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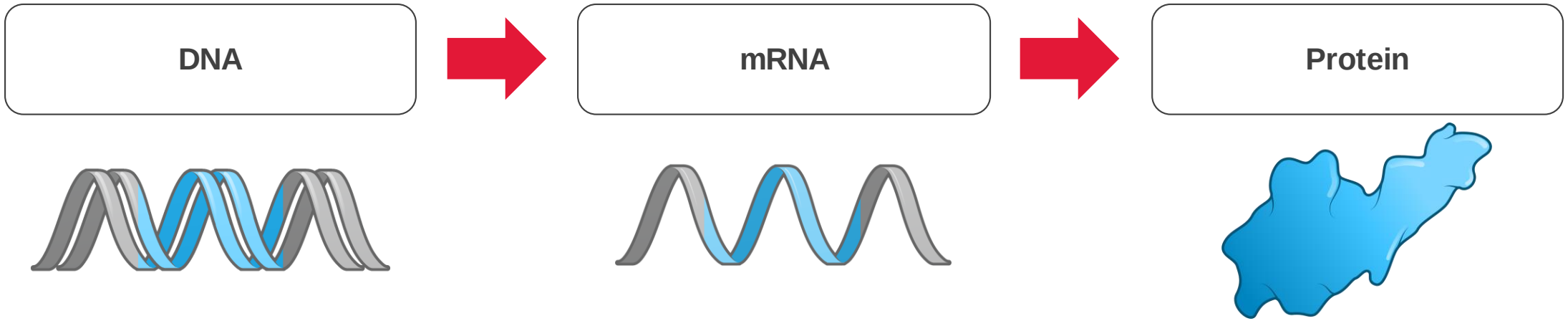

Business Updates and Second Quarter 2020 Financial Results

August 5, 2020

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 timing of interim results from the Phase 2 study of mRNA-1647; the timing and design of the Phase 3 study of mRNA-1647; anticipated clinical next steps and catalysts for each of our development programs; assessments of value and pricing of a COVID-19 vaccine; projections regarding net cash used in operating activities and for purchases of property and equipment; and expectations regarding accounting for mRNA-1273 commercialization. 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: preclinical and clinical development is lengthy and uncertain, especially for a new class of medicines such as mRNA, and therefore our preclinical programs or development candidates may be delayed, terminated, or may never advance to or in the clinic; no commercial product using mRNA technology has been approved and may never be approved; mRNA drug development has substantial clinical development and regulatory risks due to the novel and unprecedented nature of this new class of medicines; 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; the fact that the rapid response technology in use by Moderna is still being developed and implemented; the fact that the safety and efficacy of mRNA-1273 has not yet been established; potential adverse impacts due to the global COVID-19 pandemic such as delays in clinical trials, preclinical work, overall operations, regulatory review, manufacturing and supply chain interruptions, adverse effects on healthcare systems and disruption of the global economy; and those 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.

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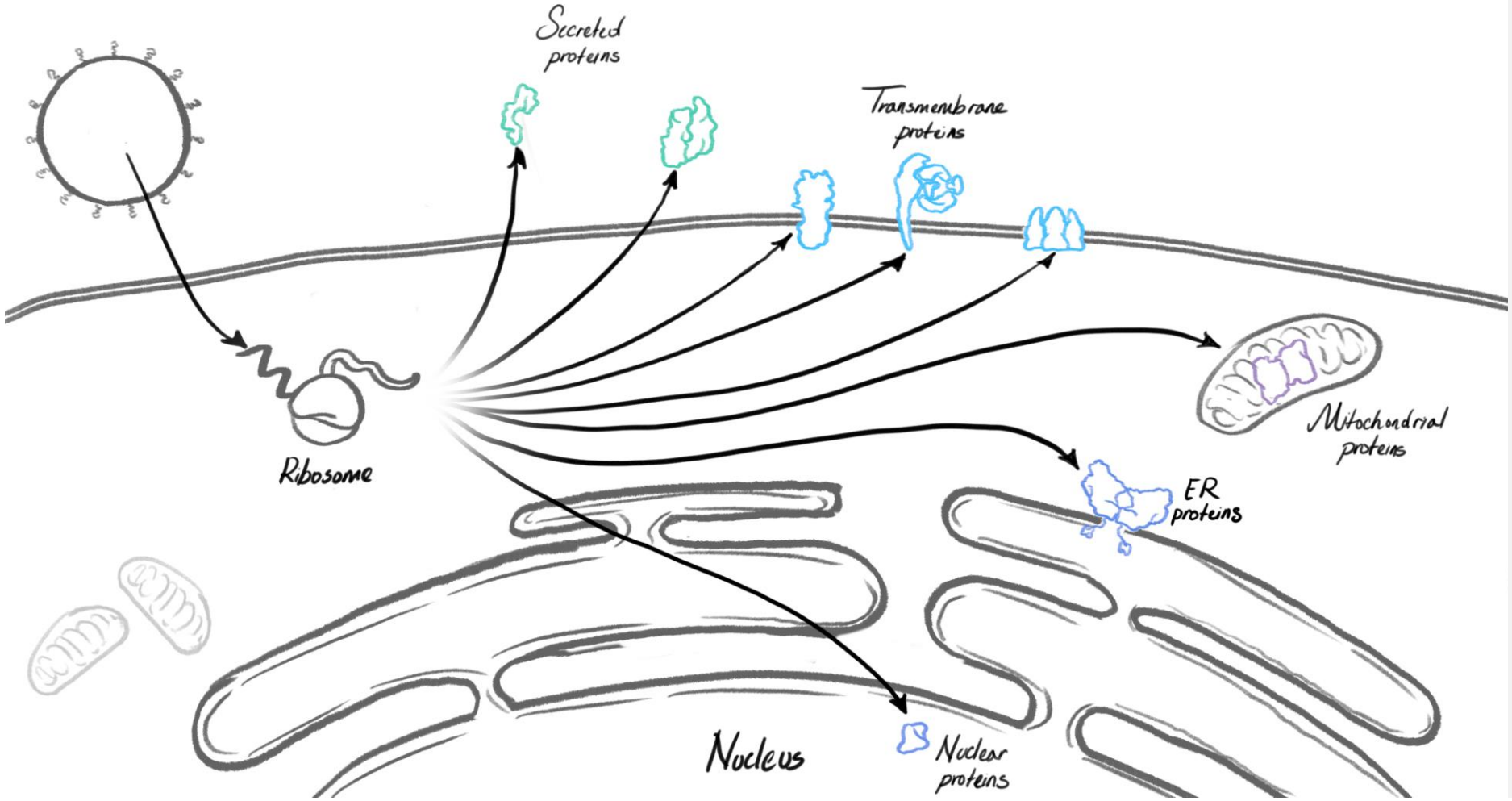
mRNA as a potential new class of medicines



