BeyondSpring, Inc. (BYSI)
Rating: Buy

Joseph Pantginis, Ph.D.
646-975-6968
jpantginis@hcwresearch.com

Pete Stavropoulos, Ph.D.
646-975-6969
pstavropoulos@hcwresearch.com

Plinabulin Validation Train Grows With New Data; KOL Gives Insight to Plinabulin Benefits

Stock Data	12/14/2017
Price	$29.11
Exchange	NASDAQ
Price Target	$60.00
52-Week High	$48.49
52-Week Low	$16.55
Enterprise Value (M)	$624.3
Market Cap (M)	$665
Public Market Float (M)	5.2
Shares Outstanding (M)	22.8
3 Month Avg Volume	2,246
Short Interest (M)	0.02
Balance Sheet Metrics	
Cash (M)	$40.7
Total Debt (M)	$0.0
Total Cash/Share	$1.78

General: BYSI completed its IPO on March 9, 2017.

EPS Diluted			
Full Year - Dec	2016A	2017E	2018E
1Q	(0.12)	(2.66)A	--
2Q	(0.23)	(0.60)A	--
3Q	(0.18)	(0.68)A	--
4Q	(0.16)	(0.79)	--
FY	(0.75)	(4.41)	(4.53)

Revenue ($M)			
Full Year - Dec	2016A	2017E	2018E
1Q	0.0	0.0A	--
2Q	0.0	0.0A	--
3Q	0.0	0.0A	--
4Q	0.0	0.0	--
FY	0.0	0.0	0.0

Quarterly EPS may not add to full year due to increases in share count and rounding.

KOL highlights Plinabulin's differentiated profile as potentially disruptive. Yesterday, BeyondSpring held an analyst day where the company hosted Dr. Douglas Blayney, a KOL in oncology. Dr. Blayney is an oncologist, former medical director of Stanford's cancer center, and former president of the American Society of Clinical Oncology. He has served on FDA Oncologic Drugs Advisory Committees and serves as an investigator for trials of both Neulasta and Plinabulin. Further, he was a founding member for the NCCN guidelines for the treatment of neutropenia. The initial focus of the conversation was to focus on the issue of neutropenia due to chemotherapy treatment. While G-CSF therapy is effective, there are still additional hospitalization days, emergency room visits, unnecessary medical costs, and lower quality of life. Approximately 40% of women with curable breast cancer have an emergency room visit or hospitalization due to neutropenia adverse effects. Adjunct therapy to colon cancer treatment shows similar trends. According to NCCN, 20% of patients are determined as high risk for neutropenia and warrant treatment to stabilize neutrophil count. Traditionally, expensive biologic G-CSF derivatives have been used with mild success but carry the following adverse effects and concerns: bone pain from bone marrow expansion in 20% of patients, increased chance of severe infection and sepsis by 3.6%, and high patient and hospital costs. Dr. Blayney described the bone pain side effect as a big deal for women, including comments like "no more, I'm not taking this (Neulasta)".

What Plinabulin can bring to the table. Dr. Blayney focused on the potential differentiated profile that Plinabulin could offer, should it be successful from a regulatory standpoint. Neulasta is expensive and needs to be given 24 hours after chemotherapy. The profile that could be disruptive for Plinabulin is a new agent with the right price point and with fewer side effects (especially bone pain), which should lead to wide use in the real world. Plinabuline is also dosed on the same day as chemo (one hour post) and data to date suggest that bone pain is about five times less likely. Plinabulin, an inexpensive drug has shown good tolerability in the clinic thus far. Recall that Study 101 showed significant decreases in neutropenia (P<0.0003) for the Plinabulin + Docetaxel compared to Docetaxel monotherapy. Duration of severe neutropenia (DSN) was 0.065 days for combo Plinabulin + docetaxel therapy vs Docetaxel monotherapy of 1.1 DSN.

