moderna®

First Quarter 2022 Financial Results

May 4th, 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 under advanced purchase agreements in 2022 and the associated dollar amounts to be received, which should not be construed as expected 2022 revenue; Moderna's ongoing discussions regarding additional advanced purchase agreements; COVID market dynamics and anticipated timing of sales in 2022; the ability of the Moderna COVID-19 Vaccine to provide protection against COVID-19 over time, including against evolving variants of concern; Moderna's receipt of data and ability to go to market with mRNA-1273.214; Moderna's ability to quickly accelerate vaccine candidates into pivotal studies; Moderna's expectations regarding the evolution of SARS-CoV-2 and the timing for a transition into an endemic phase; the estimated market opportunity for endemic COVID booster vaccines; the potential for bi- and multi-valent boosters to provide broad immunity; expected timing of trials of Moderna's flu and combination vaccine candidates; timing of new data on Moderna's development candidates in rare genetic diseases and oncology; capital allocation; Moderna's 2022 financial framework; and Moderna's agreements and ongoing discussions with countries regarding service/subscription contracts, including its committed agreements with Australia and Canada. 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 most recent Annual Report on Form 10-K 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.

moderna

Today's agenda

1Q22 Earnings Call

1. **Business Review – Stéphane Bancel, CEO**
2. Spikevax® COVID-19 Vaccine Update – Paul Burton, M.D., Ph.D., CMO
3. Clinical Program Review – Stephen Hoge, M.D., President
4. Financials – David Meline, CFO
5. Looking Forward – Stéphane Bancel, CEO

moderna

Financial highlights

First quarter 2022 GAAP financial results

- Revenue: $6.1B
- Net income: $3.7B
- Diluted EPS: $8.58
- Cash and investments: $19.3B (as of 03/31/22)
- Reduced outstanding shares again in 1Q22

2022 outlook

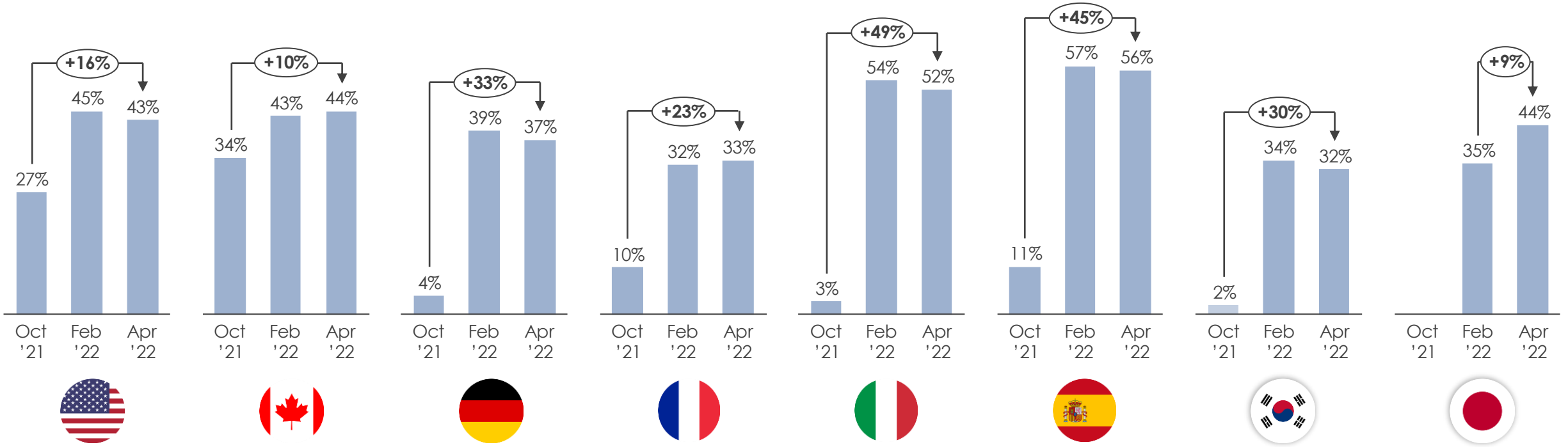
- Reiterating ~$21B in signed advanced purchase agreements

moderna

Spikevax's® market share has increased – and stayed consistent – across key markets

- Booster market in OECD countries continues to be an mRNA vaccine market

Spikevax® Booster/Third Dose Cumulative Market Share



Sources: All data shown is until 04/17, except Canada which is ending 04/10; all the historical data might be restated in the future). Includes 4th dose data for Canada and South Korea

- US: Booster authorized in ages 65+, high-risk individuals on Oct. 20; Booster authorized in ages 18+ on Nov. 19; https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-Jurisdi/unsk-b7fc (based on 'additional dose' data field)
- CA: Booster authorized in 18+ years old on Nov. 15, 2021: https://health-infobase.canada.ca/covid-19/vaccine-administration/
- EU: Booster recommended in ages 18+ on Oct. 25; https://www.ecdc.europa.eu/en/publications-data/data-covid-19-vaccination-eu-eea
- SK: Moderna vaccine granted EUA on Oct. 26, 2021; https://ncv.kdca.go.kr/vaccineStatus.es?mid=a11710000000
- JP: Booster authorized on Nov 11, 2021; https://www.kantei.go.jp/

Methodology:

- Oct '21 = Cumulative Moderna share of administered booster/3rd doses 10/3-10/31/21
- Feb '22 = Cumulative Moderna share of administered booster/3rd doses 10/3/21-2/13/22
- Apr '22 = Cumulative Moderna share of administered booster/3rd doses 10/3/21-4/17/22
- Share is calculated for Third Dose (vast majority is booster; may include 3rd for immuno-compromised); Canada and South Korea also include 4th dose since data is explicitly reported
- Share is only calculated for doses where manufacturer has been identified in the public data source

moderna®

Our Phase 3 pipeline could lead to three respiratory commercial launches over the next two to three years; will share proof-of-concept readouts in therapeutics in 2022

Vaccines in Phase 3:

- Omicron-containing bivalent COVID booster ongoing in Phase 2/3 studies; mRNA-1273.214 bivalent booster vaccine (wild-type and Omicron variant) is our lead candidate for Fall 2022
- Flu vaccine (mRNA-1010) Phase 3 immunogenicity study expected to start in 2Q 2022
- RSV vaccine (mRNA-1345) ongoing in a pivotal Phase 3 study, ConquerRSV
- CMV vaccine (mRNA-1647) ongoing in a pivotal Phase 3 study, CMVictory

Proof-of-concept readouts in therapeutic modalities:

- PA (mRNA-3927) ongoing in Phase 1/2 study (Paramount study). First cohort is fully enrolled and we are enrolling patients into additional cohorts. All five patients eligible for the Open Label Extension (OLE) study have elected to participate
- MMA (mRNA-3705) ongoing in Phase 1/2 study (Landmark study). First cohort is fully enrolled and we are enrolling patients into additional cohorts. One patient eligible to participate in the OLE study has elected to participate
- PCV vaccine (mRNA-4157) ongoing in a Phase 2 study (PCV + Keytruda vs. Keytruda alone)

moderna

Moderna as of May 2022

Pipeline

Commercial

Moderna COVID-19 Vaccine/Spikevax®

Phase 3

COVID boosters, RSV, CMV

Phase 2

Flu, Zika, PCV, VEGF-A

46 development programs

Programs in development

Respiratory vaccines

- **COVID variant boosters (variant-specific and bivalents)** in Phase 2/3
- **Older adults RSV** in Phase 3; **Pediatric RSV** in Phase 1
- **Flu** in Phase 2; Phase 3 expected to start in 2022
- **hMPV + PIV3** in Phase 1b age de-escalation study
- **Flu + COVID, Flu + COVID + RSV, 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 preclinical

mRNA therapeutics

15 medicines in 4 therapeutic areas

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

Foundations

~3,200

employees

7th

Consecutive year top employer by *Science*

11 commercial

subsidiaries across North America, Europe and Asia Pacific

~$19.3B

of cash and Investments (unaudited)[1]

