PRESS RELEASE

AC IMMUNE COMPLETES RECRUITMENT FOR LOW-DOSE COHORT OF PARTICIPANTS IN WORLD'S FIRST CLINICAL TRIAL FOR ANTI-ABETA VACCINE TARGETING ALZHEIMER'S DISEASE-LIKE CHARACTERISTICS IN INDIVIDUALS WITH DOWN SYNDROME

- **Phase 1b study of AC Immune's ACI-24, the first anti-amyloid vaccine for treatment of Alzheimer's disease-like characteristics in individuals with Down syndrome**
- **Collaboration with University of California San Diego, CA; St. Joseph's Hospital and Medical Center - Barrow Neurology Clinics, Phoenix, AZ; and Massachusetts General Hospital, Boston, MA**
- **Alzheimer's disease-like characteristics develop in virtually all of the Down syndrome population by age 40 with the majority developing associated dementia by age 60**

Lausanne, Switzerland, September 12, 2017 - AC Immune SA (NASDAQ: ACIU), a Swiss-based, clinical stage biopharmaceutical company with a broad pipeline focused on neurodegenerative diseases, today announced that it has completed recruitment in its Phase 1b study of the first, low-dose cohort of adults with Down syndrome (DS), a condition affecting one in about 700 newborns. In addition to cognitive dysfunction beginning in childhood, individuals with DS are predisposed to develop Alzheimer's disease-like characteristics at a much younger age and at much higher probability than the general population.

The Phase 1b study (called 3 Star Study, ClinicalTrials.gov Identifier: NCT02738450), is evaluating the safety, tolerability and immunogenicity of AC Immune's anti-Abeta vaccine ACI-24 and targeting Abeta related decline in individuals with DS. The trial is being conducted in collaboration with the Down Syndrome Center for Research and Treatment at the University of California San Diego (UCSD), CA; St. Joseph's Hospital and Medical Center and Barrow Neurological Clinics, Phoenix, AZ; and Massachusetts General Hospital, Boston, MA. AC Immune and the Alzheimer 's Disease Cooperative Study at UCSD coordinate the trial.

Prof. Andrea Pfeifer, CEO of AC Immune said: "Together with our prestigious partners, we are advancing this study to develop a disease-modifying treatment for Alzheimer's related symptoms and brain lesions to individuals with Down syndrome, a population who is genetically predisposed to Alzheimer's effects. ACI-24 is currently the only vaccine in development targeting the associated Abeta-induced cognitive decline in this population. We are excited to report that this study is on target as planned and our adherence to previous guidance underscores our commitment to being a leader in neurodegenerative diseases."

"We believe this ground-breaking clinical trial will enhance our understanding of early intervention and prevention of Alzheimer's disease in general. This knowledge supports the three pillars of our business strategy: Alzheimer's disease, other significant neurodegenerative diseases and neuro-orphan indications, and diagnostics of these diseases", added Prof. Pfeifer.

Dr. William Mobley, Executive Director of the UCSD Down Syndrome Research and Treatment Center, commented: "We are delighted with the progress of this ground-breaking clinical trial in adults with Down syndrome. We believe vaccination may add important value for the Down syndrome population by treating and preventing cognitive decline due to the presence of increased levels of Abeta in the brain of these subjects."

About the Phase 1b trial

The main objectives of the Phase 1b clinical trial (called 3 Star Study) include studying safety and tolerability of ACI-24 and its effect on induction of antibodies against Abeta. The low dose cohort trial participants are aged 25 to 45 and will be treated for 12 months, with a 12-month safety follow up.

The study includes up to 24 participants across all cohorts. Interim results of the first low dose cohort are expected in 2018. The study is being funded through a grant from the US National Institute on Ageing, a part of the US National Institutes of Health (NIH) with an additional grant from the LuMind Research Down Syndrome Foundation. This is the first public/private collaboration for a clinical trial in the field of Down syndrome.

Ground-breaking Publication

On 29 March 2016, PLOS ONE published the paper *an anti-Abeta-Amyloid Vaccine for Treating Cognitive Deficits in a Mouse Model of Down Syndrome.* The ground-breaking publication describes the use of an established pre-clinical model for Down syndrome in which there is an extra copy of the gene for the Amyloid Precursor Protein (APP) and, therefore, increased levels of Abeta. The breakthrough is the application of this model to test the impact of an anti-Abeta vaccine. Results show that there was a clear immune response, neuroprotection, improvement in behavior and memory enhancement in those mice administered with the ACI-24 vaccine compared to those in the control group.

The pre-clinical study involved scientists from AC Immune, Lausanne, CH; the Department of Neurosciences, School of Medicine, University of California San Diego, La Jolla, CA; and the Department of Neurology and Neurological Sciences, Stanford Medical School, Stanford, CA. The full publication is available at PLOS ONE.

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 Alzheimer's disease. An important consequence is that individuals with Down syndrome develop AD-like characteristics at a rate three to five

times greater than that of the general population and at a much younger age. Further, Alzheimer's-like characteristics develop in more than 98% of people with DS over age 40 with up to 80% developing associated dementia over the age of 60. It is estimated that there are 6 million people with DS worldwide, with 250,000 in the United States.

About ACI-24

ACI-24 is a liposomal therapeutic anti-Abeta vaccine candidate, owned by AC Immune and discovered utilizing the Company's proprietary SupraAntigen™ technology platform which focuses on vaccines and 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 inflammatory T-cells. The vaccine is currently also being studied in a phase 1/2a clinical trial in patients with mild to moderate AD, in which no particular safety signals have been detected to date.

About Alzheimer's disease

Evidence shows that Alzheimer's disease develops because of a complex series of events that take place in the brain over an extended time-period. Two proteins - Tau and beta-amyloid (Abeta) - 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 Alzheimer's disease.

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 9.9 million new cases of dementia each year. Since the incidence and prevalence of Alzheimer's disease increase with age, the number of patients will grow significantly as society ages. Worldwide in 2015 there were 46.8 million people living with dementia and by 2050 it is expected that global patient numbers will triple to 131.5 million. It is estimated that the annual societal and economic cost of dementia has risen from US$604 billion in 2010 to US$818 billion in 2015. In the US, Alzheimer's disease is now the 6th leading cause of death across all ages and is the fifth leading cause of death for those aged 65 and older.

About AC Immune

AC Immune is a clinical stage Swiss-based biopharmaceutical company focused on neurodegenerative diseases with four product candidates in clinical trials. The Company designs, discovers and develops therapeutic and 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. The Company's pipeline features nine therapeutic and three diagnostic product candidates. The most advanced of these is crenezumab, an anti-Abeta antibody in phase 3 clinical studies that is being advanced by the collaboration partner Genentech, Inc., a wholly owned subsidiary of Roche. Other business partners include Biogen, Janssen Pharmaceuticals, Nestlé Institute of Health Sciences, Piramal Imaging and Essex Bio-Technology.

About University of California, San Diego, Down Syndrome Research and Treatment Center

Established in 2009, the Center's efforts focus on defining the genes and mechanisms responsible for the cognitive challenges faced by people with Down syndrome. Studies are carried out in both mouse models and in mouse and human cellular models. The insights derived support translation of basic science findings into new treatments, using either existing drugs or through drug discovery. The Center's work has resulted in conceptual innovations and several novel treatment targets and has inspired existing trials including the study mentioned in this press release. The Center is supported by the NIH and private foundations, including the LuMind Research Down Syndrome Foundation, the Alzheimer's Association, the Tau Consortium and the Cure Alzheimer Fund.

Disclaimer NIH

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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. 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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