Theravance Biopharma (TBPH) $13.40 September 2015

Ticker:	TBPH	Current Price:	$13.40
Action:	Long	FD Market Cap (M)	$449.3
Expected Timeframe:	2-5 years	Enterprise Value(M):	$238.4
Target Allocation	1-3%	Target Price:	$28.58
Asset Class:	Common Equity		

Investment Overview/Background

Over the past year biotech and pharmaceutical investors have been richly rewarded amid a speculative frenzy that pushed questionable companies to new valuations and took the IBB (biotech index) up more than 32% from August 2014 to August 2015. The broader Dow Jones Pharmaceutical index was up 25.5% during the same period. While the average pharmaceutical stock soared to new heights in 2014/2015, there are a few that were punished. Many of these lows were well justified and a result of either failed drug trials or copious cash burn. However, there is one biotech that sticks out as a forgotten name that should enjoy memorable long-term results: Theravance Biopharma (Theravance).

Theravance's stock went down more than 48% from August 29, 2014 to August 29, 2015, a clear divergence from the accepted biotech/pharma names. There is no point in pretending Therevance is the proverbial "baby being thrown out with the bathwater." It is simply discarded and forgotten for a myriad of reasons including management missteps, technical selling after a spin-off, and a pipeline that is not considered sexy by Wall Street's standards. These reasons should not dissuade investors from examining the overall attractiveness of Therevance's pipeline which includes a potential blockbuster drug and several smaller drugs that add considerable value.

I believe the market has unduly punished Theravance and a patient investor can buy a robust pipeline at a discounted price. Insiders have been voting with their wallets and have purchased shares on the open market. While there are a number of risks, there is a lot of upside, and if sized accordingly, Theravance can benefit patient long-term investors.

Background

Theravance Biopharma was spun off from Theravance Inc in 2014. Theravance Biopharma would be the development company and Theravance Inc would be a royalty management company. Theravance Inc provided Theravance Biopharma with $400 million in cash to help fund the pipeline. Rick Winningham, CEO of the old combined company, became CEO of Theravance Biopharma and William Waltrip became the Chairman of Theravance Inc. In order to understand Theravance Biopharma, and the investment opportunity, it helps to understand Theravance Inc and their products.

Theravance Inc was formerly known as Advanced Medicine Inc and became Theravance in 2002. Glaxo Smith Kline (GSK) has been a part of Theravance for over a decade, having owned more than 19% of the company since 2004. Theravance Inc's two primary drugs are Breo and Anoro. Originally both were for the treatment of chronic obstructive pulmonary disease (COPD). COPD is a broad designation for a

series of diseases that block airflow making it difficult to breathe. Typically there is excessive mucus production, inflamed airways, chest tightness, and wheezing. The combination of symptions increases the chances of infection leading to expensive hospital visits. Given the combination of symptoms and ailments, a combination of treatments is required. Corticosterioids will help the inflammation, antichloinergics will help lower the production of mucus, and bronchiodilators will help decrease the resistance within respiratory airways. Within those three classes of treatments there are a number of individual treatments that target different individual symptoms, periods of time, and select patients.

GSK and Theravance Inc developed Breo, a combination therapy that combines a corticosteroid, fluticasone furoate, with a bronciodilator, vilanterol, in a single delivery system. Vilanterol is a Long-Acting Beta2 Adrenergic agonist, LABA for short. In the body, beta2 receptors control smooth muscle relaxation and bronchodilation.

The second drug developed/marketed by GSK and Theravance Inc is Anoro, which is a combination of umeclidinium (an anticholinergic, which blocks acetycholine and the production of mucus) and vilanterol. Theravance Inc is certainly not the only group to sell combination drugs for obstructive airway diseases. The table below shows a few of the combination drugs and their manufacturers.

