

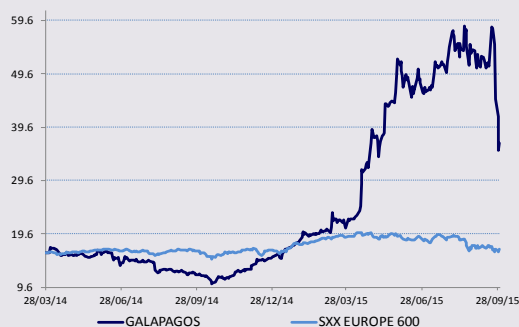
INDEPENDENT RESEARCH  
UPDATE

1st October 2015

## Healthcare

Bloomberg	GLPG BB
Reuters	GLPG.BR
12-month High / Low (EUR)	58.5 / 10.2
Market capitalisation (EURm)	1,372
Enterprise Value (BG estimates EURm)	1,372
Avg. 6m daily volume ('000 shares)	360.3
Free Float	54.0%
3y EPS CAGR	13.7%
Gearing (12/14)	0%
Dividend yield (12/15e)	NM

YE December	12/14	12/15e	12/16e	12/17e
Revenue (EURm)	90.02	31.69	57.99	57.99
EBIT (EURm)	-36.63	25.13	-42.33	-42.33
Basic EPS (EUR)	-1.24	0.47	-0.86	-0.86
Diluted EPS (EUR)	-1.24	0.47	-0.86	-0.86
EV/Sales	15.24x	43.28x	23.67x	30.03x
EV/EBIT	NS	54.6x	NS	NS
P/E	NS	75.3x	NS	NS
ROCE	-17.8	4.0	-7.9	-6.7



## Galapagos

What deal should we be looking for now?

Fair Value EUR52 vs. EUR50 (price EUR35.16)

BUY

Having notified Galapagos that it is backing out of the deal on filgotinib to focus on its own JAK inhibitor, in our view AbbVie has opened the way for several pharmaceutical companies to take a closer look at filgotinib's significant potential. With a phase III trial to start in H1 2016 and more than eight partners sitting around the negotiating table, it is now more relevant than ever to consider how Big Pharma might be valuing filgotinib.

■ **Filgotinib still has blockbuster potential!** We reiterate our positive stance on the product which benefits from strong data sets, believing that the company has no reason to be concerned about (i) ABT-494 results which still need to prove their sustainability beyond 12 weeks and (ii) baricitinib. Assuming that filgotinib will now be a third entrant on the JAK inhibitor RA market, our peak sales forecast now stands at EUR2bn.

■ **A partnership scenario within the next three months would be the best way to maximize the value of filgotinib** as Galapagos could not enter the crowded RA space on a standalone basis in our view. We believe that a deal could be inked toward the end of the year/early 2016 which would allow the partner to be involved in the End-of phase II meeting and have adjusted our partnership scenario accordingly. Tox concern is not an issue in our view and but is likely to derive a smaller upfront payment while we see an increased level of royalties driven by the company's desire to co-finance the phase III trial.

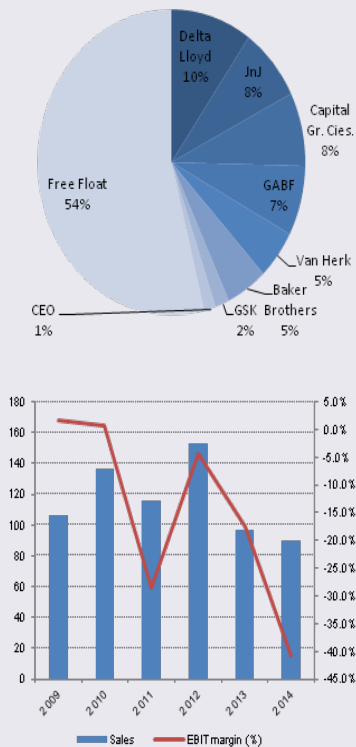
■ **So what kind of deal could be inked in and on which metrics?** Our sensitivity analysis points to a EUR22/share bear case scenario (deal metrics below those of ABBV) on filgotinib which represents 27% upside on yesterday's closing price. Our base case metrics indicate to a EUR27/share contribution from the product while we derive a EUR32/share value for filgotinib on a bull scenario. The latter should not be overlooked as Galapagos has strengthened its bargaining power over the past few months with (i) strong phase IIb results and (ii) a comfortable EUR400m cash position. Our new fair value stands at EUR52/share. Beyond filgotinib and as soon as Q4 2015, both Galapagos' CF program and proprietary pipeline should drive a dense newsflow



