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MedImmune: FluMist Introduction

Roger Sampson, senior vice president of sales and marketing at MedImmune, settled into his office chair. It was May 15, 2003. He glanced at the clock and noted that most of the day had somehow slipped away. Nonetheless, the most important task remained: Sampson needed to develop a positioning for FluMist, MedImmune's new high-profile, high-potential drug. Sampson knew that how he positioned FluMist would have a major impact on both how the drug went to market and its eventual success.

MedImmune, Inc.

MedImmune was a global biotechnology company. Founded in 1988, it became a publicly traded company in 1991. In 2002, revenues were almost $850 million with an adjusted net income of more than $100 million (see **Exhibit 1**). The company, based in Gaithersburg, Maryland, employed 1,600 people.

At the end of 2002, MedImmune sold three different drugs. The company's lead product was Synagis (palivizumab), a humanized monoclonal antibody used to prevent respiratory tract disease in high-risk pediatric patients. Synagis made up 79 percent of MedImmune's 2002 sales.

In January 2002 MedImmune acquired the California-based vaccine company Aviron, Inc. for $1.6 billion. As part of the transaction MedImmune acquired FluMist, a new nasal vaccine for influenza, as well as several other drugs that were in early stages of development. MedImmune CEO David Mott stated in the press release announcing the acquisition, "Our acquisition of Aviron represents an excellent strategic fit and an opportunity to generate substantial growth in the near and long term."

MedImmune had a number of different drugs in its research and development (R&D) pipeline. The newly acquired FluMist was closest to being launched; all of the remaining products were still in clinical trials.

Influenza

Influenza, also known as the flu, was one of the most widespread diseases in the United States. According to the Centers for Disease Control and Prevention (CDC), 10 to 20 percent of the U.S. population contracted the flu each year, and 36,000 people died from complications.

Caused by the influenza virus, the flu was highly contagious and spread through the air. The flu virus mutated from year to year, resulting in several different strains of the virus each season. This illness affected the respiratory tract, including the nose, throat, and lungs. People with the flu would have symptoms such as fever, headache, fatigue, sore throat, cough, chills, and aches.

The flu occurred more commonly and was more severe in high-risk groups. High-risk groups included people older than 65, younger than 5, and people of all ages with chronic diseases such as diabetes and asthma. For people in high-risk groups, the complications of the flu could cause death. For younger, healthier people, the flu could still be debilitating. People with the flu were usually not able to work or go to school for three to five days.

The flu occurred seasonally, with most cases presenting in winter months. February had the highest incidence of the flu, followed by January and December. The flu was relatively uncommon in summer months.

Flu Vaccines

The best way to prevent the flu was to receive a flu vaccination each year. These vaccines helped the body resist the disease by causing the body to form specific antibodies against the current form of the flu virus. Flu vaccines were between 70 to 90 percent effective at preventing the flu. It was impossible to get the flu from a flu vaccine.

Flu vaccines were traditionally administered by injection at hospitals, doctors' offices, and pharmacies. In most years, vaccines were widely available. On occasion, however, demand for vaccines exceeded supply, creating shortages. Flu shots were inexpensive, with the price to consumers at about $20 to $25. Many insurance companies covered the flu shot, further reducing the price to consumers.

Three companies manufactured traditional flu vaccines for the United States. In total, these companies produced about 80 million doses each year. All three companies produced a similar vaccine. Direct product cost on a traditional flu vaccine was about $3.50 per dose. Flu vaccine producers sold the vaccine to health professionals for about $7 per dose.

The U.S. CDC recommended that adults older than 50, children younger than 5, and people from 5 to 49 who were high risk due to other health issues should receive the flu vaccine. People generally received the flu shot in October or November.

