

Sareum Holdings PLC

("Sareum" or the "Company")

Sareum Announces Collaboration with Receptor.AI to Accelerate Discovery of TYK2/JAK1 Inhibitors for Neuroinflammatory Diseases

Cambridge, UK, 12 August 2025 - Sareum Holdings plc (AIM: SAR), a clinical-stage biotechnology company developing next-generation kinase inhibitors for autoimmune disease and cancer, is pleased to announce it has entered into a strategic collaboration with Receptor.AI, an Artificial Intelligence (AI) and technology-driven drug discovery company.

The collaboration is focused on accelerating the discovery and optimisation of blood-brain barrier (BBB)-permeable, isoform-selective TYK2/JAK1 inhibitors, with the goal of generating high-quality candidates suitable for preclinical development in neuroinflammatory indications, such as multiple sclerosis and Parkinson's disease. There is strong scientific* and commercial interest in the role of JAK inhibitors, particularly TYK2, in these neuroinflammatory diseases, and the Company believes that a TYK2/JAK1 inhibitor that acts within the brain will be a successful approach to their treatment.

The agreement is designed to augment and support Sareum's [previously announced](#) preclinical work, which identified three TYK2/JAK1 compounds with meaningful BBB penetration. The identified compounds include one that showed particularly strong levels of free drug in the brain, reinforcing their potential in treating diseases requiring central nervous system (CNS) exposure.

Sareum will oversee compound synthesis, laboratory testing, and profiling of absorption, distribution, metabolism, excretion, and toxicity (collectively known as ADMET) to assess how potential drug candidates behave in the body.

Receptor.AI will support this work with a tailored in-silico programme, applying its proprietary AI-enabled platform to support compound discovery and optimisation, using virtual screening and molecular design tools to identify candidates with strong target binding, brain penetration, selectivity, and synthetic feasibility. Designing BBB-permeable, isoform-selective kinase inhibitors is challenging, and Receptor.AI's tools provide generative chemistry and predictive modelling which significantly streamlines this process, enhancing success and increasing the speed of early-stage development.

The work for this project is expected to begin imminently and is expected to complete within four months. Sareum will own all intellectual property and compounds arising from the collaboration and there will be no ongoing milestone payments due to Receptor.AI following the conclusion of project.

* Central TYK2 inhibition identifies TYK2 as a key neuroimmune modulator, PNAS 2025, 122 (13)

Dr Stephen Parker, Executive Chairman of Sareum, commented:

"This collaboration is a logical and timely next step following our recent findings on BBB-penetrant TYK2/JAK1 inhibitors. Receptor.AI's expertise in integrating predictive modelling and generative chemistry into the discovery process will help us accelerate the identification of high-potential candidates for neuroinflammatory conditions. This technology allows us to harness the speed and accuracy of AI to derisk and optimise our discovery and early development."

Dr Alan Nafiev, Chief Executive Officer of Receptor.AI, added:

"Our partnership with Sareum reflects the potential for AI to systematically optimise early-stage discovery. Our closed-loop workflow enables multi-parameter optimisation from day one, combining structural modelling, generative chemistry, and predictive profiling to address binding, selectivity, brain penetration, and synthetic feasibility simultaneously."

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About Sareum

Sareum (AIM: SAR) is a biotechnology company developing next generation kinase inhibitors for autoimmune disease and cancer.

The Company is focused on developing next generation small molecules which modify the activity of the JAK kinase family and have best-in-class potential. Its lead candidate, SDC-1801, simultaneously inhibits TYK2 and JAK1. SDC-1801 is a potential treatment for a range of autoimmune diseases, with a planned initial focus on psoriasis.

Sareum is also developing SDC-1802, a TYK2/JAK1 inhibitor with a potential application for cancer immunotherapy.

The Company has recently acquired the license for SRA737, a clinical-stage Checkpoint kinase 1 inhibitor that targets cancer cell replication and DNA damage repair mechanisms.

Sareum Holdings plc is based in Cambridge, UK, and is quoted on the AIM market of the London Stock Exchange, trading under the ticker SAR. For further information, please visit the Company's website at www.sareum.com

About Receptor.AI

Receptor.AI is a preclinical TechBio company specialising in generative AI for drug discovery. Receptor.AI has developed a robust, validated AI-driven ecosystem tailored to address complex protein targets, comprising three core platforms:

Small Molecule Platform: De novo AI-driven design of small molecules by leveraging key interactions related to biological activity with optimisation of over 80 drug properties.

Peptides Platform: AI-guided de novo design and optimization of linear and cyclic peptides against challenging targets, including "undruggable" protein-protein interactions.

Induced Proximity Platform: Engineering ternary complexes to transform structurally unresolved native and induced PPIs into druggable targets.

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