

## Biogen Inc. (BIIB)

**\$282.96** (As of 07/15/20)

Price Target (6-12 Months): **\$297.00**

Long Term: 6-12 Months

**Zacks Recommendation:**

**Neutral**

(Since: 01/02/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

**Zacks Rank:** (1-5)

**3-Hold**

Zacks Style Scores:

VGM:A

Value: A

Growth: B

Momentum: C

## Summary

Biogen's efforts to diversify beyond MS to other areas like Alzheimer's are commendable. Biogen regularly in-licenses assets to build its pipeline with several having transformative potential. Several important data readouts are expected in 2020-2021. Meanwhile, its biosimilars business is expected to increase in 2020 and it does not expect significant negative impact on Tecfidera sales due to COVID-19. However, sales of Tysabri and Spinraza are expected to be hurt by COVID-19 in 2020. Competitive pressure is also expected to rise in 2020 in both MS and SMA markets. Though Biogen's CNS pipeline is attractive, it is a high-risk area. The stock has underperformed the industry this year so far. Estimate movement is mixed ahead of Q2 earnings. Biogen has a positive record of earnings surprises in the recent quarters.

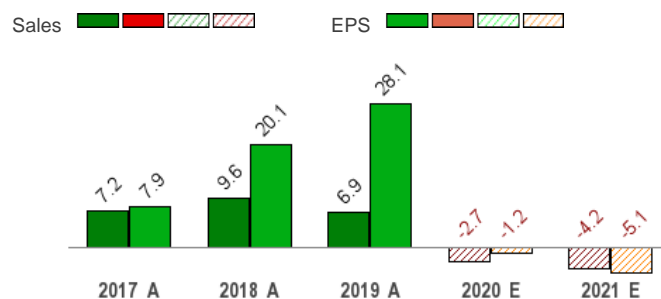
## Price, Consensus & Surprise



## Data Overview

52 Week High-Low	\$374.99 - \$215.78
20 Day Average Volume (sh)	1,954,601
Market Cap	\$46.2 B
YTD Price Change	-4.6%
Beta	0.54
Dividend / Div Yld	\$0.00 / 0.0%
Industry	<a href="#">Medical - Biomedical and Genetics</a>
Zacks Industry Rank	Top 30% (75 out of 251)

## Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	18.1%
Last Sales Surprise	3.2%
EPS F1 Est- 4 week change	0.1%
Expected Report Date	07/22/2020
Earnings ESP	-1.5%
P/E TTM	7.9
P/E F1	8.5
PEG F1	1.1
P/S TTM	3.2

## Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	3,248 E	3,276 E	3,208 E	3,198 E	13,402 E
2020	3,534 A	3,432 E	3,489 E	3,539 E	13,985 E
2019	3,490 A	3,617 A	3,600 A	3,671 A	14,378 A

## EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$7.92 E	\$8.03 E	\$7.83 E	\$7.74 E	\$31.49 E
2020	\$9.14 A	\$7.97 E	\$8.18 E	\$7.85 E	\$33.18 E
2019	\$6.98 A	\$9.15 A	\$9.17 A	\$8.34 A	\$33.57 A

\*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 07/15/2020. The reports text is as of 07/16/2020.

## Overview

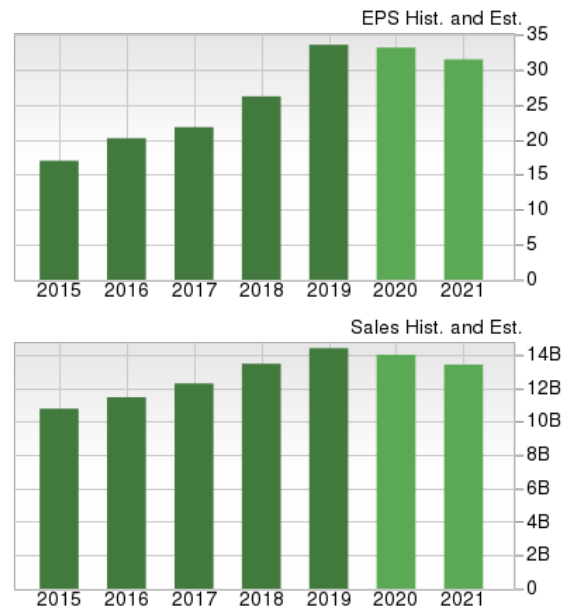
Based in Cambridge, MA, Biogen Inc. is one of the world's leading biotechnology companies, which focuses on developing innovative therapies for treating serious neurological and neurodegenerative diseases, including its core growth areas of multiple sclerosis (MS) and neuroimmunology, Alzheimer's disease (AD) and dementia, movement disorders including Parkinson's disease, neuromuscular disorders, including spinal muscular atrophy (SMA) and amyotrophic lateral sclerosis (ALS) and ophthalmology.