1. Large product opportunity
2. Higher probability of technical success
3. Accelerated research and development timelines
4. Greater capital efficiency over time vs. recombinant technology

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2Q20 accomplishments

- Vaccine against COVID-19 (mRNA-1273)
  - Phase 2 start, Phase 3 investments made at risk
  - Lonza partnership signed and technology transfer started
- Raised $1.3B from equity offering to enable manufacturing for mRNA-1273
- Initially awarded up to $483M from BARDA for mRNA-1273 clinical development
- Managed complex clinical trial execution due to COVID-19 lockdowns around the US
  - CMV Phase 2 on track for 3Q20 data read-out and CMV Phase 3 on track for 2021 start
- Started to build the commercial organization and executed first agreements for potential supply of mRNA-1273 leading to $75M of customer deposits in 2Q20

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2Q20 earnings call agenda

1. Clinical programs update
2. mRNA-1273 value discussion
3. Financial update

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2Q20 earnings call agenda

1. **Clinical programs update**
2. mRNA-1273 value discussion
3. Financial update

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Moderna's vaccine franchise

Prophylactic Vaccines	Clinical Trial Updates
COVID-19 vaccine (mRNA-1273)	• Positive interim Phase 1 data published in *The New England Journal of Medicine* • Phase 2 fully enrolled, trial is ongoing • Phase 3 trial started July 27th
CMV vaccine (mRNA-1647)	• Phase 2 interim data expected 3Q20 • Planned pivotal Phase 3 trial expected to begin in 2021
Zika vaccine (mRNA-1893)	• Phase 1 trial fully enrolled across four dose levels (10, 30, 100 and 250 µg) • Preparing for Phase 2
hMPV/PIV3 vaccine (mRNA-1653)	• Phase 1b age de-escalation study enrollment suspended due to COVID-19 disruptions
RSV vaccine (mRNA-1172/V172)	• Phase 1 study led by Merck is ongoing

Preclinical candidates: Pediatric RSV vaccine (mRNA-1345); EBV vaccine (mRNA-1189)

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Moderna's vaccine franchise

Prophylactic Vaccines

- COVID-19 vaccine (mRNA-1273)
- CMV vaccine (mRNA-1647)
- Zika vaccine (mRNA-1893)
- hMPV/PIV3 vaccine (mRNA-1653)
- RSV vaccine (mRNA-1172/V172)

New data available today:

- Phase 1 safety data after third vaccination for the 300 µg dose level
- Phase 1 12-month immunogenicity data of the 30, 90 and 180 µg dose levels
- Phase 1 safety and immunogenicity data of the 100 and 250 µg cohorts

Preclinical candidates: Pediatric RSV vaccine (mRNA-1345); EBV vaccine (mRNA-1189)

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CMV vaccine (mRNA-1647) Phase 1 interim analysis

Solicited adverse reactions (AR) post 3rd vaccination, solicited safety set

		CMV Serostatus at Baseline											
		CMV-seronegative						CMV-seropositive					
		Phase B				Phase C		Phase B				Phase C	
		Placebo	30 µg	90 µg	180 µg	Placebo	300 µg	Placebo	30 µg	90 µg	180 µg	Placebo	300 µg
Local ARs	Pain	1 (9%)	8 (73%)	7 (54%)	9 (75%)	1 (33%)	9 (100%)	-	8 (73%)	6 (60%)	6 (100%)	-	8 (100%)
		-	-	1 (8%)	1 (8%)	-	2 (22%)	-	-	-	-	-	3 (38%)
	Redness	-	-	2 (15%)	1 (8%)	-	1 (13%)	-	-	2 (20%)	1 (17%)	-	1 (13%)
		-	-	-	-	-	1 (13%)	-	-	-	-	-	-
	Swelling	-	-	1 (8%)	1 (8%)	-	1 (13%)	-	-	1 (10%)	-	-	2 (25%)
		-	-	-	-	-	1 (13%)	-	-	-	-	-	-
Most common systemic ARs	Headache	1 (9%)	4 (36%)	4 (31%)	6 (50%)	-	7 (78%)	3 (23%)	5 (46%)	6 (60%)	5 (83%)	-	6 (75%)
		-	-	-	2 (17%)	-	1 (11%)	-	1 (9%)	-	1 (17%)	-	2 (25%)
	Fatigue	1 (9%)	4 (36%)	5 (39%)	7 (58%)	-	7 (70%)	1 (8%)	5 (46%)	7 (70%)	4 (67%)	-	5 (63%)
		-	-	1 (8%)	2 (17%)	-	1 (10%)	-	-	-	1 (17%)	-	2 (25%)
	Myalgia	-	3 (27%)	6 (46%)	6 (50%)	-	7 (70%)	-	5 (46%)	6 (60%)	3 (50%)	-	5 (63%)
		-	-	1 (8%)	2 (17%)	-	1 (10%)	-	1 (9%)	-	-	-	2 (25%)
	Arthralgia	-	3 (27%)	5 (39%)	6 (50%)	-	4 (40%)	-	4 (36%)	4 (40%)	2 (33%)	-	6 (75%)
		-	-	-	-	-	1 (10%)	-	-	-	-	-	2 (25%)
	Nausea	-	2 (18%)	3 (23%)	4 (33%)	1 (33%)	3 (30%)	1 (8%)	4 (36%)	5 (50%)	1 (17%)	-	4 (50%)
		-	-	-	-	-	-	-	1 (9%)	-	-	-	2 (25%)
	Chills	-	2 (18%)	5 (39%)	4 (33%)	-	5 (50%)	-	3 (27%)	6 (60%)	4 (67%)	-	6 (75%)
		-	-	-	1 (8%)	-	1 (10%)	-	1 (9%)	-	1 (17%)	-	3 (38%)
	Fever	-	1 (9%)	1 (8%)	3 (25%)	-	3 (30%)	-	1 (9%)	4 (40%)	3 (50%)	-	6 (75%)
		-	-	-	-	-	1 (10%)	-	-	1 (10%)	1 (17%)	-	2 (25%)

Values represent n (%) participants reporting each AR, red text=grade 3 ARs

- One asymptomatic Grade 4 elevation in partial thromboplastin time (PTT), Grade 1 at baseline, deemed related to study product, normal value on retesting (180 µg treatment group)
- No vaccine-related serious adverse events (SAEs)

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CMV vaccine (mRNA-1647) Phase 1 interim analysis