(1) As of March 31, 2022; Cash and investments denotes cash, cash equivalents and investments

moderna

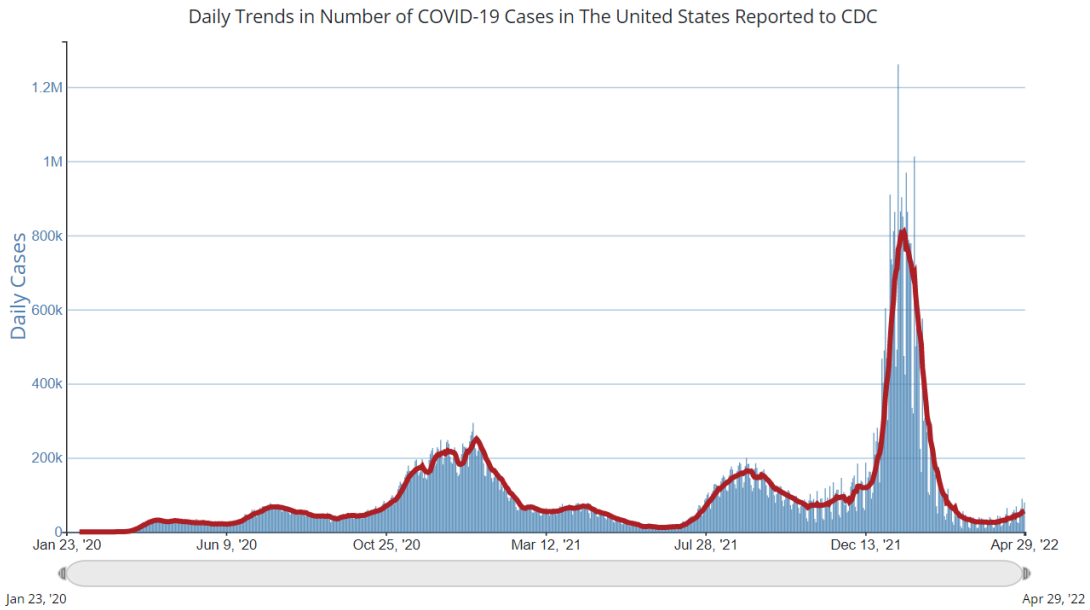
Today's Agenda

1Q22 Earnings Call

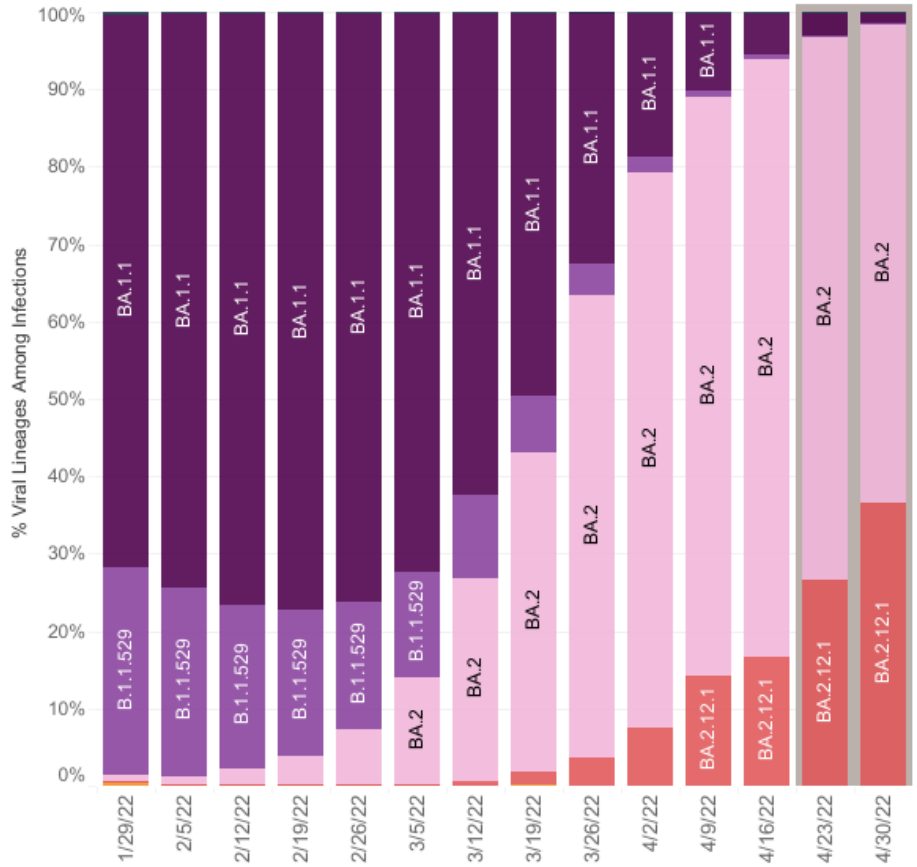
1. Business Review – Stéphane Bancel, CEO
2. **Spikevax® COVID-19 Vaccine Update – Paul Burton, M.D., Ph.D., CMO**
3. Clinical Program Review – Stephen Hoge, M.D., President
4. Financials – David Meline, CFO
5. Looking Forward – Stéphane Bancel, CEO

moderna

SARS-CoV-2 continues to evolve rapidly



Omicron subvariants

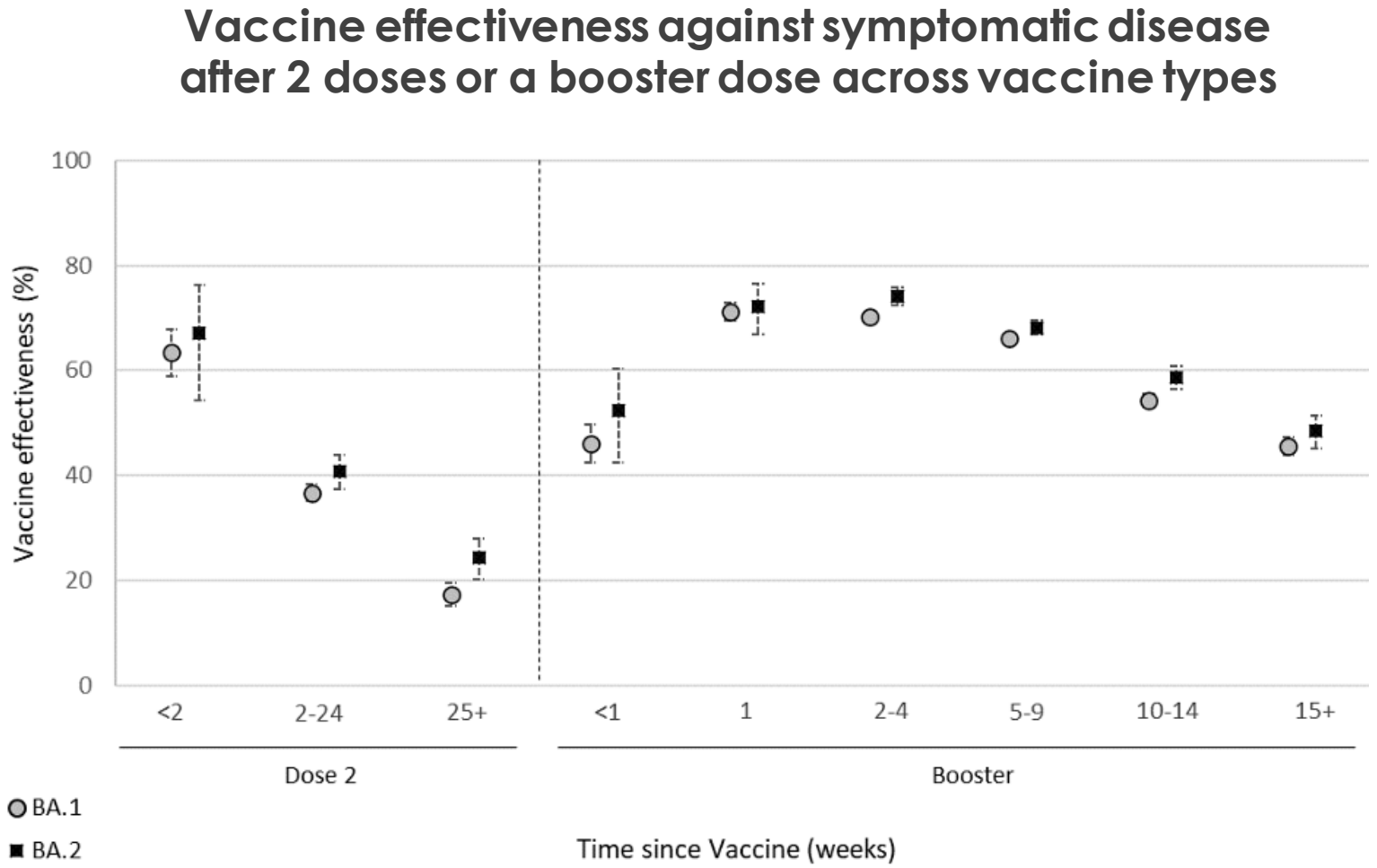


- Omicron subvariant BA.2 is now the dominant strain in the US, with BA.2.12.1 increasing rapidly, showing enhanced transmissibility
- Omicron subvariants BA.4 and BA.5 are of concern and spreading in other countries

https://covid.cdc.gov/covid-data-tracker/#trends_dailycases; https://covid.cdc.gov/covid-data-tracker/#variant-proportions

moderna

Data from the UK show that boosters against the wild-type virus protect against Omicron variant BA.2 but waning continues



