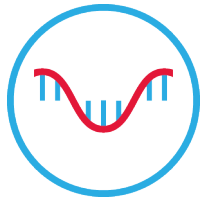


First Quarter 2024 Financial Results

May 2, 2024



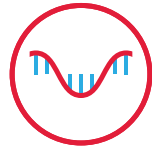
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Forward-looking statements and disclaimer

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 product sales in 2024 and trends informing Moderna's 2024 sales outlook; Moderna's anticipated approval and launch of its RSV vaccine in 2024, market dynamics and its competitive profile; Moderna's 2024 financial framework and anticipated performance; terms of the financing arrangement with Blackstone Life Sciences; the potential for accelerated approval of Moderna's INT candidate for adjuvant melanoma; and anticipated milestones for Moderna's pipeline programs in 2024, including Moderna's intent to file with regulators on mRNA-1010 in 2024. 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, 2023, 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.

Financial figures in this presentation as of, and for the quarterly periods ended, March 31, 2024, and March 31, 2023, are unaudited.

1Q24 earnings call agenda



Business Review

Stéphane Bancel, CEO



Financials

Jamey Mock, CFO



R&D/Clinical Programs

Stephen Hoge, M.D., President



Looking Ahead

Stéphane Bancel, CEO

Our COVID-19 vaccine has impacted hundreds of millions of people, and our pipeline has the potential to impact many more

Moderna's infectious disease portfolio

28

vaccines
addressing
respiratory and
latent + other
pathogens

Today's presentations cover the following



Latent + Other vaccines

CMV
mRNA-1647

Norovirus
mRNA-1403/05

VZV
mRNA-1468

HSV
mRNA-1608

EBV (JM/MS)
mRNA-1189/95



Respiratory vaccines

COVID (Spikevax)
mRNA-1273

NextGen COVID
mRNA-1283

RSV
mRNA-1345

Seasonal Flu
mRNA-1010

Flu/COVID
mRNA-1083

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Shared clinical progress
at our Vaccines Day



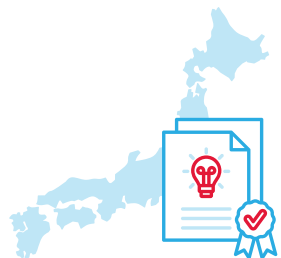
Progress in multiple Individualized
Neoantigen Therapy (INT) studies
with partner Merck

- **Adjuvant melanoma:** potential for accelerated approval
- **Phase 3 studies enrolling:** adjuvant melanoma; adjuvant non-small cell lung cancer
- **Phase 2/3, 2 studies starting:** cutaneous squamous cell carcinoma; adjuvant bladder; adjuvant renal cell carcinoma

Expanded INT studies
into new indications

moderna

Business highlights



Japan IP licensing agreement

Non-exclusive IP licensing with Japanese pharmaceutical company, with upfront payment and low double-digit royalty on net sales of COVID-19 product in Japan



Brazil contract

Agreement with the Ministry of Health in Brazil to supply 12.5M COVID-19 vaccine doses



Moderna secures \$750 million from Blackstone Life Sciences to develop flu shots

Announced financing for Flu program with Blackstone

Up to \$750M in R&D funding

THE WALL STREET JOURNAL

At Moderna, OpenAI's GPTs Are Changing Almost Everything

Collaboration with OpenAI to advance mRNA medicine

Announced ongoing collaboration to co-innovate with a shared vision of AI's transformative potential in the future of business and health care



Metagenomi

Metagenomi and Moderna have agreed to terminate gene editing collaboration as Moderna continues to strategically prioritize its research and development investments