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## Galapagos



### Company description

Galapagos (GLPG NA) is a biotechnology company specialized in the discovery and development of small molecules with novel modes-of-action. The Company is progressing GLPG0634 in Rheumatoid Arthritis, as well as one of the largest and most promising pipelines in biotech with 30 discovery programs. Through risk/reward-sharing alliances with AbbVie, Janssen, MorphoSys and Servier, Galapagos is eligible to receive significant downstream milestones, plus royalties. The Galapagos Group has about 400 employees with its global headquarters in Mechelen, Belgium. More info at: [www.glpg.com](http://www.glpg.com)

Income Statement (EURm)		2012	2013	2014	2015e	2016e
Revenues		153	96.6	90.0	31.7	58.0
Change (%)		32.7%	-36.9%	-6.8%	-64.8%	83.0%
Adjusted EBITDA		NM	NM	NM	NM	NM
EBIT		(6.6)	(16.9)	(36.6)	25.1	(42.3)
Change (%)		-80.0%	156%	117%	-169%	-268%
Financial results		6.2	0.78	1.4	1.4	1.4
Pre-Tax profits		(5.1)	(16.1)	(35.2)	26.6	(40.9)
Exceptionals		NM	NM	NM	NM	NM
Tax		(0.57)	(0.68)	(2.1)	(8.8)	8.2
Profits from associates		NM	NM	NM	NM	NM
Minority interests		NM	NM	NM	NM	NM
Net profit		(5.7)	(16.8)	(37.3)	17.8	(32.7)
Restated net profit		(5.7)	(16.8)	(37.3)	17.8	(32.7)
Change (%)		-82.7%	-194%	-122%	-%	-284%
Cash Flow Statement (EURm)		2012	2013	2014	2015e	2016e
Operating cash flows		7.1	(2.1)	(26.0)	22.1	(28.0)
Change in working capital		57.7	3.3	(50.5)	0.0	0.0
Capex, net		(5.9)	(7.3)	(2.1)	(5.1)	(5.1)
Financial investments, net		(6.4)	(12.0)	121	(5.8)	(5.8)
Dividends		NM	NM	NM	NM	NM
Other		NM	NM	NM	NM	NM
Net debt		NM	NM	NM	NM	NM
Free Cash flow		NM	NM	NM	NM	NM
Balance Sheet (EURm)		2012	2013	2014	2015e	2016e
Tangible fixed assets		18.1	19.5	10.1	12.7	14.8
Intangibles assets		47.1	47.1	2.0	2.4	2.4
Cash & equivalents		94.6	138	188	411	377
current assets		133	173	214	414	380
Other assets		NM	NM	NM	NM	NM
Total assets		235	287	270	474	442
L & ST Debt		7.9	7.7	4.0	(0.10)	(0.32)
Others liabilities		NM	NM	NM	NM	NM
Shareholders' funds		118	167	206	444	412
Total Liabilities		117	120	64.3	29.9	29.7
Capital employed		126	175	210	444	412
Financial Ratios		2012	2013	2014	2015e	2016e
Operating margin		(4.31)	(17.52)	(40.69)	79.30	(73.00)
Tax rate		NM	NM	NM	NM	NM
Net margin		(3.73)	(17.41)	(41.44)	56.14	(56.44)
ROE (after tax)		(4.82)	(10.06)	(18.10)	4.01	(7.94)
ROCE (after tax)		(4.52)	(9.62)	(17.75)	4.01	(7.95)
Gearing		0.0	0.0	0.0	0.0	0.0
Pay out ratio		0.0	0.0	0.0	0.0	0.0
Number of shares, diluted		26.40	28.79	30.11	38.10	38.10
Data per Share (USD)		2012	2013	2014	2015e	2016e
EPS		(0.22)	(0.58)	(1.24)	0.47	(0.86)
Restated EPS		(0.22)	(0.58)	(1.24)	0.47	(0.86)
% change		-82.7%	-170%	-112%	-%	-284%
BVPS		NM	NM	NM	NM	NM
Operating cash flows		0.0	0.0	0.0	0.0	0.0
FCF		0.0	0.0	0.0	0.0	0.0
Net dividend		0.0	0.0	0.0	0.0	0.0

Source: Company Data; Bryan, Garnier & Co ests.

