Arbutus Biopharma, X-Chem and Proteros biostructures Enter into a Pan-Coronavirus Discovery Research and License Agreement

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Collaboration formed to accelerate the discovery of novel oral inhibitors targeting the SARS-CoV-2 nsp5 main protease for the treatment of COVID-19 and potential future coronavirus outbreaks

WARMINSTER, Pa. and WALTHAM, Mass. and MUNICH, Germany, April 01, 2021 (GLOBE NEWSWIRE) -- Arbutus Biopharma Corporation (NASDAQ: ABUS), X-Chem, Inc. (X-Chem) and Proteros biostructures GmbH (Proteros) announced today that they have entered into a discovery research and license agreement focused on the discovery of novel inhibitors targeting the SARS-CoV-2 nsp5 main protease (M^{pro}). The agreement is designed to accelerate the development of pan-coronavirus agents to treat COVID-19 and potential future coronavirus outbreaks.

This collaboration brings together Arbutus' expertise in the discovery and development of antiviral agents with X-Chem's industry leading DNA-encoded library (DEL) technology and Proteros' protein sciences, biophysics and structural biology capabilities and provides important synergies to potentially identify safe and effective therapies against coronaviruses including SARS-CoV-2. The collaboration will allow for the rapid screening of one of the largest small molecule libraries against M^{pro} (an essential protein required for the virus to replicate itself) and the use of state-of-the-art structure guided methods to rapidly optimize M^{pro} inhibitors, which Arbutus could potentially progress to clinical candidates. Financial terms of the transaction were not disclosed.

"It is well accepted that in addition to the availability of vaccines, effective and safe therapies are needed to successfully combat the COVID-19 pandemic and any future coronavirus outbreaks," stated Dr. Michael Sofia, Arbutus's Chief Scientific Officer. "Arbutus, X-Chem and Proteros have complementary and valuable expertise that makes this collaboration particularly well-suited for small molecule drug discovery targeting coronaviruses. Our goal is to identify unique and differentiated pan-coronavirus assets targeting the main coronavirus protease which, when combined with assets arising from our internal nucleoside program targeting the SARS-CoV-2 nsp12 viral polymerase, could deliver a much-needed all-oral antiviral treatment for SARS-CoV-2 and any potential future coronavirus outbreaks."

"We are delighted of this joint discovery research collaboration with Arbutus and X-Chem, which has the potential to identify unique small molecule treatment options for COVID-19 and other possible coronavirus related respiratory diseases," said Dr. Torsten Neuefeind, Proteros' CEO. "The complementary strengths of all parties gives us a strong position to potentially inhibit a key enzyme with a central role in the viral life cycle in a specific and effective manner."

"The discovery and development of novel drugs to combat infections caused by coronavirus is an incredibly important and challenging task," added Matt Clark, PhD, Chief Executive Officer of X-Chem. "We are exhilarated to join forces with industry leaders Arbutus and Proteros in this effort and bring our drug discovery expertise to this important area of antiviral research."

About Arbutus

Arbutus Biopharma Corporation is a publicly traded (Nasdaq: ABUS) biopharmaceutical company primarily dedicated to discovering, developing and commercializing a cure for people with chronic hepatitis B virus (HBV) infection. Arbutus is advancing multiple drug product candidates that may be combined into a potentially curative regimen for chronic HBV infection. Arbutus has also initiated a drug discovery and development effort for treating coronaviruses (including COVID-19). For more information, please visit www.arbutusbio.com.

About Proteros biostructures GmbH

Proteros is a privately held early-stage drug discovery services provider committed to helping pharmaceutical and biotech companies unlock even the most challenging drug targets.

Proteros pioneered the industrialization of structural biology, and has developed a cutting-edge drug discovery platform that encompasses protein sciences, protein crystallography and cryo-EM, assays, biophysics and screening, positioned to open the door to lead optimization and clinical programs for technically demanding targets. The company works continuously with most of the world's 20 largest pharma companies and its global client base spans more than 200 pharmaceutical and biotech partners in the US, Europe and Japan.

For more information please visit www.proteros.com.

About X-Chem

X-Chem is the industry-leading provider of DNA-Encoded Library (DEL)-based discovery services. X-Chem has entered into drug discovery partnerships with numerous pharmaceutical companies, established and early-stage biotechnology companies, as well as research institutes and universities resulting in the licensing of hundreds of novel hits and leads across many target classes and therapeutic areas. X-Chem's clients and licensees include AbbVie, Astellas, AstraZeneca, Bayer, Bristol-Myers Squibb, Genentech, Gilead, Janssen, Maruho, MD Anderson Cancer Center, Otsuka, and Vertex, among others. For further information, please visit www.x-chemrx.com

Forward-Looking Statements and Information

This press release contains forward-looking statements within the meaning of the Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and forward-looking information within the meaning of Canadian securities laws (collectively, "forward-looking statements"). Forward-looking statements in this press release include statements about our expectations for the collaboration, including the ability to

allow for the rapid screening of one of the largest small molecule libraries against M^{pro} and the use of state-of-the-art structure guided methods to rapidly optimize M^{pro} inhibitors, which Arbutus could potentially progress to clinical candidates; our goal for the collaboration to identify unique and differentiated pan-coronavirus assets targeting the main coronavirus protease which, when combined with assets arising from our internal nucleoside program targeting the SARS-CoV-2 nsp12 viral polymerase, could deliver a much-needed all-oral antiviral treatment for SARS-CoV-2 and any potential future coronavirus outbreaks; and the potential benefits from the collaboration.

With respect to the forward-looking statements contained in this press release, Arbutus has made numerous assumptions regarding, among other things: the effectiveness and timeliness of preclinical studies and clinical trials, and the usefulness of the data; the timeliness of regulatory approvals; the continued demand for Arbutus' assets; and the stability of economic and market conditions. While Arbutus considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies, including uncertainties and contingencies related to the ongoing COVID-19 pandemic.

Additionally, there are known and unknown risk factors which could cause Arbutus' actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements contained herein. Known risk factors include, among others: the parties may never release the expected benefits of the collaboration; anticipated research activities and pre-clinical studies may be more costly or take longer to complete than anticipated, and may never be initiated or completed, or may not generate results that warrant future development of the candidate; Arbutus may elect to change its strategy regarding its product candidates and clinical development activities; economic and market conditions may worsen; market shifts may require a change in strategic focus; and the ongoing COVID-19 pandemic could significantly disrupt clinical development programs.

A more complete discussion of the risks and uncertainties facing Arbutus appears in Arbutus' Annual Report on Form 10-K, Arbutus' Quarterly Reports on Form 10-Q and Arbutus' continuous and periodic disclosure filings, which are available at www.sedar.com and at www.sec.gov. All forward-looking statements herein are qualified in their entirety by this cautionary statement, and Arbutus disclaims any obligation to revise or update any such forward-looking statements or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except as required by law.

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