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## FOR IMMEDIATE RELEASE

**SiO2 Materials Science receives \$143 million contract from U.S. Government to accelerate capacity scale-up of advanced primary packaging platform for COVID-19 Vaccines and Therapeutics**

***Company will add 200 high-skilled, manufacturing jobs***

**AUBURN, AL, June 8, 2020**—SiO2 Materials Science, a privately-owned U.S. advanced materials science corporation introducing breakthrough disruptive technology for packaging biological pharmaceuticals and vaccines, today announced a \$143 million agreement with the federal government. The agreement with the Department of Defense’s Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense (JPEO-CBRND) in partnership with the Biomedical Advanced Research and Development Authority (BARDA), part of the Office of the Assistant Secretary for Preparedness and Response (ASPR) at the U.S. Department of Health and Human Services (HHS), accelerates the production scale-up of the company’s state-of-the-art, patented, primary packaging platform for storing novel coronavirus (SARS-CoV-2) vaccines and therapeutics.

SiO2’s patented materials science is a combination of a plastic container with a microscopic, thin, undetectable to the naked eye, pure glass coating for biological drugs and vaccines.

“The nation can produce all the vaccines we want, but we must have appropriate containers to store them and deliver them to patients safely,” explained Dr. Robert S. Langer, institute professor at MIT and advisor to SiO2. “Many drug development and drug formulation innovations can be limited due to variables associated with traditional glass vials and syringes. The SiO2 vials and syringes eliminate these variables and allow drug development partners to bring their innovations to life.”

Essential characteristics of SiO2’s patented materials coating include thermal stability and integrity, chemical stability, a gas barrier, mechanical durability, no breakage, and precision molding.

With a thermal stability range of -196°C to 121°C and with a seal integrity down to -80°C, the SiO2 vials and syringes provide the ideal primary container for therapies in any storage conditions.

Chemical stability allows the product to be safe and suitable for a wide range of drug characterizations, including pH ranges from 3-14; there is no risk of delamination and no metal ions as observed with glass vials.

With a gas barrier, SiO<sub>2</sub> vials have gas permeation properties like glass and therefore provide the shelf life and stability required by many therapies. SiO<sub>2</sub> vials also can withstand 1,500 pounds of direct force, which potentially saves millions of dollars from breaking on filling lines and minimizes loss in the supply chain; and the vials are shatterproof, making them safe for use by healthcare staff and patients.

SiO<sub>2</sub>'s syringes are precision molded and up to 15 times more dimensionally consistent than glass, enabling error-free operation with autoinjectors and other drug delivery devices.

SiO<sub>2</sub>'s patented materials science was developed in Auburn, Alabama, over 10 years with the assistance of experts from four major U.S. research institutions, University of California, Santa Barbara and Berkeley, University of Chicago, MIT, and Harvard, and included the participation of Dr. Glenn Fredrickson, one of the most prominent material scientists in the United States.

"The SiO<sub>2</sub> vials solve significant challenges in the commercialization of vaccines and biological drugs, which presently cannot be solved by glass or plastic vials," Fredrickson said. "Bringing this advanced coating to market will enable pharmaceutical manufacturers to safely and more rapidly deploy their critical products."

SiO<sub>2</sub> currently employs more than 200 engineers, scientists, and technicians, most of whom live in Lee County, Alabama, and are Auburn University graduates, in a 165,000 square foot manufacturing plant in Auburn. The company expects to hire 200 more.

"We're dramatically ramping up capacity to meet customer demands and to ensure that the surge seen due to the COVID-19 vaccine and therapeutic developments can be accommodated," said SiO<sub>2</sub>'s President of Customer Operations and Chief Business Officer Lawrence Ganti.

"We are extremely fortunate to have SiO<sub>2</sub> in Auburn, and are grateful for the integral role Alabama's prominent U.S. Senator Richard Shelby played in helping the company," said former Auburn Mayor Bill Ham, who is currently on the Board of Auburn University's Auburn Research and Technology Foundation (ARTF). "We are also very appreciative with the early investment in the project by the Retirement Systems of Alabama, who should benefit greatly with their investment. SiO<sub>2</sub> is critical to Auburn because the company's advanced materials science platforms are critical to our nation's fight against this pandemic and future health threats."

Bobby Abrams, Chief Executive Officer of SiO<sub>2</sub>, stated, "The pandemic presents an enormous challenge for all people. We are extremely grateful for Senator Shelby's steadfast support and assistance, and we're honored to collaborate with our government so a COVID-19 vaccine can be safely and quickly distributed. The State of Alabama and the City of Auburn for many years have been

very supportive of SiO2 Materials Science during its research, development, commercialization, and now scale-up phases of the company.”

SiO2’s funding application was facilitated by attorneys Palmer Hamilton and Robert Walthall, partners in the Jones Walker law firm.

**About SiO2 Materials Science:**

Managed by the same family for more than 100 years, SiO2 Materials Science is a privately owned U.S. advanced materials science corporation introducing breakthrough disruptive technology. The company is located in Auburn, Alabama. The company has deep partnerships with leading professors at the foremost research universities such as University of California, University of Chicago, MIT, and CalTech. For more information, visit [www.sio2ms.com](http://www.sio2ms.com).

**About HHS, ASPR, and BARDA:**

HHS works to enhance and protect the health and well-being of all Americans, providing for effective health and human services and fostering advances in medicine, public health, and social services. The mission of ASPR is to save lives and protect Americans from 21st century health security threats. Within ASPR, BARDA invests in the innovation, advanced research and development, acquisition, and manufacturing of medical countermeasures – vaccines, drugs, therapeutics, diagnostic tools, and non-pharmaceutical products needed to combat health security threats. To learn more about the whole-of-America response to the coronavirus pandemic, visit [www.coronavirus.gov](http://www.coronavirus.gov), and for more information about BARDA’s COVID-19 portfolio, visit [www.medicalcountermeasures.gov](http://www.medicalcountermeasures.gov).

**About the JPEO-CBRND:**

JPEO-CBRND is the Joint Service’s lead for development, acquisition, fielding and life-cycle support of chemical, biological, radiological, and nuclear defense equipment and medical countermeasures. As an effective acquisition program, the JPEO-CBRND puts capable and supportable systems in the hands of the service members and first responders, when and where it is needed, at an affordable price. Our vision is a resilient Joint Force, enabled to fight and win unencumbered by a chemical, biological, radiological, or nuclear environment, championed by innovative and state-of-the-art solutions.

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