

EILEEN FISHER
The Apparel CEO on
Dollars and (Fashion) Sense

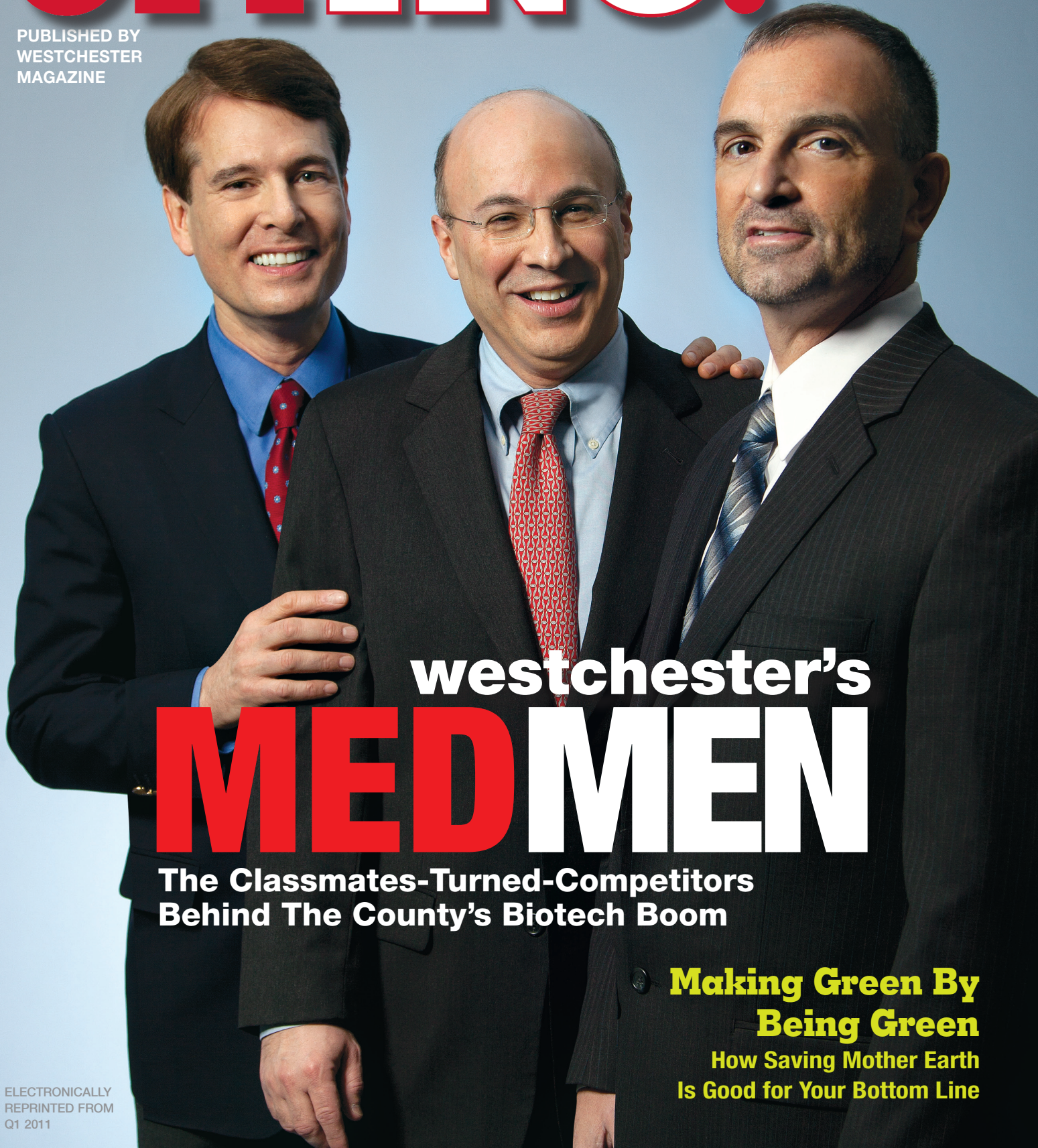
**BUSINESS OVER
BREAKFAST?**
Our Recommendations

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BUSINESS MAKEOVERS
What Happens When New
Owners Take Charge

