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Press Release

Journal Of Antimicrobial Agents and Chemotherapy (AAC) Highlights Advantages Of GenOdyssee's Lead Virology Drug Candidate, GEA007.1, for Hepatitis C Indications

Paris, France, Oct 10, 2006 - GenOdyssee S.A. announced today that the Journal of Antimicrobial Agents and Chemotherapy (AAC*), an official peer-reviewed journal of the American Society for Microbiology (ASM publications; <http://www.asm.org/>), has accepted a manuscript describing stronger and more sustained inhibitory effect of GenOdyssee's lead antiviral drug candidate, GEA007.1, against the replication of the hepatitis C virus (HCV) genotype 1, using a cell line harbouring a HCV genotype 1b subgenomic replicon, as compared to standard IFN alpha 2b molecule. A PDF version of the peer reviewed and accepted manuscript has been posted on the Journal website (<http://aac.asm.org/>) and is accessible via the feature called "AAC Accepts" (Escuret, V. et al. Antimicrob. Agents Chemother. 9 October 2006. doi:10.1128/AAC.00199-06). GEA007.1, GenOdyssee's lead virology candidate, is now ready to enter IND enabling studies and Phase I clinical trials.

"This publication demonstrates what we believe is the innovative power of GenOdyssee's approach to discovery of superior protein therapeutics" said Jean-Louis Escary, CEO of GenOdyssee and co-lead author with Pr Fabien Zoulim, M.D., Ph.D., corresponding author and head of "Laboratoire des virus hépatiques et pathologies associées" where was conducted the study (INSERM U271, Lyon - France). "The discovery and development of GEA007.1 represents a great accomplishment by the entire team of the integrated technology platform that has been invented and assembled at GenOdyssee, and is now entirely outsourced to highly skilled and specialized service providers selected by us". "It also exhibits an exemplary interdisciplinary effort by all, including the team of "Laboratoire des virus hépatiques et pathologies associées", to identify and characterize this potent anti-HCV molecule". "The discovery of this natural variant of human interferon (IFN) alpha 17 represents a significant breakthrough in HCV research. IFN alpha 2, while a potent anti-HCV treatment for 20 years, has always suffered from a lack of efficiency -- and poor safety - with patients infected with HCV genotype 1. Current treatments are based on pegylated forms of IFN alpha 2a and IFN alpha 2b associated to ribavirin. This induces a sustained virological response (SVR) in approximately 60% of cases. The rate of SVR varies from 30-40% in patients infected with genotype 1, to 80-90% for those infected with genotype 2 or 3. It is therefore important to improve current molecules to overcome lack of efficacy of current treatments, especially in patients infected with HCV genotype 1. The availability of its

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potent anti-HCV genotype 1 IFN alpha molecule GEA007.1, will allow GenOdyssee to test its potential in the inhibition of HCV replication in humans, and eventually to overcome failure of current treatments in HCV genotype 1-infected non-responders or relapsing patients who currently represent an unmet clinical need". "The company has initiated discussions with international CMOs and non PEG-based protein therapeutics delivery system companies, to develop a slow release version of GEA007.1 that would not affect its superior anti-HCV properties but would allow apply lower doses in humans, compared to IFN alpha 2 therapies."