Primary series: BNT162b2, ChAdOx1, mRNA-1273
Booster dose: BNT162b2 or mRNA-1273

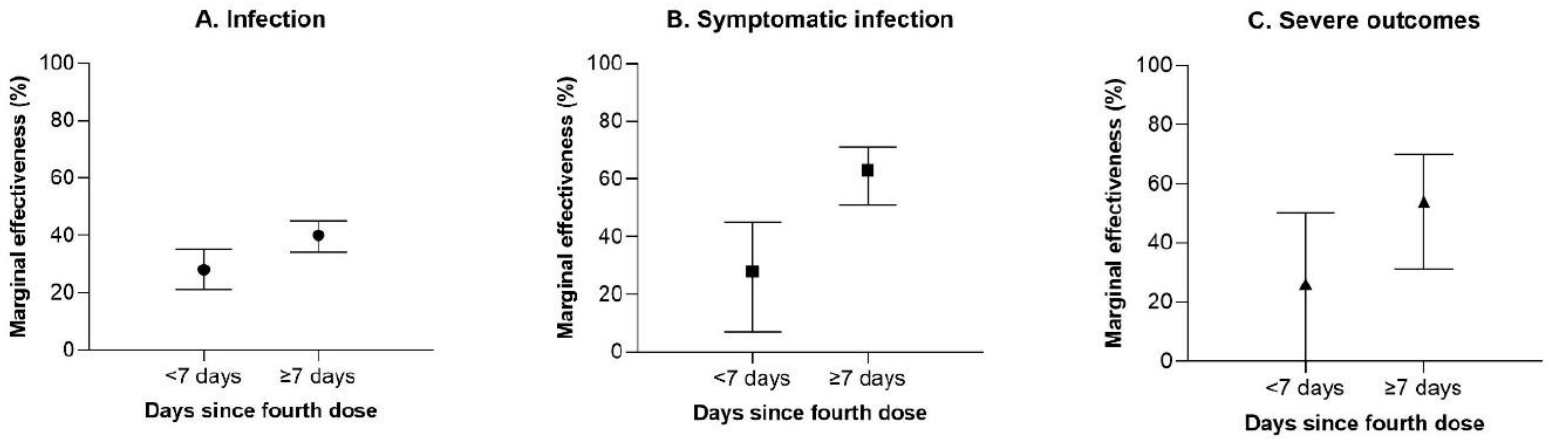
UK Health Security Agency, COVID-19 vaccine surveillance report, Week 17
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1072064/Vaccine-surveillance-report-week-17.pdf

moderna

A fourth dose of Moderna's COVID-19 Vaccine increased vaccine effectiveness against infection, symptomatic infection and severe outcomes in high-risk population

- An Ontario study **observed waning of a third dose for individuals** who received a booster ≥84 days ago
- A 100 µg dose of mRNA-1273 is recommended for LTC residents in Ontario for boosters; **Almost all LTC residents (97%) who received a fourth dose received mRNA-1273**
- In 56,806 long-term care residents that were tested, **a fourth dose increased VE against all three outcomes compared to residents who received a third dose ≥84 days ago**

Effectiveness of a fourth dose of mRNA COVID-19 vaccine against Omicron outcomes



Grewal, Ramandip et al., https://www.medrxiv.org/content/10.1101/2022.04.15.22273846v1

moderna

People at high-risk who would benefit from annual boosting

Health, age-related and environmental/occupation risk factors

- Age over 50
- Age 18+ with other health risk factors, including:
  - Chronic kidney disease, chronic obstructive pulmonary disease, cardiac disease, and diabetes mellitus
  - Receiving active cancer treatment for tumors or cancers of the blood
  - Received an organ transplant and are taking medicine to suppress the immune system
  - Received a stem cell transplant within the last 2 years or are taking medicine to suppress the immune system
  - Moderate or severe primary immunodeficiency (such as DiGeorge syndrome, Wiskott-Aldrich syndrome)
  - Advanced or untreated HIV infection
  - Active treatment with high-dose corticosteroids or other drugs that may suppress their immune response
- Environmental/occupational risk factors:
  - Healthcare workers
  - Police / fire department
  - High-density housing or living conditions (e.g. college students, military personnel, incarcerated individuals)

https://www.cdc.gov/media/releases/2022/s0328-covid-19-boosters.html?s_cid=11706:covid%20vaccine%20booster:sem.ga:p:RG:GM:gen:PTN:FY22
https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-age.html#:~:text=Sample%20interpretation%3A%20Compared%20with%2018,year%2Dold%20age%20category.)

moderna

Summary

- SARS-CoV-2 continues to evolve rapidly with multiple new variants and recombinants circulating globally
- Real world data demonstrate the effectiveness of a booster shot (third dose) of mRNA-1273 against evolving variants of concern
- A fourth dose of mRNA-1273 shows good marginal effectiveness when compared to a third dose against infection, symptomatic infection and severe disease in a high-risk population
- We believe people at high-risk would benefit from annual boosting

moderna

Today's Agenda

1Q22 Earnings Call

1. Business Review – Stéphane Bancel, CEO
2. Spikevax® COVID-19 Vaccine Update – Paul Burton, M.D., Ph.D., CMO
3. **Clinical Program Review – Stephen Hoge, M.D., President**
4. Financials – David Meline, CFO
5. Looking Forward – Stéphane Bancel, CEO

moderna

COVID booster development for endemic phase

Strategic rationale for seasonal booster	• Neutralizing titers (NT) will wane, similar to endemic HCoV • Decline in NT will increase risk of breakthrough hospitalization for those at higher risk (e.g., older adults, immune compromised) • Emergence of new variants of concern (VOC) could accelerate the impact of waning and broaden risk of breakthrough
Desired features for the northern hemisphere (NH) Fall/Winter '22-23 booster	• Improve durability of protective neutralizing antibodies against Omicron to 6+ months (i.e., the full NH fall-winter infection season) • Retain high and durable protection against Delta and ancestral strains • Broaden cross-protective immunity to increase potential for protection against a new (emergent) VOC mid-year

moderna

The objective of our lead bivalent candidate (.214) is to demonstrate superior immunogenicity against variants of concern

Primary focus has been on the bivalent approach

- **Three bivalents have been evaluated to date** (containing an equal mass ratio)
  - mRNA-1273.211 (9 mutations, based on wild-type and Beta)
  - mRNA-1273.213 (11 mutations, based on Beta and Delta)
  - mRNA-1273.214 (32 mutations, based on wild-type and Omicron)

Our latest bivalent (.214) remains our lead candidate for fall 2022 NH booster

- Objective of modified boosters is to **demonstrate superior immunogenicity against VOC when compared to approved booster (1273 at 50 µg),** while maintaining non-inferior protection against ancestral strains

moderna

Overview of bivalent candidates in clinical development

All subjects received mRNA-1273 primary series (100 µg)

Trial	Booster	Dose	Subjects(n)
Phase 2 P201	**mRNA-1273**	50 µg	171
Phase 2/3 P205[1]	**.211** (9 mutations; wild-type and Beta)	50 µg 100 µg	300 595
	.213 (11 mutations; Beta and Delta)	50 µg 100 µg	330 584
	.214 (32 mutations; wild-type and Omicron)	50 µg	425
Phase 3 P305[1]	**.214** (32 mutations; wild-type and Omicron)	50 µg	1500

