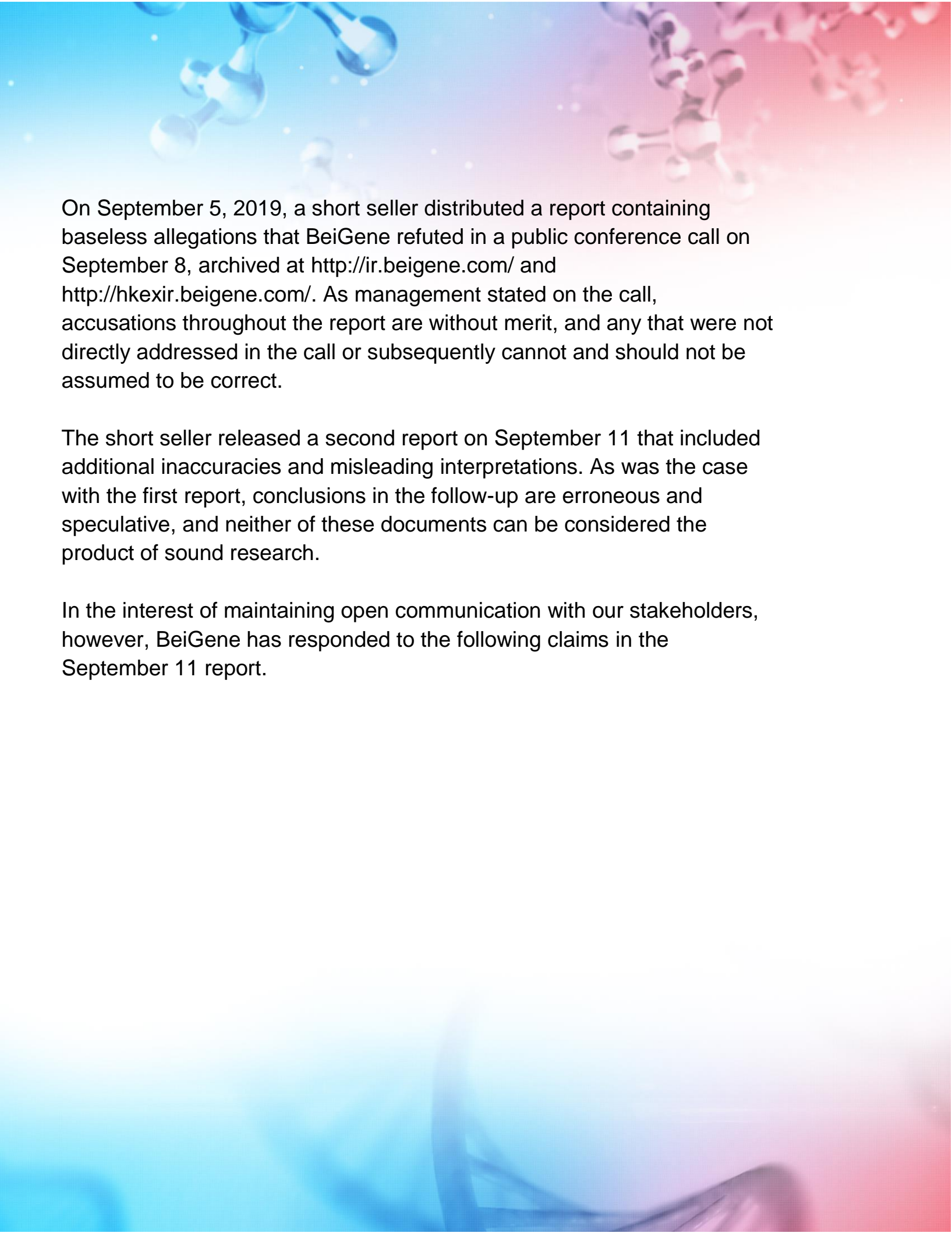


# BeiGene Response to Errors and Misrepresentations in Short Seller Report

September 12, 2019



**BeiGene**



On September 5, 2019, a short seller distributed a report containing baseless allegations that BeiGene refuted in a public conference call on September 8, archived at <http://ir.beigene.com/> and <http://hkexir.beigene.com/>. As management stated on the call, accusations throughout the report are without merit, and any that were not directly addressed in the call or subsequently cannot and should not be assumed to be correct.

The short seller released a second report on September 11 that included additional inaccuracies and misleading interpretations. As was the case with the first report, conclusions in the follow-up are erroneous and speculative, and neither of these documents can be considered the product of sound research.

In the interest of maintaining open communication with our stakeholders, however, BeiGene has responded to the following claims in the September 11 report.



*Claim 1: We want to praise the company for finally disclosing that it uses an exclusive distributor for all drug sales in China, a fact that had been hidden from investors for the three and a half years the company has been listed.*

There are two clear misstatements in the short seller's first claim. First, since the acquisition of the Celgene China business and our move to a sole distributor in Q4 2017, we have been transparent in disclosing this distributorship in our financial statements in both the U.S. and Hong Kong.

We have made disclosures regarding the company's distributor relationship in more than 50 instances, just some of which are included or listed below. In addition, please see below a press release related to us signing the collaboration with China Resources.

