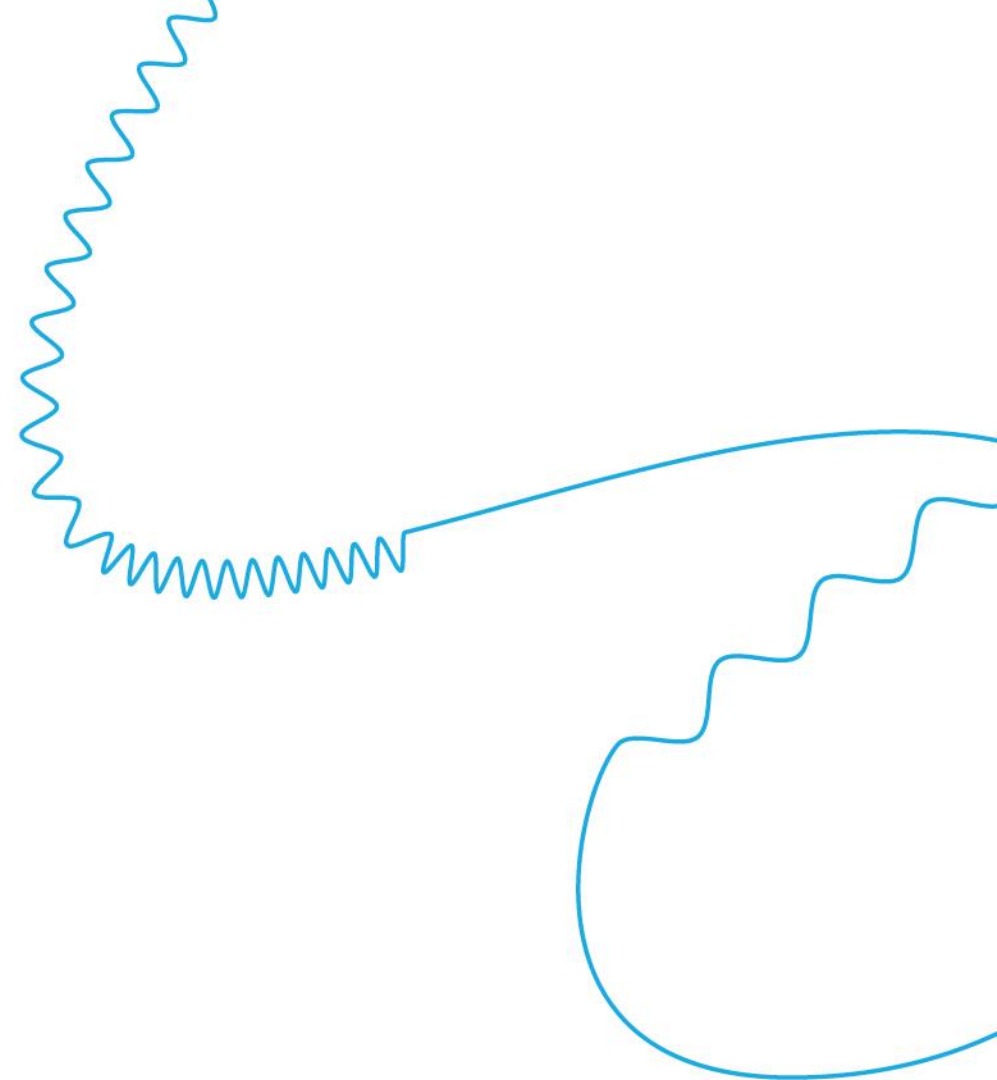




# Third Quarter 2022 Financial Results

November 3<sup>rd</sup>, 2022



# I 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](http://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.

# I 3Q22 earnings call agenda

1 Business Review – Stéphane Bancel, CEO

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

3 Commercial Market – Arpa Garay, CCO

4 Financials – Jamey Mock, CFO

5 Looking Forward – Stéphane Bancel, CEO

# I 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)

# I 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	<b>Commercial</b> Moderna COVID-19 Vaccine/Spikevax®, mRNA-1273.222 and mRNA-1273.214	<b>Phase 3</b> COVID boosters, Flu, RSV, CMV	<b>Phase 2</b> PCV, Zika, VEGF-A, next generation COVID booster	<b>48 development programs</b>
Programs in development	<b>Respiratory vaccines</b> <ul style="list-style-type: none"><li>• <b>COVID variant boosters (variant-specific and bivalents)</b> launched</li><li>• <b>Older adults RSV</b> in Phase 3; <b>Pediatric RSV</b> in Phase 1</li><li>• <b>Flu (mRNA-1010)</b> in Phase 3; <b>Flu (mRNA-1020/-30)</b> in Phase 1/2</li><li>• <b>Flu + COVID, flu + COVID + RSV</b> and <b>flu + RSV</b> in Phase 1/2</li><li>• <b>hMPV + PIV3</b> in Phase 1b age de-escalation study</li><li>• <b>RSV + hMPV, Endemic HCoV</b> in preclinical</li></ul>	<b>Latent vaccines</b> <ul style="list-style-type: none"><li>• <b>CMV</b> in Phase 3</li><li>• <b>EBV, HIV</b> in Phase 1</li><li>• <b>HSV, VZV</b> in preclinical</li></ul>	<b>mRNA therapeutics</b> 15 medicines in 4 therapeutic areas <ul style="list-style-type: none"><li>• <b>5 Immuno-Oncology:</b> PCV in Phase 2; KRAS, Triplet, IL-12, Checkpoint in Phase 1</li><li>• <b>7 Rare Diseases:</b> PA, MMA, GSD1a in Phase 1/2; PKU, CN-1, CF, OTC in preclinical</li><li>• <b>2 Cardiovascular Diseases:</b> VEGF-A in Phase 2; Relaxin in preclinical</li><li>• <b>1 Autoimmune Diseases:</b> PD-L1 in preclinical</li></ul>	
