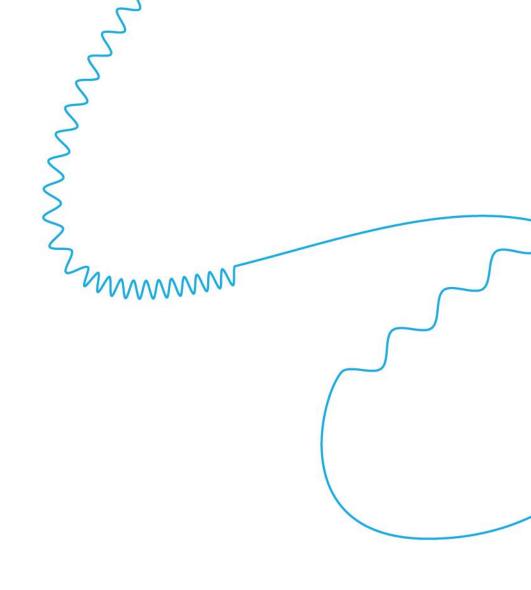
Third Quarter 2022 Financial Results

November 3rd, 2022





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: anticipated sales, including the timing of sales, under advance purchase agreements in 2022 and 2023 and the associated revenue, which may not be realized; expected new contracts for COVID-19 vaccines; the repurchase by Moderna of shares of its common stock under its repurchase programs; the timing of data from Moderna's ongoing studies and trials, including for personalized cancer vaccines, RSV, flu and Moderna's COVID-19 booster vaccines; early signs of potential clinical benefit for PA and GSD1a; anticipated upcoming global product launches; Moderna's collaboration with Merck to jointly develop and commercialize mRNA-4157; COVID market dynamics and Moderna's ability to meet market needs for fall booster season and the timing for deliveries of fall boosters; the applicability of the flu market as a proxy for the COVID market; the medical burden of endemic COVID-19 and the size of the annual COVID booster market; expectations regarding transitioning to a commercial market for COVID-19 vaccines in the U.S.; potential accelerated approval of mRNA-1010 (flu); Moderna's preparations for commercial sales in 2023; Moderna's capital allocation priorities; and Moderna's 2022 financial framework. 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, 2021 and Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2022, each 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.



3Q22 earnings call agenda

- 1 Business Review Stéphane Bancel, CEO
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Financial highlights 3Q22

Third quarter 2022 GAAP financial results

• Revenue: \$3.4 billion

Net income: \$1.0 billion

Cash and investments: \$17 billion

2022 outlook

• Revenue from advance purchase agreements for anticipated delivery in 2022 expected to be \$18 to \$19 billion, following delay of certain deliveries into 2023 due to short term supply constraints

Share repurchase plans

- Repurchased 7.1 million shares for ~\$1 billion (average price of \$141) in Q3
- Completed \$3 billion share repurchase program announced in February early in Q4
- Share repurchase program announced in August for an additional \$3 billion is in effect
- Total of 23.6 million shares repurchased since first share repurchase program initially put in place in 2021 (4Q21 to 3Q22)



Pipeline highlights and advances

COVID booster vaccines

- Received authorizations for Spikevax bivalent original/Omicron BA.1 (mRNA-1273.214) in countries around the world, including the EU, UK and Japan
- Received authorizations for Spikevax bivalent original/Omicron BA.4/5 (mRNA-1273.222) in countries around the world, including the U.S., EU, UK and Japan

Flu & RSV vaccines

- Phase 3 flu vaccine immunogenicity trial in southern hemisphere fully enrolled; data expected in 1Q23; started Phase 3 flu vaccine efficacy trial in northern hemisphere
- RSV vaccine efficacy trial ongoing; data could come this winter depending on cases

Personalized cancer vaccine (PCV)

 Merck exercised option to jointly develop and commercialize mRNA-4157; Moderna received \$250 million in 4Q and will share costs and profits; expecting Phase 2 data in 4Q

Rare diseases

- Shared interim data from Phase 1/2 studies for both PA and GSD1a; therapies well-tolerated to date, with encouraging early signs of potential for clinical benefit
- Announced a new development candidate, mRNA-3139, for Ornithine transcarbamylase deficiency (OTC), a rare genetic condition