#### **Customers**

During the Track Record Period, we derived revenues only from our product **distributor** in China in connection with our product sales, from Celgene in connection with our strategic collaboration for tislelizumab entered into in 2017 and from Merck KGaA, Darmstadt Germany in connection with our collaboration for pamiparib and lifirafenib. See "Business—Collaboration Agreements" for further details of our collaborations with Celgene and Merck KGaA, Darmstadt Germany.

Source: HK IPO Filing

*If we fail to maintain an effective distribution channel for our products, our business and sales of the relevant products could be adversely affected.*

We rely on a third-party **distributor** to distribute Celgene's approved cancer therapies, ABRAXANE®, REVLIMID® and VIDAZA®. Our ability to maintain and grow our business will depend on our ability to maintain an effective distribution channel that ensures the timely delivery of our products to the relevant markets where we generate market demand through our sales and marketing activities. However, we have relatively limited control over our **distributor**, who may fail to distribute our products in the manner we contemplate. While we have long-standing business relationship with our **distributor**, the agreement we entered into with our **distributor** can be terminated by both parties upon six months' written notice. If PRC price controls or other factors substantially reduce the margins our **distributor** can obtain through the resale of our products to hospitals, medical institutions and sub-distributors, it may terminate its relationship with us. As of the Latest Practicable Date, we rely on one **distributor** to distribute our products. While we believe alternative **distributors** are readily available in China, there is a risk that, if the distribution of our drugs is interrupted, our sales volumes and business prospects could be adversely affected.

Source: HK IPO Filing

## Customers

During the Track Record Period, we derived revenues only from the product distributor in China in connection with our product sales, from Celgene in connection with our strategic collaboration for tislelizumab entered into in 2017 and from Merck KGaA, Darmstadt Germany in connection with our collaboration for pamiparib and lifirafenib. During the year ended December 31, 2017, we had only three customers. We generated 90.0% of our revenues from upfront license fees, reimbursed research and development expenses and milestone payments from our strategic collaboration with Celgene, 9.6% from our product distributor in China in connection with the sales of our drugs licensed from Celgene and 0.4% from Merck KGaA, Darmstadt Germany in connection with our collaboration for pamiparib and lifirafenib. During the year ended December 31, 2016, 100% of our revenues were generated in connection with our collaboration agreements with Merck KGaA, Darmstadt Germany for pamiparib and lifirafenib. See “—Collaboration Agreements” for further details of our collaborations with Celgene and Merck KGaA, Darmstadt Germany.

Source: HK IPO Filing

We selected our distributor based on its business qualifications and marketing capabilities, such as distribution network coverage, quality, number of personnel, cash flow conditions, creditworthiness, logistics, compliance standard and past performance, and its capacities in customer management. As of the Latest Practicable Date, we were not aware of any potential abuses or improper use of our name by our distributor which could adversely affect our reputation, business operation or financial condition.

We have entered into a written distribution agreement with our distributor. The principal terms are as follows:

Duration	The distribution agreement will remain effective unless terminated by either party upon six months' prior written notice.
Geographic or other exclusivity	<p>Our distributor shall not sell or otherwise distribute the products outside the PRC, unless otherwise agreed by us in writing.</p> <p>We grant our distributor a non-sublicensable, non-transferable and non-assignable:</p> <ul style="list-style-type: none"><li>• non-exclusive limited right to use the know-how and other confidential information in the PRC.</li><li>• exclusive right to sell the commercial pack in the PRC.</li></ul>
The rights and obligations of parties involved	<p>We offer rebates to our distributor, consistent with pharmaceutical industry practice.</p> <p>We retain no ownership control over the products sold to our distributor, and all significant risks and rewards associated with the products are generally transferred to the distributor upon delivery to and acceptance by the distributor.</p>
Sales and pricing policies	Our distributor retains the discretion to determine the retail prices with reference to local market conditions, competition and customer demand in the regions where it operates, whether greater or lesser than any prices listed, referred or charged by us.
Obsolete stock arrangements	There is no obsolete stock arrangements condition.
Goods return arrangements	There is no goods return arrangements condition.

Source: HK IPO Filing

Additional disclosures were included in our HK IPO filing; Form 10-Q for the quarters ended June 30, 2018, September 30, 2018, March 31, 2019, June 30, 2019; and Form 10-K for the year ended December 31, 2018.



We've never hidden the fact that we sell to a sole distributor. This also has been [publicly reported](#) by China Resources.

Second, the Company has only been selling products licensed from Celgene since September 2017, or for two years, so it would have been impossible to have been hiding this for three and half years as the report claims.

華潤醫藥商業子公司——華潤國康(北京)醫藥有限公司與百濟神州(Beigene Switzerland GmbH)簽署總經銷協定。本次總經銷協定簽署後，華潤國康(北京)醫藥將擁有百濟神州三款重磅產品在中國的總經銷權。

China Resources Guokang (Beijing) Pharmaceutical Co., Ltd (華潤國康(北京)醫藥有限公司), a subsidiary of CR Pharmaceutical Commercial, entered into a general distribution agreement with Beigene Switzerland GmbH, pursuant to which China Resources Guokang acquired the general distributorships for 3 major products of Beigene.