		<b>Public health vaccines</b> <ul style="list-style-type: none"><li>• <b>Zika</b> in Phase 2</li><li>• <b>Nipah</b> in Phase 1</li></ul>		
Foundations	<b>~3,700</b> employees <sup>1</sup>	 <b>8<sup>th</sup></b> Consecutive year top employer by Science	<b>15 commercial</b> subsidiaries across North America, Europe and Asia Pacific	<b>~\$17B</b> of cash and investments (unaudited) <sup>1,2</sup>

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, 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 started
- **Announcing new vaccine candidate RSV + Flu (mRNA-1045):** Phase 1 started
- **Pediatric hMPV + PIV3** Phase 1b fully enrolled; **pediatric RSV + hMPV and endemic HCoV vaccine** are in preclinical

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
<b>Adults</b>  <b>Prophylactic vaccines</b>	COVID-19 vaccine	mRNA-1273/Spikevax®						Worldwide
		mRNA-1273.214	Omicron (BA.1) variant + wild-type					Worldwide
		mRNA-1273.222	Omicron (BA.4/5) variant + wild-type					Worldwide
		mRNA-1273.529	Omicron (BA.1) variant					Worldwide
		mRNA-1273.351	Beta variant					Worldwide
		mRNA-1273.617	Delta variant					Worldwide
		mRNA-1273.211	Beta variant + wild-type					Worldwide
		mRNA-1273.213	Beta + Delta variant					Worldwide
		mRNA-1283	Next generation (2-5 °C)					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
	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
<b>Adolescents &amp; Pediatrics</b>	COVID-19 vaccine (adolescents)	mRNA-1273/Spikevax®	TeenCOVE					Worldwide
	COVID-19 vaccine (pediatrics)	mRNA-1273/Spikevax®	KidCOVE					Worldwide
	Pediatric RSV vaccine	mRNA-1345						Worldwide
	Pediatric hMPV + PIV3 vaccine	mRNA-1653						Worldwide
	Pediatric RSV + hMPV vaccine	mRNA-1365						Worldwide

