AC Immune Presents the Latest Preclinical Data on Novel Drug Targets for Neurodegenerative Diseases

April 2, 2020

Seven presentations by AC Immune and its partners at AAT-AD/PD™

New data on early-stage TDP-43 and alpha-synuclein therapeutic and diagnostic candidates

A lead anti-alpha-synuclein therapeutic antibody candidate has advanced into preclinical development to treat Parkinson's disease and other synucleinopathies

LAUSANNE, Switzerland, April 02, 2020 (GLOBE NEWSWIRE) -- AC Immune SA (NASDAQ: ACIU), a Swiss-based, clinical-stage biopharmaceutical company today outlined new preclinical data that will be presented at this year's first ever online AAT-AD/PD™ Focus Meeting from April 2–5, 2020. The presentations describe proof-of-concept preclinical data for lead candidates in AC Immune's therapeutic and diagnostic programs targeting TDP-43 and alpha-synuclein. These pathological proteins represent targets of increasing interest for the treatment of neurodegenerative diseases, and AC Immune's programs are amongst the most advanced in the field.

Prof. Andrea Pfeifer, CEO of AC Immune SA, commented: "Our heritage as a leader in delivering cutting-edge science and our strong cash position provides the foundation to continue advancing data on novel targets for neurodegenerative diseases. The aggregation of pathological forms of TDP-43 and alpha-synuclein proteins are hallmarks of numerous neurodegenerative diseases, including neuroOrphan indications such as frontotemporal lobar degeneration, amyotrophic lateral sclerosis and multiple system atrophy. As novel therapeutic targets in Alzheimer's disease (AD), it has been shown that patients with a high degree of Abeta and Tau pathologies also show a high level of alpha-synuclein and/or TDP-43 co-pathology."

Prof. Pfeifer continued: "The prevalence of co-pathologies in AD and other neurodegenerative diseases highlights the need for the precision medicine pioneered by AC Immune and the opportunity for earlier and more accurate diagnosis. As one of the most advanced programs targeting TDP-43, with *in vivo* proof-of-concept data, we intend to develop our antibody candidate in a neuroOrphan indication. Leading the way in developing the first TDP-43 positron emission tomography (PET) imaging agent, we hope to improve the timing and accuracy of diagnoses in neurodegenerative disease, representing our complementary diagnostics portfolio."

TDP-43 and alpha-synuclein pathologies have been shown to start from a focal point in the brain and progressively spread to other brain regions with disease progression. Antibody-mediated clearance of pathological TDP-43 and alpha-synuclein represent attractive strategies for therapeutic intervention. Availability of non-invasive tools like PET imaging agents would allow accurate diagnosis and monitoring of disease progression, and would potentially enable longitudinal drug efficacy measurements in patients.

The three preclinical studies that will be presented at AAT-AD/PD™ illustrate howAC Immune continues to leverage its proprietary technology platforms, SupraAntigen™ and Morphomer™ to develop product candidates against pathologies associated with TDP-43 and alpha-synuclein.

Anti-TDP-43 antibody

Data to be presented for the first time, shows that the Company's lead TDP-43 antibody candidate mitigated TDP-43 neuropathology in a mouse model of TDP-43 proteinopathies. The unique pool of TDP-43 antibodies generated by AC Immune's proprietary SupraAntigen™ platform also allowed development of highly sensitive assays for detection and quantification of total and disease-specific TDP-43 isoforms in biofluids with the potential for clinical biomarker evaluation.

Morphomer™ TDP-43 imaging

Data for a first in class TDP-43 PET tracer will illustrate how the lead candidate was identified and optimized. The lead candidate, generated using the proprietary Morphomer™ platform, demonstrates binding to brain-derived pathological TDP-43 aggregates with high affinity and, importantly, direct target engagement on patient brain tissue.

Anti-alpha-synuclein antibody

Using the SupraAntigen™ platform, antibodies with high-affinity for aggregated alpha-synuclein have been developed which prevent the intercellular spreading of toxic alpha-synuclein species. Data, presented for the first time, demonstrate that lead candidate antibodies reduce the *de novo* formation of alpha-synuclein aggregates *in vitro* and significantly decrease spreading of alpha-synuclein pathology in a mouse model of human disease. A lead therapeutic candidate has been advanced into preclinical development to treat Parkinson's disease and other synucleinopathies.

Prof. Pfeifer added: "AC Immune continues to deliver on its Roadmap to Successful Therapies for Neurodegenerative Diseases, enabling precision medicine by selecting clinical study populations based on the presence of the underlying proteinopathies."

AAT-AD/PD™ features seven presentations byAC Immune and its partners:

- Exploratory analysis of biomarker data from Phase 2/3 crenezumab studies using the neurotoolkit assay panel
  Date: April 2, 2020 | 11:40 – 12:00 am CET
  Presenter: Oral presentation Christina Rabe (Roche program)

- 18F-PI2620 Tau-PET for assessment of heterogeneous neuropathology in corticobasal syndrome

Date: April 2, 2020 | 12:40 – 1:00 pm CET
Presenter: Oral presentation by Carla Palleis (Life Molecular Imaging program)

- Development of ACI-35.030, a second generation anti-phospho tau vaccine, in clinical evaluation for the treatment of Alzheimer's disease
  Date: April 2, 2020 | 6:15 – 6:35 pm CET
  Presenter: Oral presentation by Marija Vukicevic

- Monoclonal antibody targeting TDP-43 mitigates associated neuropathology in mouse model of TDP-43 proteinopathy
  Date: April 3, 2020 | 3:10 – 3:30 pm CET
  Presenter: Oral presentation Tariq Afroz

- Discovery and optimization of candidates for molecular imaging of TDP-43 proteinopathies
  Date: April 3, 2020 | 9:29 – 9:35 am CET
  Presenter: Short oral poster presentation by Tariq Afroz

- 18F-PI-2620 Tau PET is associated with beta-amyloid in MCI or mild-AD dementia subjects from the elenbecestat Mission AD program
  Date: April 3, 2020 | 5:50 – 6:10 pm CET
  Presenter: Oral presentation Andrew Stephens (Life Molecular Imaging program)

- Targeting spreading of pathological alpha-synuclein to treat Parkinson's disease
  Date: April 5, 2020 | 8:55 – 9:15 am CET
  Presenter: Oral presentation Elpida Tsika

AC Immune's presentations are available to download from the AAT-AD/PD™ website for those registered to attend the congress.

About AC Immune SA

AC Immune SA is a Nasdaq-listed clinical-stage biopharmaceutical company, which aims to become a global leader in precision medicine for neurodegenerative diseases. The Company utilizes two proprietary platforms, SupraAntigen™ and Morphomer™, to design, discover and develop small molecule and biological therapeutics as well as diagnostic products intended to diagnose, prevent and modify neurodegenerative diseases caused by misfolding proteins. The Company's pipeline features nine therapeutic and three diagnostic product candidates, with six currently in clinical trials. It has collaborations with major pharmaceutical companies including Roche/Genentech, Lilly and Janssen.

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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.

Source: AC Immune SA