Key multiple sclerosis/MS drugs in its portfolio are Tecfidera, Vumerity, Avonex, Plegridy, Fampyra and Tysabri. Other approved/marketed products include Fumaderm (severe psoriasis) and Spinraza (spinal muscular atrophy (SMA)). Key MS drugs Tecfidera and Tysabri accounted for around 39% and 16%, respectively, of the company's 2019 product revenues. Spinraza accounted for 18% of Biogen's total product revenues in 2019.

On Feb 1, 2017, Biogen completed the spin-off of its hemophilia business into a new company called Bioverativ. Bioverativ began trading under the ticker symbol "BIVV" on the NASDAQ stock market from Feb 2.

Biogen also generates significant royalties from partnership agreements with other pharmaceutical and biotechnology companies. It has collaborations with companies like Roche (Rituxan and Gazyva – cancer and Ocrevus – PPMS and RMS), Eisai (aducanumab and BAN2401– Alzheimer's disease), Acorda (Fampyra), Alkermes (Vumerity) and Ionis (Spinraza).

Biogen garnered total sales of \$14.4 billion in 2019, up 7% year over year.



## Reasons To Buy:

▲ **MS – Key Focus Area:** Biogen holds a strong position in the MS market with a wide range of products including Avonex, Tysabri, Tecfidera and Plegridy. Biogen's MS revenues (including royalties) were \$9.2 billion in 2019, up 2% year over year, almost half of which came from Tecfidera. Tecfidera recorded revenues of \$4.4 billion in 2019 driven by strong global patient growth. Meanwhile, Tysabri, the company's second MS product, continues to contribute significantly to the top line despite carrying a "black box" warning for the risk of progressive multifocal leukoencephalopathy (PML) and other cautionary messages. Biogen recorded Tysabri revenues of around \$1.9 billion in 2019.

Avonex posted sales of \$1.7 billion in 2019. Another MS treatment, Plegridy, launched in 2014, raked in sales of \$436 million in 2019.

Meanwhile, Roche's Ocrevus (ocrelizumab) was approved for the treatment of relapsing MS (RMS) and primary progressive MS (PPMS) in Mar 2017. Though Ocrevus poses strong competition for Biogen's MS drugs, Biogen is receiving royalties on U.S. sales of Ocrevus.

Meanwhile Biogen is working on consolidating its position in the MS market by bringing new treatments to market. In November 2017, Biogen in-licensed worldwide commercialization rights to Alkermes' Vumerity (BIIB098), which the company claims has a potentially differentiated profile to Tecfidera. Vumerity gained FDA's approval for relapsing forms of MS in October 2019 and was launched in the fourth quarter of 2019.

Also, the company's patent position for Tecfidera was strengthened after PTAB ruled in its favor in its IPR litigation against Mylan on the '514 patent, which covers the treatment of multiple sclerosis with 480mg dose of dimethyl fumarate (DMF), the active ingredient of Tecfidera. Though Mylan announced its intention to appeal against this decision, the favorable ruling raises hopes for Biogen's chances of maintaining Tecfidera's exclusivity until 2028.

▲ **Growth Opportunities beyond MS:** As competition in the MS market intensifies, Biogen is trying to diversify its pipeline and aims to be a leader in neuroscience and the adjacent therapeutic area. In the three years from 2017-2019, Biogen executed 15 business development transactions, which significantly boosted its pipeline.