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# 1. What do we make of ABBV's management statement?

## 1.1. Potential safety issues now in everyone's mind should not be a concern

In last Friday's press release the AbbVie management said it believes that "ABT-494 has the potential to become a best-in-class therapy for patients" and that "the drug also offers a faster path to phase III development with less uncertainty". These statements raised doubts as to whether the big pharma had spotted any safety issues regarding the filgotinib's data that we might just have missed.

### 1.1.1. Toxicity in male reproductive organs

Preclinical toxicology studies conducted in rats and dogs show that filgotinib has been found to induce adverse effects on the male reproductive system. Based on data available at the time, the FDA determined that there was an insufficient safety margin between filgotinib exposure at the no-observed-adverse-effect-level (NOAEL) and the anticipated exposure in humans at the 200mg daily dose. In agreement with the regular authority, Galapagos decided to rule out a 200mg daily dose for male subjects and limit the maximum daily dose to 100mg for the DARWIN programme in the US clinical sites only.

Following the conclusion of the DARWIN dose-finding clinical trial program, Galapagos generated pre-clinical data which demonstrated that the safety margin between filgotinib exposure at the NOAEL and the anticipated exposure in humans at the 200mg daily dose was met as requested by the FDA. The concerns have been extensively commented by the management during conference calls to date.

- *"Indeed, we have on the one hand side done an extra preclinical study which according to us gives us a high margin and the margin required to move the 200mg move forward on top of that. In the study DARWIN 1, we monitor intensively the male hormones and did not pick up any single death or something that is going wrong. So we did not see any signs; therefore, we think that as well to our comfort we already have, starting this phase II study but it's now up to us or AbbVie in the end of the phase II process to convince everybody else with both data and what we see in the clinic that this is a safe dose to use as well in the US". Piet Wigerinck, Galapagos' CSO during July 30<sup>th</sup>, 2015 call on DARWIN-1 phase IIb results.*

Putting this comment in the light of ABBV's recent decision to opt out of its partnership with GLPG, we cannot but acknowledge that the safety issues seen in preclinical data might have been one negative in the big pharma's ability to see a straight path forward for the molecule's development, alongside other considerations discussed in *Chapter 1.3*. Indeed, AbbVie might have anticipated harder interactions with the FDA which in our view should be taken into consideration but would not delay the transition of the compound into phase III.

- *"We've done (GLPG) extra preclinical testing focused around the testicular toxicity, which we saw before and which are completed, and they have made clear that we didn't see any toxicity at the levels we tested, giving us the margin we believe we will need for Phase III to get the 200mg in. On top of that, I want to make clear that this is a normal testicular toxicity, meaning what we see at very high dosages is a limitation in the number of sperm cells made, but not of any other damage to the testes at all. [...] AbbVie has seen all the toxicity data, we shared with AbbVie all the data inclusive, the toxicity data on the last study, as there were no findings. This was a very short report because it was a clean study". Piet Wigerinck, Galapagos' CSO during Sept. 25<sup>th</sup>, 2015 call following AbbVie's decision to opt out.*

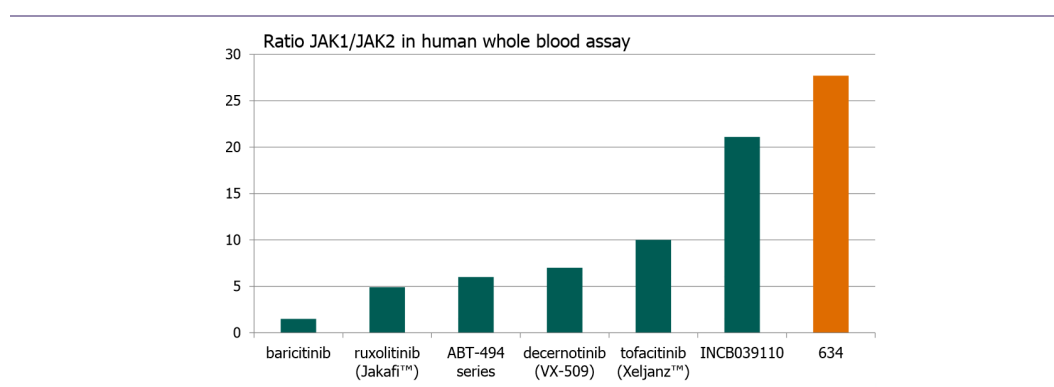
Galapagos has taken the necessary measures to prove that its product is safe in males at doses of up to 200mg daily. With regard to qualitative comments from the management, the company may now have an even-higher safety margin with the 200mg than with the 100mg dose when the DARWIN clinical program was concluded. Also bear in mind that no safety issues have been reported on the 100 male patients treated at the 200mg dose in the DARWIN clinical program.

