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AstraZeneca, LegoChem drug to curb superbugs

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AstraZeneca, LegoChem collaborate to develop antibiotic-resistant bacterial infections drug



Singapore: AstraZeneca has formed collaboration with Korea's LegoChem Biosciences to develop a novel antibiotic to treat drug-resistant bacterial infections. The treatment will potentially combine compounds from AstraZeneca's preclinical beta lactamase inhibitor (BLI) and LegoChem's preclinical cephalosporin antibiotic programs to help break down bacteria's resistance to cephalosporins.

Under the terms of the collaboration, LegoChem will be eligible to receive $2.45 million in initial and preclinical milestones, $20 million in development milestones and $116.5 million in launch and commercial milestones, as well as tiered royalties.

Despite the steady rise of bacteria that are resistant to the most commonly prescribed antibiotic treatments, only two new classes of antibiotics have been introduced to the market in the past 30 years. As a result, infections caused by drug-resistant bacteria may result in prolonged illness, increased mortality risk and spread of the drug-resistant bacteria.

Cephalosporins are a class of antibiotics used in the treatment of various bacterial infections, including pneumonia, Staphylococcus aureus, and Salmonella. Investigational cephalosporin antibiotics by LegoChem Biosciences are being examined to treat Gram-negative bacteria that do not respond to current treatments, including *Pseudomonas aeruginosa*, *Acinetobacter baumannii*, and *Klebsiella pneumonia*. Approximately 70 percent of these superbugs are resistant to antibiotics.Ã?Â

"Antibiotic resistance is an urgent and growing challenge. AstraZeneca has long recognized that the discovery of successful new solutions will require collaboration and knowledge-sharing. Our collaboration with LegoChem leverages our combined expertise in antibiotics and our ability to develop innovative medicines to advance much needed treatments for antibiotic-resistant bacterial infections," said Manos Perros, head, infection innovative medicines unit, AstraZeneca.

Mr Yong Zu Kim, LegoChem's CEO, said: "We are excited about this opportunity to develop our cephalosporin antibiotic with AstraZeneca's BLI program. We are impressed with the commitment of AstraZeneca's team and confident with their expertise in the anti-infective field for the successful collaboration in the development of this combination therapy.Ã?Â My wish is also for this partnership to fuel the continuous advancement of Korean drug discovery initiatives."

LegoChem's cephalosporin project had previously received a national project grant from the Bio & Medical Technology Development Program of the Korean Ministry of Education, Science and Technology.

Under the terms of the agreement, each company will develop its single agent program through phase I under the guidance of a joint research committee, and AstraZeneca will develop investigational combinations of compounds through phase I during the option phase. AstraZeneca will be solely responsible for the development and commercialization of the candidate combination compound through the option phase, and thereafter if the option is exercised by AstraZeneca.