1Q24 financial highlights

1Q24 GAAP financial results



Revenue:
\$0.2 billion



Net income (loss):
\$(1.2) billion



Cash and investments:
\$12.2 billion

Executing with financial discipline

Reduced operating expenses¹ by \$795M from 1Q23 to 1Q24

¹ Cost of goods sold + SG&A + R&D

1Q24 earnings call agenda



Business Review

Stéphane Bancel, CEO



Financials

Jamey Mock, CFO



R&D/Clinical Programs

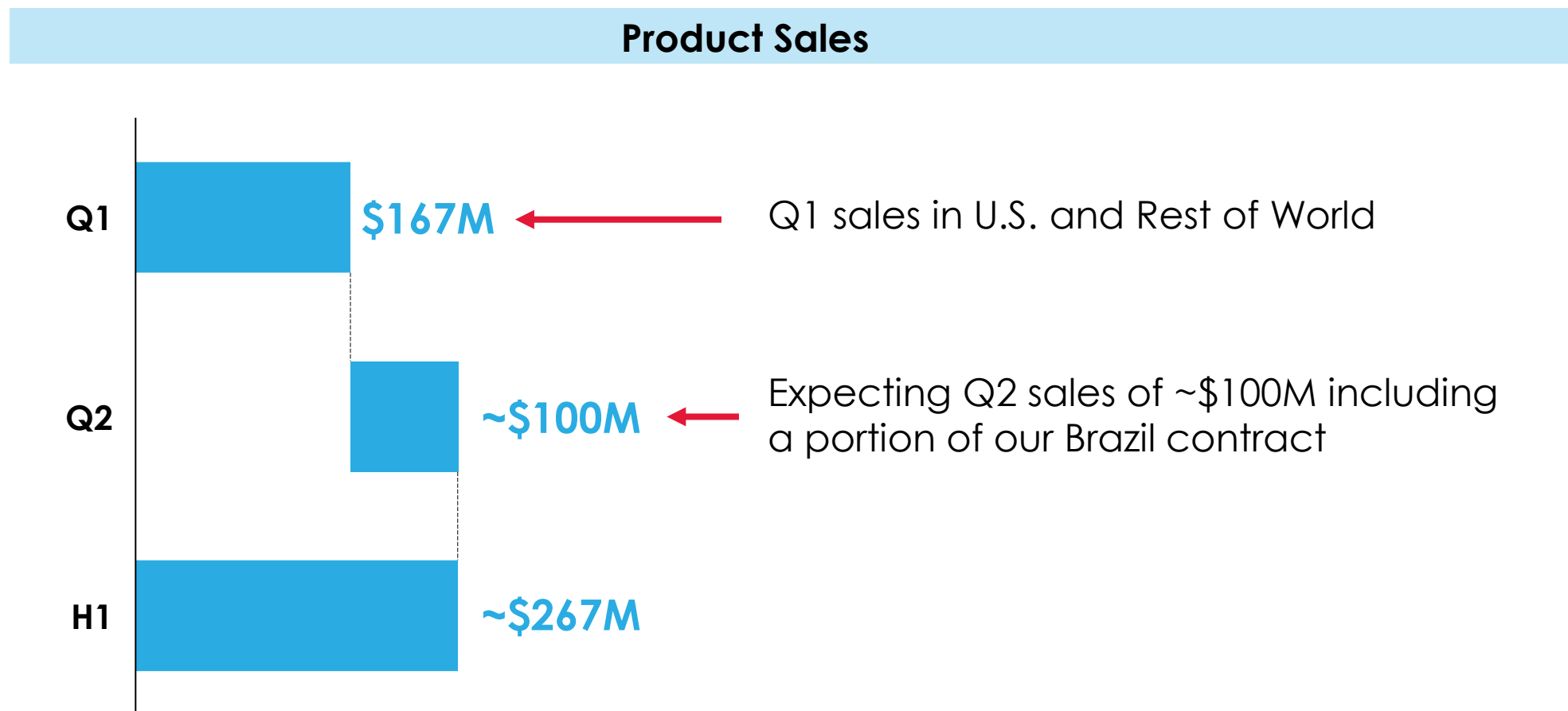
Stephen Hoge, M.D., President



Looking Ahead

Stéphane Bancel, CEO

Now expecting 1H 2024 product sales of ~\$267M



First quarter 2024 financial results

In \$ millions, except per share amounts

	1Q 2024	1Q 2023	Change (1Q'24 vs. 1Q'23)	
Net product sales	\$ 167	\$ 1,828	\$ (1,661)	(91)%
Other revenue ¹	—	34	(34)	(100) %
Total revenue	167	1,862	(1,695)	(91)%
Cost of sales	96	792	(696)	(88) %
Research and development	1,063	1,131	(68)	(6) %
Selling, general and administrative	274	305	(31)	(10) %
Total operating expenses	1,433	2,228	(795)	(36)%
Loss from operations	(1,266)	(366)	(900)	246 %
Other income, net	101	61	40	66 %
Provision for (benefit from) income taxes	10	(384)	394	(103) %
Net (loss) income	\$ (1,175)	\$ 79	\$ (1,254)	NM
(Loss) earnings per share – Diluted ²	\$ (3.07)	\$ 0.19	\$ (3.26)	NM
Weighted average shares – Diluted ²	382	405	(23)	(6) %
Weighted average shares – Basic ²	382	386	(4)	(1) %
Effective tax rate	(1) %	126 %		

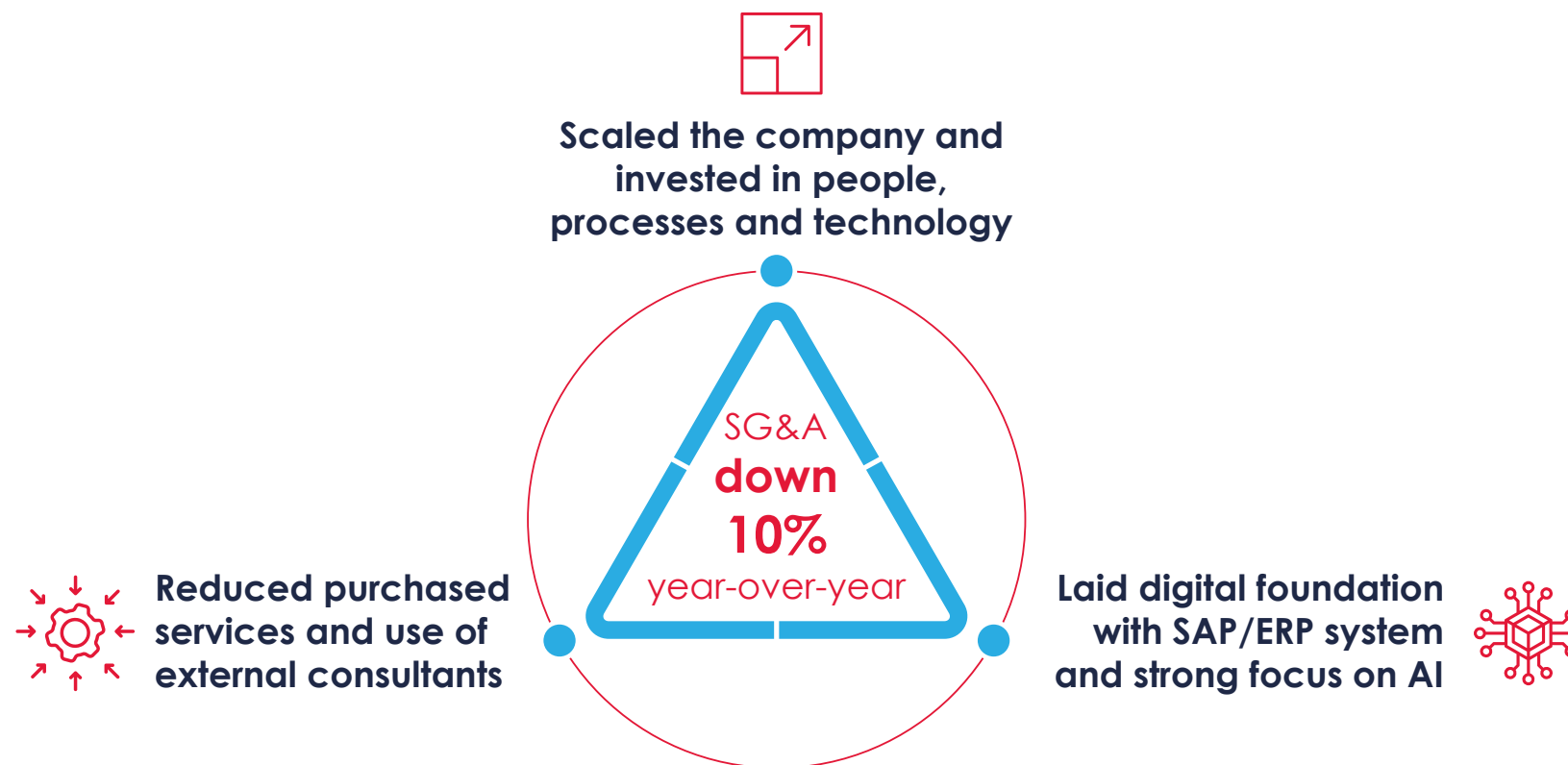
¹ Includes grant revenue and collaboration revenue

