

## **Novartis breaks ground on state-of-the-art influenza vaccine manufacturing facility in Holly Springs, North Carolina**

- *Novartis facility on track to be the first to manufacture new cell cultured-derived influenza vaccines in the United States*
- *New facility using innovative vaccine manufacturing technology could play an important role in US Government pandemic preparedness planning*
- *New plant will create more than 350 new job opportunities in the Holly Springs area*

**Basel, August 23, 2007** - Novartis broke ground today on construction of the first cell culture-derived influenza vaccines manufacturing plant in the United States. Once completed, the facility is expected to have an annual production capacity of up to 50 million doses of seasonal trivalent flu vaccine. In the event of a pandemic declaration, the facility is expected to have a capacity of up to 150 million monovalent doses of MF59-adjuvanted pandemic flu vaccine within six months of the declaration.

Completion of the facility in Holly Springs, North Carolina is expected in 2009, and following validation and FDA approval, initial vaccine production at the site is anticipated for 2011.

"Novartis is proud of our leadership in influenza vaccine technology and we are excited to be able to be the first company to bring cell culture-derived influenza vaccine manufacturing to the United States," said Joerg Reinhardt, CEO, Novartis Vaccines and Diagnostics, "Our future manufacturing facility will help to meet growing patient demand for seasonal influenza vaccines, and will play an important role in prevention in the event of an influenza pandemic."

The Novartis investment in the Holly Springs site is over USD 600 million. The site will bring more than 350 new job opportunities to the area, including entry level positions, technicians, supervisors and management.

The new facility will utilize Novartis' proprietary cell culture technology, which promises many advantages over traditional egg-based production, including greater reliability and a reduction in production lead-time. These advantages could be pivotal in the event of an influenza pandemic.

### **About the Novartis Vaccines influenza vaccines pipeline**

Cell culture-derived influenza vaccines use modern biotechnology cell culture rather than chicken eggs for primary production. Current egg-based influenza vaccines production requires several months of logistics for ordering and receiving eggs. This lead-time can hinder the response to unanticipated demands such as the discovery of pandemic strains, production failures and seasonal influenza virus strain changes. In contrast, flu cell culture production enables flexible, faster start-up of vaccine manufacturing, and does not depend upon the availability of eggs, providing a particularly important advantage in the event of an influenza pandemic.

### **About influenza**

Influenza is a contagious, potentially serious respiratory illness caused by influenza viruses that attack the upper respiratory tract. It can cause mild to severe illness, and at times can lead to death. Influenza viruses easily spread from person to person in respiratory droplets created by coughing and sneezing. Although

difficult to assess, annual influenza epidemics are thought to result in between three and five million cases of severe illness and between 250,000 and 500,000 deaths annually around the world.

#### **About pandemic influenza**

Pandemic influenza occurs when a new influenza virus emerges that causes serious illness and is easily transmitted among humans. In this situation, the virus can result in a worldwide outbreak of disease, or pandemic. Pandemic influenza occurred three times in the last century. Avian influenza, or "bird flu," does not normally infect humans, but recent outbreaks of H5N1 avian influenza in Asia and the Middle East have resulted in more than 250 human cases, with a mortality rate of more than 50%. Millions of birds have been destroyed in an effort to contain the virus, which is now considered endemic in parts of Asia.

#### **Disclaimer**

This release contains certain forward-looking statements, relating to the Novartis Group's business, which can be identified by the use of forward-looking terminology such as "planned", "promises", "expected", "seeks", or similar expressions, or by express or implied discussions regarding potential marketing approvals or future sales of candidate vaccines. Such statements reflect current views with respect to future events and are subject to certain risks, uncertainties and assumptions. There can be no guarantee that vaccine candidates will be approved for any indications in any market or that they will reach any particular sales levels or that final approvals from the state of North Carolina and the city of Holly Springs will be obtained as expected. In particular, management's expectations regarding commercialization of cell culture-derived influenza vaccines and particular vaccine candidates could be affected by, among other things, additional analysis of clinical data; new clinical data; unexpected clinical trial results; unexpected regulatory actions or delays or government regulation generally; the ability of Novartis to obtain or maintain patent or other proprietary intellectual property protection; competition in general; increased government, industry, and general public pricing pressures; and other risks and factors referred to in Novartis AG's current Form 20-F on file with the U.S. Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated or expected. Novartis is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements contained in this press release as a result of new information, future events or otherwise.

#### **About Novartis**

Novartis Vaccines and Diagnostics is a division of Novartis focused on the development of preventive treatments. The division has two businesses: Novartis Vaccines and Chiron. Novartis Vaccines is the world's fifth-largest vaccines manufacturer and second-largest supplier of flu vaccines in the US. The division's products also include meningococcal, pediatric and travel vaccines. Chiron, the blood testing and molecular diagnostics business, is dedicated to preventing the spread of infectious diseases through the development of novel blood-screening tools that protect the world's blood supply.

Novartis AG (NYSE: NVS) is a world leader in offering medicines to protect health, cure disease and improve well-being. Our goal is to discover, develop and successfully market innovative products to treat patients, ease suffering and enhance the quality of life. We are strengthening our medicine-based portfolio, which is focused on strategic growth platforms in innovation driven pharmaceuticals, high-quality and low-cost generics, human vaccines and leading self medication OTC brands. Novartis is the only company with leadership positions in these areas. In 2006, the Group's businesses achieved net sales of USD 37.0 billion and net income of USD 7.2 billion. Approximately USD 5.4 billion was invested in R&D. Headquartered in Basel, Switzerland, Novartis Group companies employ more than 100,000 associates and operate in over 140 countries around the world.

For more information, please visit <http://www.novartis.com>

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## **Novartis Media Relations**

### **John Gilardi**

Novartis Global Media Relations  
+41 61 324 3018 (direct)  
+41 79 596 1408 (mobile)  
john.gilardi@novartis.com

e-mail: [media.relations@novartis.com](mailto:media.relations@novartis.com)

### **Eric Althoff**

Novartis Vaccines & Diagnostics  
+1 617 871 7931 (US direct)  
+1 617 899 8936(US Mobil)  
+41 79 593 4202 (CH mobile)  
eric.althoff@novartis.com

## **Novartis Investor Relations**

### **International**

Ruth Metzler-Arnold  
Katharina Ambuehl  
Nafida Bendali  
Pierre-Michel Bringer  
Jason Hannon  
Thomas Hungerbuehler  
Richard Jarvis

Central Phone no :  
+ 41 61 324 7944

e-mail: [investor.relations@novartis.com](mailto:investor.relations@novartis.com)

### **North America**

Ronen Tamir +1 212 830 2433  
Jill Pozarek +1 212 830 2445  
Edwin Valeriano +1 212 830 2456

e-mail: [investor.relations@novartis.com](mailto:investor.relations@novartis.com)