Looking at the other JAK inhibitors on the market, tofacitinib (Xeljanz, Pfizer) at 133 times the maximum recommended human dose (MRHD) had no effect on male fertility, sperm mortality or sperm concentration. Important is that this toxicity is reversible only a few weeks after the discontinuation of the treatment. Eli Lilly did not report any male reproductive toxicity signs in the baricitinib phase III study either.

- *“With regard to the male reproductive top findings, we don't have any top findings on the male reproductive side”.*  
Dr. Bill Maclas, LLY's Senior Medical Director.

Galapagos benefits from detailed safety results (already detailed in our previous notes) which are stronger than the results reported by tofacitinib or baricitinib and are due to strong affinity with the JAK1 protein. Incyte which evaluates the efficacy of its JAK1 inhibitor did not report any findings on male reproductive organ toxicity which put even more emphasis on the safety profile of filgotinib in our view. Indeed, doses used in oncology are higher than they would be in other indications.

**Fig. 1: Affinity to JAK1 protein**



Source: Company Data.

Turning to the ABT-494 safety results, we do not see any material differences with the filgotinib data. At 12 weeks, ABT-494 reported an overall rate of discontinuation and serious adverse events (SAE) of <5% and <3% respectively. Note that filgotinib's DARWIN-1 & 2 studies reported an overall discontinuation rate for safety reasons of 1.7% and a SAE emergence rate of 1%.

Although we acknowledge that potential safety issues which we believe the Galapagos management has addressed could trigger uncertainty, our stance on the product has not changed. The Galapagos product candidate, filgotinib, offers an attractive safety profile which, in our view, could drive its adoption by physicians.

## 1.2. Strong Efficacy for filgotinib

Following the DARWIN-1 and -2 trial results we revisit filgotinib's efficacy and provide below a comprehensive table of results obtained by JAK inhibitors at 12 and 24 weeks (when available).

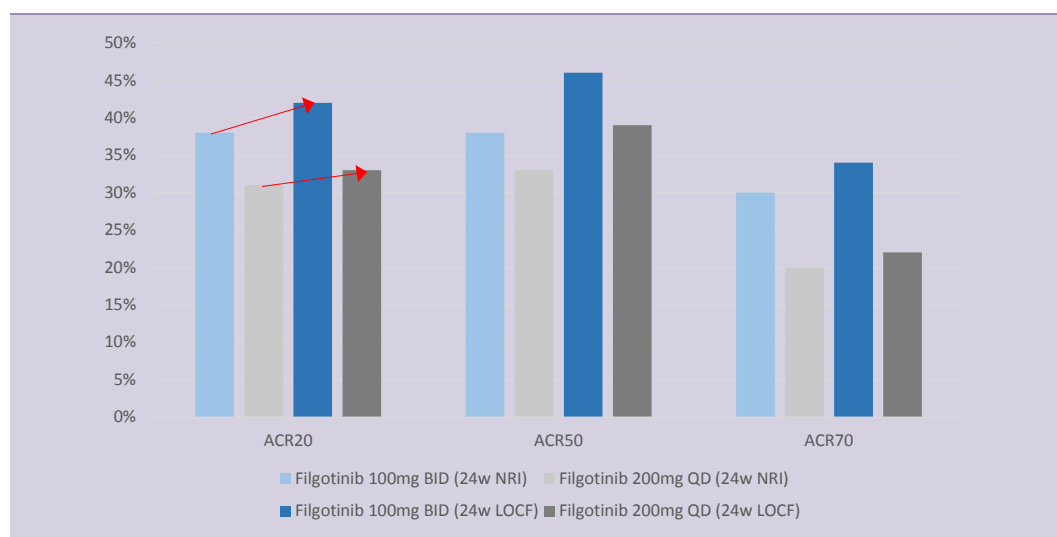
**Fig. 2: JAK inhibitors phase II results**