² Moderna generated a net loss in Q1 2024; therefore the basic and diluted weighted average shares calculation was the same

\$ billions

	3/31/2024	12/31/2023	Change (3/31 vs. 12/31)	
Cash, cash equivalents and investments	\$ 12.2	\$ 13.3	\$ (1.1)	(8) %

Invested in foundational capabilities to drive efficiencies



We expect further productivity gains as we launch additional products

2024 financial framework

Expectations for full year 2024 remain consistent with prior expectations

Net sales

~\$4 billion (1H 2024: now expecting ~\$0.3 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

Moderna and Blackstone Life Sciences development and commercialization funding agreement

Announced March 27, 2024



Funding for flu program

- Improve competitiveness / label of product
- Support regulatory applications



Key terms

- Up to \$750M funding
- Return based on cumulative commercial milestones (up to \$750M) and royalties (low single digits)



R&D framework

- Funding will offset R&D expense
- No change to 2024 R&D framework of ~\$4.5B
- Enables pipeline acceleration

1Q24 earnings call agenda



Business Review

Stéphane Bancel, CEO



Financials

Jamey Mock, CFO



R&D/Clinical Programs

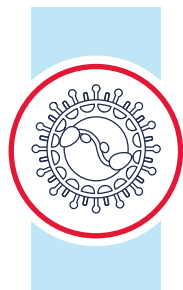
Stephen Hoge, M.D., President



Looking Ahead

Stéphane Bancel, CEO

Respiratory vaccines



RSV
mRNA-1345

- Presented positive data from studies of co-administration with other respiratory vaccines
- Awaiting regulatory approvals in multiple countries
- Expecting to launch in the U.S. after ACIP recommendation



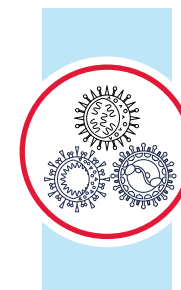
Flu
mRNA-1010

- Presented Phase 3 P303 data at ESCMID Global meeting
[ESCMID presentation](#)
- In discussions with regulators
- Intend to file in 2024



Next-gen COVID
mRNA-1283

- Presented positive Phase 3 immunogenicity data
- Engaging with regulators



Combos
mRNA-1083

- Data expected from Phase 3 combination flu/COVID-19 vaccine study in 2024

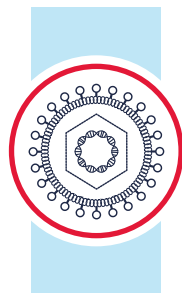
Latent + Other vaccines



CMV

mRNA-1647

- Phase 3 trial fully enrolled
- Potential for vaccine efficacy readout in 2024



EBV

mRNA-1189/95

- Presented positive immunogenicity and safety data from Phase 1 study of mRNA-1189
- Advancing mRNA-1189 toward pivotal development
- Phase 1 study with mRNA-1195 ongoing in healthy volunteers



VZV

mRNA-1468

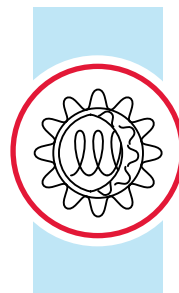
- mRNA-1468 elicited comparable or higher T cell responses relative to Shingrix in Phase 1/2 study
- Advancing toward pivotal Phase 3 trial



HSV

mRNA-1608

- Phase 1/2 trial fully enrolled



Norovirus

mRNA-1403/5

- Presented positive Phase 1 immunogenicity and safety data
- Advancing toward a pivotal Phase 3 trial

Oncology therapeutics

Individualized Neoantigen Therapy (INT)

Two ongoing Phase 3 studies:

- Adjuvant melanoma
- Adjuvant non-small cell lung cancer

Three additional trials for INT underway

- Randomized Phase 2/3 neoadjuvant/adjuvant cutaneous squamous cell carcinoma
- Randomized Phase 2 adjuvant high risk muscle invasive bladder cancer
- Randomized Phase 2 adjuvant renal cell carcinoma

AACR presentations

- Presented Phase 1 translation data from mRNA-2752 (Triplet intratumoral program)
[AACR 2024 mRNA-2752 presentation](#)
- Presented positive Phase 1 data from INT program in advanced unresectable HPV-negative head and neck carcinoma
[AACR 2024 mRNA-4157 \(INT\) poster presentation](#)

ASCO

- **Moderna Oncology Event**
June 3, 6:00 – 7:15 PM CT
In person in Chicago/webcast