# 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

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
<div>Latent vaccines</div> <div></div>	CMV vaccine	mRNA-1647						Worldwide
	EBV vaccine (to prevent infectious mononucleosis)	mRNA-1189						Worldwide
	EBV vaccine (to prevent EBV sequelae)	mRNA-1195						Worldwide
	HSV vaccine	mRNA-1608						Worldwide
	VZV vaccine	mRNA-1468						Worldwide
<div>Prophylactic vaccines</div>	HIV vaccines	mRNA-1644						Worldwide IAVI/others funded
		mRNA-1574						Worldwide BMGF/NIAD/ others funded
<div>Public health vaccines</div>	Zika vaccine	mRNA-1893						Worldwide BARDA funded
	Nipah vaccine	mRNA-1215						Worldwide NIH funded

# 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 surface therapeutics	Relaxin Heart failure	mRNA-0184						Worldwide
	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 Immunology	OX40L/IL-23/IL-36γ (Triplet) Solid tumors/lymphoma	mRNA-2752						Worldwide
	IL-12 Solid tumors	MEDI1191						Worldwide
Localized Regenerative Therapeutics	VEGF-A Myocardial Ischemia	AZD8601						Worldwide
	Propionic acidemia (PA)	mRNA-3927						Worldwide
	Methylmalonic acidemia (MMA)	mRNA-3705						Worldwide
Systemic Intracellular Therapeutics	Glycogen storage disease type 1a (GSD1a)	mRNA-3745						Worldwide
	Omithine transcarbamylase deficiency (OTC)	mRNA-3139						Worldwide
	Phenylketonuria (PKU)	mRNA-3283						Worldwide
Inhaled Pulmonary Therapeutics	Crigler-Najjar syndrome type 1 (CN-1)	mRNA-3351						Provided to ILCM free of charge
	Cystic fibrosis (CF)	VXc-522						Vertex to pay milestones 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