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WESTCHESTER
MAGAZINE



westchester's **MED MEN**

**The Classmates-Turned-Competitors
Behind The County's Biotech Boom**

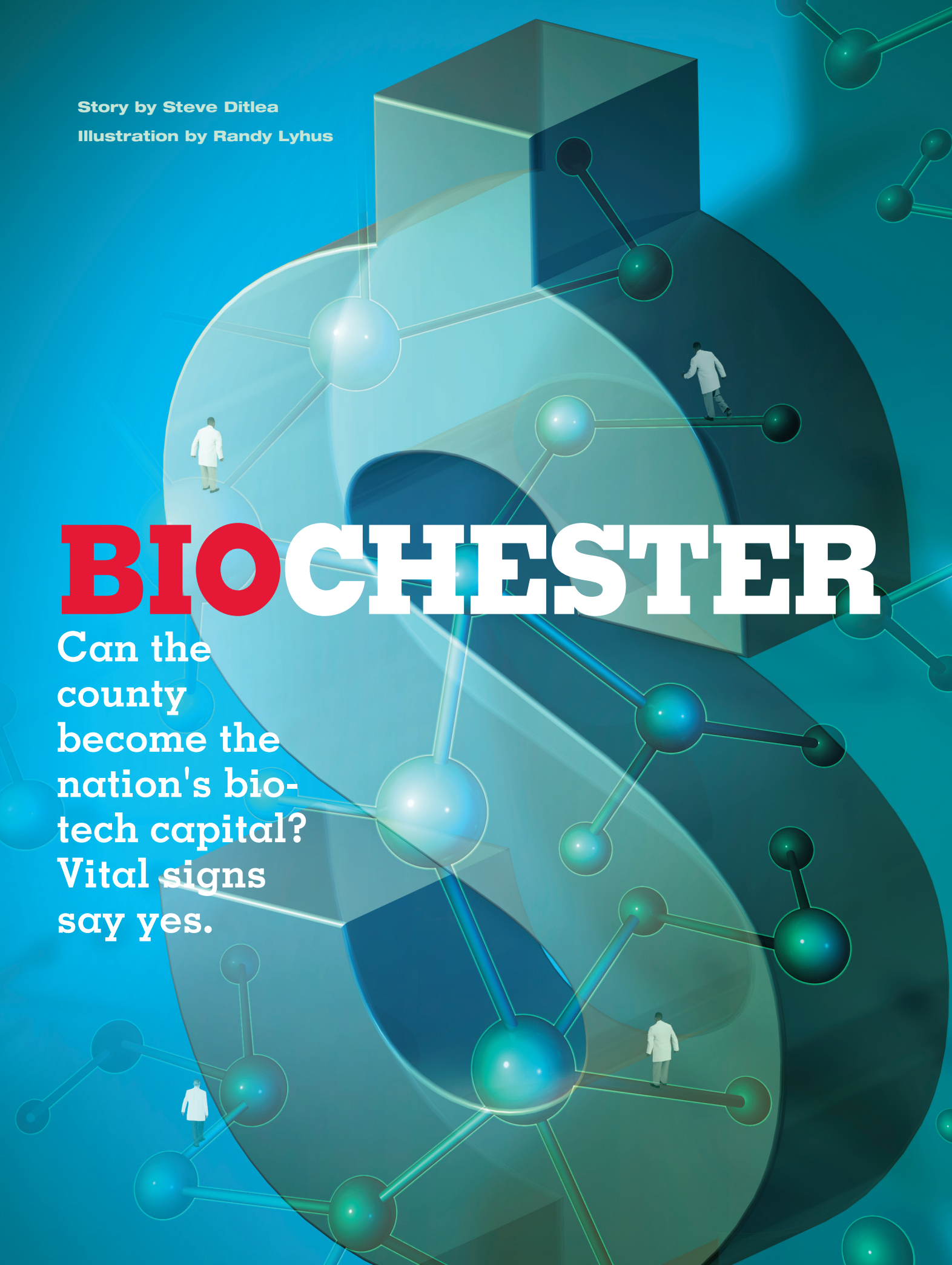
**Making Green By
Being Green**
How Saving Mother Earth
Is Good for Your Bottom Line

Story by Steve Ditlea

Illustration by Randy Lyhus

BIOCHESTER

Can the
county
become the
nation's bio-
tech capital?
Vital signs
say yes.





S

Senator Kirsten Gillibrand is running late for her next event, in the northeasternmost corner of Tarrytown. On the grounds of the former Union Carbide research campus, more than 100 executives, managers, and employees from local biotech firms mill about the sleek entrance lobby to the corporate headquarters of Regeneron Pharmaceuticals, Inc., New York State's largest biotech firm. The junior U.S. Senator from New York, in her last week of electoral campaigning, is more than 15 minutes fashionably late or even 45 minutes breakdown-late. Delays are routine for biotechnology in Westchester.

Today's business event launches a regional branding campaign to raise awareness of the archipelago of biotech firms scattered throughout the Hudson Valley's seven counties. For the 11 Westchester companies employing more than 8,000 residents, this is an opportunity to build recognition for burgeoning life sciences enterprises that apply genetics, molecular biology, and information technology to new medical remedies and diagnostics. No cures for cancer yet, but Westchester-based biotech firms are marketing recently approved prescription drugs for relief of inflammatory diseases, to alleviate pain-medication side effects, and to ease multiple sclerosis (MS) symptoms; one company is offering a unique test to help men diagnosed with prostate cancer make informed decisions about treatment. In the product pipeline may be several medical blockbusters. Together, biotech businesses will have created among the most new jobs in the county in 2010, an estimated 1,000-plus. Such growth follows failed attempts to jump-start a local life-sciences hub, including abandoned plans for a business incubator at an undeveloped site near the Westchester Medical Center in Valhalla and a biotech campus in White Plains.