Source: China Resources Pharmaceutical Group

*Claim 2: We also want to commend BeiGene for admitting that it has inventory of Celgene drugs in China.*

The Company has disclosed every quarter since the Celgene business acquisition in September 2017 that it holds inventory of Celgene drugs and that these drugs are for distribution in China. Please see numerous disclosures below.

**6. Inventories**

The Company's inventory balance of \$5,712 as of September 30, 2017 consisted entirely of finished goods product purchased from Celgene for distribution in the PRC.

Source: Form 10-Q for the quarter ended September 30, 2017

**6. Inventories**

The Company's inventory balance of \$10,930 as of December 31, 2017 consisted entirely of finished goods product purchased from Celgene for distribution in the PRC.

Source: Form 10-K for the year ended December 31, 2017

**6. Inventories**

The Company's inventory balance of \$7,498 and \$10,930 as of March 31, 2018 and December 31, 2017, consisted entirely of finished goods product purchased from Celgene for distribution in the PRC.

Source: Form 10-Q for the quarter ended March 31, 2018

**6. Inventories**

The Company's inventory balance of \$6,322 and \$10,930 as of June 30, 2018 and December 31, 2017, consisted entirely of finished goods product purchased from Celgene for distribution in the PRC.

Source: Form 10-Q for the quarter ended June 30, 2018

**6. Inventories**

The Company's inventory balance of \$19,699 and \$10,930 as of September 30, 2018 and December 31, 2017, consisted entirely of finished goods product purchased from Celgene for distribution in the PRC

Source: Form 10-Q for the quarter ended September 30, 2018

**7. Inventories**

The Company's inventory balance of \$16,242 and \$10,930 as of December 31, 2018 and 2017, respectively, consisted entirely of finished goods product purchased from Celgene for distribution in the PRC.

Source: Form 10-K for the year ended December 31, 2018

**6. Inventories**

The Company's inventory balance of \$13,140 and \$16,242 as of March 31, 2019 and December 31, 2018, respectively, consisted entirely of finished goods product purchased from Celgene for distribution in the PRC.

Source: Form 10-Q for the quarter ended March 31, 2019

**6. Inventories**

The Company's inventory balance of \$49,048 and \$16,242 as of June 30, 2019 and December 31, 2018, respectively, consisted primarily of finished goods product purchased from Celgene for distribution in the PRC. The increase in the inventory balance was mainly due to more purchases of REVLIMID® and VIDAZA® in order to meet the required timing of import into the PRC prior to sale.

Source: Form 10-Q for the quarter ended June 30, 2019

### *Inventories*

The Company's **inventory** balance of US\$7.5 million as of March 31, 2018 and US\$10.9 million as of December 31, 2017 consisted entirely of finished goods purchased from Celgene for distribution in the PRC. The Company had no inventories as of December 31, 2016.

As at the Latest Practicable Date, the **inventory** as of December 31, 2017 and March 31, 2018 were fully sold.

Source: HK IPO Filing

*Celgene China Agreement*

On July 5, 2017, we and a wholly-owned subsidiary of Celgene, Celgene Logistics Sàrl, or Celgene Logistics, entered into a License and Supply Agreement, which we refer to as the China License Agreement and which became effective on August 31, 2017, pursuant to which we were granted the right to exclusively distribute and promote Celgene's approved cancer therapies, ABRAXANE<sup>®</sup>, REVLIMID<sup>®</sup> and VIDAZA<sup>®</sup>, and its investigational agent avadomide (CC-122) in clinical development in China, excluding Hong Kong, Macau and Taiwan. In addition, if Celgene decides to commercialize a new oncology product through a third-party in the licensed territory during the first five years of the term, we have a right of first negotiation to obtain the right to commercialize the product, subject to certain conditions. We paid an aggregate of US\$4.5 million in cash for the license and our acquisition of Celgene Shanghai, as described below. Subsequent to the closing of the arrangements and through the Latest Practicable Date, we had paid Celgene US\$17.7 million in total for **inventory** purchases.

Source: HK IPO Filing

## **8. INVENTORIES**

The Group's **inventory** balance of US\$10,930,000 and US\$7,498,000 as of December 31, 2017 and March 31, 2018 consisted entirely of finished goods product purchased from Celgene for distribution in the PRC.

Source: HK IPO Filing

As discussed on our conference call, the Celgene product inventory is purchased from Celgene by BeiGene (Switzerland). It is held at a bonded warehouse in China, as BeiGene's inventory, until it is sold to China Resources. The implication is clear that the inventory is held in China as this is an imported product.



*Claim 3: Since BeiGene buys from Celgene then sells all the drugs to its distributor, CRP, offshore, any inventory in China has to have been repurchased from China Resources. That is round-tripping, plain and simple.*

This is factually incorrect. On the conference call, Dr. Wu Xiaobin described how the inventory and product sale flow work:

*“In fact, the sales process in China is straightforward:*

- Here’s a simple slide that shows how revenue recognition works in China for imported drugs. First, the foreign company, in this case Celgene, ships the product to BeiGene who takes possession and records this as inventory.*
- Secondly, BeiGene sells the product to the distributor, in our case China Resources. China Resources is a reputable company. They are one of the top three distributors in China, they are publicly listed in Hong Kong, and they work with many multinational companies. Once BeiGene sells the product to China Resources, we recognize the revenue.*
- The distributor network distributes the product to the hospitals and the drug stores and that is in-market sales.”*

We’ve disclosed that we hold inventory (see Claim 2). This inventory is owned by BeiGene Switzerland at the bonded warehouse in China, and inventory is purchased from Celgene. This is typical for drugs imported into China by multi-national companies. It is then sold to China Resources, and we recognize revenue.

