

AC Immune Unveils Novel Therapeutic Antibody Drug Conjugate (ADC) Technology for Improved Efficacy in Neurodegenerative Diseases at AAIC 2024

- *morADC combines proprietary brain-penetrant small molecule Morphomers® with SupraAntigen® monoclonal antibodies, forming a new class of drug-candidates to target toxic proteins in CNS*
- *morADC demonstrated significant synergies, substantially increasing blood brain barrier penetration and potency to inhibit protein aggregation compared to the antibody or small molecule alone*

Lausanne, Switzerland, July 31, 2024 – AC Immune SA (NASDAQ: ACIU), a clinical-stage biopharmaceutical company pioneering precision medicine for neurodegenerative diseases, today unveiled a novel class of neurodegenerative disease-fighting drug-candidates called morADC (Morphomer® Antibody Drug Conjugate) in an oral presentation at the annual Alzheimer's Association International Conference (AAIC 2024), taking place from July 28 – August 1, 2024, in Philadelphia, PA.

Dr. Madiha Derouazi, Chief Scientific Officer of AC Immune, presented the characterization and *in vitro* efficacy of morADC for the first time. The talk, entitled "[A new class of neurodegenerative disease-fighting drugs: morADC \(Morphomer®- Antibody Drug Conjugates\)](#)", showed that:

- morADC are designed for CNS applications capable of addressing important targets including Abeta, Tau and a-synuclein
- morADC enable single or dual-targeting strategies (e.g. an anti-Abeta antibody combined with an anti-Tau small molecule) to deliver combination therapy in a single therapeutic agent
- single-targeting morADC (i.e. antibody and small molecule targeting the same protein) show significant synergistic anti-aggregation effects compared to the parental molecules
- dual-targeting morADC (e.g. Abeta/Tau) show significantly enhanced anti-aggregation effects compared to the parental molecules
- additionally, conjugation of brain-penetrant Morphomers with a monoclonal antibody can multiply antibody brain exposure in comparison to the parent antibody alone

While in oncology antibody-drug conjugates are designed to selectively kill tumor cells in a targeted manner, AC Immune's morADC for neurodegenerative diseases combine the high brain penetrance of Morphomer small molecules with the target specificity of monoclonal antibodies, to reduce pathological, aggregating proteins in the central nervous system.

Dr. Andrea Pfeifer, CEO of AC Immune SA, commented: "Today we unveil our powerful new morADC technology, which synergistically combines the industry-leading capabilities of our SupraAntigen and Morphomer platforms. Based on the data we have produced to date, we are confident that this is a groundbreaking moment, showing that morADC offer unique functionality and are potentially disruptive in our industry. We look forward with great enthusiasm to developing these exciting first-in-class therapeutic candidates as part of our mission to pioneer precision prevention for neurodegenerative diseases."

“Our clinically validated SupraAntigen and Morphomer platforms have been the engines driving our track record of discovering and developing highly valuable therapeutic candidates. Our partnering history has demonstrated that these platforms are robust and that they have reliably enabled us to develop multiple first- and best-in-class molecules for diagnostic and therapeutic development.”

The morADC technology platform combines AC Immune’s industry leading [SupraAntigen®](#) and [Morphomer®](#) technologies for discovery and development of biologics and small molecules to detect, prevent and/or treat neurodegenerative diseases. SupraAntigen is used to discover and develop both, active immunotherapies (vaccines) and passive immunotherapies (monoclonal antibodies). It uses small spherical liposomes, to present specific antigens in a format designed to generate conformation-specific, antigen-targeting antibodies. The Morphomer platform combines small molecule chemistry with proprietary biological assays enabling identification and development of small molecule Morphomers that target pathological protein aggregates in extra- and intracellular brain compartments.

By attaching Morphomer small molecules to SupraAntigen antibodies to form Morphomer Antibody Drug Conjugates (morADC), this new morADC technology combines the advantages of AC Immune’s clinically validated technology platforms to offer unique synergistic properties. These include increased blood brain barrier penetration and higher potency, highlighting their potential to deliver first- and best-in-class efficacy against multiple high value therapeutic targets, thereby overcoming challenges faced by existing modalities and improving clinical outcomes for patients.

About AC Immune SA

AC Immune SA is a clinical-stage biopharmaceutical company and a global leader in precision medicine for neurodegenerative diseases, including Alzheimer’s disease, Parkinson’s disease, and NeuroOrphan indications driven by misfolded proteins. The Company’s two clinically validated technology platforms, SupraAntigen® and Morphomer®, fuel its broad and diversified pipeline of first- and best-in-class assets, which currently features sixteen therapeutic and diagnostic programs, five of which are currently in Phase 2 clinical trials and one of which is in Phase 3. AC Immune has a strong track record of securing strategic partnerships with leading global pharmaceutical companies, resulting in substantial non-dilutive funding in potential milestone payments plus royalties.

SupraAntigen® is a registered trademark of AC Immune SA in the following territories: AU, EU, CH, GB, JP, RU, SG and USA. Morphomer® is a registered trademark of AC Immune SA in CN, CH, GB, JP, KR, NO and RU.

The information on our website and any other websites referenced herein is expressly not incorporated by reference into, and does not constitute a part of, this press release.

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