Developing COVID-19 Vaccines in Record Time

NAIIS – 5/12/2020
**Accelerated research and development**

**SARS-CoV-2 vaccine (mRNA-1273)**

- **January 13, 2020**: Sequence for mRNA-1273 against the novel coronavirus finalized.
- **March 16, 2020**: First participant in NIH-led Phase 1 study was dosed.
- **April 14, 2020**: Award from U.S. government agency BARDA for up to $483 million to accelerate development.
- **April 27, 2020**: IND submitted to US FDA for Phase 2 study.
- **May 1, 2020**: Planned Phase 2 start.
- **Early summer 2020**: Planned Phase 3 start.

**Moderna and Lonza collaboration**

Goal to enable manufacturing of up to 1 billion doses per year.

- **January 13, 2020**: Sequence for mRNA-1273 finalized.
- **Early summer 2020**: Planned Phase 3 start.
- **May 1, 2020**: Planned Phase 2 start.

- **March 14, 2020**: Collaboration announced with Lonza, goal of up to 1 billion doses per year.
- **April 14, 2020**: First participant in NIH-led Phase 1 study dosed.
- **April 27, 2020**: BNT162b1/2 mRNA for Phase 1 study.

**Modern and Lonza collaboration**

Plan to establish manufacturing suites at Lonza’s facilities in the U.S. (New Hampshire) and Switzerland. Technology transfer expected to begin in June 2020. First batches of mRNA-1273 expected to be manufactured at Lonza U.S. in July 2020.