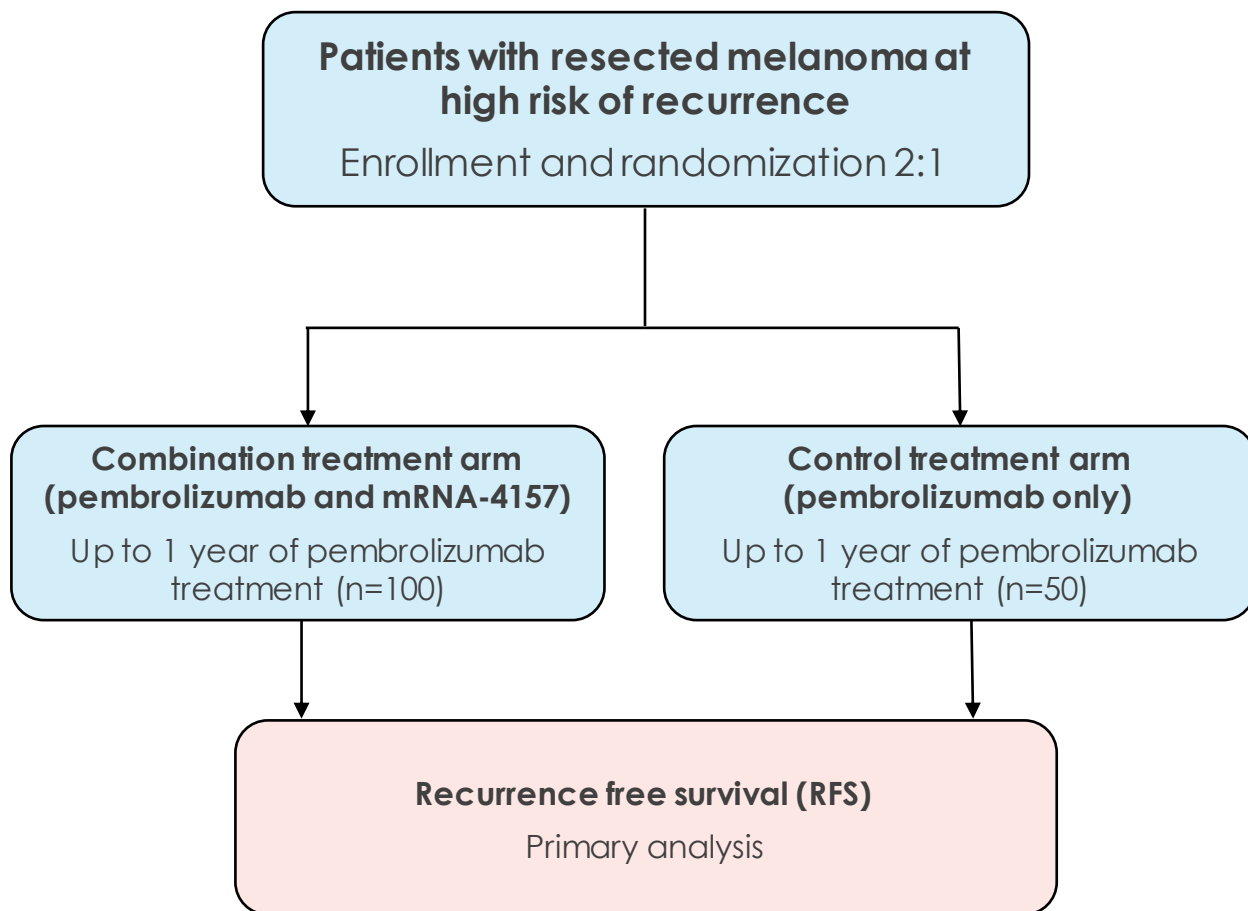
## GSD1a (mRNA-3745)

- 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

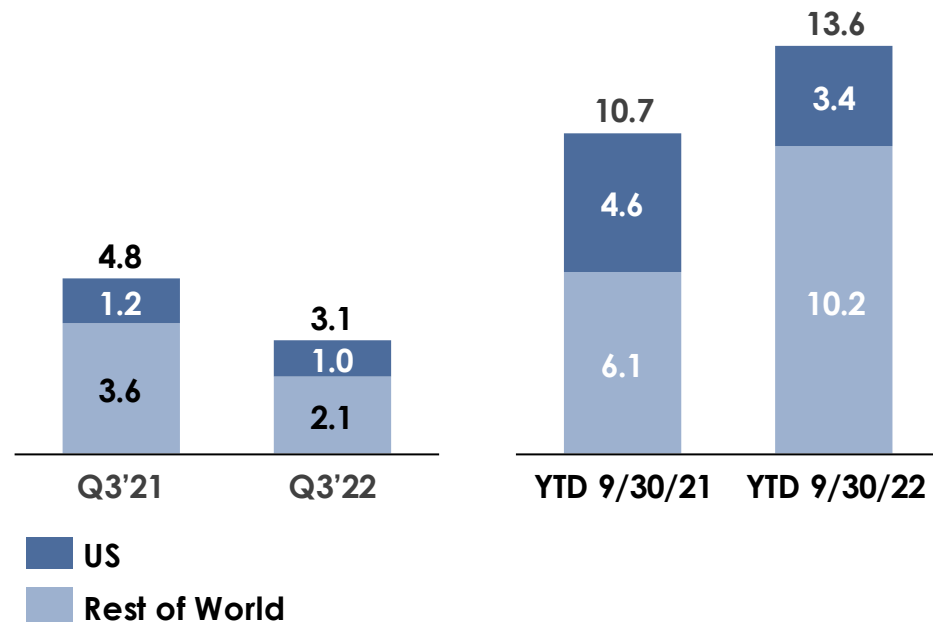
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# Q3 2022 Sales of \$3.1B, Year to Date Sales of \$13.6B

