The First Biotech Blockbuster

Whitney Tilson | November 14, 2025

On Christmas Day in 1975, Eugene Goldwasser received a concentrated sample of 673 gallons of human urine.

For Goldwasser, a biochemist at the University of Chicago, the Christmas pee wasn't the real "present." What he really wanted was a human protein called erythropoietin (or "EPO").

EPO is a hormone that stimulates the production of red blood cells – the oxygen transporters of the body.

Starting back in 1957, Goldwasser experimented on rats and traced the production of EPO to the kidneys. This explained why humans with chronic kidney disease suffered from anemia (or a lack of red blood cells). It also suggested that EPO could be found in urine.

The problem was that urine only contains minute amounts of EPO. That's why Goldwasser needed so much of it.

Finally, he connected with a Japanese doctor treating patients for aplastic anemia. The bone marrow of these patients didn't work properly, leading to an overproduction of EPO.

Even so, it took Goldwasser and his team 18 months to extract just 8 milligrams of precious EPO from the massive donation of urine.

Tests did show that the EPO cured anemic rats. Goldwasser knew this was a wonder drug in the making. It was just a matter of coming up with enough EPO.

And tanker truckloads of urine weren't readily available.

Genetic engineering, on the other hand, offered hope...

A biotechnology startup called Applied Molecular Genetics decided that EPO would be one of its first projects and brought Goldwasser on as a consultant.

At the company, a Taiwanese-born scientist named Fu-Kuen Lin went to work on Goldwasser's samples. Lin wanted to isolate the EPO gene, which is essentially the cell's instructions written in DNA.

This wasn't going to be an easy solution, either. Lin had to find a gene on a single fragment of DNA among 1.5 million fragments of the human genome. This was harder than finding a needle in a haystack... It was like trying to find a 1-inch cube in a lake 1 mile wide by 1 mile long by 1 mile deep.

Success wasn't assured, and many of Lin's colleagues were skeptical. As he later told the *Los Angeles Times*...

> You could feel the people try to distance themselves from the project... Even my assistant was told by the other associates, "What a dummy you are to work with this guy on a project that is going nowhere."

Yet, Lin was confident that he could find the gene. So he stubbornly persisted, despite the odds and intense pressure.

Applied Molecular Genetics, which changed its name to **Amgen (Nasdaq: AMGN)**, went public in June 1983. Within six months, Amgen's stock had already fallen 60%.

The clock was ticking... Amgen needed a drug in the pipeline.

Finally, after two years of work, Lin's team had a breakthrough and successfully cloned EPO in late 1983. And human clinical trials showed that EPO was effective in treating anemia.

Finally, in 1989, the U.S. Food and Drug Administration approved Amgen's synthetic version of EPO for the treatment of anemia in dialysis patients. And Amgen marketed the drug under the brand name Epogen.

It took more than 30 years from Goldwasser's first experiments on rats to Epogen coming to market. It was time well spent... Epogen is widely regarded as the biotech industry's first blockbuster drug – the term for medicines with more than $1 billion in annual sales. It hit that mark in 1996.

Amgen has since grown into a biotech giant and was even added as one of the 30 stocks in the Dow Jones Industrial Average in 2020.

Amgen is one of the 20 stocks currently in *The N.E.W. System* portfolio. This month, I'm going to use this stock as an example of what our system looks for. I'll show why this stock passed our screen and why our AI algorithm selected it for inclusion.

Finally, I'll discuss our portfolio's broad performance during its first two months.

A Note on Our Publishing Schedule

Our offices will be closed on Friday, December 12... the scheduled date of your next issue of *The N.E.W. Portfolio*. We'll publish it the following Monday, December 15.

In this issue, we will rebalance our portfolio for the first time. Our algorithm will ensure we're still holding the best collection of stocks, and we'll adjust our allocations to bring our holdings back to 5% apiece.

Amgen Doesn't Sit Still

Epogen wasn't an isolated success. It was part of a broader wave of innovation in the nascent biotech industry.