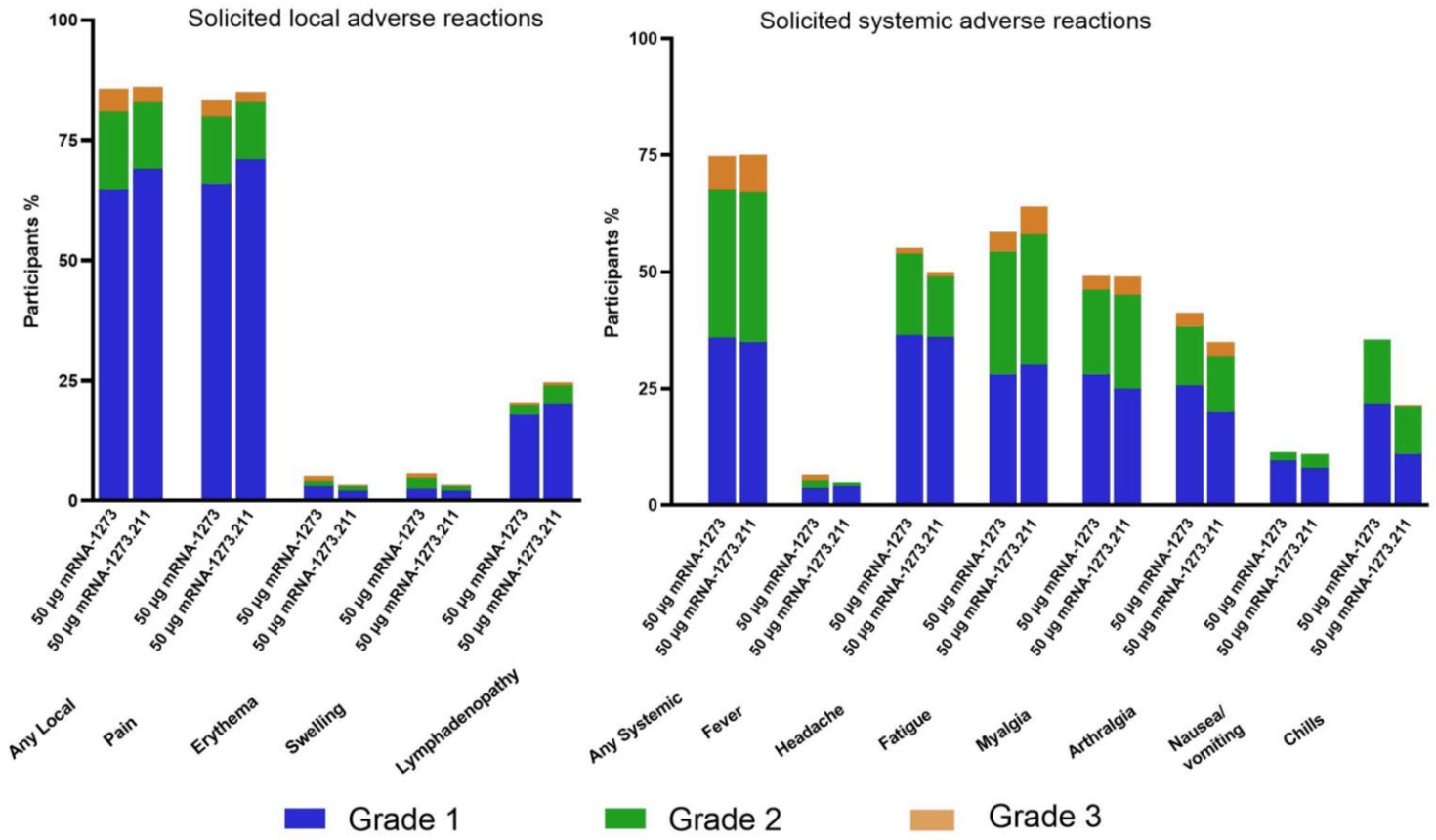
- mRNA-1273 has been authorized/ approved for a third or fourth booster
- **Data for the first bivalent (.211) has demonstrated superiority against all VOCs tested** (including Omicron and Delta); also shows durability improvement for Ancestral, Beta and Omicron[2]
- Our lead candidate for Fall 2022 booster season is mRNA-1273.214, combining wild-type and Omicron

(1) Only showing bivalent arms for the Phase 2/3 and Phase 3 study (2) GMR at 6 months, nominal alpha of 0.05

moderna

Safety and reactogenicity are similar between .211 and 1273 boosters

Solicited reactogenicity (through day 7)



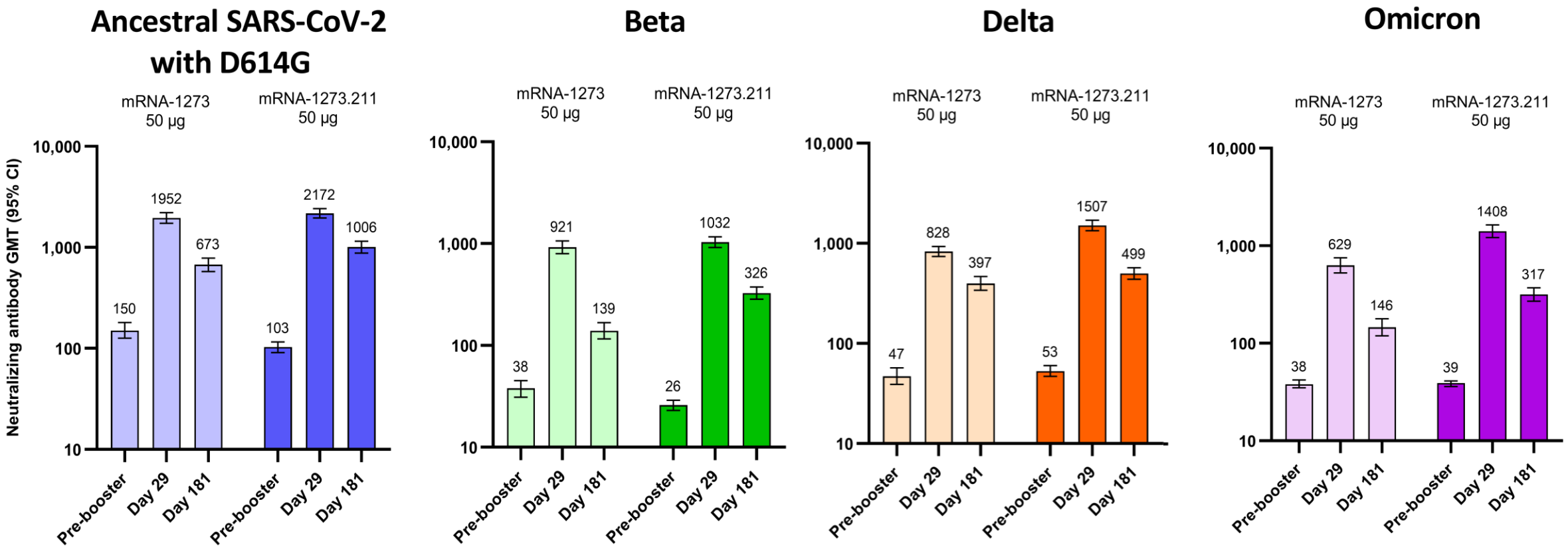
Safety summary

- The reactogenicity profile was similar between the two booster vaccines (.211 n=298, 1273 n=167)
- The frequency and types of unsolicited adverse events were also comparable, with no serious events in the .211 group up to 28 days after the booster dose (.211 N=300, 1273 N=171)

moderna

Neutralizing antibody responses against ancestral SARS-CoV-2, Beta, Delta and Omicron after booster dose of .211 were higher than after booster dose of 1273

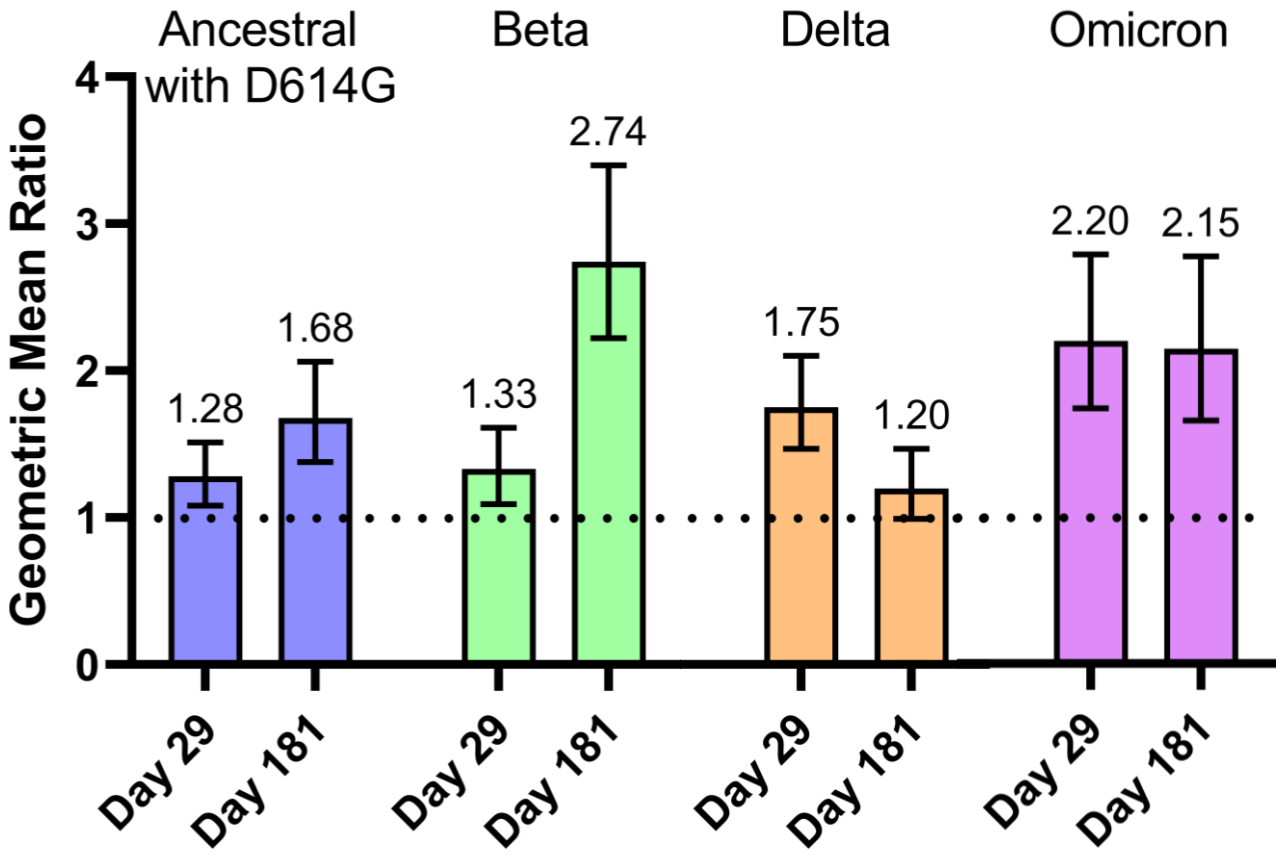
Spike-pseudotyped lentivirus neutralization assay ID_{50}



