Fourth Quarter & Full Year 2023 Financial Results

February 22, 2024

Forward-looking statements and disclaimer

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including statements regarding: Moderna's expected revenues in 2024 and trends informing Moderna's 2024 sales outlook; Moderna's anticipated approval and launch of its RSV vaccine in 2024 and 2025, market dynamics and its competitive profile; Moderna's 2024 financial framework and anticipated performance; the potential for Moderna to launch up to 15 products in the next five years; anticipated milestones for Moderna's pipeline programs in 2024; and the future profitability of Moderna's COVID-19 vaccine franchise. 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.

The financial figures for the year ended December 31, 2023, are subject to audit. The financial figures for the quarterly periods ending December 31, 2023, and December 31, 2022, as well as the financial position as of September 30, 2022, are unaudited.

4Q23 earnings call agenda

2023 Business Review
Stéphane Bancel, CEO

Financials
Jamey Mock, CFO

R&D/Clinical Programs
Stephen Hoge, M.D., President

2024 Priorities
Stéphane Bancel, CEO

Mission and impact

Our mission

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

In 2023

We impacted over 100 million people.

We advanced our pipeline across infectious diseases, oncology and rare diseases.

2023 was a difficult year of transition to a seasonal endemic market

Sales at low end of framework at $6.1B, excluding the recognition of $0.6B in deferred revenue related to Gavi

U.S.

- Vaccination rate in the U.S. was lower than 2022
- Increased U.S. retail market share from 37% to 48%[1]

Rest of World

- Competitor contract prevented us from competing in the EU in 2H
- Japan performance resulted in low share
- Strong performance in Israel, Switzerland and Taiwan

Actions taken

- Resized manufacturing to improve COVID business cash flow
- Flattened commercial structure with regions reporting to CEO to drive sales execution
- Focused investments in R&D and SG&A toward near-term growth drivers

[1]Based on information licensed from IQVIA: IQVIA RAPID Weekly Audit for September-December 2023, reflecting estimates of real-world activity.

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While sales were challenging, our development team had a great year

Respiratory vaccines

Advanced late-stage respiratory portfolio

- mRNA-1345 RSV: filed for approvals around the world
- mRNA-1010 Flu: positive P303
- mRNA-1283 Next-gen COVID: positive Phase 1/2 data and began pivotal Phase 3 study
- mRNA-1083 Flu/COVID combo: Positive Phase 1/2 data and Phase 3 fully enrolled

Latent + other vaccines

CMV Phase 3 fully enrolled

Oncology therapeutics

- Phase 3 adjuvant melanoma and Phase 3 non-small cell lung cancer studies enrolling
- Purchased & started buildout of Marlborough manufacturing site to enable INT commercial scaling

Rare disease therapeutics

- PA dose selection for registrational study
- MMA biomarker and clinical outcome improvements in Phase 1/2

External partnerships

- OriCiro
- CytomX
- Life Edit
- Generation Bio
- Immatics
- CARsgen

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2023 GAAP financial summary

Revenue[1]:

$6.8B

Net income (loss):

$(4.7)B

Cash and investments:

