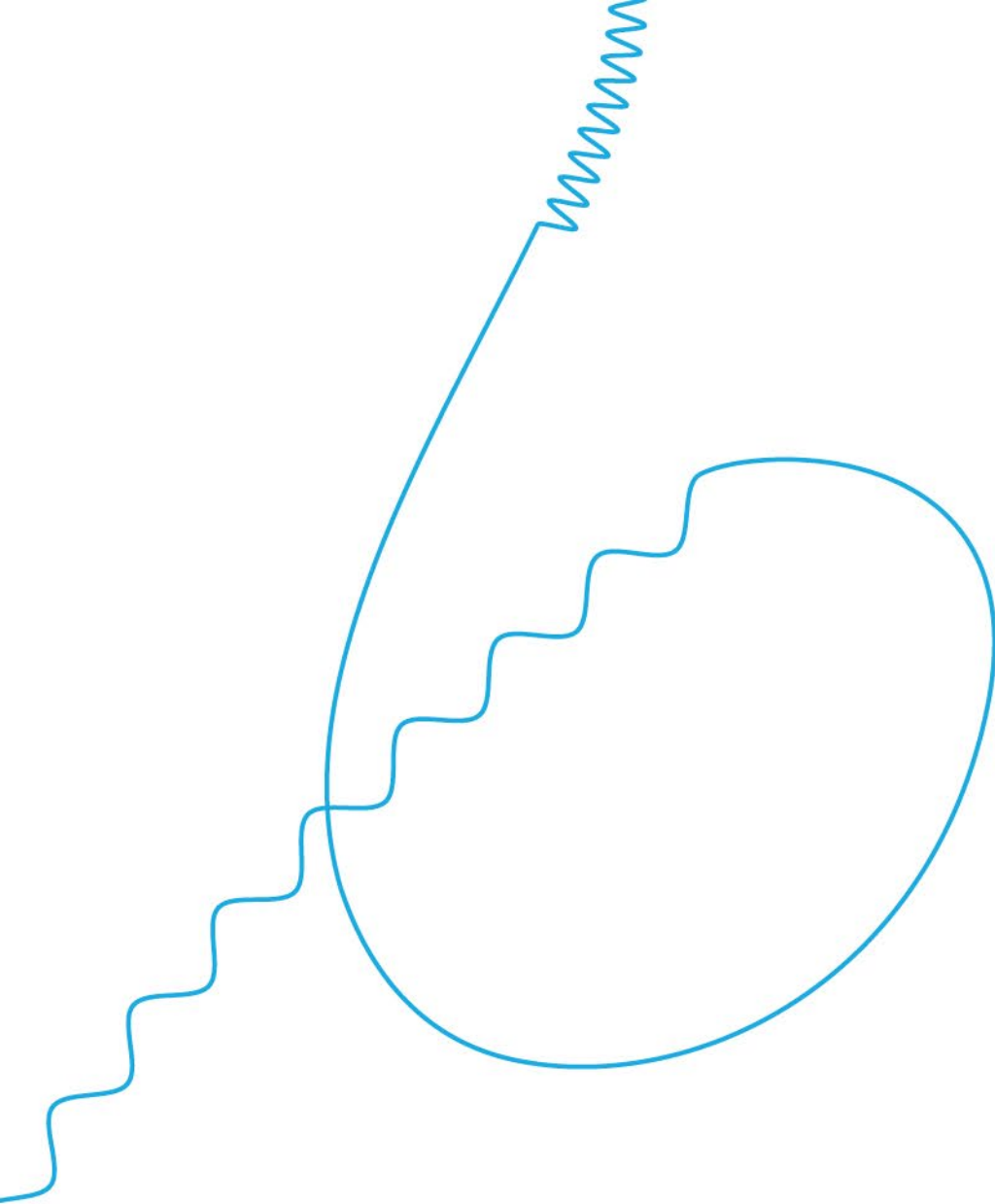


Enhance energy/ GHG programs

- WEF Alliance for Clean Air
- UK Carbon Reduction Plan
- Canada's Net-zero Challenge



Mature natural resource conservation program, focusing on **water** use and **waste** generation



Moderna culture & employees

Tracey Franklin

Chief Human Resources Officer





And change the world.

We give our people a platform to change medicine and an opportunity to change the world

We consistently achieve above benchmark scores on engagement, culture, and belonging

Engagement
Benchmark 73

78



Culture
Benchmark 64

73



Belonging
Benchmark 70

74



Note: 2022 Data

Being recognized as a great place to work is a testament to our employees' dedication and relentless pursuit of our mission



We continue to focus on the elements of our culture to create an environment where everyone can have an impact

Our mission

To deliver the greatest possible impact to people through mRNA medicines

Our values



Bold



Collaborative



Curious



Relentless



Basecamp
Integrity, Quality, Respect

Our mindsets



We act with urgency



We pursue options in parallel



We accept risk



We push past possible



We behave like owners



We act with dynamic range



We obsess over learning



We pivot fearlessly



We question convention



We remove viscosity



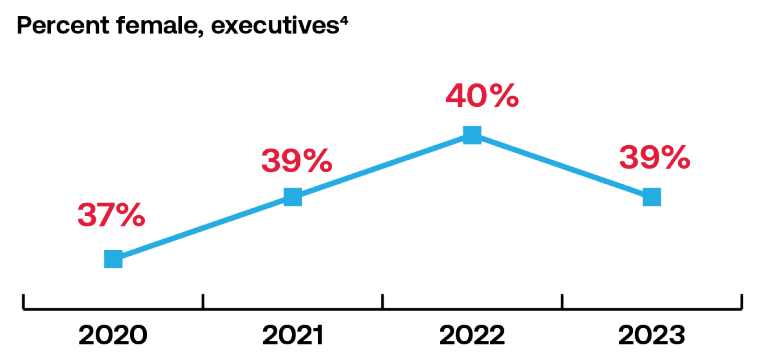
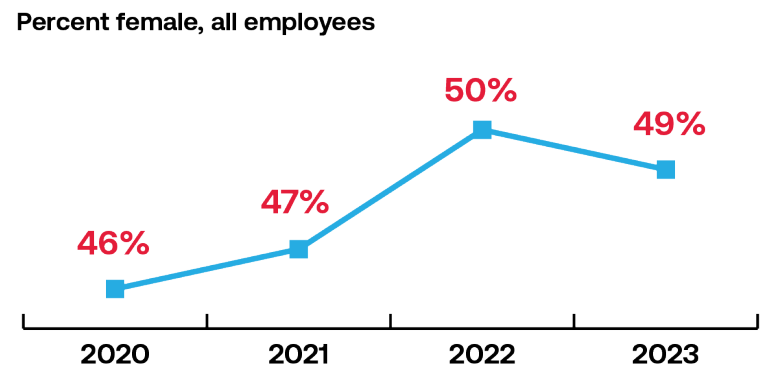
We prioritize the platform