## Product Sales YoY Comparison

In USD Billions



### Q3 2022 Product Sales: \$3.1 billion

- United States: \$1.0 billion
- Europe: \$1.0 billion
- RoW: \$1.1 billion

### YTD September 30, 2022, Product Sales: \$13.6 billion

- United States: \$3.4 billion
- Europe: \$4.5 billion
- RoW: \$5.7 billion

Note: Product sales include FX and hedge impact



# **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.**

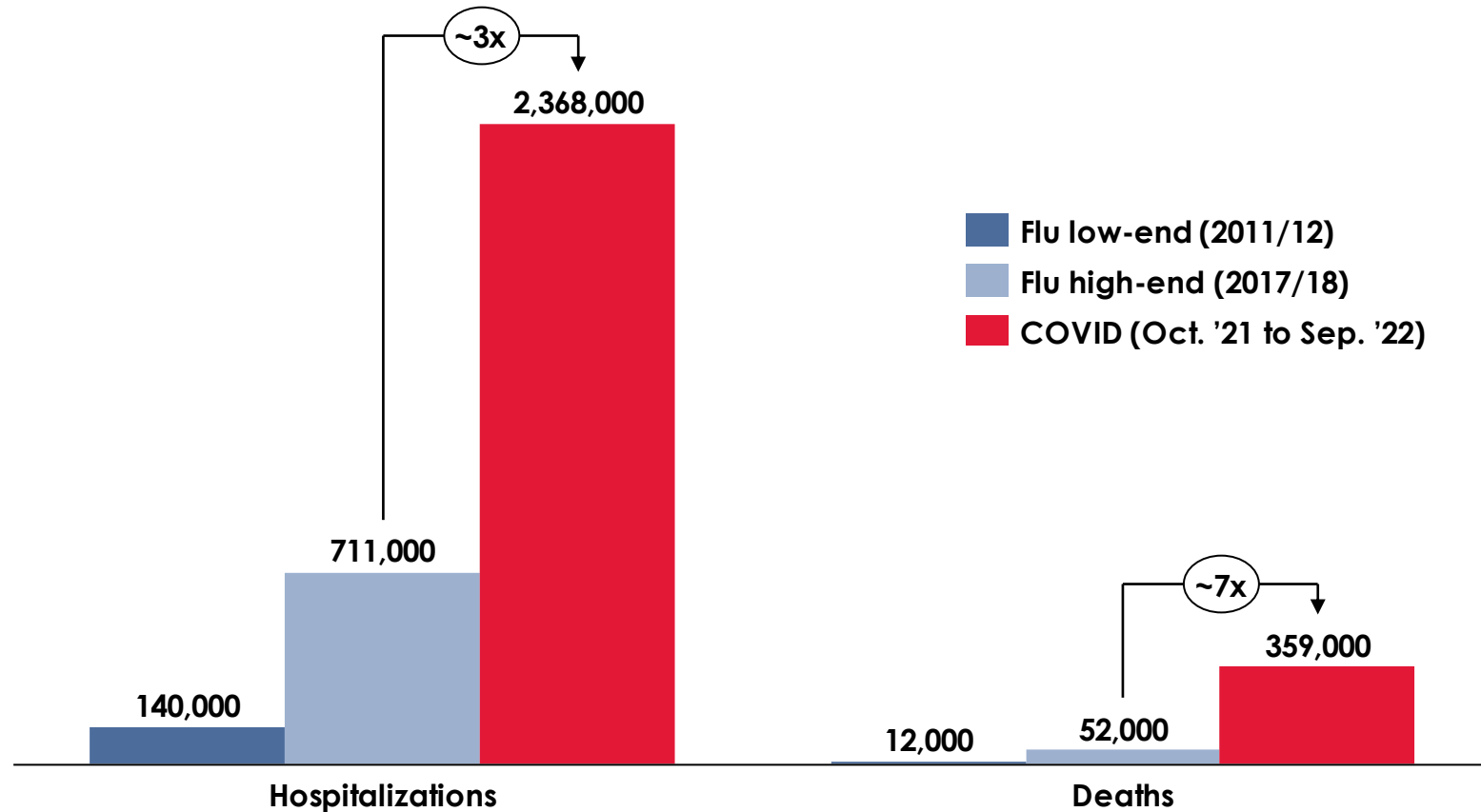
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**Current 2023 signed contracts**