1Q24 earnings call agenda



Business Review

Stéphane Bancel, CEO



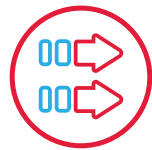
Financials

Jamey Mock, CFO



R&D/Clinical Programs

Stephen Hoge, M.D., President



Looking Ahead

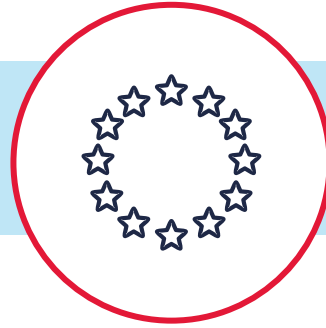
Stéphane Bancel, CEO

Our COVID-19 commercial strategy is focused on the needs of each region



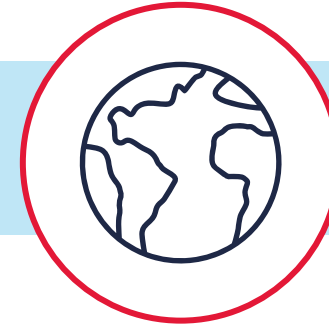
United States

Our focus is working with public health officials, health care providers and pharmacies to increase vaccination coverage rates to reduce the substantial burden of COVID-19



European Union

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

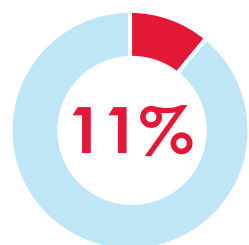


Rest of World

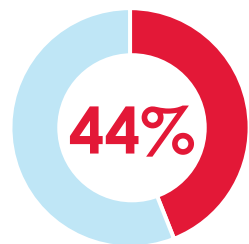
Prioritizing markets for greater commercial focus

2023 COVID-19 vaccination rates lagged behind flu vaccination rates

U.S. vaccination rates in Fall 2023



**2023 COVID-19
vaccination rate¹**

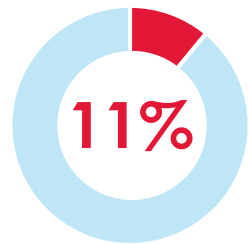


**2023 flu
vaccination rate²**

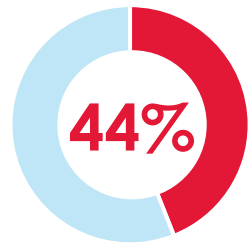
1. IQVIA and Moderna internal estimates
2. <https://www.cdc.gov/flu/fluview/dashboard/vaccination-doses-distributed.html> Assumes normal industry return rate from doses distributed.

COVID-19 continues to show a high burden of disease

U.S. vaccination rates in Fall 2023



2023 COVID-19 vaccination rate¹

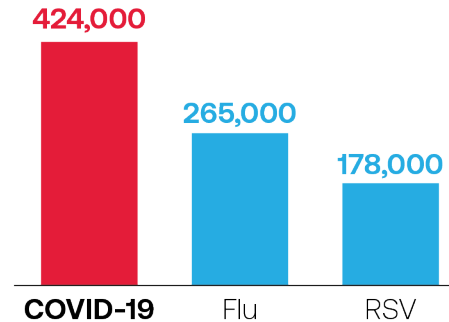


2023 flu vaccination rate²

1. IQVIA and Moderna internal estimates
2. <https://www.cdc.gov/flu/fluview/dashboard/vaccination-doses-distributed.html> Assumes normal industry return rate from doses distributed.
3. RESP-NET – Respiratory Virus Hospitalizations Surveillance Network – CDC

COVID-19 infection burden

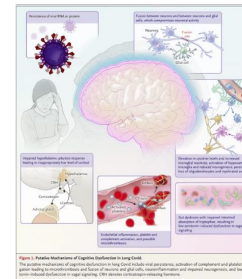
Total hospitalizations from October 2023 through April 20, 2024³



Long COVID is a serious risk

New England Journal of Medicine

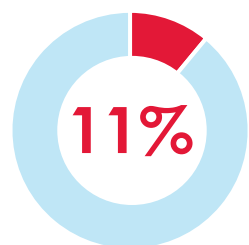
Long COVID and Impaired Cognition — More Evidence and More Work to Do



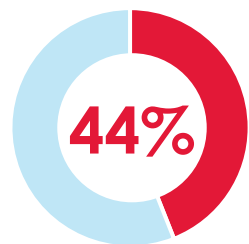
<https://www.nejm.org/doi/full/10.1056/NEJMe2400189>

Opportunity to increase vaccination rate through educational efforts

U.S. vaccination rates in Fall 2023



2023 COVID-19 vaccination rate¹

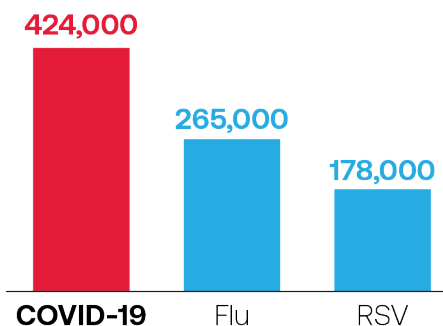


2023 flu vaccination rate²

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3. RESP-NET – Respiratory Virus Hospitalizations Surveillance Network – CDC

COVID-19 infection burden

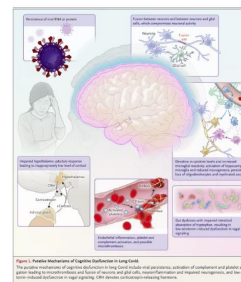
Total hospitalizations from October 2023 through April 20, 2024³



Long COVID is a serious risk

New England Journal of Medicine

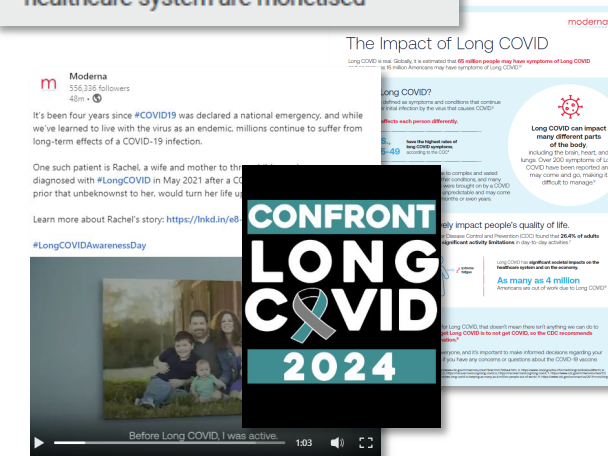
Long COVID and Impaired Cognition — More Evidence and More Work to Do



