Business Updates
Fourth Quarter & Full Year 2020 Financial Results
February 25, 2021
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: the Company’s development of the Moderna COVID-19 Vaccine (mRNA-1273); the accounting treatment for individual items related to the Company's financial statements; anticipated cost of sales for the Moderna COVID-19 Vaccine; anticipated selling, general and administrative costs and research and development costs; trends with respect to the Company’s costs and expenses; orders for the Company's Moderna COVID-19 Vaccine, both inside and outside the U.S., anticipated doses to be delivered under advance purchase agreements in 2021 and the associated dollar amounts to be received, which should not be construed as expected 2021 revenue; expected timing of execution of the Purchase Agreement by the European Commission for additional vaccine doses; negotiations for future sales of the COVID-19 vaccine; the Company’s future tax rate and status as a tax-paying entity; the status of regulatory approvals for the Moderna COVID-19 Vaccine; potential future cash flows, profitability and balance sheet strength; the Company's ability to invest in and scale operations; the number of doses of the Moderna COVID-19 Vaccine that the Company anticipates being able to manufacture in 2021 and 2022 and on a quarterly basis, and investments to facilitate that manufacturing; the Company’s establishment of additional subsidiaries and development of its commercial network; the Company’s efforts to continue developing vaccines against COVID-19, including efforts to develop vaccines against variant strains of SARS-CoV-2 and for booster doses; the status of developments for programs in the Company’s pipeline, including with respect to the timing, enrollment and potential results of clinical trials; and the ability of mRNA-based technology to be utilized for the development of SARS-CoV-2 variant vaccines. 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: the fact that there has never been a commercial product utilizing mRNA technology approved for use; the fact that the rapid response technology in use by Moderna is still being developed and implemented; the safety, tolerability and efficacy profile of the Moderna COVID-19 Vaccine observed to date may change adversely in ongoing analyses of trial data or subsequent to commercialization; the Moderna COVID-19 Vaccine may prove less effective against variants of the SARS-CoV-2 virus, or the Company may be unsuccessful in developing future versions of its vaccine against these variants; despite having ongoing interactions with the FDA or other regulatory agencies, the FDA or such other regulatory agencies may not agree with the Company’s regulatory approval strategies, components of our filings, such as clinical trial designs, conduct and methodologies, or the sufficiency of data submitted; Moderna may encounter delays in meeting manufacturing or supply timelines or disruptions in its distribution plans for the Moderna COVID-19 Vaccine; whether and when any biologics license applications and/or additional emergency use authorization applications may be filed in various jurisdictions and ultimately approved by regulatory authorities; potential adverse impacts due to the global COVID-19 pandemic such as delays in regulatory review, manufacturing and clinical trials, supply chain interruptions, adverse effects on healthcare systems and disruption of the global economy; and those other risks and uncertainties described under the heading “Risk Factors” in Moderna's most recent Quarterly Report on Form 10-Q 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 hereof.
**Moderna COVID-19 Vaccine: Indication & Safety Information**

**Authorized Use in the United States:**

The Moderna COVID-19 Vaccine is authorized for use under an Emergency Use Authorization (EUA) from the U.S. Food and Drug Administration (FDA) for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 18 years of age and older.

**Important Safety Information:**

- Do not administer the Moderna COVID-19 Vaccine to individuals with a known history of severe allergic reaction (e.g., anaphylaxis) to any component of the Moderna COVID-19 Vaccine.

- Appropriate medical treatment to manage immediate allergic reactions must be immediately available in the event an acute anaphylactic reaction occurs following administration of the Moderna COVID-19 Vaccine. Monitor Moderna COVID-19 Vaccine recipients for the occurrence of immediate adverse reactions according to the Centers for Disease Control and Prevention guidelines (https://www.cdc.gov/vaccines/covid-19/).

- Immunocompromised persons, including individuals receiving immunosuppressive therapy, may have a diminished response to the Moderna COVID-19 Vaccine.

- The Moderna COVID-19 Vaccine may not protect all vaccine recipients.

- Adverse reactions reported in a clinical trial following administration of the Moderna COVID-19 Vaccine include pain at the injection site, fatigue, headache, myalgia, arthralgia, chills, nausea/vomiting, axillary swelling/tenderness, fever, swelling at the injection site, and erythema at the injection site. Additional adverse reactions, some of which may be serious, may become apparent with more widespread use of the Moderna COVID-19 Vaccine.