Biogen is looking to strengthen its Alzheimer's disease (AD) and other neurodegenerative disorders pipeline. The December 2016 FDA approval of Biogen's spinal muscular atrophy (SMA) treatment, Spinraza (nusinersen), consolidated its position in the neurological disease market with the drug being the first and only treatment to be approved in the U.S. for SMA. The market potential of the disease is huge. The drug has performed beyond expectations witnessing strong patient uptake in the United States and internationally and has now become the standard of care in SMA. Biogen has also expanded its collaboration with Ionis to identify new gene therapies for the treatment of SMA as well as a broad range of neurological diseases. In July 2018, Biogen acquired two programs from AliveGen, targeting the myostatin pathway for potential muscle enhancement across a range of neuromuscular diseases including SMA. In early 2019, Biogen signed a new collaboration with Skyhawk Therapeutics to develop an oral splicing modulator for multiple diseases, including MS and SMA.

Biogen is also building a portfolio of best-in-class treatments for stroke and acute neurology. In May 2018, Biogen purchased a phase III candidate, BIIB093/Cirara from Remedy Pharmaceuticals, which is being studied for the treatment of large hemispheric infarction (LHI), a severe form of stroke with no available therapy.

The June 2019 acquisition of gene therapy maker Nightstar Therapeutics provided Biogen with two potentially mid-to late-stage clinical assets (BIIB111 and BIIB112) in inherited retinal disease. Meanwhile, Biogen signed a collaboration with Sangamo Therapeutics in 2020 to make gene regulation therapies for a range of neurological indication including Alzheimer's disease.

We believe the company will continue pursuing deals to add late-stage and commercial assets to its portfolio.

▲ **Pipeline Diversification:** Biogen plans to strengthen existing efforts in multiple sclerosis and spinal muscular atrophy while continuing to focus R&D efforts in the field of neuroscience. The company also spun off its hemophilia business in February 2017, which allows it to focus on neurology, its key area of expertise.

Promising pipeline candidates include opicinumab (a potential remyelination therapy in MS - phase II), BIIB054 (Parkinson's - phase II), BIIB092/gosuranemab (AD - phase II), BIIB104 (cognitive impairment associated with schizophrenia (CIAS)- phase IIb), dapirolizumab pegol (active systemic lupus erythematosus [SLE] - phase IIb), BIIB111 (choroideremia - phase III), BIIB093 (LHI - phase III, brain contusion - phase II), BIIB059 (lupus - phase II), tofersen/BIIB067 (ALS with SOD1 mutations - phase III) and BAN2401 (early Alzheimer's - phase III). By the end of 2021, 10 mid- to late-stage data readouts are expected across clinical programs in MS, PSP, lupus, epilepsy, Parkinson's disease and others. A regulatory application seeking approval of aducanumab in patients with early-stage Alzheimer's disease was filed in July 2020.

▲ **Exploring Biosimilar Opportunity:** Biogen is also working with Samsung BioLogics to bring new biosimilars to market. Samsung Bioepis, the joint venture between the two companies, markets three anti-TNF biosimilars in the EU – Flixabi (a biosimilar referencing Remicade), Benepali (a biosimilar referencing Enbrel) and Imraldi (a biosimilar referencing Humira). Biosimilars revenues rose 43% in 2018 and 35% in 2019. Biogen has a 49.9% stake in Samsung Bioepis. In December 2019, Biogen acquired exclusive rights from Samsung Bioepis to commercialize two new potential ophthalmology biosimilars – SB11, a biosimilar of Roche's Lucentis and SB15, a biosimilar to Regeneron's Eylea. Biogen is optimistic that its biosimilars business has the opportunity to potentially double over the next couple of years.