When Senator Gillibrand shows up a full hour late, no one seems to mind. Biotech people are used to waiting. "Biotechnology is an industry that requires patience," says Nathan Tinker, executive director of the New York Biotechnology Association (NYBA), a statewide trade group. "On average, it takes ten to fifteen years to bring a biotech product to market."

Host company Regeneron exemplifies Westchester's biotech endurance. Starting 22 years ago in modest quarters in this same office park, the firm suffered through failures in clinical trials of a possible cure for ALS (Lou Gehrig's disease) in 1997 and a potential blockbuster weight-loss pill in 2003, then bounced back with its first marketable drug in 2008. Arcalyst is currently approved for injection to relieve rare inflammatory diseases and is being tested as a treatment for gout. Long-term licensing and collaboration deals for the company's advanced drug-discovery technology with multinational pharmaceutical giants Sanofi-Aventis (for up to \$160 million through 2017) and Astellas Pharma Inc. (\$295 million through 2023) have assured the cash flow for Regeneron to add 500 jobs to its 1,000-employee payroll this year.

After anodyne remarks by Senator Gillibrand, Dr. Leonard Schleifer, Regeneron's founder, president, and CEO, asks the gathered crowd, many of them fresh-faced recruits to his firm, to raise their hands if they've gotten their jobs since the beginning of the year. The forest of extended arms draws smiles from everyone, especially Gillibrand. Job creation is the new apple pie, and biotech's non-polluting, well-paying positions are pie à la mode.

“We’ve been quite competitive in incentivizing the growth of larger biotech firms in the county such, but now with the regional New York BioHud Valley initiative, we anticipate funneling more state and federal incentives.”

But biotech can bite back, snapping payrolls away. In 2010, a Regeneron business partner, Tokyo-based Astellas Pharma, staged a hostile takeover of OSI Pharmaceuticals Inc., on the eve of the Long Island-based firm's moving its headquarters and 350 jobs to a refurbished office campus in Ardsley—after committing more than \$95 million to buy and upgrade the property. Instead, what jobs remain post-consolidation will probably move to the offices of Astellas's U.S. affiliate in Illinois. About six miles south of Regeneron along Route 9A, the modernist office park originally built for Swiss pharmaceutical powerhouse Ciba in 1956 has had a troubled past. In 2005, then-owner Purdue Pharma closed its onsite research operations and laid off 119 workers, after losing appeals in federal court to protect its patent on the pain medication OxyContin.

“It's disappointing, but the location is perfect for biotech,” says Laurence Gottlieb, director of Economic Development

for Westchester County. “I'm confident the site will have a buyer.” One of Gottlieb's many functions is to encourage biotech job creation in a county with high taxes and living costs compared to biotech magnets Seattle, San Francisco, San Diego, Boston, New Jersey, Maryland, and North Carolina. What the county has going for it are aging mid-20th century, first-class office developments like the Union Carbide (now Landmark at Eastview) and Ciba parks, with high ceilings and the structural integrity for refitting to biotech research infrastructure and equipment needs. “Westchester was one of the premier locations in the United States for the classic suburban office park setting,” Gottlieb says.

The county's architectural legacy has been enhanced with local and state taxpayer subsidies securing biotech employment. To keep Regeneron from moving its administrative and research offices elsewhere, its new three-building complex received an estimated \$1.5 million in sales-tax incentives from the county and a \$4 million construction grant from New York's industrial development agency, Empire State Development—credited to BioMed Realty Trust, the San Diego-based owner of the Landmark at Eastview office park and builder of its growing biotech tenant's mini-campus. In 2009, an Empire State Development grant of \$105,000 also helped convince Maryland-based vaccine development firm Profectus Biosciences, Inc., to move some of its lab operations and 13 jobs to a renovated section of the Landmark at Eastview, in the signature black steel office bridge arcing over Old Saw Mill River Road.

With looming budget deficits for state and county, biotech subsidies may be harder to come by. Even at recent levels, Westchester had to compete with the latest tax incentives from New York City to fill biotech space at the East River Science Park development in Manhattan and the Brooklyn Army Terminal, monuments to the Bloomberg Administration's third term. But all of that is about to change, as the county takes concrete steps to become a true player in the game. “We've been quite competitive in incentivizing the growth of larger biotech firms in the county such as Regeneron, but now with the regional New York BioHud Valley initiative, we anticipate funneling more state and federal incentives into the start-up side of the equation while continuing to feed the established firms,” says Gottlieb. “That's when we'll have a truly competitive biotech cluster.”