- Available data on Moderna COVID-19 Vaccine administered to pregnant women are insufficient to inform vaccine-associated risks in pregnancy. Data are not available to assess the effects of Moderna COVID-19 Vaccine on the breastfed infant or on milk production/excretion.

- There are no data available on the interchangeability of the Moderna COVID-19 Vaccine with other COVID-19 vaccines to complete the vaccination series. Individuals who have received one dose of Moderna COVID-19 Vaccine should receive a second dose of Moderna COVID-19 Vaccine to complete the vaccination series.

- Additional adverse reactions, some of which may be serious, may become apparent with more widespread use of the Moderna COVID-19 Vaccine.

- Vaccination providers must complete and submit reports to VAERS online at https://vaers.hhs.gov/reportevent.html. For further assistance with reporting to VAERS, call 1-800-822-7967. The reports should include the words “Moderna COVID-19 Vaccine EUA” in the description section of the report.
4Q20 earnings call agenda

1. 2020: A historic year
   Business Review – Stéphane Bancel – CEO
   Financials – David Meline – CFO

2. 2021: An inflection year
   Business Objectives – Stéphane Bancel – CEO
   Clinical Objectives – Stephen Hoge (President) & Tal Zaks (CMO)
2020 was a historic year

January

Early-stage development company

July

Late-stage development company (with the start of our first Phase 3)

December

Commercial company

2019

• No approved products
• Negative cash flow from operations
• Multiple capital raises needed to reach break even

2020

• First product authorized/First product revenues
• Q3 and Q4 positive cash flow from operations
• Strong cash balance + cash generation

2020 demonstrated the power of harnessing mRNA to make medicines and showed the speed and scalability of the Moderna platform
Received Emergency Use Authorization

- United States (US FDA)
- Canada (Health Canada)

Started rolling submissions in:

- European Union (EMA)
- United Kingdom (MHRA)
- Israel (MOH)
- Singapore (HSA)
- Switzerland (Swissmedic)
Modernata expanded its commercial network through new subsidiaries and partners in 2020

- Moderna USA
- Moderna Canada
- Europe
  - Moderna France
  - Moderna Germany
  - Moderna Italy
  - Moderna Spain
  - Moderna UK
  - Moderna Switzerland
- Israel (Partner: Medison)
- Japan (Partner: Takeda)

Expanded commercial network will enable Moderna’s entire portfolio
# Moderna as of February 2021

## Commercial
- **COVID-19 vaccine**
- **CMV vaccine**

## Phase 3 preparation
- **PCV, OX40L, VEGF**

## Phase 2
- **12 positive Phase 1 readouts**
  - 8 ID vaccines
  - PCV, OX40L, VEGF, anti-Chikungunya antibody (repeat dose)

## Infectious Disease Vaccines
- **9 Vaccines for major unmet needs**
- COVID-19 launched
- CMV Positive Phase 2, Phase 3 preparation
- hMPV/PIV3 Phase 1b age de-escalation study ongoing
- RSV, Zika in Phase 1
- Flu, EBV, HIV and Nipah in preclinical

## mRNA Therapeutics
- **4 Therapeutic areas**
  - **5 Immuno-Oncology**: PCV, OX40L in Ph 2; Triplet, IL-12, KRAS in Ph 1
  - **4 Rare Diseases**: PA open IND; MMA, PKU, GSD1a in preclinical
  - **2 Cardiovascular Diseases**: VEGF in Phase 2; Relaxin in preclinical
  - **2 Autoimmune Diseases**: IL-2 and PD-L1 in preclinical

## Foundations
- **>1,300 Employees**
- **6th Consecutive year top employer by Science**
- **700 million to 1 billion doses to be produced in 2021**
- **8 commercial subsidiaries across North America & Europe**
- **$5.25B of cash and investments (unaudited)**

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1. As of December 31, 2020; Cash and investments denotes cash, cash equivalents and investments

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**Slide 8**
4Q20 earnings call agenda

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## Key accounting issues related to Moderna COVID-19 Vaccine