Chalkias, Spyros et al. https://www.researchsquare.com/article/rs-1555201/v1

moderna

In comparing .211 booster to 1273 at Day 29, superiority was met for ancestral SARS-CoV-2 and all variants of concern



- The clinical endpoint to demonstrate superiority was based on the neutralizing antibody geometric mean titer ratio (GMR); superiority was considered met if the lower bound of 95% CI of the GMR was >1
- The GMR at Day 29 against:
  - **Ancestral SARS-COV-2 was 1.28** (1.08, 1.51)
  - **Beta was 1.33** (1.09, 1.61)
  - **Delta was 1.75** (1.47, 2.10)
  - **Omicron was 2.20** (1.74, 2.79)
- At Day 181, superiority was met for ancestral SARS-CoV-2, Beta and Omicron variants; non-inferiority met for Delta variant

Chalkias, Spyros et al. https://www.researchsquare.com/article/rs-1555201/v1

GMR, estimated by the ratio of the geometric least squares mean (GLSM) and the corresponding 2-sided 95% CI were used to assess the treatment difference. The GLSM and corresponding 2-sided 95% CI for the antibody titers for each treatment group were estimated using a mixed effect model for repeated measures, adjusting for age groups and pre-booster titers. The GLSM, and the corresponding 95% CI results in log-transformed scale estimated from the model were back-transformed to obtain estimates in the original scale

moderna

Conclusion and next steps

- The **safety and reactogenicity profile of the 50 µg mRNA-1273.211 booster dose was comparable** to the 50 µg mRNA-1273 booster vaccine

- **We believe that the superiority shown by .211 confirms the potential of bivalent platform**

- We continue to believe that **bivalent booster will ensure the broadest immunity** in face of evolutionary uncertainty for SARS-CoV-2, maintaining current protection while expanding breadth and durability of neutralizing antibodies

- We anticipate 1 month (Day 29) **data from Omicron-containing bivalent .214 booster in June 2022**

moderna

Primary series and booster update in adolescent and pediatric populations

Spikevax®/Moderna COVID-19 Vaccine in ages <18

- **In adolescents aged 12-17 years:**
  - Primary series (2 dose, 100 µg) authorized/approved in more than 40 countries
  - Submitted EUA for boosters globally
  - Submitted longer term safety follow ups to US FDA
- **In children aged 6-11 years:**
  - Primary series (2 dose series, 50 µg) authorized/approved in more than 35 countries
  - Evaluating a booster dose
- **In children aged 6 months to 5 years:**
  - Announced in March that the primary series (2 dose series, 25 µg) met primary endpoint
  - EUA request submitted to US FDA: filed variations in the EU, Canada and to additional global regulatory authorities
  - Evaluating a booster dose

moderna

Moderna's respiratory vaccines: Flu vaccine (mRNA-1010) expected to start Phase 3 in 2Q22

Pipeline Highlights

COVID-19 variant boosters and next generation mRNA-1283 in development

Flu (mRNA-1010) Phase 2 positive data announced in March; expected to start Phase 3 safety & immunogenicity trial in 2Q22 to support potential accelerated approval and preparing for Phase 3 efficacy study in Fall 2022 (if needed);
Flu (mRNA-1020/-30) started Phase 1/2 trial in April

Older adults RSV Phase 3, known as ConquerRSV, is ongoing; **Pediatric RSV** in Phase 1

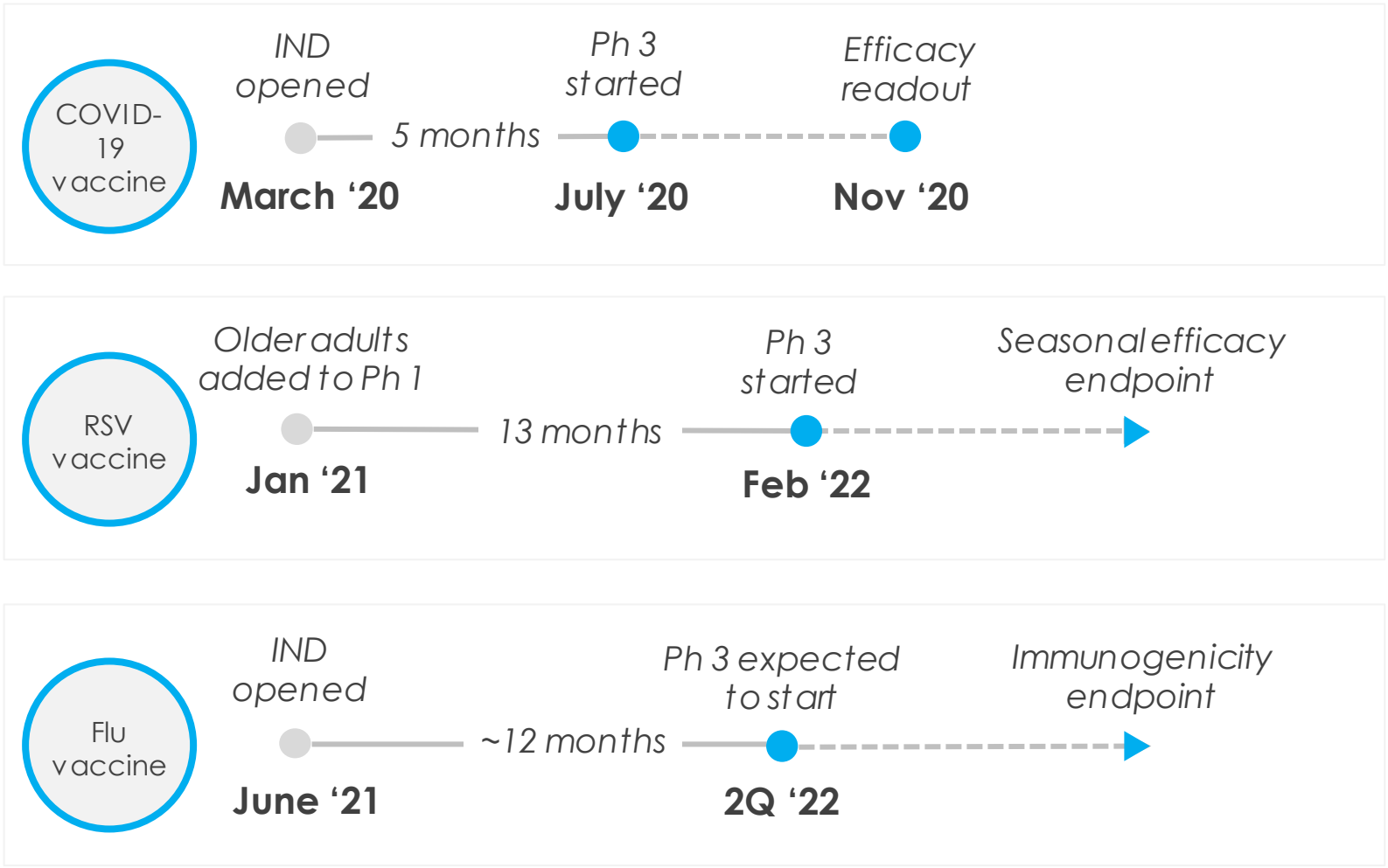
Combination COVID + flu (mRNA-1073) and combination COVID + flu + RSV (mRNA-1230) in preclinical, expected to start Phase 1 trials in 2022;
Endemic HCoV in preclinical

Pediatric hMPV + PIV3 Phase 1b fully enrolled;
Pediatric RSV + hMPV in preclinical

Modality	Program	ID #	Preclinical development / Phase 1 / Phase 2 / Phase 3 / Commercial	Moderna rights
Adults	COVID-19 vaccine	mRNA-1273/Spikevax®		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-1273.529	Omicron variant	Worldwide
		mRNA-1273.214	Omicron variant + wild-type	Worldwide
		mRNA-1283	Next generation (2-5 °C)	Worldwide
	Flu vaccine	mRNA-1010	Phase 3 prep	Worldwide
		mRNA-1011		Worldwide
		mRNA-1012		Worldwide
		mRNA-1020		Worldwide
		mRNA-1030		Worldwide
	Older adults RSV vaccine	mRNA-1345		Worldwide
	COVID + Flu vaccine	mRNA-1073		Worldwide
	COVID + Flu + RSV vaccine	mRNA-1230		Worldwide
	Endemic HCoV vaccine	mRNA-1287		Worldwide
Adolescents & Pediatrics	COVID-19 vaccine (adolescents)	mRNA-1273	TeenCOVE	Worldwide
	COVID-19 vaccine (pediatrics)	mRNA-1273	KidCOVE	Worldwide
	Pediatric RSV vaccine	mRNA-1345		Worldwide
	Pediatric hMPV + PIV3 vaccine	mRNA-1653		Worldwide
	Pediatric RSV + hMPV vaccine	mRNA-1365		Worldwide

moderna

By the end of 2Q22, we will have started three pivotal, Phase 3 trials within approximately one year of an IND being opened