**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)

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

COVID outcomes are actual count of deaths and hospitalizations reported to CDC. COVID death data; hospitalization data

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

## Scenarios global COVID booster market (\$USD billions)

		Global average price per dose		
		\$20	\$30	\$40
Global volume (million doses)	400	\$8B	\$12B	\$16B
	600	\$12B	\$18B	\$24B
	800	\$16B	\$24B	\$32B

Annual flu market is  
500-600M doses<sup>1</sup>

## Key variables that will impact the COVID volume in 2023

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

# I 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**                      **~\$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**

# I 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

## I 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 1 Q23; 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)*

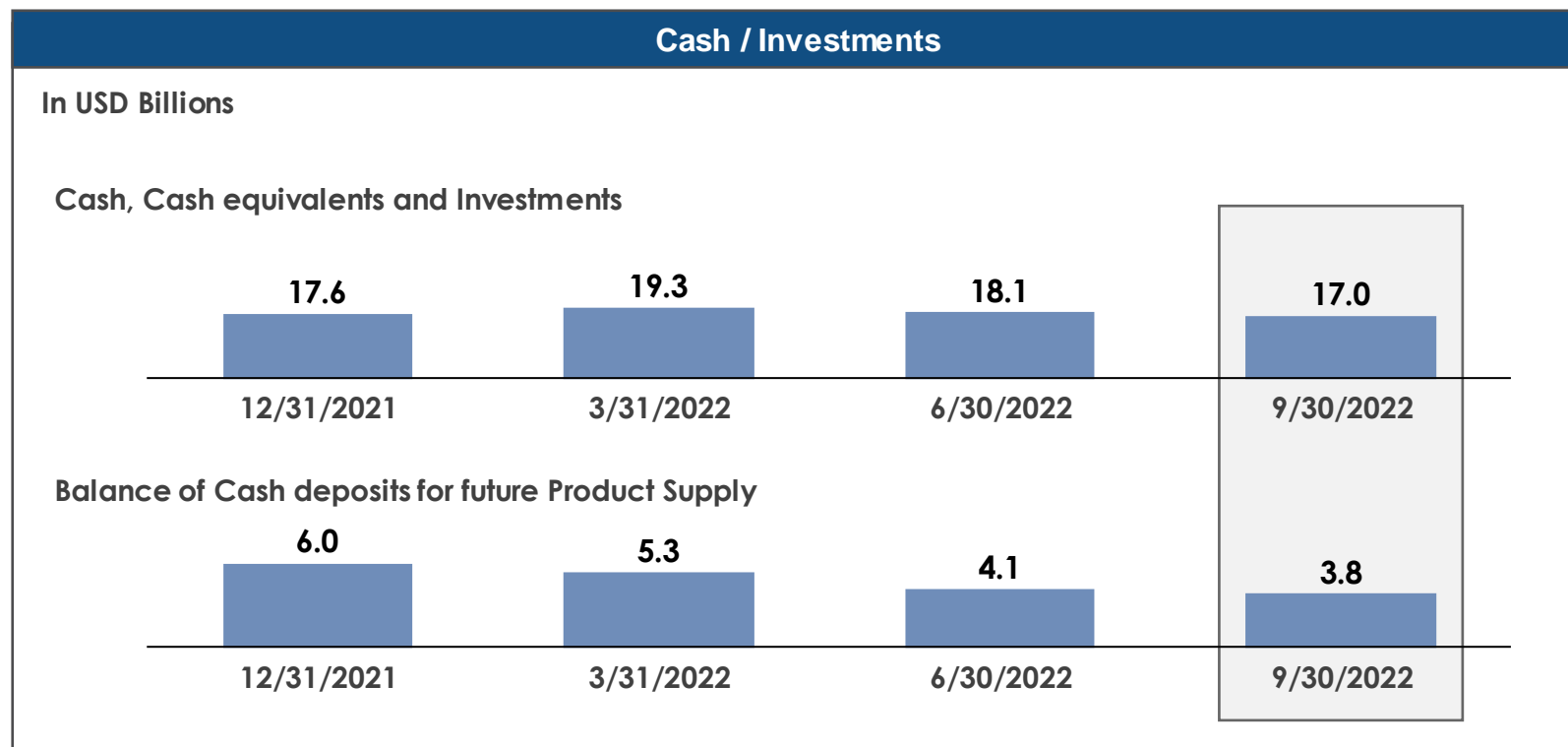
	Q3 2022	Q3 2021	Change (Q3 22 vs. Q3 21)	
<b>Product sales</b>	\$ 3,120	\$ 4,810	\$ (1,690)	(35)%
Grant revenue	144	140	4	3 %
Collaboration revenue	100	19	81	426 %
<b>Total revenue</b>	<b>3,364</b>	<b>4,969</b>	<b>(1,605)</b>	<b>(32)%</b>
Cost of sales	1,100	722	378	52 %
Research and development	820	521	299	57 %
Selling, general and administrative	278	168	110	65 %