**Chart presented during 3Q20 earnings call**

<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>Accounting Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Practice (through approval event)</strong></td>
<td><strong>Approval Event (Example – EUA)</strong></td>
</tr>
<tr>
<td>• Commercial Inventory</td>
<td>Expensed as R&amp;D in the period incurred</td>
</tr>
<tr>
<td>• PP&amp;E, Leased Assets (Primarily Lonza)</td>
<td>Expensed as R&amp;D for items deemed to have no immediate alternative use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P&amp;L</th>
<th>Accounting Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Product Sales</td>
<td>Customer deposits recorded as Deferred Revenue</td>
</tr>
<tr>
<td>• BARDA award</td>
<td>Revenue is recognized as we perform services under the agreement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tax</th>
<th>Accounting Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Net operating loss (NOLs) / Valuation Allowance</td>
<td>No change to 100% Valuation Allowance in 2020</td>
</tr>
</tbody>
</table>
### Fourth quarter and full year 2020 financial results

#### In $ Millions

<table>
<thead>
<tr>
<th>Statements of Operations</th>
<th>3 months ended December 31, 2020 (unaudited)</th>
<th>3 months ended December 31, 2019 (unaudited)</th>
<th>Year ended December 31, 2020 (unaudited)</th>
<th>Year ended December 31, 2019 (audited)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product sales ¹</td>
<td>$ 200</td>
<td>-</td>
<td>$ 200</td>
<td>-</td>
</tr>
<tr>
<td>Grant revenue ²</td>
<td>$ 341</td>
<td>$ 3</td>
<td>$ 529</td>
<td>$ 12</td>
</tr>
<tr>
<td>Collaboration revenue</td>
<td>$ 30</td>
<td>$ 11</td>
<td>$ 74</td>
<td>$ 48</td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td><strong>$ 571</strong></td>
<td><strong>$ 14</strong></td>
<td><strong>$ 803</strong></td>
<td><strong>$ 60</strong></td>
</tr>
<tr>
<td>Cost of sales</td>
<td>$ 8</td>
<td>-</td>
<td>$ 8</td>
<td>-</td>
</tr>
<tr>
<td>Research and development expenses</td>
<td>$ 759</td>
<td>$ 118</td>
<td>$ 1,370</td>
<td>$ 496</td>
</tr>
<tr>
<td>Selling, General and administrative expenses</td>
<td>$ 79</td>
<td>$ 26</td>
<td>$ 188</td>
<td>$ 110</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td><strong>$ 846</strong></td>
<td><strong>$ 144</strong></td>
<td><strong>$ 1,566</strong></td>
<td><strong>$ 606</strong></td>
</tr>
<tr>
<td>Net loss</td>
<td>$ (272)</td>
<td>$ (123)</td>
<td>$ (747)</td>
<td>$ (514)</td>
</tr>
</tbody>
</table>

1. In December 2020, we began to recognize revenue from sales of our COVID-19 vaccine to the U.S Government and international governmental agencies
2. Grant revenue increased in 2020, primarily related to the BARDA Agreement to accelerate development of our COVID-19 vaccine
## Cash and selected cash flow information

<table>
<thead>
<tr>
<th>Balance Sheets</th>
<th>September 30, 2020</th>
<th>December 31, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash, cash equivalents and investments</td>
<td>$3.97 billion</td>
<td>$5.25 billion</td>
</tr>
</tbody>
</table>

### Statements of Cash Flows

<table>
<thead>
<tr>
<th></th>
<th>3 months ended March 31, 2019 (unaudited)</th>
<th>6 months ended June 30, 2019 (unaudited)</th>
<th>9 months ended Sept. 30, 2019 (unaudited)</th>
<th>Year ended Dec. 31, 2019 (audited)</th>
<th>3 months ended March 31, 2020 (unaudited)</th>
<th>6 months ended June 30, 2020 (unaudited)</th>
<th>9 months ended Sept. 30, 2020 (unaudited)</th>
<th>Year ended Dec. 31, 2020 (unaudited)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net cash provided by (used in) operating activities</td>
<td>$(144) M</td>
<td>$(253) M</td>
<td>$(360) M</td>
<td>$(459) M</td>
<td>$(106) M</td>
<td>$(130) M</td>
<td>$(763) M</td>
<td>$(2,027) M</td>
</tr>
</tbody>
</table>