- mRNA vaccine technology is de-risked; pursuing **parallel clinical development that is significantly faster than industry standard**[1]
- Moderna's mRNA vaccines use the **same mRNA chemistry, same LNP and same manufacturing platform**

1. Research Synthesis: Time and Success Rates of Pharmaceutical R&D, https://www.knowledgeportalia.org/r-d-time-success

moderna

Moderna's latent & public health vaccines

Pipeline Highlights

CMV vaccine pivotal Phase 3 study, known as CMVictory, is ongoing

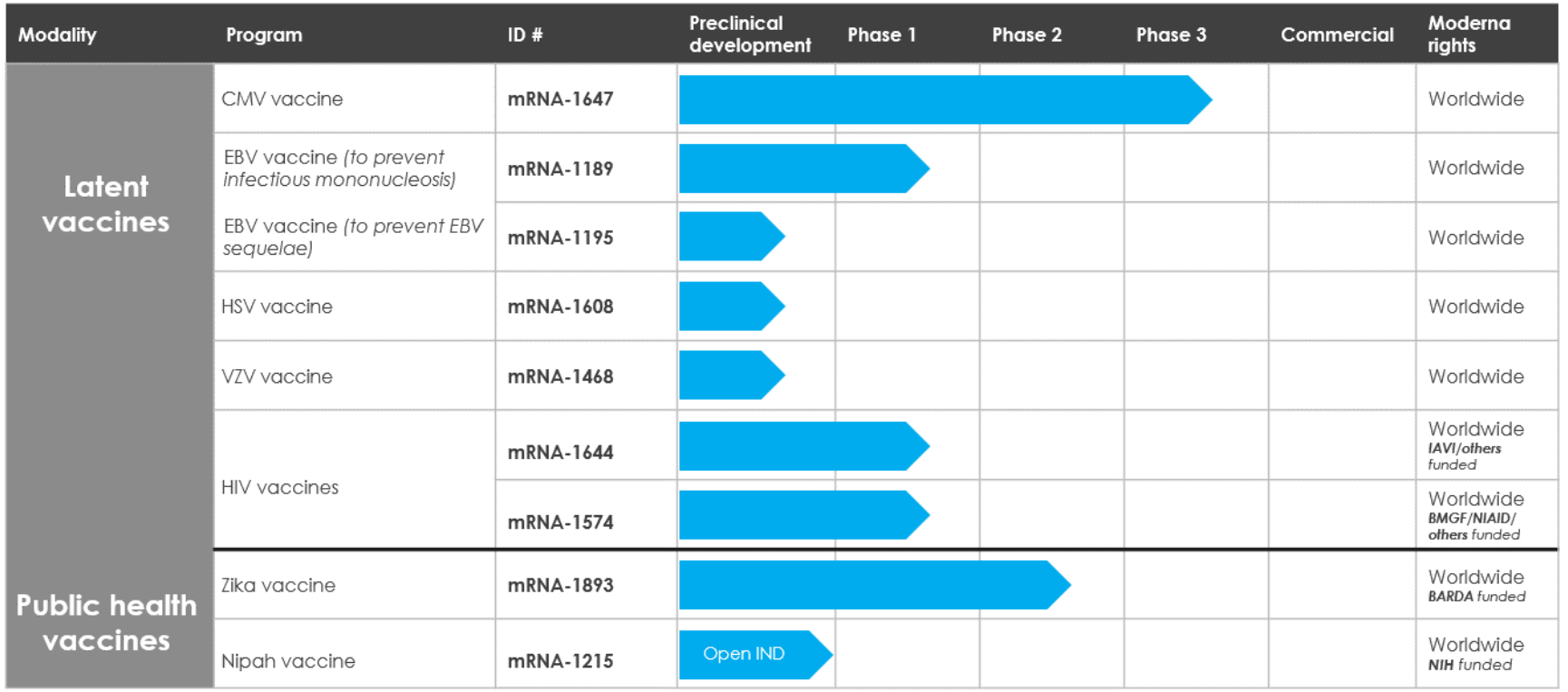
EBV vaccine (to prevent infectious mononucleosis) Phase 1 is ongoing; **EBV vaccine (to prevent EBV sequelae)** in preclinical

HIV vaccines Phase 1 trials are ongoing

HSV and VZV vaccines in preclinical

Zika vaccine ongoing in a Phase 2 study

Nipah vaccine open IND



moderna

Moderna's therapeutics

Pipeline Highlights

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, IL-12** ongoing in Phase 1
- **Checkpoint vaccine** in preclinical

Cardiovascular
- **VEGF** moving to Phase 2b (AstraZeneca)
- **Relaxin** in preclinical

Autoimmune
- **IL-2** Phase 1 ongoing
- **PD-L1** in preclinical

Rare diseases
- **PA** Phase 1 cohort fully enrolled; enrolling additional cohorts
- **MMA** Phase 1 cohort fully enrolled; enrolling additional cohorts
- **GSD1a** open IND
- **PKU, CN-1** and **CF** in preclinical

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Systemic secreted & cell surface therapeutics	IL-2 *Autoimmune disorders*	mRNA-6231						Worldwide
	Relaxin *Heart failure*	mRNA-0184						Worldwide
	PD-L1 *Autoimmune hepatitis*	mRNA-6981						Worldwide
Cancer vaccines	Personalized cancer vaccine (PCV)	mRNA-4157						50-50 global profit sharing with **Merck**
	KRAS vaccine	mRNA-4671						Worldwide
Intratumoral Immuno-oncology	Checkpoint vaccine	mRNA-4359						Worldwide
	OX40L/IL-23/IL-36γ (Triplet) *Solid tumors/lymphoma*	mRNA-2752						Worldwide
	IL-12 *Solid tumors*	MEDI1191						50-50 U.S. profit sharing; **AZ** to pay royalties on ex-U.S. sales
Localized Regenerative Therapeutics	VEGF-A *Myocardial ischemia*	AZD8601						**AZ** to pay milestones and royalties
	Propionic acidemia (PA)	mRNA-3927						Worldwide
	Methylmalonic acidemia (MMA)	mRNA-3705						Worldwide
Systemic Intracellular Therapeutics	Glycogen storage disease type 1a (GSD1a)	mRNA-3745	Open IND					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

moderna

Propionic acidemia (PA) ongoing in Phase 1/2 study

Propionic Acidemia (PA) is a rare metabolic disorder

- PA is characterized by a deficiency of propionyl-CoA carboxylase (PCC), an enzyme involved in the breakdown (catabolism) of several chemical "building blocks" (amino acids) of proteins
- As a result, harmful compounds can build up to toxic levels in the body
- Leads to serious health problems, including recurrent episodes of life-threatening metabolic decompensation events (MDEs)

Moderna's **mRNA therapy for PA (mRNA-3927) encodes for two protein subunits (PCCA and PCCB) that form the deficient enzyme** (PCC)

paramount study

mRNA-3927 Phase 1/2 study

- Adaptive trial design; enrolling participants >1 years old with PA in the US, UK and Canada
- Patients receive 1 dose of mRNA-3927 every 2 or 3 weeks for 10 doses
- First cohort is fully enrolled and we are enrolling patients into additional cohorts
- All five patients eligible for the Open Label Extension (OLE) study have elected to participate
- Total of 75 doses have been administered across the Phase 1/2 study and OLE study
- Study is evaluating safety, PK/PD, clinical events (incl. MDEs) and biomarkers

