

Selecta Biosciences Announces CEO's Intent to Retire and Transition Plan

- Dr. Werner Cautreels Plans Retirement at the End of 2018
- Dr. Omid Farokhzad Appointed Chairman of the Board

Watertown, Mass., January 2, 2018 – Selecta Biosciences, Inc. (NASDAQ: SELB), a clinical-stage biopharmaceutical company focused on unlocking the full potential of biologic therapies by avoiding unwanted immune responses, today announced that President and CEO Werner Cautreels, Ph.D., intends to retire effective December 31, 2018. Selecta's Board of Directors plans to retain an executive search firm to identify a successor. In conjunction with this succession process, Dr. Omid Farokhzad, a member of Selecta's Board and a cofounder of the company, has been appointed Chairman of the Board effective December 31, 2017. Selecta expects Dr. Cautreels to remain a member of the Board following his retirement.

"Leading Selecta has been a privilege, and my time at the company has been extremely rewarding on both a personal and professional level," said Dr. Cautreels. "Selecta remains on track to achieve significant milestones in 2018, with SEL-212 expected to enter a Phase 3 clinical trial in the second half of 2018 and SEL-403 expected to enter a clinical trial in the first quarter of 2018. We also have enhanced our team in recent months by naming John Leaman, M.D., as our Chief Financial Officer and Head of Corporate Strategy and adding Stephen Smolinski as our Chief Commercial Officer. This is the right time to identify my successor for the next phase of Selecta's growth while also further strengthening our governance. I am grateful that Dr. Omid Farokhzad has agreed to serve as our new Chairman. Omid and I have been close partners in building Selecta. Together with the Board and management team, I look forward to helping Selecta continue its growth and progress."

Dr. Farokhzad is one of Selecta's cofounders and has served as a member of its Board of Directors since 2007, including serving as its Vice Chairman from 2008 to 2016. Dr. Farokhzad is a physician-scientist and serial entrepreneur. He has been directly involved in the launch and development of four biotechnology companies and, on occasion, has assumed additional roles in support of management. Dr. Farokhzad currently serves on the Board of Directors of Tarveda Therapeutics and Placon Therapeutics. From 2006 to 2014, Dr. Farokhzad also served on the Board of Directors of BIND Therapeutics, Inc. He is currently a Professor at Harvard Medical School and directs the Center for Nanomedicine at Brigham and Women's Hospital. He received his M.D. and M.A. from Boston University School of Medicine, and his M.B.A. from MIT.

"Werner has been an exemplary partner and an effective leader since joining Selecta in 2010," said Dr. Farokhzad. "His ability to recognize the clinical and commercial importance of applying Selecta's SVP technology platform to avoid unwanted immune responses against a myriad of biologics has been a key value driver for Selecta and of great importance to our patients. Under Werner's leadership, we have built the company with a promising and diverse pipeline of proprietary product candidates as well as licensed product development opportunities. I have greatly enjoyed working with Werner over the past seven years. We are pleased that he will remain with Selecta as our President and CEO through 2018. I also am excited about the opportunity to serve Selecta as Chairman as we leverage our SVP platform to develop new treatment options for patients with chronic severe gout, cancer and other serious diseases."

About Selecta Biosciences, Inc.

Selecta Biosciences, Inc. is a clinical-stage biopharmaceutical company that is focused on unlocking the full potential of biologic therapies by avoiding unwanted immune responses. Selecta plans to combine its tolerogenic Synthetic Vaccine Particles (SVP™) to a range of biologics for rare and serious diseases that require new treatment options. The company's current proprietary pipeline includes SVP-enabled enzyme, oncology and gene therapies. SEL-212, the company's lead candidate in Phase 2, is being developed to treat severe gout patients and resolve their debilitating symptoms, including flares and gouty arthritis. An investigational new drug (IND) application was recently accepted by the U.S. Food and Drug Administration (FDA) for a combination therapy consisting of SVP-Rapamycin and LMB-100 (Selecta's SEL-403 product candidate) for the treatment of patients with malignant pleural or peritoneal mesothelioma. Selecta's two proprietary gene therapy product candidates, SEL-302 and SEL-313, are being developed for rare inborn errors of metabolism and have the potential to enable repeat administration. The use of SVP is also being explored in the development of vaccines and treatments for allergies and autoimmune diseases. Selecta is based in Watertown, Massachusetts. For more information, please visit http://selectabio.com and follow @SelectaBio on Twitter.

Forward-Looking Statements

Any statements in this press release about the future expectations, plans and prospects of Selecta Biosciences, Inc. ("the company"), including without limitation, statements about the company's ability to unlock the full potential of biologic therapies including treatments for gout, cancer, and other serious diseases, the company's plan to apply its SVP platform to a range of biologics for rare and serious diseases, the potential of SEL-403 to treat mesothelioma, plans regarding and expected timing of clinical trials, expectations regarding the achievement of milestones in 2018, expectations regarding Dr. Cautreels' retirement and continued service on the Board, expectations regarding Selecta's growth and progress, the potential of SEL-212 to treat severe gout patients and resolve their debilitating symptoms, whether SEL-212 is being advanced to a Phase 3 clinical trial, the potential of the company's two gene therapy product candidates to enable repeat administration, the potential treatment applications for products utilizing the SVP platform in areas such as gene therapy, oncology, allergies, autoimmune diseases and vaccines, statements regarding the expected contributions of employees, the company's product candidate pipeline and other statements containing the words "anticipate," "believe," "continue," "could," "estimate," "expect," "hypothesize," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "would," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including, but not limited to, the following: the uncertainties inherent in the initiation, completion and cost of clinical trials including their uncertain outcomes, the unproven approach of the company's SVP technology, undesirable side effects of the company's product candidates, its reliance on third parties to manufacture its product candidates and to conduct its clinical trials, the company's inability to maintain its existing or future collaborations, licenses or contractual relationships, its inability to protect its proprietary technology and intellectual property, potential delays in regulatory approvals, the availability of funding sufficient for its foreseeable and unforeseeable operating expenses and capital expenditure requirements, substantial fluctuation in the price of its common stock, a significant portion of the company's total outstanding shares have recently become eligible to be sold into the market, and other important factors discussed in the "Risk Factors" section of the company's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission, or SEC, on November 7, 2017, and in other filings that the company makes with the SEC. In addition, any forward-looking statements included in this press release represent the company's views only as of the date of its publication and should not be

relied upon as representing its views as of any subsequent date. The company specifically disclaims any obligation to update any forward-looking statements included in this press release.

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