$13.3B

1. Includes the recognition of $0.6B from deferred revenue related to Gavi.

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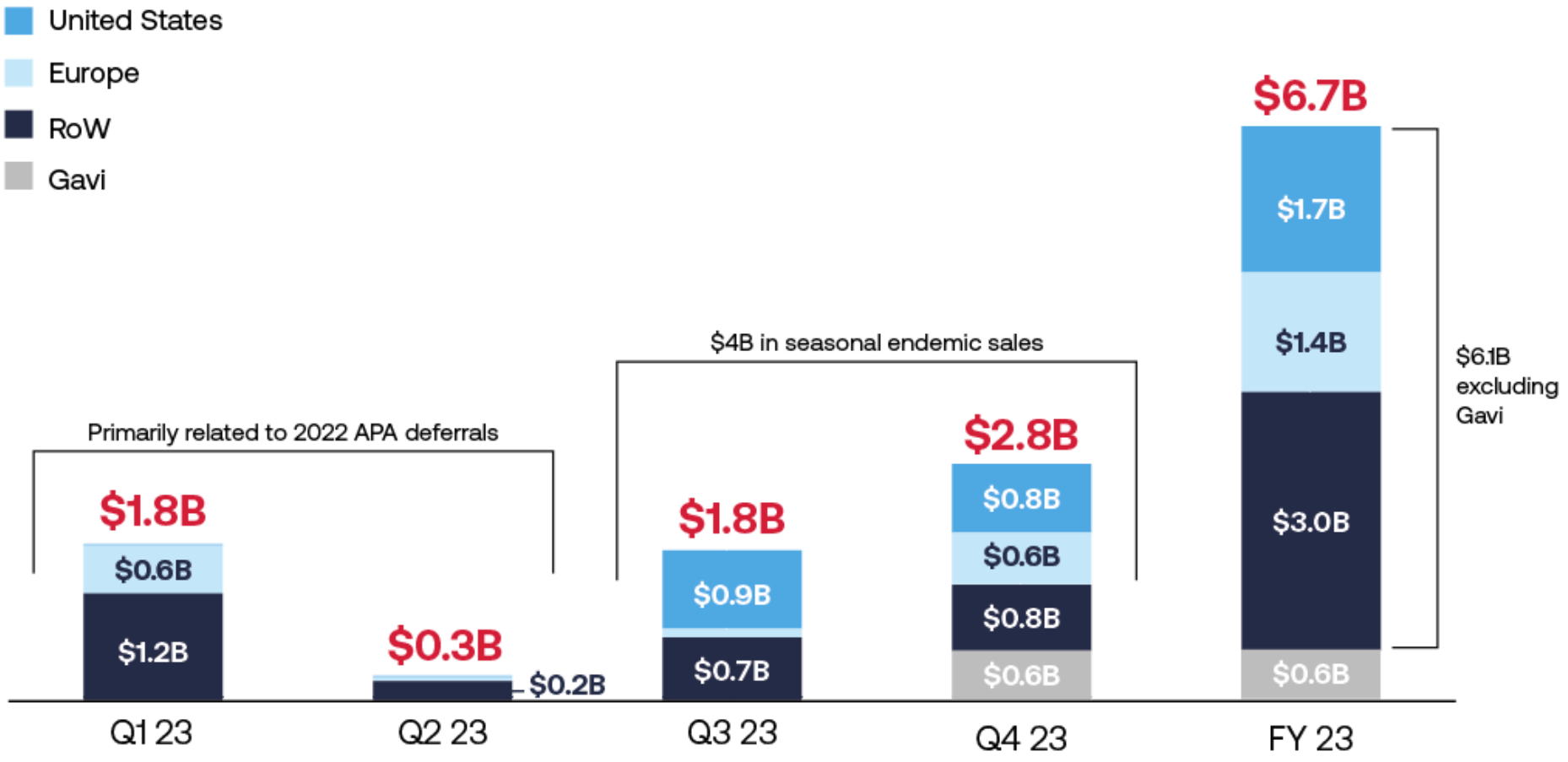
Q4 2023 product sales of $2.8B, full year product sales of $6.7B met low end of sales range



Note: Q4 and FY revenue figures include the recognition of $0.6B from deferred revenue related to Gavi. Europe includes EU, UK, and Switzerland

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Fourth quarter 2023 financial results

In $ millions, except per share amounts	4Q 2023	4Q 2022	Change (4Q'23 vs. 4Q'22)	
Net product sales	**$ 2,793**	**$ 4,859**	**$ (2,066)**	**(43)%**
Other revenue[1]	18	225	(207)	(92) %
Total revenue	**2,811**	**5,084**	**(2,273)**	**(45)%**
Cost of sales	929	1,918	(989)	(52) %
Research and development	1,406	1,211	195	16 %
Selling, general and administrative	470	375	95	25 %
Total operating expenses	**2,805**	**3,504**	**(699)**	**(20)%**
Income from operations	**6**	**1,580**	**(1,574)**	**(100)%**
Other income, net	64	75	(11)	(15) %
(Benefit from) provision for income taxes	(147)	190	(337)	(177) %
Net income	**$ 217**	**$ 1,465**	**$ (1,248)**	**(85)%**
Earnings per share – Diluted	$ 0.55	$ 3.61	$ (3.06)	(85) %
Weighted average shares – Diluted	395	405	(10)	(2) %
Weighted average shares – Basic	381	385	(4)	(1) %
Effective tax rate	(211)%	11 %		