Immunogenicity in CMV-seronegative participants, per-protocol set

Neutralizing Antibodies Against Epithelial Cell Infection CMV-seropositive GMTbenchmark = 5,917[1]						
		Phase B			Phase C	
	Placebo	30 µg	90 µg	180 µg	Placebo	300 µg
GMT baseline	8	8	8	8	8	8
GMT Month 1 (post 1st vaccination)	8	37	708	1,387	8	1,481
GMT Month 3 (post 2nd vaccination)	12	3,263	15,305	30,743	8	43,564
GMT Month 7 (post 3rd vaccination)	18	16,587	63,929	62,118	NA	NA
GMT Month 12	**19**	**6,141**	**21,211**	**23,020**	NA	NA
GMT/benchmark Month 3	---	0.6	2.6	5.2	---	7.4
GMT/benchmark Month 7	---	2.8	10.8	10.5	--	NA
GMT/benchmark Month 12	**---**	**1.0**	**3.6**	**3.9**	NA	NA

Neutralizing Antibodies Against Fibroblast Infection CMV-seropositive GMTbenchmark = 1,449[1]						
		Phase B			Phase C	
	Placebo	30 µg	90 µg	180 µg	Placebo	300 µg
GMT baseline	8	8	8	8	8	8
GMT Month 1 (post 1st vaccination)	8	8	24	10	8	18
GMT Month 3 (post 2nd vaccination)	10	305	1,141	1,264	8	1,065*
GMT Month 7 (post 3rd vaccination)	17	1,131	1,890	2,029	NA	NA
GMT Month 12	**17**	**911**	**970**	**1,308**	NA	NA
GMT/benchmark Month 3	---	0.2	0.8	0.9	---	0.7*
GMT/benchmark Month 7	---	0.8	1.3	1.4	NA	NA
GMT/benchmark Month 12	**---**	**0.6**	**0.7**	**0.9**	NA	NA

- In CMV-seronegative subjects, neutralizing antibody titers against epithelial cell infection at the 90 µg and 180 µg doses were 3.6- and 3.9-fold higher than the CMV-seropositive benchmark GMT at 12 months
- Durable neutralizing antibody responses were observed 6 months after the third and final vaccination

Subject n at each timepoint, epithelial cell and fibroblast infection

	Placebo	30 µg	90 µg	180 µg	Placebo	300 µg
Baseline	13	17	14	15	3	13
Month 1	12	17	10	15	3	12
Month 3	11	14	12	12	3	11*
Month 7	10	11	12	11	NA	NA
Month 12	10	12	12	11	NA	NA

Bold face = new data as of Aug 5, 2020
GMT = geometric mean titer; CMV-seropositive benchmark values derived from baseline values of all CMV seropositive participants; NA= not available
* One participant had indeterminate result at 7-month interim analysis, re-run per protocol and included in the 12-month interim analysis
[1] The seropositive benchmark at the 3-month interim analysis as disclosed in September, 2019 was 5,588 and 1,295 for epithelial cell and fibroblast infection respectively, with an n=38. With the enrollment of an additional 30 seropositive subjects in connection with the phase C 300 µg dose level, the seropositive benchmark is now 5,917 and 1,449 for epithelial and fibroblast respectively, with an n=68.

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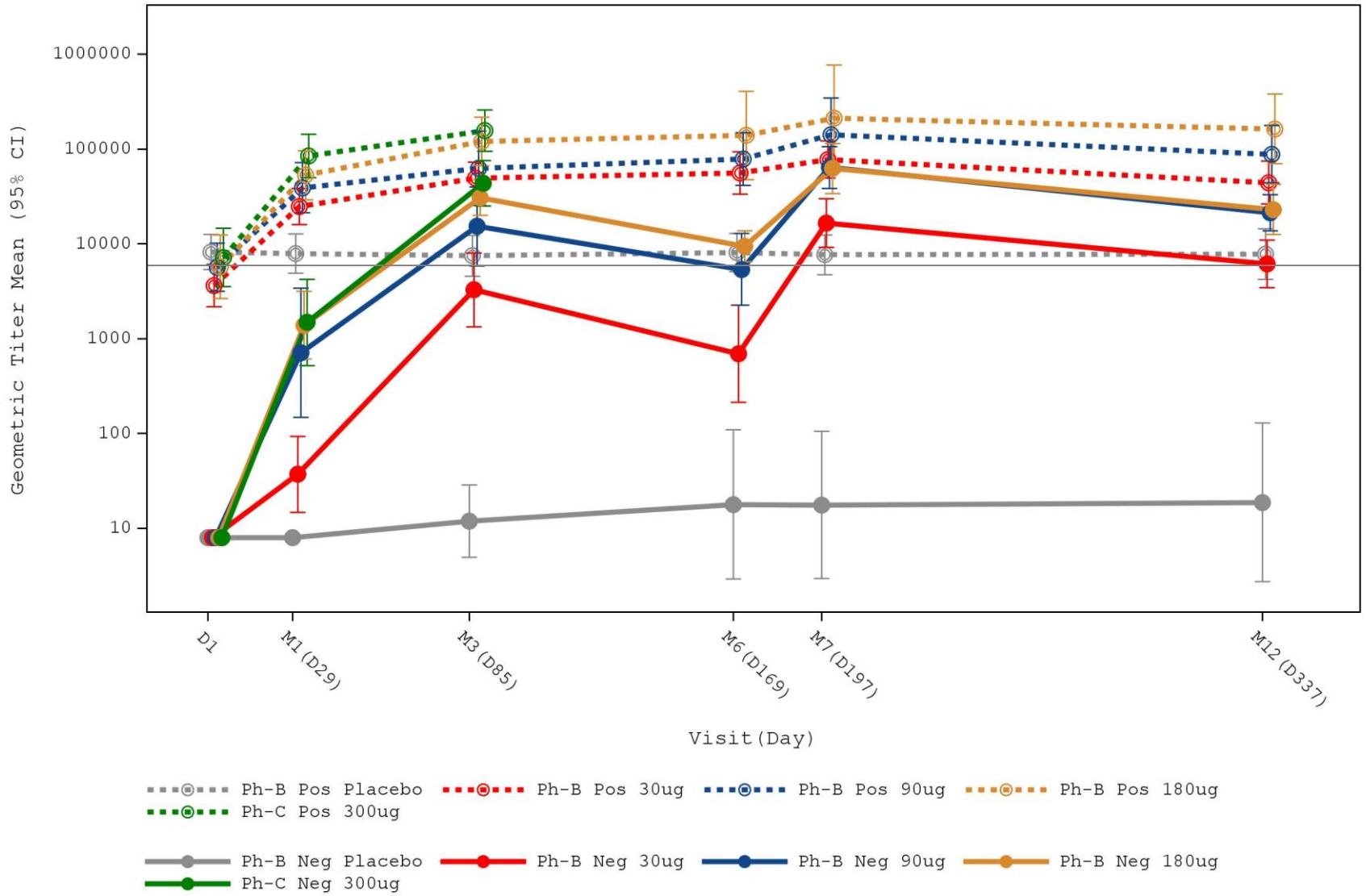
CMV vaccine (mRNA-1647) Phase 1 interim analysis