Westchester is already bio-competitive on other fronts, such as real estate costs, infrastructure, and location. Decades after pioneering county biotech, Progenics Pharmaceuticals, Inc., was established here following a wide-ranging site search. The firm has remained and expanded at what is now the Landmark at Eastview office park, without subsidies from the county and long beyond a brief equity investment by a New York State agency.

medmen

In the 1980s Ron, Paul, and George were acing medical school at Columbia University's College of Physicians and Surgeons in Washington Heights in Manhattan. Today, Drs. Cohen, Maddon, and Yancopoulos are principals in the three leading biotech drug firms in Westchester, as chief executive officers and/or chief science officers of Acorda, Progenics, and Regeneron, respectively.

All are sons of New York City, one from Manhattan's Upper East Side, and two from Queens. They arrived at their current positions through odd paths, including Dr. Yancopoulos chauffeuring Dr. Maddon to work from Columbia student housing for a few years as their startup firms were getting off the ground. (Dr. Yancopoulos recalls Dr. Maddon insisting on sitting in the back seat. The latter doesn't remember it that way, only as "a harrowing experience.")

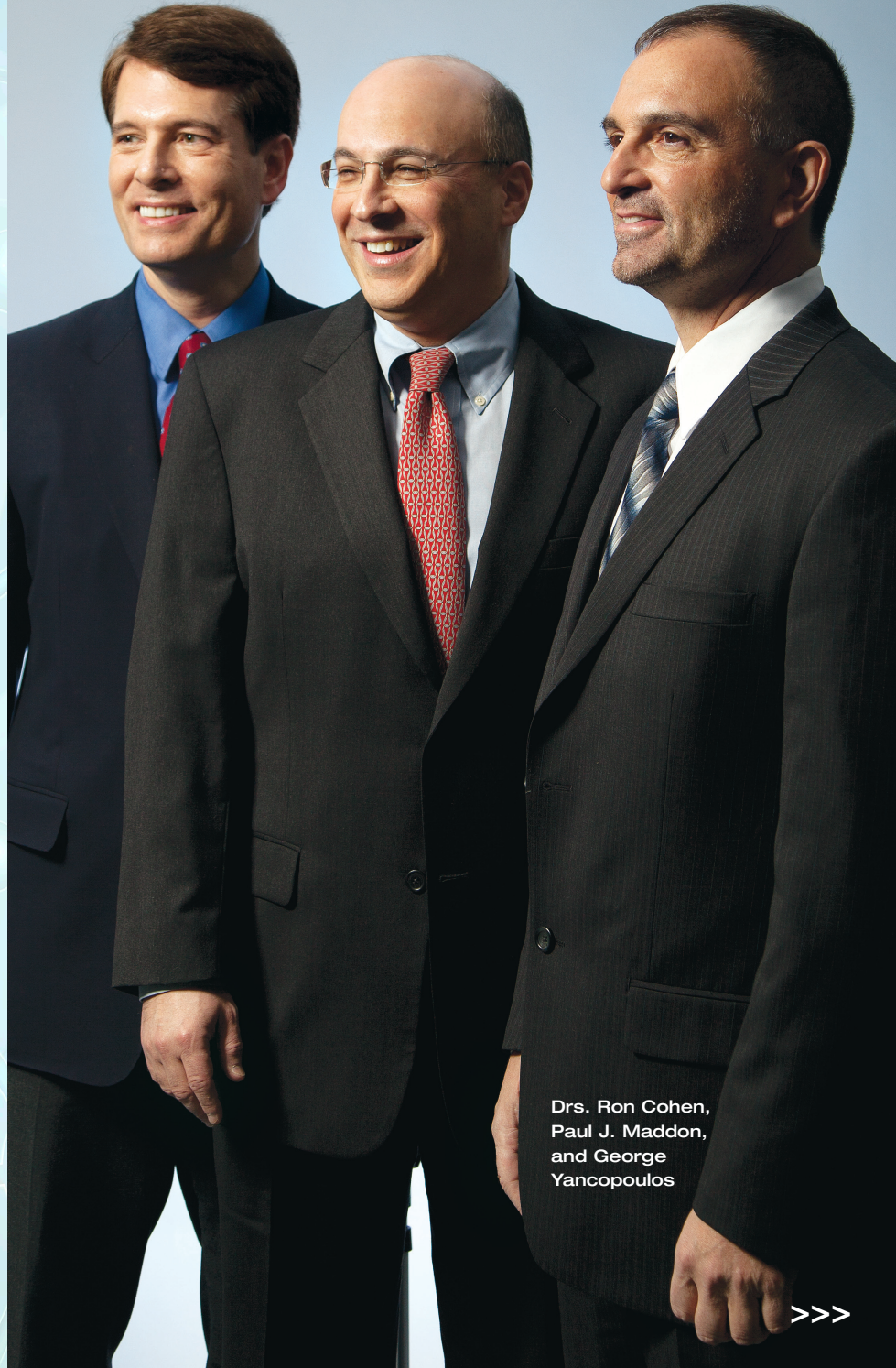
There but for fortune, Dr. Cohen might have become a successful Broadway actor (a goal of his through med school and clinical practice); Dr. Yancopoulos could have established a world-class academic research lab (he turned down an award that would have let him do so); and Dr. Maddon would have been the lone entrepreneur (a rare choice among MD/PhD graduates at the time).

