Moderna and IBM Plan to Collaborate on COVID-19 Vaccine Supply Chain and Distribution Data Sharing

Initial focus on technologies aiming to bolster trust and help reduce community spread

CAMBRIDGE, Mass. and ARMONK, N.Y., March 4, 2021 /PRNewswire/ -- Today, Moderna (Nasdaq: MRNA) and IBM (NYSE: IBM) announced their intentions to explore technologies, including artificial intelligence, blockchain and hybrid cloud, that could help support smarter COVID-19 vaccine management. Central to the effort will be a pilot of open, standardized, technology-enabled vaccine distribution approaches aimed to improve supply chain visibility and foster near real-time tracking of vaccine administration.

The aim is to identify ways technology can be used to help accelerate secure, information sharing between governments, healthcare providers, life science organizations and individuals. In so doing, Moderna and IBM seek to improve confidence in vaccine programs and increase rates of vaccination, thereby reducing community spread.

Initial work is planned to focus on exploring the utility of IBM capabilities in the U.S. including:

- Vaccine management solutions that provide end-to-end traceability to address potential supply chain disruptions. The solutions enable governments and healthcare providers to quickly and securely share data regarding individual vaccine batches as they travel through the complex COVID-19 supply chain, from manufacturing facilities to administration sites.
- Digital Health Pass, built on blockchain technology, is a solution designed to help individuals maintain
 control of their personal health information and share it in a way that is secured, verifiable and trusted.
 Organizations can use the solution to verify health credentials for employees, customers and travelers
 based on criteria specified by the organization, such as test results, vaccination records and temperature
 checks.

"Moderna is committed to working with a coalition of partners to increase education and awareness of the importance of vaccination to help defeat COVID-19," said Michael Mullette, VP, Managing Director North America Commercial Operations of Moderna. "We look forward to working with IBM to apply digital innovations to build connections between organizations, governments, and individuals to instill confidence in COVID-19 vaccines."

"If ever there was a time to rally around open technology and collaboration, it's now," said Jason Kelley, Managing Partner, Global Strategic Alliances Leader for IBM. "As governments, pharmacy chains, healthcare providers and life sciences companies continue to scale and connect their tools, and as new players enter the supply chain, open technology can help drive more transparency and bolster trust, while helping to ensure accessibility and equity in the process."

The work with Moderna aligns with IBM's efforts to help address the COVID-19 pandemic by providing access to its technology portfolio. At the outset of the pandemic, IBM joined the White House Office of Science and Technology Policy and other technology companies as part of the COVID-19 High Performance Computing Consortium, a partnership to give supercomputing resources to researchers to help speed the discovery and

development of COVID-19 vaccines. IBM also offered its IBM Clinical Development (ICD) solution to eligible trial sponsor organizations as part of its medical community support efforts to help address the pandemic. The company received interest from numerous hospitals, sponsors, contract research organizations and academic institutions.

About IBM

Statements regarding IBM's future direction and intent are subject to change or withdrawal without notice and represent goals and objectives only. For more information about IBM visit, www.ibm.com.

About Moderna

In 10 years since its inception, Moderna has transformed from a science research-stage company advancing programs in the promising-but-still-unproven field of messenger RNA (mRNA), to an enterprise with its first medicine having treated millions of people, a diverse clinical portfolio of vaccines and therapeutics across six modalities, a broad intellectual property portfolio in areas including mRNA and lipid nanoparticle formulation, and an integrated manufacturing plant that allows for both clinical and commercial production at scale and at unprecedented speed. Moderna maintains alliances with a broad range of domestic and overseas government and commercial collaborators, which has allowed for the pursuit of both groundbreaking science and rapid scaling of manufacturing. Most recently, Moderna's capabilities have come together to allow the authorized use of one of the earliest and most-effective vaccines against the COVID-19 pandemic.

Moderna's mRNA platform builds on continuous advances in basic and applied mRNA science, delivery technology and manufacturing, and has allowed the development of therapeutics and vaccines for infectious diseases, immuno-oncology, rare diseases, cardiovascular diseases and auto-immune diseases. Today, 24 development programs are underway across these therapeutic areas, with 13 programs having entered the clinic. Moderna has been named a top biopharmaceutical employer by Science for the past six years. To learn more, visit www.modernatx.com.

Forward-Looking Statement

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including statements regarding: initiatives for IBM and Moderna to collaborate on technologies to facilitate COVID-19 vaccine distribution and the potential for these initiatives to increase vaccination rates and slow the spread of COVID-19. 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 press release 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, which could cause actual results to differ materially from those expressed or implied by these forward-looking statements. These risks, uncertainties, and other factors those other risks and uncertainties described under the heading "Risk Factors" in Moderna's Annual Report on Form 10-K for the year ended December 31, 2020, 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 annual

report 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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