*Claim 4: The Company claimed on the call that it orders inventory several times a month. But it holds nine months of inventory. Which is it?*

Again, this is about pre-revenue inventory levels, which is not relevant to supporting arguments made by the short seller that BeiGene is falsifying sales.

Nonetheless, we are happy to address the question. The company's inventory balance is subject to variability given the requirement to have inventory in-country prior to sale.

This is clearly disclosed in the Q2 2019 10-Q:

#### **6. Inventories**

The Company's inventory balance of \$49,048 and \$16,242 as of June 30, 2019 and December 31, 2018, respectively, consisted primarily of finished goods product purchased from Celgene for distribution in the PRC. The increase in the inventory balance was mainly due to more purchases of REVLIMID® and VIDAZA® in order to meet the required timing of import into the PRC prior to sale.

**Source: Form 10-Q for the quarter ended June 30, 2019**

The amount of inventory the company purchases is impacted by geo-political, supply chain, and other risks. These risks may cause the company to purchase more, as was the case in the second quarter of 2019, when a larger than usual purchase of approximately six months' supply was made, due to regulatory updates. BeiGene is protecting itself against potential delays as a result of a possible longer delivery period to avoid a product shortage. This increase is disclosed in the most recent 10-Q, excerpted above.



*Claim 5: If we add the \$21 mln minimum purchase commitment for Celgene drugs to the \$49 mln inventory already in stock, that's over a year's supply of inventory in stock or on order.*

On the call, we clearly stated that BeiGene does not have minimum purchase commitments with Celgene. Recall, the short seller report accused the company of having \$135 million worth of commitments to Celgene, when in fact \$114 million represented a clearly disclosed prepayment to BI for future manufacturing capacity and supply. From the call transcript:

*“This was misunderstood to be our requirement to purchase our products from Celgene. We're not required to purchase a minimum amount of drug product from Celgene, but like all supply agreements, we are required to submit binding orders.”*

The binding orders to Celgene are to be fulfilled over time. In future periods when the order is fulfilled, we will also have sales which will reduce the inventory on hand.

The table below shows the company's historic inventory balance, cost of sales, and the ratio of cost of sales to inventory:

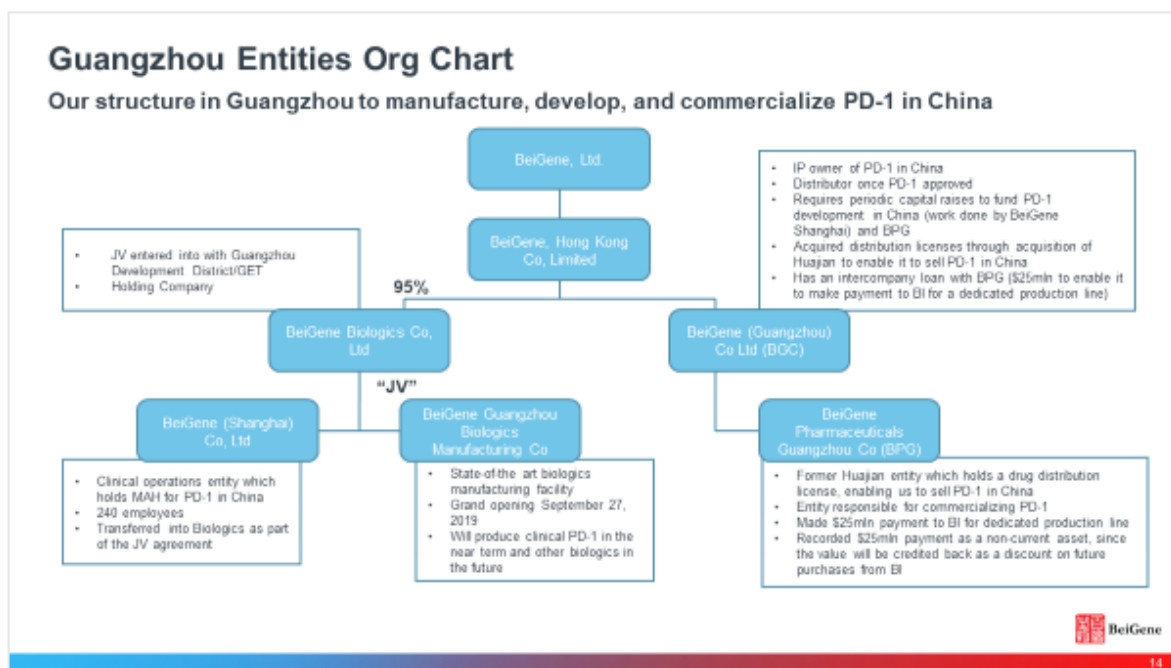
<i>US\$ 000's</i>	<i>3Q17</i>	<i>4Q17</i>	<i>1Q18</i>	<i>2Q18</i>	<i>3Q18</i>	<i>4Q18</i>	<i>1Q19</i>	<i>2Q19</i>
Inventory	5,712	10,930	7,498	6,322	19,699	16,242	13,140	49,048
Cost of sales	(1,944)	(3,030)	(4,550)	(6,256)	(8,706)	(9,193)	(15,261)	(17,839)
Ratio of Cost of Sales to inventory	2.94	3.61	1.65	1.01	2.26	1.77	0.86	2.75