[1]Includes grant revenue and collaboration revenue

In $ billions	12/31/2023	9/30/2023	Change (12/31 vs. 9/30)	
Cash, cash equivalents and investments	$ 13.3	$ 12.8	$ 0.5	4 %

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Full year 2023 financial results

In $ millions, except per share amounts	FY 2023	FY 2022	Change (FY'23 vs. FY'22)	
Net product sales	**$ 6,671**	**$ 18,435**	**$ (11,764)**	**(64)%**
Other revenue[1]	177	828	(651)	(79) %
Total revenue	**6,848**	**19,263**	**(12,415)**	**(64)%**
Cost of sales	4,693	5,416	(723)	(13) %
Research and development	4,845	3,295	1,550	47 %
Selling, general and administrative	1,549	1,132	417	37 %
Total operating expenses	**11,087**	**9,843**	**1,244**	**13 %**
(Loss) income from operations	**(4,239)**	**9,420**	**(13,659)**	**(145)%**
Other income, net	297	155	142	92 %
Provision for income taxes	772	1,213	(441)	(36) %
Net (loss) income	**$ (4,714)**	**$ 8,362**	**$ (13,076)**	**(156)%**
(Loss) earnings per share – Diluted	$ (12.33)	$ 20.12	$ (32.45)	(161) %
Weighted average shares – Diluted[2]	382	416	(34)	(8) %
Weighted average shares – Basic[2]	382	394	(12)	(3) %
Effective tax rate	(20) %	13 %		

[1]Includes grant revenue and collaboration revenue

[2]We generated a net loss in 2023, therefore the basic and diluted weighted average shares calculation was the same

In $ billions	12/31/2023	12/31/2022	Change (12/31/2023 vs. 12/31/2022)	
Cash, cash equivalents and investments	$ 13.3	$ 18.2	$ (4.9)	(27)%

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Full year 2023 financial results with and without key charges and benefit of Gavi

In $ millions	GAAP FY 2023	Gavi product sales, Manufacturing resizing, and Tax related charges	Non-GAAP Adjusted FY 2023
Net product sales	**6,671**	(589)	**6,082**
Other revenue	177		177
Total revenue	**6,848**		**6,259**
Cost of sales	4,693	(1,586)	3,107
Research and development	4,845		4,845
Selling, general and administrative	1,549		1,549
Total operating expenses	**11,087**		**9,501**
Loss from operations	**(4,239)**		**(3,242)**
Other income, net	297		297
Provision for (benefit from) income taxes	772	(2,069)	(1,297)[1]
Net loss	**(4,714)**		**(1,648)**

[1] Tax effect of resizing charges and Gavi product sales is not reflected

Gavi product sales

- Includes the recognition of $0.6B from deferred revenue related to Gavi

FY Manufacturing resizing charges:

- $0.9 billion inventory write-downs
- $0.7 billion CMO related wind-down cost and cancellations charges for raw materials

FY Tax charge

- $2.1 billion valuation allowance on deferred tax assets

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2024 financial framework

Expectations for full year 2024

Net sales	~$4 billion (1H'24: ~$0.1 billion reflecting seasonality of the respiratory business)
Cost of sales	~35% of product sales
R&D	~$4.5 billion
SG&A	~$1.3 billion
Tax	Negligible
Capital expenditures	~$0.9 billion
Cash and investments	2024 year-end balance of ~$9 billion

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Moderna's late-stage pipeline in our four franchises provides foundation for growth

2024 - 2025

Respiratory vaccines

- RSV
- Next-Gen COVID
- Flu
- Flu/COVID combo

2025 +

Latent + other vaccines

CMV

Oncology therapeutics

INT

- Adjuvant Melanoma
- Adjuvant NSCLC

Rare disease therapeutics

- PA
- MMA

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Clinical milestones achieved across infectious disease vaccines in 2023