Neutralizing antibodies against epithelial cell infection by serostatus



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Late stage development for CMV vaccine (mRNA-1647)

Phase 2 dose confirmation study

- 3 dose levels; randomized, observer-blind, placebo-controlled, multicenter
- 252 seronegative & seropositive adults fully enrolled in Phase 2
- Utilizes intended Phase 3 formulation; same lipid nanoparticle (LNP) used in Phase 1
- Despite COVID-19 disruptions, we remain on track for an interim data readout expected in 3Q20

Planned pivotal Phase 3 trial

- **Primary endpoint**: prevention of primary CMV infection in seronegative women of childbearing age (WOCBA)
- Intended to begin in 2021 in USA and Europe
- Expect <8,000 participants
- Type C meeting in 1Q20; received constructive feedback
- Preparation and product manufacturing underway
- Phase 3 trial in WOCBA

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Zika vaccine (mRNA-1893) Phase 1 interim analysis

Safety profile (10, 30, 100 and 250 µg cohorts)

	Solicited ARs post-Dose 1 (solicited safety set)					Solicited ARs post-Dose 2 (solicited safety set)					
		Placebo N=24 N(%)	10µg N=24 N(%)	30µg N=24 N(%)	100µg N=24 N(%)	250µg N=24 N(%)		Placebo N=24 N(%)	10µg N=23 N(%)	30µg N=23 N(%)	100µg N=24 N(%)	250µg N=24 N(%)
Local reactions	Pain	1/23 (4.3%) –	12/24 (50%) –	12/23 (52.2%) –	17/24 (70.8) –	14/24 (58.3) –	Pain	2 /22 (9.1%) –	8/23 (34.8%) –	11/22 (50%) –	15/24 (62.5) 1 (4.2)	14/23 (60.9) 1 (4.3)
	Redness	–	–	–	1/24 (4.2) –	2/22 (9.1) –	Redness	–	–	1/20 (5.0) 1 (5.0)*	2/24 (8.3) –	2/23 (8.7) –
	Swelling	–	–	–	–	1/22 (4.5) –	Swelling	–	–	2/20 (10) 1 (5.0)*	1/24 (4.2) –	3/23 (13.0) –
Systemic reactions	Fever	–	1/24 (4.2) –	–	1/24 (4.2) –	–	Fever	1/23 (4.3) 1 (4.3)	1/23 (4.3) –	3/22 (13.6) –	7/24 (29.2) 2 (8.3)	11/23 (47.8) 3 (13.0)
	Headache	4/22 (18.2) –	7/24 (29.2) –	5/23 (21.7) 1 (4.3)*	3/24 (12.5) –	3/24 (12.5) 1 (4.2)	Headache	4/22 (18.2) –	5/23 (21.7) –	8/22 (36.4) –	9/24 (37.5) –	13/23 (56.5) 1 (4.3)
	Fatigue	3/22 (13.6) –	8/24 (33.3) –	5/23 (21.7) –	3/24 (12.5) –	4/24 (16.7) –	Fatigue	3/22 (13.6) –	6/23 (26.1) –	10/22 (45.5) –	10/24 (41.7) 2 (8.3)	13/23 (56.5) 1 (4.3)
	Myalgia	2/22 (9.1) –	5/24 (20.8) –	3/23 (13) –	1/24 (4.2) –	6/24 (25.0) –	Myalgia	1/22 (4.5) –	7/23 (30.4) –	4/22 (18.2) –	10/24 (41.7) 2 (8.3)	15/23 (65.2) 3 (13.0)
	Arthralgia	1/22 (4.5) –	2/24 (8.3) –	2/23 (8.7) –	–	–	Arthralgia	2/22 (9.1) –	4/23 (17.4) –	4/22 (18.2) –	9/24 (37.5) 2 (8.3)	7/23 (30.4) 3 (13.0)
	Nausea	–	4/24 (16.7) –	2/23 (8.7) –	3/24 (12.5) –	–	Nausea	2/22 (9.1) –	2/23 (8.7) –	1/22 (4.5) –	4/24 (16.7) –	5/23 (21.7) –
	Chills	–	1/24 (4.2) –	–	–	2/24 (8.3) –	Chills	3/22 (13.6) 1 (4.5)	1/23 (4.3) –	5/22 (22.7) –	11/24 (45.8) 2 (8.3)	14/23 (60.9) 2 (8.7)
	Rash	–	1/24 (4.2) –	–	–	–	Rash	–	–	–	1/24 (4.2)	–

N: number of participants in solicited safety set. The denominator of the rate is the number of participants who submitted any data for the respective event
Red text = grade 3 ARs
One participant experienced a Grade 4 Prothrombin Test increase at Day 29 with no clinical manifestations, this was considered not related to mRNA-1893 administration
* Updated data since Vaccines Day presentation on April 14, 2020

- Both the 100 and 250 µg dose levels were generally well tolerated
- There was a trend towards more observations of local erythema and swelling/induration at the injection site with higher dose levels, in particular after the 2nd vaccine administration
- There was a trend of more solicited systemic adverse events with the 250 µg, after the second administration

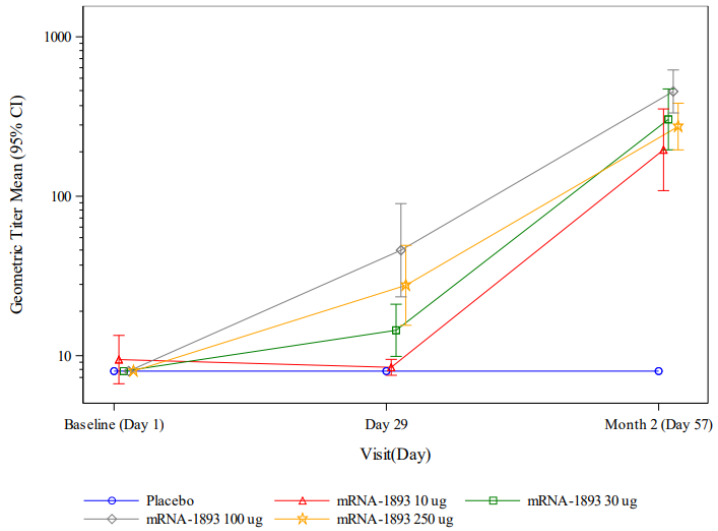
Zika vaccine (mRNA-1893) Phase 1 interim analysis