Genentech led the way in the late 1970s when it developed synthetic human insulin, a hormone that regulates blood sugar levels.

Amgen developed Epogen with a similar process. And the company followed up Epogen with another blockbuster called Neupogen, which stimulates the bone marrow to produce white blood cells.

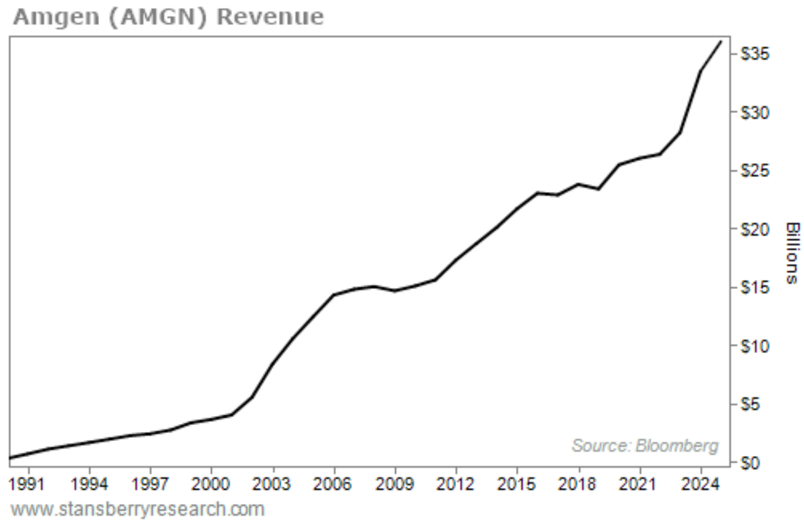
Amgen and other drugmakers develop drugs and patent them, protecting their intellectual property. The patent system rewards drug innovation by effectively giving drug developers monopolies on the patented drugs.

But U.S. drug patents typically only last 20 years from the date the patent application was filed. After that, other companies can enter the market with "generic" drugs and biosimilars, introducing competition.

After a drug's patent expires, a drugmaker typically sees a sharp drop in that drug's sales, known as the "patent cliff." That's why drugmakers must constantly be doing research and developing new drugs to patent.

Today, Amgen has an array of drugs, including Enbrel, which treats autoimmune diseases, and Otezla, which treats psoriasis. Prolia, a treatment for osteoporosis, is Amgen's top-selling drug, responsible for more than $4 billion in annual revenues.

Overall, Amgen has roughly $36 billion in annual sales.



Now let's look at Amgen's fundamentals and why our quant system likely selected this stock.

Our system starts with our proprietary Stansberry Score, which has three grades: financial, capital efficiency, and valuation.

The financial score reflects the general profitability of the company and its risk of default.

Amgen is highly profitable and tends to have relatively stable earnings. The company has only posted an annual loss once, more than 20 years ago. And that was due to a noncash charge related to its acquisition of Immunex.

Plus, Amgen has a manageable debt load and likely won't have any trouble paying the interest on it.

Standard & Poor's gives Amgen a credit rating of BBB+, which is a solid credit rating. Fast-food chain McDonald's (MCD) and telecommunications provider Verizon Communications (VZ) also have BBB+ credit ratings, so Amgen is in good company.

Thanks to this financial stability, Amgen earns an "A" financial grade.

The capital efficiency grade incorporates how well a company generates free cash flow ("FCF"), which is the cash left over after all operating expenses and business investments.

Amgen's FCF margins (FCF as a percentage of revenue) have averaged around 33% over the long term. Basically, for every $1 of revenue, Amgen generates about 33 cents of FCF. That's more than twice as much as the average for the S&P 500 Index.

Amgen's FCF margins are a big reason why it has a capital efficiency grade of "A."

Our valuation grade reflects how cheap a stock is based on what is called a discounted cash flow model.

We won't go into all the details, but we're basically comparing the market cap of the stock with those estimated future cash flows (specifically, their present value using a discount rate).