Respiratory vaccines

RSV: Filed for approvals in key markets

Flu: Phase 3 P303 study met primary endpoints against all strains

Next-Gen COVID: Fully enrolled Phase 3 study

Flu/COVID combo: Fully enrolled Phase 3 study

Latent + other vaccines

CMV: Fully enrolled Phase 3 study

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RSV vaccine efficacy met primary and key secondary endpoints in primary analysis

Study 301 per protocol analysis, median follow up of 3.7 months (14 days – 12 months range) after vaccine/placebo

	Cases, n (%)		
	(mRNA-1345) (N = 17,572)	**Placebo** (N = 17,516)	**Vaccine Efficacy (%) Based on Hazard Ratios[1]**
RSV LRTD ≥ 2 symptoms	9 (0.05%)	55 (0.31%)	**83.7%** (66.0%, 92.2%)
RSV LRTD ≥ 3 symptoms	3 (0.02%)	17 (0.10%)	**82.4%** (34.8%, 95.3%)
RSV ARD	26 (0.15%)	82 (0.47%)	**68.4%** (50.9%, 79.7%)

The results of the Primary Efficacy and Safety Analysis of this Phase 2/3 efficacy study were recently published in the NEJM

1. Alpha adjusted CI: 95.88% for RSV LRTD ≥ 2 symptoms, 96.36% for RSV LRTD ≥ 3 symptoms, 95.0% for RSV ARD
Wilson et al. NEJM, 2023

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Sustained efficacy against RSV LRTD in additional analysis of mRNA-1345

Unblinded analysis, median follow of 8.6 months (15 days – 17.7 months range) after vaccine/placebo

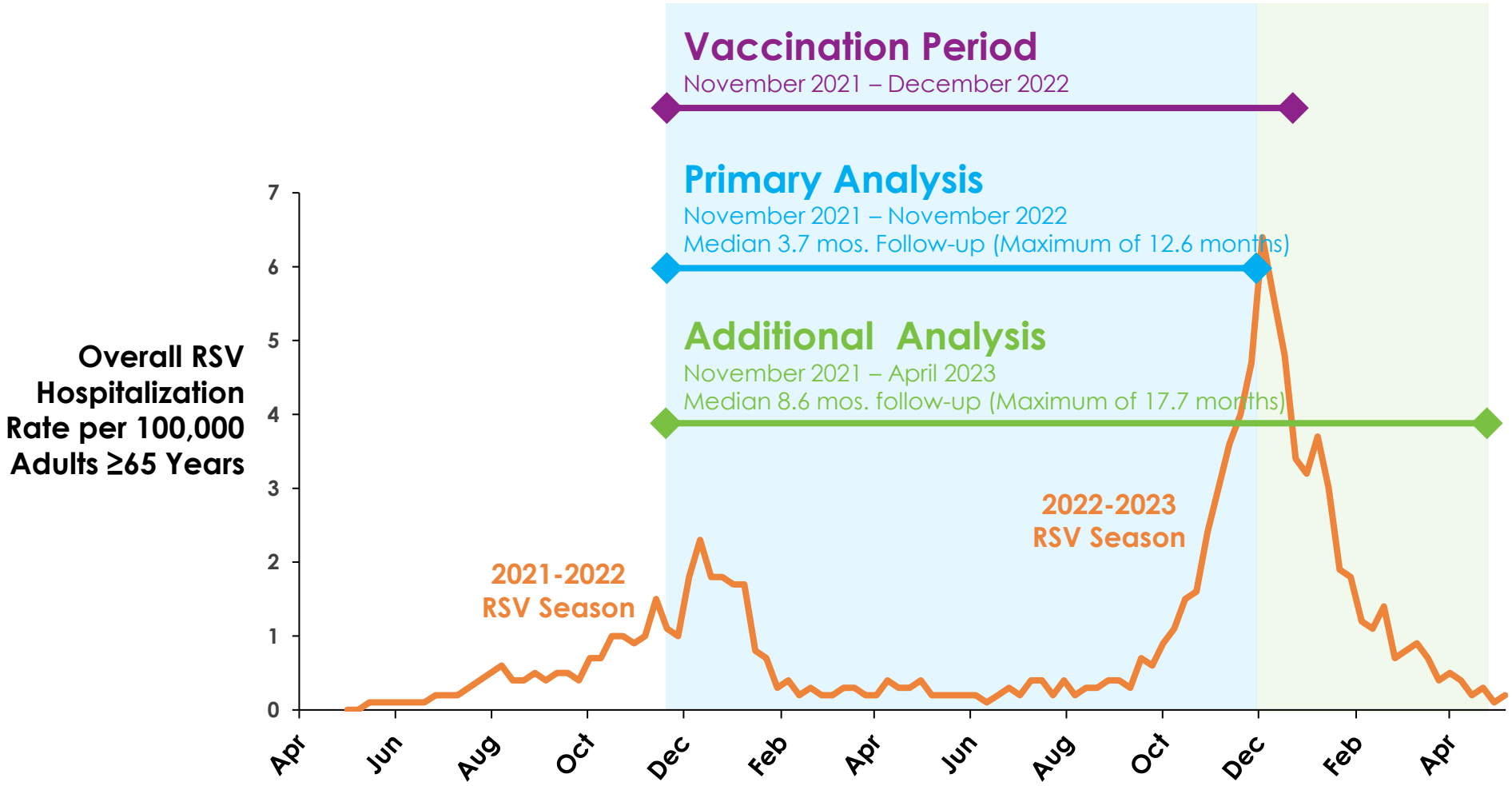
	Cases, n (%)		
	mRNA-1345 (N = 18,112)	**Placebo** (N = 18,045)	**Vaccine Efficacy (%) Based on Hazard Ratios[a]**
RSV LRTD ≥ 2 symptoms	47 (0.26%)	127 (0.70%)	**63.3%** (48.7%, 73.7%)
RSV-LRTD Associated Shortness of Breath[1,2]	11/18,101 (0.06%)	43/18,002 (0.24%)	**74.6%** (50.7%, 86.9%)