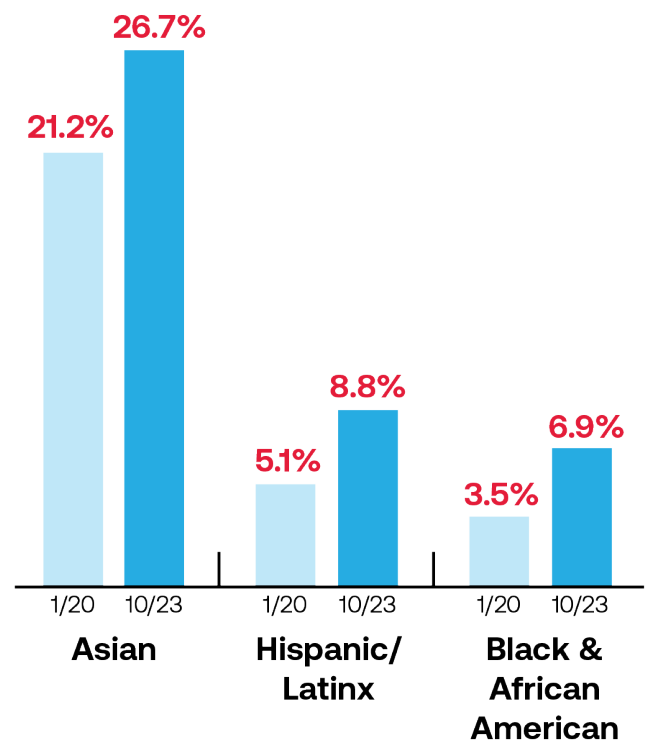
We digitize everywhere possible

Our focus on belonging and inclusion enable diverse workforce demographics

Gender¹



Race & Ethnicity²



Pay Equity³



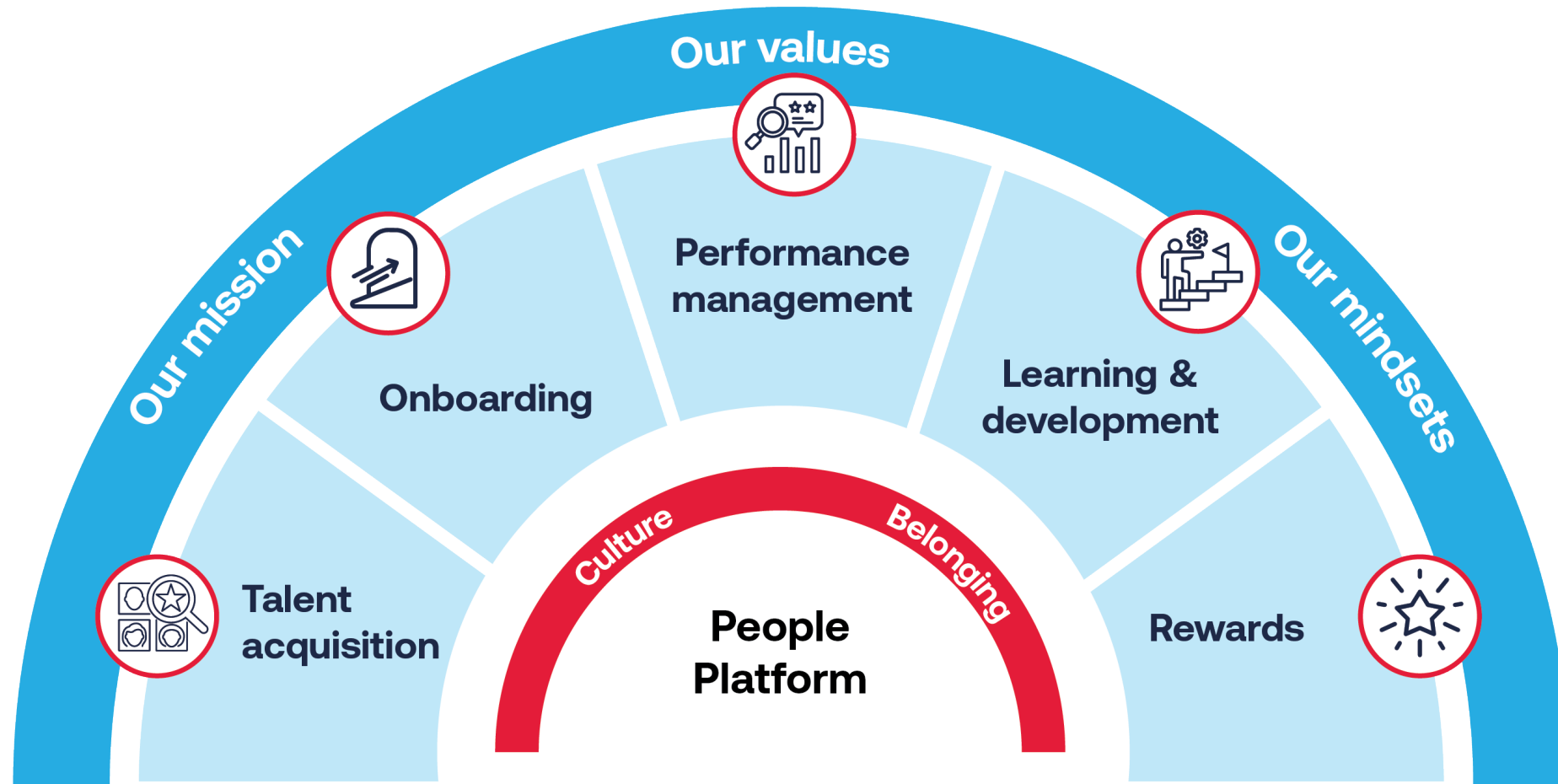
Second consecutive year of no statistically significant differences in pay



Moderna provides equal pay for equal work

1.Global 2. US only 3.Gender globally and race/ethnicity in U.S. 4. Defined as employees at Vice President level and above

We systematically scale our culture through our People Platform



We drive engagement and innovation by providing programs that are relevant, flexible, and personalized

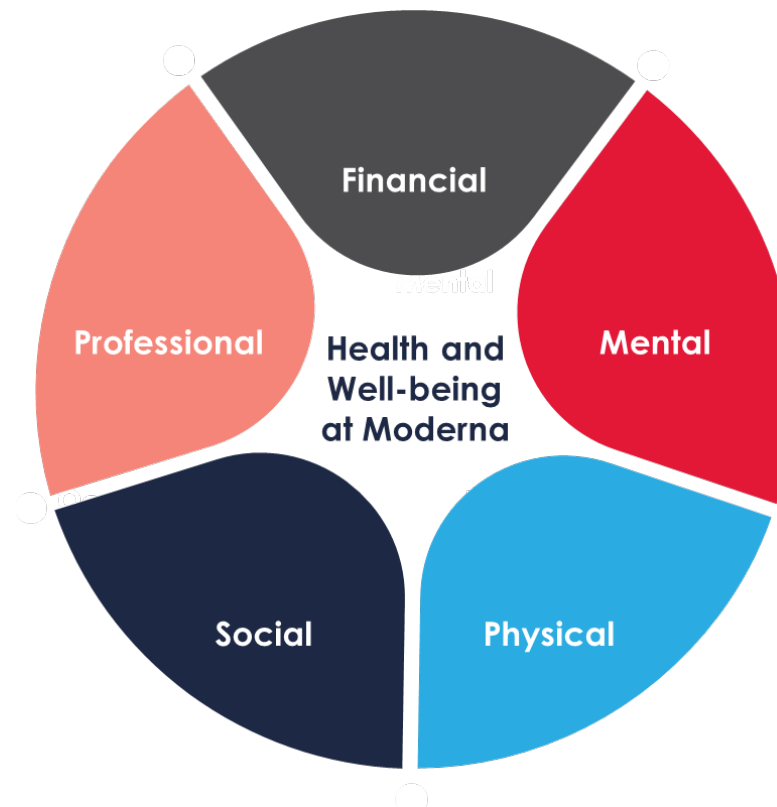
Belonging, Inclusion, and Diversity

We lead with belonging as we believe our strength comes from our diversity. Introduced our 9th ERG, mCARE, which is dedicated to supporting and empowering our employees who are caregivers and parents.