(placebo corrected)		tofacitib		baricitinib		ABT-494		filgotinib	
		5mg BID	10mg BID	2mg QD	4mg QD	18mg BID	24mg QD	200mg QD	100mg BID
<b>ACR20</b>	12w	28%	40%	26%	22%	27%	32%	24%	35%
	24w	25%	37%	19%	23%	na	na	31%	38%
<b>ACR50</b>	12w	21%	29%	21%	21%	25%	24%	28%	40%
	24w	23%	35%	20%	22%	na	na	33%	38%
<b>ACR70</b>	12w	8%	14%	15%	15%	21%	18%	16%	23%
	24w	13%	22%	17%	16%	na	na	20%	30%

Source: Companies Data

Although AbbVie's management has stated that it has a "best-in-class drug", efficacy appears consistent with other JAK inhibitors and filgotinib in particular. Moreover we would highlight that filgotinib's results at week 12 are reported using the non-responder imputation approach as opposed to the last observation carried forward for ABT-494. The latter approach assumed that the last-measured value for a variable in subjects dropping out of a trial for any reason was valid. The NRI is a more conservative approach that avoids this bias by categorising as a non-responder a subject dropping out of a trial for any reason. Hence, the Galapagos reporting method had underestimated the efficacy of the therapy when first reported. Below a comparison between LOCF and NRI results for filgotinib at 24 weeks.

**Fig. 3: Filgotinib's results at 24 weeks NRI vs LOCF scores**



Source: Company Data.

Moreover, it is important to bear in mind that most if not all the data (safety and efficacy) generated in phase II in RA have been reproduced in Phase III, de-risking even more than in other indication the phase III outcome.

### 1.3. Economically-driven decision

As discussed above, we believe that ABBV's 'best-in-class' argument is barely credible and that the reason carrying most weight was the deal economics. The latter would have obliged the big Pharma to pay royalties in the "mid to high-single digits" i.e. >EUR400m in royalties paid to Galapagos at peak.

To defend its blockbuster coming off patent in 2018 in the US and representing 63% of its sales (USD12.5bn in 2014, +19% cc of which 50% in the US and 50% International), AbbVie is pursuing label expansion in niche indications as highlighted by the recent FDA approval earlier this month in moderate-to-severe hidradenitis suppurativa (a chronic skin disease; ninth indication in the US) to help differentiate its flagship product. Hence the need for a proprietary product candidate that will allow the company to offset a cash flow decline beyond 2018.



## 2. The Pharma's point of view

### 2.1. Rapidly evolving landscape

The positive phase III readout for baricitinib in patients naïve to Methotrexate (first line treatment) as well as ABBV's decision to push its own JAK inhibitor in phase III trials have reshuffled the cards in the Rheumatoid Arthritis space over the last couple of days and hence might have cast a cloud over filgotinib's future. Acknowledging that the JAK inhibitor class is set to represent 30% of a global USD30bn RA market by 2020 (i.e. EUR8bn) we see room for more three products to reach the market. Below we provide our view on the evolution of the treatment paradigm in this class and our thinking on filgotinib's positioning.

Xeljanz's (PFE) poor safety profile dragged down the ramp-up of the product until 2015. Since the beginning of the year, we have seen an acceleration of quarter-on-quarter sales (see below). Pfizer continues to drive home the advantage of the JAK inhibitor class which we believe is starting to be echoed by physicians. Nonetheless we do not view the product as a major threat to any other JAK inhibitors potentially reaching the market. Moreover, its early entry might be an asset for companies developing late stage compounds in this class as Pfizer has been behind the recognition of the emerging JAK inhibitors over the past 3 years (approved in 2012 in the US only). The Pfizer drug could, however, suffer from a poor safety profile when competition emerges.

**Fig. 4: PFE's Xeljanz sales evolution since launch (USDm)**

	Q3 2012	Q4 2012	Q1 2013	Q2 2013	Q3 2013	Q4 2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015
Xeljanz (USDm)	20	26	20	42	43	56,4	59,7	68,8	80,7	68,8	80,7	98,4
% growth Y-o-Y					115%	117%	198%	64%	88%	22%	35%	43%
% growth Q-o-Q		30%	-23%	110%	2%	31%	6%	15%	17%	-15%	17%	22%

Source: Company Data.

