

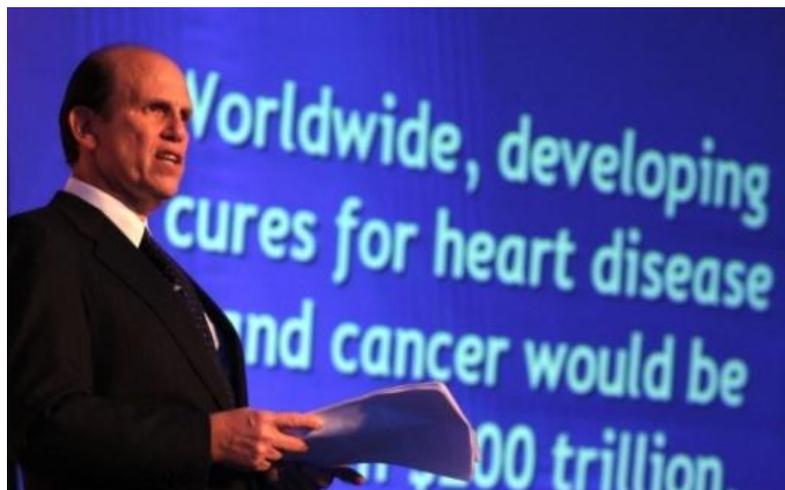


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The Accelerator

In business and philanthropy, Michael Milken has found ways to drive capital to promising upstarts and get them moving.

By Kari Barbic



Michael Milken was insistent. He felt he needed to be since his doctor thought a PSA test was totally unnecessary. Look, he told Milken, you're only 46 years old—too young to worry about prostate cancer. Milken was not convinced. His father had died from melanoma. Six other family members had likewise died from cancer. And, just a few weeks earlier, his longtime friend Steve Ross, chairman of Time Warner, had finally succumbed after several years fighting prostate cancer. "Humor me," said Milken. "I can afford it."

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The upper limit for a normal PSA (or prostate-specific antigen) result is 4 ng/ml. Milken's PSA level was 24. Further testing would confirm the bad news. A biopsy discovered the presence of prostate cancer—worse, it was especially aggressive. An MRI revealed it had spread to his lymph nodes. Milken was told he could expect another 12 to 18 months. One doctor recommended that Milken and his wife get psychological counseling—and carefully review their estate planning.

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Wasting no time, Milken threw everything he could muster at the disease—from an intensive regime of hormone therapy to dramatic lifestyle changes. He took up meditation and adopted a strict vegetarian diet. He immersed himself in the subject, delving into the research and flying his Gulfstream to academic conferences. Within a year, Milken's cancer was in full remission, and it has not returned since. "I had nothing to lose," he later told Bloomberg News. "I would try everything."

In the midst of his own treatment, Milken was redoubling his support for medical research. He had long supported cancer-related causes, from the time he was a 10-year-old block captain for the American Cancer Society. Milken began funding medical research directly in the 1970s, when his mother-in-law was diagnosed with breast cancer. In 1982, when he was in his mid-30s, he and his brother, Lowell, established the Milken Family Foundation, making support for medical research one of its central commitments.

Not long after receiving his diagnosis, Milken established a new foundation to fund research into prostate cancer, CaP CURE (since renamed the Prostate Cancer Foundation). To the new foundation, he brought wide-ranging intelligence, a thick rolodex, boundless energy, and substantial resources. And he brought something else to his support for medical research—a set of instincts and convictions that had guided his wildly successful investment career.

Liberating Capital

To understand Michael Robert Milken is to stand with him on a street in South Central Los Angeles under the blistering August sun as acrid smoke fills the morning air. Just a few days after the Watts riots, Milken drove down to take a look. The 19-year-old UC Berkeley sophomore had grown up in the San Fernando Valley, the son of a happy, middle-class family. At Birmingham High School, he was a star student, a point guard on the basketball team, and the captain of a cheerleading squad that included actress Sally Field.

As Milken surveyed the streets of Watts that morning, he ran into an older black man. That was where I worked, the man said, pointing to the charred remains of a factory. I just watched when they burned it down, he continued. Milken asked why. I always felt like an outsider in white society, the man replied. The building was theirs, not mine. It could never be mine.

This man was in a bad place—with no savings or income—yet he did nothing to stop the rioters who torched his livelihood. For Milken, it was a revelation. "Standing with that man in Watts," he later wrote, "I began to understand that civil rights—the great and worthy cause of my youth—meant more than the right to sit in the front of a bus or go to a good school. No one should be denied the right to participate in economic society, to aspire to ownership of a business rather than just a job."

