GeNeuro and Servier announce successful 12-month results in neuroprotection for Phase 2b CHANGE-MS Study with GNbAC1 in Multiple Sclerosis

- Positive results on key endpoints related to neuroprotection
- Safety of GNbAC1 confirmed
- GeNeuro will hold a conference call and webcast today Monday, March 26th at 2:00 pm CEST / 8:00 am EDST, to discuss results

Geneva, Switzerland, and Paris, France, March 26, 2018 – 7:30 am CEST – GeNeuro (Euronext Paris: CH0308403085 – GNRO) and Servier announced today positive results at 12 months from the CHANGE-MS Phase 2b study of GNbAC1, a novel and promising therapeutic approach for the treatment of multiple sclerosis (MS). The data showed that GNbAC1 administration had a significant, consistent positive impact on key neuroprotection markers known to be linked to disease progression. This is the first time that the benefit of a treatment targeting endogenous retrovirus protein is shown in a clinical trial.

In this 270-patient study, conducted in 12 European countries, MRI showed a coherent neuroprotective benefit on brain atrophy. Benefits were seen in cortical and thalamic atrophy, with relative volume loss reductions of 31% and 72% respectively between the highest dose of 18 mg/kg and control group[1], with a statistically significant dose-relationship[2] for both (p=0.045 and P=0.014 respectively). Whole brain atrophy revealed a 29% relative reduction in brain volume loss over 12 months for the highest dose versus the control group, with a trend in dose-relationship[2] (p=0.079).

In addition, the number of T1 hypointense lesion (black holes, a marker of permanent tissue destruction in the brain) of at least $14mm^3$ volume was reduced by 63% (p=0.014) at the end of the study in the 18mg/kg versus control group.

The benefit in Magnetization Transfer Ratio (MTR) signal of 18mg/kg relative to the placebo at 6 months remained stable versus the control group over the second period of the trial, in both normal appearing white matter and cerebral cortical bands, consistent with a potential benefit on remyelination.

For most MRI measures of neuroinflammation, all groups improved from Month 6 to Month 12, however there was no significant separation between treatment groups. The trend seen in post-hoc analyses at 6 months on neuroinflammatory markers, after the primary endpoint of reducing the total number of cerebral Gadolinium-enhancing lesions as measured by MRI was not met, did not translate into a relevant result at 12 months.

No organ-class related toxicity and no dose dependent adverse events were observed. GNbAC1 continued to show an excellent tolerability profile throughout the study.

"What is impressive is the consistency of the effect already observed at one year across all these key markers of neurodegeneration, and that this effect appears to be independent from an anti-inflammatory action," **noted Prof Hans-Peter Hartung, chairman of the Department of Neurology of the University Hospital Düsseldorf and Lead Investigator of the study.** *"These positive effects are very promising, and may open new doors towards addressing the key unmet medical need of disease progression in MS."*

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[1] *Control group: defined as patients originally randomized to placebo for the first 6 months, before being re-randomized to active therapy for the second period of 6 months.*
[2] *Spearman's Rank Correlation Coefficient*

"The positive impact of GNbAC1 on neuroprotection markers opens a novel therapeutic perspective for MS, in line with Servier's ongoing commitment to bringing new, safe and effective treatments to patients. Based on this joint achievement, we will now assess the next development steps with our partner to bring these benefits to patients," **stated Dr. Christian de Bodinat, Director of Servier's Neuro-psychiatry Centre for Therapeutic Innovation.**

"These results are a significant success for GeNeuro as they demonstrate the role played by pathogenic HERV-W protein in patients affected by MS. It supports the concept of altering the neurodegenerative course of MS by treating a causal factor of the disease, as suggested by preclinical research," **stated Jesús Martin-Garcia, CEO of GeNeuro.** *"These clinical results support GeNeuro's efforts to develop this approach in other HERV-related diseases such as Type 1 Diabetes, CIDP[3] and Amyotrophic Lateral Sclerosis".*

GNbAC1 is a monoclonal antibody designed to neutralize a pathogenic protein encoded by a member of the Human endogenous retroviruses (HERV-W) family. HERVs are ancestral, retroviral DNA insertions in the human genome, thought to account for up to 8% of the total DNA. The pHERV-W protein is thought to be a causal factor in the development of multiple sclerosis, Type 1 diabetes and CIDP.

GeNeuro is presently conducting a 60-patient Phase IIa with GNbAC1 in T1D with expected top line results in September 2018, and has received an Orphan Drug Designation from the FDA for GNbAC1 in CIDP. In 2017, GeNeuro entered into a research agreement with the US NIH for developing new approaches against pHERV-K protein as a target in the treatment of Amyotrophic Lateral Sclerosis (ALS).

CHANGE-MS Phase 2b study was fully funded through a €362.5 million[4] partnership signed with Servier in 2014, in which Servier is involved in the development and potential commercialization of GNbAC1 in MS in territories ex USA and Japan.