moderna

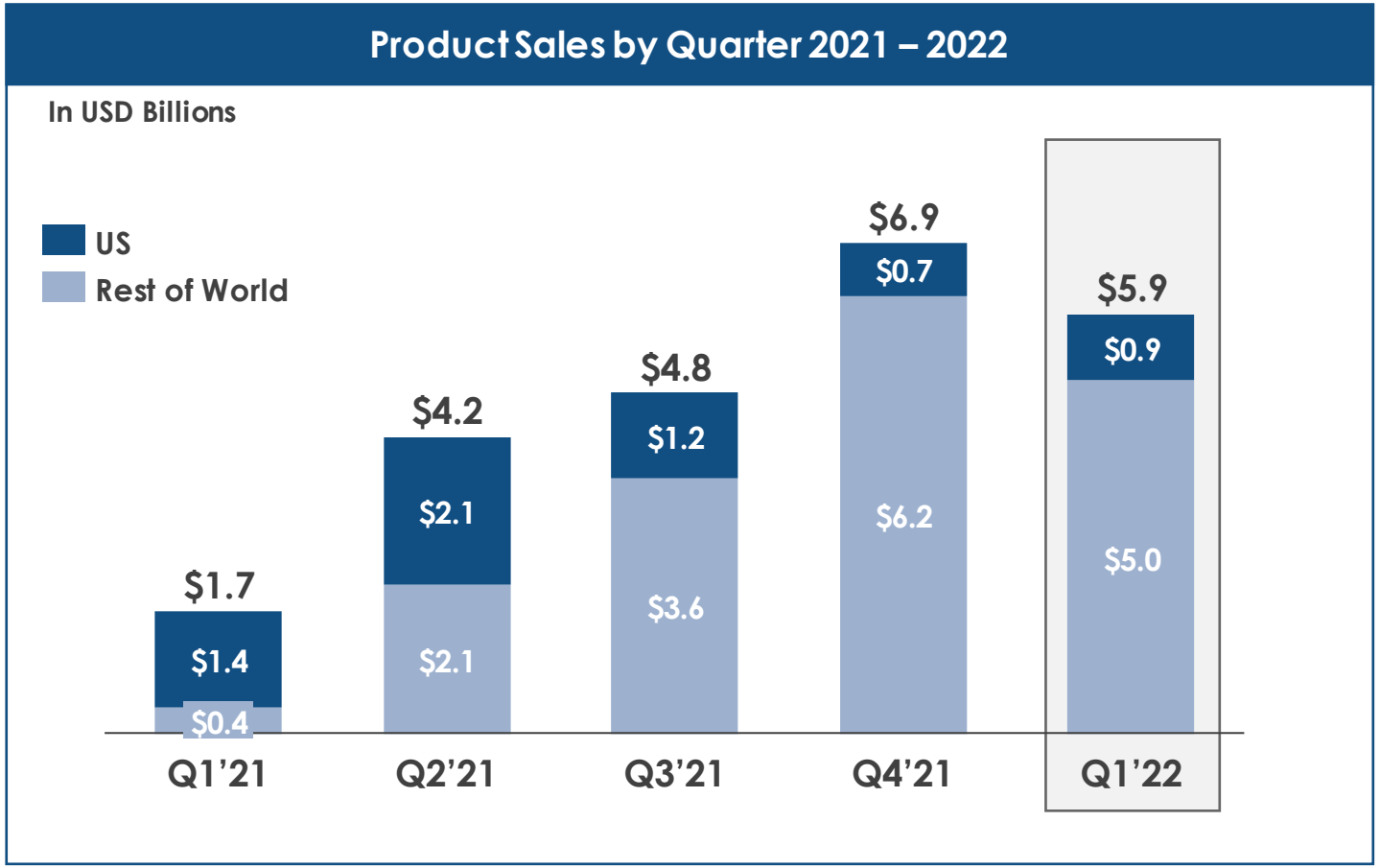
Today's Agenda

1Q22 Earnings Call

1. Business Review – Stéphane Bancel, CEO
2. Spikevax® COVID-19 Vaccine Update – Paul Burton, M.D., Ph.D., CMO
3. Clinical Program Review – Stephen Hoge, M.D., President
4. **Financials – David Meline, CFO**
5. Looking Forward – Stéphane Bancel, CEO

moderna

First quarter 2022 Product Sales of $5.9 billion



Q1 2022 Product Sales: $5.9B

- $5.0B Rest of World
- $0.9B US

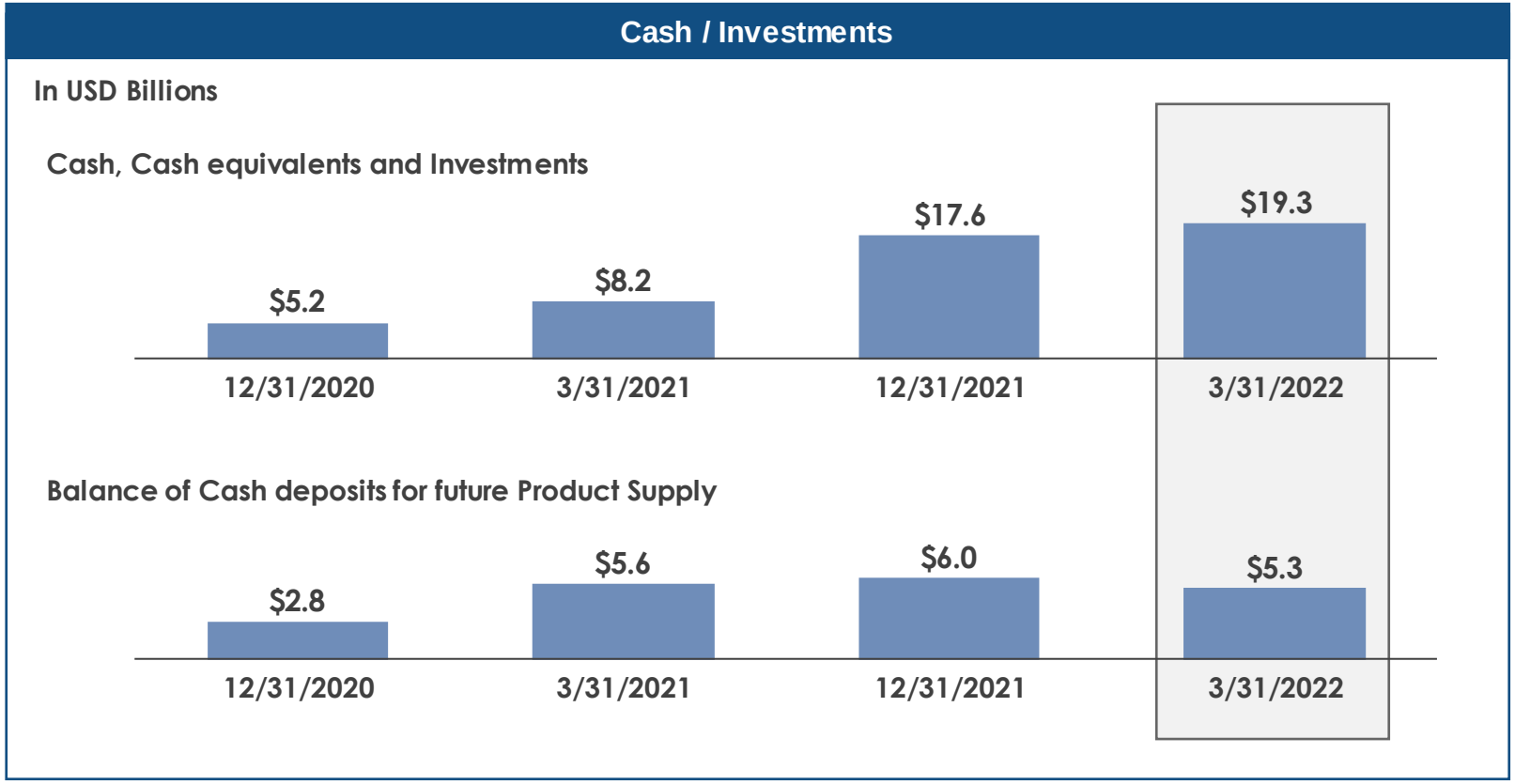
moderna

First quarter 2022 GAAP financial results

In $ millions, except per share amounts (unaudited)	Q1 2022	Q1 2021	QoQ Change (Q1'22 vs. Q1'21)	
Product sales	**$ 5,925**	**$ 1,733**	**$ 4,192**	**242 %**
Grant revenue	126	194	(68)	(35) %
Collaboration revenue	15	10	5	50 %
Total revenue	**6,066**	**1,937**	**4,129**	**213 %**
Cost of sales	1,017	193	824	427 %
Research and development	554	401	153	38 %
Selling, general and administrative	268	77	191	248 %
Total operating expenses	**1,839**	**671**	**1,168**	**174 %**
Income from operations	**4,227**	**1,266**	**2,961**	**234 %**
Other income (expense)	2	(6)	8	133 %
Provision for income taxes	572	39	533	1,367 %
Net income	**$ 3,657**	**$ 1,221**	**$ 2,436**	**200 %**
Earnings per share – Diluted	$ 8.58	$ 2.84	$ 5.74	202 %
Weighted average shares – Diluted	426	430	(4)	(1) %
Effective tax rate	14 %	3 %		

moderna

Cash/ investments and cash deposits



- Cash, Cash equivalents and Investments as of March 31, 2022 at $19.3B, up from $17.6B as of December 31, 2021

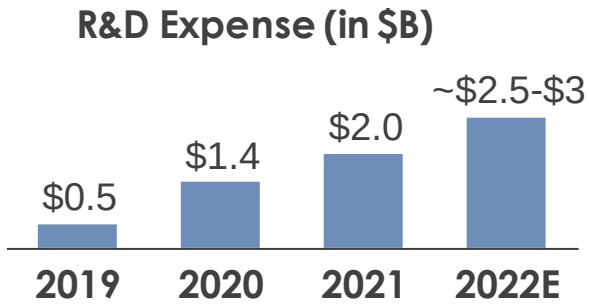
- Balance of Cash deposits for future Product Supply as of March 31, 2022 at $5.3B, below prior quarter driven by product deliveries against customer deposits

