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SINTX Technologies Provides Update on Antipathogenic Business Segment

SALT LAKE CITY, Aug. 18, 2021 (GLOBE NEWSWIRE) -- SINTX Technologies, Inc. (www.sintx.com) (NASDAQ: SINT) (“SINTX” or the “Company”), an original equipment manufacturer of advanced ceramics, announced the hiring of a new business leader, and provided a business update focused on its antipathogenic segment. Key points in this update include the following:

- Hire of new leader for the antipathogenic business segment
- Progress in materials, manufacturing, testing, and intellectual property
- Status of antiviral testing of silicon nitride
- Update on outside collaborations for antipathogenic products

New business development leader:

Given the Company’s continued advancements in science, manufacturing technologies, and applications for antipathogenic silicon nitride, SINTX has appointed Joseph Palomo as Vice President of Business Development, to identify and develop commercial opportunities in the antipathogenic market.

Palomo joins SINTX with over 40 years of experience in protective apparel and PPE, such as surgical gowns, surgical drapes, isolation gowns, films, tubing, and surgical face masks. He has held management roles at Cardinal Health R&D for new product development on a global scale, and has helped identify and develop performance standards for medical devices in ASTM and AAMI forums.

Update on materials, manufacturing, testing, and intellectual property filings:

Since the onset of COVID-19, SINTX has expanded from manufacturing discrete ceramic components to making antipathogenic powders and related composites as well.

- The Company’s initial grade of antipathogenic powder is called AP²; a newer grade called AP⁴ shows even greater antipathogenic efficacy. The R&D and manufacturing teams have developed and validated the manufacturing processes required to make both powder grades.
- To accelerate several projects in the antipathogenic space, the Company has hired additional scientific, technical, and engineering personnel with skills in chemistry, ceramic and materials engineering, product and process development, and project management.
- New equipment has been designed and built in order to develop key internal

competencies related to fabric impregnation with silicon nitride. Over 50 trials have targeted process optimization, and as a result SINTX has identified effective and economical methods of bonding silicon nitride into nonwoven fabrics. A pilot manufacturing line is now in place at its Salt Lake City facility to translate the new learning into products.

- SINTX is proactively seeking U.S. EPA registration of its silicon nitride to target additional applications and industries.

The Company has collaborations in place to develop specific, large-scale fabric impregnation technologies with a private company based in Europe and North Carolina State University, a leading center in textile development. While developing new technologies is time-consuming, these efforts have shown promising results so far. SINTX will therefore continue to invest in protective textiles and related end-use applications that require various impregnation technologies.

R&D Update:

During recent months, research at the University of Rochester and at Virginia Polytechnic Institute and State University (Virginia Tech) has confirmed the earlier findings from [Piezotech](#) (Japan), [George Mason University](#), and IMQuest Biosciences that showed the effectiveness of silicon nitride in neutralizing viruses. Tested viruses have included Influenza A (H1N1), Feline Calicivirus, Enterovirus, and SARS-CoV-2.

Our recent testing also shows that the newer variants of SARS-CoV-2, including strains prevalent in Washington state, the United Kingdom, and South Africa are susceptible to degradation by silicon nitride. The underlying mechanism appears to be an attack on the RNA backbone that is common to all of the viruses investigated to date.

In its testing, the Company found a consistent 3- to 4-log reduction (>99.9%) in viral loads; this occurred in less than 30 minutes, and in most cases, in less than 5 minutes. Nonwoven polypropylene fabrics embedded with both AP² and AP⁴ silicon nitride powders were also effective against the newer SARS-CoV-2 variants, when tested to ISO 18184 standards.

The Company is aware that regulatory agencies worldwide are targeting products making COVID-19 claims for heightened scrutiny and, where needed, disciplinary actions. SINTX takes its product claims seriously and has worked with top-tier third-party laboratories to independently verify, and re-verify, the antipathogenic behavior of silicon nitride, in all its various forms, as well as in fabrics and other applications.

Commercial Relations:

SINTX has maintained a focus on the key target markets for PPE, such as automotive air cabin filters, coatings, and surfaces, and continues to identify other new applications. Because of the early stage of discussions and non-disclosure agreements, SINTX cannot disclose specific partners in some cases.

- The Company's engagement with Iwatani on the development of antipathogenic polymeric surfaces is ongoing, with Iwatani facilitating new development agreements with its partners in filters, coatings, and polymer-based products.

- Wound care applications have attracted interest from global medical device companies, due to bacterial challenges in effectively treating wounds. Consequently, the Company is exploring potential collaborations in this medical segment.
- A well-diversified, global textile manufacturer has approached the Company to explore new joint development opportunities incorporating silicon nitride into its polyester yarn.
- New opportunities in protective face masks and mask filters have come forward given the recent announcement to reassess the relationship with O2TODAY.

In addition to its work in the antipathogenic space, SINTX has diversified its business through new opportunities in [advanced industrial ceramics](#), [biomedical implants](#), and [ballistic armor ceramics](#).

Entry into industrial ceramics and into the armor business was done with the goal of accelerating revenue generation, while negotiating the time-consuming steps required to commercialize biomedical and consumer protection products. Customer discussions with experts in all these fields are progressing well and look promising, and we remain committed, confident, and extremely excited about these new business opportunities.

About SINTX Technologies, Inc.

SINTX Technologies is an OEM ceramics company that develops and commercializes silicon nitride for medical and non-medical applications. The core strength of SINTX Technologies is the manufacturing, research, and development of silicon nitride ceramics for external partners. The Company presently manufactures silicon nitride powders and components in its FDA registered, ISO 13485:2016 certified, and ASD9100D certified manufacturing facility.

For more information on SINTX Technologies or its silicon nitride material platform, please visit www.sintx.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (PSLRA) that are subject to a number of risks and uncertainties. Risks and uncertainties that may cause such differences include, among other things: obtaining the necessary regulatory approvals will likely be expensive and require additional testing and time; risks inherent in manufacturing and scaling up to commercial quantities while maintaining quality controls; bonding silicon nitride powder to unwoven fabrics in a manner that proves to be safe for human use; there is no certainty that we will be able to obtain EPA registration for our silicon nitride; while we are in preliminary discussions with potential collaborators; there is no assurance that a final agreement to collaborate will be reached in a time manner or at all; we have no experience making or selling ceramic products for use as armor, accordingly, we may not be commercially successful in that market; volatility in the price of SINTX's common stock; the uncertainties inherent in new product development, including the cost and time required to commercialize such product(s); market acceptance of our products once commercialized; SINTX's ability to raise funding and other competitive developments. Readers are cautioned not to place undue reliance on

the forward-looking statements, which speak only as of the date on which they are made and reflect management's current estimates, projections, expectations and beliefs. There can be no assurance that any of the anticipated results will occur on a timely basis or at all due to certain risks and uncertainties, a discussion of which can be found in SINTX's Risk Factors disclosure in its Annual Report on Form 10-K, filed with the Securities and Exchange Commission (SEC) on March 22, 2021, and in SINTX's other filings with the SEC. SINTX disclaims any obligation to update any forward-looking statements. SINTX undertakes no obligation to publicly revise or update the forward-looking statements to reflect events or circumstances that arise after the date of this report.

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