<https://www.nejm.org/doi/full/10.1056/NEJMe2400189>

We are focused on education and awareness to increase vaccination rates

Adult vaccines can return up to 19 times their initial investment to society, when their significant benefits beyond the healthcare system are monetised



Sources: Internal; 2024 IFPMA Report, Evidencing the Socio-Economic Value of Adult Immunisation Programmes

Spikevax 2024-2025 formula strain selection



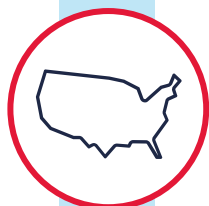
World Health Organization

Selected the JN.1 strain



European Medicines Agency

Selected the JN.1 strain



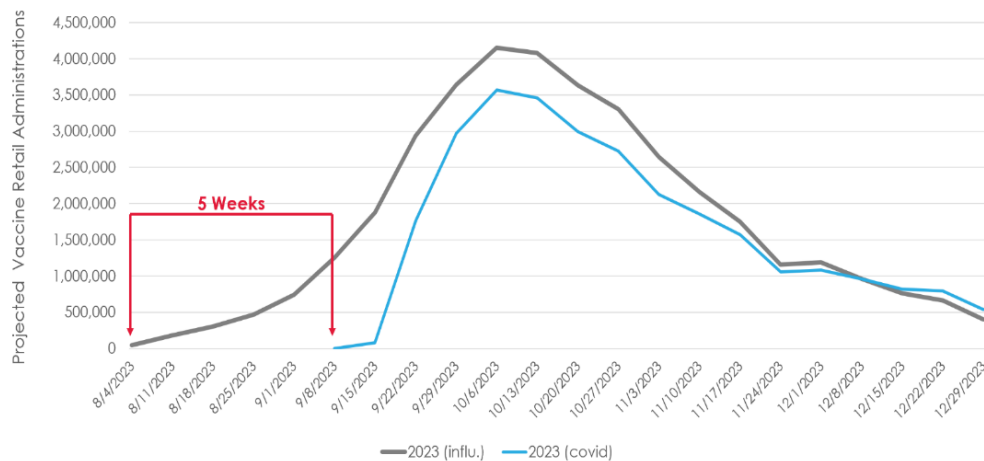
FDA

Meeting May 16 for strain selection

Moderna is prepared to supply the worldwide market, and has **already manufactured JN.1 drug substance to support a potential August launch**

2023 COVID-19 vaccines were not on the U.S. market until 5 weeks after Flu

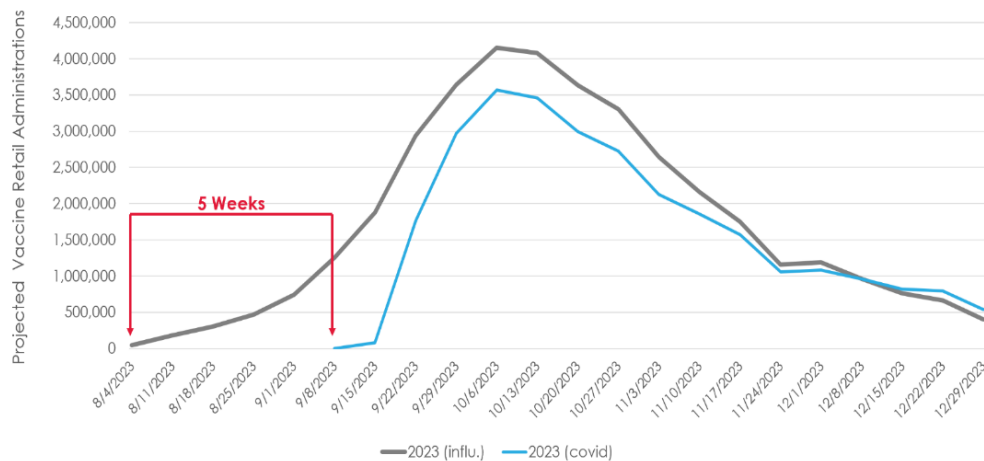
2023 U.S. Flu & COVID-19 vaccine administrations in retail pharmacies



- 3M Flu shots provided prior to COVID-19 launch
- Vaccinations in August are predominately in the retail pharmacy channel

Early strain selection has potential to align timing of flu and COVID-19 vaccine approvals in the U.S.

2023 U.S. Flu & COVID-19 vaccine administrations in retail pharmacies



- 3M Flu shots provided prior to COVID-19 launch
- Vaccinations in August are predominately in the retail pharmacy channel



VRBPAC to select strain during May 16th meeting

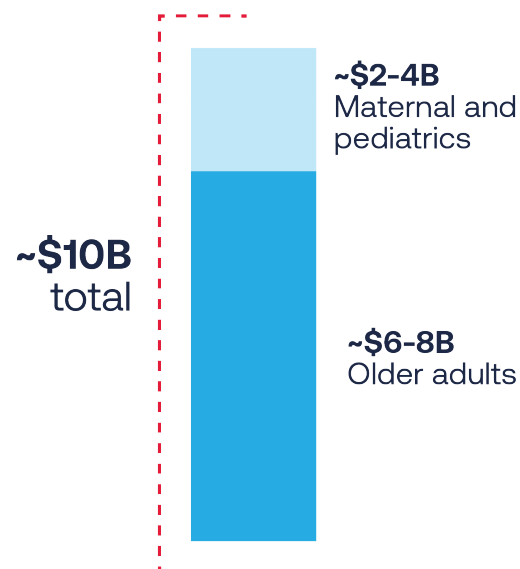


Working with FDA and regulators for approval to align with flu vaccines

We expect higher vaccination uptake if vaccines are available sooner, and if they are offered at the same time as the flu shot

