First Quarter 2022 Financial Results
May 4\textsuperscript{th}, 2022
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Today’s agenda

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
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
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

<table>
<thead>
<tr>
<th>Month</th>
<th>Oct '21</th>
<th>Oct '22</th>
<th>Apr '22</th>
<th>Oct '21</th>
<th>Oct '22</th>
<th>Apr '22</th>
<th>Oct '21</th>
<th>Oct '22</th>
<th>Apr '22</th>
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<td>44%</td>
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<td>10%</td>
<td>11%</td>
<td>2%</td>
<td>11%</td>
<td>2%</td>
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<td>3%</td>
<td>54%</td>
<td>52%</td>
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</tbody>
</table>

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.

- 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

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

Includes 4th dose data for Canada and South Korea
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 as of May 2022

<table>
<thead>
<tr>
<th>Pipeline</th>
<th>Programs in development</th>
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<tbody>
<tr>
<td><strong>Commercial</strong></td>
<td>Moderna COVID-19 Vaccine/Spikevax®</td>
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<tr>
<td><strong>Phase 3</strong></td>
<td>COVID boosters, RSV, CMV</td>
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<tr>
<td><strong>Phase 2</strong></td>
<td>Flu, Zika, PCV, VEGF-A</td>
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<tr>
<td><strong>46 development programs</strong></td>
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</tr>
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</table>

### 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)

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(1) As of March 31, 2022; Cash and investments denotes cash, cash equivalents and investments
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SARS-CoV-2 continues to evolve rapidly

- 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.

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

Vaccine effectiveness against symptomatic disease after 2 doses or a booster dose across vaccine types

Primary series: BNT162b2, ChAdOx1, mRNA-1273
Booster dose: BNT162b2 or mRNA-1273
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
People at high-risk who would benefit from annual boosting

- 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)

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

- 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)

Primary focus has been on the bivalent approach.

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.
Overview of bivalent candidates in clinical development

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

<table>
<thead>
<tr>
<th>Trial</th>
<th>Booster</th>
<th>Dose</th>
<th>Subjects(n)</th>
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<tbody>
<tr>
<td>Phase 2</td>
<td>mRNA-1273</td>
<td>50 µg</td>
<td>171</td>
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<tr>
<td>Phase 2/3</td>
<td>.211</td>
<td>50 µg</td>
<td>300</td>
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<td>(9 mutations; wild-type and Beta)</td>
<td>100 µg</td>
<td>595</td>
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<td>Phase 2/3</td>
<td>.213</td>
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<td>(11 mutations; Beta and Delta)</td>
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<td>Phase 3</td>
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<td></td>
<td>(32 mutations; wild-type and Omicron)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>.214</td>
<td>50 µg</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td>(32 mutations; wild-type and Omicron)</td>
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</tr>
</tbody>
</table>

- 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
- 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
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)
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 ID50

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

Modernas 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

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<th>Modality</th>
<th>Program</th>
<th>ID #</th>
<th>Preclinical development</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
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<tr>
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Modernas 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)
- **Relxin** 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

<table>
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<td>Solid tumors</td>
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<td>50-50 global profit sharing with Merck</td>
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<tr>
<td></td>
<td>Myocardial ischemia</td>
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<td>10% to 20% milestone and royalties</td>
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<tr>
<td></td>
<td>Proplonic acidemia (PA)</td>
<td>mRNA-3927</td>
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<td>Worldwide</td>
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<td>Systemic Intracellular Therapeutics</td>
<td>Methylmalonic acidemia (MMA)</td>
<td>mRNA-3705</td>
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<td>Glycogen storage disease type 1a (GSD1a)</td>
<td>mRNA-3746</td>
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<td></td>
<td>Phenyketonuria (PKU)</td>
<td>mRNA-3283</td>
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<td>Inhaled Pulmonary Therapeutics</td>
<td>Crigger- Najjar syndrome type 1 (CN-1)</td>
<td>mRNA-3361</td>
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<td>Provided to ILCM, free of charge</td>
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<td></td>
<td>Cystic fibrosis (CF)</td>
<td>VX-822</td>
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<td>Vertex to pay milestones and royalties</td>
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</tbody>
</table>
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)

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
Today’s Agenda

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
First quarter 2022 Product Sales of $5.9 billion