Considerations as we became a commercial company late in Q4

### R&D and SG&A Expenses

<table>
<thead>
<tr>
<th></th>
<th>In USD Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2020 R&amp;D and SG&amp;A expenses (reported)</td>
<td>0.8</td>
</tr>
<tr>
<td>Certain R&amp;D charges prior to commercial authorization</td>
<td>-0.3</td>
</tr>
<tr>
<td>Q4 2020 Adjusted R&amp;D and SG&amp;A expenses (underlying)</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Cost of Sales (CoS)

<table>
<thead>
<tr>
<th></th>
<th>In USD Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 Cost of Sales Reported</td>
<td>8</td>
</tr>
<tr>
<td>Zero-cost prelaunch inventory</td>
<td>55</td>
</tr>
<tr>
<td>Q4 Cost of Sales Adjusted</td>
<td>62</td>
</tr>
</tbody>
</table>

~ 31% of product sales; includes ramp up costs and royalties

### Cash and Investments

<table>
<thead>
<tr>
<th></th>
<th>In USD Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/30/2020</td>
<td>4.0</td>
</tr>
<tr>
<td>12/31/2020</td>
<td>5.3</td>
</tr>
<tr>
<td>12/31/2020 Balance of Customer Deposits</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Balance of Cash deposits for future Product Supply

### Tax Rate Considerations

<table>
<thead>
<tr>
<th></th>
<th>In USD Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/2019 Net operating loss carry-forwards</td>
<td>1.0</td>
</tr>
<tr>
<td>12/31/2020 Net operating loss carry-forwards</td>
<td>2.3</td>
</tr>
</tbody>
</table>
Modernas COVID-19 Vaccine supply agreements

Deals signed

- United States (300 million doses with option for additional 200 million doses)
- European Union (310 million doses with option for additional 150 million doses in 2022)
- Japan (50 million doses)
- Canada (44 million doses)
- South Korea (40 million doses)
- United Kingdom (17 million doses)
- Switzerland (13.5 million doses)
- Colombia (10 million doses)
- Israel (6 million doses)
- Taiwan (5 million doses)
- Qatar
- Singapore

Deals in negotiation

- COVAX
- Additional doses in 2021 and 2022 for existing and new customers

1. US press release; EU press release; Japan press release; Canada press release; South Korea press release; UK press release; Switzerland press release; Colombia & Taiwan press release; Israel press release; Qatar press release; Singapore press release

2. On February 18, 2021, the European Commission advised Moderna it had successfully tendered for the provision of 150 million doses of COVID-19 Vaccine Moderna in 2021 and an option to purchase an additional 150 million doses in 2022; this tender is subject to execution of the Purchase Agreement, which is expected February 26, 2021, following an opt out period for individual Member States.
For expected delivery in 2021: Advance Purchase Agreements (APAs) already signed for product sales of ~$18.4 billion^1^.

- FY dose capacity for 2021: minimum of 700M up to 1 billion doses (at 100μg / dose)
- 2021 Q1 forecast for released doses: 100M - 125M
- 2021 Q2 forecast for released doses: 200M - 250M

Q4 2020 reported cost of sales at 4% of product sales, but at 31%, when adjusted for previously expensed inventory cost

- 2021 reported cost of sales currently expected at approximately 20% of product sales

Q4 2020 R&D and SG&A expenses at $0.8 billion, adjusted for certain R&D charges prior to commercial authorization $0.5 billion

- Q1 2021 R&D and SG&A expense run rate increase vs adjusted Q4 expected in low double digit percentage range
- Currently expect continued cost increases in 2021 as commercial and research and development activities and expenses ramp up

In 2021 Moderna expects to transition to tax paying status; as a US based company our statutory tax rate of 21% will be impacted by our global sales mix as well as our net operating loss carryforward of $2.3 billion, which we accumulated since inception of the company

- For 2021 we expect the effective tax rate in the mid-teen percentage level as a result of the expected global sales mix and utilization of the accumulated net operating loss carry-forwards

$350 – 400 million of capital investments currently planned for 2021

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^1^ On February 18, 2021, the European Commission advised Moderna it had successfully tendered for the provision of 150 million doses of COVID-19 Vaccine Moderna in 2021 and an option to purchase an additional 150 million doses in 2022; this tender is subject to execution of the Purchase Agreement, which is expected February 26, 2021, following an opt out period for individual Member States.
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2. **2021: An inflection year**
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   - Clinical Objectives – Stephen Hoge (President) & Tal Zaks (CMO)
Moderna’s COVID-19 vaccine is now authorized in 37 countries