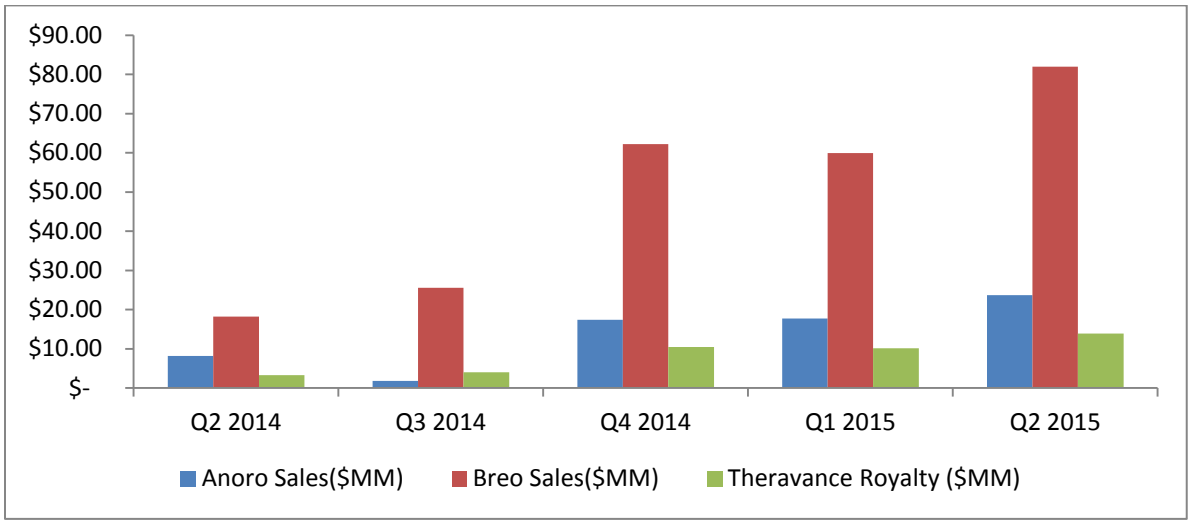
Table 1. Obstructive Airway Disease Combination Drugs Source: Manufacturers Websites

Drug	Trade Name	Owner or Marketed By
Aclidinium/formoterol	Duaklir	AstraZeneca
Budesonide/formoterol	Symbicort/Others	AstraZeneca
Fluticasone furoate/vilanterol	Breo Ellipta	Theravance/GSK
Fluticasone/salmeterol	Advair	GlaxoSmithKline
Indacaterol/glycopyrrolate	Ultibro Breezhaler	Novartis
Ipratropium bromide/salbutamol	Combivent	Boehringer Ingelheim
Mometasone/formoterol	Dulera	Merck
Umeclidinium/vilanterol	Anoro Ellipta	Theravance/GSK

It should be obvious that this is a crowded marketplace with a number of heavyweights all trying to win marketshare. For a number of years, GSK had the most popular COPD drug, Advair. Advair will be facing generic competition soon and sales are starting to lag outside of the United States already. There is a tremendous amount of hope in Breo, which is considered the “son of Advair.”

Unfortunately for GSK, Breo sales have been rather sluggish and insurers have been reluctant to cover the drug. This has impacted Theravance Inc, which receives a royalty from sales of Breo and Anoro. The table below shows Breo/Anoro sales over the past 12 months and the royalty received.

Chart 1. Breo sales, Anero Sales, and Theravance Royalty. Source: Theravance SEC filings



While the trend is Theravance Inc's friend, the overall revenue figures are not. Theravance Inc pays out a $0.25/share quarterly dividend. With 115.329 million shares outstanding this works out to a yearly dividend payment of more than $115 million per year. It takes little analysis to realize that Theravance Inc's quarterly royalty of $13.9 million is not even close to covering quarterly dividend payments, before normal operating expenses no less.

All may not be loss though. Breo is back on Express Scripts preferred drug list, having missed it in 2015. Executives at both Theravance Inc and GSK were eagerly awaiting the results of SUMMIT, a 16,500 patient study examining how effective Breo is at extending the lives of COPD patients. Some analysts believed it could expand peak sales estimates from $1.8 billion to $5 billion. The theory was that this study would help prove the effectiveness of Breo and protect the dividend of Theravance Inc.

Unfortunately, the SUMMIT study came back as a bust. The results showed that Breo did not achieve statistical significance over a placebo when looking at mortality changes. This was not good news for Theravance Inc and ultimately brings into question the sustainability of the dividend.