▲ **Restructuring Initiative to Drive Cost Savings:** With its focus on streamlining operations and increasing efficiencies, in October 2015, Biogen announced a restructuring program. Under the program, it discontinued several pipeline programs and executed an 11% reduction in its workforce. The restructuring program generated annual cost savings of about \$250 million which were invested in pipeline development and commercial activities. In 2016, Biogen initiated additional cost saving measures that included the realignment of its organizational

Biogen's biosimilars business is expected to increase in 2020 and it does not expect significant negative impact on Tecfidera due to COVID-19.

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structure and achieve further targeted cost reductions.

▲ **Favorable Debt Profile:** As at the end of Mar 31, 2020, Biogen had approximately \$4.86 billion in long-term debt (senior notes payable + long term operating lease liabilities) on its balance sheet compared to cash, cash equivalents, and marketable securities totaling approximately \$4.83 billion. Its cash position is sound and should be sufficient to pay the debt in case of insolvency. The long-term debt has also declined slightly from \$4.87 billion at the end of 2019. Though the debt/capital ratio of 28 is slightly higher than 26.8, it has improved consistently over the past few quarters. Also, Biogen's long term debt level is the lowest among many of the past quarters.

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## Reasons To Sell:

- ▼ **Shares Underperforming Industry:** Biogen's shares have declined 4.6% this year so far, comparing unfavorably with a increase of 7.9% for the industry.
- ▼ **Rising Competitive Pressure on MS Drugs:** The competitive landscape remains challenging for Biogen's MS products with newer, competitive entrants. The Ocrevus launch by Roche is adversely impacting MS franchise sales, mainly Tysabri. Moreover, treatments like Novartis' Gilenya and Sanofi's Aubagio pose competitive threat to Tysabri.

Sales of Tysabri and Spinraza are expected to be hurt by COVID-19 in 2020. Competitive pressure is also expected to rise in 2020 in both MS and SMA markets.

Biogen's U.S. Interferon revenues are also experiencing declining trends with patients transitioning to other oral or high efficacy MS therapies with the trend expected to continue in 2020. Global MS revenues, excluding Ocrevus royalties, declined 4% in 2018 and almost 1% in 2019. Volumes of Tecfidera and Tysabri are expected to decline in the United States in 2020.

While PTAB's February ruling in favor of Biogen removes a short-term overhang, the company still needs to deal with the ongoing district court litigations with generic makers for the '514 patent.

- ▼ **Competition to Spinraza may Rise in 2020:** Novartis' new SMA treatment, Zolgensma was approved in May 2019 to treat children under two years old, representing about 5% of the prevalent market. Biogen acknowledged that it has begun to see some negative impact of Zolgensma's launch on Spinraza's U.S. sales within the infant population.

Meanwhile, Roche and PTC Therapeutics' regulatory application seeking approval for risdiplam in a broad range of patients with SMA is under priority review with the FDA, which may be approved in mid-2020, and raise competitive pressure on Spinraza.

- ▼ **Safety Concerns of MS Drugs:** We remain concerned that an increase in the number of PML cases associated with the use of Tysabri could lead to a slowdown in Tysabri sales going forward. Additional instances of PML cases could hamper the product's acceptance in the medical community thereby limiting its sales growth.

Since the emergence of the first PML case in a patient on Tecfidera, increased caution is being exercised by physicians and patients. These issues are being faced in the more mature markets of Europe like Germany as well. Additional PML cases would have a negative impact on Tecfidera sales.

In March 2018, Biogen announced the decision to withdraw Zinbryta from the markets, less than two years of its approval, due to growing safety concerns and limited commercial adoption of the drug due to its restrictive label. The company decided to discontinue marketing of the drug on grounds of its complex and evolving benefit/risk profile.

- ▼ **Development and Regulatory Setbacks:** Although Biogen has an impressive pipeline, we remind investors that product development involves a high degree of risk. Among some recent setbacks, in 2016, Biogen discontinued the development of amiselimod, which was being evaluated for the treatment of autoimmune diseases.

In early 2018, Pfizer halted development of Tysabri for acute ischemic stroke (AIS) as Tysabri did not demonstrate improvement in clinical outcomes compared to placebo in a phase IIb study in AIS patients.