Immunogenicity in baseline seronegative participants

Immunogenicity in Flavivirus Baseline Seronegative Participants (Per-Protocol Set) PRNT$_{50}$					
	Placebo N=20	10µg N=20	30µg N=19*	100µg N=20	250µg N=20
Baseline	8.0	9.5	8.0	8.0	8.0
GMT post-dose 1	8.0	8.5	14.4*	45.9	27.6
GMT post-dose 2	8.0	195.6	303.4	454.2	273.6
Seroconversion rate Post-dose 1; Post-dose 2	0%; 0%	5%; 94.4%	42.1%*; 100%	70%; 100%	65%; 98.7%

Anti-ZIKV Neutralizing Antibodies in Seronegative Participants

Immunogenicity (PRNT$_{50}$), Per-Protocol Set



- All dose levels induce a strong neutralizing ZIKV-specific antibody response in both flavivirus infection naive participants and in participants with pre-existing flavivirus antibodies (such as Zika, Yellow Fever)
- Notably, the 100 µg dose level is sufficient to seroconvert (PRNT) baseline flavivirus seronegative subjects following only a single vaccine administration. The trend was initially observed in the 30 µg dose level; however it is stronger in the 100 µg dose level
- When compared with the 100 µg dose level, the 250 µg dose level does not show a higher neutralizing antibody response (PRNT) in terms of GMTs at Day 29 (after one dose) or at Day 57 (after the second dose)

* Updated data since Vaccines Day presentation on April 14, 2020

Zika vaccine (mRNA-1893) Phase 1 interim analysis

Immunogenicity in baseline seropositive participants

Immunogenicity in Flavivirus Baseline Seropositive Participants (Per-Protocol Set) $PRNT_{50}$					
	Placebo N=4	**10µg N=4**	**30µg N=4**	**100µg N=4**	**250µg N=4**
Baseline	18.3	41.5	12.3	16.1	19.4
GMT post-dose 1	17.8	147.9	88.1	130.6	38.2
GMT post-dose 2	18.6	224.1	150.9	190.5	100.9
Seroconversion rate Post-dose 1; Post-dose 2	0%; 0%	50%; 50%	75%; 75%	100%;100%	50%;75%

- All dose levels induce a strong neutralizing ZIKV-specific antibody response in both flavivirus infection naive participants and in participants with pre-existing flavivirus antibodies (such as Zika, Yellow Fever)
- Notably, the 100 µg dose level is sufficient to seroconvert (PRNT) baseline flavivirus seronegative subjects following only a single vaccine administration. The trend was initially observed in the 30 µg dose level; however it is stronger in the 100 µg dose level
- When compared with the 100 µg dose level, the 250 µg dose level does not show a higher neutralizing antibody response (PRNT) in terms of GMTs at Day 29 (after one dose) or at Day 57 (after the second dose)

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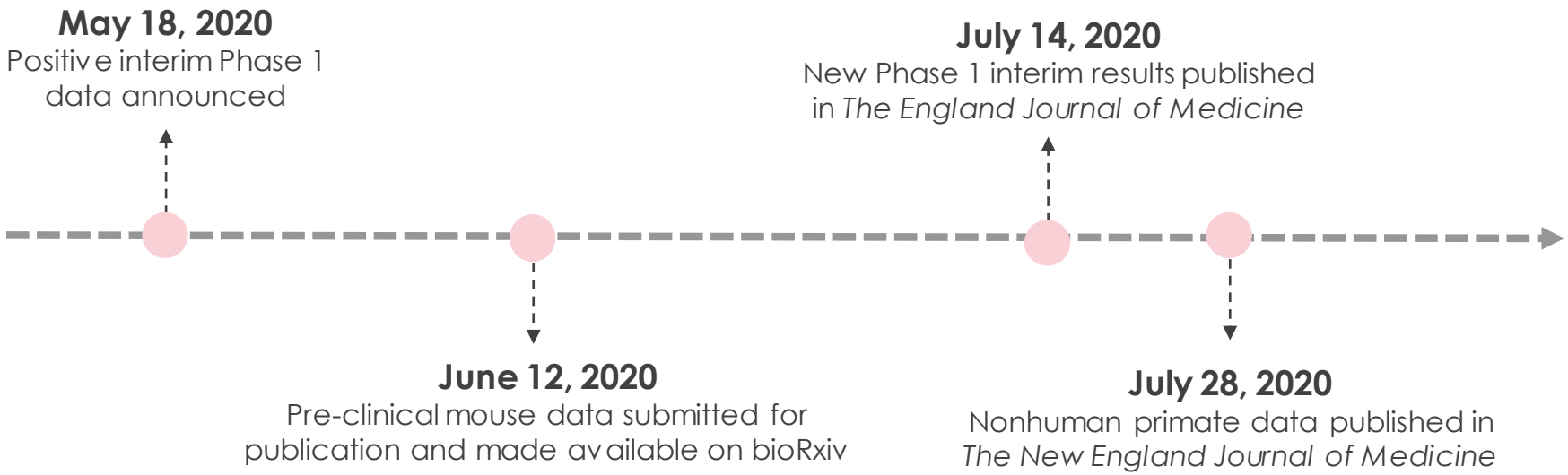
mRNA-1273 vaccine against COVID-19

Data generated to date

- **Phase 1 clinical data** – Neutralizing antibody titers were observed in 100% of evaluated participants
  - In the live SARS-CoV-2 ($PRNT_{80}$) neutralization assay, the Day 43 geometric mean titer levels at the Phase 3 selected dose of 100 µg were 4.1-fold above those seen in reference convalescent sera (n=3)
- **Nonhuman primate data publication** – Two-dose vaccination schedule of mRNA-1273 led to rapid protection against SARS-CoV-2 infection in both the lungs and nose of non-human primates
- **Mouse data pre-print (currently under peer review)** – mRNA-1273 induced both potent neutralizing antibody and CD8 T cell responses and protected against SARS-CoV-2 infection in lungs and noses of mice without evidence of immunopathology



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Other clinical program updates

Modality	Program	Clinical Trial Update

Systemic secreted & cell surface therapeutics	**Antibody against Chikungunya virus**	• Phase 1 additional cohorts are fully enrolled and all participants dosed
		  • One cohort with steroid premedication at the 0.6mg/kg dose
		  • One cohort with two doses of 0.3 mg/kg (w/out steroid premedication) administered one week apart