Outside of Breo/Anoro, Theravance Inc also has a 15% stake in Theravance Respiratory Company (TRC). Theravance Inc is entitled to 15% of any future payments made by GSK that relate to two distinct programs. The first is a Bifunctional Muscarinic Antagonist-Beta 2 Agonist, or MABA, program. The MABA program is for an investigational bronchodilator drug GSK961081, which will be explored later in this report. The MABA program is also being studied in conjunction with fluticasone furoate (FF).

The other program in TRC is the "Closed Triple Therapy" (The Triple). The Triple combines the drugs in Theravance Inc's Anoro and Breo. The Triple is a big deal both for Theravance Inc and Theravance Biopharma.

The Triple

As stated above, the Triple combines the drugs in Theravance Inc's Anoro and Breo. GSK/Theravance are running two trials to determine the effectiveness. The first Phase III trial was started in July of 2014 and is known as the IMPACT trial. IMPACT has 10,000 patients and looks to compare the effectiveness of the Triple relative to Breo and Anoro. The second trial, FULFIL(described in more detail later), started in February 2015, enrolled 1,800 patients and looks to compare quality of life and rate of COPD exacerbations (breathing flare-ups that result in hospital visits) compared to other treatments.

Given that the drugs in the Triple are already approved and administered, it should come as little surprise that doctors prescribe some form of the Triple already. According to GSK, there are 210 million people with COPD and roughly 20% of them already use a combination therapy like the Triple. At a basic level, the Triple will attempt to take what doctors are already doing (prescribing two separate products) and simplify this to a single treatment.

Theravance and GSK published positive results in 2014 that showed an open Triple (the same three drugs, but administered in separate deliveries) resulted in a statistically significant improvement for patients with COPD. Relying on a patient to use multiple inhalers creates multiple problems. Instead of using two different inhalers, patients would prefer a single inhaler and they would only need to use it once per day. This would potentially increase compliance and simplify patient's lives. Doctors, in return, would also be able to get a more accurate picture of treatment and the effectiveness. It is estimated that COPD medication is underused on a regular basis, with up to 49.4% of patients failing to take inhaler treatments as prescribed.

As far as chronic diseases go, COPD has some of the lowest levels of adherence and it is well known that adherence is inversely related to the number of medications given. In a nutshell: reduce the medications and there will be a likely increase in adherence and a drop in negative health effects. While there are other issues that complicate adherence (depression being a prime example), reducing the number of medications is critical for the health system to increase compliance and reduce acute costs that result from a lack of compliance.

While there is a clear rationale for developing the Triple, the Phase III trials are expensive and typically smaller companies like Theravance would need to raise significant equity to fund it. This is not the case for Theravance though. GSK will be funding all the development costs and Theravance Respiratory Company will receive an upward-tiering royalty from 6.5% to 10% of annual global net sales.

While obviously only an estimate, we can get a rough idea for the cost of the Triple and potential returns. As mentioned earlier, GSK estimates that approximately 20% of patients with COPD already use a combination therapy like the Triple. With 210 million COPD patients, this is an addressable market of 42 million patients, with more than 12.7 million of those in the United States and approximately 1.4 million are in Canada. Investment analysts at Leerink suggested in 2014 that 40% of doctors would switch their COPD patients over to a Closed Triple from the current combination therapies.

So, if we take the Canadian and US COPD population of approximately 14.1 million patients and assume that 20% of them use the Triple in some form already, that means there are 2.8 million patients already using the Triple in Canada and the United States. If 40% of those 2.8 million patients are switched from their current regime to a closed Triple that would be 1.12 million patients in the United States and Canada who would use the Triple. In Europe I estimate, using the same methods, that more than 1 million patients would likely switch from current COPD treatments to the Triple. Therefore, I will use 3.8 million as my base case estimate of patients. This number ignores a number of countries and assumes that GSK either does not market the Triple outside of Europe/USA/Canada, or gives the drug away for free.

As far as costs, the Triple is not an orphan drug so no outrageous price tag will be assumed. The Canadian Agency for Drugs and Technologies in Health (CADTH) estimated that the Triple would cost about $2,500 per year. For my base case, I will assume a price of $2,000/year to be conservative. Three scenarios are presented below.