Source: BeiGene's Form 10-Q for the three months ended September 30, 2017, March 31, 2018, June 30, 2018, September 30, 2018, March 31, 2019 and June 30, 2019; BeiGene's Form 10-K for the years ended December 31, 2017 and December 31, 2018.

BeiGene's ratio of inventory to cost of sales (which the short seller is using to estimate the amount of inventory being held) has fluctuated from a high of 3.61x in 4Q 2017 to .86 in 1Q 2019. Clearly, the inventory balance has not been increasing out of line with demand, as sales have grown and were actually higher as a ratio of cost of sales in late 2017 versus in Q2 2019.

*Claim 6: Howard Liang claimed that BeiGene's Guangzhou-based shell company...is funding construction of BeiGene's biologics factory. It is NOT the owner of the biologics factory and cannot legally contribute capital to the project.*

We presented the following slide on the conference call showing the Guangzhou entities and their attributes.



It is clear from the slide that the biologics factory is under the joint venture and is not being funded by BGC (which is not a shell company.) In addition, it is evident in the transcript that this was never said or implied.

*“One of the more serious allegations of the short seller’s report centers on the nature of BeiGene Guangzhou Co, or BGC. Before I get into the details of the role of BGC, I’d like to provide an overview of our investments and strategic collaborations in Guangdong, which as many of you know is one of the wealthiest provinces in China with more than 10% of China’s GDP and a very significant market. We have collaborated with Guangzhou Development District to build a large, world-class biologics facility, with mostly external funding. This is a facility which we own 95% stake and our partner owns 5% stake of the manufacturing joint venture...”*

Source: Call Transcript 9/8/19



We have consistently disclosed that the factory is being built by BeiGene Biologics, the 95% BeiGene-owned joint venture, from the time the joint venture was entered into in April 2017.

#### **8. Manufacturing facility in Guangzhou**

On March 7, 2017, BeiGene HK, a wholly owned subsidiary of the Company, and Guangzhou GET Technology Development Co., Ltd. ("GET"), entered into a definitive agreement to establish a commercial scale biologics manufacturing facility in Guangzhou, Guangdong Province, PRC.

On March 7, 2017, BeiGene HK and GET entered into an Equity Joint Venture Contract (the "JV Agreement"). Under the terms of the JV Agreement, BeiGene HK made an initial cash capital contribution of RMB200,000 and a subsequent contribution of one or more biologics assets in exchange for a 95% equity interest in BeiGene Biologics. GET made a cash capital contribution of RMB100,000 to BeiGene Biologics, representing a 5% equity interest in BeiGene Biologics. In addition, on March 7, 2017, BeiGene Biologics entered into a contract with GET, under which GET agreed to provide a RMB900,000 loan (the "Shareholder Loan") to BeiGene Biologics (see Note 16). BeiGene Biologics is working to establish a biologics manufacturing facility in Guangzhou, through a wholly-owned subsidiary, the BeiGene Guangzhou Factory, to manufacture biologics for the Company and its subsidiaries.

Source: BeiGene Ltd Form 10-K for the year ended December 31, 2017

This disclosure has been in every public financial statement filing BeiGene has made since April 2017. There has clearly been no misrepresentation that the distribution company was funding the construction of the plant.

We reiterate that the short seller's claim that we are operating through a shell company in Guangzhou is false. Below is a photograph of the manufacturing facility that was built in Guangzhou, and for which an opening ceremony is being held on September 27, 2019. It is where more than 160 outstanding people, of whom we are very proud, are working tirelessly to help bring global-quality, affordable drugs to patients around the world.



*Claim 7: BeiGene says it lent money to BeiGene Guangzhou for a manufacturing line...But if the loan is for manufacturing capacity, why push money through a drug distributor.*

The premise in the original short seller's report was that this money was used to buy Celgene products, but as we described on the call, the non-current asset on the balance sheet relates to the prepayment of additional manufacturing capacity at BI that will benefit BeiGene once the new line starts producing product. BPG, as the commercial entity for tislelizumab sales, will receive the future benefit of the long-term asset in the form of reduced product costs from BI. From an accounting perspective, it is appropriate to match the payment with the future benefit, which is how the company has treated the prepayment.

It is important to note that once BI starts producing drug from this line, the asset will be amortized as cost of sales, properly reflecting the true cost of the product. If the Company had expensed the prepayment, it would have overstated expenses in fiscal 2018, but understated expenses in future periods when investors are evaluating our profitability and cost of sales. The Company has been transparent in its disclosures relating to the prepayment for the additional BI capacity. The disclosure below has been made in our periodic filings since the date of the payment (December 2018.)