(continued on next page)

Two new data sets for Plinabulin further validate its activity. BeyondSpring also announced positive top-line data for prevention of chemotherapy induced neutropenia (CIN) from the Phase 2 portion of the Phase 2/3 105 study of Plinabulin in combination with docetaxel. As a reminder, the 105 study is a non-inferiority head-to-head study comparing Plinabulin to Neulasta (long lasting G-CSF) with the primary endpoint of duration of severe neutropenia in cycle 1 with a non-inferiority margin of 0.65 days. Detailed data are expected at ASCO-SITC in January 2018. Plinabulin's clinical activity was further validated by additional positive results announced yesterday from the secondary endpoint of reduction in chemotherapy induced grade 4 neutropenia on day eight of cycle one from its ongoing Phase 3 103 study of Plinabulin in combination with docetaxel for non-small cell lung cancer (NSCLC). Data from 138 patients show Plinabulin's ability to reduce docetaxel induced grade 4 neutropenia from 27.4% to 3.1% ($p<0.0001$). These data reinforce our belief that Phase 2 data presented to date on Plinabulin's ability to prevent CIN act as a window into the upcoming 105 and 106 Phase 3 studies. We further discuss the clinical programs below.

Upcoming 2018 milestones and catalysts

- January 25-27: Study 105 Phase 2 top-line data to be presented at ASCO-SITC.
- 1H18: Study 106 Phase 2 first data readout of Plinabulin in combination with TAC chemotherapy for breast cancer.
- 1H18: Study 103 Phase 3 interim data in NSCLC with measurable lesion.
- 2018: Phase 2 data of Plinabulin in combination with nivolumab in the second and third line for NSCLC (Fred Hutchinson Cancer Center).
- 4Q17-2018: Phase 1/2 data of Plinabulin in combination with nivolumab in the second and third line for NSCLC (UCSD).
- 1H18: Initiation of study of Plinabulin in combination with αPD-1 and αCTLA-4 for small cell lung cancer.
- 1H18: Initiation of study of Plinabulin in combination with chemotherapy for KRAS mutant positive pancreatic cancer.

Valuation and risks to price target achievement. We maintain our Buy rating with a $60 price target. Following the upcoming Phase 2 portion efficacy data later this year, we look to reassess our overall valuation and thesis on Plinabulin. Our valuation is based on our clinical net present value (NPV) model, which is currently driven by the company's lead asset, Plinabulin. This model allows us to flex multiple assumptions affecting a drug's potential commercial profile. Factors which could impede reaching our price target include failed or inconclusive clinical trials or inability of the company to secure adequate funding to progress its drugs through the development pathway.

Clinical design of three major clinical trials with Plinabulin.

Study 105. A Phase 2/3 non-inferiority study of Plinabulin for prevention of docetaxel chemotherapy induced neutropenia is ongoing. The Phase 2 portion consists of four arms which are as follows: 1) Neulasta 0.6 mg; 2) Plinabulin 5 mg/m^2; 3) Plinabulin 10 mg/m^2; and 4) Plinabulin 20 mg/m^2. Each arm of the study enrolled 10 NSCLC patients who received docetaxel. The Phase 2 portion has met its primary objective of duration of severe neutropenia in cycle one with a non-inferiority margin of 0.65 days. Detailed data are expected at ASCO-SITC in January 2018.

The non-inferiority Phase 3 portion of the study is expected to consist of two arms: 1) Neulasta 0.6 mg; and 2) Plinabulin at the recommended Phase 3 dose determined in Phase 2 portion of this study. Each arm of the study is expected to enroll 77 patients with NSCLC, breast cancer, or prostate cancer. An interim analysis is expected after data for 50 patients in each arm has been obtained. The primary objective is duration of severe neutropenia. Secondary objectives include:

- Incidence of grade 4 neutropenia.
- Incidence of febrile neutropenia.
- Health related quality-of-life questionnaire evaluated with EORTC QLQ-C30.
- Neutrophil nadir.
- Incidence of docetaxel treatment modification.
- Bone pain.
- Incidence of hospitalization due to febrile neutropenia.
- Incidence of documented infections.

Study 106. A Phase 2/3 superiority study of Plinabulin for the prevention of TAC (taxotere, Adriamycin, and cyclophosphamide) induced neutropenia is ongoing and is geared to show superiority to Neulasta. The Phase 2 portion of the study has three arms which are as follows: 1) Neulasta 0.6 mg; 2) Plinabulin 10 mg/m^2; and 3) Plinabulin 20 mg/m^2. Each arm of the study is expected to enroll 20 breast cancer patients receiving TAC chemotherapy. The Phase 2 is currently enrolling patients.