Table 2. Revenue Scenarios for the Triple. Source: Author's estimates, company filings.

	Low	Base	High
Cost of the Triple	$1,500	$2,000	$2,500
US/CAD Patients	3,000,000	3,800,000	3,800,000
GSK Revenue	$4,500,000,000	$7,600,000,000	$9,500,000,000
Minimum TRC Royalty	$292,500,000	$494,000,000	$617,500,000
Share to TBPH	$248,625,000	$419,900,000	$524,875,000

Honing in on a net present value (NPV) for these cash flows is tricky at best. However, investors can use GSK's Advair as a comparable example and apply some conservative estimates to determine a fair value. Advair was first marketed in 1998 and sales began to drop in 2014. Therefore the drug had a life of over 16 years. For simplicity, I will assume that the Triple has a life of 10 years and it takes two years to ramp up sales indicated in the "Base" scenario. Thus there will be no sales in 2016/2017 and sales will begin in 2018. I will assume that once sales ramp to peak by 2020, sales of the Triple then stay constant at $419 million (Theravance Biopharma's share). Finally, I have discounted this cash flow stream by 20% per year to continue being conservative.

Net Present Value to Theravance Biopharma: $939 million.

The calculations above assume that there are no sales in other countries, patient populations do not expand, GSK does not expand the label to include asthma patients, and all sales abruptly stop after 10 years.

Of course, all of this depends on the Triple getting approved. I believe the Triple has a high likelihood of approval. The Triple is simply a reformulation of already existing drugs and therefore there is plenty of efficacy and safety data. Doctors already believe that the Triple works, it simply is not in a single package. Given the volume of data available already, that the cocktail is simply a reformulation, and the FDA has been approving far riskier drugs (female Viagra for instance), I believe the chance of approval for the Triple is greater than 80%. This is admittedly an estimate.

Currently, two studies are reviewing the Triple for safety and effectiveness. There is an 800 person study known as FULFIL (Lung **FU**nction and quality of **LiF**e assessment in COPD with closed tr**IpL**e therapy), which is a randomized, double-blind, double-dummy study. Results for FULFIL are expected to read out in 2016. The endpoints for FULFIL are to compare the quality of life to budesonide/formoterol and compare the number of exacerbations relative to budesonide/formoterol (Symbicort).

I believe there is a high likelihood that FULFIL will meet and exceed the endpoints. Comparing budesonide and fluticasone, both inhaled corticosteroids in Symbicort and the Triple, respectively, show that fluticasone is the superior drug. According to Partners Healthcare, a non-profit medical group dedicated to asthma and related diseases, "microgram for microgram, fluticasone is the most potent inhaled steroid available. In one direct comparison, fluticasone was equally as effective as twice the dose of beclomethasone, suggesting a potency twice as great."

If we compare formoterol to vilanterol, both LABAs, vilanterol should prevail as the better drug. Studies have indicated that once daily LABAs and ultra-LABA are preferable to twice-daily LABAs.

Finally, the addition of umeclidinium, an anti-muscarinic, can be thought of as adding Spiriva (another anti-muscarinic) to the treatment. There are a number of patients that use Sprivia in combination with Symbicort and Advair already.

Again, GSK is not doing anything drastic. GSK has some of the best COPD/asthma drugs out there and they are simply reformulating the drugs to make compliance easier. Many investors will be looking out for the results of FULFIL. However, the second study, IMPACT, is of great interest as well. It is expected that the data from FULFIL will be used to gain approval of the Triple in Europe. The data from IMPACT, expected in 2017, will be used for approval in the United States.

Rest of Pipeline and Products

While there is significant value in the Triple alone, several other pipeline candidates deserve discussion. Theravance also has products that are already on the market and generating sales. I have not examined pipeline products that are far away from development, or do not have partners helping out development.

MABA

Theravance has an investigational single molecule drug that will act as both a muscarinic antagonist and a beta2 receptor agonist (MABA). This drug, referred to as GSK961081, had a more rapid onset when compared to dosing with Tiotropium (trade name Spiriva) and salmeterol(a widely available LABA drug). Theravance Respiratory Company will see milestone payments of up to $125 million if GSK961081 is developed as a single-agent medicine and up to $250 million if developed as both a single agent and a combination therapy (for example, if combined with fluticasone fuorate). They will also receive royalties of 10-20% for all global sales up to $3.5 billion.

