

From Physician's Financial News

Attention Grabbing Events

By Shirley M. Mueller, MD Published on February 14, 2008 | [\[Email \]](#) - [\[Print \]](#)

"We find attention-based buying by unsophisticated individual investors fuels the smart traders' profits."

—Mark Seasholes

Judah Folkman, MD died last month at age 74. A well-respected cancer researcher, he was prominent enough to have a [New York Times obituary](#). What Dr. Folkman is less known for is a stock trading scandal based on his work. This story shows how the media can influence the public into thinking one thing is true when another is correct. Media misconceptions can lead to unwise investment positions. It's a lesson from the past worth noting to make us better investors in the future.

New York Times, May 3, 1998

HOPE IN THE LAB: A special report; A Cautious Awe Greeted Drugs That Eradicate Tumors in Mice

By GINA KOLATA

"Within a year, if all goes well, the first cancer patient will be injected with two new drugs that can eradicate any type of cancer, with no obvious side effects and no drug resistance—in mice."

May 3, 1998 was a Sunday. Not only do regular *Times* subscribers read, but many more buy it at the newsstand because it is a weekend. Approximately 4 million people started scanning its contents. This front-page article caught their interest.

The ebullient cancer treatment news went on to describe angiostatin and endostatin, two drugs that work by squeezing off the blood supply to tumors and thereby slow their growth. When used together, they stopped tumor growth in mice according to Dr. Folkman who did the study. Entremed, Inc. (ENMD), a Rockville, MD Company, was licensed to make the drugs. Several famous scientists were quoted about the promise of the discovery.

One of them was the Nobel Laureate James Watson, who proclaimed that the research developer, Judah Folkman of Harvard Medical School, "is going to cure cancer in two years." Dr. Richard Klausner, the director of the National Cancer Institute called the findings, "the single most exciting thing on the horizon" for cancer treatment. The director of the cancer institute's projected angiostatin and endostatin drug tests in patients, Dr. James Pluda, said, "People were almost overwhelmed," when they heard Dr. Folkman's lecture about his research.

The meaning of these suggestions is obvious—an effective treatment for cancer. Although there was some counterbalance in the article, by Dr. Folkman himself, what caught people’s attention was the promise of a cure. Patients with malignancy thought of getting well. Their loved ones were filled with hope. Investors envisaged making money.

On the Friday before the article ran, less than 20,000 shares of Entremed were traded on the stock market. The Monday after the *Times* piece, over 23 million exchanged hands. This frantic exchange continued—Tuesday saw over 9 million shares turn over and on Wednesday 6 million. It wasn’t until May 13 that buying and selling slipped back down below 1 million.

At the same time, the price per share precipitately ran up with the demand. There were a limited number of shares to begin with (just over 12 million), and company directors owned about one-third of them. The stock price catapulted from \$12.06 at the open on May 4 to \$85 within the first few minutes of trading. It closed at \$51.81 that day.

This wasn’t a coincidence. Kolata’s story was sizzling. The reporter gathered quotes that gave readers optimism and allowed them to relate to the core message. The word, “cure,” ablated the cautious positions taken by some of the scientists. The article’s boldness made it unique. The result was a pop in both the volume and price of Entremed.

Interestingly enough, the same subject was reported in the *Times* six months earlier with a very little effect, probably because the claims of the article were fewer. The prior article was based on a scientific report in the journal *Nature*.

New York Times, November 27, 1997

Tests on Mice Block a Defense by Cancer

By NICHOLAS WADE

“Many drugs work well at first against cancer, but the tumor cells quickly develop resistance. A concept for getting around the resistance problem has now been proved, at least in laboratory mice, and may well prove relevant to the treatment of human cancer.”

