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David Bautz, PhD
312-265-9471
dbautz@zacks.com

scr.zacks.com
10 S. Riverside Plaza, Chicago, IL 60606

Neurocrine Biosciences, Inc.

(NBIX-NASDAQ)

NBIX: Strong INGREZZA® Sales Continue in 1Q18; Expanding Sales Team for Future Growth…

Based on our probability adjusted DCF model that takes into account potential future revenues from INGREZZA® in TD and TS, elagolix in endometriosis and UF, and opicapone NBIX is valued at $90/share. This model utilizes a 11% discount rate and is highly contingent upon continued clinical and commercial success of INGREZZA®, elagolix, and opicapaone. It will be adjusted accordingly based upon future clinical results.

Current Price (05/03/18)	$80.08
Valuation	**$90.00**

OUTLOOK

On April 30, 2018, Neurocrine Biosciences, Inc. (NBIX) announced financial results for the first quarter of 2018 and provided a business update. Strong INGREZZA® sales continued in the first quarter of 2018 with recorded revenues of $71.1 million, which was slightly ahead of our estimate of $70.0 million. We forecast for 2Q18 sales of $87 million.

The company announced that the sales force will be expanded due to increasing demand for INGREZZA® and the inability for the current sales team to make calls on all the various customers that have been identified since the drug's launch. The new members of the sales force should be trained and out in the field by 4Q18. In addition, the company has initiated the T-Force PLATINUM study of valbenazine in pediatric patients with Tourette syndrome (TS). This study is likely not a requirement for an sNDA filing but is meant to complement the ongoing T-Force GOLD study as a means of acquiring long-term efficacy and tolerability data in pediatric TS patients.

SUMMARY DATA

52-Week High	**$92.43**
52-Week Low	**$42.49**
One-Year Return (%)	**49.49**
Beta	**0.32**
Average Daily Volume (sh)	**880,067**
Shares Outstanding (mil)	**90**
Market Capitalization ($mil)	**$7,199**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**N/A**
Insider Ownership (%)	**4**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2018 Estimate	**N/A**
P/E using 2019 Estimate	**N/A**

Risk Level	**Above Avg.**
Type of Stock	**Large-Growth**
Industry	**Med-Drugs**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	0 A	6.3 A	60.8 A	94.0 A	161.6 A
2018	71.1 A	87.0 E	149.0 E	124.0 E	431.1 E
2019					648.0 E
2020					978.0 E

Earnings per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	-$0.90 A	-$0.68 A	-$0.13 A	$0.07 A	-$1.62 A
2018	-$0.47 A	-$0.17 E	$0.53 E	$0.16 E	$0.05 E
2019					$2.11 E
2020					$5.11 E

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WHAT'S NEW

INGREZZA® Launch Continues to go Well

On April 30, 2018, Neurocrine Biosciences, Inc. (NBIX) announced financial results for the first quarter of 2018 and provided a business update. For the first quarter of 2018 the company recorded $71.1 million in revenue, which was slightly ahead of our $70 million projection. During the conference call, management noted that the revenue number came from approximately 12,500 total prescriptions (TRx), an ~37% increase over the 9,100 seen in 4Q17. Thus far, approximately 80% of written prescriptions are being filled, and most healthcare plans only have the requirement for prior authorization and a confirmation of tardive dyskinesia (TD) diagnosis.

Since the launch in May 2017, the sales force team has added thousands of health care professionals to the call universe, and as such it is becoming increasingly clear that the current size of the sales team is simply not able to reach all of their targets at an optimal frequency. Thus, the company will be expanding the sales team by approximately 50% and we anticipate the additional sales force members to be trained and out in the field by 4Q18.

The company recently presented additional data on INGREZZA® at the 70th Annual Meeting of the American Academy of Neurology (AAN). The new data was presented from the KINECT Phase 3 study and the long-term extension phase, and showed that ≥ 50% of patients that had moderate or severe movements at baseline improved to mild/minimal/none movements after 48 weeks of treatment with INGREZZA® 80 mg or 40 mg. In addition, > 85% of patients on both doses had a Clinical Global Impression of Change and Patient Global Impression of Change showing much improved or very much improved at 48 weeks.