Eli Lilly reported topline results from a third phase III trial, RA-BEGIN, powered to show the non-inferiority of baricitinib over Methotrexate. At 24 weeks, baricitinib hits its primary endpoint. Moreover, not only did LLY demonstrate the non-inferiority of its product but also its superiority to MTX based on ACR20 responder rate. We expect additional efficacy details to be disclosed by the company at the American College of Rheumatology/Association of Rheumatology Health Professionals meeting on November 6<sup>th</sup> to 11<sup>th</sup> (San Francisco). These data will be key as the magnitude of the product's superiority might help to get a better claim or a superiority one on approval. We, however, remain sceptical on the company's ability to be included in the first line given the safety profile of the drug which showed an increase in LDL by more than 10 percentage points as well as 2% of ALAT above grade 2 (JAK1/JAK2 affinity). Note also that the company is expected to report the results of the baricitinib phase III trial in which it is compared head to head vs. Humira by the year end. We would not extrapolate on the outcome of this trial but bear in mind that, should it be negative, this might affect the adoption of the JAK inhibitor class. LLY should file baricitinib for approval in H1 2016 with the first sales in early 2017.

We have discussed in *section 1* the potential of ABT-494 and believe that this JAK1 inhibitor would compete head to head with filgotinib. With a phase III to be initiated by the 2015 year end, Galapagos and its future partner should be one quarter beyond AbbVie.

Retrospectively, some might said that each time a drug has been the fourth or third entrant in a market, it has been harder for the pharma company both to obtain an attractive level of pricing and to



penetrate the market. Nonetheless, Humira was not the first anti-TNFalpha to reach the market but has established a leading position thanks to its best-in-class profile and AbbVie's sales force.

## 2.2. Peak sales now shy of EUR2bn

While filgotinib will compete head to head with ABT-494, the fact that the safety profiles of both tofacitinib and baricitinib are lower in our view due to their lower affinity to JAK1 protein, our 30% market share could appear high. We decrease the latter to reflect (i) increased competition in the US and in Europe as well as (ii) uncertainties remaining in the US as to whether or not the highest dose will be allowed by the FDA in the phase III design, which would leave Galapagos with the BID dose while ABT-494 and baricitinib would be available as once-daily dosing regimens. Our new market share stands at 20% in the US and in Europe at peak (within the JAK inhibitor space). Our new peak sales forecast for filgotinib is EUR2bn vs. EUR2.5bn (of which EUR1.5bn in the rheumatoid arthritis indication and EUR500m in Crohn's disease). These estimates are likely to be revised upward in the future if the product is marketed by a company that has a strong presence in the auto-immune disease field, able to leverage its best in class profile.

**Fig. 5: Filgotinib peak sales potential of EUR2bn**

	2015e	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
Total Sales	-	-	-	48	222	444	783	976	1 203	1 476	1 660	1 750	1 821	1 863	1 906	1 950
% Growth					364%	100%	76%	25%	23%	23%	12%	5%	4%	2%	2%	2%
		PhIII	PhIII	Approval												
<b>US</b>																
Population (in m)	321	323	326	328	331	333	336	338	341	343	346	348	351	354	356	359
% prevalence	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%
% MTX treated	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
% non-responders	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Patients targeted (in m)	0,43	0,44	0,44	0,44	0,45	0,45	0,45	0,46	0,46	0,46	0,47	0,47	0,47	0,48	0,48	0,48
Oral therapies			25%	27%	28%	30%	31%	32%	33%	34%	35%	35%	35%	35%	35%	35%
Market Share				1%	4%	8%	13%	15%	18%	20%	20%	20%	20%	20%	20%	20%
Patients treated				1 174	4 999	10 118	17 556	21 910	26 558	31 507	32 677	32 922	33 169	33 417	33 668	33 920
Price (EUR)	20 400	20 808	21 224	21 649	22 082	22 523	22 974	23 433	23 902	24 380	24 867	25 365	25 872	26 390	26 917	27 456
% Growth	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
<b>Total sales (EURm)</b>				<b>25</b>	<b>110</b>	<b>228</b>	<b>403</b>	<b>513</b>	<b>635</b>	<b>768</b>	<b>813</b>	<b>835</b>	<b>858</b>	<b>882</b>	<b>906</b>	<b>931</b>
<b>EU (top 5 markets)</b>																
Population (in m)	320	322	324	325	327	328	330	332	333	335	337	338	340	342	344	345
% prevalence	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%	0,5%
% MTX treated	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
% non-responders	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Patients targeted (in m)	0,43	0,43	0,44	0,44	0,44	0,44	0,45	0,45	0,45	0,45	0,45	0,46	0,46	0,46	0,46	0,47
Oral therapies			25%	27%	28%	30%	31%	32%	33%	34%	35%	35%	35%	35%	35%	35%
Market Share				1%	4%	8%	13%	14%	16%	18%	20%	20%	20%	20%	20%	20%
Patients treated				1 164	4 942	9 978	17 270	20 067	23 768	27 687	31 827	31 986	32 146	32 307	32 468	32 630
Price (EUR)	18 545	18 916	19 295	19 295	19 295	19 295	19 295	19 295	18 909	18 531	18 160	17 797	17 441	17 092	16 750	16 415
	2%	2%	2%	0%	0%	0%	0%	0%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%
<b>Total sales (EURm)</b>				<b>22</b>	<b>95</b>	<b>193</b>	<b>333</b>	<b>387</b>	<b>449</b>	<b>513</b>	<b>578</b>	<b>569</b>	<b>561</b>	<b>552</b>	<b>544</b>	<b>536</b>
Crohn's Disease Sales					16	23	47	75	119	195	270	345	402	429	456	483