Moderna as of November 2022

Pipeline

Commercial

Moderna COVID-19 Vaccine/Spikevax®, mRNA-1273.222 and mRNA-1273.214

Phase 3

COVID boosters, Flu, RSV, CMV

Phase 2

PCV, Zika, VEGF-A, next generation COVID booster

48 development programs

Respiratory vaccines

- COVID variant boosters (variant-specific and bivalents) launched
- Older adults RSV in Phase 3; Pediatric RSV in Phase 1
- Flu (mRNA-1010) in Phase 3; Flu (mRNA-1020/-30) in Phase 1/2
- Flu + COVID, flu + COVID + RSV and flu + RSV in Phase 1/2
- hMPV + PIV3 in Phase 1b age de-escalation study
- RSV + hMPV, Endemic HCoV in preclinical

Latent vaccines

- CMV in Phase 3
- EBV, HIV in Phase 1
- HSV, VZV in preclinical

Public health vaccines

- Zika in Phase 2
- Nipah in Phase 1

mRNA therapeutics

15 medicines in 4 therapeutic areas

- 5 Immuno-Oncology: PCV in Phase 2; KRAS, Triplet, IL-12, Checkpoint in Phase 1
- 7 Rare Diseases: PA, MMA, GSD1a in Phase 1/2; PKU, CN-1, CF, OTC in preclinical
- 2 Cardiovascular Diseases: VEGF-A in Phase 2; Relaxin in preclinical
- 1 Autoimmune Diseases: PD-L1 in preclinical

~3,700 employees¹



8th

Consecutive year top employer by Science

15 commercial

subsidiaries across North America, Europe and Asia Pacific ~\$17B

of cash and investments (unaudited)^{1,2}

- 1. As of September 30, 2022
- 2. Cash and investments denotes cash, cash equivalents and investments



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Moderna has launched two vaccine boosters to meet different market needs across the largest markets

mRNA-1273.214

(25 μg of mRNA-1273 and 25 μg of Omicron BA.1)

- Induced significantly higher titers than mRNA-1273 against the BA.1 and BA.4/5 strains in a clinical trial conducted before the fall booster season
- Authorized in United Kingdom, Switzerland, Australia, Canada, European Union, Japan and other countries

mRNA-1273.222

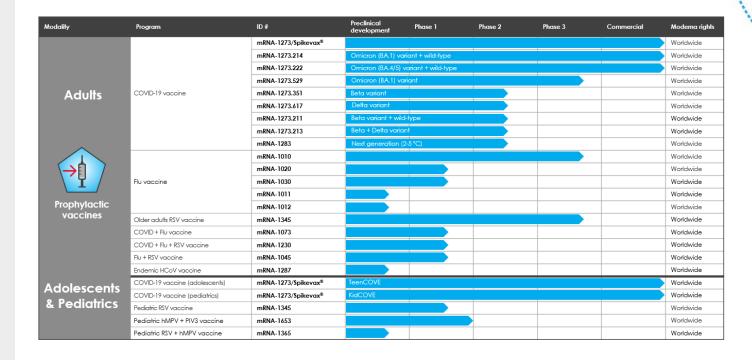
(25 μg of mRNA-1273 and 25 μg of Omicron BA.4/5)

- Based on the BA.4/5 strain and was developed consistent with FDA guidance
- Authorized in United States, United Kingdom, Switzerland, Australia, Canada, European Union, Japan and other countries
- Phase 2/3 data expected in 4Q22



Respiratory vaccines: Combination vaccine (COVID + flu + RSV) Phase 1 started

- COVID-19 variant boosters and next generation booster (mRNA-1283) in development
- Flu (mRNA-1010) Phase 3 studies ongoing; Flu (mRNA-1020/-30) Phase 1/2 trial fully enrolled
- Older adults RSV (mRNA-1345) Phase 3, known as ConquerRSV, is ongoing; pediatric RSV in Phase 1 fully enrolled
- Combination COVID + flu (mRNA-1073) Phase
 1/2 fully enrolled
- Combination COVID + flu + RSV (mRNA-1230)
 Phase 1/2 started
- Announcing new vaccine candidate RSV + Flu (mRNA-1045): Phase 1/2 started
- Pediatric hMPV + PIV3 Phase 1b fully enrolled;
 pediatric RSV + hMPV and endemic HCoV vaccine are in preclinical





Phase 3 Flu and RSV vaccines continue enrolling



Flu vaccine (mRNA-1010)

- Southern hemisphere immunogenicity study in adults (18+) is fully enrolled (6,000 participants)
 - Readout expected in 1Q23
- Initial regulatory feedback supports an accelerated pathway for approval
- Northern hemisphere efficacy study in adults (18+) has enrolled >10,000 participants
 - Readout could come this winter, depending on number of cases accrued in the study and vaccine effectiveness