Anticipating approval and 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 2023 RSV sales

1. Analyst reports: Leerink investor report: RSV could be next \$10B vaccine market

2. FiercePharma

3. For adults ages 60 years and older



Filed for approvals globally³

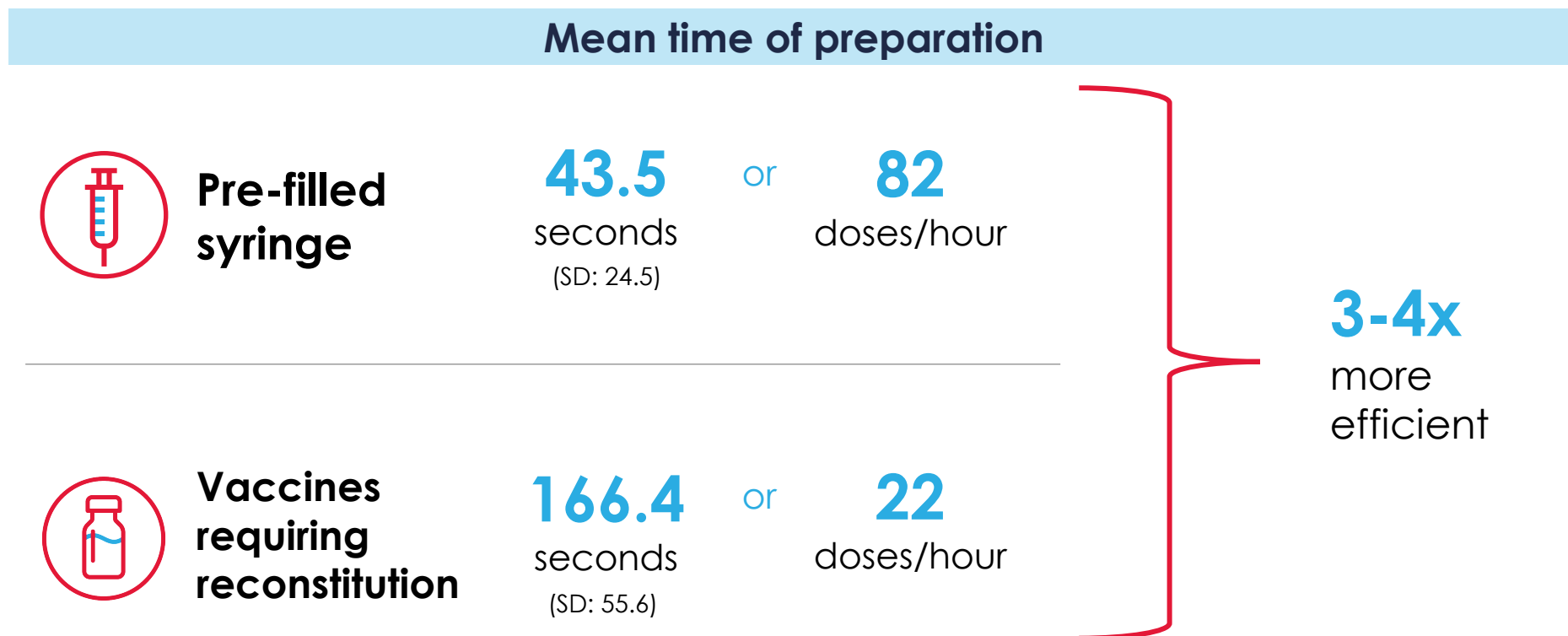
- Anticipating approvals beginning in 1H24
- Targeting Fall 2024 for U.S. launch



Strong product profile

- **Strong vaccine efficacy across study populations**, 83.7% efficacy in primary analysis
- **Well-established safety and tolerability profile** for mRNA vaccine technology
- **Only pre-filled syringe product** available upon launch

Time-and-motion study of PFS vaccine indicates potential to ease burden on pharmacies during Fall vaccination season

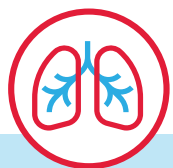


Based on Company data

Preprint: <https://www.medrxiv.org/content/10.1101/2024.04.16.24305921v1>.

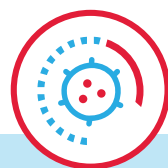
Study funded by Moderna. Study results are from a randomized, cross-over time and motion study of prefilled syringe (PFS) vaccine (mRNA-1273) and vaccines requiring reconstitution (VRR). Outcomes include vaccine preparation time; participants were pharmacists, nurses or pharmacy technicians. SD = Standard deviation.

Major upcoming pipeline milestones



Respiratory vaccines

- **COVID:** SpikeVax 2024-2025 formula approval and launch
- **RSV:** Anticipating approvals and ACIP recommendation; Phase 3 data for high-risk adults 18 years and older
- **Flu:** In discussions with regulators; intend to file in 2024
- **Next-gen COVID:** Engaged with regulators
- **Flu + COVID combination:** mRNA-1083 Phase 3 data



Latent + Other vaccines

- **CMV:** Phase 3 data



Oncology therapeutics

- **INT:** Completion of enrollment in Phase 3 adjuvant melanoma study

Our considerations prior to requesting accelerated approval:

- Durability data ✓
- Phase 3 adjuvant melanoma study enrollment
- Marlborough manufacturing

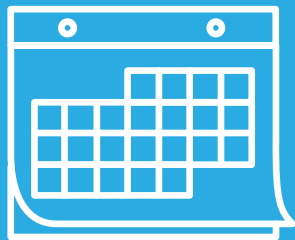


Rare Disease therapeutics

- **PPA and MMA:** Initiation of pivotal studies

Our mission

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



Save the Date

Events in 2024

- > **ASCO Investor Event**
June 3, 6:00 – 7:15 PM CT
In person in Chicago/webcast
- > **R&D Day**
September 12, 8:00 AM – 1:00 PM ET
In person in New York/webcast

