NEWS

A bitter pill

Demise of Pfizer's cholesterol drug shows need for changes in drug development, experts say

BY THERESA AGOVINO THE ASSOCIATED PRESS

NEW YORK - **P**fizer Inc. and other drug companies have long justified the high prices they charge for new medicines by citing the staggering sums they must spend in the search for breakthrough discoveries.

But experts said this week that Pfizer's decision to abandon what it hoped would be a blockbuster cholesterol drug after spending $800 million on its development suggests that this economic model may no longer be viable.

The industry's approach to research is in desperate need of an overhaul, they say. Health plans are calling the shots about how much they'll pay for medicines and they are very choosy about how much they'll spend. So drugmakers must find ways to produce new drugs more efficiently and cheaply.

The pharmaceutical industry's research system also isn't as productive as it once was. Despite a 6 percent rise in overall R&D spending last year to $39.7 billion, U.S. regulators approved only 20 drugs in 2005, down from 36 a year earlier.

"It is a tough time in the industry right now. Almost every company is having pipeline problems," said Kenneth Kaitin, director of The Tufts Center for the Study of Drug Development. "There has been no systematic change in the way companies bring products to market."

Drugmakers are trying to improve their performance, in part by conducting clinical trials and research in developing countries where costs are lower. They also are targeting niche diseases with small patient populations that don't require big drug trials. Plus, advances in technology and genetics are creating tools that streamline drug development.

But since health plans are unwilling to pay for "me-too" drugs or medicines that are similar to products already on the market, pharmaceutical firms have felt the need to explore unproven research paths in the quest for novel treatments.

"There is no low-hanging fruit anymore," said Dr. Steven Nissen, a cardiologist at the Cleveland Clinic, who was conducting a trial on torcetrapib for Pfizer. "Companies are reaching farther than ever."

Earlier this year, Bristol-Myers Squibb Co. scrapped a diabetes drug that treated the disease in a new way and AstraZeneca PLC dropped development of a novel stroke medicine. Kaitin said as companies take more bet-the-farm chances, more spectacular failures are inevitable.

Pfizer's now-abandoned drug, torcetrapib, represented such a bet. By aiming for a new approach to raising good cholesterol, it was slated to fill the hole in the revenue stream at the world's largest drug company once Lipitor, a cholesterol treatment that brought in $12 billion in sales last year, loses its patent protection, as soon as in 2010. But Pfizer halted torcetrapib's development after a clinical trial showed patients taking it in combination with Lipitor had a higher risk of death and other problems than those taking Lipitor alone.

Uwe Reinhardt, an economics professor at Princeton University, said he thinks eventually the industry will migrate to smaller organizations producing drugs that affect smaller segments of the population. There are signs of such changes already: Bristol-Myers cut its research areas to 10 from roughly 35 two years ago, in part to target the use of its research dollars.

In the meantime, new development strategies, aided by a better understanding of genetics and biology, are starting to be used.

Dr. Howard Goldsweig is testing a drug for pancreatic cancer that was developed through looking at the gene mutations of patients stricken with the disease. Only pancreatic cancer patients with the specific mutation the drug was developed around are eligible for the study.

The per-patient cost of an early stage cancer trial can rise to $50,000 so the ability to cherry pick the most appropriate individuals for a study represents significant savings, said Goldsweig,

medical director of Averion International Corp. , a Southborough, Mass. based company which conducts research for drugmakers.

Drug companies are increasingly using biomarkers, which are genes or other cellular signals that can help predict whether a drug will work in a specific patient, in an attempt to make clinical trials more efficient.

Eli Lilly and Co. said 90 percent of all its drug candidates entering clinical trials have an identified biomarker. Lilly is also shipping a greater share of its development overseas. It has over 300 scientists in China working on chemistry projects and recently signed development deals with three companies in India to conduct research and development.

The company said it hopes its efforts will drive down the cost of developing a drug to $800 million from $1.2 billion. The question is whether that is enough.

Cleveland Clinic's Nissen said that it's likely that developing drugs for conditions that affect large numbers of patients such as heart disease will always be expensive because they'll need to be tested on an extensive number of people.

Reducing the cost of drug development is essential, Nissen said, adding that "it is a challenge and there just aren't any easy solutions."