Well-being

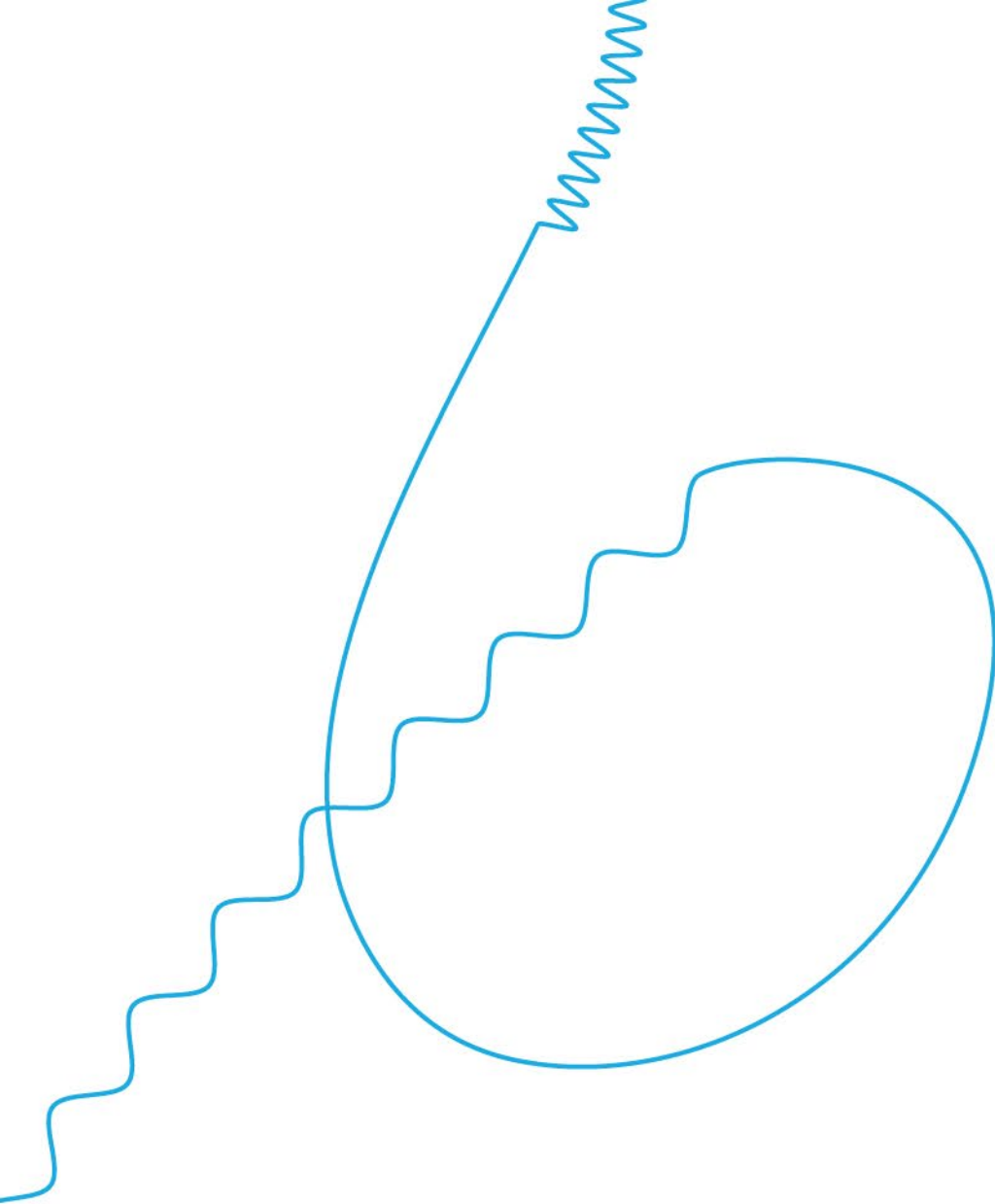
We invest in recognizing the uniqueness of each employee to cultivate a holistic approach to their own well-being



moderna[®]



this changes everything



Communities

Katherine O'Malley

*Executive Director, Internal
Communications and Employee
Engagement*



We continue to increase our impact on local and global communities with our giving strategy