Instead, Dr. Cohen was recruited to a biotech startup that would lead him to Southern California before he returned to New York environs and his own firm Acorda. Dr. Yancopoulos would join budding biotech Regeneron, setting up the company's labs with occasional help from nearby Dr. Maddon's Progenics. (Dr. Maddon learned to drive at 40, ending Dr. Yancopoulos's chauffeuring for good.)

As high-schoolers, Paul and George were both national finalists in the Westinghouse Science Talent Search (now the Intel Science Talent Search), with Paul going on to the International Science and Engineering Fair, the summit for science geeks from around the world.

The upshot for Westchester's future scientists? When Dr. Maddon learned that the county did not participate in the International Science and Engineering Fair, his company provided funding for the Westchester Science & Engineering Fair (WESEF), started with two local high school science teachers. WESEF 2011, to be held in March at Sleepy Hollow High, lists all three Columbia Med Men's firms as its top sponsors.

From Columbia med students to our county's biotech VIPs, meet the three men behind our booming industry



**Drs. Ron Cohen,
Paul J. Maddon,
and George
Yancopoulos**



Acting Entrepreneur



Ron Cohen, MD, 54
President, Chief Executive Officer, and
Director, Acorda Therapeutics, Inc
Irvington resident

Compensation for 2009 > \$2,110,018
Salary \$483,717 ■ Bonus \$280,888

Of all the things I had ever thought of, business was not one of them," says Dr. Ron Cohen, remembering his days practicing internal medicine at a private clinic in the Wall Street area, taking theater classes and auditioning for acting parts. His career took a dramatic turn soon after he was featured on a local TV news show for his doctor/actor lifestyle and appeared as a contestant on Jeopardy: he was offered a key position in a New York biotech startup firm pursuing improved technology for growing human tissue cells for transplantation, eventually known as Advanced Tissue Sciences, Inc. Signed on as a principal, he would follow the company to San Diego and wear many hats in six years. "I wound up with the business experience you can only get from a rank startup."

Dr. Cohen is the son of an MD—his father was a practicing neurologist for more than 60 years. His mother was a concert violinist. He grew up in a brownstone on Park Avenue and 95th Street, where his parents still live. He attended nearby Jewish school Ramaz for 12 years, from elementary through high school, earned his BA with honors from Princeton, and his MD at Columbia Physicians & Surgeons

His "road to Damascus" (Ramaz, forgive him) came in 1993 in the library of the University of California, San Diego medical school, where he spent three days "in a fugue state" reading the latest research on spinal injury. "In the eleven years since I had graduated from medical school, the field had undergone a revolution," Dr. Cohen explains. After millennia of physicians accepting nerve damage as permanent, researchers were showing that nerves could be regrown in animals and given back their function. "To me," he says, "it was miraculous."

Pursuing treatments for spinal injury in humans, Dr. Cohen founded a "virtual company," funneling any money he could raise directly to university research labs and licensing drug candidates after promising early results. He collected no pay for his first five years after starting Acorda, keeping his firm lean. "Startup research and development companies spend too much money on infrastructure and fixed costs in the early going," he says. Following the advice of his wife, a biomed communications professional, he named his firm with an A to make sure it was near the top of any list of biotechs. It worked.



In September 1988, Dr. Paul Maddon, one of local biotech's "Columbia Med Men" (see "Pharma Chameleon," pg. 47), began leasing space from Union Carbide for the company he founded from his dorm room at medical school on Manhattan's Washington Heights. "I looked all over," says the company's CEO and chief science officer. "There was very little as attractive in terms of turnkey lab space." The lure of finished or easily configured lab space is a recurring theme in the founding stories of Westchester biotech firms. Just a few months later, Regeneron would locate its first offices a beaker's throw away for similar reasons, as well as to be close to another budding biotech company.

Progenics's epic is also one of humbling entrepreneurial patience, with its initial product not receiving FDA approval until the company's 20th year in business, as well. Relistor, now approved in more than 30 countries, is injected to relieve constipation from morphine or other powerful opioid pain medications prescribed to patients in late-stage, advanced illnesses, like cancer and AIDS. In 2011, the company will seek approval for Relistor to be used for constipation in patients with chronic pain, who are administered opioid drugs. With development of a pill version, Relistor could become the county's first blockbuster biotech product.

Progenics has garnered support for basic research from the federal government. "Grants for companies like ours come from the National Institutes of Health," Dr. Maddon says. In October 2010, the firm announced a three-year, \$4 million NIH grant (awarded under the American Recovery and Reinvestment Act economic stimulus program) for pre-clinical research and development of Progenics's non-antibiotic approach to combating *C. difficile* bacteria. A widespread health hazard, this drug-resistant bug is responsible for most cases of hospital-acquired diarrhea and more deaths than all other intestinal infections combined, according to Progenics. Defeating *C. difficile* would constitute a major medical breakthrough in our backyard.