Received Emergency Use Authorization/conditional approvals

- United States (US FDA)
- Canada (Health Canada)
- European Union (EMA/EC)
- United Kingdom (MHRA)
- Israel (MOH)
- Switzerland (Swissmedic)
- Singapore (HSA)
- Qatar (Ministry of Public Health)

Started regulatory engagements with:

- World Health Organization
- Japan (PMDA)
- Taiwan (TFDA)
- Philippines (PH FDA)
- Indonesia (BPOM)

**Bold:** Authorizations already received in 2021
2021 will be an inflection year for Moderna

<table>
<thead>
<tr>
<th>Year</th>
<th>No approved products</th>
<th>Cash flow</th>
<th>Profitable</th>
<th>Strong balance sheet +</th>
<th>Positive Cash flow in two quarters</th>
<th>Strong balance sheet + 4Qs of positive cash flows</th>
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<tr>
<td>2019</td>
<td>No approved products</td>
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<td></td>
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<tr>
<td>2020</td>
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<tr>
<td>2021</td>
<td>Authorized product</td>
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<td>Profitable</td>
<td>Strong balance sheet +</td>
<td>Positive Cash flow in two quarters</td>
<td>Strong balance sheet + 4Qs of positive cash flows</td>
</tr>
</tbody>
</table>

**From**

Believe mRNA vaccine can be approved; negative cash flows; keep cash on the balance sheet to manage financing risk

**To**

Know mRNA vaccine can be approved; positive cash flow; ability to invest & scale
2021 will be an inflection year for Moderna

<table>
<thead>
<tr>
<th>FY 2021 APAs</th>
<th>FY 2021 Supply</th>
<th>Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signed ~$18.4 billion (as of 02/24/21)</td>
<td>Raising base case production to 700 million to 1 billion doses</td>
<td>Goal to make the Moderna COVID-19 vaccine available in as many countries as possible around the world</td>
</tr>
</tbody>
</table>
2022 manufacturing capacity

New capex investments to create capacity of 1.4 billion doses (assuming 100 μg)

<table>
<thead>
<tr>
<th>2022 Capacity</th>
<th>Previous</th>
<th>1.2 B doses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ 0.2 B doses @ 100 μg</td>
<td>1.4 B doses</td>
</tr>
</tbody>
</table>

| 2022 Output | 1.4 B doses @ 100 μg | OR | 1.0 B doses @ 100 μg |
|            | + 0.8 B doses @ 50 μg | OR | 0.8 B doses @ 100 μg |
|            |                        | OR | 1.2 B doses @ 50 μg |
|            |                        |    | 2.0 B doses          |
We will continue to increase the scale of our commercial network in 2021

Planned in 2021:

• Moderna Japan
• Moderna South Korea
• Moderna Australia
• Eastern Europe (distributor)
• ASEAN (distributor)
Hired Corinne Le Goff, Pharm.D as our first Chief Commercial Officer in January

Chief Commercial Officer

Joining from Amgen
Previously SVP and President of the U.S. Business Organization
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     - Overview of SARS-CoV-2 variant strategy
     - Summary of ongoing clinical trials across six modalities
Modernas approach to SARS-CoV-2 variants of concern (VOC)

Initial data confirms that the Moderna COVID-19 Vaccine (mRNA-1273) provides neutralizing activity against variants of concern. Out of an abundance of caution, we have announced multiple strategies to increase protection against the variants.

Modernas approach

- The immune response generated by original strains appears to be relatively weaker against the B.1.351/P.1 variants.
- This might lead to a gap in immunity generated by prior infection or immunization against the original strains when or if immunity wanes in the future.
- We plan to close this gap with a variant-specific update to our vaccine.