GSK is enthusiastic about the drug noting "'If you can have a product like the MABA, which is one molecule with two modes of action, then you can reduce the level of complexity down to the level of complexity of a dual formulation like Advair. '"

I have assigned zero value to MABA. However, this can be seen as a free asset to Theravance. GSK will be paying for the trial and Theravance will reap the benefits of (any) approval.

TD-4208

TD-4208 is a long acting muscarinic antagonist, LAMA, a drug that is being co-developed with Mylan. Mylan seems to believe in the drug and the potential profits. As part of the agreement to co-develop the drug, Mylan will reimburse Theravance all costs for Phase 3 studies. Mylan also took a $30 million equity stake in Theravance purchasing shares for $18.918 per share, a 10% premium to the then trading price.

Theravance estimates that 9% of COPD patients would prefer a nebulized delivery system for LAMA maintenance therapy. Nebulized treatments administer the medicine via a fine aerosol, instead of a dry powder like Advair. LAMA monotherapies for COPD were approximately $5 billion in 2014, $3.5 billion of that was in the United States.

Phase 3 trials for TD-4208 will begin before 2016 with 2,200 enrolled patients. At an assumed cost of $30,000 per patient during the study, TD-4208 will cost Mylan over $60 million. Theravance hopes to gain approval of TD-4208 by 2017. If approved, Theravance is entitled to 35% of the profits generated within the United States and a "mid-teen double digit" royalty on net sales outside of the United States. Mylan is rapidly working to expand their respiratory portfolio and acquired the license to a different LAMA from Pfizer in 2013 and entered into a development agreement with Pulmatrix in 2015.

While Mylan is looking at other COPD treatments, Mylan laid out why they are optimistic about 4208 in a recent conference call.

"*We believe TD-4208 has the potential to be the only FDA-approved once-daily single-agent nebulized product for COPD and it may offer longer-term opportunities for combination with the other nebulized products. In addition, the patent portfolio for TD-4208 is currently expected to provide exclusivity in the U.S. until at least 2025, which doesn't include any potential patent term extensions*." – Rajiv Malik, President of Mylan Q4 2014 Conference Call

Mylan believes that 4208 will fit into their COPD portfolio and should complement their other respiratory drugs, such as generic Advair, Seretide (fluticasone/salmeterol for asthma), and Flixotide. Theravance believes 9% of patients would prefer a nebulized treatment for LAMA. So, if we take the United States COPD population of more than 12.7 million patients, perhaps up to 1.14 million would be prescribed 4208. The table below shows sensitivity for 4208 sales in the United States alone. Theravance has stated that long-acting nebulizers can get prices twice that of Spiriva. Spiriva costs between $117-$300/month. I have assumed ranges of $150-$325 per month for 4208.

Table 3. 4208 Sales Sensitivity for TD-4208 Source: Dichotomy Estimates

		Cost Per Year			
		$1,800	$2,700	$3,600	$3,900
US Patients	100,000	$180,000,000	$270,000,000	$360,000,000	$390,000,000
	250,000	$450,000,000	**$675,000,000**	**$900,000,000**	$975,000,000
	475,000	$855,000,000	**$1,282,500,000**	**$1,710,000,000**	$1,852,500,000
	600,000	$1,080,000,000	$1,620,000,000	$2,160,000,000	$2,340,000,000

The numbers that are placed in bold are what I consider likely, but still conservative scenarios. Pricing is on the low side to encourage adoption and patient penetration is well below 50%. In the United States, Theravance is entitled to 35% of the profits from 4208 and all profits accrue to Theravance Biopharma. Assuming 85% gross margins and SG&A associated with 4208 is 15% of sales; I believe that 4208 could generate profits of $472-$1,197 million, based on the four bolded scenarios in Table 3. The average here is $799.3 million, of which Theravance would see 35% of the total, or $279.8 million.