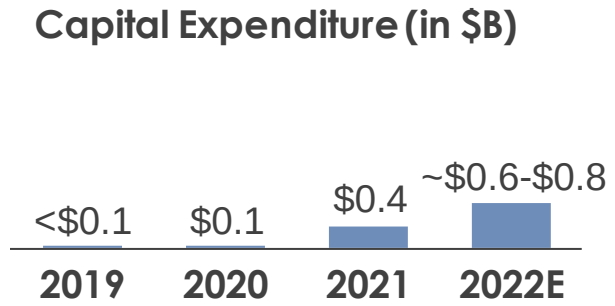
Cash and investments increased, driven by commercial activities

moderna

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

METAGENOMI

carisma THERAPEUTICS

3. **Return capital to shareholders**

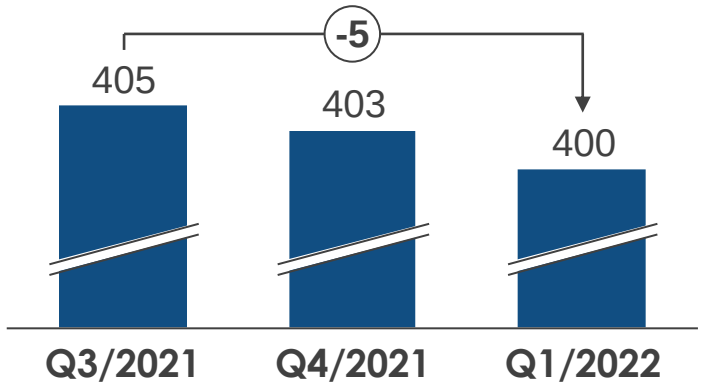
- **Completed original $1 billion share buyback program in January 2022**
- **Announced new $3 billion share buyback program in February 2022; Approximately $2.5 billion remaining capacity from the $3 billion authorization, as of the end of March**
- **Repurchased 3.8M shares for $0.6 billion in Q1 2022**

moderna

Impact of share repurchase program on share count

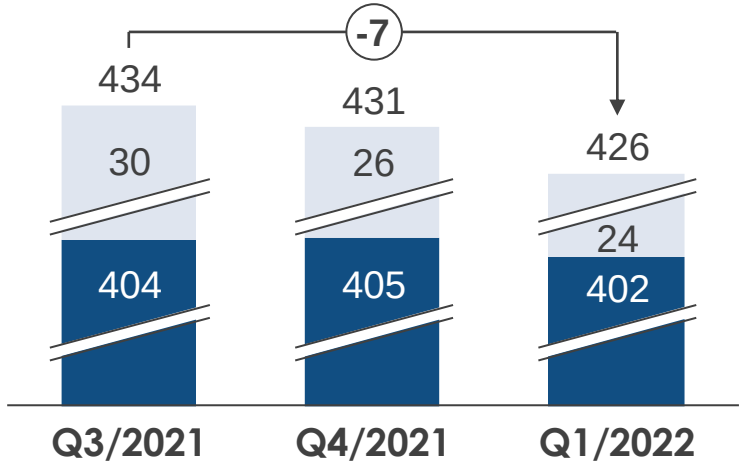
(in shares M)

Basic Shares
Quarter End



- **Quarter ending basic shares declined 5M** from the end of Q3 2021 to Q1 2022, **due to 7M of share repurchase activity**, partially offset by 2M of employee equity compensation

Basic & Diluted
Weighted Average Shares



- **Weighted average diluted shares declined 7M from Q3 2021 to Q1 2022**, primarily due to share repurchase activity and fewer dilutive shares, based on our average stock price during the period, partially offset by new equity awards

Dilutive Balances
Weighted Average Basic Shares

moderna

2022 financial framework

Sales	▪ For expected delivery in FY 2022: Advance Purchase Agreements (APAs) currently signed for product sales of ~$21 billion ▪ We continue to expect sales to be larger in the second half of 2022 than in the first half as SARS-CoV-2 becomes endemic
Cost of sales	▪ We continue to expect full year 2022 reported cost of sales in the low-to-mid 20s percentage range
R&D and SG&A Expenses	▪ We continue to expect full year R&D and SG&A expenses of approximately $4 billion
Tax rate	▪ We continue to expect an effective tax rate for the full year in the mid-teen percentage range
Capital Expenditures	▪ We continue to expect capital expenditures in the range of $0.6-$0.8 billion

moderna

Today's Agenda

1Q22 Earnings Call

1. Business Review – Stéphane Bancel, CEO
2. Spikevax® COVID-19 Vaccine Update – Paul Burton, M.D., Ph.D., CMO
3. Clinical Program Review – Stephen Hoge, M.D., President
4. Financials – David Meline, CFO
5. **Looking Forward – Stéphane Bancel, CEO**

moderna

New additions to executive committee

Jorge Gomez
Chief Financial Officer
Previously CFO of Dentsply Sirona and Cardinal Health

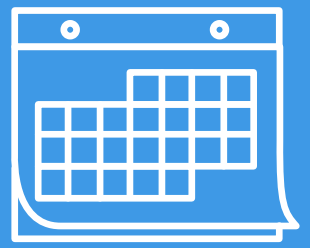
Arpa Garay
Chief Commercial Officer
Previously Chief Marketing Officer for Merck's Human Health business

moderna

Moderna's 2022 priorities

1. Execute on $21B signed APAs and prepare for Fall booster
2. Execute on four Phase 3 vaccine programs, which could lead to three respiratory commercial launches over the next two to three years
3. Advance therapeutic programs and share proof-of-concept readouts for our PA, MMA and PCV programs
4. Bring forward more mRNA candidates into development
5. Expand our mRNA platform

moderna



Save the Date
Events in 2022

Science Day
May 17th

R&D Day
September 8th

ESG Day
November 10th

moderna

Our mission

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

moderna

Moderna's Respiratory Vaccines (Pipeline 1/3)

Modality	Program	ID #	Preclinical development / Phase 1 / Phase 2 / Phase 3 / Commercial	Moderna rights
Adults	COVID-19 vaccine	mRNA-1273/Spikevax®		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-1273.529	Omicron variant	Worldwide
		mRNA-1273.214	Omicron variant + wild-type	Worldwide
		mRNA-1283	Next generation (2-5 °C)	Worldwide
	Flu vaccine	mRNA-1010	Phase 3 prep	Worldwide
		mRNA-1011		Worldwide
		mRNA-1012		Worldwide
		mRNA-1020		Worldwide
		mRNA-1030		Worldwide
	Older adults RSV vaccine	mRNA-1345		Worldwide
	COVID + Flu vaccine	mRNA-1073		Worldwide
	COVID + Flu + RSV vaccine	mRNA-1230		Worldwide
	Endemic HCoV vaccine	mRNA-1287		Worldwide
Adolescents & Pediatrics	COVID-19 vaccine (adolescents)	mRNA-1273	TeenCOVE	Worldwide
	COVID-19 vaccine (pediatrics)	mRNA-1273	KidCOVE	Worldwide
	Pediatric RSV vaccine	mRNA-1345		Worldwide
	Pediatric hMPV + PIV3 vaccine	mRNA-1653		Worldwide
	Pediatric RSV + hMPV vaccine	mRNA-1365		Worldwide

moderna

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

Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Latent vaccines	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**						Worldwide ***BARDA*** *funded*
	Nipah vaccine	**mRNA-1215**	Open IND					Worldwide ***NIH*** *funded*

moderna

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	IL-2 *Autoimmune disorders*	**mRNA-6231**						Worldwide
	Relaxin *Heart failure*	**mRNA-0184**						Worldwide
	PD-L1 *Autoimmune hepatitis*	**mRNA-6981**						Worldwide
Cancer vaccines	Personalized cancer vaccine (PCV)	**mRNA-4157**						50-50 global profit sharing with **Merck**
	KRAS vaccine	**mRNA-4671**						Worldwide
	Checkpoint vaccine	**mRNA-4359**						Worldwide
Intratumoral Immuno-oncology	OX40L/IL-23/IL-36γ (Triplet) *Solid tumors/lymphoma*	**mRNA-2752**						Worldwide
	IL-12 *Solid tumors*	**MEDI1191**						50-50 U.S. profit sharing; **AZ** to pay royalties on ex-U.S. sales
Localized Regenerative Therapeutics	VEGF-A *Myocardial ischemia*	**AZD8601**						**AZ** to pay milestones and royalties
	Propionic acidemia (PA)	**mRNA-3927**						Worldwide
	Methylmalonic acidemia (MMA)	**mRNA-3705**						Worldwide
Systemic Intracellular Therapeutics	Glycogen storage disease type 1a (GSD1a)	**mRNA-3745**	Open IND					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

moderna