<b>Total operating expenses</b>	<b>2,198</b>	<b>1,411</b>	<b>787</b>	<b>56 %</b>
<b>Income from operations</b>	<b>1,166</b>	<b>3,558</b>	<b>(2,392)</b>	<b>(67)%</b>
Other income (expense), net	51	(6)	57	NM
Provision for income taxes	174	219	(45)	(21) %
<b>Net income</b>	<b>\$ 1,043</b>	<b>\$ 3,333</b>	<b>\$ (2,290)</b>	<b>(69)%</b>
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 ended 9/30/22	2021 YTD ended 9/30/21	Change (YTD '22 vs. YTD '21)	
<b>Product sales</b>	<b>\$ 13,576</b>	<b>\$ 10,740</b>	<b>\$ 2,836</b>	<b>26 %</b>
Grant revenue	453	473	(20)	(4) %
Collaboration revenue	150	47	103	219 %
<b>Total revenue</b>	<b>14,179</b>	<b>11,260</b>	<b>2,919</b>	<b>26 %</b>
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 %
<b>Total operating expenses</b>	<b>6,339</b>	<b>3,374</b>	<b>2,965</b>	<b>88 %</b>
<b>Income from operations</b>	<b>7,840</b>	<b>7,886</b>	<b>(46)</b>	<b>(1)%</b>
Other income (expense), net	80	(11)	91	NM
Provision for income taxes	1,023	541	482	89 %
<b>Net income</b>	<b>\$ 6,897</b>	<b>\$ 7,334</b>	<b>\$ (437)</b>	<b>(6)%</b>
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

1

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

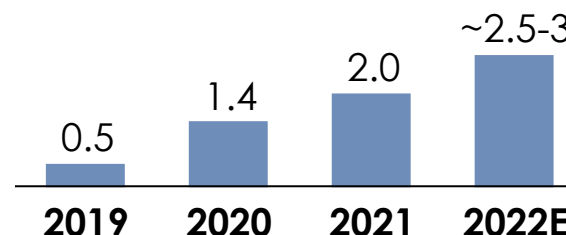
2

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

3

**Return capital to shareholders**

R&D Expense (in \$B)