Cancer vaccines	**PCV**	• Randomized Phase 2 in combination with KEYTRUDA® vs. KEYTRUDA® alone, partnered with Merck, is ongoing
Intratumoral immuno-oncology	**OX40L**	• Phase 2 dose expansion in combination with durvalumab in ovarian cancer patients is actively recruiting
	OX40L/IL-23/IL-36γ	• Phase 1 as a monotherapy and in combination with durvalumab is ongoing • Presentation at ASCO in May 2020[1]
Systemic intracellular therapeutics	**MMA**	• Due to COVID-19 disruptions, the study remains on pause
	PA	• Due to COVID-19 disruptions, the study remains on pause
Partner led programs		• KRAS (Merck), IL-12 (AstraZeneca) and VEGF (AstraZeneca)

1. Abstract #3092: A Phase 1 Study of mRNA-2752, a Lipid Nanoparticle Encapsulating mRNAs Encoding Human OX40L, IL-23, and IL-36γ, for Intratumoral (iTu) Injection Alone and in Combination with Durvalumab

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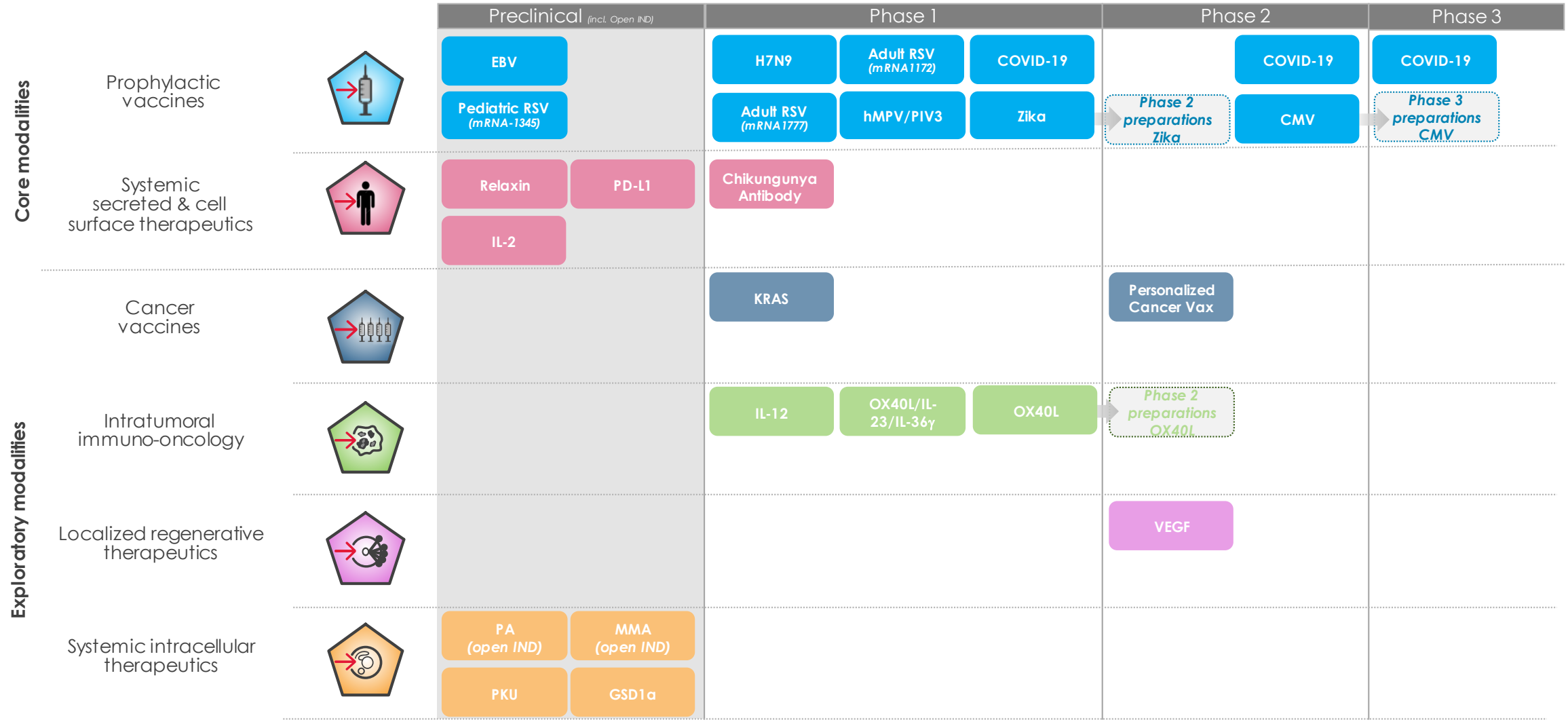
Development pipeline

August 2020



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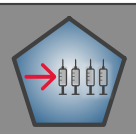
Anticipated clinical next steps and catalysts

Core modalities	Prophylactic vaccines 	• **COVID-19** – Phase 1 older adults and elderly data, Phase 2 data, Phase 3 interim analysis • **CMV** – Phase 2 immunogenicity data at 3-month IA, Phase 3 start • **hMPV/PIV3** – Phase 1b seropositive age de-escalation study resumption • **RSV** – Phase 1 safety and immunogenicity data readout • **Zika** – Phase 2 start • **Pediatric RSV** – IND filing • **EBV** – IND filing
	Systemic secreted & cell surface therapeutics 	• **Antibody against Chikungunya virus** – Phase 1 data from additional two cohorts • **Relaxin** – IND filing (AstraZeneca) • **IL-2** – IND filing • **PD-L1** – IND filing
Exploratory modalities	Cancer vaccines 	• **PCV** – Phase 2 clinical data readout • **KRAS** – Phase 1 clinical data readout
	Intratumoral immuno-oncology 	• **OX40L** – Initiation of dosing of Phase 2 combination cohort • **OX40L/IL-23/IL-36γ (Triplet)** – Completion of dose escalation monotherapy and combination cohorts • **IL-12** – Phase 1 data readout
	Localized regenerative therapeutics 	• **VEGF** – Phase 2a data readout
	Systemic intracellular therapeutics 	• **MMA** – Phase 1/2 study start • **PA** – Phase 1/2 study start • **PKU** – IND filing • **GSD1a** – IND filing

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2Q20 earnings call agenda

1. Clinical programs update
2. **mRNA-1273 value discussion**
3. Financial update

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COVID-19 has profound and wide-ranging health impacts

- SARS-CoV-2 virus: novel coronavirus first identified in humans in December 2019 and cause of COVID-19
- **Disease burden:**
  - Global: 18,364,694 confirmed cases and 695,848 deaths[1]
  - US: 4,742,277 confirmed cases and 156,133 deaths[1]
  - Between 191,771 and 430,494 total deaths are currently projected in the US by December 31, 2020 [2]
  - Risk of mortality increases with increasing age (estimated to be ~0.1% for 0-19, ~6% for 60+)[3]
  - Risk of severe disease and mortality increased for persons with pre-existing diseases or comorbid conditions (e.g. cardiovascular disease, diabetes, chronic kidney disease, chronic lung disease, obesity)
- **Phase 3 target population:** Adults (18 and older)
- **Unmet need:** There is no approved vaccine for COVID-19

