Selecta Biosciences Appoints Alison Schecter, M.D., as Chief Medical Officer

Watertown, Mass., July 15, 2019 – Selecta Biosciences, Inc. (NASDAQ: SELB), a clinical-stage biotechnology company focused on unlocking the full potential of biologic therapies based on its immune tolerance platform technology, ImmTOR™, today announced the appointment of Alison Schecter, M.D., as Chief Medical Officer effective Monday, July 15, 2019.

"Alison is an extremely accomplished senior leader with over 20 years of combined drug development, strategic management and practical clinical experience in academia and industry, successfully leading multiple clinical programs to approval," said Carsten Brunn, President and Chief Executive Officer of Selecta Biosciences. "As we remain focused on developing our immune tolerance platform, ImmTOR, for rare and serious diseases that require new treatment options, Alison's knowledge and experience in this area will be invaluable as we continue to advance our lead program, SEL-212 for the treatment of chronic refractory gout, and as we further pursue the potential of our technology's ability to enhance the field of gene therapy."

Dr. Schecter joins Selecta from Sanofi, where she was the Global Project Head, Rare Diseases, and was responsible for leading the Niemann-Pick Disease (ASMD) project, where her team was awarded the 2018 Cambridge Chamber of Commerce Visionary Award as well as gaining Breakthrough, Prime and Sakegake designations. She acted as the primary BD liaison between research and clinical development for internal and external programs in Rare Disease and adjacent therapeutic areas. Previously, Dr. Schecter was Global Program Head at Baxalta where she was instrumental in obtaining U.S. Food and Drug Administration (FDA) and PMDA approval for Adynovate, and for advancing the hemophilia portfolio culminating in Baxalta's acquisition by Shire. Previously, Dr. Schecter was VP of Cardiovascular and Metabolism (CVM) External Innovation at the Northeast J&J Innovation Center in Cambridge, where she was responsible for identifying novel product opportunities and technologies. Earlier, she led translational medicine in cardiovascular and metabolism and rare disease indications at the Novartis Institutes of Biomedical Research (NIBR), leading a PoC trial for the IL-β antibody program, thus validating the NLRP3 signaling pathway for secondary prevention in cardiovascular disease. Dr. Schecter started her career in academia where she was Associate Professor in Immunology and

Medicine and co-founder of the Cardiovascular Research Institute at the Icahn School of Medicine at Mount Sinai. She was the recipient of numerous NIH grants. Her work at the Icahn School of Medicine at Mount Sinai led to the identification of functional chemokine receptors on cardiac myocytes and vascular smooth muscle. Her innovative academic translational research led to a successful career in biotechnology. Dr. Schecter is a board-certified cardiologist and she completed her Internal Medicine residency at Johns Hopkins Hospital, a Cardiology fellowship at Massachusetts General Hospital and a Research Fellowship at Mount Sinai School of Medicine. She earned her medical degree from SUNY Downstate Health Science University.

"Selecta is guided by its bold vision to mitigate the immunogenicity of biological drugs making treatments such as gene therapy more effective in ways previously not possible. I am honored to join Selecta and work alongside this accomplished management team as we work to unlock the full potential of biologic therapies with ImmTOR," said Dr. Schecter. "I am very encouraged by the clinical data I have seen for the lead program SEL-212 for chronic refractory gout, and I look forward to continuing to develop Selecta's novel platform in gene therapy, an area that I am particularly excited about as the potential to re-dose AAV gene therapies presents a tremendous opportunity to change patients' lives."

About Selecta Biosciences, Inc.

Selecta Biosciences, Inc. is a clinical-stage biotechnology company focused on unlocking the full potential of biologic therapies based on its immune tolerance technology (ImmTOR) platform. Selecta plans to combine ImmTOR with a range of biologic therapies for rare and serious diseases that require new treatment options due to high immunogenicity. The company's current proprietary pipeline includes ImmTOR-powered therapeutic enzyme and gene therapy product candidates. SEL-212, the company's lead product candidate, is being developed to treat chronic refractory gout patients and resolve their debilitating symptoms, including flares and gouty arthritis. Selecta's proprietary gene therapy product candidates are in preclinical development for certain rare inborn errors of metabolism and incorporate ImmTOR with the goal of addressing barriers to repeat administration. Selecta is based in Watertown, Massachusetts. For more information, please visit http://selectabio.com.

NASDAQ Rule 5653(c)(4) Notice

In connection with the commencement of Dr. Schecter's services, the company issued to Dr. Schecter an option to purchase an aggregate of 350,000 shares of the company's common stock with a per share exercise price of the closing trading price of the company's common stock on the Nasdaq Global Market on July 15, 2019. The option was granted pursuant to the company's 2018 Employment Inducement Incentive Award Plan and was approved by the company's board of directors. The option vests 25% on July 15, 2020 and in 36 substantially equal monthly installments over the three years thereafter and has a ten-year term. The stock option was granted under Rule 5635(c)(4) of the Nasdaq Listing Rules as inducement material to Dr. Schecter's entering into employment with the company.

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 regarding the ability of the company's ImmTOR platform, including SEL-212, to unlock the full potential of biologic therapies, the potential of SEL-212 to treat chronic refractory gout patients and resolve their debilitating symptoms, the potential treatment applications for product candidates utilizing the ImmTOR platform in areas such as enzyme therapy and gene therapy, the potential of the ImmTOR platform to mitigate the immunogenicity of biological drugs and make treatments such as gene therapy and enzyme therapy safer and more effective; the company's plan to apply its ImmTOR technology platform to a range of biologics for rare and serious diseases, , the potential of the company's two gene therapy product candidates to enable repeat administration, the potential of the ImmTOR technology platform generally, 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 availability and timing of data from ongoing and future clinical trials and the results of such trials, whether preliminary results from a particular clinical trial will be predictive of the final results of that trial or whether results of early clinical trials will be indicative of the results of later clinical trials, the unproven approach of the company's SVP technology, potential delays in enrollment of patients, 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, Dr. Schecter's ability to perform as expected, Dr. Schecter's role with the Company, 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, 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, for the quarter ended March 31, 2019, 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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