**Corporate
Volunteering**



**Employee
Gift Matching**

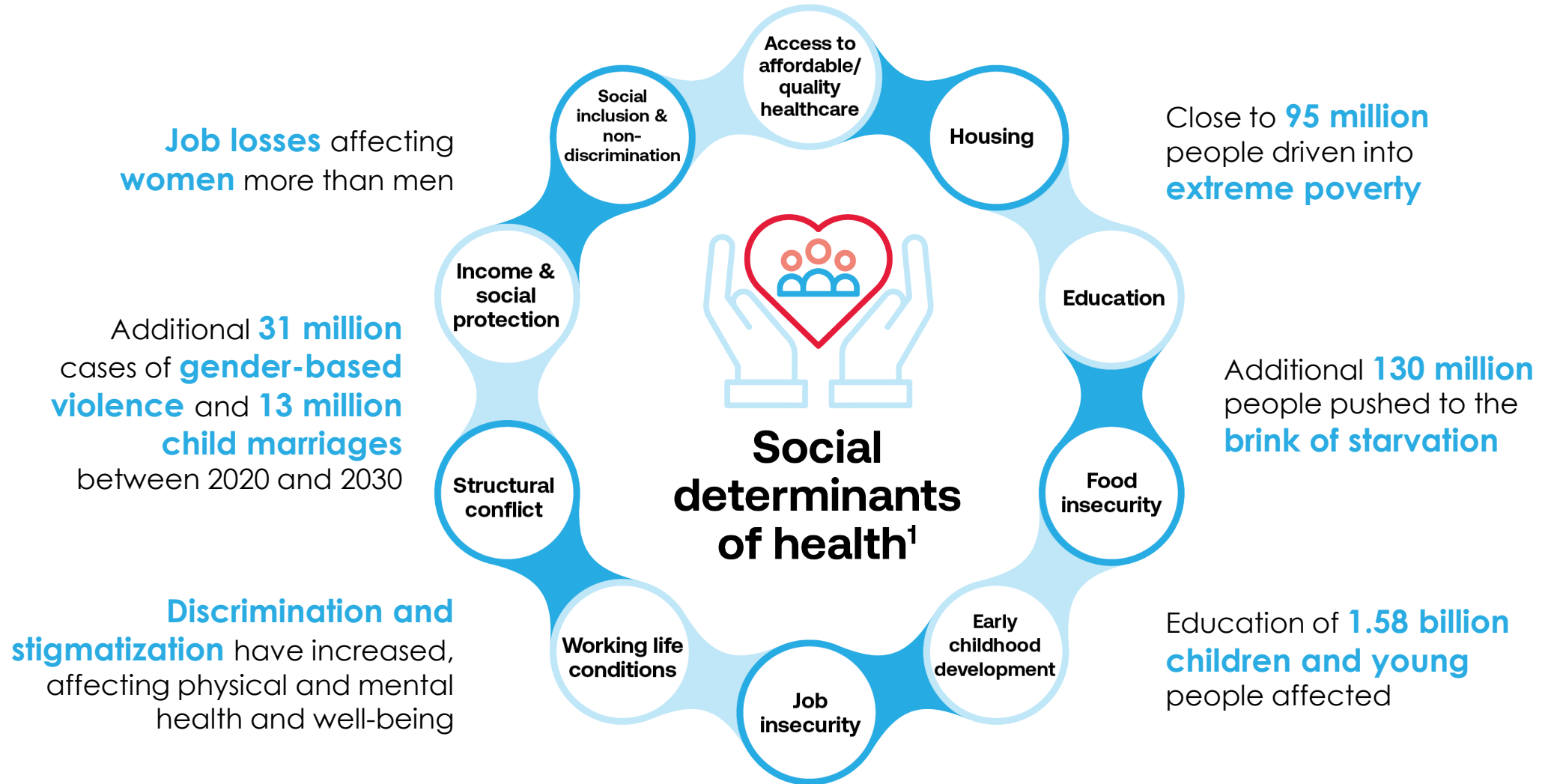


**Philanthropic
Giving**




**Humanitarian
Relief**

Addressing underlying inequalities in social determinants of health is an imperative to improve global health



Purpose-driven employees bring passion for our mission and communities



 **156%**
increase in tracked
volunteer hours from 2021

\$800k in donations from
employee
matching
program

63% employee
participation rate in
volunteering and/or
giving

Note: 2022 Giving and Volunteering figures.

Launched Moderna Charitable Foundation in 2022



Promote public health and access to quality healthcare



Advance scientific education and innovation



Advocate for inclusion and diversity

\$7.8M

in grants by the Moderna Charitable Foundation



\$4M

focused on improving health systems and healthcare in sub-Saharan Africa

Note: 2022 Giving figures.

Partner highlight: Science communication

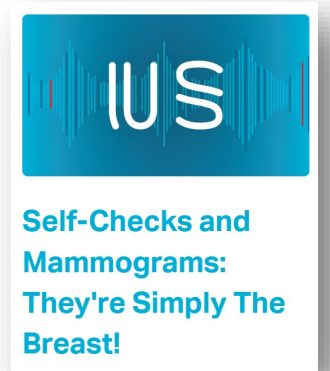


**Science
Club
for Girls**



Objective: Address the systemic inequities hindering both the STEM ecosystem and girls and gender-expansive youth from underrepresented backgrounds from reaching their full potential

Impact: Reached more than 500 girls and gender-expansive youth each semester during 2022-23 academic year, with free, high-quality, hands-on STEM education and mentorship programs



Objective: Create healthier individuals, families, and communities by improving access to and understanding of scientific information

Impact: Scale system that transforms relevant scientific evidence to simplified, digestible content to improve health literacy and inform related decision-making

Partner highlight: Addressing effects from COVID-19 pandemic



Objective: Provide tailored mental health support to promote and strengthen the emotional well-being and resilience of people experiencing chronic stress, grief and loss during the pandemic

Impact: Increase coping skills of K-12 teachers and school staff, enhancing their ability to adapt and be resilient

Imperial College London



Objective: Address the real-time needs of millions of children who have experienced the sudden loss of a caregiver due to COVID-19 during the pandemic

Impact: Strengthen pathways to policy transformation that ensures scale-up of effective approaches for reaching and caring for bereaved children comprehensively, scale to other countries

Partner highlight: Amref Health Africa



As a direct result of Moderna Foundation's partnership with Amref Health Africa in Kenya:

1,592,750

people reached with information on COVID-19 vaccines and NCDs

151,647

people received a COVID-19 vaccine

83,164

people screened for high blood pressure

31,075

people screened for elevated blood sugar

2,865

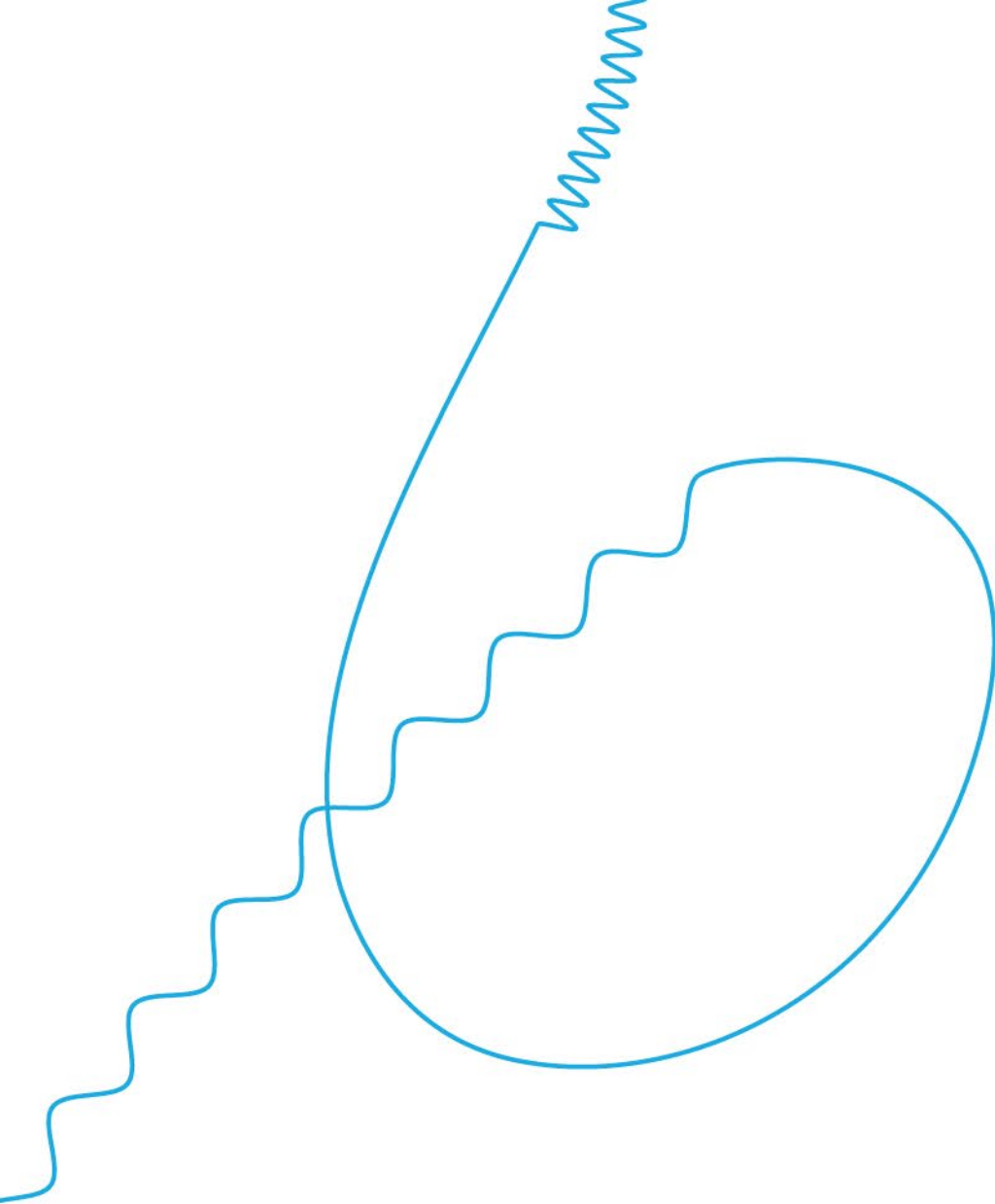
people screened for breast and cervical cancer

The efforts of the project **contributed to 25.8% of all the COVID-19 vaccine doses administered in the four counties** during the period of September 2022 to September 2023.



