PRESS RELEASE

AC Immune Reports First Live Images of Alpha-Synuclein in Human Brain with New PET Tracer for Neurodegenerative Disease at AD/PD™ Conference

ACI-12589 distinguished multiple system atrophy (MSA) from other a-synucleinopathies and healthy volunteers

A-syn PET tracers may be developed to diagnose a-synuclein pathologies, including Parkinson's disease, Lewy Body Dementia, MSA and others

AC Immune to host a-syn Key Opinion Leader webinar on March 29th

Lausanne, Switzerland, March 16, 2022 – AC Immune SA (NASDAQ: ACIU), a clinical-stage biopharmaceutical company pioneering precision medicine for neurodegenerative diseases, today announced the first non-invasive images of pathological alpha-synuclein (a-syn) in human brain and presented positive clinical proof-of-concept data for an a-syn positron emission tomography (PET) tracer as an imaging agent to identify MSA patients. The clinical trial of AC Immune's wholly owned experimental a-syn PET tracer was conducted by the team of Oskar Hansson MD, PhD, at Lund University and Skåne University Hospital, with the support of a grant from The Michael J. Fox Foundation for Parkinson's Research (MJFF).

The groundbreaking images of a-syn in the human subjects' brains were presented for the first time today at the AD/PD™ Conference plenary session in Barcelona, Spain, by Oskar Hansson MD, PhD.

Dr. Oskar Hansson, Senior Consultant in Neurology at Skåne University Hospital and Professor of Neurology at Lund University, Sweden, said: "This is the first time that a PET tracer has reliably detected a-syn aggregates in patients' brains. The ACI-12589 patient brain scans indicate the signal specificity for a-syn in MSA patients versus healthy volunteers and patients with other a-synucleinopathies. The results represent great clinical progress in the quest to provide a diagnostic tool for patients suffering from MSA and potentially other a-synucleinopathies. This could ultimately enable earlier and more reliable differentiation for this difficult-to-diagnose neurodegenerative disease."

Prof. Andrea Pfeifer, CEO of AC Immune SA, commented: "This first clinical validation for an a-syn PET tracer is a transformative step towards achieving our vision for developing precision medicines to treat neurodegenerative diseases. It was made possible by the close collaboration between AC Immune, Skåne University Hospital, Lund University, and the MJFF. We look forward to continuing the collaboration to expand on these results in MSA and in other a-syn indications, such as Parkinson's disease."

Jamie Eberling, Ph.D., Senior Vice President of Research at MJFF, said: "We are energized by the scientific possibilities presented by these findings. Selective imaging tracers can make an enormous difference in advancement of new therapies for synucleinopathies such as Parkinson's disease. Our Foundation has long supported the development of these critical but elusive tools, and we are proud to see progress toward their widespread application. As they have for Alzheimer's disease, PET tracers for a primary pathological protein would be pivotal in transforming the future of Parkinson's research and care."

The data will be presented in more detail on Friday in two presentations at the peer-reviewed scientific conference[1,2]. Derived from AC Immune's Morphomer® technology platform, ACI-12589 showed target engagement *in vivo* in alpha-synucleinopathies with a pharmacokinetic and safety profile suitable for further development as a human brain PET imaging agent. The trial showed that non-invasive PET brain imaging with ACI-12589 successfully differentiated MSA from other types of a-synucleinopathies, like Parkinson's disease (PD) and Lewy Body Dementia (LBD), as well as from healthy volunteers.

Specifically, the ACI-12589 PET tracer data showed enhanced contrast and a-syn target specificity in participants with MSA. Tracer retention was highest in areas affected by MSA disease processes, particularly cerebellar white matter.

a-syn Key Opinion Leader webinar on March 29th

In addition to the scientific presentations during AD/PD™, AC Immune has organized a KOL webinar on March 29th at 10:00am ET / 4:00pm CET, where Dr. Hansson and AC Immune's management will discuss ACI-12589 findings as well as the importance of biomarkers and precision medicine in neurodegenerative diseases. Additionally, members of the AC Immune management team will provide an overview of the Company's clinical stage a-syn targeted therapeutic and diagnostic candidates.

To register for the webinar, please click here. The materials from the presentation and a replay of the webinar will be available on the Events Page of AC Immune's website following its conclusion.

References

[1]Capotosti F.; *Discovery of [18F] ACI-12589, a novel and promising PET-tracer for alpha-synuclein;* Oral presentation; ADPD 2022 International Conference; Barcelona, Spain; March 18, 2022

[2]Smith R.; *Initial scans using [18F] ACI-12589, a novel PET-tracer for alpha-synuclein;* Oral presentation; ADPD 2022 International Conference; Barcelona, Spain; March 18, 2022

About Multiple System Atrophy (MSA)

MSA is a rare, degenerative neurological disorder affecting the body's involuntary (autonomic) functions, including blood pressure, breathing, bladder function and motor control. MSA causes deterioration and shrinkage (atrophy) of portions of the brain (cerebellum, basal ganglia and brainstem) that regulate internal body functions, digestion and motor control. Under a microscope,

the damaged brain tissue of people with MSA shows nerve cells (neurons) that contain an abnormally high amount of pathological a-syn protein. MSA is difficult to diagnose and is often confused with PD (about 1 in 40 PD patients has MSA), and, currently, many MSA patients never receive a proper diagnosis. While there is overlap, therapeutic treatment strategies are different in MSA and PD; so, achieving a correct diagnosis is very important.

About AC Immune SA

AC Immune SA is clinical-stage biopharmaceutical company that aims to become 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 ten therapeutic and three diagnostic candidates, six of which are currently in clinical trials. AC Immune has a strong track record of securing strategic partnerships with leading global pharmaceutical companies including Genentech, a member of the Roche Group, Eli Lilly and Company, and Janssen Pharmaceuticals, Inc., resulting in substantial non-dilutive funding to advance its proprietary programs and >$3 billion in potential milestone payments.

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

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Forward looking statements

This press release contains statements that constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are statements other than historical fact and may include statements that address future operating, financial or business performance or AC Immune's strategies or expectations. In some cases, you can identify these statements by forward-looking words such as "may," "might," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "projects," "potential," "outlook" or "continue," and other comparable terminology. Forward-looking statements are based on management's current expectations and beliefs and involve significant risks and uncertainties that could cause actual results, developments and business decisions to differ materially from those contemplated by these statements. These risks and uncertainties include those described under the captions "Item 3. Key Information – Risk

Factors" and "Item 5. Operating and Financial Review and Prospects" in AC Immune's Annual Report on Form 20-F and other filings with the Securities and Exchange Commission. These include: the impact of Covid-19 on our business, suppliers, patients and employees and any other impact of Covid-19. Forward-looking statements speak only as of the date they are made, and AC Immune does not undertake any obligation to update them in light of new information, future developments or otherwise, except as may be required under applicable law. All forward-looking statements are qualified in their entirety by this cautionary statement.