The superiority Phase 3 portion of the study is expected to consist of two arms: 1) Neulasta 0.6 mg; and 2) Plinabulin at the recommended Phase 3 dose determined in Phase 2 of this study. Each arm of the study is expected to enroll 60 patients. The primary objective of the head-to-head study is duration of grade 4 neutropenia. Secondary outcomes include:

- Bone pain.
- Incidence of grade 4 neutropenia.
- Incidence of febrile neutropenia.
- Incidence of hospitalization due to febrile neutropenia.
- Duration of hospitalizations due to febrile neutropenia.
- Frequency of antibiotic use.

Study 103. A Phase 3 study of Plinabulin in combination with docetaxel compared to docetaxel alone for advanced NSCLC with at least one measurable lung lesion is ongoing. The study expects to enroll 550 patients. The treatment regimen is on a 21 day cycle and on day one patients are to be dosed with 75 mg/m^2 of docetaxel. Patients on the Plinabulin arm are expected to receive Plinabulin on days one and eight of the 21 day cycle. Patients who failed checkpoint inhibitor therapy (αPD-1 or αPD-L1) are to be stratified. Patients with mutant EGFR driven NSCLC are excluded from the study. The statistical analysis

plan includes KRAS mutant subgroup, PD-L1 expression subgroup, tumor size subgroup, and patients with prior treatment with αPD-1 or αPD-L1 therapies.

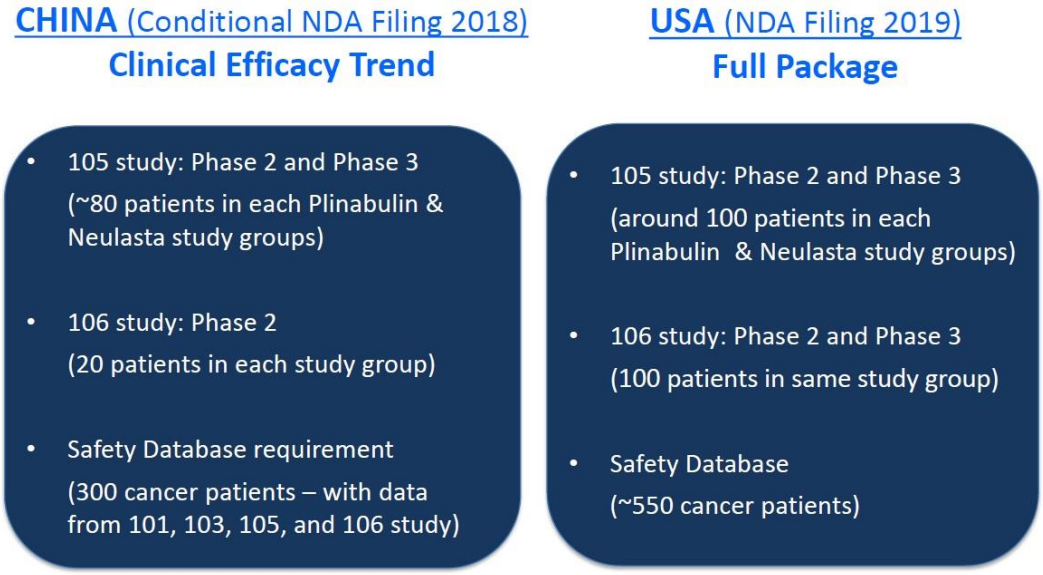
Primary objective is overall survival. Secondary objectives include:

- Progression free survival.
- Response rate.
- Duration of response.
- Incidence and severity of treatment emergent adverse events.
- Incidence of serious adverse events.
- Incidence of discontinuation of study treatment due to safety reasons.