Partner highlight: Amref Health Africa





Governance & Ethics

Shannon Thyme Klinger

Chief Legal Officer & Corporate Secretary

Board of Directors



Noubar Afeyan, PhD

*Co-founder and Chairman,
Moderna*
CEO, Flagship Pioneering
Committees: Nom Gov (Chair)



Sandra Horning, MD

*Former Chief Medical Officer
of Genentech/Roche*
*Committees: Product (Chair),
Nom Gov, Science & Tech*



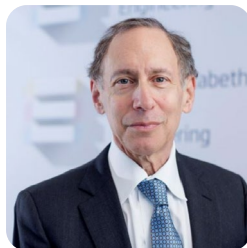
François Nader, MD

*Former President, CEO and
Executive Director, NPS
Pharmaceuticals*
*Committees: Comp (Chair),
Product, Science & Tech*



Stéphane Bancel

CEO, Moderna
*Former CEO at bioMérieux,
managing director at Eli Lilly*



Robert Langer, ScD

*Academic Co-Founder,
Moderna; David H. Koch
Institute Professor, MIT*
*Committees: Nom Gov,
Science & Tech*



Paul Sagan

*Senior Advisor and Executive in
Residence, General Catalyst;
Former CEO, Akamai*
Committees: Audit, Nom Gov



Stephen Berenson

*Managing Partner, Flagship
Pioneering;*
*Former Vice Chairman of
JP Morgan Investment Bank*
Committees: Audit, Product



Elizabeth (Betsy) Nabel, MD

*EVP, Strategy, ModeX
Therapeutics; former President of
Brigham Health*
*Committees: Science & Tech
(Chair) Comp, Product*



Elizabeth Tallett

*Former Principal, Hunter Partners;
Former President and CEO,
Transcell Technologies*
Committees: Audit (Chair), Comp

Board Highlights



From 2023 Proxy Statement

© 2023 Moderna, inc. All rights reserved.

ESG oversight starts with the Board and Committees



Audit

- Risk assessment and management
- Internal audit and compliance functions
- Information security and technology risk, including cybersecurity



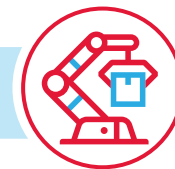
Compensation and Talent

- Human Capital Management
- Recruitment, retention and performance management
- Belonging, Inclusion and Diversity strategy



Nominating and Corp. Governance

- ESG strategy and metrics
- Climate-related risks and opportunities
- Political engagement and disclosure
- Moderna Charitable Foundation



Product Development

- Clinical trial design, including diversity
- Product quality and safety



Science and Technology

- Intellectual property strategy
- Platform developments and investments

Recent Board oversight of ESG initiatives

- Update on net-zero carbon emissions in Scope 1 and Scope 2 by 2030 target
- ESG materiality assessment and climate-risk scenario analysis projects update
- ESG-related reporting obligations and transparency initiatives
- Cybersecurity program evolution
- Global pay equity studies

Moderna continues to embed accountability for ESG throughout the organization



ESG accountability at Executive Committee level

Overseeing additional elements of ESG initiatives

Shannon Klinger

Chief Legal Officer, leads Moderna's ESG strategy

Jerh Collins

Chief Technical Operations & Quality Officer, leads carbon reduction efforts

Arpa Garay

Chief Commercial Officer, leads access initiatives

Tracey Franklin

Chief Human Resources Officer, leads human capital initiatives

Stephen Hoge

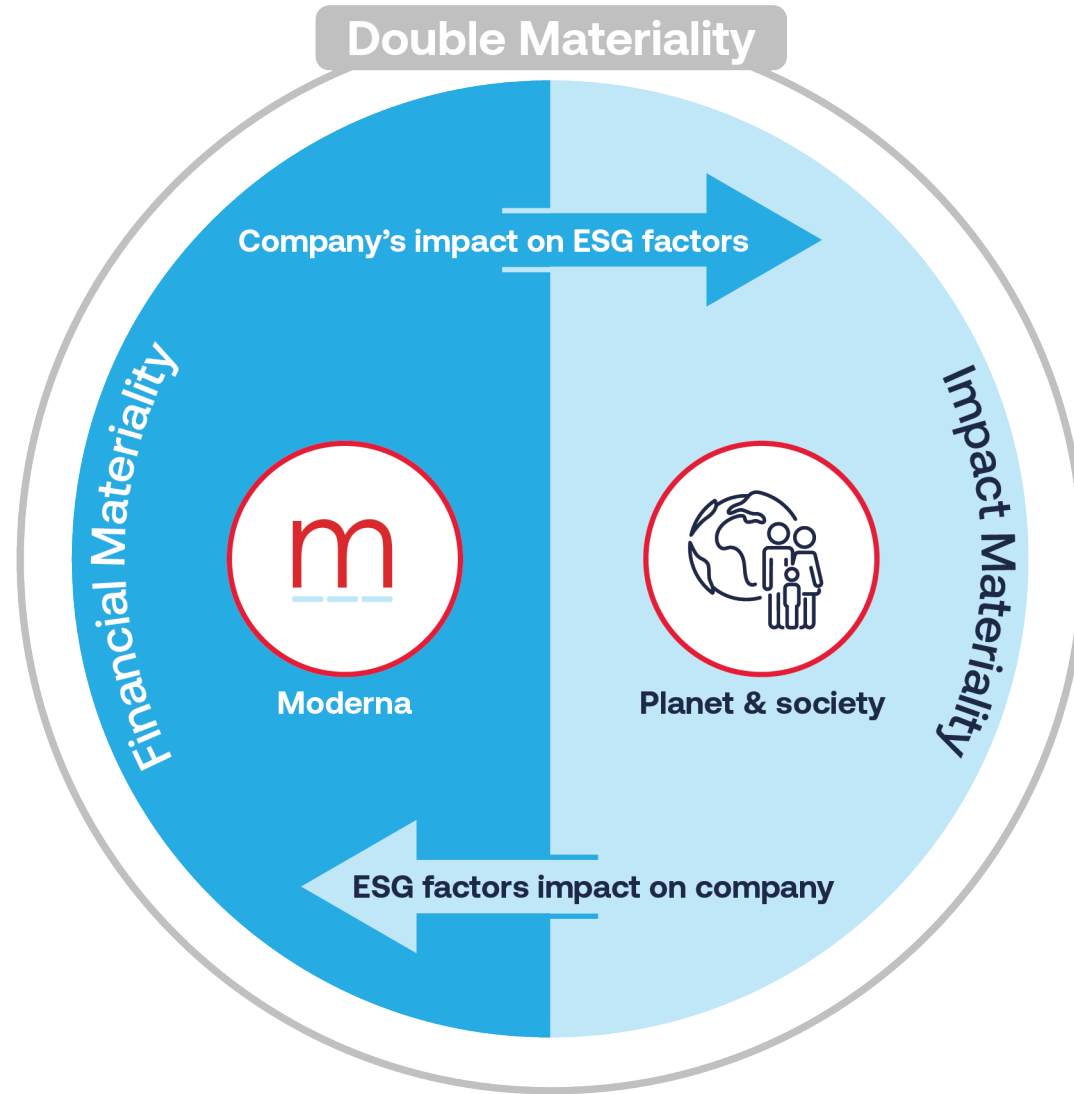
President, leads clinical trials, including diversity efforts in clinical trials