In March 2019, Biogen/Eisai announced the discontinuation of ENGAGE and EMERGE phase III studies on aducanumab in early AD as a futility analysis showed that the studies were unlikely to meet their primary endpoints. In October, Biogen revealed plans to pursue U.S. regulatory approval of aducanumab based on positive results of a new analysis of larger dataset, which became available after the discontinuation of the studies. However, the FDA may not approve aducanumab particularly with mixed outcome results across the two studies. Also, the FDA may require additional studies to be conducted. In April, the BLA filing timeline for aducanumab was delayed from early 2020 to the third quarter of 2020

In September 2019, Biogen and Eisai discontinued two late-stage studies on elenbecestat. The decision was taken following a safety review conducted by the Data Safety Monitoring Board. The board's recommendation to discontinue the studies was due to unfavorable risk-benefit ratio.

## Last Earnings Report

### Biogen Beats on Q1 Earnings & Sales

Biogen reported first-quarter 2020 earnings per share of \$9.14, which comprehensively beat the Zacks Consensus Estimate of \$7.74. Earnings rose 31% year over year, backed by higher revenues and lower R&D costs.

Sales came in at \$3.53 billion, up 1% from the year-ago quarter. Sales also beat the Zacks Consensus Estimate of \$3.42 billion.

Revenue growth was principally driven by higher sales of its MS drugs, Spinraza as well as biosimilar products. However, total revenues declined 4% on a sequential basis.

### Product Sales Rise

Product sales in the quarter were \$2.91 billion, up 8% year over year. Royalties on sales of Ocrevus were \$162 million in the quarter, up 45% year over year but down 21% sequentially. Revenues from Biogen's share of Rituxan and Gazyva operating profits declined 12% from the year-ago period to \$358 million due to biosimilar competition for Rituxan. Other revenues declined 63% in the quarter to \$109 million. Other revenues in the first quarter of 2019 included a benefit of approximately \$200 million due to the sale of hemophilia inventory to Bioverativ.

Biogen's first-quarter product sales benefited by approximately \$100 million due to accelerated sales as people stocked medicines amid coronavirus-led lockdown, primarily in Europe.

### Multiple Sclerosis Revenues

Biogen's MS revenues of \$2.28 billion in the reporter quarter, including Ocrevus royalties, rose 9% year over year but declined 5% sequentially. MS revenues, excluding Ocrevus royalties, rose 7% year over year.

Biogen's MS revenues in the United States gained from approximately \$54 million due to extra shipping days in the first quarter of 2020. However, decrease in channel inventory hurt U.S. MS product revenues by approximately \$115 million against an increase of approximately \$145 million in the fourth quarter of 2019.

Meanwhile, the number of patients on Biogen's MS products globally increased to 3% versus the prior year.

Tecfidera sales rose 10% year over year to \$1.1 billion driven by strong patient growth. Tecfidera global sales were down 5% sequentially. Global patient growth of Tecfidera was approximately 8% in the year.

Vumerity, launched in the United States late in 2019, recorded \$2 million in sales, less than \$5 million in the fourth quarter of 2019.

Total Fumarates (Tecfidera + Vumerity) revenues were \$1.1 billion in the quarter, up 10% year over year. U.S. Fumarates sales in the quarter were \$777.5 million, up 8.3% year over year while ex-U.S. sales were \$323.3 million, up 15%.

Tysabri sales rose 13% year over year and 10% sequentially to \$522 million. Tysabri U.S. sales rose 13.3% to \$277.7 million in the quarter. International revenues rose 13.6% to \$244.7 million.

The company said that the majority of Tecfidera prescriptions in the United States are delivered via mail. Therefore, COVID-19 is not expected to have a significant impact on Tecfidera sales in the second quarter and beyond. However, Tysabri is administered in the physician's office or hospital setting. This means, hospitals may delay Tysabri infusions as they prioritize treatment of COVID-19 patients or patients may choose to delay treatment.

Combined interferon revenues (Avonex and Plegridy) in the quarter were \$466 million, down 7% year over year. Avonex revenues declined 8% from the year-ago quarter to \$366 million. Plegridy contributed \$100 million to revenues, down 4% year over year.