NDA package for neutropenia

BeyondSpring expects to file an NDA for Plinabulin in the neutropenia setting in China and the U.S. In October new regulatory rules in China were announced that may accelerate Plinabulin approval. The CPC Central Committee and State Council of China announced new regulatory framework in order to reform the management of clinical trials. The guidelines aim to accelerate approval of new therapies for unmet medical needs. We believe such changes favor BYSI and the development of Plinabulin and it gives us confidence that the company may meet an accelerated projected timeline for NDA filing to the CFDA in 2018 (instead of originally projected 2019) while expected filing in the U.S. remains for 2019. In addition, the Plinabulin program is courting the interest of major pharmaceutical companies, which are in advanced stages of discussions for potential partnering. The figure below shows what BeyondSpring expects to submit as part of the NDA filing package to each of the regulators.

Packages That are to be Submitted for NDA Filings



Source: Company presentation, December 2017.

BeyondSpring is preparing for triple combinations. BeyondSpring detailed studies in NSCLC with Plinabulin + PD1-inhibitor + CTLA4-inhibitor to demonstrate overall survival and decreased immune related adverse effects. Triple combination therapy is expected to reveal a similar result plus the added benefit of decreased neutropenia. The immune related adverse events in combination PD1/CTLA4-I occur in 60% of patients, leading to discontinuation. Steroid use has shown to resolve symptoms. Plinabulin exhibits steroid properties ($P<0.03$), thereby curtailing the side effects that limit the use of validated combination therapies. Additionally, Plinabulin has anti-cancer properties by producing neo-antigens from T cell stimulation.

($ in millions except per share data)

Profit & Loss	2014A	2015A	2016A	2017E	2018E	2019E	2020E	2021E	2022E	2023E
Licensing and R&D revenue	0.0	0.0	0.0	0.0	0.0	15.0	45.0	20.0	15.0	15.0
Grant revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Product and Royalties	0.0	0.0	0.0	0.0	0.0	0.0	96.7	358.2	751.0	1,092.8
Other revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Revenues	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**15.0**	**141.7**	**378.2**	**766.0**	**1,107.8**
CoGS	0.0	0.0	0.0	0.0	0.0	0.0	11.6	43.0	90.1	131.1
Gross Profit	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**15.0**	**130.1**	**335.2**	**675.9**	**976.6**
Gross margin	*0%*	*0%*	*0%*	*0%*	*0%*	*100%*	*92%*	*89%*	*88%*	*88%*
G&A	0.2	1.2	1.9	10.5	11.7	15.4	27.0	33.7	47.9	69.5
R&D	1.9	6.3	10.4	89.9	102.4	140.3	189.5	269.0	417.0	675.6
Other op ex	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
EBIT	**(2.1)**	**(7.5)**	**(12.4)**	**(100.4)**	**(114.1)**	**(140.8)**	**(86.4)**	**32.5**	**209.9**	**229.6**
EBIT margin	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*9%*	*27%*	*21%*
Depreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation Intangibles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
EBITDA	**(2.1)**	**(7.5)**	**(12.4)**	**(100.4)**	**(114.1)**	**(140.8)**	**(86.4)**	**32.5**	**210.9**	**231.6**
EBITDA margin	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*9%*	*28%*	*21%*
Non operating expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Interest Income/Other	(0.1)	0.0	0.4	6.0	0.8	0.5	0.1	0.1	0.5	0.9
Interest expense	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	5.1
EBT	**(3.0)**	**(8.0)**	**(12.0)**	**(94.4)**	**(113.3)**	**(140.3)**	**(86.3)**	**32.6**	**208.9**	**225.4**
EBT margin	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*9%*	*27%*	*20%*
Provision for taxes	0.0	0.0	0.0	0.0	0.0	0.0	(32.8)	12.4	79.4	85.7
Net Income	**(3.0)**	**(8.0)**	**(12.0)**	**(94.4)**	**(113.3)**	**(140.3)**	**(86.3)**	**32.6**	**208.9**	**225.4**
Participation of preferred stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
Source: SEC filings.	**(3.0)**	**(8.0)**	**(12.0)**	**(94.4)**	**(113.3)**	**(140.3)**	**(53.5)**	**20.2**	**130.5**	**141.8**
net margin	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*5%*	*17%*	*13%*
	13.9	15.2	16.1	21.4	25.0	28.0	31.0	33.2	36.0	37.0
EPS - basic	**(0.22)**	**(0.53)**	**(0.75)**	**(4.41)**	**(4.53)**	**(5.01)**	**(1.73)**	**0.61**	**3.63**	**3.83**
EPS - diluted	**(0.22)**	**(0.53)**	**(0.75)**	**(4.41)**	**(4.53)**	**(5.33)**	**(1.73)**	**0.61**	**3.63**	**3.83**