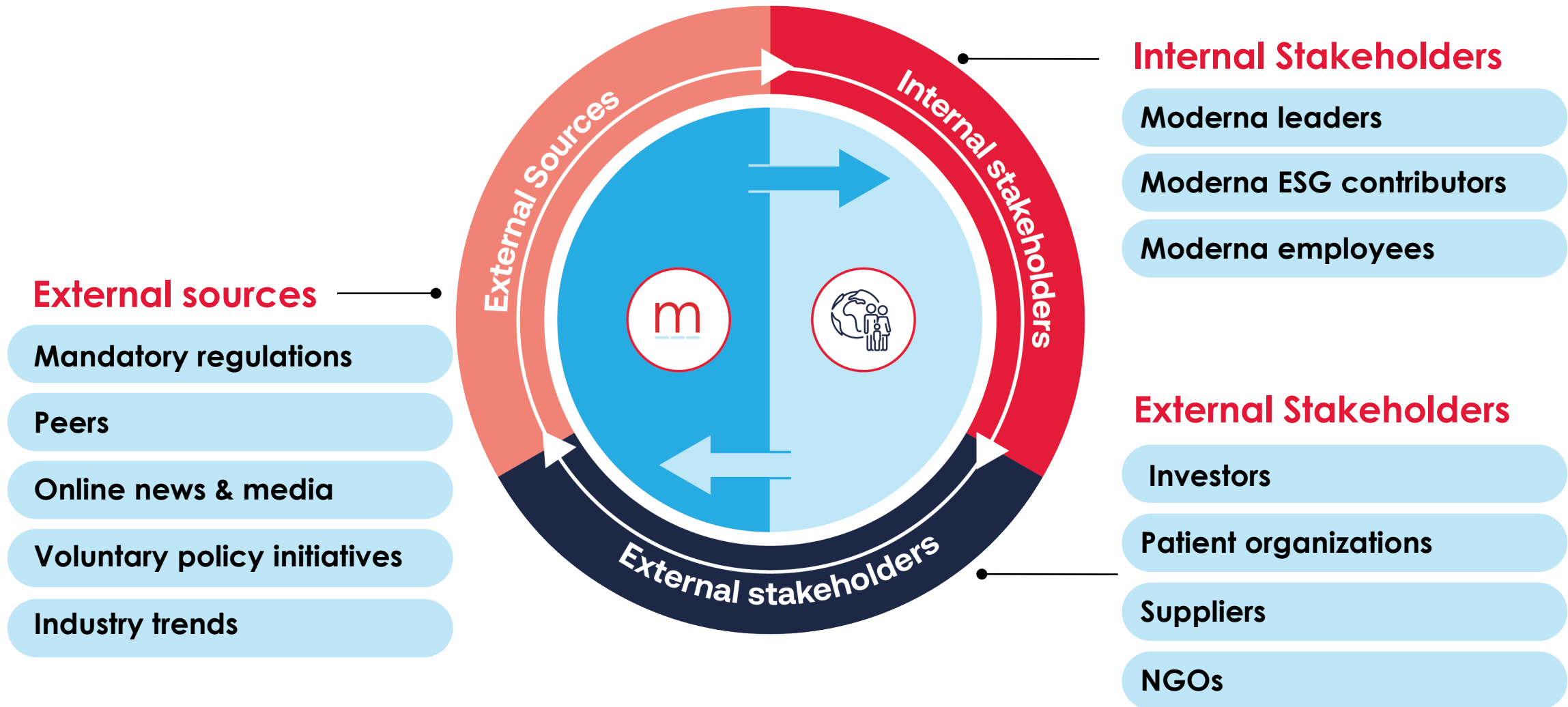
Executive / scorecard bonus program builds in ESG metrics

Human capital ESG metrics since 2021, focused on belonging and engagement

Double materiality allows companies to assess the financial impact of ESG factors on the company, and the impact of the company on society



We are conducting a double ESG materiality assessment leveraging AI to build a data-driven and dynamic analysis of material topics



We continue to evolve key elements of our Ethics & Compliance Program



Governance

Policy development & implementation

Evolution of Compliance policies, procedures and other relevant guidance documents with a **principle-based** approach:

- Code of Ethics & Business Conduct
- Privacy Policy
- Anti-Bribery and Anti-Corruption Policy (ABAC)
- Interactions w/HCPs, HCOs¹
- Consultancy Services



Risk

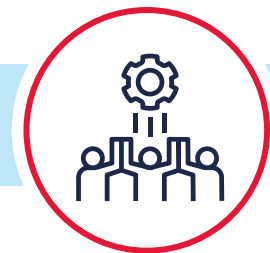
Due diligence & risk management

Automated **Due Diligence** process covering ethics, ABAC, human rights, and privacy

Consistent vendor **risk stratification** process

Global **Distributor Governance** Framework

Monitoring to support continuous learning and improvement



Culture

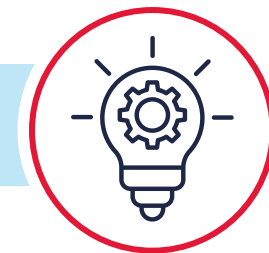
Patient-centric & ethics

Patients are at the center of everything we do

Speak up & open communication

Training & Awareness

- ABAC
- Privacy
- Interactions with HCPs, HCOs and patients
- Social Media
- Human Rights
- UK ABPI² Code



Innovation

Digital transformation

Continuing to explore **new technologies** to:

- Improve decision making
- Guide users to compliant execution
- Automating processes to manage high risk activities
- Support monitoring & prompt issue identification
- Statistics & trends

¹.Healthcare Practitioners, Healthcare Organizations
².Association of the British Pharmaceutical Industry

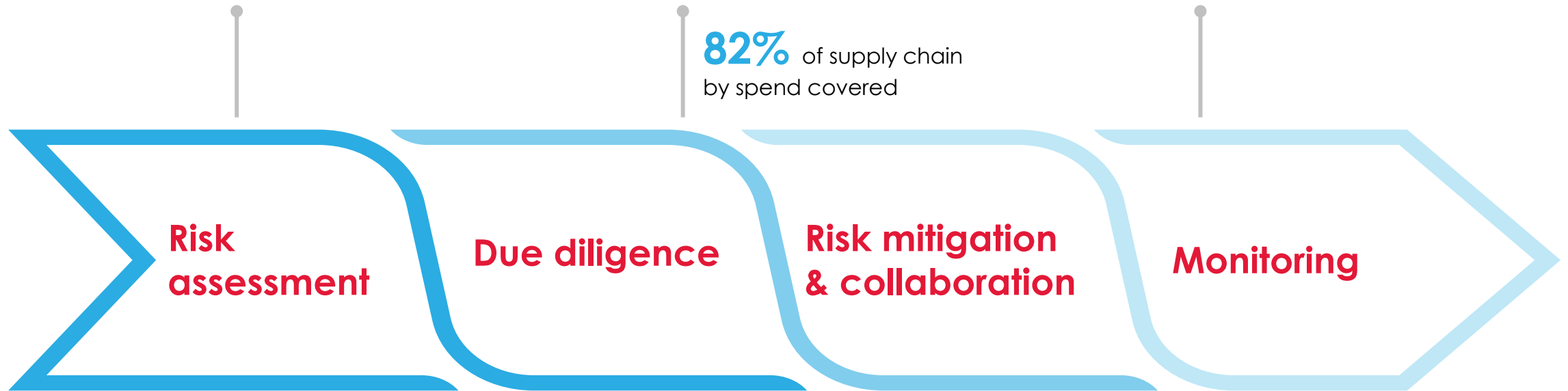
Continuing to embed sustainability across our supply chain