Source: Bryan, Garnier & Co ests.

## 2.3. Plug and play product

The Galapagos management last week announced that they were in discussions with eight potential partners. Our first thought was that filgotinib should attract a pharmaceutical company which already has a presence in the autoimmune diseases field. The latter assumption is reflected in our different partnership scenarios as we assume some S&GA expenses derived from an already-recruited sales force, driving synergies. The limit to this scenario is that the third entrant positioning might deter some potential big pharma partners. We do not, however, rule out the possibility of other companies such as Valeant, Takeda or even VRTX being interested in a product that could total EUR2bn sales.

### 2.3.1. JnJ at the top of the shortlist

JnJ holds 6% of the capital (Bloomberg source) and participated in the biotech's NASDAQ IPO for USD25m, highlighting in our view the big pharma's interest in GLPG's proprietary pipeline and discovery platform at a time when filgotinib was out of reach. Note that JnJ was diluted during the IPO with its interest in the company decreasing from 7.8%. JnJ currently has USD34bn of cash and cash equivalents.

With filgotinib back in potential discussions and Remicade accounting for 10% of the company's turnover (USD6.6bn sales in 2014) and coming off patent in the US in 2018 (already off patent in some European countries), JnJ is at the top of our short list. We would add that JnJ also markets Simponi and Stelara, anti-TNF and anti-IL12/23 respectively which combined sales should totalled USD6bn by 2020. Although hard to model, synergies could be higher than expected with the inclusion in its portfolio of a product that would not need reinforcement of the sales force.

Moreover, the two companies know each other well as they were involved in a collaboration agreement until 2014. This should not be overlooked as Galapagos wants to move fast in the development of its lead product candidate.

### 2.3.2. Other potential buyers

#### ROCHE

JAK inhibitors could be used in oncology which could prompt the interest of companies such as Roche. The latter may see in filgotinib a product to bolster its Actemra franchise (4% of the Pharma division). MabThera sales are expected to reach CHF7bn this year and the drug will lose its patent in 2018. Adding a JAK inhibitor to its pipeline could be a strong asset when growing a strong oncology pipeline.

#### UCB

We could mention UCB as another potential partner with Cimzia accounting for 20% of the group's sales. The recent sale of its US generics business should leave the group with ~EUR2.8bn of firepower (implying a 3.5x historical net debt/EBITDA ratio) and filgotinib could be a strong asset when it comes to strengthening a weak late stage pipeline.

#### AMGEN, SANOFI and ASTRAZENECA

Amgen's Enbrel (co-commercialized with PFE and Takeda) and Epogen already off patent and coming off patent in late 2015 respectively would be a significant loss for the company. Enbrel totalled roughly USD7bn in sales at peak. Sanofi and AZN also have a presence in the auto-immune diseases field. Sanofi has already worked on JAK inhibitors in Myelofibrosis and AZN has made the auto-immune diseases field one of its three pillars in its 2023 ambition plan.

### **TAKEDA and VALEANT**

Filgotinib would allow Takeda to reinforce its footprint in the US, the company's presence in the auto-immune disease field should not be overlooked with Entyvio and Enbrel. Valeant is known for being a serial acquirer who has the reputation of putting a lot of efforts

## 3. What deal should we be looking for?

### 3.1. Path forward to phase III

The Galapagos management will continue to progress filgotinib on two fronts. The first will be the preparation of the data package to support the end-of phase II meeting expected in early 2016. The second will be the acceleration of ongoing discussions with partners. As of today, eight partners have already take a seat at the negotiating table (*see section 2.3*) and we expect a deal to be inked in towards the end of the year/in early 2016.