"It was pretty much happenstance that we're in Westchester," admits Dr. Ron Cohen, president and CEO of Acorda Therapeutics, Inc. The oldest of the Columbia Med Men was last to launch a biotech venture in the county, bringing his firm's offices here in August 1998, after three years of operating as a "virtual company" from a rented walk-in closet (for real) in midtown Manhattan. Starting with leased lab space vacated by another biotech firm, Acorda has expanded to occupy an entire aluminum-clad building on the Mid-Westchester Executive Park office campus in Hawthorne, about two miles north of Regeneron. Along aptly named Skyline Drive, perched

above Route 9A, Acorda moved in with six people. Sales of its newest remedy, approved last January, have helped double the company's payroll from 150 to 300 in 2010.

Ampyra is the first treatment to improve MS patients' ability to walk. Nearly half of the estimated 400,000 Americans suffering from MS (2.5 million worldwide) could benefit from Acorda's new drug. This comes on the heels of the firm's Zanaflex capsules and tablets which were approved for management of spasticity in people with spinal cord injuries as well as MS.

In 2010, Dr. Cohen was honored as NYBA Business Leader of the Year, but the long-term activist for biotech in Westchester has withdrawn from further efforts to build an industry core with county and local investment. "I grew weary of pushing the string up the hill," he says. Among the failed initiatives were former County Executive Andy Spano's plans for "North 60," an up-to-\$700 million biotechnology facility on 60 acres on the Westchester Medical Center campus in Valhalla, and New York-Presbyterian Hospital's proposal for a \$265 million biomedical complex on Bloomingdale Road in White Plains, neither of which gained the necessary funding and approvals.

Just before 9/11, another life-sciences startup firm was looking for office and lab space in the tri-state area. "We came here because of the space, the ease of transportation, and the great workforce we can draw from," says Charles DiComo, vice president of operations and corporate compliance officer of Aureon Biosciences. A company co-founder, DiComo experienced the firm's "this is the place" moment when shown by real-estate agents the industrial-strength insides of a red brick factory space built in 1890 for the Otis Elevator Company, a half-block from Yonkers's train station. "I looked across and I said, 'We can build it here.'"

In September 2002, Aureon opened for business in the i.park Hudson office complex, a Greenwich, Connecticut-based real estate developer's repurposing of the old elevator manufacturing plant for innovative businesses, aided by tax abatements within the state-designated Empire Development Zone in downtown Yonkers. The firm began with four or five researchers and today counts more than 70 employees in this location. Every day dozens of packages arrive from across the U.S., containing paraffin blocks with biopsy specimens, which Aureon technicians examine on behalf of patients diagnosed with prostate cancer and facing life-or-death treatment options.

Pharma Chameleon



Paul J. Maddon, MD, PhD, 50
Progenics Pharmaceuticals, Inc.
Chief Executive Officer, Chief Science
Officer, and Director
Scarsdale resident

Compensation for 2009 > \$1,231,170
Salary \$618,000 ■ Bonus \$250,000

The one constant in Dr. Paul Maddon's career has been assuming different professional identities to advance pharmaceutical research and development. "I took a lot of heat for my decision to start a company right out of medical school," he recalls.

He had experienced the thrill of breakthrough discovery while a graduate student at the Howard Hughes Medical Institute at Columbia in the laboratory of Dr. Richard Axel, later a winner of the Nobel Prize in Medicine. As a molecular virologist and immunologist conducting landmark studies, Dr. Maddon helped isolate the primary surface receptor for entry of the AIDS virus (HIV) into immune system cells. His company, Progenics, would discover a second receptor, prompting possible new treatments for HIV infection.

While venturing into commerce full-time, Dr. Maddon has maintained close ties to academia. Since 1989, he has been an adjunct assistant professor of medicine at Columbia. (The Queens native received his BA in biochemistry summa cum laude from Columbia's undergraduate college and completed his PhD in biochemistry and molecular biophysics at Columbia's Graduate School of Arts and Sciences, while earning his MD from Columbia P&S.) In 2008, he was elected a trustee of Columbia University.

His most influential role in the future of medicine could well be championing science education and research opportunities for high school students, following his own success as a science fair participant. "It was such a transformative event," Dr. Maddon says. When he learned about Yorktown High science teacher Michael Blueglass's interest in setting up a science fair program in Westchester, Dr. Maddon teamed with up with him and Ossining teacher Angelo Piccirillo to launch WESEF. He also put out the word to Drs. Cohen and Yancopoulos for support of the Westchester science fair, which this year will award a grand prize of an all-expenses-paid trip to Los Angeles in May to compete in the Intel International Science and Engineering Fair against over 1,600 high school students from 60 countries, for top prizes of \$75,000. Dr. Cohen adds about fellow Columbia Med Men: "One of the beautiful outcomes of the fair is that it brings the three of us together, even with our busy schedules."