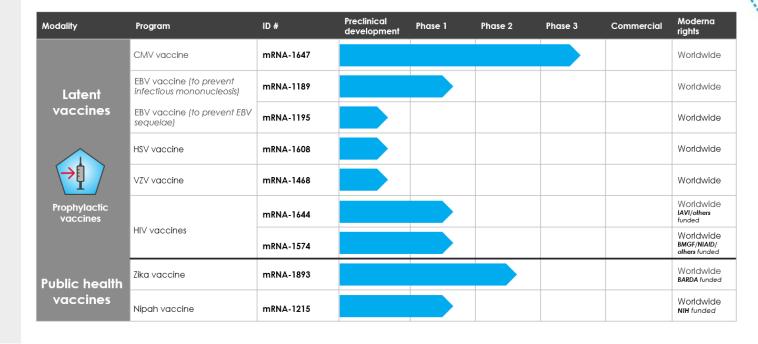
RSV vaccine (mRNA-1345)

- Pivotal Phase 3 efficacy study in older adults (60+) has enrolled >35,500 participants
 - Primary endpoints are safety and vaccine efficacy
- Phase 3 efficacy trial could readout this winter, depending on number of cases accrued in the study and vaccine effectiveness



Latent & public health vaccines: CMV vaccine ongoing in Phase 3 study

- CMV vaccine pivotal Phase 3 study, known as CMVictory, is ongoing
- EBV vaccine (to prevent infectious mononucleosis)
 Phase 1 is ongoing; EBV vaccine (to prevent EBV sequelae) in preclinical
- HIV vaccines Phase 1 trials are ongoing
- HSV and VZV vaccines in preclinical
- Zika vaccine ongoing in a Phase 2 study
- Nipah vaccine Phase 1 study, led by the NIH, is ongoing





mRNA therapeutics: Checkpoint vaccine started Phase 1

Immuno-oncology

- PCV Phase 1 ongoing; Phase 2 fully enrolled, data expected in 4Q 2022
- KRAS Phase 1 ongoing; evaluating next steps for the program
- Triplet ongoing in Phase 1
- IL-12 after portfolio review AstraZeneca returns program; evaluating next steps for the program
- Checkpoint vaccine started Phase 1

Cardiovascular

- VEGF evaluating next steps for the program
- Relaxin in preclinical

Autoimmune

PD-L1 in preclinical

Rare diseases

- PA, MMA Phase 1/2 ongoing; enrolling additional cohorts
- **GSD1a** Phase 1/2 ongoing
- **CF** partner Vertex expects to submit IND in 2022
- OTC, PKU, CN-1 in preclinical

Modality	Program	ID#	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Systemic secreted & cell	Relaxin Heart failure	mRNA-0184						Worldwide
surface therapeutics	PD-L1 Autoimmune hepatitis	mRNA-6981						Worldwide
^	Personalized cancer vaccine (PCV)	mRNA-4157						50-50 global profit sharing with Merck
Cancer vaccines	KRAS vaccine	mRNA-5671						Worldwide
_	Checkpoint vaccine	mRNA-4359						Worldwide
Intratumoral	OX40L/IL-23/IL-36y (Triplet) Solid tumors/lymphoma	mRNA-2752						Worldwide
oncology	IL-12 Solid tumors	MEDI1191						Worldwide
Localized Regenerative	VEGF-A Myocardial ischemia	AZD8601						Worldwide
Therapeutics	Propionic acidemia (PA)	mRNA-3927						Worldwide
	Methylmalonic acidemia (MMA)	mRNA-3705						Worldwide
Systemic Intracellular	Glycogen storage disease type 1a (GSD1a)	mRNA-3745						Worldwide
Intracellular Therapeutics	Ornithine transcarbamylase deficiency (OTC)	mRNA-3139						Worldwide
	Phenylketonuria (PKU)	mRNA-3283						Worldwide
Inhaled	Crigler-Najjar syndrome type 1 (CN-1)	mRNA-3351						Provided to ILCM free of charge
Pulmonary Therapeutics	Cystic fibrosis (CF)	VXc-522						Vertex to pay milestone and royalties



Encouraging early clinical signs in rare disease modality

As presented during September R&D Day

PA (mRNA-3927)

- 6 patient-years of experience on drug and all participants eligible have decided to continue on Open Label Extension (OLE) Study
- Generally well-tolerated to date
- Reduction in biomarker (3-HP levels) observed
- Encouraging data shows decrease in the number of metabolic decompensation events (MDEs); Initial discussions with regulators supportive of MDE as primary endpoint for a pivotal study



GSD1a (mRNA-3745)