This author went on to speak about Dr. Folkman’s laboratory and angiostatin plus endostatin just like Kolata a half year later. He also described the drugs from Entremed as blocking blood supply to tumors in mice. The reporter included positive quotes like his *Times* colleague. One was by Dr. Noel Bouck, who studies blood vessel development at Northwestern University Medical School in Chicago, “for years, we thought you could hold tumors in check with angiogenesis inhibitors, but to actually cure them (in mice) is amazing.”

In contrast to Kolata’s May 3 article, the earlier November 27 piece noted that the benefit of angiostatin and endostatin was clearly restricted to mice. There was no promise of a cure in humans, although it was obvious that Dr. Folkman’s research showed it in laboratory animals. Also, the headline made no promises. It was simply informational.

This was reflected in a considerably more modest public reaction. Shares in the biotech company rose from \$11.87 the day before the article to \$15.25 the day after, an increase of \$3.38 per share. Volume increased from 145,700 shares traded to 553,700 during the same time period.

The Aftermath

As it turned out, that purchase could have been a good one for an astute investor. After Kolata's story six months later, the same share was worth between \$51 and \$85 depending on when it was sold the day after the article ran. Carl Hathaway of Hathaway & Associates in Rowayton took advantage of this price spurt (Andrew Pollack, NYT 5/10/98). His company was one of the largest institutional investors in Entremed at that time with more than 325,000 shares. Hathaway sold half after the May 4 *Times* piece.

Not everyone was so lucky. Those that bought in the boom and still hold their shares are looking at \$1.11 for each share if they sold on February 4, 2008. Angiostatin and endostatin, the drugs mentioned in Kolata's article, apparently aren't being tested anymore. Other scientists could not produce Dr. Folkman's results. Additionally, the two drugs are difficult to produce in the quantity necessary to make them clinically available. The once exciting Entremed popped until it pooped.

It wasn't only investors that were harmed by the promise of the Hope in the Lab article. Patients and their families suffered too. Dr. Larry Norton, a NYC cancer physician, received an early morning phone call the day after the May 4 *Times* article from a patient. The man, desperate to rid himself of his malignancy, was calling to ask what the drug cost? The ill gentleman thought the Entremed medications would cure him based on what he had read. Dr. Norton had to inform him of the reality.

Not only was it sobering to patients, but shareholders would have benefited from the information as well. As of May 3, 1998, no testing had been done in humans, so the drug wasn't ready for patient use. The clinical trials up to Phase III would likely take years instead of 12 months. There is always the possibility that the drug might not work as well or at all in organisms more complex than mice. Even if it did benefit, each cancer is different, and an effective treatment for one individual may not work for another.

This information makes Entremed seem much less appealing to an investor than the May 1998 piece seemed to suggest. Only the unwary would have purchased when the price was high.

Lesson Learned

Some did make money, though, like Carl Hathaway. They were conscious of the effect the article had on others. This person, according to Mark S. Seasholes of the Finance Group at the University of California in Berkeley, is an astute investor. His 2007 paper with Guojun Wu is entitled Predictable Behavior, Profits and Attention and was published in the [*Journal of Empirical Finance*](#).

"We find attention-based buying by unsophisticated individual investors fuels the smart traders' profits," Seasholes told me in a phone interview. The researchers say in their paper that attention-grabbing events lead investors to buy stocks they did not previously own. This is

especially true when it's clear what specific stock to buy, as in the case of the Entremed cancer "cure."

Seasholes and Wu also showed that mean reversion from the stock's price increase occurred over 7 to 10 days, on average. Again, the authors found something similar to what happened in the Entremed stock. By being aware of the effect of attention grabbing events, the perceptive investor can profit. and as importantly as making money, less likely to lose it.

About Shirley M. Mueller, MD

Dr. Shirley Mueller is a physician turned financial consultant and investment educator. She teaches others how to invest their own money using a Noble Prize-winning financial strategy. Her fee is hourly, not a percentage of assets. She welcomes comments at ShirleyMMueller@MyMoneyMD.com. For more information, visit her website at MyMoneyMd.com