Using a 20% discount rate and a three year ramp, the cash flows from 4208 are potentially worth $803 million to Theravance. Given that 4208 is progressing to Phase 3 trials this year, the overall chance of failure has diminished greatly. The highest rates of failure occur from Phase 2 to Phase 3. Assuming a 60% chance of approval (lower than previous years averages), 4208 is worth approximately $481 million ($803 million multiplied by a 60% chance of approval) to Theravance investors with potential for upside.

I believe these numbers are conservative. They assume only United States sales, provide no uplift for patients who use nebulizer treatment irregularly, and price the drug at, or below, current COPD treatments.

VIBATIV

VIBATIV (telavancin) is a bacterialcide that is used to treat methicillin-resistant (MRSA) strains of gram-positive bacteria. Basically, telavancin helps combat superbugs. Theravance has a sales force of 50 reps dedicated to selling telavancin and for the full year of 2015, Theravance expects sales of $15-$18 million. Sales have disappointed so far, Theravance expected sales to be $20 million just a few quarters ago. Theravance just recently received marketing authorizations for Vibativ in Canada and Russia, which may help sales going forward. Theravance does not break out gross margins for Vibativ, but I estimate they are in excess of 70% based on data in their Q2 2015 10Q.

At an assumed $100,000 per sales rep, $1 million for additional overhead, and 70% gross margins, Vibativ will produce roughly $5.55 million in operating profit on $16.5 million of sales (the midpoint of sales guidance).

Applying a correct multiple is a bit more of art than science, but a highly conservative 10x multiple would value the Vibativ franchise at $55.5 million. If sales did not grow at all they could likely reduce sales staff significantly, which would increase operating profit considerably. Given the likely increase in sales from increased staff and new indications, I believe Vibativ should be valued a little higher. In this case, I will assume a 15x multiple to account for the growth potential and increasing occurrence of vancomycin resistant bacteria.

Furthermore, Theravance started a Phase 3 study of Vibativ to determine the effectiveness of treating MRSA in the bloodstream (bacteremia). With mortality from bacteremia ranging from 20-30%, there is a need for this medication. I have applied zero value to this possible label expansion.

Base Estimate for the value of Vibativ: $83.25 million.

Conservative estimate for the value of Vibativ: $55.5 million

Axelopran

A common side effect of opioid use is constipation. Axelopran is an investigational drug that treats opioid induced constipation. Axelopran is one of a few constipation drugs that are opioid receptor antagonists, which means they can better target the cause of constipation, not just the symptoms. Axelopran is intended to be a drug that is coated on opioids, differentiating it further from other drugs, opioid antagonists or not.. The current treatment for opioid induced constipation is to give a separate drug to combat the constipation. Theravance's goal is to create pain medication that avoids constipation

side effects by coating the opioid with Axelopran. It is estimated that 40% of all patients prescribed opioids experience constipation.

As a matter of valuation, we can start with the other drugs approved to treat opioid induced constipation. The most prevalent is Salix Ltd's Relistor. The addressable patient population for Relistor is 11 million patients. As of June 2014, Relistor had a revenue run-rate of $45 million. In the conference call, Salix noted the following about Relistor:

"*If Relistor subcutaneous injection is approved for the treatment of opioid-induced constipation in chronic non-cancer pain, this would increase the addressable patient population from 1 million in advanced illness to 11 million patients suffering from chronic pain and would expand the potential peak sales opportunity for this product from approximately 137 million to over 300 million."* Adam Derbyshire, CFO of Salix Q2 2014 Conference Call

Relistor was approved to treat non-cancer pain patients shortly after the conference call, significantly expanding the addressable population. The $45 million annualized run-rate was applicable to the 1 million patient population, not the 11 million population. Axelopran's Phase 2b study was conducted with non-cancer patients, addressing the larger patient population that Relistor reached for. Relistor's designation from cancer only to non-cancer patients was worth $40 million to Progenics, who licensed Relistor to Salix. Salix originally paid $60 million just for the rights of the marketing duties, prior to FDA approval. According to Progenics Q2 2015 conference call, Progenics is eligible for up to $200 million in commercialization milestone payments related to Relistor. Also notable in the Q2 2015 Progenics conference call was a confirmation that sales are roughly $45 million/yr.