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

- **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
- **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

# I 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

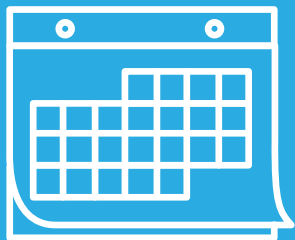
**Execute on late-stage clinical pipeline**

- 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

A screenshot of the Moderna ESG Day registration page. The page has a white header with the Moderna logo in red and 'ESG Day' in blue. Below the logo, it says 'THURSDAY, NOVEMBER 10, 2022'. The main body is light blue with a red wavy line graphic. On the right, there is a white registration form titled 'Register'. The form includes fields for First Name, Last Name, Email, and Organization, and a dropdown for Affiliation. At the bottom of the form is a 'Register' button and a 'Sign In' button for already registered users.

**moderna®**

**ESG Day**

THURSDAY, NOVEMBER 10, 2022

### Register

Welcome to Moderna ESG Day.  
Please input the information below to register.

**First Name** **Last Name**

**Email**

**Organization**

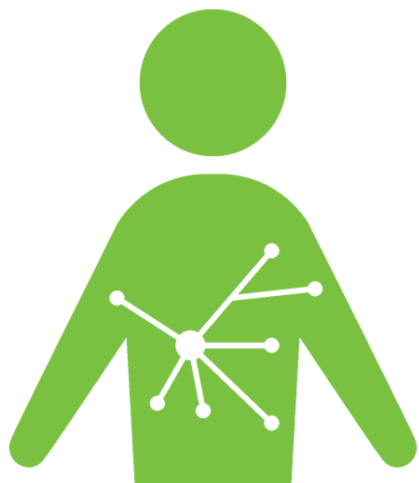
**Affiliation**

Select an option ▼

Already registered?

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






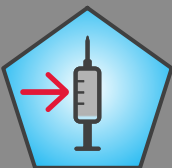
## ***Our mission***

*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
<b>Adults</b>   <b>Prophylactic vaccines</b>	COVID-19 vaccine	mRNA-1273/Spikevax®						Worldwide
		mRNA-1273.214	Omicron (BA.1) variant + wild-type					Worldwide
		mRNA-1273.222	Omicron (BA.4/5) variant + wild-type					Worldwide
		mRNA-1273.529	Omicron (BA.1) variant					Worldwide
		mRNA-1273.351	Beta variant					Worldwide
		mRNA-1273.617	Delta variant					Worldwide
		mRNA-1273.211	Beta variant + wild-type					Worldwide
		mRNA-1273.213	Beta + Delta variant					Worldwide
		mRNA-1283	Next generation (2-5 °C)					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
	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
<b>Adolescents &amp; Pediatrics</b>	COVID-19 vaccine (adolescents)	mRNA-1273/Spikevax®	TeenCOVE					Worldwide
	COVID-19 vaccine (pediatrics)	mRNA-1273/Spikevax®	KidCOVE					Worldwide
	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)

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
<div>Latent vaccines</div> <div></div> <div>Prophylactic vaccines</div>	CMV vaccine	mRNA-1647						Worldwide
	EBV vaccine (to prevent infectious mononucleosis)	mRNA-1189						Worldwide
	EBV vaccine (to prevent EBV sequelae)	mRNA-1195						Worldwide
	HSV vaccine	mRNA-1608						Worldwide
	VZV vaccine	mRNA-1468						Worldwide
	HIV vaccines	mRNA-1644						Worldwide IAVI/others funded
		mRNA-1574						Worldwide BMGF/NIAID/others funded
	Public health vaccines	Zika vaccine	mRNA-1893					
Nipah vaccine		mRNA-1215						Worldwide NIH funded

# Moderna's Therapeutics (Pipeline 3/3)

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