PRESS RELEASE

AC Immune Announces Important Clinical Milestones for ACI-24 Vaccine in Alzheimer's Disease and Down Syndrome

- **Start of Phase 2 trial with ACI-24 in patients with mild Alzheimer's disease; first patient enrolled**
- **Recruitment completed for high-dose cohort of Phase 1b study with ACI-24 for Abeta-related cognitive decline in individuals with Down Syndrome**

Lausanne, Switzerland, August 20, 2018 – AC Immune SA (NASDAQ: ACIU), a Swiss-based, clinical-stage biopharmaceutical company with a broad pipeline focused on neurodegenerative diseases, today announced two clinical milestone events related to ACI-24, its anti-Abeta vaccine against Alzheimer's disease and Abeta-related cognitive decline in Down Syndrome.

Prof. Andrea Pfeifer, CEO of AC Immune, said: "We are delighted with the progress of ACI-24, the anti-Abeta vaccine, derived from our proprietary SupraAntigen™ platform. In addition to the development in Alzheimer's Disease, it is currently the only clinical-stage vaccine targeting the associated Abeta-induced cognitive decline in people with Down Syndrome. Vaccines are potentially an important option for the treatment and prevention of neurodegenerative diseases and are a key asset in our pipeline."

ACI-24 Vaccine for Alzheimer's Disease

AC Immune has started the Phase 2 study with ACI-24 in patients with mild Alzheimer's disease (AD). The aim of this double-blind, randomized, placebo-controlled study with an adaptive design is to assess the safety, tolerability, immunogenicity, target engagement, biomarkers and clinical efficacy of ACI-24. The trial will seek to confirm the positive trends on Abeta PET* imaging and clinical measurement (CDR-SB°) of the previous Phase 1 safety study. The Phase 2 trial will be conducted in several European countries and the first patients have been screened.

ACI-24 in Down Syndrome

AC Immune has completed recruitment for the high-dose cohort of the ACI-24 Phase 1b study for the treatment of Alzheimer's disease-like characteristics in adults with Down Syndrome (DS), a condition affecting approximately one in 700 newborns. The first low-dose and the second high-dose cohorts have been fully recruited in August 2017 and in July 2018 respectively, and interim results of the low dose cohort are expected later in 2018. In addition to cognitive dysfunction beginning in childhood, individuals with DS are

*Positron Emission Tomography; °Clinical Dementia Rating-Sum of Boxes

genetically-predisposed to develop Abeta-related cognitive decline at a much younger age and with much greater probability than the general population.
To learn more about the Phase 1b clinical trial (3 Star Study), please visit ClinicalTrials.gov: NCT02738450.

Vaccines are key pipeline assets

Vaccines are potentially an important option for the treatment and prevention of neurodegenerative diseases with high market potential. AC Immune's promising pipeline of Abeta- and Tau-targeted therapies includes new diagnostic and treatment options, including various vaccines. ACI-24 is the Company's first vaccine entering in Phase 2 development. It enhances AC Immune's late stage clinical pipeline, containing one Phase 3 and multiple Phase 2 product candidates. We believe the pipeline is therefore well positioned to target both Abeta and Tau in a combined approach for a disease-modifying AD treatment.

About ACI-24

ACI-24 is a liposomal therapeutic anti-Abeta vaccine candidate, which generates antibodies specific to disease-causing conformations. The vaccine is designed to stimulate a patient's immune system to produce antibodies that specifically target the oligomeric and fibrillary Abeta proteins to prevent plaque accumulation and to enhance plaque clearance. Preclinical data demonstrated a significant activity in plaque reduction and memory restoration as well as a favorable safety profile characterized by a lack of local inflammation and a mode of action independent of T-cells. The vaccine is being studied in a Phase 2 clinical trial in patients with mild to moderate AD and in a Phase 1b study in young adult DS subjects, and has been proven to be safe with preliminary trends of efficacy.

About Alzheimer's disease

Evidence shows that AD develops because of a complex series of events that take place in the brain over an extended time-period. Two proteins – beta-amyloid (Abeta) and Tau – are recognized as major hallmarks of neurodegeneration: tangles and other abnormal forms of Tau protein accumulate inside the brain cells and spread between cells, while plaques and oligomers formed by beta-amyloid occur outside the brain cells of people with AD.

Alzheimer's disease is one of the biggest burdens of society with a dramatic and growing worldwide incidence rate of one new case every three seconds, or nearly 10 million new cases of dementia each year. Since the incidence and prevalence of AD increase with age, the number of patients will grow significantly as society ages. Worldwide in 2018 there were 50 million people living with dementia and by 2050 it is expected that global patient numbers will triple to 152 million[1]. It is estimated that the annual societal and economic cost of dementia has risen from USD 818 billion in 2015 to USD 1 trillion in 2018[1].

About Down Syndrome

Individuals with Down Syndrome have an extra copy of chromosome 21 which carries the gene for the Amyloid Beta Precursor Protein (APP) encoding the precursor protein of Abeta, one of the hallmarks of AD. An important consequence is that almost all subjects with Down Syndrome older than 40 years exhibit neuropathological changes similar to AD, in the form of senile plaque formation and neurofibrillary tangles[2,3]. It is estimated that there are 6 million people with DS worldwide, with 250,000 in the United States[4].

References

1 World Health Organization (WHO); Alzheimer‘s Disease International (ADI)

2 Head E, Powell D, Gold BT, Schmitt FA. Alzheimer's Disease in Down Syndrome. *European journal of neurodegenerative disease.* 2012;1(3):353-364

3 Castro P, Zaman S, Holland A. Alzheimer’s disease in people with Down’s syndrome: the prospects for and the challenges of developing preventative treatments. *Journal of Neurology.* 2017;264(4):804-813

4 Presson AP, Partyka G, Jensen KM, Devine OJ, Rasmussen SA, McCabe LL, McCabe ER.Parker. Current estimate of Down Syndrome population prevalence in the United States. *The Journal of Pediatrics*. 2013 Oct;163(4):1163-8

About AC Immune

AC Immune is a clinical-stage Swiss-based biopharmaceutical company, listed on Nasdaq, which aims to become a global leader in precision medicine for neurodegenerative diseases. The Company designs, discovers and develops therapeutic as well as diagnostic products intended to prevent and modify diseases caused by misfolding proteins. AC Immune’s two proprietary technology platforms create antibodies, small molecules and vaccines designed to address a broad spectrum of neurodegenerative indications, such as Alzheimer’s disease (AD) and Parkinson’s Disease. The Company’s pipeline features nine therapeutic and three diagnostic product candidates – with five product candidates currently in clinical trials. The most advanced of these is crenezumab, a humanized anti-amyloid-β monoclonal IgG4 antibody that targets monomeric and aggregated forms of amyloid-β, with highest affinity for neurotoxic oligomers. Crenezumab is currently in two Phase 3 clinical studies for AD, under a global program conducted by the collaboration partner Genentech (a member of the Roche group). Other collaborations include Biogen, Janssen Pharmaceuticals, Nestlé Institute of Health Sciences, Piramal Imaging and Essex Bio-Technology.

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. 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.

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