Two weeks later, when Milken returned to Berkeley, he immediately switched his major from mathematics to business. He fixed on the question of how improved capital structures could increase prosperity and improve human well-being. In 1967, he discovered the work of W. Braddock Hickman, an economist at Princeton and later the chairman of the Cleveland Federal Reserve Bank. In particular, Milken studied Hickman's *Corporate Bond Quality and the Investor Experience*, an academic treatise that, as one financial journalist wryly observed, "sold a grand total of 934 copies, most of them to college and university libraries."

Hickman systematically examined individual bonds, comparing ratings against performance. He essentially found that, in aggregate and over time, a portfolio of low-rated bonds would outperform a portfolio of high-rated bonds; the bigger coupons on the low-rated issues would compensate for the portfolio's higher default rate. It wasn't an entirely new idea—a few other academics reached similar conclusions, and Cy Lewis ran a lucrative fallen-angel portfolio at Bear Stearns—but it suggested that, throughout the 20th century, American investors had consistently under-valued low-rated corporate paper.

First at Berkeley and later at Wharton, Milken thought long and hard about why the market was undervaluing bonds—and how he could best capitalize on it. The problem, he realized, was that most investors looked to stocks for growth and bonds for stability. And if stability was the goal, then what better imprimatur could there be than a triple-A rating from Moody's or S&P?

Milken saw two problems with that line of reasoning. First, the categorical distinction between stocks-for-growth and bonds-for-stability was far too simplistic. The risk/reward ratio could and would vary in every case. Second, in assessing bond sellers, the ratings agencies relied heavily on historic balance-sheet performance. It was fine and well if a company had paid every coupon for the last century. But it told you very little about the company's current leadership, strategic vision, or market potential.



Mike and Lori Milken

Milken grew fond of invoking the example of the Singer Corporation. In 1975, the ratings agencies liked Singer corporate paper. It was backed by a reliable durable goods manufacturer that had a century's worth of consistently hitting dividends and honoring debts. But, Milken would point out, in 1975 women were flocking to the workplace, abandoning their sewing machines, and instead earning paychecks and buying clothing. Singer bonds were a low-risk, investment-grade asset, Milken concluded, but only if you looked to the past rather than the future—and the future would pay bondholders.

That fundamental insight guided Milken's career. He left Wharton in 1970 and took a job as the director of research at Drexel Harriman Ripley (later known as Drexel Burnham Lambert), a small investment bank whose origins were traced to the 1830s but whose future looked dim. After establishing himself at the firm, Milken was given a relatively free hand to test his theories. When bond prices collapsed in the early 1970s, he seized the opportunity.

Over the next two decades, Milken made Drexel the market leader in high-yield securities. Indeed, Drexel was so dominant that many regarded it as the market for non-investment-grade paper. In those years, Milken financed the ambitions of scores of entrepreneurs. He was a vital source of capital to Bill McGowan at MCI, Ted Turner at Turner Cable, Bob Toll at Toll Brothers, and Len Riggio at Barnes and Noble, and he helped develop hundreds of other businesses, from Calvin Klein, Filene's Basement, and Toys-R-Us to Danaher, Sunshine Mining, and Uniroyal Goodrich. As the Reagan economy picked up speed, Milken's foot was firmly on the accelerator.

Throughout it all, Milken saw himself as a force for economic liberation. He was making capital available to promising upstarts, to outsiders, to those who lacked access to traditional banks. "Without knowing it," writes Robert Sobel in *Dangerous Dreamers*, a history of financial innovation, "Milken shared a vision originated by the Jacksonian Democrats of the 1830s in their fight against the Bank of the United States, and the Populists of the 1890s, who hoped to monetize silver and thus inflate the currency. Both fought against 'old money' in the name of those who hoped to benefit from a liberalized access to capital."

Funding Faster

The early 1990s were hard years for Milken. Ivan Boesky pled guilty to insider trading in 1986, and sought a reduced sentence by fingering other financiers. Federal prosecutors relied on Boesky's testimony to charge Milken on 98 counts, including insider trading. Almost all of the charges were dropped, but, after years of blistering press, Milken decided to stop the relentless fighting and pled guilty to five technical violations of securities-reporting regulations.