Integrating **Third-Party Code of Business Conduct** into Procurement Processes

Launched EcoVadis **Monitoring Program**



82% of supply chain by spend covered



Human Rights	Climate	Waste	Water	Health & Safety	Labor Conditions	Sustainable Procurement	Business Ethics
--------------	---------	-------	-------	-----------------	------------------	-------------------------	-----------------

Commitment to transparency since the beginning of our journey

Key highlights from 2022 / 2023

Published annual ESG Report



Increased disclosure of ESG data and journey



U.S. EEO-1 report
(U.S. workforce diversity)



Trade association disclosure
– No giving to political campaigns



Next steps in our journey

Complete materiality assessment to inform 2023 ESG Report

Continue to prepare for future ESG reporting requirements

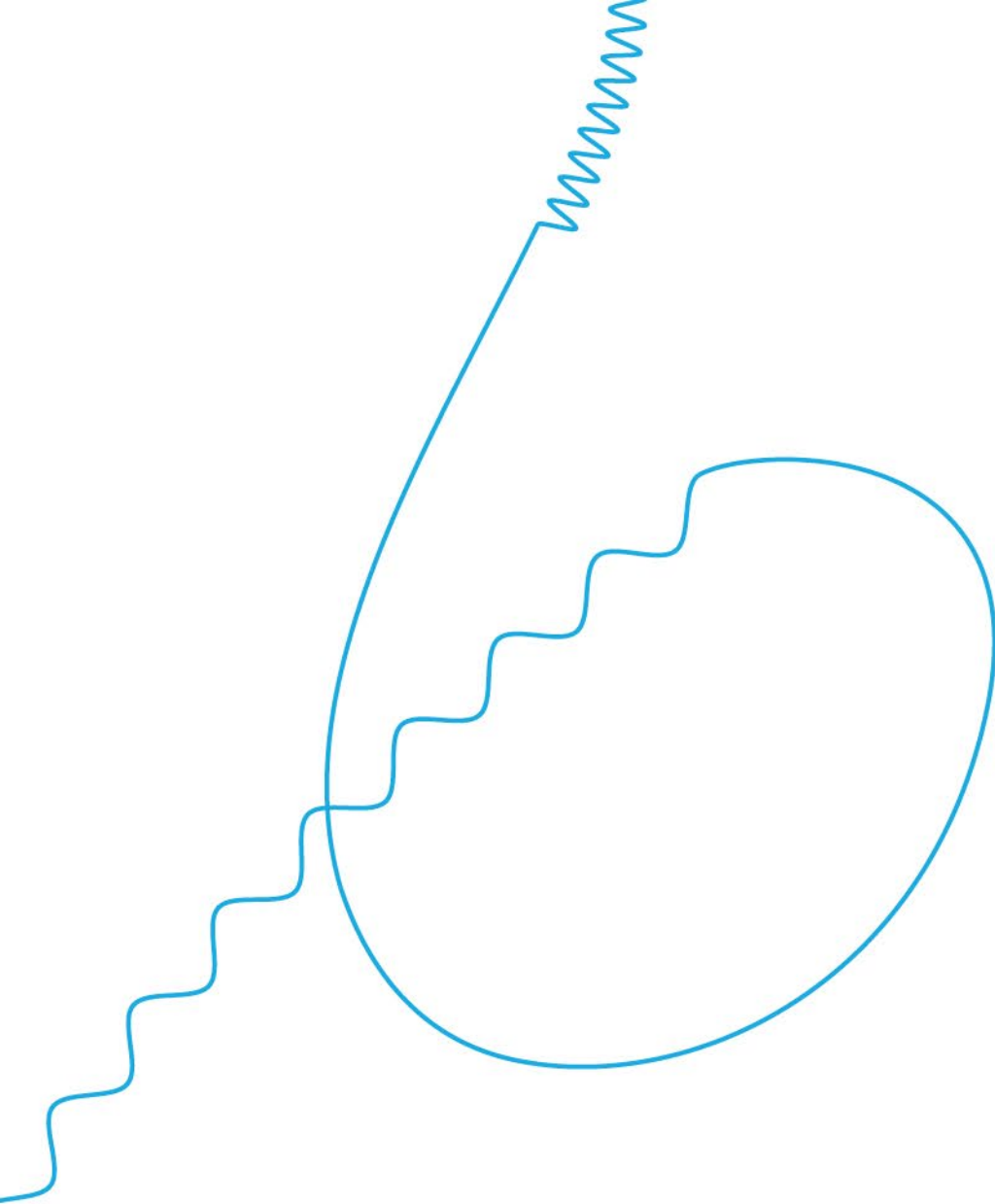
Published SASB & GRI Indexes

SASB Index	SASB Code	Accounting Metric Description	ESG
Safety of Clinical Trial Participants	HC-IP-2021a	Discussion of monitoring of management process for ensuring quality and safety of clinical trial drug development	ESG
	HC-IP-2021b	Number of FDA Form 302s related to clinical trial management and safety	ESG
Access to Medicines	HC-IP-2021c	Total number of countries where we have commercialized or plan to commercialize our products	ESG
	HC-IP-2021d	Discussion of actions and initiatives to ensure equitable access to health care products in priority disease areas	ESG
Affordability & Pricing	HC-IP-2021e	Total number of countries where we have commercialized or plan to commercialize our products	ESG
	HC-IP-2021f	Percentage change in US average list price and US average net price across our product portfolio compared to prior period	ESG

GRI Index	Disclosures	Location
2-10 Governance metrics	2-10 Governance metrics	2022 ESG Report, page 20
2-20 Climate change metrics	2-20 Climate change metrics	2022 ESG Report, page 20
2-30 Biodiversity metrics	2-30 Biodiversity metrics	2022 ESG Report, page 20
2-40 Pollution metrics	2-40 Pollution metrics	2022 ESG Report, page 20
2-50 Circular economy metrics	2-50 Circular economy metrics	2022 ESG Report, page 20
2-60 Water metrics	2-60 Water metrics	2022 ESG Report, page 20
2-70 Air quality metrics	2-70 Air quality metrics	2022 ESG Report, page 20
2-80 Land use, ocean and biodiversity metrics	2-80 Land use, ocean and biodiversity metrics	2022 ESG Report, page 20
2-90 Waste metrics	2-90 Waste metrics	2022 ESG Report, page 20
2-100 Human rights and labor practices metrics	2-100 Human rights and labor practices metrics	2022 ESG Report, page 20
2-110 Communities and local stakeholders metrics	2-110 Communities and local stakeholders metrics	2022 ESG Report, page 20
2-120 Supplier human rights and labor practices metrics	2-120 Supplier human rights and labor practices metrics	2022 ESG Report, page 20
2-130 Product safety and quality metrics	2-130 Product safety and quality metrics	2022 ESG Report, page 20
2-140 Data privacy and security metrics	2-140 Data privacy and security metrics	2022 ESG Report, page 20
2-150 Information security metrics	2-150 Information security metrics	2022 ESG Report, page 20
2-160 Digital technology metrics	2-160 Digital technology metrics	2022 ESG Report, page 20
2-170 Cybersecurity metrics	2-170 Cybersecurity metrics	2022 ESG Report, page 20
2-180 Digital privacy and security metrics	2-180 Digital privacy and security metrics	2022 ESG Report, page 20
2-190 Digital technology and cybersecurity metrics	2-190 Digital technology and cybersecurity metrics	2022 ESG Report, page 20
2-200 Digital privacy and security metrics	2-200 Digital privacy and security metrics	2022 ESG Report, page 20



Published Environmental 2021 & 2022 Data, with third party assurance



Concluding remarks

Stéphane Bancel
Chief Executive Officer

Our mission

Deliver the greatest possible impact
to **people** through mRNA **medicines**.