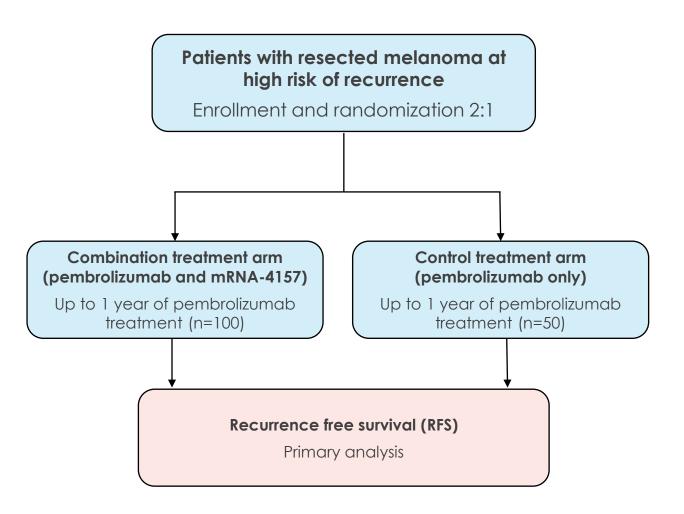
- Early data on safety and pharmacodynamics are consistent and encouraging
- In two patients, mRNA-3745 was well tolerated to date, and showed extension of fast duration and normalization of glucose during fast





PCV (mRNA-4157) Phase 2 trial results expected in 4Q22

Primary endpoint is recurrence free survival compared to pembrolizumab



- Randomized, placebo controlled, PCV + pembrolizumab (KEYTRUDA®) vs.
 pembrolizumab alone (2:1)
- Resected melanoma patients high recurrence risk
- Primary endpoint = recurrence free survival (RFS)
- Trial was fully enrolled (~150 participants) in September '21: Data expected in 4Q22
- Merck exercised option to jointly develop and commercialize mRNA-4157

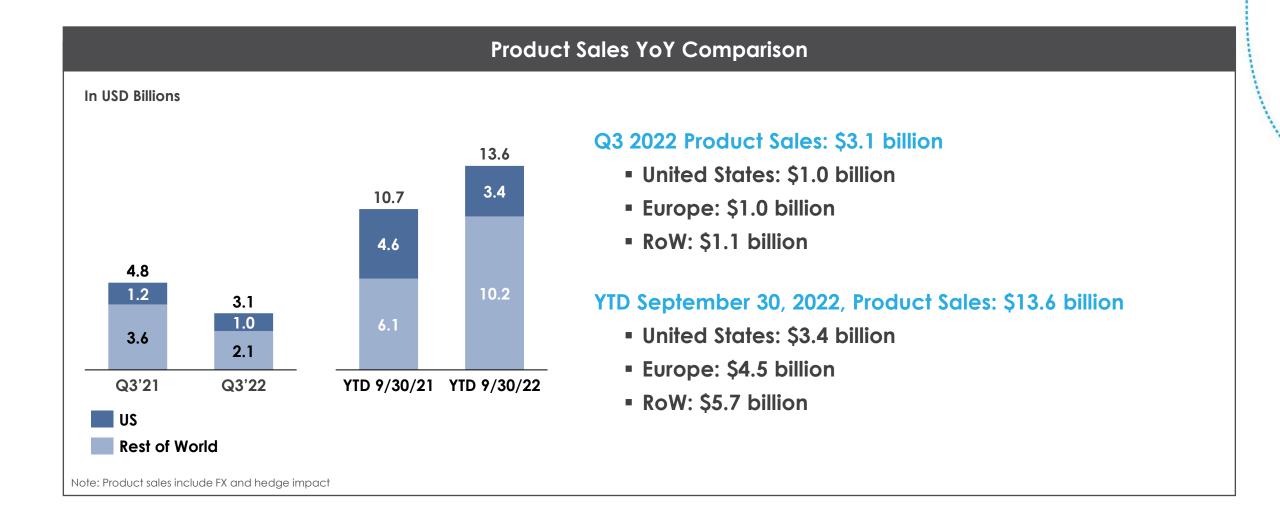


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Q3 2022 Sales of \$3.1B, Year to Date Sales of \$13.6B





Key topics for COVID booster commercial outlook

1

The medical burden for endemic COVID is expected to be greater than the burden for flu

2

Annual COVID
booster volumes
could approximate
flu vaccine volumes
over time

3

Important factors to consider as we transition to a commercial market in the U.S.