### Other Products

Sales of Spinraza increased 9% year over year and 4% sequentially to \$565.0 million driven by higher sales in the United States as well as ex-U.S. markets. Spinraza U.S. sales were \$235.4 million in the quarter, up 5.4% year over year driven by continued patient growth. In ex-U.S. markets, Spinraza sales rose 11.7% year over year to \$329.6 million driven by strong overall patient growth across all geographies.

The number of patients on Spinraza grew approximately 1% in the United States and 10% outside the United States in the quarter compared with the end of the fourth quarter.

The company believes Spinraza's new patient starts and regimen compliance may decline in the United States in the second quarter, particularly among adults due to COVID-19. Outside the United States, the company expects a moderate impact on Spinraza's demand due to COVID-19.

Also, in 2020, Spinraza's sales growth rate is expected to moderate from 2019 levels, primarily due to a lower rate of new patient starts as well as the impact of loading dose dynamics as patients transition to dosing once every four months. Lower prices in some international markets may also hurt sales.

In the quarter, biosimilars revenues increased 25% year over year to \$219 million driven by Imraldi.

Imraldi generated sales of \$62 million in the quarter, up 72% year over year. Benepali recorded sales of \$133 million in the quarter, up 8% year over year. Flixabi sales of \$24 million rose 61% year over.

### Quarter Ending 03/2020

Report Date	Apr 22, 2020
Sales Surprise	3.21%
EPS Surprise	18.09%
Quarterly EPS	9.14
Annual EPS (TTM)	35.80

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Research and development (R&D) expenses declined 15% year over year to \$476 million due to the timing of milestone payments. Second-quarter R&D costs will include \$125 million for the license fee related to Biogen's collaboration with Sangamo. Selling, general and administrative (SG&A) expenses rose 1% year over year to \$569 million, primarily due to increased commercial costs to support potential launch of aducanumab.

In the quarter, Biogen repurchased approximately 7.3 million shares worth \$2.2 billion. As of Mar 31, the share buyback plan authorized in March 2019 was completed and approximately \$4.1 billion remained for share buyback under the new \$5 billion plan approved by the board in December 2019.

#### **2020 Guidance**

In 2020, the company expects volatility in revenues between the quarters as a result of the pandemic. Though Biogen does not expect significant impact on Tecfidera's sales due to COVID-19, sales of Tysabri and Spinraza are expected to be hurt by COVID-19 in 2020 as they are administered in a physician's office or hospital setting.

Biogen did not provide any update on its guidance. Earlier, Biogen had guided revenues in the range of \$14-\$14.3 billion in 2020, the midpoint of which indicated a decline from 2019 levels. Earnings per share are expected between \$31.50 and \$33.50.

Adjusted R&D costs are expected to be 15% to 16% of total revenues. Adjusted SG&A costs are expected in the range of 19.5% to 20.5% of total revenues. Adjusted tax rate guidance is 18% to 19%.

#### **Delay in Aducanumab BLA Filing**

Along with the earnings release, Biogen said it has an open BLA with the FDA and has started to submit modules. However, it has a pre-BLA meeting scheduled in summer 2020. Biogen now expects to complete filing of the BLA in the third quarter of 2020, delayed from the previous expectation of early 2020. On the conference call, the company tried to reinforce that nothing has meaningfully changed with the regulatory filing, except for a slight delay from the impact of the COVID-19 outbreak.

#### **Coronavirus Update**

Biogen clarified that it continues to operate its manufacturing facilities to maintain uninterrupted supply of its medicines. However, management warned that a delay in supply and manufacturing cannot be ruled out due to potential disruptions from the COVID-19 pandemic. Regarding pipeline progress, Biogen believes the pandemic may impact the timeline of some clinical studies. However, it expects most of its important 10 near-term data readouts before end of 2021. However, a couple of readouts may be delayed like phase III study of BLB093 in LHI due to administration of the drug in acute hospital setting. Meanwhile, the company said that it will pause enrollment of studies of immune-suppressing drugs, including the phase III study of dapirolizumab pegol in SLE.