Shortness of breath is a driver of seeking a higher level of care[1,2]

Based on April 30, 2023 cutoff
[a]95% CI for hazard ratio for shortness of breath
1. Falsey et al *NEJM*, 2005
2. Panozzo et al *ESWI*, 2023

Primary and additional analyses confirm durable protection through full 2022-2023 RSV season for mRNA-1345

US 2021-2023 RSV Hospitalization Rates (RSV-NET) in Adults ≥65 Years[1,2]



- RSV efficacy study conducted across 2021 – 2022 and 2022 – 2023 seasons
- >50% of participants enrolled in US
- **Primary Analysis:** Met success criteria[2]
- **Additional Analysis:** 94% of participants followed for ≥6 months

1. CDC. Respiratory Syncytial Virus Hospitalization Surveillance Network (RSV-NET). https://data.cdc.gov/Public-Health-Surveillance/Weekly-Rates-of-Laboratory-Confirmed-RSV-Hospitali/29hc-w46k/data_preview
2. https://www.cdc.gov/rsv/research/rsv-net/dashboard.html
3. Wilson E, et al. NEJM. 2023;389:2233-2244.

Clinical milestones achieved in therapeutics in 2023

Oncology therapeutics

Individualized Neoantigen Therapy (INT)

- Started Phase 3 clinical studies in two cancer indications, adjuvant melanoma and non-small cell lung cancer
- Primary analysis at two-year follow-up from Phase 2 trial published in *The Lancet*[1]
- Shared top-line Phase 2 data at 3 year follow-up

Rare disease therapeutics

PA and MMA

Continued to demonstrate early positive clinical data from Phase 1/2 studies

1. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)02268-7/fulltext

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Clinical milestones achieved in therapeutics in 2023

Indivi

- Starte
  canc
  and n
- Prima
  Phase
- Share
  follow

INT: 3 year follow-up data

Adjuvant treatment with mRNA-4157 (V940) in combination with KEYTRUDA continued to demonstrate a clinically meaningful improvement in recurrence-free survival (RFS), compared with KEYTRUDA alone, **reducing the risk of recurrence or death by**