Two different populations

- For those who have been immunized (or infected) by original strains: Anticipate boosting (3rd dose) with a variant-specific booster vaccine, either alone or in combination with the vaccine against the ancestral strain.
- For those who are still naïve to SARS-CoV-2: Anticipate immunizing with an updated vaccine that aims to provide immunity to both the ancestral strains and variants of concern.
Modernas COVID-19 Vaccines are ongoing in multiple trials

<table>
<thead>
<tr>
<th>Prophylactic Vaccines</th>
<th>Clinical Strategy – Proactive Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expansion (mRNA-1273)</strong></td>
<td><strong>TeenCOVE</strong>: Phase 2/3 study in adolescents ages 12-17 years is fully enrolled</td>
</tr>
<tr>
<td></td>
<td><strong>KidCOVE</strong>: Phase 2 study in pediatric population ages 6 months-11 years to begin in the near term</td>
</tr>
<tr>
<td></td>
<td><strong>Phase 1/2 study in Japan ongoing (led by Takeda)</strong></td>
</tr>
<tr>
<td><strong>SARS-CoV-2 Variant Studies (mRNA-1273.351, mRNA-1273.211, mRNA-1273)</strong></td>
<td><strong>A variant-specific booster candidate, mRNA-1273.351, based on the B.1.351 variant first identified in the Republic of South Africa, at the 50 µg dose level and lower</strong></td>
</tr>
<tr>
<td></td>
<td><strong>A multivalent booster candidate, mRNA-1273.211, that combines mRNA-1273 and mRNA-1273.351 in a single vaccine at the 50 µg dose level and lower</strong></td>
</tr>
<tr>
<td></td>
<td><strong>A third dose of mRNA-1273, the Moderna COVID-19 Vaccine, as a booster at the 50 µg dose level; we have already begun dosing this cohort with the booster</strong></td>
</tr>
<tr>
<td><strong>COVID-19 Next Generation Vaccine (mRNA-1283)</strong></td>
<td><strong>Next generation vaccine candidate against COVID-19, focused specifically on Receptor Binding Domain (RBD) and N-terminal Domain (NTD); being developed as a potential refrigerator stable mRNA vaccine (5°C) that will facilitate easier distribution and administration</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Being evaluated to address a potential endemic market</strong></td>
</tr>
</tbody>
</table>
mRNA is well positioned to address evolution of SARS-CoV-2

Key strengths

- High efficacy of mRNA-1273
- Speed to update vaccine
- Ability to combine multiple antigens
- Manufacturing
  - Fast scale-up
  - Same raw material inputs
  - Flexibility

Already manufactured GMP batches of our variant booster candidate (mRNA-1273.351) and shipped to NIH for clinical study
### Prophylactic Vaccines

- **CMV vaccine**
  - CMV vaccine is on track to start the pivotal Phase 3 trial in 2021 (roughly ~8,000 participants)

- **Zika vaccine**
  - Preparing for Phase 2 trial; expected to begin in 2021

- **hMPV/PIV3 vaccine**
  - Phase 1b trial is currently enrolling in toddlers; first cohort has been fully enrolled

- **RSV vaccine**
  - Phase 1 pediatric RSV vaccine trial ongoing; first 3 cohorts in age de-escalation study fully enrolled
  - Phase 1 adult RSV vaccine trial has dosed its first participant
Three new vaccine programs announced in January 2021

**Prophylactic Vaccines**

- **Flu vaccine**
  - Seasonal flu (type A and type B) epidemics occur seasonally and vary in severity each year, causing respiratory illnesses and placing substantial burden on healthcare systems
  - Flu program will evaluate three candidates (mRNA-1010, mRNA-1020, mRNA-1030) comprising multiple antigens against the four seasonal viruses recommended by the WHO

- **HIV vaccine**
  - HIV is the virus responsible for acquired immunodeficiency syndrome (AIDS), a lifelong, progressive illness with no effective cure
  - mRNA-1644, a collaboration with IAVI and the BMGF, is a novel approach to HIV vaccine strategy in humans designed to elicit broadly Neutralizing HIV-1 Antibodies (bNAb)
  - mRNA-1574, is being evaluated in collaboration with the National Institutes of Health (NIH) and includes multiple native-like trimer antigens

- **Nipah vaccine**
  - Nipah virus (NiV) is a zoonotic virus transmitted to humans from animals, contaminated food, or through direct human-to-human transmission
  - mRNA-1215 was co-developed by Moderna and the NIH’s Vaccine Research Center (VRC)
Clinical programs continue to enroll across modalities

Seven clinical proof of concept trials

**Modalities**

- **VEGF (AstraZeneca):** Phase 2 ongoing

- **PCV:** Randomized Phase 2 in combination with KEYTRUDA® vs. KEYTRUDA® alone, partnered with Merck, is ongoing
  - Phase 1 in multiple cohorts is ongoing; upsized head & neck cohort is recruiting additional patients
- **KRAS (Merck):** Phase 1 ongoing