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## Recent News

### New BAN2401 Study for Alzheimer's Begins – July 13

Biogen announced that a new phase III study has been initiated to evaluate BAN2401 to treat preclinical (asymptomatic) Alzheimer's disease. The phase III study, AHEAD 3-45, to be conducted as a public-private partnership between The Alzheimer's Clinical Trials Consortium (ACTC) and Eisai, has been initiated in the United States. Around 1400 participants will be enrolled in the AHEAD 3-45 study. The study will be conducted in the United States, Japan, Canada, Australia, Singapore, and Europe.

At present, a pivotal phase III study is being conducted on BAN2401 by Biogen/Eisai in symptomatic early AD. The AHEAD 3-45 study is being conducted on asymptomatic patients i.e. those who are clinically normal but have intermediate or elevated levels of amyloid in their brain. If such patients can be treated with anti-amyloid therapy like BAN2401 at the correct time, it can prevent future cognitive decline in such patients.

### Completes BLA Filing for Aducanumab – July 8

Biogen announced that it has completed submission of the biologics license application (BLA) to the FDA seeking approval of aducanumab for Alzheimer's disease. The completed BLA filing includes data from the ENGAGE and EMERGE phase III studies as well as the phase Ib PRIME study in patients with early-stage Alzheimer's disease. The FDA will now decide within 60 days whether to accept the application for review and also grant its priority review status, if accepted.

### New Spinraza Data from NURTURE Study – June 10

Biogen announced new data from the NURTURE study evaluating Spinraza to treat SMA in pre-symptomatic infants. The data showed that after up to 4.8 years of continuous treatment with Spinraza, 100% of infants genetically diagnosed with SMA treated pre-symptomatically were alive, and none require permanent ventilation. The data also showed that patients continued to maintain and make progressive gains in motor function compared to the natural history of the disease, with 96% now able to walk with assistance.

## Valuation

Biogen's shares have declined 4.6% in the year-to-date period but up 23.4% over the trailing 12-month period. Stocks in the Zacks sub-industry are up 7.9%, while those in the sector are down 0.7% in the year-to-date period. Over the past year, stocks in the Zacks sub-industry are up 18.8%, while those in the sector are up 4.9%.

The S&P 500 Index is down 0.5% in the year-to-date period but up 7.9% in the past year.

The stock is currently trading at 3.4X trailing 12-month sales per share which compares to 3.55X for the Zacks sub-industry, 3.05 X for the Zacks sector and 3.42X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 9.37X and as low as 2.85X, with a 5-year median of 5.1X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$297.0 price target reflects 3.6X trailing 12-month sales per share.

The table below shows summary valuation data for BIIB

Valuation Multiples - BIIB					
		Stock	Sub-Industry	Sector	S&P 500
P/S TTM	Current	3.4	3.55	3.05	3.42
	5-Year High	9.37	5.34	4.08	3.68
	5-Year Low	2.85	2.24	2.29	2.42
	5-Year Median	5.1	3.21	3.19	3.21
P/E F12M	Current	8.76	59.64	23.01	22.74
	5-Year High	22.68	66.02	23.17	22.74
	5-Year Low	6.74	21.16	15.91	15.25
	5-Year Median	12.67	37.71	18.99	17.52
P/B TTM	Current	3.68	3.03	4.33	4.38
	5-Year High	7.66	6.44	5.07	4.56
	5-Year Low	2.84	2.06	2.94	2.83
	5-Year Median	5.06	3.89	4.29	3.7

As of 7/15/2020



## Industry Analysis Zacks Industry Rank: Top 30% (75 out of 251)



## Top Peers

Company (Ticker)	Rec	Rank
Bayer Aktiengesellschaft (BAYRY)	Outperform	1
Bristol Myers Squibb Company (BMY)	Outperform	2
Gilead Sciences, Inc. (GILD)	Neutral	3
Novartis AG (NVS)	Neutral	3
Pfizer Inc. (PFE)	Neutral	3
Roche Holding AG (RHHBY)	Neutral	2
Sanofi (SNY)	Neutral	3
Teva Pharmaceutical Industries Ltd. (TEVA)	Neutral	3