49%

(HR=0.510 [95% CI, 0.288-0.906]; one-sided nominal p=0.0095)

mRNA-4157 (V940) in combination with KEYTRUDA also continued to demonstrate a meaningful improvement in distant metastasis-free survival (DMFS), compared with KEYTRUDA alone, **reducing the risk of developing distant metastasis or death by**

62%

(HR=0.384 [95% CI, 0.172-0.858]; one-sided nominal p= 0.0077)

1. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)02268-7/fulltext

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Anticipated milestones for late-stage programs in 2024

Respiratory vaccines

- **RSV vaccine** (mRNA-1345): approvals beginning in 1H24 and subsequent commercial launches globally
- **Flu vaccine** (mRNA-1010): in discussions with regulators and intend to file in 2024
- **Next-Gen COVID vaccine** (mRNA-1283): Phase 3 data expected in 1H24
- **Combination respiratory vaccine** (mRNA-1083): Flu+COVID combination Phase 3 data expected in 2024

Latent + other vaccines

- **CMV vaccine** (mRNA-1647): anticipate potential efficacy data from Phase 3 study in 2024

Oncology therapeutics

- **Individualized Neoantigen Therapy (INT)** (mRNA-4157): continued enrollment of Phase 3 studies of adjuvant melanoma & non-small cell lung cancer; initiation of clinical studies in additional tumor types planned in 2024

Rare disease therapeutics

- **PA** (mRNA-3927) **& MMA** (mRNA-3705)**:** expecting to advance programs into registrational studies in 2024

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2024 is all about execution

Commercial

R&D late-stage pipeline

Financial discipline

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Commercial execution

COVID

U.S.

Our focus is working with public health to increase vaccination coverage rates for the 2024/2025 season to reduce the substantial burden of COVID

E.U.

New tender published in January 2024 for up to 36M doses per year for up to 4 years

RoW

Prioritizing key markets for greater commercial focus

RSV

U.S.

FDA PDUFA date[1] is May 12; ACIP meeting is June 26-28

E.U.

Germany expected to launch in 2024

RoW

Australia expected to launch in 2024; other markets expected to launch in 2025 due to regulatory and tender timing

1. Completion of the FDA review period under the Prescription Drug User Fee Act.

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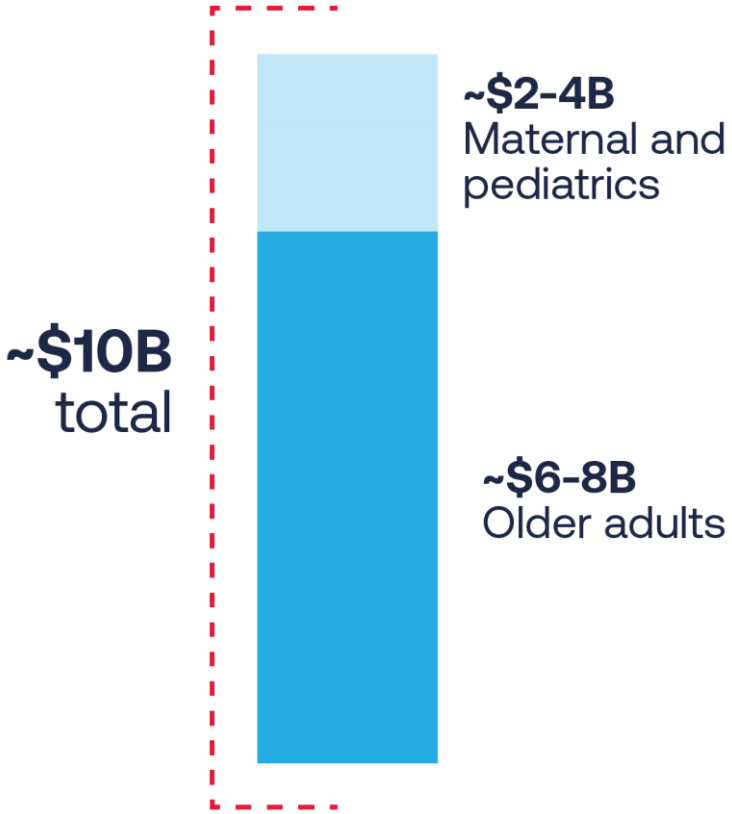
Expecting a strong RSV vaccine launch into a large market in 2024