Only a few days after his release from 22 months in prison, Milken received his fateful cancer diagnosis. Milken had been a supporter of various healthcare charities (he was a major benefactor of the Venice Family Clinic, for example, and had endowed a chair at the Dana-Farber Cancer Institute), and he considered himself fairly conversant on healthcare topics. But he was surprised at how little he knew about prostate cancer.

More surprising, however, was how little medical science knew about the disease. Part of the problem was its ubiquity; when Milken was diagnosed, it killed 40,000 Americans every year, the second most common cause of cancer death among men. Worse, the slow-moving nature of the disease created a lack of urgency that seemed to be mirrored in the research. "We were in this quiet corner no one wanted to be associated with," Andrew von Eschenbach, a former head of the National Cancer Institute (NCI), told a reporter in 2004.

Milken was dismayed by the leisurely pace of progress. While undergoing treatment, he learned everything he could about the processes surrounding prostate cancer research. With his background in finance, he was especially interested in how research grants were funded. He discovered, much as he had in business, that dollars were flowing inefficiently. To speed things up, he would once again have to create new ways to get financial backing where it was needed most.

Milken saw a familiar pattern—a pattern that was costing lives. Whereas banks had bypassed promising newcomers in favor of established players, grantmakers were overlooking ambitious young talent in favor of older, tenured researchers. Milken discovered yet another tendency to put a high premium on apparently safe choices (the investment-grade bond, the Nobel Prize winner) to the detriment of high potential (MCI paper, the brilliant post-doc). Through his Prostate Cancer Foundation (PCF), he aimed to capitalize on the enormous potential for innovation among the rising generation. What those promising minds needed was access to capital.



Milken and Francis Collins, director of the National Institutes of Health

(This wasn't the first time Milken noticed this problem in medical research. In the early 1980s, the Milken Family Foundation started the Cancer Research Awards with the specific aim of keeping young cancer researchers—who were often tempted to pursue more lucrative clinical practices—in their labs. Recipients include Dennis Slamon, who discovered Herceptin, a breakthrough in the treatment of one type of breast cancer; Steven Rosenberg, who developed a gene therapy capable of harnessing the body's immune system to shrink tumors; and Lawrence Einhorn, who developed a highly successful chemotherapy

regimen for testicular cancer.)

Milken saw yet another roadblock in the grant application process. Researchers were spending too much valuable time on paperwork, especially when applying for public funding. Milken revolutionized the process. PCF introduced a five-page application. If an application was approved, a researcher would have funding within 90 days. The streamlined process was twice as fast as the quickest possible turnaround for a government grant.

Milken expected tangible results from his funding, setting him further apart from public funders. He recognized the importance of basic science but wanted his funding to be targeted directly to treatment. Successful grant applicants needed to demonstrate that their work would lead to better diagnostics or better treatments. They then had to be willing to share the results of their research throughout the network of researchers funded by PCF, as well as with academics, clinicians, and commercial entities worldwide.

Milken's insistence on results quickly turned PCF into the key player in prostate cancer research and treatment development. One of PCF's first grants was made to Judah Folkman, whose work in anti-angiogenesis would change nearly every branch of cancer research. Early level funding from PCF has led to new treatments and drugs—including Zometa (for treating prostate cancer and other solid tumors), Provenge (an immunotherapy treatment), and Jevtana (an enhanced chemotherapy). PCF-funded researchers made big strides in identifying various types of prostate cancer, forming effective treatments, and are driving dozens of new drugs and treatments through the clinical test phase.

And Milken also worked to raise public awareness of cancer. In September 1998, he orchestrated a march on Washington that brought 150,000 people representing more than 600 cancer organizations to the National Mall. Hundreds of thousands of others marched in more than 200 cities from coast to coast. "The 1998 march is credited with ushering in a period of expansive funding for cancer research," wrote Cora Daniels in a 2004 article for *Fortune*. "In the five years since, Congress has increased funding of the NCI by nearly 70 percent."

Since 1993, PCF has raised more than \$475 million and provided funding to more than 1,600 research projects at nearly 200 institutions in 15 countries around the world. “When we founded the Prostate Cancer Foundation nearly two decades ago,” wrote Milken in October 2011, “more than 40,000 U.S. men died annually from the disease. That toll was expected to rise sharply as the population grew and baby boomers aged. Instead, deaths have dropped below 30,000.”



Milken, Missouri Gov. Jay Nixon, and Susan G. Komen for the Cure founder Nancy G. Brinker

Convening Catalyst

In his early years at Drexel, Milken toured the country, aggressively courting investors. He believed that non-investment grade corporate bonds were a massively undervalued asset, and he made it his mission to pursue potential investors. His gift was finding people, convincing them of the promise of an idea, and persuading them to join him in buying bonds from Safeway or MGM Mirage.