Biotech Brainiac



George Yancopoulos, MD, PhD, 51
Regeneron Pharmaceuticals, Inc,
President of Regeneron Laboratories,
Chief Scientific Officer
Yorktown Heights resident

Compensation for 2009 > \$5,108,375
Salary \$609,900 ■ Bonus \$1,709,900

Dr. George Yancopoulos's reputation for outstanding ability always seems to precede him: "George was the most brilliant, most gifted person my brother had ever met—and I just had to meet him," recalls Dr. Ron Cohen, who first encountered the pharma phenom when young Dr. Yancopoulos was captain of the freshman crew team at Columbia College and an exemplary scholar-athlete. He would go on to graduate as the school's class valedictorian, with his speech published in full by the *New York Times* to exemplify student-athlete achievement. "I believe he had the highest grade-point average of any student in the several hundred years of Columbia history," Dr. Cohen says. "Then I kept hearing he was the smartest guy who ever went to Columbia Med School."

Such accolades came after Dr. Yancopoulos scored the class valedictorian title at nerd central, Bronx High School of Science, despite enduring a daily two-hour commute each way on public transportation from his home in Queens. He was the son of Greek immigrants, who wished little else than that he pursue a career as a practicing physician. He received his MD and PhD, finishing in 1987 from Columbia P&S following work in molecular immunology at Columbia University and accepted a junior faculty position, soon being awarded a multi-year grant from the Lucille P. Markey Charitable Trust to set up his own research lab. But after his father questioned his relatively meager researcher's salary, he accepted an offer by Dr. Leonard Schleifer to head up medical discovery for newly minted Regeneron.

Over the years, Dr. Yancopoulos's scientific research has uncovered new families of biochemical growth factors and their cellular receptors, generating novel approaches to treating a variety of human diseases. The Institute for Scientific Information found him to be among the most-cited scientists in the world during the 1990s (with the sole biotech industry listing). He was elected to both the super-prestigious National Academy of Sciences and American Academy of Arts and Sciences in 2004.

For all his well-documented smarts, Dr. Yancopoulos acknowledges that Dr. Maddon had the upper hand when being chauffeured in exchange for supplies and help for Regeneron's startup lab. "Paul is a very smooth operator, and he maneuvered the whole thing," says the wiz kid now. "He convinced me that whatever time he had to come up was the time to come up, and whatever time he had to leave was when I had to leave."

The Biocheester Elbow

**Our county's major biotech firms—
where they are and what they do**

1. ACORDA THERAPEUTICS

Hawthorne; est. 1995

CEO: Ron Cohen, MD *Therapies to restore neurological function in MS and spinal-cord injury patients*

2. AUREON

Yonkers; est. 2002

CEO: Robert Shovlin

Biopsy testing to predict outcomes of treatment options for prostate and other cancers

3. BAYER HEALTHCARE

Tarrytown; est. 1999

CEO: Jörg Reinhardt, MD,

World headquarters for Diabetes Care Business of German multinational pharmaceutical company Bayer