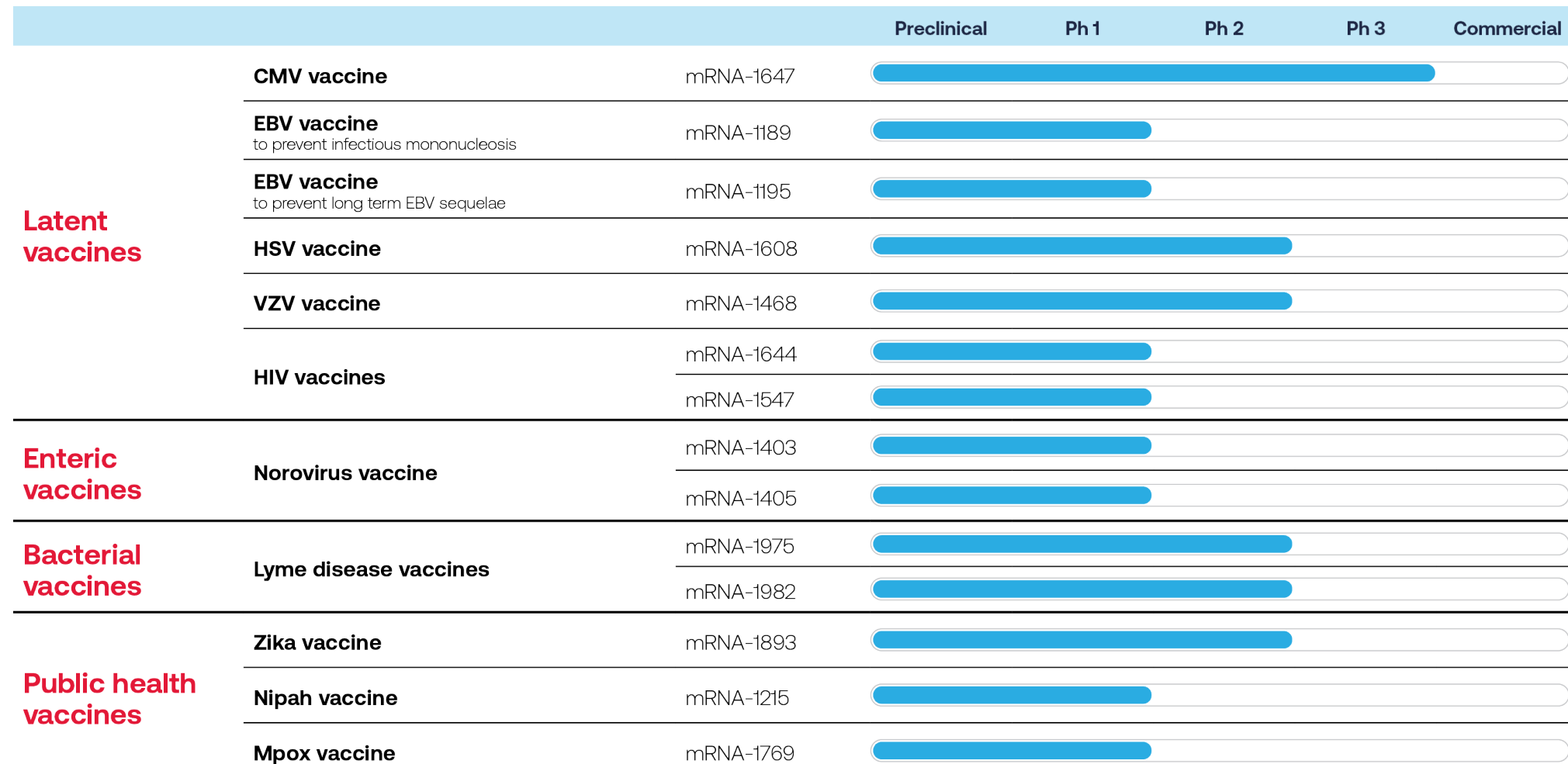
Appendix

Moderna's Pipeline

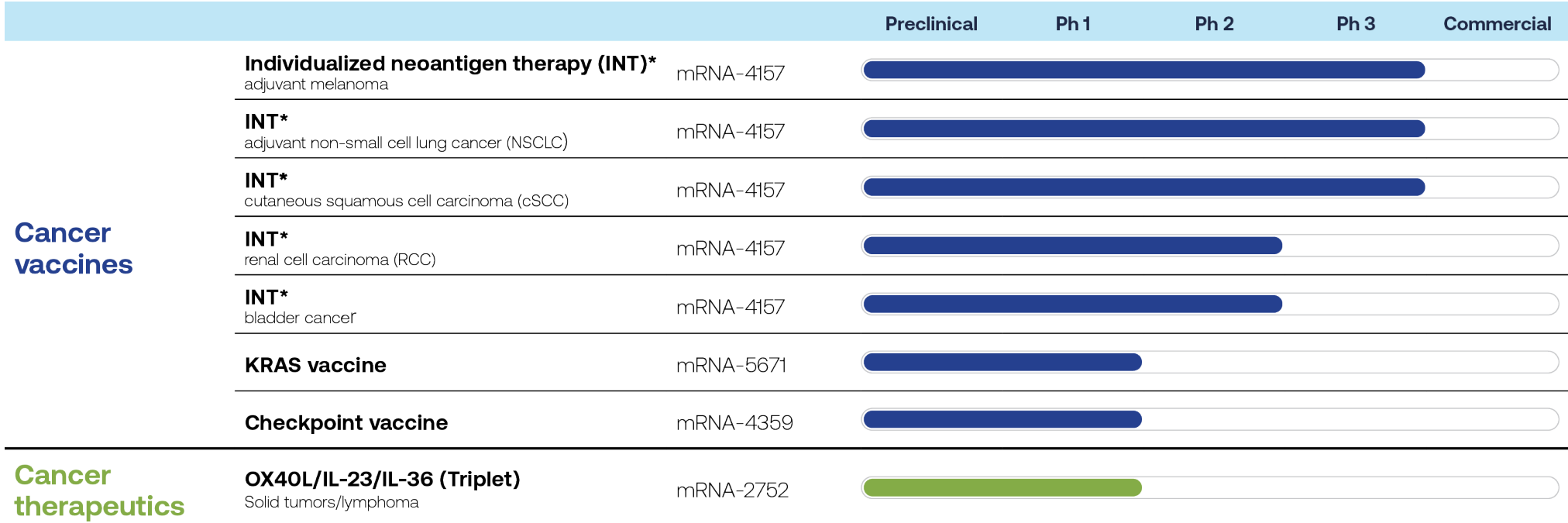
Moderna's pipeline: respiratory vaccines

