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AstraZeneca and Rigel Sign Worldwide License Agreement for a Potential New Treatment for Chronic Asthma

SOUTH SAN FRANCISCO, Calif., June 19, 2012 /PRNewswire/ -- AstraZeneca and Rigel Pharmaceuticals, Inc., (Nasdaq: RIGL) today announced an exclusive worldwide license agreement for the global development and commercialization of R256, Rigel's inhaled JAK inhibitor shown to inhibit IL-13 and IL-4 signaling, which is being investigated as a treatment for moderate to severe chronic asthma. In preclinical research, R256 has been shown to reduce airway inflammation and improve lung function.

AstraZeneca will be responsible for beginning first-in-human clinical studies for R256, and for designing and conducting the clinical development of the compound. AstraZeneca will have exclusive rights to commercialize R256 around the world. AstraZeneca now has one of the strongest respiratory and inflammation pipelines in the pharmaceutical industry as well as extensive experience successfully developing and commercializing innovative treatments for a range of respiratory diseases.

Under the terms of the agreement, Rigel will receive an upfront payment of $1 million with an additional $8.25 million in early milestone payments anticipated by the end of 2013. Together with other specified developmental, regulatory and launch milestone payments, the R256 collaboration could be worth up to $100 million. Additionally, upon marketing approval of R256, Rigel will be eligible to receive tiered royalty payments on product sales.

"R256 emerged from Rigel's comprehensive study of chronic and severe asthma and lung inflammation. With AstraZeneca as our development partner, severely asthmatic people may one day have inhalable R256 as an additional, useful treatment option. This marks our second collaboration with AstraZeneca in the area of immunology and we are confident it will be as mutually rewarding as the first," said Donald Payan, M.D., executive vice president and president of Discovery and Research at Rigel Pharmaceuticals.

"We are pleased to be expanding our relationship with Rigel and to develop and commercialize this novel asset, R256," said Mene Pangalos, executive vice president of Innovative Medicines at AstraZeneca. "Despite the number of medicines available to asthma patients today, there remains a need for more targeted therapies for moderate to severe chronic asthma. Through this agreement, R256 will benefit from the wealth of experience

AstraZeneca has in bringing innovative treatments for respiratory diseases to millions of patients around the world."

In preclinical studies, R256, a JAK inhibitor, has been shown to be a potent inhibitor of IL-13 and IL-4 signaling at the primary cellular level. Patients with moderate to severe chronic asthma experience persistent inflammation and cellular remodeling of their airways, which may result in permanently reduced lung function if left untreated. In preclinical models, R256 reduces the severity of inflammation and improves lung function by mechanisms associated with several hallmarks of asthma such as bronchoconstriction, mucus overproduction and airway remodeling. In May 2012, Rigel presented two studies on R256 in asthma at the American Thoracic Society International Conference.

This is the second licensing agreement between AstraZeneca and Rigel Pharmaceuticals. The companies previously announced a worldwide license agreement in February 2010, whereby AstraZeneca agreed to develop and commercialize fostamatinib, the first oral SYK inhibitor in development, as a novel therapeutic approach for rheumatoid arthritis. The Phase 3 clinical program, called OSKIRA (Oral SYK Inhibition in Rheumatoid Arthritis) enrolled its first patient in September of 2010 and is designed to investigate fostamatinib as a therapeutic option for patients who have an inadequate response to currently available therapies such as traditional disease modifying anti-rheumatic drugs (DMARDs) and parenteral anti-TNFs.

About Rigel (www.rigel.com)
Rigel Pharmaceuticals, Inc. is a clinical-stage drug development company that discovers and develops novel, small-molecule drugs for the treatment of inflammatory and autoimmune diseases, as well as muscle disorders. Rigel's pioneering research focuses on intracellular signaling pathways and related targets that are critical to disease mechanisms. Rigel's productivity has resulted in strategic collaborations with large pharmaceutical partners to develop and market its product candidates. Current product development programs include fostamatinib, an oral SYK inhibitor that is in Phase 3 clinical trials for rheumatoid arthritis with its partner AstraZeneca; R343, an inhaled SYK inhibitor that has completed Phase 1 clinical trials for asthma; R333, a topical JAK/SYK inhibitor for discoid lupus; and R548, an oral JAK3 inhibitor for the treatment of transplant rejection and other immune disorders.

About AstraZeneca
AstraZeneca is a global, innovation-driven biopharmaceutical business with a primary focus on the discovery, development and commercialization of prescription medicines for gastrointestinal, cardiovascular, neuroscience, respiratory and inflammation, oncology and infectious disease. AstraZeneca operates in over 100 countries and its innovative medicines are used by millions of patients worldwide. For more information please visit: www.astrazeneca.com.

Rigel Forward-Looking Statements
This press release contains "forward-looking" statements, including, without limitation, statements related to potential up-front and milestone payments and royalties that may be payable to Rigel, the potential uses, commercialization, treatment scope and efficacy of R256 and Rigel's other product candidates, Rigel's future product candidate pipeline and strategy, and the timing and design of its future clinical trials. Any statements contained in this press release that are not statements of historical fact may be deemed to be forward-looking statements. Words such as "will," "may," "potential," "anticipated," and similar

expressions are intended to identify these forward-looking statements. These forward-looking statements are based upon Rigel's current expectations and involve risks and uncertainties. There are a number of important factors that could cause Rigel's results to differ materially from those indicated by these forward-looking statements, including, without limitation, risks associated with the timing and success of preclinical studies and clinical trials and the potential problems that may arise in the research and development and approval process, market competition, Rigel's need for additional capital, risks associated with Rigel's corporate partnerships and collaborations, including risks that if conflicts arise between Rigel's and its corporate partners, the clinical development or commercialization of the affected product candidates or research programs could be delayed or terminated, as well as other risks detailed from time to time in Rigel's reports with the Securities and Exchange Commission, including its Quarterly Report on Form 10-Q for the quarter ended March 31, 2012. Rigel does not undertake any obligation to update forward-looking statements and expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein.

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