Amgen's market cap, which is currently around $180 billion, is very cheap relative to those cash flows. This is why it earns an "A" grade for valuation.

Amgen's overall Stansberry Score is 88, and it ranks 32 out of more than 4,500 stocks rated.

Basically, Amgen has a fabulous business with great fundamentals, and its stock is relatively cheap.

Amgen is also in the Russell 1000 Index, which is the universe of stocks that our algorithm populates our portfolio from.

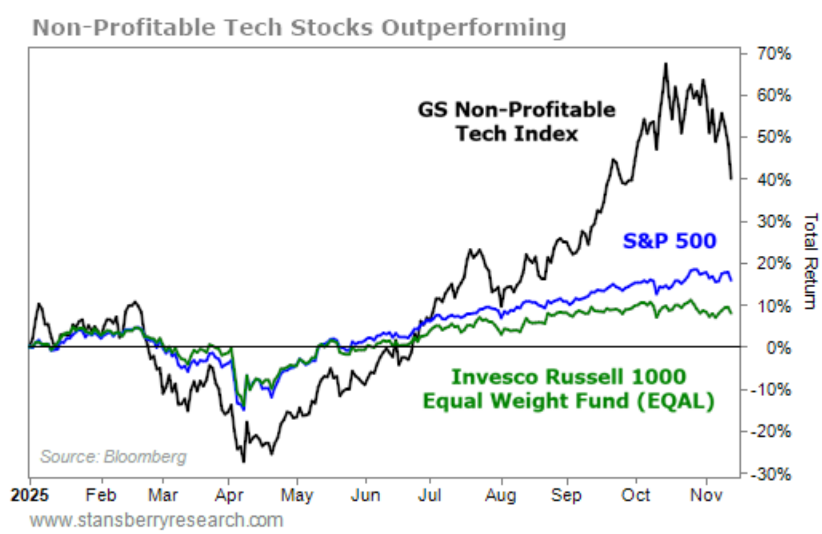
Since we launched *The N.E.W. System* in September, Amgen is currently up 18%, the most of any of our portfolio holdings.

A Tough Time for Quality Stocks

You've likely heard about speculative stocks flying this year... from AI names to "meme stocks."

Many of these companies make no money, and nearly all are richly valued. And that's what the market has loved in the past six months.

Take a look at this chart of the Goldman Sachs Non-Profitable Tech Index. Despite a steep sell-off in the past few days, it's still up about 40% this year versus a 16% return for the S&P 500.



We didn't train *The N.E.W. System* to chase stocks like those. We want high-quality companies like Amgen... companies with solid balance sheets, wide margins, and reasonable valuations.

And many of those stocks are flagging right now.

Our portfolio is down roughly 3% since we launched this service in September. Our benchmark, the Invesco Russell 1000 Equal Weight Fund (EQAL), is up about 1% over the same period.

It's not just a few positions causing the losses. Fourteen of our 20 positions are down since we launched.

We know this can't be fun. No one likes holding a bunch of losing positions.

But *The N.E.W. System* is here to help us build wealth over the long term. And we're in position to do that, even if we're down a few percentage points just now.

Our portfolio holds some of the highest-quality stocks in the world. And when investors are ready to own great companies rather than chase highfliers, our stocks are the kinds that they'll turn to.

So don't sweat the market's short-term moves... We'll tell you if any single position is performing disastrously and we need to cut our losses. And four times a year (including next month), we'll rebalance our portfolio.

Until then, sit tight and hold this balanced portfolio of 20 top-quality stocks.

And if you're not following our advice yet, you don't have to wait. If you haven't already...

ACTION TO TAKE

Buy all 20 stocks in our model portfolio. Put an equal amount of money into each stock. We will adjust our allocations next month and follow a 35% trailing stop to protect our capital in the meantime.

For *The N.E.W. System* strategy to pay off, you must buy equal amounts of all 20 stocks. Our AI constructs this diversified portfolio with complementary holdings, and you lose that benefit if you just choose your favorite names. Each stock should initially represent 5% of your total money invested in this strategy.

