



**For information contact:**

Jessica Rowlands  
Feinstein Kean Healthcare  
202-729-4089  
jessica.rowlands@fkhealth.com

**GENOCEA INITIATES A PHASE 1/2a STUDY WITH ITS THERAPEUTIC VACCINE CANDIDATE FOR  
HERPES SIMPLEX VIRUS-2 (HSV-2)**

- First-in-class protein subunit T cell vaccine aims to control HSV-2 clinical symptoms and recurrence
- First clinical candidate to emerge from Genocea's ATLAS™ antigen discovery platform
- Potentially the first therapeutic vaccine approved to address an infectious disease

Cambridge, MA, August 15, 2012—Genocea Biosciences announced today that it has initiated a Phase 1/2a clinical study with its lead candidate, GEN-003. GEN-003 is an investigational vaccine designed to stimulate T cell and B cell immune responses to potentially reduce the frequency and severity of clinical outbreaks associated with moderate-to-severe Herpes Simplex Virus type 2 (HSV-2) infection.

This study is a double-blind, placebo-controlled dose escalation clinical trial enrolling approximately 150 volunteers with moderate-to-severe HSV-2 infection who are otherwise healthy. The study will seek to evaluate the safety and tolerability of GEN-003 and its ability to stimulate the immune system, as well as determine the impact of the vaccine upon viral shedding, which is considered to be a marker of disease recurrence and transmission.

Unlike prior investigational vaccines for HSV-2, GEN-003 is designed as a protein subunit vaccine to induce balanced B and T cell immune responses, which may be critical for addressing infections not sufficiently controlled by the B cell, or antibody, arm of the immune system alone. The vaccine is comprised of two proteins, ICP4 and gD2, as well as Matrix M™, a proprietary adjuvant from Isconova AB.

"T cell immunity is increasingly understood as essential to providing protection against many infectious diseases," said Seth Hetherington, MD, Chief Medical Officer of Genocea Biosciences. "Our platform enables us to comprehensively evaluate potential T cell antigens with a speed not possible through traditional methods. This program provides the first opportunity to evaluate the benefit our unique approach may have for patients."

Genocea recently announced data from preclinical studies of GEN-003, which demonstrated the ability of the candidate vaccine to elicit strong and lasting B and T cell immune responses, and showed a significant impact on the severity and duration of the disease.

There is currently no preventive vaccine or cure for HSV-2, and therapeutic options are limited to daily antiviral medications or suppressive therapy. If approved, GEN-003 would be the first therapeutic vaccine for patients with HSV-2 infection.

**About GEN-003**

GEN-003 is a first-in-class, protein subunit, therapeutic T cell vaccine intended to reduce recurrence and transmission of Herpes Simplex Virus type 2 (HSV-2). GEN-003 includes the antigens ICP-4 and GD-2, as well as the proprietary adjuvant Matrix-M™, licensed from Isconova AB. The adjuvant is a novel, saponin-derived product that has demonstrated a balanced B and T cell immunostimulatory profile. A Phase 1/2a clinical study is currently underway to determine the safety and tolerability of GEN-003. If approved, GEN-003 will be the first therapeutic vaccine to address an infectious disease.

**About HSV-2**

Herpes simplex virus type 2 (HSV-2), the most common cause of genital herpes, is a sexually transmitted disease that is estimated to infect more than 500 million people worldwide, and one out of six people aged 15 to 49. In the U.S. alone, an estimated 50-60 million people are affected. HSV-2 infection can cause recurring, painful genital sores, and can be stigmatizing and produce considerable psychological distress in patients. The disease is particularly severe in immunosuppressed patients and poses significant risk to newborns if it is transmitted from mothers during birth. While antiviral drugs are used widely to treat HSV-2, there is neither a cure nor a vaccine for this disease.

**About Genocea Biosciences**

Genocea Biosciences is harnessing the power of the T cell immunity to develop the next generation of vaccines. T cells are increasingly recognized as a critical element of a protective immune response to a wide range of infectious disease pathogens, but are difficult to target using traditional vaccine discovery methods. Genocea is uniquely able to identify and employ T cell antigens using ATLAS™, its proprietary technology platform, which mimics human T cell immune response in the laboratory, potentially improving the effectiveness of vaccine candidates and drastically reducing the time needed to create them.

Genocea's pipeline of novel T cell vaccines includes a clinical-stage program in Herpes Simplex Virus type 2 (HSV-2) therapy, as well as earlier-stage programs in Pneumococcus, Chlamydia, HSV-2 prophylaxis and malaria.

**About Isconova**

Isconova AB is a leading international vaccine adjuvant company. Isconova has deep knowledge of vaccine systems, and the company develops vaccines together with partners in the human and veterinary markets. The Company is headquartered in Uppsala, Sweden. Isconova AB is listed on NASDAQ OMX First North (ticker: ISCO). For more information: [www.isconova.com](http://www.isconova.com)

For more information, please visit the company's website at [Genocea.com](http://Genocea.com).

###