Tourette Syndrome Update

The T-Force GOLD study, which is evaluating valbenazine in approximately 120 pediatric patients with Tourette syndrome (TS), is currently ongoing. The primary endpoint of the study is the change in baseline of the Yale Global Tic Severity Scale (YGTSS) and we continue to expect topline data at the end of 2018. Once those data are in hand the company plans to meet with the FDA in 2019 to determine if that study will be enough for an sNDA filing for valbenazine in TS.

In addition to the T-Force GOLD study, the company has recently initiated the T-Force PLATINUM study. This is a randomized, double blind, placebo controlled withdrawal study of valbenazine in approximately 180 pediatric patients with TS. The T-Force PLATINUM study was not begun due to any interaction with or guidance from the FDA. Instead, the company is using that study as a means to understand the efficacy and long-term tolerability of valbenazine in a pediatric population and does not believe that it will be required as a second study in order to file an sNDA. We anticipate topline data from this study at the end of 2019.

Elagolix Update

During the first quarter of 2018, AbbVie announced positive topline results from both the first (ELARIS UF-I) and second (ELARIS UF-II) Phase 3 clinical trials of elagolix in uterine fibroids. Both studies met the primary efficacy endpoint and all ranked secondary endpoints with results showing that elagolix, in combination with low-dose hormone (add-back) therapy, reduced heavy menstrual bleeding by 68.5% (vs. 8.7% for placebo; $P<0.001$) in ELARIS UF-1 and 76.2% (vs. 10.1% for placebo; $P<0.001$) in ELARIS UF-2. Detailed results from both studies will be presented at future scientific conferences.

AbbVie and Neurocrine also recently announced an extension to the third quarter of 2018 for the PDUFA data for elagolix in endometriosis. This is due to the FDA requiring additional time to analyze the results of liver function tests provided by AbbVie in the NDA. During the first quarter conference call, management indicated that it had looked back through its elagolix database and did not see anything that would indicative of a liver signal, thus we remain fully confident that elagolix will be approved in the third quarter of 2018.

Opicapone NDA to be Filed in 1H19

On Feb. 14, 2018, Neurocrine Biosciences, Inc. (NBIX) announced the company will file a new drug application (NDA) for opicapone in the first half of 2019 following receipt of the meeting minutes from the January 2018 meeting with the FDA. During that meeting, the FDA did not request that Neurocrine conduct an additional Phase 3 study for

opicapone prior to filing the NDA. We model for peak revenues of opicapone in the U.S. of approximately $150 million. Based upon not needing to conduct an additional Phase 3 trial, Neurocrine made a milestone payment to BIAL in the first quarter of 2018 of $10 million.

CAH Update

Neurocrine has initiated patient enrollment for a Phase 2 proof-of-concept study examining the pharmacokinetics, pharmacodynamics, and safety of NBI-74788 in adults with 21-hydroxylase deficiency congenital adrenal hyperplasia (CAH). Patient enrollment began in November 2017 and we anticipate data in late summer 2018.

CAH typically results in poor cortisol production, which leads to rising levels of adrenocorticotropic hormone (ACTH), due to cortisol feedback being responsible for inhibiting ACTH production. Without treatment, the steady rise in ACTH can result in salt wasting, dehydration, and eventually death. Corticosteroids are used for treatment, however the amount needed to suppress ACTH production results in serious side effects such as bone loss, growth impairment, and metabolic syndrome.

NBI-74788 is a non-peptide corticotropin releasing factor 1 (CRF-1) receptor antagonist. By blocking CRF receptors at the pituitary gland with NBI-74788, Neurocrine is hoping to decrease the release of ACTH and thus decrease production of adrenal steroids along with decreasing the amount of exogenous corticosteroids necessary for treatment.

