



X4 Pharmaceuticals Completes Merger with Arsanis

March 13, 2019

– Newly Nasdaq-listed XFOR focused on the development of novel therapeutics for the treatment of rare diseases –

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Mar. 13, 2019-- X4 Pharmaceuticals, Inc. (Nasdaq: XFOR, as of March 14, 2019), a clinical-stage biopharmaceutical company focused on the development of novel therapeutics for the treatment of rare diseases, today announced the completion of its merger with Arsanis, Inc. (Nasdaq: ASNS, through March 13, 2019), effective as of March 13, 2019.

"We are very pleased to complete this transformative event that enables us to achieve the next level of corporate growth as we seek to usher in a new generation of therapies for patients with rare genetic diseases and rare cancers. The merger enables us to accelerate our lead program with X4P-001 in WHIM syndrome towards Phase 3 as we evolve into a pre-commercial global corporation," said Paula Ragan, Ph.D., President and Chief Executive Officer of X4 Pharmaceuticals. "With the acquisition of synergistic R&D capabilities, X4 intends to establish a globally-recognized Center of Research Excellence to build upon our core science and technology, and to create long-term growth for a sustainable global rare disease business."

The holders of shares of X4 capital stock outstanding immediately prior to the merger received 0.5702 shares of Arsanis common stock in exchange for each share of X4 capital stock in the merger. On March 13, 2019, Arsanis is effecting a six-for-one reverse stock split. As a result of the reverse stock split, every six shares of Arsanis common stock outstanding following the merger, including the shares issued to the holders of shares of X4 capital stock in the merger, will be combined and reclassified into one share of Arsanis common stock. No fractional shares will be issued in connection with the reverse stock split. Instead, cash, based on the average closing price per share of Arsanis common stock on the Nasdaq Global Market on the 10 consecutive trading days prior to March 13, 2019, will be paid in lieu of fractions of shares.

Following the merger and the reverse stock split, the combined organization is expected to have approximately 6.7 million shares outstanding.

In connection with the merger, Arsanis will change its name to X4 Pharmaceuticals, Inc. The combined organization will commence trading on March 14, 2019 on the Nasdaq Capital Market under the symbol "XFOR".

The combined organization will operate under the leadership of X4's management team prior to the merger, including Paula Ragan, Ph.D., President and Chief Executive Officer, and Adam S. Mostafa, Chief Financial Officer. The board of directors of the combined organization is comprised of six directors: four directors from the former X4 board, Michael S. Wyzga, Isaac Blech, Gary J. Bridger, Ph.D. and Dr. Ragan, and two directors from the former Arsanis board, David McGirr and René Russo, Pharm.D., BCPS. Mr. Wyzga is the new chairman of the board. The corporate headquarters of the combined organization is located in Cambridge, Massachusetts.

About WHIM Syndrome

WHIM syndrome is a primary immunodeficiency disease caused by genetic mutations in the CXCR4 receptor gene resulting in susceptibility to certain types of infections. WHIM is an abbreviation for the characteristic clinical symptoms of the syndrome: Warts, Hypogammaglobulinemia, Infections, and Myelokathexis. There is no approved therapy for the treatment of WHIM syndrome.

About X4 Pharmaceuticals

X4 Pharmaceuticals is developing novel therapeutics designed to improve immune cell trafficking to treat rare diseases, including primary immunodeficiencies and cancer. X4's oral small molecule drug candidates antagonize the CXCR4 pathway, which plays a central role in immune surveillance. X4's most advanced product candidate, X4P-001, is in a Phase 2 clinical trial in patients with WHIM syndrome, a rare genetic, primary immunodeficiency disease, and is currently also under investigation in multiple clinical trials in oncology. X4 expects to begin a Phase 3 trial of X4P-001 in WHIM syndrome in the first half of 2019. X4 was founded and is led by a team with deep product development and commercialization expertise, including several former members of the Genzyme leadership team, and is located in Cambridge, Massachusetts. For more information, visit www.x4pharma.com.

Forward-Looking Statements

This press release contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statement of historical facts, included in this press release regarding our strategy, future operations, and plans are forward-looking statements. Examples of such statements include, but are not limited to, statements relating to the development, potential benefits and uses of and markets for X4's product candidates, including X4P-001 and anticipated clinical trials, including timing and potential results, the potential benefits of the merger, our evolution into a pre-commercial global corporation, and our intention to establish a Center of Research Excellence and its potential benefits. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that X4 makes, including, but not limited to, the risk that trials and studies may be delayed and may not have satisfactory outcomes, potential adverse effects arising from the testing or use of X4P-001 or other product candidates, the risk that costs required to develop X4P-001 or other product candidates or to expand our operations will be higher than anticipated and other risks described in the "Risk Factors" section of the Registration Statement on Form S-4 filed by Arsanis with the SEC and

declared effective by the SEC on February 14, 2019. X4 does not assume any obligation to update any forward-looking statements, except as required by law.

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