



Press Release

CILIAN AG: Major Milestone in the Production of Recombinant Influenza Vaccine

Münster, Germany, October 10, 2011:

CILIAN succeeded to produce the recombinant protein hemagglutinin as a potential vaccine candidate for the preventative treatment of seasonal H1N1 influenza. This was achieved using Cilian's proprietary Ciliate performance expression system, CIPEX. Cilian's R&D team transformed the viral gene of the influenza virus into Ciliates; produced the recombinant hemagglutinin (rHA) in pilot scale; and purified the recombinant protein for preclinical testing.

Animal tests showed that the rHA produced with Ciliates induced strong inhibitory immunogenicity *in vivo* compared to another recombinant hemagglutinin and a common egg based monovalent vaccine.

Further details of this significant breakthrough, including results generated through CIPEX will be presented by Dr. Marcus Hartmann, Cilian's Chief Scientific officer at:

Event: The World Vaccine Manufacturing Congress
Location: Palais des Congres de Lyon, Lyon, France
Title: "Ciliates—a new expression technology for manufacturing of flu and malaria vaccines"
Session: "Novel Manufacturing Platforms"
Date: Wednesday, October 12, 2011
Time: 10:40 h CET in room RHONE 3

The heterologous expression of the viral hemagglutinin has significant advantages over conventional viral proliferation in embryonated chicken eggs or insect cell based expression systems. Ciliates are known to grow fast and can be used in conventional fermentation equipment. In consequence Ciliates can produce the main antigen for the vaccine much faster than by proliferation of the living flu virus in host cells.

This milestone represents a major step forward in the quest to develop and produce recombinant influenza vaccines in a safer and more efficient manner. Ciliates offer a much quicker turnaround from the identification of the genetic makeup of seasonal influenza strains to the delivery of a recombinant vaccine within just a few months. Projections also indicate that this improved process can be carried out more economically than with current production methods.

About Cilian AG

Founded in 2001 by Dr. Marcus Hartmann, CILIAN AG is an emerging biotechnology company developing and marketing a novel expression system. The Company uses a species of Ciliates, a eukaryotic single-cell organism, for the production of preventive and therapeutic proteins, such as monoclonal antibodies and vaccines against parasitic and viral diseases.

For further information, visit www.cilian.com or contact:

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