Industry Comparison Industry: Medical - Biomedical And Genetics				Industry Peers		
	BIIB	X Industry	S&P 500	BAYRY	GILD	SNY
Zacks Recommendation (Long Term)	Neutral	-	-	Outperform	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	1	3	3
VGM Score	A	-	-	B	B	C
Market Cap	46.18 B	235.48 M	22.66 B	68.04 B	96.15 B	133.40 B
# of Analysts	28	3	14	2	13	5
Dividend Yield	0.00%	0.00%	1.83%	2.91%	3.55%	2.20%
Value Score	A	-	-	A	B	B
Cash/Price	0.08	0.22	0.07	0.09	0.22	0.00
EV/EBITDA	6.04	-3.69	12.99	9.04	12.89	11.11
PEG Ratio	1.13	1.78	2.97	1.28	3.29	1.99
Price/Book (P/B)	3.68	4.25	3.12	1.28	4.35	2.02
Price/Cash Flow (P/CF)	7.32	16.91	12.14	5.25	10.50	8.02
P/E (F1)	8.53	29.85	22.04	9.35	11.39	16.07
Price/Sales (P/S)	3.20	16.90	2.38	1.36	4.23	3.27
Earnings Yield	11.72%	-12.68%	4.32%	10.69%	8.78%	6.21%
Debt/Equity	0.39	0.02	0.76	0.78	1.00	NA
Cash Flow (\$/share)	38.63	-1.08	6.94	3.48	7.30	6.64
Growth Score	B	-	-	C	D	C
Hist. EPS Growth (3-5 yrs)	17.18%	17.18%	10.85%	NA	-16.32%	1.18%
Proj. EPS Growth (F1/F0)	-1.18%	11.61%	-9.64%	10.17%	1.47%	-0.18%
Curr. Cash Flow Growth	9.02%	14.86%	5.51%	-8.03%	-2.57%	26.95%
Hist. Cash Flow Growth (3-5 yrs)	11.97%	7.73%	8.55%	6.30%	-8.08%	5.29%
Current Ratio	1.73	5.52	1.30	1.40	3.04	1.40
Debt/Capital	27.95%	4.34%	44.46%	43.72%	49.91%	26.32%
Net Margin	40.76%	-203.22%	10.59%	9.65%	21.84%	9.10%
Return on Equity	49.22%	-61.83%	15.75%	14.15%	35.44%	26.60%
Sales/Assets	0.54	0.19	0.54	0.35	0.37	0.65
Proj. Sales Growth (F1/F0)	-2.79%	4.12%	-2.52%	-3.11%	2.63%	4.47%
Momentum Score	C	-	-	C	A	D
Daily Price Chg	0.60%	2.25%	1.91%	0.00%	-0.70%	2.23%
1 Week Price Chg	5.19%	-0.65%	-0.41%	-4.46%	-0.04%	-2.60%
4 Week Price Chg	0.53%	0.00%	1.88%	-6.08%	3.92%	1.49%
12 Week Price Chg	-5.05%	18.00%	16.37%	13.43%	-5.73%	10.54%
52 Week Price Chg	23.33%	2.25%	-4.22%	9.95%	14.54%	28.15%
20 Day Average Volume	1,954,601	394,052	2,266,132	472,238	7,724,171	940,814
(F1) EPS Est 1 week change	-0.03%	0.00%	0.00%	0.26%	1.27%	0.00%
(F1) EPS Est 4 week change	0.12%	0.00%	0.00%	2.63%	5.08%	-2.01%
(F1) EPS Est 12 week change	2.30%	1.06%	-5.76%	1.30%	11.87%	-3.72%
(Q1) EPS Est Mthly Chg	-0.10%	0.00%	0.00%	NA	1.71%	-0.49%

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## Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

### Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we have an excellent balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

### Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

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### Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.

Value Score	A
Growth Score	B
Momentum Score	C
VGM Score	A

As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

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