RSV peak global market size[1,2]



Observed strong consumer awareness and demand in first year of RSV market

~$2.5B
total market sales in 2023[3]

1. Analyst reports: Leerink investor report: RSV could be next $10B vaccine market
2. FiercePharma
3. GSK and Pfizer earnings reports

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We have a strong value proposition for our RSV vaccine

Only mRNA RSV investigational vaccine with positive Phase 3 data

Study demonstrated consistently strong efficacy across vulnerable and older populations[1]

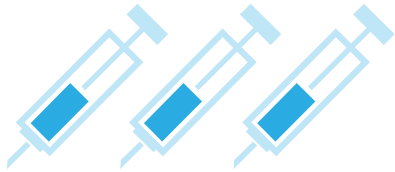
83.7% efficacy in overall study population

88.4% efficacy in participants with comorbidities

95.4% efficacy in participants aged 70-79 years

Well-established safety and tolerability profile for mRNA vaccine technology

- Over 1 billion COVID-19 doses using same mRNA technology
- Most solicited adverse reactions were mild to moderate[1,2]
- No cases of Guillain-Barre Syndrome (GBS) or Acute disseminated encephalomyelitis (ADEM) have been reported with mRNA-1345 in Phase 3 RSV trial[2]



Ease of administration

- Single-dose prefilled syringe (PFS)
- HCP customer convenience: only ready-to-use formulation, saving time and reducing administration errors[3,4]

1 Based on pivotal trial primary analysis RSV LRTD with ≥2 symptoms: https://www.nejm.org/doi/pdf/10.1056/NEJMoa2307079
2 As of April 30, 2023
3 www.ncbi.nlm.nih.gov/pmc/articles/PMC7846520/
4 www.ncbi.nlm.nih.gov/pmc/articles/PMC7913196/

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Late-stage pipeline execution

Respiratory vaccines

- **Flu** (mRNA-1010) start regulatory filing
- **Next-Gen COVID** (mRNA-1283) Phase 3 data
- **Flu/COVID combo** (mRNA-1083) Phase 3 data

Latent + other vaccines

- **CMV** (mRNA-1647) Potential efficacy data from Phase 3 study in 2024

Oncology therapeutics

- **Individualized Neoantigen Therapy (INT)** (mRNA-4157): continued enrollment of Phase 3 studies of adjuvant melanoma & NSCLC; initiation of clinical studies in additional tumor types planned in 2024

Rare disease therapeutics

- **PA** (mRNA-3927) and **MMA** (mRNA-3705) expecting to advance programs into registrational studies in 2024

Note: Approval for all programs subject to discussions with regulators.

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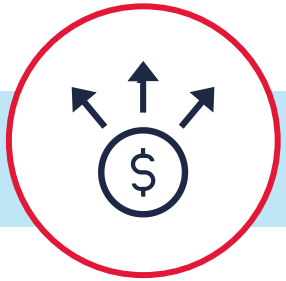
Financial discipline

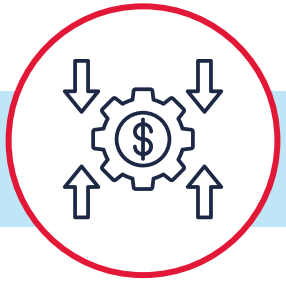
Manufacturing cost savings
In-house and suppliers

R&D prioritization

SG&A prioritization



Capital expenditures
Primarily to complete our footprint build-out



Working capital improvement

AI across all teams: saving time, increasing productivity, driving scalability

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2024 is all about execution

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R&D late-stage pipeline

Financial discipline

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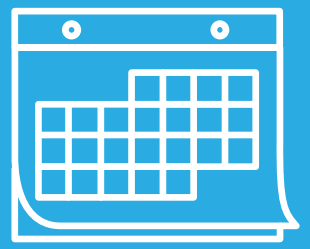
Our Mission

Deliver the greatest possible impact to people through mRNA medicines.