Source: SEC filings and H.C Wainwright estimates

Joseph Pantginis, Ph.D. jpantginis@hcwco.com

($ in millions except per share data)

Quarterly P&L	Q1'16A	Q2'16A	H1'16A	Q3'16A	9M'16A	Q4'16E	FY'16E	Q1'17A	Q2'17A	H1'17A	Q3'17A	9M'17A	Q4'17E	FY'17E
Licensing and R&D revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Grant revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Product and Royalties	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Other revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Revenues	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
CoGS	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Gross Profit	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
Gross margin	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*0%*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*0%*
G&A	0.43	0.50	0.93	0.54	1.47	0.46	1.9	1.04	2.80	3.84	3.33	7.18	3.35	10.5
R&D	1.49	3.19	4.67	2.74	7.41	3.02	10.4	46.75	12.19	58.93	15.29	74.22	15.64	89.9
Other op ex	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
EBITDA	**(1.9)**	**(3.7)**	**(5.6)**	**(3.3)**	**(8.9)**	**(3.5)**	**(12.4)**	**(47.8)**	**(15.0)**	**(62.8)**	**(18.6)**	**(81.4)**	**(19.0)**	**(100.4)**
EBITDA margin							*nm*							*nm*
Non operating expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Net Interest Income/Other	0.07	0.15	0.22	0.20	0.41	(0.06)	0.4	0.40	1.69	2.08	3.09	5.17	0.81	6.0
Interest expense	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
EBT	**(1.8)**	**(3.5)**	**(5.4)**	**(3.1)**	**(8.5)**	**(3.5)**	**(12.0)**	**(47.4)**	**(13.3)**	**(60.7)**	**(15.5)**	**(76.2)**	**(18.2)**	**(94.4)**
EBT margin							*nm*							*nm*
Provision for taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Participation of preferred stock														
Net Income to common	**(1.8)**	**(3.5)**	**(5.4)**	**(3.1)**	**(8.5)**	**(3.5)**	**(12.0)**	**(47.4)**	**(13.3)**	**(60.7)**	**(15.5)**	**(76.2)**	**(18.2)**	**(94.4)**
net margin							*nm*							*nm*
Source: SEC filings.														
NoSH	15.8	15.8	15.75	16.88	16.13	21.80	16.09	17.8	22.0	19.92	22.84	20.89	22.88	21.40
EPS - basic	**(0.12)**	**(0.23)**	**(0.34)**	**(0.18)**	**(0.53)**	**(0.16)**	**(0.75)**	**(2.66)**	**(0.60)**	**(3.05)**	**(0.68)**	**(3.65)**	**(0.79)**	**(4.41)**

Source: SEC filings and H.C. Wainwright estimates

Joseph Pantginis, Ph.D. jpantginis@hcwco.com

BYSI IPO was on March 9, 2017

Important Disclaimers

This material is confidential and intended for use by Institutional Accounts as defined in FINRA Rule 4512(c). It may also be privileged or otherwise protected by work product immunity or other legal rules. If you have received it by mistake, please let us know by e-mail reply to unsubscribe@hcwresearch.com and delete it from your system; you may not copy this message or disclose its contents to anyone. The integrity and security of this message cannot be guaranteed on the Internet.