4

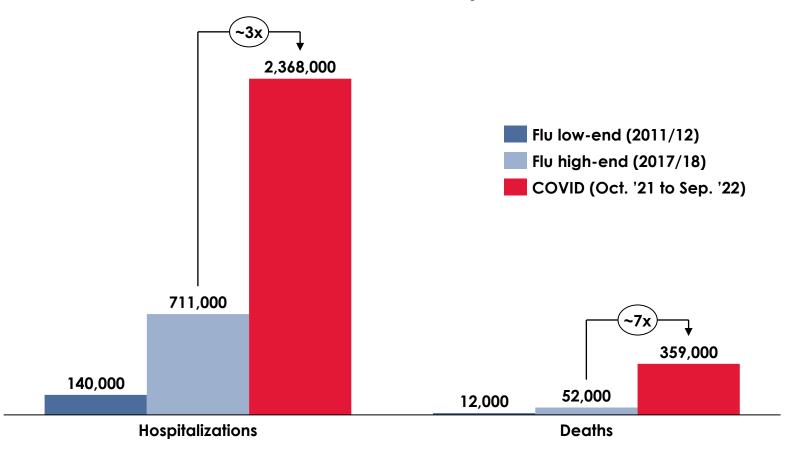
Current 2023 signed contracts

Outlook on expected contracts



Since October 2021, the substantial medical burden for COVID has been greater than flu's historical burden

Flu vs. COVID medical burden comparison in United States



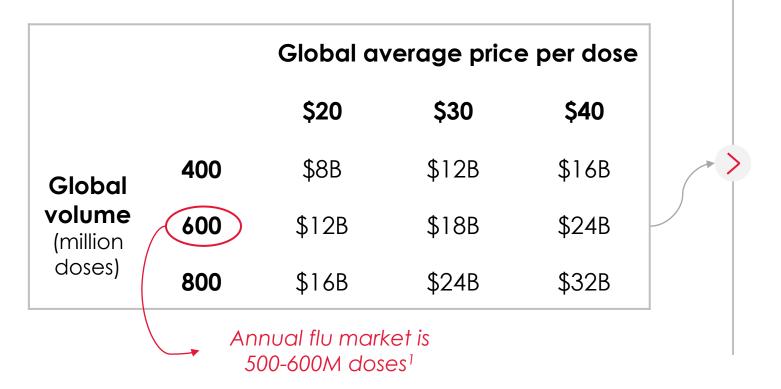
Flu: Range covers the last 10 flu seasons before pandemic-related disruptions ('09/10 flu season to '18/19 flu season)

<u>CDC uses a mathematical model</u> to estimate the numbers of influenza illnesses, medical visits, hospitalizations, and deaths in the United States for each season. CDC flu estimates: <u>2009/10</u>, <u>All other seasons</u>



As COVID transitions to endemic, annual COVID booster volumes could approximate flu vaccine volumes over time

Scenarios global COVID booster market (\$USD billions)



Key variables that will impact the COVID volume in 2023

- Medical need
- Viral evolution
- Public health authority recommendations
- Consumer motivation to vaccinate



Transitioning to a commercial market in the U.S.



Important factors to consider as COVID vaccine market in U.S. shifts to a commercial market in 2023

- More fragmented customer base
- Less predictability in orders
- Seasonality of deliveries
- Moderna assuming full distribution costs
- Transitioning from multi-dose vials to single-dose presentation
- Increased innovation/R&D with bivalent approaches



COVID sales contracts in 2023



Advance Purchase Agreements

- United Kingdom
- Canada
- Switzerland
- Taiwan
- Kuwait

Total

~\$2.5B



Deferrals from '22 contracts

- Japan
- European Union
- Switzerland
- United Kingdom
- South Korea
- Latin America
- Israel

Total

 \sim \$2.0 - 3.0B



Expected new contracts

- U.S. transitioning to commercial
- Potential for additional EU contract
- Japan fall contract
- Australia (independent review recommends additional Moderna vaccine purchase)
- New and existing customers in Asia and Latin America
- In discussion with COVAX



COVID vaccine endemic outlook summary



The medical burden of endemic COVID is expected to be larger than flu



As COVID transitions to endemic, annual COVID booster volumes could approximate flu vaccine volumes over time



In 2023 as we transition to a commercial market in the US, **important** factors (such as distribution and dose presentation) are changing



2023 COVID confirmed contracts and deferrals of \$4.5-5.5 billion; additional orders expected in US, EU, Japan and other countries



Advancing respiratory vaccine franchise

			Preclinical	Phase 1	Phase 2	Phase 3	Licensed
Respiratory Infectious Diseases	mRNA-1273	SARS-CoV-2					
	mRNA-1010	Seasonal Flu (HA)					Earliest 2023
	mRNA-1345	RSV (older adults)					Earliest 2023