FluMist

FluMist was the first innovation in flu vaccines in more than 50 years. The technical breakthrough behind FluMist came when scientists discovered how to create an active flu virus that was sensitive to heat. The live attenuated influenza vaccine (LAIV) used in FluMist died when it was exposed to body temperatures. Since the virus was killed by body heat, FluMist could not give a person the flu; however, the body would develop antibodies to resist the virus that year. MedImmune held a patent on the technology behind FluMist, which provided protection from generic competition through at least 2018.

The primary advantage of FluMist over traditional vaccines was that it could be administered using a nasal spray, instead of an injection. Some researchers also speculated that the use of live

viruses would make FluMist more effective than the traditional flu vaccine; however, this had not been proven, so MedImmune could not make an efficacy claim until it completed additional clinical trials. Like traditional flu vaccines, FluMist would be administered by doctors, nurses, pharmacists, and other health professionals. FluMist needed to be frozen prior to use, whereas traditional flu vaccines only needed to be refrigerated.

MedImmune expected to receive approval from the U.S. Food and Drug Administration (FDA) to market FluMist in mid-2003; FluMist had been submitted for FDA review in 2000. Approval in mid-2003 would let MedImmune market FluMist for the 2003–2004 flu season. MedImmune anticipated that the FDA would allow FluMist to be used in healthy children and adults ages 5 to 49; this was a large population of 159 million people (see **Exhibit 2**).

The company had invested heavily in FluMist. In addition to acquiring Aviron, MedImmune invested in new manufacturing capacity for FluMist. MedImmune was building capacity to produce 45 to 50 million doses of FluMist per year, although production for the 2003–2004 flu season would be substantially lower. While MedImmune had started producing FluMist in 2002, anticipating FDA approval in 2003, MedImmune would have only four to six million doses on hand for the upcoming flu season.

Direct product cost on FluMist would be about $5 per dose at peak capacity. At lower volumes, however, direct product cost would be more than $15 per dose. MedImmune was hopeful that the health insurance companies that covered traditional flu vaccines would also cover FluMist, but this was not certain.

MedImmune planned to heavily support the launch of FluMist, with direct-to-consumer advertising of over $20 million and a strong marketing program targeting health professionals. MedImmune formed a partnership with Wyeth Pharmaceuticals to co-promote FluMist. Wyeth was one of the largest pharmaceutical companies in the world; revenues in 2002 were $14.6 billion. The partnership with Wyeth gave MedImmune access to Wyeth's large sales organization.

MedImmune had high hopes for FluMist. In MedImmune's 2002 annual report, CEO David Mott wrote, "We believe FluMist has the potential to be a blockbuster product, eventually generating more than $1 billion in peak worldwide annual sales." Industry analysts shared the company's enthusiasm for the product. MedImmune's stock price had almost doubled in the prior six months, driven primarily by expectations for FluMist.

FluMist Positioning and Launch Strategy

Roger Sampson was charged with determining how best to launch FluMist. The first step, he knew, was determining the best positioning. Once the positioning was set, it would be relatively straightforward to set the price, determine the optimal advertising strategy, and finalize plans for the launch.

It occurred to Sampson that there were several different directions he could go with the positioning, and he knew that the positioning would have major implications on the launch plan. Sampson sat down at his desk and started to write.

Exhibit 1: MedImmune Financial Highlights ($ in millions)

	2001	2002
Revenue	619	848
COGS	139	201
R&D	83	144
SG&A	195	299
Gross Profit	441	585
Net Income[a]	149	107

[a] Adjusted net income. Excludes acquired in-process R&D.

Exhibit 2: United States Population and Flu Vaccination

Age Group	Population (in millions)	Vaccine Recommended?	2002 Estimated % Vaccinated
1.5–4 Healthy	12.1	Yes	40
1.5–4 At Risk	1.4	Yes	50
5–49 Healthy	159.4	No	10
5–49 At Risk	24.7	Yes	30
50–64 Healthy	32.3	Yes	20
50–64 At Risk	10.8	Yes	45
65+	35.0	Yes	65