Other non-current assets consist of the following:

	As of	
	June 30, 2019	December 31, 2018
	\$	\$
Prepayment of long-term assets	8,179	11,981
Prepayment of facility capacity expansion activities (1)	25,232	25,193
Prepaid VAT	22,936	14,671
Rental deposits and other	3,811	1,823
<b>Total</b>	<b>60,158</b>	<b>53,668</b>

(1) Represents a payment for a facility expansion under a commercial supply agreement. The payment will be credited back to the Company through credits on supply purchases over the life of the supply agreement.

Source: Form 10-Q for the quarter ended June 30, 2019



*Claim 8: The slide also says that this subsidiary, BeiGene Guangzhou, is the IP owner of BeiGene's PD-1 drug, tislelizumab. That is simply not true. Tislelizumab patents are registered to BeiGene Ltd. in the Caymans.*

The slide presented on the conference call was intended to elucidate our strategy and to provide information on the purpose of the various Guangzhou entities in our corporate structure. We initially register our patents in the name of BeiGene, Ltd., our Cayman parent, but subsequently transfer the intellectual property to various subsidiaries as appropriate. The location and timing of these decisions on an asset-by-asset basis are based on a series of considerations, including local policies, strategic, operational, commercial, logistical, and tax considerations. Pursuant to our current commercialization plans, we intend to transfer the tislelizumab patents for China to BeiGene (Guangzhou) Co., Ltd. ("BGC"), which has been funding our China tislelizumab clinical trials, in connection with the planned commercial launch. Similarly, we transferred the patent in China for zanubrutinib from BeiGene, Ltd. to BeiGene (Suzhou) Co., Ltd. in March 2019.

*Claim 9: Chinese government websites confirm that development rights for tislelizumab, BeiGene's PD-1 drug, are registered to BeiGene (Shanghai) Co., Ltd.*

The China clinical trial and marketing authorization applications for tislelizumab are held by BeiGene (Shanghai) Co., Ltd. This information has been publicly available through Chinese government websites since 2016. However, that does not mean that the expenses for drug development have to be incurred and accounted for by that entity. It is appropriate for the costs of development to be borne by the entity that will be earning revenue from the future sales of the associated drug in order to ensure proper tax and accounting treatment.

*Claim 10: In 2017, BeiGene injected all the equity interests of BeiGene Shanghai into BeiGene Biologics, the company that is a joint venture with the Guangzhou government. The development rights to tislelizumab went to BeiGene Guangzhou Biologics with the rest of the Shanghai assets.*

As noted above, an entity holding a regulatory authorization does not need to be the same as the entity that is responsible for the costs of developing the underlying drug.

*Claim 11: Auditors: Another Lie. An analyst on the September 8 call asked CFO Liang to confirm that the same Ernst & Young team audits European, U.S., and Chinese operations. Liang said yes. This is patently untrue. The Chinese auditor is an affiliate of Ernst & Young called E&Y Hua Ming. The audit team cannot legally or organizationally be the same audit team for all territories.*

The audits are conducted under PCAOB standards as stated in the audit opinions in our financial filings. Ernst & Young Hua Ming and Ernst & Young are engaged to express opinions on the consolidated financial statements of the Company for the purpose of filings with the US SEC and HK Stock Exchange, respectively. Ernst & Young Hua Ming and Ernst & Young performed the necessary audit work, and also have involved the EY firms in other locations or countries to perform audit work on subsidiaries as part of their audit on the consolidated financial statements. All work is reported to the same engagement partner to sign off on the audit opinions on the company's consolidated financial statements issued by both Ernst & Young Hua Ming and Ernst & Young.

[https://www.sec.gov/Archives/edgar/data/1651308/000165130819000018/bgne-20181231\\_10k.htm#s97930EC119E8585CAB40DE9C7BAAC90D](https://www.sec.gov/Archives/edgar/data/1651308/000165130819000018/bgne-20181231_10k.htm#s97930EC119E8585CAB40DE9C7BAAC90D)

*Claim 12: BeiGene claimed that budgeting R&D (including spending on clinical trials— which the company says is 75% of the cost) on a company-wide basis rather than by drug program is “industry practice.” This is completely untrue, and in fact ludicrous. We refer BeiGene management to the many Google results for “clinical trial budgeting,” which offer highly detailed templates for costs by drug program. There are many pieces of software commercially available that BeiGene might want to look into. Oracle’s ClearTrial and IBM’s Clinical Trial Management System might be a good start; each offers detailed budgeting by drug program.*

The claim that was being addressed was that BeiGene does not disclose its financials by program. This is true, and we reiterate that it is common in the industry. Many reputable companies do not break out R&D expenses by program in their financial reporting (e.g., Alexion, Alnylam, Biogen, Celgene, Exelixis, Galapagos, Gilead, Incyte, Jazz, and Vertex).

We never stated or implied (although it is insinuated by the short seller that we did), that we did not use project-based accounting internally. We are customers of both Clear Trial and IBM’s Clinical Trial Management System, as well as a wealth of other tools used extensively for financial planning and analysis, and internal accounting.

Management does evaluate trial and program costs on a fully burdened basis for internal review purposes, and indeed, makes capital allocation decisions with this information in hand.