- COVID boosters: Launched Omicron-targeting bivalent candidates
- Flu: Immunogenicity readout expected in 1Q23; efficacy readout possible this winter season
- **RSV**: Depending on RSV case accrual, efficacy readout possible this winter season

Respiratory infections are a top cause of death globally: COVID, flu and RSV have the highest medical burden among respiratory viruses



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Third quarter 2022 financial results

In \$ millions, except per share amounts (unaudited)		Q3 2022		Q3 2021		Change (Q3 22 vs. Q3 21)	
Product sales	\$	3,120	\$	4,810	\$	(1,690)	(35)%
Grant revenue		144		140		4	3 %
Collaboration revenue		100		19		81	426 %
Total revenue		3,364		4,969		(1,605)	(32)%
Cost of sales		1,100		722		378	52 %
Research and development		820		521		299	57 %
Selling, general and administrative		278		168		110	65 %
Total operating expenses		2,198		1,411		787	56 %
Income from operations		1,166		3,558		(2,392)	(67)%
Other income (expense), net		51		(6)		57	NM
Provision for income taxes		174		219		(45)	(21)%
Net income	\$	1,043	\$	3,333	\$	(2,290)	(69)%
Earnings per share – Diluted	\$	2.53	\$	7.70	\$	(5.17)	(67)%
Weighted average shares – Diluted		412		434		(22)	(5)%
Effective tax rate		14 %	, >	6 %			

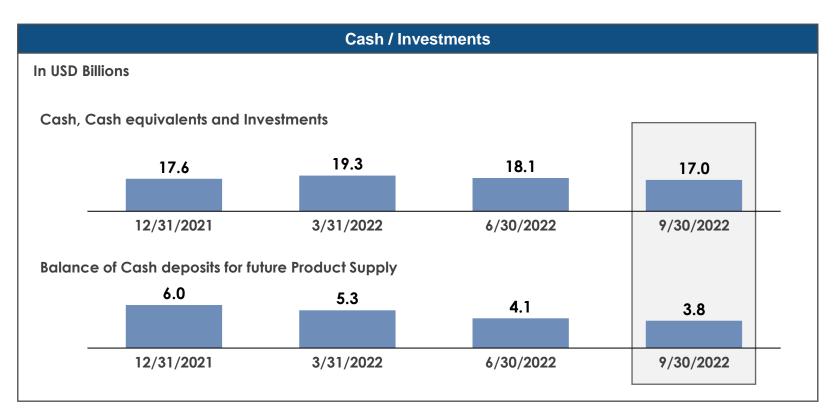


Year-to-date 2022 financial results

In \$ millions, except per share amounts (unaudited)		2022 YTD		2021 YTD ended 9/30/21		Change (YTD '22 vs. YTD '21)		
in \$ millions, except per share amounts (unavairea)	ended 9/30/22							
Product sales	\$	13,576	\$	10,740	\$	2,836	26 %	
Grant revenue		453		473		(20)	(4) %	
Collaboration revenue		150		47		103	219 %	
Total revenue		14,179		11,260		2,919	26 %	
Cost of sales		3,498		1,665		1,833	110 %	
Research and development		2,084		1,343		741	55 %	
Selling, general and administrative		757		366		391	107 %	
Total operating expenses		6,339		3,374		2,965	88 %	
Income from operations		7,840		7,886		(46)	(1)%	
Other income (expense), net		80		(11)		91	NM	
Provision for income taxes		1,023		541		482	89 %	
Net income	\$	6,897	\$	7,334	\$	(437)	(6)%	
Earnings per share – Diluted	\$	16.46	\$	17.00	\$	(0.54)	(3) %	
Weighted average shares – Diluted		419		431		(12)	(3) %	
Effective tax rate		13 %		7 %				



Cash/ Investments and Cash Deposits (unaudited)



 Cash, Cash equivalents and Investments as of September 30, 2022, at \$17.0 billion, down from \$18.1 billion as of June 30, 2022

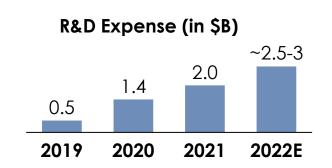
 Balance of Cash deposits for future product supply as of September 30, 2022, at \$3.8 billion, below prior quarter driven by product deliveries against customer deposits

Cash and investments decreased, reflecting the share buybacks in Q3 of \$1.0 billion and a federal tax payment of \$0.8 billion



Moderna's capital allocation priorities

Reinvest in the business & accelerate investment in R&D, manufacturing infrastructure and company buildout