As Milken immersed himself in prostate cancer philanthropy, those instincts kicked into overdrive. How, he wondered, can I get funding moving so that the right people are working together on the right projects? A decade after he got PCF off to a flying start, Milken decided to launch a new program: one that would focus on a wider variety of diseases—ranging from autism to Alzheimer’s—but share PCF’s overriding goal of spurring practical innovation, driving translational research, and accelerating biomedical progress.

In 2003, Milken founded FasterCures, a nonprofit based in Washington, D.C., that focuses on linking researchers, policymakers, and philanthropists. FasterCures reflects Milken’s knack for locating co-investors and bringing them into potentially beneficial ventures. The goal: to promote effective funding and accelerate research processes that get new treatments to patients.

FasterCures acts as a convener to speed the medical research economy. “The hallmark of FasterCures is our ability to identify the barriers or obstacles to collaboration, determine why they are there, and get them down,” explains Margaret Anderson, the group’s executive director. Its flagship annual event, Partnering for Cures, brings together leaders from all sectors of the medical research enterprise—private investors, industry executives, research scientists, foundation officers, and policymakers—and provides a forum to share ideas. “Mike’s ability to bring people together to find solutions is remarkable. It’s that spirit and ingenuity driving our work at FasterCures.”



Milken at the 1998 event, the March: Coming Together to Cure Cancer.

In 2007, FasterCures partnered with the Bill and Melinda Gates Foundation and the Robert Wood Johnson Foundation to create the Philanthropy Advisory Service (PAS) to help philanthropists make effective medical research investments. FasterCures developed a methodology to identify the key players, research developments, and funding needs in a particular healthcare area. “We wanted to better understand the landscape of certain diseases, to see where the unmet needs and underfunded areas are, and see where philanthropy dollars could make a difference,” says Melissa Stevens, director of the PAS and deputy executive director of FasterCures. “When Mike began his work with PCF, he was truly a pioneer. FasterCures is working to give other philanthropists the ability to continue to change the medical research landscape so that we can accelerate toward more and better cures.”

Stevens and the team at FasterCures created Giving Smarter, a “pocket guide” for donors who are considering funding medical research. The assessment tool employs 20 metrics, developed by analyzing 20 organizations in four pressing disease areas (Alzheimer’s disease, malaria, multiple sclerosis, and tuberculosis). The metrics have been built around four categories: accountability, collaboration, research effectiveness, and resource building. The basic idea is to give donors an analytical framework for understanding the funding options before them.

FasterCures works throughout the full spectrum of medical research, analyzing what works and what doesn’t. One unmet need, they realized, was a central repository for funders engaged in the field. In response, FasterCures developed TRAIN (The Research Acceleration and Innovation Network), an online resource for donors to see what other funders were achieving through their investments. “It saves time by preventing duplication of efforts, and applying processes already proven to be effective,” says Anderson. Through the TRAIN Central Station, they identify and promote “models of innovation” in medical research philanthropy.

FasterCures also maintains an active policy arm, which has been a steady advocate for increased efficiency in public funding for medical research and therapy. It has worked closely with the National Institutes of Health to develop the National Center for Advancing Translational Sciences. FasterCures also partners with the Alliance for a Stronger FDA to help the agency “bolster its expertise to better meet the demands that scientific discoveries will create.”

Accelerating Progress

“We Americans have a tradition of rising to a challenge,” explains Milken. “We fought for and won our independence. Later, when the Civil War tore the country apart, we bound up our wounds and created a stronger nation. And when the Soviet Union launched Sputnik, we responded by putting astronauts on the moon in little more than a decade. But when it comes to cancer, there is no Sputnik, no single shocking event that galvanizes our response. Cancer is so common that our society has come to think of it as almost normal. Fortunately, normal can change over time. When I was a child, the four-minute mile was considered a nearly impossible achievement. Yet once Roger Bannister broke through that psychological barrier, 16 other runners beat the four-minute ‘limit’ within a year.”

Milken now hopes to redefine “normal” when it comes to medical research. And he’s driven by a pulsing sense of urgency. “The choice is ours,” says Milken. “We can sit back and wait for more cures and better treatments, or we can marshal our resources to solve medical problems sooner and save more lives. Maybe yours.”

Kari Barbic is associate editor of Philanthropy.