We believe our ESG journey will help Moderna become one of the most impactful companies

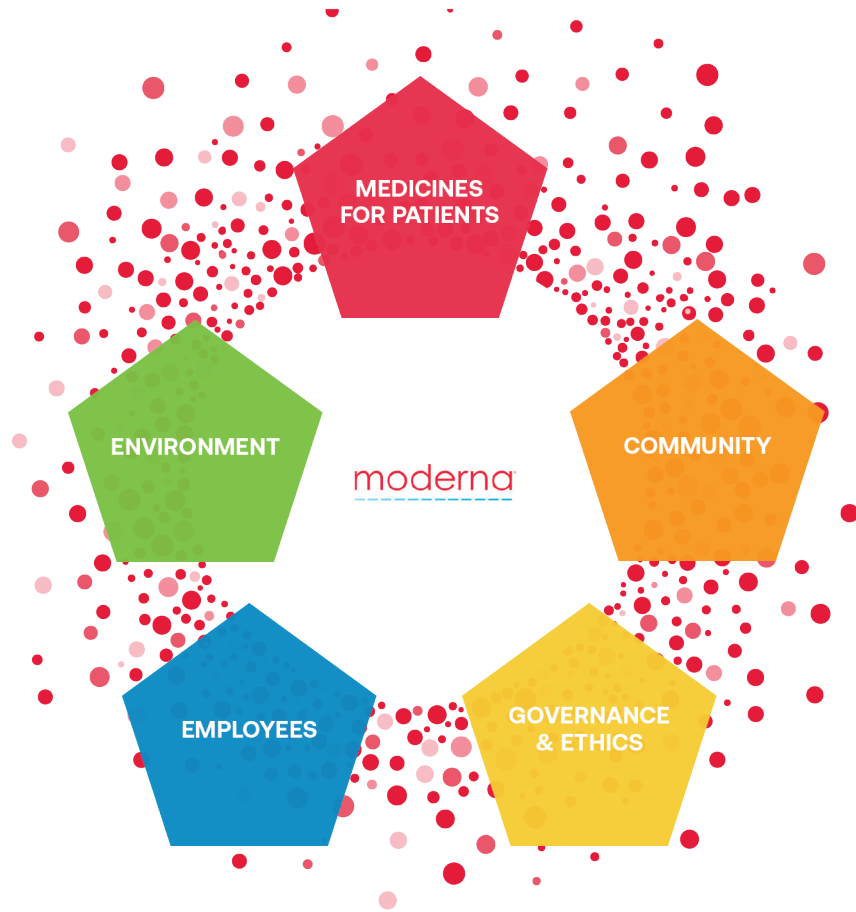
With the potential of our science comes a responsibility to the multitude of patients our technology could help

We believe that ensuring the health of our planet is critical to impacting human health

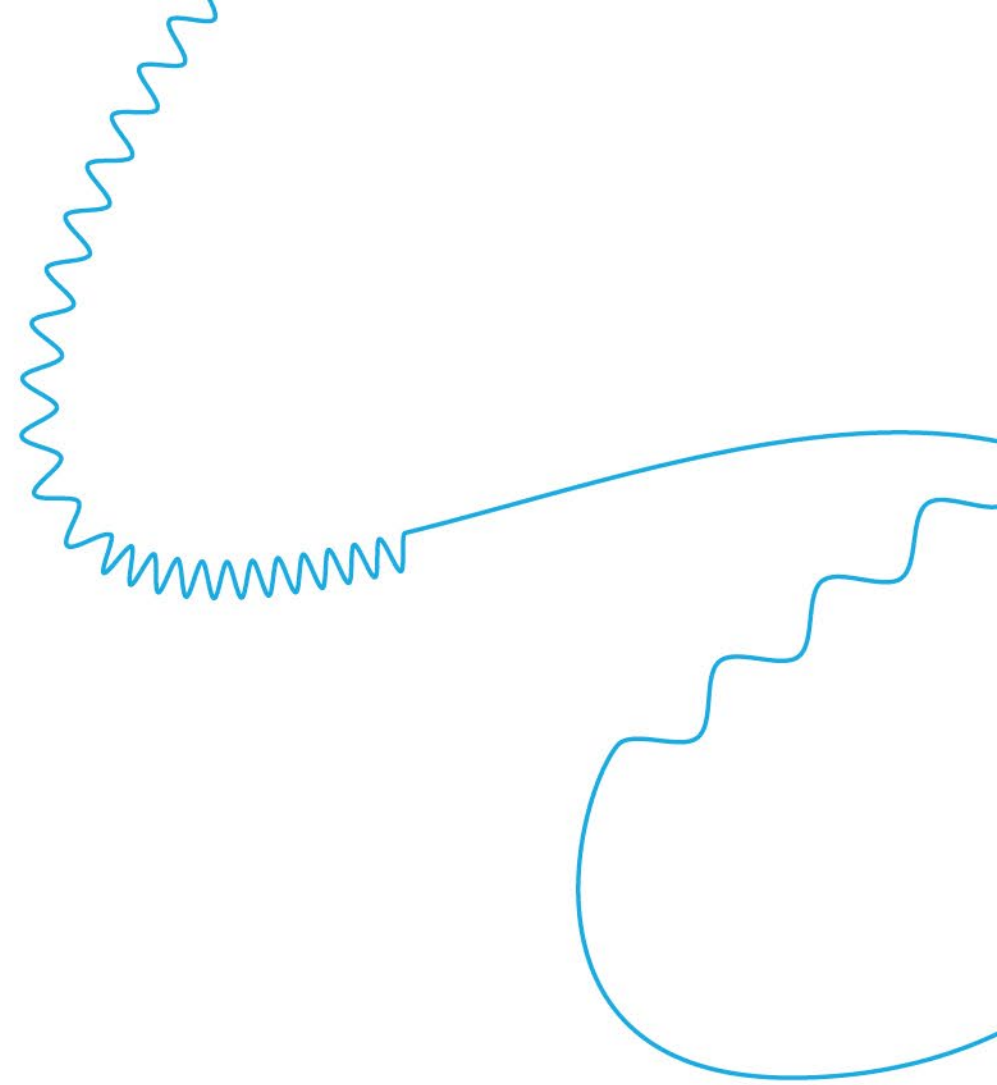
We give our people a platform to change medicine and an opportunity to change the world

We are seeking partners that share our commitments to improving human health and closing opportunity gaps in our communities

Our continuous focus on quality, transparency, and ethical behavior is critical to building and maintaining trust with all our stakeholders



Thank you



moderna®