COVID-19 sequelae identified to date[5,6]	
Lungs	Pneumonia Acute Respiratory Distress Syndrome (ARDS) Scarring Pulmonary embolism
Heart	Cardiac injury Inflammation Stroke Blood clots Arrythmia Hypertension
Other	Persistent fatigue Loss of smell or taste Neurologic complications Kidney damage Multisystem Inflammatory Syndrome in Children (MIS-C)

[1] Johns Hopkins Coronavirus Resource Center. Available at: https://coronavirus.jhu.edu/. Accessed 04 Aug 2020.
[2] Hay S and IHME Forecasting Team. COVID-19 scenarios for the United States. medRxiv 2020.07.12.20151191; doi: https://doi.org/10.1101/2020.07.12.20151191
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[4] Wortham JM, Lee JT, Althomsons S, et al. Characteristics of Persons Who Died with COVID-19 — United States, February 12–May 18, 2020. MMWR Morb Mortal Wkly Rep 2020;69:923-929.
[5] Puntmann VO, Carerj ML, Wieters I, et al. Outcomes of Cardiovascular Magnetic Resonance Imaging in Patients Recently Recovered From Coronavirus Disease 2019 (COVID-19). *JAMA Cardiol.* Published online July 27, 2020.
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Approach to assigning value to a COVID-19 pandemic vaccine

Using Health Economic Assessment Framework

- Healthcare value typically includes formal healthcare (medical) costs
- Incremental cost effectiveness ratio (ICER), calculated as the incremental change in costs divided by the incremental change in health outcome
- Standard US willingness-to-pay thresholds range from $50,000 to $150,000 per quality-adjusted life-years (QALY) gained

ICER (QALY $50K) Short-term		Populations: All adults (age 18+)	Populations: High-risk (age 65+)
Epidemiology	Current trajectory	~$300 per course	~$650
Epidemiology	Increased transmission	~$350	~$725

mRNA-1273 is being evaluated as a two-dose course of vaccination

1. Analysis conducted by Quadrant Health Economics, Inc. with consultation from Milton Weinstein, PhD (Harvard T.H. Chan School of Public Health); assumes two-dose course for vaccine
2. Fiedler M, Song Z. Brookings report: estimating potential spending on COVID-19 care. 2020. https://www.brookings.edu/research/estimating-potential-spending-on-covid-19-care/

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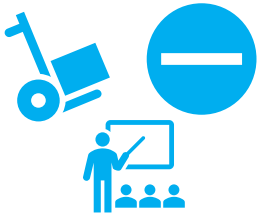
Not included in ICER analysis

- Long-term medical sequelae

- Social disruption



- Economic loss

1. Analysis conducted by Quadrant Health Economics, Inc. with consultation from Milton Weinstein, PhD (Harvard T.H. Chan School of Public Health); assumes two-dose course for vaccine
2. Fiedler M, Song Z. Brookings report: estimating potential spending on COVID-19 care. 2020. https://www.brookings.edu/research/estimating-potential-spending-on-covid-19-care/

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Approach to delivering value during the COVID-19 pandemic

Our mission

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

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Approach to delivering value during the COVID-19 pandemic

Our mission

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Our responsibility in this moment

Do everything we can do to develop a safe and effective vaccine

Invest in manufacturing ahead of approval to ensure supply

Work with governments and others to ensure vaccine is accessible regardless of ability to pay

Price well below vaccine value during the pandemic

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Approach to delivering value during the COVID-19 pandemic

Pandemic: *Price below value*

- Pre-approval supply mostly to governments
- To date, smaller volume agreements executed at $32-37/dose
- Larger volume agreements under discussion, with lower prices for higher volumes

Endemic: *Traditional dynamics*

- Price in-line with other innovative vaccines
- Market forces, including vaccine efficacy and number of competitors
- Traditional approaches to vaccine purchase and distribution

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2Q20 earnings call agenda

1. Clinical programs update
2. mRNA-1273 value discussion
3. **Financial update**

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Second quarter 2020 financial results (Unaudited)

Balance Sheets	June 30, 2020	March 31, 2020
Cash, cash equivalents and investments [1]	$ 3.07 billion	$ 1.72 billion

Statements of Cash Flows	6 months ended June 30, 2020	6 months ended June 30, 2019
Net cash used in operating activities [2]	$ 130 mm	$ 253 mm
Cash used for purchases of property and equipment	$ 25 mm	$ 18 mm
Total	$ 155 mm	$ 271 mm

Statements of Operations	3 months ended June 30, 2020	3 months ended June 30, 2019	6 months ended June 30, 2020	6 months ended June 30, 2019
Total revenue	$ 66 mm	$ 13 mm	$ 75 mm	$ 29 mm
Research and development expenses	$ 152 mm	$ 128 mm	$ 267 mm	$ 258 mm
General and administrative expenses	$ 36 mm	$ 29 mm	$ 61 mm	$ 56 mm
Total operating expenses	$ 188 mm	$ 157 mm	$ 328 mm	$ 314 mm
Net loss	$ (117) mm	$ (135) mm	$ (241) mm	$ (268) mm

1. Excludes restricted cash of $12 mm at June 30, 2020 and March 31, 2012.
2. Includes $22 mm in the first quarter of 2019, of in-licensing payments to Cellscript, LLC to sublicense certain patent rights. After the first quarter of 2019, we have no further in-licensing payment obligations under the Cellscript-MRT Agreements. Net cash used in operating activities for the 6 months ended June 30, 2020 includes the receipt of $75M of deposits for potential supply of mRNA-1273.