Financial Update

For the first quarter of 2018, the company reported revenues for INGREZZA® of $71.1 million, which was right in line with our estimate of $70 million. R&D expenses in the first quarter of 2018 were $48.9 million, compared with $51.9 million for the first quarter of 2017. The decrease was primarily due to the $30 million payment to BIAL in the first quarter of 2017 partially offset by a $10 million payment to BIAL due to no additional Phase 3 clinical trial being necessary in order to file an NDA for opicapone and a non-recurring $7.7 million share-based compensation charge. G&A expenses were $58.6 million in the first quarter of 2018, compared with $28.1 million in the first quarter of 2017. The increase in expenses was primarily due to the commercial launch of INGREZZA®, which included higher personnel costs and share-based compensation. Net loss for the first quarter of 2018 was $41.8 million, or $0.47 per share, compared to a net loss of $78.3 million, or $0.90 per share, in the first quarter of 2017.

The company updated expected operating costs for 2018 to be between $395 and $420 million, compared to previous guidance of $365 to $395 million. The increase was mostly driven by the first quarter 2018 milestone payment to BIAL and an increase in share-based compensation. We are currently estimating operating costs of approximately $404 million for 2018.

As of Mar. 31, 2018, the company had cash, cash equivalents, and investments of approximately $736.8 million. The company has yet to give guidance for INGREZZA® sales in 2018 and we continue to forecast sales of approximately $390 million.

Conclusion

We continue to be pleased with Neurocrine's execution regarding the launch of INGREZZA®. There were some concerns that revenues would lag in the first quarter of 2018 due to converting the last of the patients over to the 80 mg capsule, however an approximately 40% quarter-over-quarter growth in prescriptions was more than enough to make up for that. We believe revenue and prescription growth will remain strong in 2018. Our valuation currently stands at $90 per share, and we believe that Neurocrine would make a solid core holding for any biopharmaceutical investor.

PROJECTED FINANCIALS

Neurocrine Bio	2017 A	Q1 A	Q2 E	Q3 E	Q4 E	2018 E	2019 E	2020 E
R&D / Milestones & Fees	**$45.0**	**$0**	**$0**	**$40**	**$0**	**$40**	**$0**	**$0**
YOY Growth	-	-	-	-	-	-	-	-
Elagolix Royalties	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$18**	**$78**
YOY Growth	-	-	-	-	-	-	-	-
Opicapone	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$8**
YOY Growth								
CAH Program	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
YOY Growth	-					-	-	-
INGREZZA	**$117**	**$71**	**$87**	**$109**	**$124**	**$391**	**$630**	**$900**
YOY Growth	-	-	-	-	-	*235.3%*	*61.1%*	*42.9%*
Total Revenues	**$161.6**	**$71**	**$87**	**$149**	**$124**	**$431.1**	**$648.0**	**$978.0**
YOY Growth	*977.5%*	-	-	-	-	*166.7%*	*50.3%*	*50.9%*
CoGS / Royalties	$1.3	$1	$1	$2	$2	$6	$52	$79
Gross Margin	*99.2%*	*98.7%*	*98.6%*	*99.0%*	*98.4%*	*98.7%*	*92.0%*	*91.9%*
SG&A	$169.9	$58.6	$60.0	$62.0	$64.0	$244.6	$260.0	$280.0
R&D	$121.8	$48.9	$35.0	$37.0	$38.0	$158.9	$130.0	$135.0
Operating Income	($131.4)	($37.4)	($9.2)	$48.5	$20.0	$21.9	$206.0	$484.0
Operating Margin	-	-	-	-	-	-	-	-
Interest / Other Income	($11.2)	($4.4)	($5.8)	($1.0)	($5.8)	($17.0)	($14.0)	($14.0)
Pre-Tax Income	($142.5)	($41.8)	($15.0)	$47.5	$14.2	$4.9	$192.0	$470.0
Taxes	$0	$0	$0	$0	$0	$0	$0	$0
Tax Rate	*0.0%*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*21.0%*	*21.0%*
Net Income	($142.5)	($41.8)	($15.0)	$47.5	$14.2	$4.9	$192.0	$470.0
Reported EPS	**($1.62)**	**($0.47)**	**($0.17)**	**$0.53**	**$0.16**	**$0.05**	**$2.11**	**$5.11**
YOY Growth	-	-	-	-	-	-	-	-
Shares Outstanding	88.1	89.5	89.8	90.4	91.0	90.2	91.0	92.0