The short seller is conflating budgeting with reporting in this instance.



*Claim 13: Showing R&D spend versus the number of clinical trials is a complete joke.*

We presented spend versus number of Phase 3 trials. Phase 3 studies are the large comparator trial studies that account for the lion's share of R&D budgets. Although an imperfect metric, short seller disparagement does not make it a bad one. For more on drug development costs, the excellent article, "Innovation in the pharmaceutical industry: New estimates of R&D costs," from the Journal of Health Economics, authored by the Tufts Center for the Study of Drug Development et al. in 2016, provided the relative costs of Phase 3 trials. Please refer to the table below.

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*J.A. DiMasi et al. / Journal of Health Economics 47 (2016) 20–33*

**Table 2**  
Average out-of-pocket clinical period costs for investigational compounds (in millions of 2013 dollars).<sup>a</sup>

Testing phase	Mean cost	Median cost	Standard deviation	Standard error	N <sup>b</sup>	Probability of entering phase (%)	Expected cost
Phase I	25.3	17.3	29.6	3.0	97	100.0	25.3
Phase II	58.6	44.8	50.8	6.6	78	59.5	34.9
Phase III	255.4	200.0	153.3	34.1	42	21.1	54.0
Total							114.2

<sup>a</sup> All costs were deflated using the GDP implicit price deflator. Weighted values were used in calculating means, medians, and standard deviations.

<sup>b</sup> N = number of compounds with cost data for the phase.

*Claim 14: Just to choose a few issues, the company's chart failed to differentiate critical areas: The size of comparative peer-group trials. Hey, why not double the number of trials and halve the number of patients per trial, which will make BGNE look even more favorable in its peer-group chart?*

- The number of patients in the 17 Phase 3 trials that BeiGene refers to total more than 7,500. The trials on average are designed to include over 400 patients each.
- Phase 3 trials are carefully designed with comparator drugs, statistical analysis, and regulatory input from the FDA and/or its regulatory equivalents in other regions.
- Trials require the support of the many oncologists leading these trials around the world. It requires the approval of the ethics committee of the hospital. It would be unlikely for oncologists to ask patients to participate in a Phase 3 trial that was known to be undersized statistically and which did not have the power to answer the scientific/medical questions at hand.
- BeiGene is running trials in more than 30 countries, at more than 900 hospitals around the globe, working with more than 1,350 principal investigators. It is quite the conspiracy theory for the short seller to imply that regulators, oncologists, and hospital ethics committees collectively have conspired to design and approve trials that are inappropriately sized.

*Claim 15: The cumulative costs from previous periods - the data were only for H1 2019*

We were criticized by the short seller regarding our current burn rate. We made a comparison based on current data.

*Claim 16: The figures used are for R&D spend, not just for Phase 3 trials. This may not necessarily be an appropriate comparable for other pharmaceutical companies.*

The vast majority of R&D costs are associated with large Phase 3 trials. Above in Claim 13 we referred to the Tufts et al. article that discusses industry trial costs. We think we compare favorably to this.

*Claim 17: The effectiveness of the clinical trials - what is BGNE's commercialization history from clinical trials vs its peer-group clinical trials?*

BeiGene currently has four accepted NDA filings in China and one in the U.S. that we anticipate will lead to commercialization.

*Claim 18: Some R&D expenses are front-loaded, for example, in collaboration arrangements. This can distort peer comparatives in any period.*

- We agree, as we have recently started many studies which would imply a higher cost for BeiGene.
- Such adjustment would work against the short seller's hypothesis.

*Claim 19: The type of drug trialed.*

- We agree. Two of our Phase 3 trials are being compared to ibrutinib. We purchase ibrutinib for roughly 300 patients at a cost of approximately \$8,000 per patient per month. In addition, these are long trials that are extremely costly.
- Such adjustment would again work against the short seller hypothesis.

*Claim 20: Trial costs per drug - some peers may conduct different numbers of trials per drug. From the company's own presentation, its trials are for three late-stage drugs only, whereas the chart it shows are for numerous trials.*

- Following the short seller's hypothesis, it would be inappropriate to look at cost per drug, versus cost per trial. This is what we have done.
- BeiGene is fortunate to have late stage clinical candidates in two of the largest oncology drug classes with broad market opportunity in multiple indications, and which are being developed into markets that analysts have estimated at more than \$10B globally.
- On a bigger-picture level, BeiGene was responding to the short seller questioning why BeiGene's costs were higher than those of its China peers. The answer to the original question is clear and remains the same:
  - We are running more Phase 3 studies.
  - We are running more global studies.

*Claim 21: Independent survey supports J Capital's sales estimates: Before the company was able to rush out a response to our report, a sell-side analyst published a report citing data that it had somehow never mentioned before in its coverage of BeiGene. The data came from the Chinese Pharmaceutical Association (CPA). The analyst used a survey from the CPA in an attempt to refute our estimate that BeiGene overstates sales of Celgene drugs by 133%. While the headline numbers in the survey seem supportive of the company's narrative, once you review the detail, you find that the survey supports our conclusion.*

The short seller report asserts that the Celgene products are sold almost exclusively through hospitals. This is factually incorrect, as the Company sells a substantial percentage of the Celgene products through drug stores. This is very common for many oncology products.