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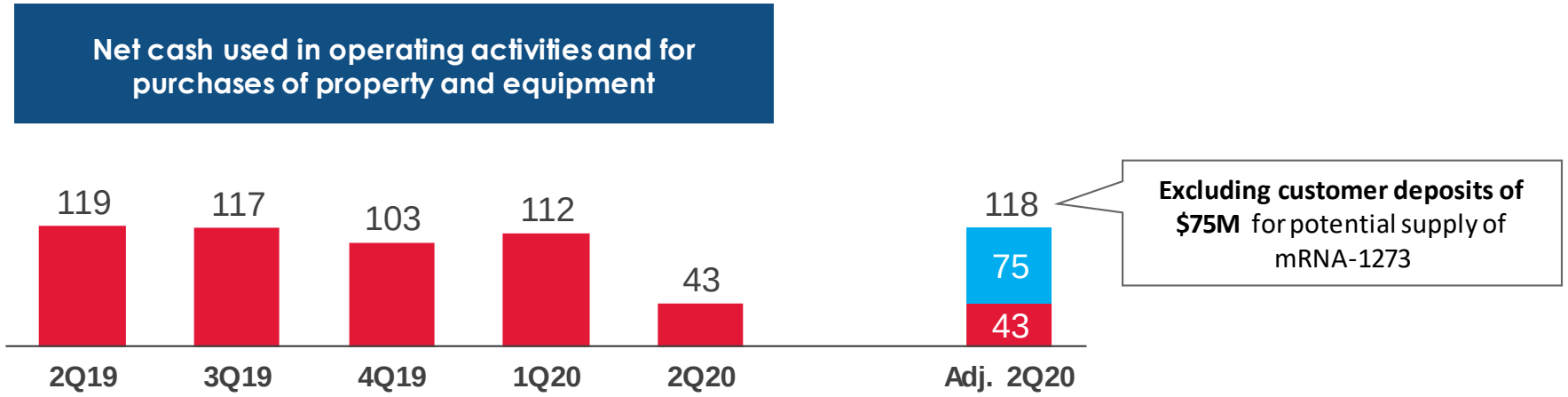
Selected cash flow information

Statements of Cash Flows	3 months ended Mar. 31, 2019 (unaudited)	6 months ended June 30, 2019 (unaudited)	9 months ended Sept. 30, 2019 (unaudited)	Year ended Dec. 31, 2019 (audited)	3 months ended Mar. 31, 2020 (unaudited)	6 months ended June 30, 2020 (unaudited)
Net cash used in operating activities	$ 144 mm	$ 253 mm	$ 363 mm	$ 459 mm	$ 106 mm	$ 130 mm
Cash used for purchases of property and equipment	$ 8 mm	$ 18 mm	$ 25 mm	$ 32 mm	$ 6 mm	$ 25 mm
Total	$ 152 mm	$ 271 mm	$ 388 mm	$ 491 mm	$ 112 mm	$ 155 mm



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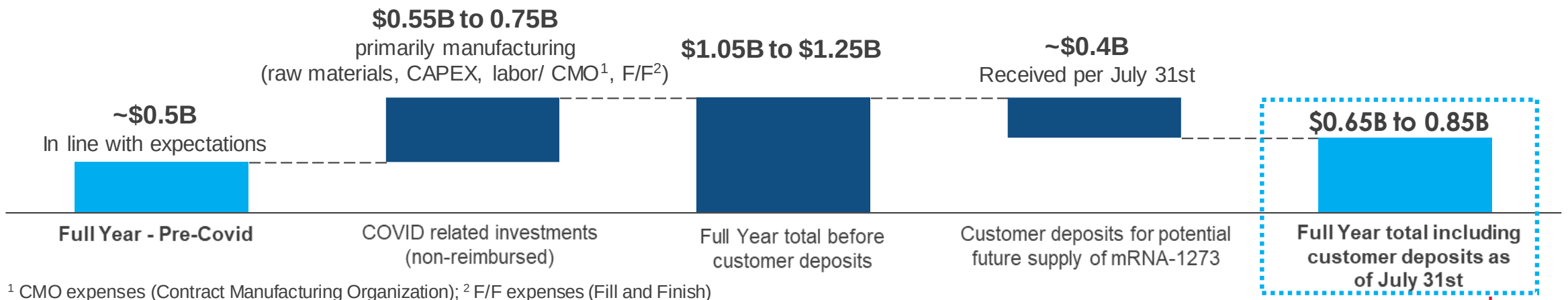
2020 Guidance

2020 Financial Guidance: $0.65 to $0.85 billion
of net cash used in operating activities and for purchases of property and equipment, including ~$0.4B of customer deposits received as of July 31st

- Moderna updates financial guidance to **include substantial at-risk investments to enable the supply chain and manufacture of mRNA-1273**
- The company now expects net cash used in operating activities and for purchases of property and equipment to be between **$0.65 to $0.85 billion, including ~$0.4 billion of customer deposits for potential supply of mRNA-1273 received as of July 31st, 2020**
- **COVID related investments of $0.55 to 0.75 billion are primarily driven by the supply network expansion** both in the US and outside the US and include ~ 0.2 billion of capital investments
- We expect net cash used in operating activities and purchases of property and equipment in 2020 to continue to evolve as we receive additional customer deposits

Net cash used in operating activities and for purchases of property and equipment - 2020 Guidance



[1] CMO expenses (Contract Manufacturing Organization); [2] F/F expenses (Fill and Finish)

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Accounting considerations in relation to commercialization of mRNA-1273

Pre-launch inventory

- We expense costs **related to the production of inventory as research and development expense** in the period incurred, until **regulatory approval and subsequent commercialization is deemed "probable"** and we also expect future economic benefit from the sales to be realized

mRNA-1273 customer agreements

- **Customer deposits for potential supply of mRNA-1273 are recorded as deferred revenue**
- Revenue related to mRNA-1273 will be recognized at the **time full revenue recognition criteria** have been met

BARDA Award

- **Revenue is recognized as we perform services under the agreement**
- We generally expect a **close matching of Moderna expenses and reimbursement from BARDA**

Purchase commitments

- **For unconditional purchase obligations** that have not yet been recorded in our financial statements, we **disclose the aggregated amount** of the purchase obligation that is fixed and determinable

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2Q20 earnings call – closing remarks

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Moderna in August 2020

Pipeline

Phase 3
COVID-19 vaccine

Phase 2
CMV vaccine
PCV
VEGF

Phase 1
8 programs

12
Positive Phase 1 readouts: 8 vaccines, PCV, OX40L, VEGF, anti-Chikungunya antibody

Programs in development

7
Vaccines for major unmet needs

- COVID-19 Phase 3 ongoing
- CMV in Phase 2, Phase 3 preparation
- hMPV/PIV3 started Phase 1b age de-escalation study
- RSV and Zika in Phase 1
- Pediatric RSV, EBV in preclinical

5
Immuno-Oncology

- PCV in Phase 2
- OX40L in Phase 2 preparation
- Triplet, IL-12, KRAS in Phase 1

4
Rare disease

- MMA, PA open IND
- PKU, GSD1a in preclinical

2
Autoimmune disease

- IL-2 and PD-L1 in preclinical

Foundations

>2,000
Healthy volunteers and patients enrolled prior to enrolling 30,000 Phase 3 trial

>1,000
Employees

A fully-integrated **GMP site** in Massachusetts

Lonza

Leading biopharma partners

MERCK
AstraZeneca
VERTEX

$3.1 bn
of cash and investments[1]

1. As of June 30, 2020; Cash and investments denotes cash, cash equivalents and investments; Excludes restricted cash of $12 mm at June 30, 2020

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