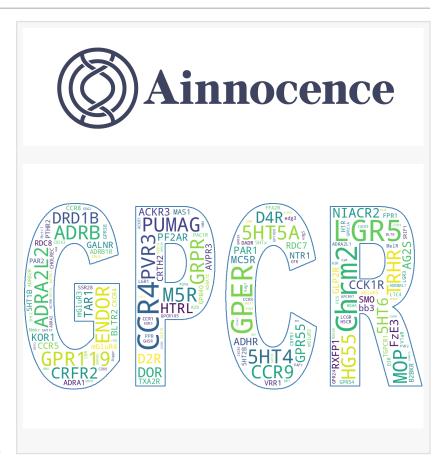


Ainnocence Unveils Innovative AI-enabled Platform for Antibody Affinity Maturation and GPCR Antibody Design Platform

Ainnocence unveils AI for antibody affinity and GPCR design via SentinusAI®. Mapping 59 GPCR families, 175 targets, and 444 indications for advanced drug design

SAN FRANCISCO, CALIFORNIA, UNITED STATES, December 5, 2023 /EINPresswire.com/ -- Ainnocence, a pioneer in AI innovation within the biotechnology sector, has introduced a revolutionary AI-enabled platform for antibody affinity maturation and de novo design, along with the launch of its innovative GPCR antibody design platform. The avant-garde cruelty free platform is powered by Ainnocence's proprietary SentinusAI®, a protein generative AI engine, and is all set to redefine the field of antibody discovery



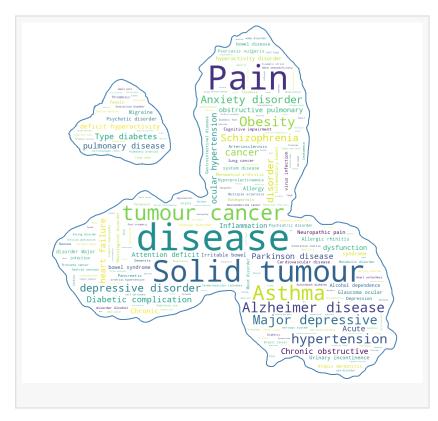
and optimization, ushering in a new transformative era in drug discovery and development.

The SentinusAl® platform, a self-evolving artificial intelligence engine, enables researchers to rapidly enhance antibody affinity and has now extended its abilities to center its focus on G Protein-Coupled Receptors (GPCRs). GPCRs are a critical class of drug targets, with over 100 FDA-approved drugs targeting this family. These proteins, characterized by their unique structure traverses the cell membrane a total of seven times including three extracellular loops and an N-terminal extracellular region, are vital in the activation of G proteins and subsequent downstream signaling upon binding with ligands.

Ainnocence's breakthrough in GPCR antibody design represents a landmark advancement in the field. The company has successfully mapped the entire GPCR protein family sequences along with their highly selective antibodies. This comprehensive platform encompasses 59 GPCR

protein families, 175 GPCR protein targets, and addresses 444 known indications. SentinusAl's ability to efficiently screen all extracellular epitopes of these GPCR proteins in just a few days is a game-changer, offering unparalleled efficiency in tailoring therapeutic R&D drug design to meet specific needs, in concern with specificity and off-target screening.

In addition to its Al-powered Fast Affinity Maturation Service, Ainnocence now offers a project-based service package for the GPCR platform. This package guarantees computational delivery within one week and antibody production delivery within just a month, setting a revolutionary industry benchmark for speed and efficiency.



Key Advantages of SentinusAI® platform to GPCR-targeted drug discovery:

- 1. Overcoming Challenges in GPCR Protein Expression and Purification: GPCR family proteins, as membrane proteins, present significant challenges in terms of expression and purification for in vitro or in vivo drug screening. Conventional methods prove inefficient in obtaining these proteins in a form suitable for effective testing. The SentinusAl® platform offers a ground-breaking solution by bypassing these issues, producing antibody candidates that can be directly tested at the cell-based assay or in vivo for efficacy examination. This capability dramatically reduces R&D time and costs, offering a more streamlined and efficient pathway from design to testing.
- 2. Addressing the Complexity of GPCR Structures with advanced AI: The GPCR family proteins exhibit a high degree of flexibility in their 3D structures, which poses a significant hurdle for conventional physics-based drug design approaches. Due to the complex nature of these proteins, Traditional Computer-Aided Drug Design (CADD) methods struggle with virtually screening on a large scale, particularly when it comes to off-target screening. SentinusAI®, however, equipped with a sequence-based protein language AI model is able to sample billions of antibody sequences in just a few hours and parallelly screen multiple targets and epitopes for the entire family in a matter of days. This capability proves to be a game-changer, as it overcomes the limitations posed by the flexible nature of GPCR structures.

By leveraging the SentinusAI® platform, the obstacles traditionally associated with GPCR-targeted

drug discovery are effectively surmounted, making R&D processes highly manageable and efficient. This advancement is not just a step forward in antibody design and affinity maturation; it represents a momentous leap in the ability to tackle some of the most challenging targets in drug discovery. The implications for biotech and pharma R&D departments are profound, offering them a powerful tool to accelerate their research and development, ultimately leading to the faster creation of effective therapeutics.

The launch of these platforms marks a significant milestone for Ainnocence Inc and the broader pharmaceutical industry. By harnessing the power of SentinusAl®, Ainnocence is poised to play a momentous role in the development of new, highly effective therapeutics, contributing to improved health outcomes and impact worldwide. This holds a prominent and highly promising significance for biotech and pharma R&D departments, empowering them with a cutting-edge tool to accelerate their drug discovery endeavors.

For more information about Ainnocence Inc and the GPCR antibody design platform, as well as its broader offerings in Al-driven drug discovery, please contact:

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About Ainnocence

Ainnocence is a next-generation biotech company with a fast, self-evolving AI drug design platform. The company's third-generation AI system delivers lightning-fast virtual screening and multi-objective pharmacological profile optimization for small-molecule, antibody, and other complex therapeutic modalities. This platform provides a computational screening capacity of up to 10^10 protein sequences or chemical compounds within hours. The end results are a shortlist of candidates with a very high wet lab hit rate, and a dramatically reduced discovery time and cost.

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