- Phase 3 trials: Flu, RSV, and CMV
- 48 development programs

2 Seek attractive external investment opportunities (licenses and/or M&A) to further expand the reach of Moderna's technology

- Disciplined approach to evaluating investment opportunities to advance medicines for patients
- Consider attractive strategic opportunities in the following areas:
 - 1. New medicines that leverage our existing platform(s)
 - 2. New technologies and capabilities in our existing platform(s)
 - 3. New platform expansion, e.g., genomics

3 Return capital to shareholders

- Repurchased 7 million shares in Q3 2022 for \$1.0 billion; Q3 year-to-date repurchased 20 million shares for \$2.9 billion
- Completed \$3 billion Feb 2022 authorization in October, and began to utilize the previously announced \$3 billion Aug 2022 authorization



2022 updated financial framework

Sales

Advance purchase agreements (APAs) for expected delivery in 2022 of \$18-19 billion, reflecting deferrals
of \$2-3 billion into 2023

Cost of sales

We now expect full year 2022 reported cost of sales in the 26 – 28 percentage range, upper end in the
event of further charges due to product updates

R&D and SG&A Expenses

We continue to expect full year R&D and SG&A expenses of ~\$4 billion

Tax rate

We continue to expect an Effective Tax Rate for the full year in low to mid-teen percentage range

Capital Expenditures

We now expect capital expenditures of ~\$0.5 billion



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Next 12 months priorities

1

Execute 2022 sales and prepare 2023 private market sales

2

Execute on late-stage clinical pipeline

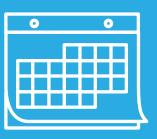
- 4Q22 PCV data
- Phase 3 vaccine trials:
 Flu, RSV and CMV
- Advance rare disease programs to pivotal

3

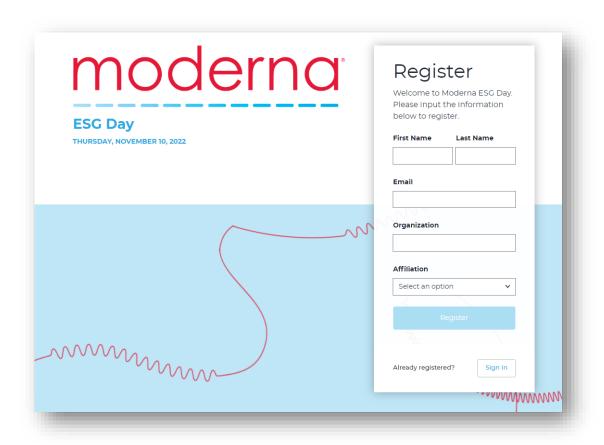
Prepare for multiple commercial launches

- Preparations underway for multiple vaccine launches between 2023-2025
- Potential for therapeutics programs to move quickly to pivotal and then to launch, given high unmet need



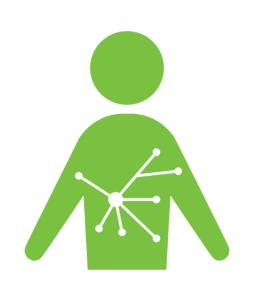


Save the Date ESG Day on November 10, 2022



https://moderna-esg-day.open-exchange.net/registration





Our mission

To deliver on the promise of mRNA science to create a new generation of transformative medicines for patients.

