

Visterra Announces an Oral Presentation of VIS410 Data that Showed Neutralization of H5 and H7 Influenza Strains with Pandemic Potential

- Preclinical results presented at ICAAC 2013 demonstrated the ability of VIS410 to neutralize influenza strains with pandemic potential, H5N1 and H7N9
- VIS410, a novel engineered human antibody against seasonal and pandemic flu, is advancing to the clinic in 2014

Cambridge, MA – September 12, 2013 – Visterra, Inc., developer of novel therapeutics to treat major infectious diseases, announced positive preclinical data showing that VIS410 demonstrated neutralization of H5N1 and H7N9 influenza strains that have pandemic potential. Developed using Visterra's innovative antibody design technology, VIS410 is designed to be a broadly protective, fully human monoclonal antibody that targets a site on influenza hemagglutinin (HA) that is present across all influenza A subtypes and is resistant to mutation. These data were presented in a late-breaking oral session today at the 53rd Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) in Denver.

"We are very encouraged by this data which showed the broad potential of VIS410 to neutralize two of the most dangerous influenza strains with pandemic potential, H5N1 and H7N9. If H5N1 or H7N9 strains evolve to transmit efficiently in humans, effective vaccines may be lacking or delayed for use in a pandemic setting, and VIS410 could be a critical new treatment option," said Donna M. Ambrosino, M.D., Chief Medical Officer at Visterra. "With these results, VIS410 continues to demonstrate expanded potential across a broad spectrum of influenza A strains, bolstering our plans to develop VIS410 as a novel universal agent to prevent and treat both seasonal and pandemic influenza."

Highlights of the oral presentation, titled "VIS410, a broadly HA-targeting human antibody, neutralizes H5 and H7 isolates with pandemic potential," include:

- VIS410 potently neutralized H5-typed pseudovirus particles encoding predicted mutations for human adaptation, with EC50 (half maximal effective concentration) values at or below 0.1 nM.
- The ability of VIS410 to prevent H7N9 infection was tested in a lethal mouse model using strain Anhui/2013. A single dose of VIS410, administered 24 hours before H7N9 inoculation, significantly extended survival compared to placebo control.

"These results build upon encouraging data presented at the Options for the Control of Influenza conference in Cape Town last week which showed the broadly protective properties of VIS410 as an effective preventive and therapeutic agent either alone or in combination with anti-viral drugs," said Brian J. G. Pereira, M.D., President and Chief Executive Officer of Visterra. "We plan to initiate human clinical trials with VIS410 in 2014," he continued.

About Influenza

Influenza virus infection is one of the most common infectious diseases, which can lead to severe illness and death. Influenza epidemics occur yearly during autumn and winter, resulting in about three to five million cases of severe illness, and about 250,000 to 500,000 deaths worldwide. Although the usual strains of influenza that circulate annually are a significant public health concern, far more lethal influenza strains have emerged periodically, some leading to pandemics. Recently, both H5N1 and H7N9 isolates have emerged in humans causing severe disease with high mortality, although only limited human to human transmission has been observed thus far. However, predicted mutations in both H5 and H7 strains have been described that would enhance human to human transmission, creating pandemic potential. Finally, increased concern for H7N9 is fueled by data that the strains are more readily transmitted from poultry to humans compared to other avian influenza viruses, and also the documentation of resistance to anti-viral drugs^{1,2}.

About VIS410

VIS410 is a monoclonal antibody designed to neutralize all influenza A strains and offers potential for both prevention and treatment of seasonal and pandemic influenza. Although safe and effective vaccines have been available and used for more than 60 years and effectively used for the general population, influenza viruses are constantly changing, and the annual vaccine is developed based on a prediction of the most prominent strains each season. Further challenges are emerging with novel influenza viruses such as H7N9. A universally effective monoclonal antibody, such as VIS410, could be immediately available and could be utilized for containment strategies, and prevention as well as treatment for strains causing severe disease. VIS410 is being developed for clinical studies and expected to enter clinical trials in 2014. The unique epitope that VIS410 targets also holds promise for the development of a universal vaccine.

About Visterra

Visterra discovers and develops novel antibodies for the prevention and treatment of major infectious diseases. The company's proprietary antibody engineering technology generates unique structural information that identifies novel target epitopes (sites recognized by antibodies) and guides the design of antibodies which specifically target these epitopes to effectively combat disease. The company's lead antibody product candidate, VIS410, is a broad spectrum monoclonal antibody for the prevention and treatment of both seasonal and pandemic influenza. The company is building a proprietary pipeline of novel antibodies in infectious disease, and continuing to expand its disease area focus through strategic partnerships. The company announced an antibody discovery collaboration deal with Pfizer in September, 2012 and the Bill & Melinda Gates Foundation in November, 2012. Visterra was founded based on the scientific work of Dr. Ram Sasisekharan at MIT, and is currently backed by Polaris Partners,

Flagship Ventures, Lux Capital, the Bill & Melinda Gates Foundation, and Omega Funds. For more information please visit www.visterrainc.com.

¹Mok et al. (2013) mBio 4(4):e00362-13. ²Hu et al. (2013) Lancet. 381:2273-2279

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