

PRESS RELEASE

Ra Pharmaceuticals and Camurus Announce Exclusive License Agreement for FluidCrystal® Extended Release Formulation of Zilucoplan

- *FluidCrystal® extended release formulation of zilucoplan achieved rapid and sustained pharmacodynamic inhibition of complement C5 in non-human primates, supporting at least once weekly dosing*

Cambridge, Mass., and Lund, Sweden — 16 July 2019 — Ra Pharmaceuticals, Inc. (Nasdaq: RARX) and Camurus AB (Nasdaq STO: CAMX) today announced an exclusive worldwide license agreement for the use of Camurus’s proprietary FluidCrystal® (FC) technology to develop, manufacture, and commercialize a long-acting formulation of zilucoplan, Ra Pharma’s complement component 5 (C5) inhibitor in development for the treatment of multiple complement-mediated disorders.

"Ra is committed to delivering convenient and accessible products for managing C5-mediated diseases. Building on the strength of our daily formulation, which offers a quick, low volume injection and room temperature storage, the FluidCrystal® extended release (XR) formulation of zilucoplan has the potential to control disease for at least seven days from a single subcutaneous dose without the need for intravenous loading, on-body infusion devices, tissue-degrading enzymes, or permeation enhancers. The promising data from our pre-clinical studies conducted with Camurus, the potential for cost-effective manufacturing, and Camurus’s proven late-stage regulatory experience with FluidCrystal® were compelling reasons to add the FluidCrystal® technology into our zilucoplan XR life-cycle extension program," said Doug Treco, Ph.D., President and Chief Executive Officer of Ra Pharma.

In pre-clinical testing, a single dose of the FC XR formulation of zilucoplan in non-human primates rapidly achieved and maintained target levels of complement inhibition for at least seven days without the need for an intravenous loading regimen (see Figure 1 below).

"The partnership with Ra Pharma follows the successful completion of a feasibility study of the FluidCrystal® extended release zilucoplan injection, which met formulation, pharmacokinetic, and tolerability target specifications," said Fredrik Tiberg, President & CEO of Camurus. "We look forward to the next phase of our collaboration with Ra Pharma and initiating clinical development of a new promising product candidate based on our unique FluidCrystal® technology."

Under the agreement, Camurus will receive an upfront payment of \$2 million and is eligible to receive up to \$14.5 million in development milestones and other license payments, up to \$55 million in sales milestones, and tiered single digit royalty payments on product sales related to the FC XR formulation of zilucoplan.

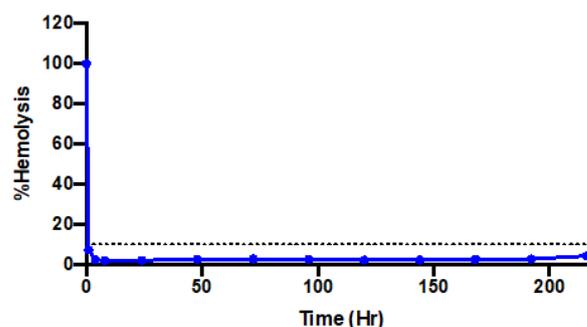


Figure 1: Inhibition of ex-vivo sheep red blood cell hemolysis assay following a single subcutaneous dose of FC XR formulation of zilucoplan in cynomolgus monkeys (mean±sem, n=4).

About Zilucoplan

Ra Pharma is developing zilucoplan and zilucoplan extended release (XR) for generalized myasthenia gravis (gMG), immune-mediated necrotizing myopathy (IMNM), and other tissue-based, complement-mediated disorders with high unmet medical need. The product candidates are designed for convenient subcutaneous (SC) self-administration. Zilucoplan is an investigational, synthetic, macrocyclic peptide discovered using Ra Pharma's powerful proprietary drug discovery technology. The peptide is designed to bind complement component 5 (C5) with sub-nanomolar affinity and allosterically inhibit its cleavage into C5a and C5b upon activation of the classical, alternative, or lectin pathways.

About FluidCrystal® Injection Depot

The FluidCrystal® injection depot delivers therapeutic levels of drug substance over selected extended periods – from days to months – from a single injection. The FluidCrystal® injection depot offers a liquid solution that transforms into a controlled release, biodegradable liquid crystal gel matrix in situ on contact with minute quantities of aqueous fluid at the injection site. Medicines based on the FluidCrystal® injection depot can be administered by the patients themselves or by healthcare professionals, without time-consuming and complicated reconstitution procedures. The technology is validated by approvals of Buvidal® in the EU and Australia and by the Brixadi™ tentative approval in the US and has been studied in more than 20 completed clinical trials. FluidCrystal® is a registered trademark of Camurus AB.

About Ra Pharmaceuticals

Ra Pharmaceuticals is a clinical-stage biopharmaceutical company focused on leading the field of complement biology to bring innovative and accessible therapies to patients with rare diseases. The Company discovers and develops peptides and small molecules to target key components of the complement cascade. For more information, please visit: www.rapharma.com.

About Camurus

Camurus is a Swedish science-led biopharmaceutical company committed to developing and commercialising innovative and differentiated medicines for the treatment of severe and chronic conditions. New drug products with best-in-class potential are conceived based on the company's proprietary FluidCrystal® drug delivery technologies and its extensive R&D expertise. Camurus' clinical pipeline includes products for the treatment of cancer, endocrine diseases, pain and addiction, which are developed in-house and in collaboration with international pharmaceutical companies. The company's shares are listed on Nasdaq Stockholm under the ticker CAMX. For more information, visit www.camurus.com.

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This information is information that Camurus AB is obliged to make public pursuant to the EU Market Abuse Regulation. The information was submitted for publication, through the agency of the managing director, at 8:00 am CET on 16 July 2019.