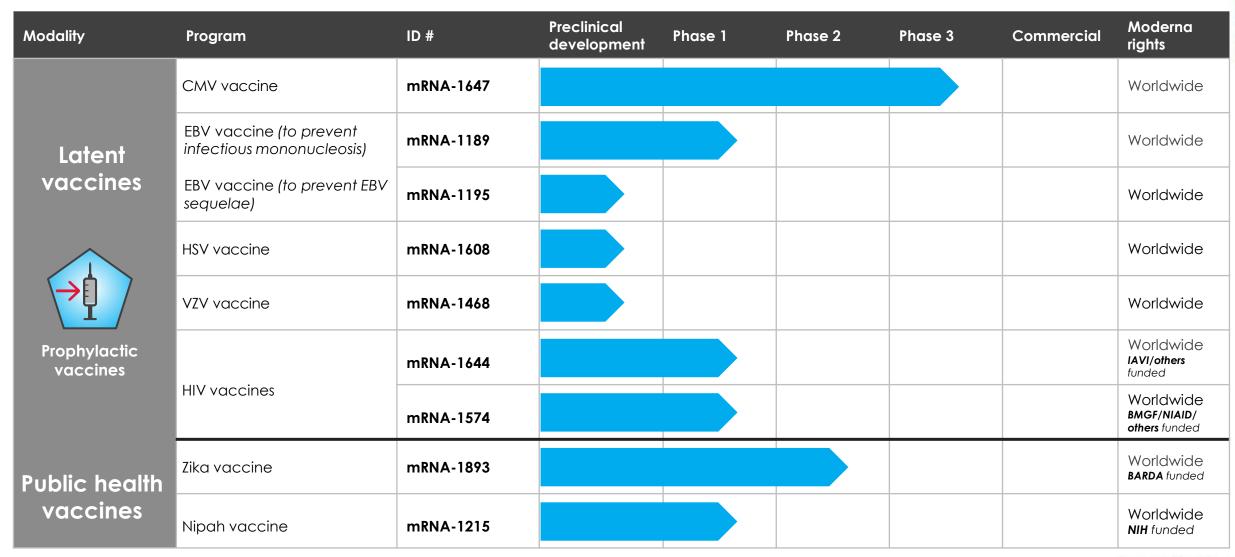


Moderna's Respiratory Vaccines (Pipeline 1/3)

Modality	Program	ID#	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
		mRNA-1273/Spikevax®						Worldwide
		mRNA-1273.214	Omicron (BA.1) varia	ant + wild-type				Worldwide
		mRNA-1273.222	Omicron (BA.4/5) vo	ıriant + wild-type				Worldwide
		mRNA-1273.529	Omicron (BA.1) vari	ant				Worldwide
Adults	COVID-19 vaccine	mRNA-1273.351	Beta variant					Worldwide
		mRNA-1273.617	Delta variant					Worldwide
		mRNA-1273.211	Beta variant + wild-	уре				Worldwide
		mRNA-1273.213	Beta + Delta varian					Worldwide
		mRNA-1283	Next generation (2-	5 °C)				Worldwide
	Flu vaccine	mRNA-1010						Worldwide
		mRNA-1020						Worldwide
\ \ \ \ \ \		mRNA-1030						Worldwide
		mRNA-1011						Worldwide
Prophylactic		mRNA-1012						Worldwide
vaccines	Older adults RSV vaccine	mRNA-1345						Worldwide
	COVID + Flu vaccine	mRNA-1073						Worldwide
	COVID + Flu + RSV vaccine	mRNA-1230						Worldwide
	Flu + RSV vaccine	mRNA-1045						Worldwide
	Endemic HCoV vaccine	mRNA-1287						Worldwide
Adolescents	COVID-19 vaccine (adolescents)	mRNA-1273/Spikevax®	TeenCOVE					Worldwide
	COVID-19 vaccine (pediatrics)	mRNA-1273/Spikevax®	KidCOVE					Worldwide
& Pediatrics	Pediatric RSV vaccine	mRNA-1345						Worldwide
	Pediatric hMPV + PIV3 vaccine	mRNA-1653						Worldwide
	Pediatric RSV + hMPV vaccine	mRNA-1365						Worldwide



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





Moderna's Therapeutics (Pipeline 3/3)

Modality	Program	ID#	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Systemic secreted & cell	Relaxin Heart failure	mRNA-0184						Worldwide
secreted & cell surface therapeutics	PD-L1 Autoimmune hepatitis	mRNA-6981						Worldwide
	Personalized cancer vaccine (PCV)	mRNA-4157						50-50 global profit sharing with Merck
Cancer vaccines	KRAS vaccine	mRNA-5671						Worldwide
	Checkpoint vaccine	mRNA-4359						Worldwide
Intratumoral Immuno-	OX40L/IL-23/IL-36γ (Triplet) Solid tumors/lymphoma	mRNA-2752						Worldwide
oncology	IL-12 Solid tumors	MEDI1191						Worldwide
Localized Regenerative	VEGF-A Myocardial ischemia	AZD8601						Worldwide
Therapeutics	Propionic acidemia (PA)	mRNA-3927						Worldwide
	Methylmalonic acidemia (MMA)	mRNA-3705						Worldwide
Systemic	Glycogen storage disease type 1a (GSD1a)	mRNA-3745						Worldwide
Intracellular Therapeutics	Ornithine transcarbamylase deficiency (OTC)	mRNA-3139						Worldwide
	Phenylketonuria (PKU)	mRNA-3283						Worldwide
Inhaled	Crigler-Najjar syndrome type 1 (CN-1)	mRNA-3351						Provided to ILCM free of charge
Pulmonary Therapeutics	Cystic fibrosis (CF)	VXc-522						Vertex to pay milestones and royalties