Product Sales by Quarter 2021 – 2022

In USD Billions

- US
- Rest of World

Q1’21: $1.7
  - US: $1.4
  - Rest of World: $0.4

Q2’21: $4.2
  - US: $2.1
  - Rest of World: $2.1

Q3’21: $4.8
  - US: $3.6
  - Rest of World: $1.2

Q4’21: $6.9
  - US: $6.2
  - Rest of World: $0.7

Q1’22: $5.9
  - US: $5.0
  - Rest of World: $0.9

Q1 2022 Product Sales: $5.9B
- $5.0B Rest of World
- $0.9B US
First quarter 2022 GAAP financial results

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

Cash and investments increased, driven by commercial activities

<table>
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<tr>
<th></th>
<th>In USD Billions</th>
<th>12/31/2020</th>
<th>3/31/2021</th>
<th>12/31/2021</th>
<th>3/31/2022</th>
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</thead>
<tbody>
<tr>
<td>Cash, Cash equivalents and Investments</td>
<td>$5.2</td>
<td>$8.2</td>
<td>$17.6</td>
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<tr>
<td>Balance of Cash deposits for future Product Supply</td>
<td>$2.8</td>
<td>$5.6</td>
<td>$6.0</td>
<td>$5.3</td>
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</tbody>
</table>

- 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
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

- 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

R&D Expense (in $B) | Capital Expenditure (in $B)
--- | ---
2019: $0.5 | 2019: <$0.1
2020: $1.4 | 2020: $0.1
2021: $2.0 | 2021: $0.4
2022E: ~$2.5-$3 | 2022E: ~$0.6-$0.8
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
2022 financial framework

- **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
Today’s Agenda

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3. Clinical Program Review – Stephen Hoge, M.D., President
4. Financials – David Meline, CFO
5. Looking Forward – Stéphane Bancel, CEO
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’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
Save the Date

Events in 2022

- **Science Day**
  May 17th

- **R&D Day**
  September 8th

- **ESG Day**
  November 10th
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)

<table>
<thead>
<tr>
<th>Modality</th>
<th>Program</th>
<th>ID #</th>
<th>Preclinical development</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Commercial</th>
<th>Modena rights</th>
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<tbody>
<tr>
<td>Adults</td>
<td>COVID-19 vaccine</td>
<td>mRNA-1273/Spikevax®</td>
<td>Preclinical</td>
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<tr>
<td></td>
<td>mRNA-1010</td>
<td>Flu vaccine</td>
<td>Preclinical development</td>
<td>Phase 3 prep</td>
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<tr>
<td></td>
<td>mRNA-1011</td>
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<tr>
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<td>mRNA-1073</td>
<td>COVID + Flu vaccine</td>
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<tr>
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<td>mRNA-1230</td>
<td>COVID + Flu + RSV vaccine</td>
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<td>COVID-19 vaccine (pediatrics)</td>
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<td>KidCOVE</td>
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<td>Pediatric RSV vaccine</td>
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<td>Pediatric hMPV + PIV3 vaccine</td>
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<td>Pediatric RSV + hMPV vaccine</td>
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# Moderna’s Latent & Public Health Vaccines (Pipeline 2/3)

## Latent vaccines

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<th>Phase 2</th>
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<td>CMV vaccine</td>
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</tr>
<tr>
<td></td>
<td>EBV vaccine (to prevent infectious mononucleosis)</td>
<td>mRNA-1189</td>
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<td></td>
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<td>Worldwide</td>
<td></td>
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<tr>
<td></td>
<td>EBV vaccine (to prevent EBV sequelae)</td>
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<td>HSV vaccine</td>
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<tr>
<td></td>
<td>VZV vaccine</td>
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<td>Worldwide</td>
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<tr>
<td></td>
<td>HIV vaccines</td>
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<td>Zika vaccine</td>
<td>mRNA-1893</td>
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<td>Nipah vaccine</td>
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## Public health vaccines

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<tr>
<td>Public health</td>
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<td>vaccines</td>
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### Moderna’s Therapeutics (Pipeline 3/3)

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<th>Phase 3</th>
<th>Commercial</th>
<th>Moderna rights</th>
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<tbody>
<tr>
<td>Systemic secreted &amp; cell surface therapeutics</td>
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<td>mRNA-6231</td>
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<td>Relaxin Heart failure</td>
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<td>PD-L1 Autoimmune hepatitis</td>
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<td>50-50 global profit sharing with Merck</td>
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<td>MEDI1191</td>
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<td>50-50 U.S. profit sharing; AZ to pay royalties on ex-U.S. sales</td>
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<td>AZ to pay milestones and royalties</td>
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<td>Vertex to pay milestones and royalties</td>
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**Note:** The table shows the status of the development for each program, with phases marked by colors: red for preclinical, blue for Phase 1, green for Phase 2, and pink for Phase 3. The commercial terms are specified for each program.