Save the Date

Events in 2024

- **Vaccines Day**
  March 27th starting at 9am ET

- **R&D Day**
  September 12th

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Thank you

Q&A

Moderna's Respiratory Vaccines (Pipeline 1/3)

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Adults — Infectious disease vaccines	COVID-19 vaccine	**mRNA-1273/Spikevax®**						Worldwide
	COVID-19 vaccine (next generation)	**mRNA-1283**						Worldwide
	Flu vaccine	**mRNA-1010**						Worldwide
		mRNA-1020						Worldwide
		mRNA-1030						Worldwide
		mRNA-1011						Worldwide
		mRNA-1012						Worldwide
	Older adults RSV vaccine	**mRNA-1345**						Worldwide
	Flu + COVID vaccine	**mRNA-1083**						Worldwide
	Flu + COVID + RSV vaccine	**mRNA-1230**						Worldwide
	Flu + RSV vaccine	**mRNA-1045**						Worldwide
	Endemic HCoV vaccine	**mRNA-1287**						Worldwide
	Pandemic Flu	**mRNA-1018**						Worldwide
	RSV + hMPV vaccine	**mRNA-1365**						Worldwide
Adolescents & Pediatrics	COVID-19 vaccine (adolescents)	**mRNA-1273.815**						Worldwide
	COVID-19 vaccine (pediatrics)	**mRNA-1273.815**						Worldwide
	Pediatric RSV vaccine	**mRNA-1345**						Worldwide

Moderna's Latent & Other Vaccines (Pipeline 2/3)

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Latent	CMV vaccine	**mRNA-1647**						Worldwide
	EBV vaccine *(to prevent infectious mononucleosis)*	**mRNA-1189**						Worldwide
	EBV vaccine *(to address EBV sequelae)*	**mRNA-1195**						Worldwide
Infectious disease vaccines	HSV vaccine	**mRNA-1608**						Worldwide
	VZV vaccine	**mRNA-1468**						Worldwide
	HIV vaccines	**mRNA-1644**						Worldwide ***IAVI** funded*
		mRNA-1574						Worldwide ***IAVI/others** funded*
Enteric	Norovirus vaccines	**mRNA-1403**						Worldwide
		mRNA-1405						Worldwide
Bacterial	Lyme vaccines	**mRNA-1975**						Worldwide
		mRNA-1982						Worldwide
Public health	Zika vaccine	**mRNA-1893**						Worldwide ***BARDA** funded*
	Nipah vaccine	**mRNA-1215**						Worldwide ***NIH** funded*
	Mpox vaccine	**mRNA-1769**						Worldwide

Moderna's Therapeutics (Pipeline 3/3)

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Systemic secreted & cell surface therapeutics	Relaxin *Heart failure*	**mRNA-0184**						Worldwide
	PD-L1 *Autoimmune hepatitis*	**mRNA-6981**						Worldwide
Cancer vaccines & therapeutics	Individualized neoantigen therapy (INT) – adjuvant melanoma	**mRNA-4157**						50-50 global profit sharing with **Merck**
	Individualized neoantigen therapy (INT) – adjuvant NSCLC	**mRNA-4157**						50-50 global profit sharing with **Merck**
	KRAS vaccine	**mRNA-5671**						Worldwide
Intratumoral Immuno-oncology	Checkpoint vaccine	**mRNA-4359**						Worldwide
	OX40L/IL-23/IL-36γ (Triplet) *Solid tumors/lymphoma*	**mRNA-2752**						Worldwide
Rare disease intracellular therapeutics	Propionic acidemia (PA)	**mRNA-3927**						Worldwide
	Methylmalonic acidemia (MMA)	**mRNA-3705**						Worldwide
	Glycogen storage disease type 1a (GSD1a)	**mRNA-3745**						Worldwide
	Ornithine transcarbamylase deficiency (OTC)	**mRNA-3139**						Worldwide
Inhaled pulmonary therapeutics	Phenylketonuria (PKU)	**mRNA-3210**						Worldwide
	Crigler-Najjar syndrome type 1 (CN-1)	**mRNA-3351**						Provided to **ILCM** free of charge
	Cystic fibrosis (CF)	**mRNA-3692 / VX-522**						**Vertex** to pay milestones and royalties