Source: Zacks Investment Research, Inc. *David Bautz, PhD*

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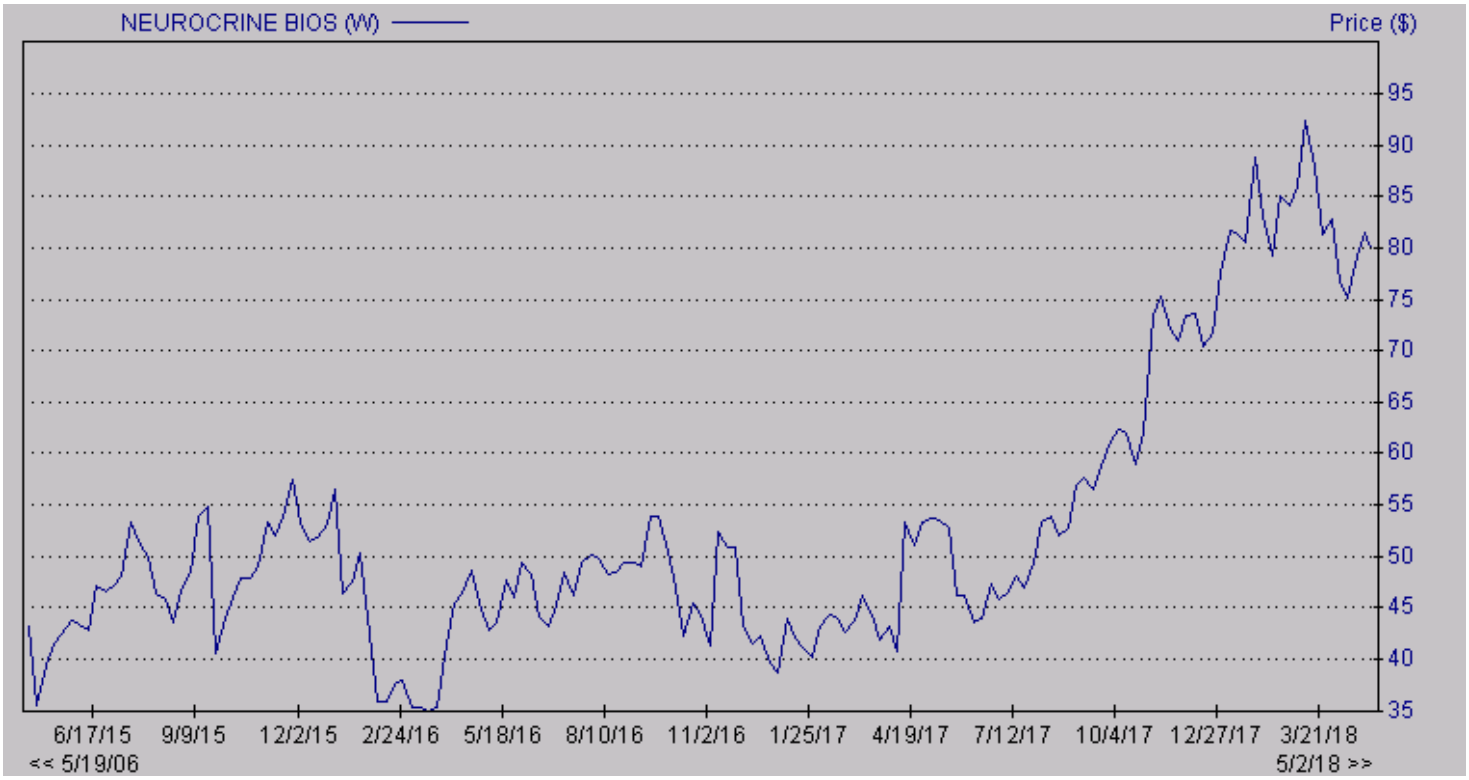

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