

Spruce Biosciences Strengthens Leadership Team with Appointments of Samir Gharib as CFO and Dasharatha Reddy as VP of Pharmaceutical Development and Manufacturing

May 6, 2020

San Francisco, Calif. – May 6, 2020 – Spruce Biosciences, a late-stage clinical development company focused on developing and commercializing novel therapies for rare endocrine disorders, today announced the appointments of Samir Gharib, MBA, CPA, as Chief Financial Officer (CFO), and Dasharatha Reddy, Ph.D., as Vice President, Pharmaceutical Development and Manufacturing. The appointments expand the expertise of Spruce's leadership team as the company advances its pipeline and prepares to move its lead product candidate, tildacerfont, into late stage clinical development for classic Congenital Adrenal Hyperplasia (CAH) and other conditions.

"It is a pleasure to welcome Samir and Dash to the Spruce Biosciences team. Having recently closed an \$88 million Series B financing with an exceptional group of investors, we are excited to build our team as we prepare the company for late-stage clinical studies and registration of tildacerfont, with the goal of bringing the first potential new therapy in over 50 years to adult and pediatric patients with CAH," said Richard King, Chief Executive Officer, Spruce Biosciences. "Their respective talents complement the exceptional team already in place, and provide us with additional momentum as we prepare to meet the opportunities in front of us."

Mr. Gharib is a proven and experienced leader in the global biopharmaceutical arena who has demonstrated success in strategy and execution of transformative capital raises, strategic transactions, and support of commercial product launches. Prior to joining Spruce, Mr. Gharib was Chief Financial Officer of Stemedica Cell Technologies, and prior to Stemedica, held executive finance roles at Revance Therapeutics and Talon Therapeutics. Mr. Gharib began his career in the Audit and Advisory practice at KPMG LLP, and subsequently in the Corporate Finance practice at CRC LLP. He received his MBA from the Walter A. Haas School of Business at the University of California at Berkeley.

"I'm delighted to join Spruce Biosciences at this critical juncture as the company continues to make remarkable progress in developing tildacerfont as a potential best-in-class treatment for CAH," said Mr. Gharib. "I look forward to working with the team to develop awareness of the company's programs, and build Spruce into a leading rare endocrine disease-focused, biopharmaceutical company."

Dr. Reddy is a chemistry, manufacturing and controls (CMC) professional with broad experience in small molecule formulation development, process development, technology transfer, drug substance and drug product manufacture, and supply chain logistics. Prior to joining Spruce, Dr. Reddy was Head of CMC at Landos Biopharma, and prior to Landos held positions in product and pharmaceutical development and manufacturing at Reviva Pharmaceuticals, Teikoku Pharma USA, Spectrum Pharmaceuticals and Relypsa Inc. He gained his Ph.D. in organic chemistry from the Indian Institute of Science in Bangalore, India.

"I am excited to be joining a talented and dedicated leadership team to advance the development of tildacerfont for the treatment of CAH," said Dr. Reddy. "I look forward to applying my experiences in clinical and commercial pharmaceutical development to treat the devastating medical complications associated with rare endocrine disorders."

About Classic Congenital Adrenal Hyperplasia

Classic CAH is a rare genetic disorder affecting the ability of the adrenal glands to function properly. CAH results from a mutation in the gene that encodes the enzyme 21-hydroxylase, which is necessary for the synthesis of key adrenal hormones. As a result, people with CAH have an impaired ability to produce the hormone cortisol, which can result in life-threatening adrenal crises. Cortisol is also known as "the stress hormone," and is critical for the body's response to stress, illness and injury.

In CAH, the adrenal glands often produce excessive levels of male sex hormones or androgens. While both sexes need androgens for proper growth and development, an excess can cause problems that may include precocious puberty, short stature, hirsutism, increased risk of testicular adrenal rest tumors (TART) in men, and virilization and menstrual dysfunction in women.

Although CAH testing is part of the newborn screening program, treatment options are limited. Glucocorticoids (such as hydrocortisone, prednisone and dexamethasone) are commonly used to treat CAH but are associated with a wide range of side effects, including weight gain, stunted growth in children, reduced bone mineral density, metabolic abnormalities and increased cardiovascular risk. No new treatment options for CAH have become available for the past several decades.

About Tildacerfont

Spruce's investigational lead product candidate, tildacerfont (formerly SPR001) is a potent, highly selective, oral, small-molecule antagonist of the corticotropin-releasing factor type-1 (CRF1) receptor. Preclinical studies have shown that through targeted delivery, tildacerfont binds to CRF1 receptors to block CRF-stimulated receptor function, thereby decreasing the production of excess androgens (androstenedione [A4]), progestins (17-hydroxyprogesterone [17-OHP]) and adrenocorticotropic hormone (ACTH), the primary driver of adrenal gland enlargement. Tildacerfont may allow physicians to reduce the chronic use of high-dose steroids in and improve clinical outcomes for patients with congenital adrenal hyperplasia (CAH).

Tildacerfont has been granted orphan drug status by both the FDA and EMA. For more information on tildacerfont, please visit www.sprucebiosciences.com.

About Spruce Biosciences

Spruce Biosciences is a late-stage clinical biotechnology company focused on developing and commercializing novel therapies for rare endocrine disorders. The company's lead product candidate, tildacerfont, is an investigational oral drug that is being evaluated in studies for the treatment of congenital adrenal hyperplasia (CAH). The company also plans to evaluate tildacerfont in other diseases impacted by elevated ACTH or adrenal androgens. Backed by investors including Abingworth Bioventures, Aisling Capital Management, HealthCap, Novo Holdings, Omega Funds, RiverVest

Venture Partners, Rock Spring Capital, Sands Capital Management and Surveyor Capital, Spruce is committed to bringing new treatment options to patients with unmet needs. For more information, please visit www.sprucebiosciences.com.

Media Contact

Will Zasadny Canale Communications 619-961-8848 Will@canalecomm.com