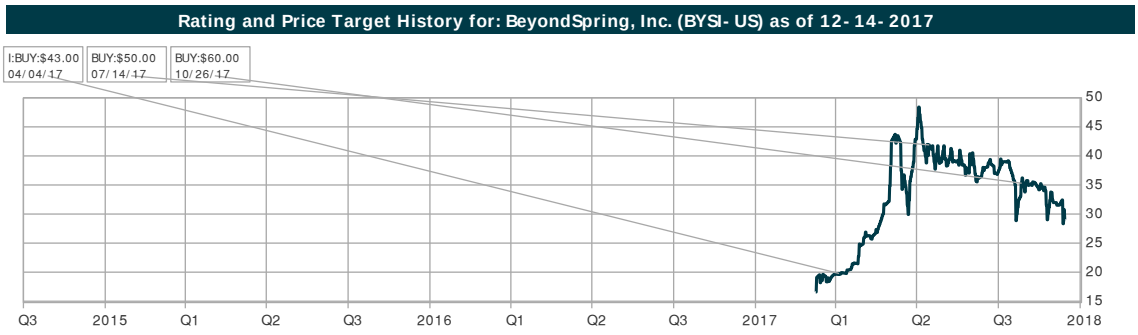
H.C. WAINWRIGHT & CO, LLC RATING SYSTEM: H.C. Wainwright employs a three tier rating system for evaluating both the potential return and risk associated with owning common equity shares of rated firms. The expected return of any given equity is measured on a RELATIVE basis of other companies in the same sector. The price objective is calculated to estimate the potential movements in price that a given equity could reach provided certain targets are met over a defined time horizon. Price objectives are subject to external factors including industry events and market volatility.

RETURN ASSESSMENT

Market Outperform (Buy): The common stock of the company is expected to outperform a passive index comprised of all the common stock of companies within the same sector.

Market Perform (Neutral): The common stock of the company is expected to mimic the performance of a passive index comprised of all the common stock of companies within the same sector.

Market Underperform (Sell): The common stock of the company is expected to underperform a passive index comprised of all the common stock of companies within the same sector.



Investment Banking Services include, but are not limited to, acting as a manager/co-manager in the underwriting or placement of securities, acting as financial advisor, and/or providing corporate finance or capital markets-related services to a company or one of its affiliates or subsidiaries within the past 12 months.

Distribution of Ratings Table as of December 14, 2017

			IB Service/Past 12 Months	
Ratings	Count	Percent	Count	Percent
Buy	236	91.47%	88	37.29%
Neutral	10	3.88%	0	0.00%
Sell	0	0.00%	0	0.00%
Under Review	12	4.65%	1	8.33%
Total	258	100%	89	34.50%

H.C. Wainwright & Co, LLC (the “Firm”) is a member of FINRA and SIPC and a registered U.S. Broker-Dealer.

I, Joseph Pantginis, Ph.D. and Pete Stavropoulos, Ph.D. , certify that 1) all of the views expressed in this report accurately reflect my personal views about any and all subject securities or issuers discussed; and 2) no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views expressed in this research report; and 3) neither myself nor any members of my household is an officer, director or advisory board member of these companies.

None of the research analysts or the research analyst’s household has a financial interest in the securities of BeyondSpring, Inc. (including, without limitation, any option, right, warrant, future, long or short position).

As of November 30, 2017 neither the Firm nor its affiliates beneficially own 1% or more of any class of common equity securities of BeyondSpring, Inc..

Neither the research analyst nor the Firm has any material conflict of interest in of which the research analyst knows or has reason to know at the time of publication of this research report.

The research analyst principally responsible for preparation of the report does not receive compensation that is based upon any specific investment banking services or transaction but is compensated based on factors including total revenue and profitability of the Firm, a substantial portion of which is derived from investment banking services.

The Firm or its affiliates did receive compensation from BeyondSpring, Inc. for investment banking services within twelve months before, and will seek compensation from the companies mentioned in this report for investment banking services within three months following publication of the research report.

H.C. Wainwright & Co., LLC managed or co-managed a public offering of securities for BeyondSpring, Inc. during the past 12 months.

The Firm does not make a market in BeyondSpring, Inc. as of the date of this research report.

The information contained herein is based on sources which we believe to be reliable but is not guaranteed by us as being accurate and does not purport to be a complete statement or summary of the available data on the company, industry or security discussed in the report. All opinions and estimates included in this report constitute the analyst's judgment as of the date of this report and are subject to change without notice.

The securities of the company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. Past performance is no guarantee of future results. This report is offered for informational purposes only, and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. No part of this report may be reproduced in any form without the expressed permission of H.C. Wainwright & Co, LLC. Additional information available upon request.