As stock prices fluctuate, these weightings will change. That's fine. We don't recommend you rebalance until the new set of 20 stocks comes out on the next rebalance date in December. And we recommend that new subscribers stick with equal weightings of each stock when they buy in for the first time.

Good investing,

Whitney Tilson
With Alan Gula
November 14, 2025

THE N.E.W. SYSTEM MODEL PORTFOLIO

PRICES AS OF NOVEMBER 13, 2025

	Symbol	Initial Allocation	Current Allocation	Ref. Date	Ref. Price	Recent Price	Cumulative Dividends	Gain
AbbVie	ABBV	5.0%	5.7%	09/03/25	$211.86	$232.29	$1.64	10.4%
Allison Transmission	ALSN	5.0%	4.8%	09/03/25	$88.00	$82.30	$0.00	-6.5%
Altria	MO	5.0%	4.5%	09/03/25	$66.63	$57.81	$1.06	-11.6%
Amgen	AMGN	5.0%	6.1%	09/03/25	$283.85	$336.00	$0.00	18.4%
Antero Midstream	AM	5.0%	5.2%	09/03/25	$17.86	$17.92	$0.23	1.6%
Chemed	CHE	5.0%	5.0%	09/03/25	$459.63	$446.01	$0.00	-3.0%
Church & Dwight	CHD	5.0%	4.7%	09/03/25	$93.28	$84.94	$0.00	-8.9%
Colgate-Palmolive	CL	5.0%	4.9%	09/03/25	$83.81	$78.79	$0.52	-5.4%
Grand Canyon Education	LOPE	5.0%	4.2%	09/03/25	$205.54	$169.07	$0.00	-17.7%
Houlihan Lokey	HLI	5.0%	4.9%	09/03/25	$191.42	$180.34	$0.00	-5.8%
L3Harris Technologies	LHX	5.0%	5.5%	09/03/25	$273.11	$288.37	$1.20	6.0%
McDonald's	MCD	5.0%	5.0%	09/03/25	$316.39	$307.58	$0.00	-2.8%
Merck	MRK	5.0%	5.7%	09/03/25	$84.18	$92.93	$0.81	11.4%
O'Reilly Automotive	ORLY	5.0%	4.9%	09/03/25	$103.84	$98.35	$0.00	-5.3%
Pfizer	PFE	5.0%	5.4%	09/03/25	$24.79	$25.79	$0.43	5.8%
Philip Morris International	PM	5.0%	4.9%	09/03/25	$163.22	$155.15	$1.47	-4.0%
TKO Group	TKO	5.0%	5.1%	09/03/25	$186.61	$182.64	$0.76	-1.7%
Veralto	VLTO	5.0%	4.8%	09/03/25	$105.07	$98.56	$0.11	-6.1%
Verisk Analytics	VRSK	5.0%	4.2%	09/03/25	$268.44	$217.68	$0.45	-18.7%
Zoetis	ZTS	5.0%	4.1%	09/03/25	$152.43	$121.16	$0.50	-20.2%
Cash from dividends			0.5%					

We rebalance our portfolio every quarter: in September, December, March, and June. To follow our recommendations between rebalancing issues, buy a 5% stake of all the stocks in our portfolio.

The N.E.W. System's model portfolio does not represent any actual investment result. Our reference price represents the price of our recommended securities at the time we wrote the recommendation. Our returns include dividends.

We use 35% trailing stops, which means we sell a stock if it falls more than 35% from its peak after we've bought it. For example, let's say you set a 35% trailing stop on a stock you purchase for $10. If the stock rises to $20, you would move your trailing stop to $13 ($7 is 35% of $20, $20 - $7 is $13). Only use closing prices, and never enter your stop into the market. To learn more about how trailing stops work and the TradeStops tracking software offered by our corporate affiliate TradeSmith, go to www.tradesmith.com.