Achieving these positive Phase 2b results through the neutralization of pathogenic HERV-W protein supports its causal role in the neurodegenerative mechanisms of MS. GNbAC1 may provide a safe treatment option against neurodegeneration unrelated to inflammation in all forms of the disease, a major objective that is not addressed by currently available MS treatments.

GeNeuro will hold a conference call and webcast on Monday, March 26th at 2:00 pm CEST / 8:00 am EDST, to discuss the 12-months results of its Phase 2b clinical study, followed by a Q&A session.

The call is accessible via the below teleconferencing numbers, followed by the Conference ID#: **34747005#**
- France: +33 170710159
- Switzerland: +41 445831805
- UK: +44 2071943759
- USA: +1 8442860643

The webcast can be followed live online via the link:
https://www.anywhereconference.com?Conference=418745925&PIN=34747005&UserAudioMode=DATA

Following the live call, a replay will be available on the GeNeuro website: www.geneuro.com

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[3] *Chronic Inflammatory Demyelinating Polyradiculoneuropathy*
[4] *Maximum value, excluding royalties, dependent on achieving development milestones.*

About CHANGE-MS Phase 2b study
(**C**linical trial assessing the **H**ERV-W Env **An**tagonist **G**NbAC1 for **E**fficacy in **M**ultiple **S**clerosis)

- Randomized, double-blind, placebo-controlled study of 270 RRMS patients in 50 clinical centers in 12 European countries
- 6 month study with extension up to one year for secondary endpoints
- Primary endpoint: assess the efficacy based on the number of inflammatory lesions seen on repeated brain MRI, assessed at the end of the placebo-controlled period
- Secondary endpoints: MRI measures of neurodegeneration, clinical parameters at 6 and 12 months

About Multiple Sclerosis (MS)

MS is a disease of the central nervous system (brain and spinal cord) that affects more than two million people worldwide, with most patients being diagnosed between the ages of 20 and 40 years.

MS is a consequence of inflammatory and neurodegenerative processes leading to damage of the protective myelin sheath surrounding the neurons, and of the neurons themselves, what is called neurodegeneration. This process hampers nerve impulses from travelling between the brain and the rest of the body, thereby causing the symptoms associated with this disease. Preclinical research demonstrated that pathogenic HERV-W protein negatively impacts myelin restoration by directly inhibiting oligodendrocyte precursor cells (OPC), and induces inflammation by microglia activation. Relapsing-remitting multiple sclerosis (RRMS) is characterised by infrequent, acute exacerbations with full or partial recovery between attacks. All currently available Disease Modifying Treatments act on the inflammatory aspect of the disease. However, neurodegenerative processes play a major role in developing of long term disability in all forms of MS, both relapsing and progressive.

About GNbAC1

The development of GNbAC1 is the result of more than 25 years of research into human endogenous retroviruses (HERVs), including 15 years at Institut Mérieux and INSERM, a French national medical research institute. Found in the human genome, certain HERVs have been linked to various autoimmune and neurodegenerative diseases. The retroviral envelope protein, encoded by a pathogenic member of the HERV-W family (pHERV-W env) has been identified in brain lesions of patients with MS, particularly in active lesions, and in the pancreas of type 1 diabetes (T1D) patients. By neutralizing pHERV-W env, GNbAC1 could at the same time block pathological inflammatory processes and restore remyelination in MS patients and maintain insulin production in T1D patients. As pHERV-W env has no known physiological function, GNbAC1 is expected to have a good safety profile, without affecting the patient's immune system, as observed in all clinical trials to date.

About GeNeuro

GeNeuro's mission is to develop safe and effective treatments against neurological disorders and autoimmune diseases, such as multiple sclerosis, by neutralizing causal factors encoded by HERVs, which represent 8% of human DNA.

GeNeuro is based in Geneva, Switzerland and has R&D facilities in Lyon, France. It has 30 employees and rights to 16 patent families protecting its technology.

For more information, visit: www.geneuro.com

About Servier

Servier is an international pharmaceutical company governed by a non-profit foundation, with its headquarters in France (Suresnes). With a strong international presence in 148 countries and a turnover of 4.152 billion euros in 2017, Servier employs 21,600 people worldwide. Entirely independent, the Group reinvests 25% of its turnover (excluding generic drugs) in research and development and uses all its profits for development. Corporate growth is driven by Servier's constant search for innovation in five areas of excellence: cardiovascular, immune-inflammatory and neuropsychiatric diseases, cancer and diabetes, as well as by its activities in high-quality generic drugs.

Servier has a solid commitment to neuropsychiatry and to proposing innovative therapies to patients suffering from neurological conditions. Its research teams are investigating new ways of treating diseases such as Alzheimer's and Parkinson's, as well as a broad range of neurodegenerative disorders, by targeting the toxic proteins that lead to neuron degeneration. The priority is to focus on the causes of the diseases rather than their symptoms. Currently, there are 5 projects at different stages of research and development in this promising area. This portfolio of innovative treatments is being developed with academic and industrial partners worldwide.

More information: www.servier.com

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