Other drugs that treat opioid induced constipation include AstraZeneca's Movantik. Daiichi Sankyo paid AstraZeneca $200 million upfront for the right to market Movantik in the United States. Nektar Therapeutics was responsible for co-developing Movantik with AstraZeneca. AstraZeneca paid Nektar more than $130 million in milestone payments, and Nektar is entitled to another $140 million upon commercial launches in the United States and Europe.

The preceding paragraphs provide evidence that there is significant value for a separate drug that treats opioid-induced constipation. Being able to avoid two drugs and create a single drug that treats pain and constipation should be worth considerably more than a separate drug. As a conservative measure, an investor could value Axelopran at similar levels to Relistor and Movantik, even though Axelopran has distinct fundamental and intellectual advantages.

I will value Axelopran at a 20% discount to the $60 million 2011 Salix payment made to Progenics.

Axelopran valuation: $48 million

Valuation

When all is said and done we can sum up the various parts of Theravance's pipeline to arrive at a fair value. The results can be seen in the table on the next page. I believe the figures below are conservative. An obvious question would be: why has Theravance not been acquired? I believe that ultimately, Theravance will likely be acquired by GSK, who already owns a hefty portion. A strategic acquirer makes a lot of sense for Theravance. A larger pharmaceutical company could come in, strip out a number of redundant costs and see significantly higher returns.

In a strategic acquisition, I believe Theravance would be worth more than $35/share. That strategic acquisition estimate ignores R&D, SG&A, and cash figures (since cash will be used to pay for SG&A and R&D) from the table above. My formal price target takes the average of my ongoing upside (table 4) and my strategic acquisition upside ($35/share).

Price Target: $28.58, 114% upside from September 15, 2015's closing price of $13.40.

Insiders agree with the potential for upside as well. During August, insiders that include the CEO and CFO, purchased more than 90,000 shares on the open market. Also worth noting, GSK purchased another 44,574 shares during August. GSK has the option to keep their ownership level constant upon any share sale (employee options vesting, a secondary, etc). While a small purchase relative to a company with a market capitalization in excess of $97 billion, it at least indicates GSK is marginally positive in the company.

Table 4. Valuation of Theravance Source: Dichotomy Estimates

In Thousands	Inputs	Notes
The Triple	$939,000	
TD-4208	$481,000	
Vibativ	$83,250	
Axelopran	$48,000	
Total	$1,551,250	
Cash	$310,986	$100M of stock sales
R&D	$546,786	4.5x 2015 Annualized figures
SG&A	$389,637	4.5x 2015 Annualized figures
Target Value	$925,813	
Shares Outstanding	41,000	7.1M shares sold
Share Price Target	$22.58	

Risks

This is biotech. Biotech is risky and all bets should be sized accordingly. There is the obvious risk that the FDA does not approve some, or any, of Theravance's drugs. For instance, if the Triple is not approved, or does not gain traction like I have estimated, there is significant downside to my price targets.

Second, two large shareholders basically control the outcome here. GSK owns 24.5% of Theravance's shares outstanding. However, equally important, famous value investor Seth Klarman's Baupost Group owns 6.4 million shares, amounting to 18.9% of Theravance's shares outstanding. While a significant portion of Theravance's ownership, it is a small portion of Baupost's overall portfolio. Regardless, GSK and Baupost effectively control whether or not Theravance gets sold. Given their knowledge of the Triple, GSK will not be able to initiate a sales process until 2017 at the earliest.

Finally, this is a management team that develops drugs. The goal is to not give money back to shareholders; the goal is to develop drugs. Cash burn could accelerate.

Conclusion

Theravance is an attractive risk-adjusted investment that has a number of ways to win. Their main candidate, the Triple, is a reformulation of existing drugs and is fully funded by GSK, who needs the drug to be approved and needs it to sell well. While a significant portion of their pipeline's value comes from the Triple, strategic partners like Mylan see significant value in other assets and are willing to fund clinical trials in order to participate in the upside.

I believe that Theravance has a fair value in excess of $27/share, after adjusting for FDA approval and likely sales targets.