Pharmacy sales are not reflected in CPA data or by other data services that only present in-market hospital sales. The company provided independent data that include both hospital and drug store sales as a more complete way to compare to the reported sales amounts. There is a strong correlation between reported net revenue and in-market sales, as well as the growth trends for each, for the periods since the Celgene distribution right was acquired.



*Claim 22: The survey covers just 3.5% of China's roughly 29,500 hospitals, critically, it covers nearly all of the Category 3 (the biggest) hospitals in Tier 1 and Tier 2 cities, where most of the specialist facilities for cancer treatment that use foreign drugs are located.*

- We believe actual data from more than 1,000 hospitals is a far better indicator than the roughly three dozen anecdotal interviews upon which the short seller based their revenue estimate and conclusion.
- Although imperfect, the vast majority of pharmaceutical product volume tracking services are based on a sampling of representative transactions and are widely used and highly valued by the industry.

*Claim 23: Celgene drugs are sold almost exclusively in Class 3 hospitals, so the survey dramatically over-represents Celgene drug sales.*

- This is factually incorrect. A substantial portion of our products is sold through pharmacies.
- This is factually incorrect for many oncology products in China.
- For example, for the PD-1s available in China, third party hospital data captures a small proportion of total sales.

*Claim 24: Our understanding is backed up by interviews we conducted with BeiGene's distributors and Chinese oncologists. We featured the following distributor's comment on page 7 of our report: "Only Tier 1 city top hospitals will buy these medicines [Celgene's]."*

We reiterate the short seller's lack of actual data and reliance on a very small anecdotal sample set from which to form their opinions.

*Claim 25: For Celgene drugs, the analyst estimates an “amplifying factor” of up to 8.23x (for REVLIMID). There is no basis for this; it’s plucking a number out of the sky to back-solve for an answer. In fact, since the Celgene drugs are selling to a highly specialized channel, the survey should capture around 60% of BeiGene’s sales of the drugs.*

*CPA data indicate that Celgene drug sales in 2018 were \$62 mln. With the “amplifying factor,” that would mean about \$100 mln in sales. That supports our contention that BeiGene’s sales of Celgene products were in the range of \$90-100 mln, with around \$42.7 mln potentially sold to themselves.*

- As opposed to the short seller, the mentioned analyst is independent and works for a well-known, highly credible firm.
- The analyst clearly describes her methodology, which we find sound.
- The short seller report erroneously claims that 8.23x is the factor used for REVLIMID.
  - This is factually incorrect. The amplifying factor for REVLIMID was 2.62x.
  - The amplifying factor for ABRAXANE was 1.75x.
  - VIDAZA, our smallest product, which the analyst assumes accounts for less than 25% of our sales, has an amplifying factor of 8.23x.

## ***In Conclusion***

The short seller report concludes with a series of inflammatory questions intended to raise doubt and confusion around BeiGene's value proposition. Our company is developing a truly global business that leverages opportunities in China, the United States, Australia, and Europe as well as other parts of the world. Our team of more than 2,700 is passionate about and committed to helping oncology patients globally by bringing them impactful, innovative, affordable therapies. Throughout our organization we maintain a commitment to transparency, and adherence to the highest level of quality and compliance.



## ***Forward-Looking Statements***

Certain statements contained in this presentation, other than statements of fact that are independently verifiable at the date hereof, may constitute forward-looking statements. Examples of such forward-looking statements include those regarding investigational drug candidates and clinical trials and the status and related results thereto, as well as those regarding continuing and further development and commercialization efforts and transactions with third parties. Such statements, based as they are on the current analysis and expectations of management, inherently involve numerous risks and uncertainties, known and unknown, many of which are beyond BeiGene's control. Such risks include but are not limited to: the impact of general economic conditions, general conditions in the pharmaceutical industries, changes in the global and regional regulatory environments in the jurisdictions in which BeiGene does business, market volatility, fluctuations in costs and changes to the competitive environment. Consequently, actual future results may differ materially from the anticipated results expressed in the forward-looking statements. In the case of forward-looking statements regarding investigational drug candidates and continuing further development efforts, specific risks which could cause actual results to differ materially from BeiGene's current analysis and expectations include: failure to demonstrate the safety, tolerability and efficacy of our drug candidates, final and quality controlled verification of data and the related analyses, the expense and uncertainty of obtaining regulatory approval, including from the FDA, NMPA (formerly CFDA/CDA) and EMA, the possibility of having to conduct additional clinical trials and BeiGene's reliance on third parties to conduct drug development, manufacturing and other services. Further, even if regulatory approval is obtained, pharmaceutical products are generally subject to stringent on-going governmental regulation, challenges in gaining market acceptance and competition. These statements are also subject to a number of material risks and uncertainties that are described in BeiGene's filings with the Securities and Exchange Commission (SEC). The reader should not place undue reliance on any forward-looking statements included in this presentation or in the accompanying oral presentation. These statements speak only as of the date made, and BeiGene is under no obligation and disavows any obligation to update or revise such statements as a result of any event, circumstances or otherwise, unless required by applicable legislation or regulation.





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