4. EPICEPT CORPORATION

Tarrytown; est.1993

CEO: John V. Talley

Targets unmet pharmaceutical needs in cancer treatment and pain management

5. GENE LINK

Hawthorne; est. 1994

Executive Director: Ali Jawed

Biotech boutique creating DNA strands and genetic test materials to order

6. PROGENICS PHARMACEUTICALS

Tarrytown; est. 1988

CEO: Paul J. Maddon, MD

Directed toward supportive care, oncology, and virology, including anti-HIV

7. PSYCHOGENETICS

Tarrytown; est. 2000

CEO: Emer Leahy, PhD

Innovative drug discovery platform for central nervous system disorders

8. REGENERON PHARMACEUTICALS

Tarrytown; est. 1988

CEO: Leonard S. Schleifer MD, PhD

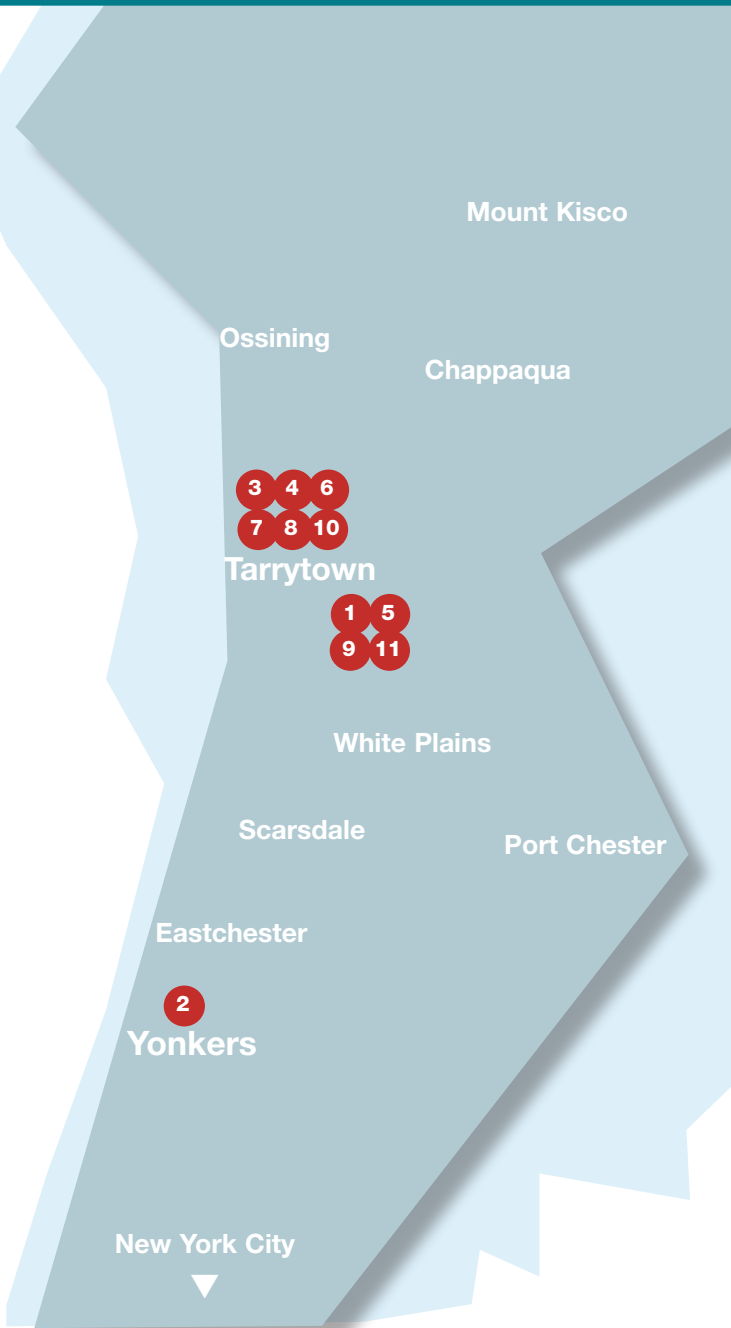
Smart-science treatments for inflammatory, ophthalmological diseases, cancer

9. TARO PHARMACEUTICALS, USA

Hawthorne; est. 1988

Interim CEO: James Kedrowski

U.S. headquarters for Israel-based multinational leader in generic drug manufacture



10. TECHNOVAX

Tarrytown; est. 2004
 President: Jose Galarza PhD
Development of new vaccines to prevent influenza, pneumonia, HIV, cancer

11. VIRO DYNAMICS

Hawthorne; est. 1980
 President: Doris Bucher, MD
Biochem lab brewing monoclonal antibodies against flu and other disorders

The Prostate Px test, launched in 2008 for the newly diagnosed, and the Post-Op Px test, now available to post-surgery patients, use computer-aided molecular and cellular analysis to predict treatment outcomes with 90 percent+ accuracy. For the prostate cancer patient selecting from more-or-less aggressive medical procedures with side effects that can include incontinence or loss of sexual function, the one-of-a-kind, personalized, prognostic (insurance-reimbursable) test offers peace of mind. Aureon is thinking beyond the prostate to clinical testing and regulatory approval for its systems pathology technology to predict outcomes in treating breast cancer, colon cancer, and non-small-cell lung cancer. Relieving some of the uncertainty in breast cancer choices alone would constitute a world-class advance.

Back at Regeneron, there are important medicines in the pipeline, including another potential blockbuster, an alternative to the leading drug for the treatment of macular degeneration, a vision loss that many seniors suffer. Lucentis, the current drug leader, injected into the eye once a month, generates \$1.6 billion a year in sales in the U.S. and \$2.5 billion worldwide, according to Edward Tenthoff, a managing director and senior research analyst at Piper Jaffray, an international investment bank and institutional securities firm based in Minneapolis. Regeneron's product could prove potent at 60-day intervals, an improvement for patients. "Regeneron is emerging as one of the leading biotherapeutic companies in the biotech sector," he says.

For Regeneron founder Dr. Schleifer, it's not about the money, though a 2009 salary of \$734,400 and a bonus of \$2,054,720 (total compensation, including options: \$6,349,308) doesn't hurt. He tells the gathered biotech crowd in his lobby of being accosted at a local movie theater when recognized by a total stranger. Expecting a legal subpoena in an often litigious business, instead he was thanked by a woman who had participated in a Regeneron clinical drug trial and been given a "more normal life." He concludes by bringing up his own father, who often reminds him, "There is no wealth in life but health." ●

Steve Ditlea is a technology and business journalist, freelance editor for *Consumer Reports*, and past contributor to the *New York Daily News* on health and medical advances. A recent Westchester replant (an Armonker for seven years) from Spuyten Duyvil, the Bronx, he enjoys Tarrytown with his wife, Nancy Stedman (Deputy Editor, *Health*, *More Magazine*) and four black-and-white cats. This assignment was the most fun Steve has had since he first reported on the emergence of Silicon Valley, "back when Steve Jobs used to answer his own phone after the receptionist left at five pm."