- **OX40L:** Phase 2 dose expansion in combination with durvalumab in ovarian cancer patients is ongoing
- **Triplet (OX40L/IL-23/IL-36y):** Phase 1 dose escalation as a monotherapy and in combination with durvalumab is ongoing
- **IL-12 (AstraZeneca):** Phase 1 ongoing

- **PA:** Phase 1/2 sites are being initiated to enter the clinic in 2021
  - Will be looking for biomarkers as early indicators for therapeutic impact
## Development pipeline

**February 2021**

### Core modalities

<table>
<thead>
<tr>
<th>Prophylactic vaccines</th>
<th>Systemic secreted &amp; cell surface therapeutics</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBV</td>
<td>Relaxin</td>
</tr>
<tr>
<td>Flu</td>
<td>PD-L1</td>
</tr>
<tr>
<td>RSV</td>
<td>Chikungunya antibody</td>
</tr>
<tr>
<td>Zika</td>
<td>IL-2</td>
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<tr>
<td>Nipah</td>
<td></td>
</tr>
<tr>
<td>HIV</td>
<td></td>
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<tr>
<td>hMPV/PIV3</td>
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</tbody>
</table>

### Exploratory modalities

<table>
<thead>
<tr>
<th>Intratumoral immuno-oncology</th>
<th>Localized regenerative therapeutics</th>
<th>Systemic intracellular therapeutics</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-12</td>
<td>OX40L/IL-23/IL-36γ</td>
<td>OX40L</td>
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<tr>
<td>OX40L</td>
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<tr>
<td>VEGF</td>
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<tr>
<td>KRAS</td>
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<tr>
<td>Personalized Cancer Vax</td>
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</tbody>
</table>

### Phases

- **Preclinical** (incl. Open IND)
- **Phase 1**
- **Phase 2**
- **Phase 3**
- **Commercial**
4Q20 earnings call agenda

3 Conclusion – Stéphane Bancel – CEO
Clear strategic priorities for 2021

#1 Maximize the impact of Moderna COVID-19 Vaccine access: manufacturing output for 2021, additional manufacturing capacity for 2022 and commitment to take variants of concern to the clinic

#2 Accelerate vaccine development to advance our pipeline and bring new vaccines to market

#3 Generate human proof-of-concept data in cardiovascular diseases, oncology and rare diseases

#4 Continue to expand the use of mRNA technology to maximize the potential impact we can have on patients; we continue to believe that Moderna will have, over time, many modalities with commercial products

By executing on these priorities, we will continue to advance our mission for patients and deliver value to our shareholders, our employees, our communities and our partners

This is just the beginning
# 2021 will be an inflection year for Moderna

<table>
<thead>
<tr>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No approved products</td>
<td>• Authorized product</td>
<td>• Authorized product</td>
</tr>
<tr>
<td>• Negative cash flow</td>
<td>• Positive Cash flow in two quarters</td>
<td>• Cash flow positive</td>
</tr>
<tr>
<td>• Unprofitable</td>
<td>• Unprofitable</td>
<td>• Profitable</td>
</tr>
<tr>
<td>• Multiple capital raises needed to reach break even</td>
<td>• Strong balance sheet + 2Qs of positive cash flows</td>
<td>• Stronger balance sheet + 4Qs of positive cash flows</td>
</tr>
</tbody>
</table>

**From**

**Believe** mRNA vaccine can be approved; **negative** cash flows; keep cash on the **balance sheet** to manage financing risk

**To**

**Know** mRNA vaccine can be approved; **positive** cash flow; ability to **invest & scale**
2021 will be an inflection year for Moderna

- mRNA is information molecule
- Moderna platform is unique
- Year-end 2020 cash of $5.25 billion
- Signed FY 2021 APAs of ~$18.4 B
  - We believe Moderna will be cash flow positive
  - We believe Moderna will be profitable in 2021
- Team
  - Fully integrated manufacturing plant
  - Made 100m doses of drug substance already
  - Shipped approximately 60 million doses globally
  - 24 development programs

We are focusing on how to grow Moderna 10X
Save the Date
Events in 2021

- **Vaccines Day**
  - April 14th

- **Science Day**
  - May 27th

- **R&D Day**
  - September 9th
Our mission
To deliver on the promise of mRNA science to create a new generation of transformative medicines for patients.