			Preclinical	Ph 1	Ph 2	Ph 3	Commercial
Adults	COVID-19 vaccine	Spikevax®	<div></div>				
	COVID-19 vaccine Next gen	mRNA-1283	<div></div>				
		mRNA-1010	<div></div>				
		mRNA-1020	<div></div>				
	Flu vaccines	mRNA-1030	<div></div>				
		mRNA-1011	<div></div>				
		mRNA-1012	<div></div>				
	RSV vaccine Older adults	mRNA-1345	<div></div>				
	Flu + COVID vaccine	mRNA-1083	<div></div>				
	Flu + COVID + RSV vaccine	mRNA-1230	<div></div>				
	Flu + RSV vaccine	mRNA-1045	<div></div>				
	Endemic HCoV vaccine	mRNA-1287	<div></div>				
	Pandemic Flu vaccine	mRNA-1018	<div></div>				
	RSV + hMPV vaccine	mRNA-1365	<div></div>				
Adolescents & Pediatrics	COVID-19 vaccine Adolescents	mRNA-1273.815	<div></div>				
	COVID-19 vaccine Pediatrics	mRNA-1273.815	<div></div>				
	RSV vaccine Pediatrics	mRNA-1345	<div></div>				

Moderna's pipeline: latent + other vaccines

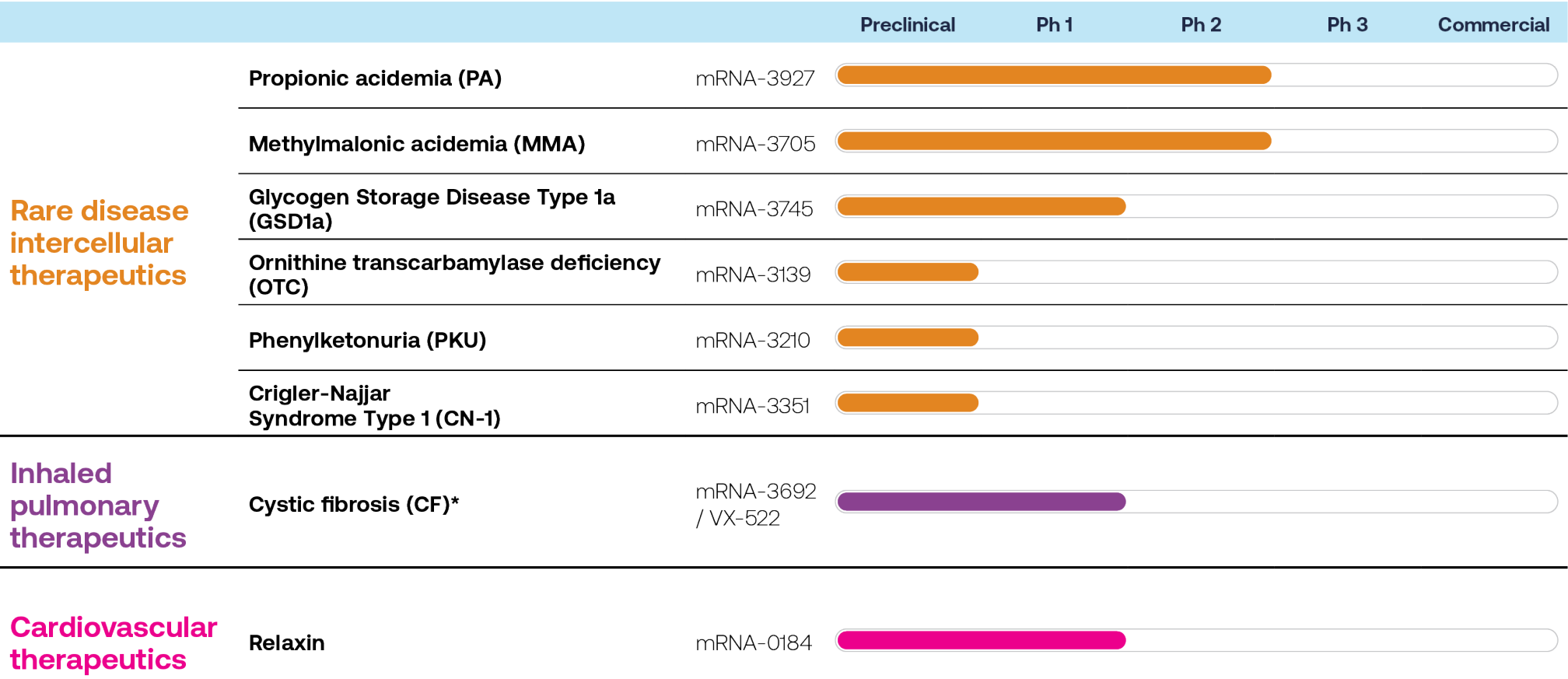


Moderna's pipeline: oncology



*50/50 global profit sharing with Merck

Moderna's pipeline: rare disease + other therapeutics



*Vertex to pay milestone and royalties