Overview of the Paper

The paper describes the discovery of a more potent inhibitory effect of GenOdyssee's lead virology drug candidate, GEA007.1, as compared to IFN alpha 2b, against HCV genotype 1 replication in an hepatoma cell line harbouring an HCV genotype 1b subgenomic replicon (BM4-5 cells), a relevant model to study some aspects of HCV genotype 1 biology as well as the effect and mechanism of action of antiviral agents against HCV genotype 1 RNA synthesis. Original variants of IFN alpha discovered using GenOdyssee's proprietary drug discovery technology, were evaluated and compared to IFN alpha 2b, for their anti-HCV genotype 1 effect in BM4-5 cells. The paper delineates the identification, production, and administration of GenOdyssee's IFN-alpha variants and standard IFN alpha 2b, as well as cell culture conditions, cell viability assays, HCV RNAs, human IFN receptor signal transduction pathway, and IFN-alpha responsive gene expression analyses in BM4-5 cells treated with the different IFN alpha variants. Only GEA007.1, and to a lesser extent GEA013.1, appeared significantly more potent than IFN alpha 2b to inhibit HCV genotype 1 replication in BM4-5 cells. Interestingly, the paper shows that long-term (21 day) treatment of BM4-5 cells with GEA007.1 provoked the eradication of HCV genotype 1 subgenomic RNAs (both strands), in contrast to standard IFN alpha 2b tested in the same conditions. GEA007.1 is therefore a potent inhibitor of HCV genotype 1 RNA replication and its excellent antiviral activity after a prolonged treatment addresses the pharmaceutical deficiencies historically associated with IFN alpha 2 drugs with HCV genotype 1. This correlates in the paper with a better and faster stimulation/recruitment of key proteins of the classical type 1 IFN (JAK-STAT) transduction pathway and with a stronger and broader expression of IFN responsive genes in BM4-5 cells after treatment with GEA007.1, as compared to cells treated with IFN alpha 2b. In addition, the paper shows that all IFN alpha variants tested, including IFN alpha 2b, did not show any cytotoxic effect on BM4-5 cells, establishing that the better inhibitory activity of GEA007.1 over IFN alpha 2b, on HCV genotype 1 replication, was not due to toxicity.

About GEA007.1

GEA007.1 is GenOdyssee's original, proprietary virology drug candidate that has demonstrated in pre clinical studies the ability to potently inhibit cancer cell proliferation and virus replication using state-of-the art models of IFN alpha activity (Daudi, VSV, EMCV). In addition, it has demonstrated the ability to potently inhibit the replication of two different forms of the hepatitis C virus, HCV genotype 1 & 3. In pre clinical studies, GEA007.1 has also demonstrated a weak antigenicity profile. GEA007.1



is a novel, natural, and genetic variant of human IFN alpha 17 which incorporates an original mutation that provides both a novel electrostatic charge as well as a novel tri-dimensional structure to the receptor binding site of the human IFN alpha 17 protein.

GEA007.1 is IP protected in all major countries. Corresponding patent applications have been granted in the European Union, Singapore, South Africa, New Zealand, and are pending in the United States, Japan, India, China, plus another 10 countries.

About GenOdyssee, S.A.

GenOdyssee is an innovative drug discovery company that is seeking to leverage its unique strength in protein therapeutics and natural genetic variation technologies to bring important new medicines to patients. GenOdyssee uses a unique population genetics-based approach to the discovery of next generation protein therapeutics with superior properties. The company pioneered the vision that natural evolution may have led to the generation in the current population of unpredictable mutations that confer superior or novel therapeutic status to known human therapeutic proteins.

The company has accumulated a strong, unique and leading IP position in the domain of natural genetic variation applied to protein therapeutics. It's technology is applicable to a very broad range of proteins of potential use in human therapy across many disease areas and may provide a wealth of next-generation protein therapeutics.

GenOdyssee's current pipeline is constituted of 2 lead IFN alpha products, GEA007.1 and GEA009.2, for applications in respectively, hepatitis C and cancer immunotherapy treatments, as well as a natural human erythropoietin (EPO) mutant, named GO-EPO, with improved potency compared to first generation human EPO alpha.

The company has created an efficient, cost-saving driven, value creation model based on project management and outsourcing of its proprietary and integrated drug discovery process to highly skilled and experienced service providers, minimal internal fixed costs and a highly flexible structure. This low-burn model has proven successful and acceptable to industrial partners and a first deal will be announced shortly, and therefore it will be largely retained; development projects as well as novel discovery projects will be out-sourced to identified and highly experienced service providers.

For more information about the company, please visit the company's website at www.genodyssee.com

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***About AAC**

Antimicrobial Agents and Chemotherapy (AAC) is a major forum exclusively devoted to antimicrobial, antiviral, antifungal, and antiparasitic agents and chemotherapy. It is also a key source for microbiologists, pharmaceutical researchers, biochemists, pharmacologists, clinicians, and other specialists in infectious diseases. AAC has been ranked among the top 10 journals in Microbiology by the Scientific evaluation tool [ISI Essential Science Indicators](#) (the order is determined by each journal's cites-per-paper score).