To prevent any delay potentially arising from the unexpected opt-out decision from AbbVie, Galapagos engaged un-confidential discussions with several pharmaceutical companies. We welcome this move following ABBV's surprising decision not to in-license filgotinib and expect the company to enter confidential discussions shortly, if not already done. For example, brodalumab (AZN; IL-17) was dropped by AMGN in late July 2015 after having reported phase III results in Psoriasis that met the primary endpoint but raised concerns over suicidal tendencies in patients enrolled in the active arm. Only two months later, in September, AZN inked in a commercialisation agreement with Valeant for the product candidate (profit sharing) and reiterated its commitment to submitting the drug for approval by the end of the year.

As of today, the management already have a view on what the design of the phase III could be and expect to start with an 12 week induction period at the 100mg bid dose an then continue with the 200mg QD. We think the 150mg dose could come as an alternative.

### 3.2. Filgotinib's value for a potential partner

Although we do not see the potential FDA safety concern prompting it not to allow the progression to the higher dose (200mg QD) in phase III as a major threat (*see section 1.1*), we do recognize that this could lead a big pharma to adopt a more conservative stance in the negotiation of a licensing agreement. As such, the future partner will probably be willing to limit the upfront payment and share the development costs while back-end loading milestone payments to Galapagos. Management expects the clinical trial to enrol 3,000 patients and cost roughly USD150m (USD50,000/patient) which would represents USD75m to be paid by the biotech (EUR68.5).

Discussions with people from the industry have given us valuable indications as to how the value of upfront and milestone payments are determined when negotiating with a potential partner. These are derived from a percentage of the product's NPV, net of royalties paid, which ranges from 30% to 40% depending on the bargaining power of the company. Despite the fact GLPG's bargaining power has strengthened over the past few months with (i) a comfortable ~EUR400m cash position and (ii) the strong phase IIb results we have opted for a conservative approach and assumed that GLPG should be able to retain 30% of the product's NPV net of royalties.

#### 3.2.1. Cautious deal scenario

In our cautious case, we model a 15% royalty rate paid to GLPG which is lower than the mid-to high double-digit royalty range from the original deal with ABBV. As indicated above, we have retained 30% of the total NPV using the average WACC for large pharma (i.e. 7%) net of royalties which amounts to EUR620m. For modelling purposes, we have capitalised the upfront and milestones based

on their phasing (i) EUR50m in early 2016 assuming that the partner would be involved in the end of phase II meeting, (ii) EUR100m in 2018 when the phase III results should readout and (iii) the remaining NPV equilly spread in to 4 milestones payments in 2021, 2023, 2025 and 2030 respectively and capitalised (see Figure 6). On this scenario which we see as cautious, we derive a EUR22/share fair value for the filgotinib candidate.

**Fig. 6: Filgotinib - CAUTIOUS case EUR22/share**

(EURm) PHARMA	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Clinical stage	Ph II	Ph III	Ph III	Appr.												
Revenues		0	0	48	222	444	783	976	1 203	1 476	1 660	1 750	1 821	1 863	1 906	1 950
% var y-o-y					364%	100%	76%	25%	23%	23%	12%	5%	4%	2%	2%	2%
(+) Gross margin		0	0	31	156	333	627	780	962	1 181	1 328	1 400	1 457	1 491	1 525	1 560
in % of sales				65%	70%	75%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
(-) R&D		68	68	0	0	0	0	0	0	0	0	0	0	0	0	0
(-) SG&A		0	0	15	15	15	15	12	12	15	15	14	13	11	10	8
in % of sales		n/s	n/s	31%	7%	3%	2%	1%	1%	1%	1%	1%	1%	1%	1%	0%
o/w Sales costs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o/w Mktg & Ph IV		0	0	15	15	15	15	12	12	15	15	14	13	11	10	8
(-) Royalties		0	0	7	33	67	118	146	180	221	249	262	273	279	286	292
in % of sales		15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
= EBITDA		-68	-68	9	107	251	494	622	770	945	1 064	1 123	1 171	1 200	1 230	1 260
(-) Taxes				3	38	88	173	218	269	331	372	393	410	420	430	441
% EBITDA				35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
= FCF	0	-68	-68	6	70	163	321	405	500	614	692	730	761	780	799	819
Net Present Value (M€)				2 906												
WACC (%)				7,0%												
Probability of success (%)				60%												
Risk-adj. NPV				1 743												
Deal NPV for GLPG				523												
% of Risk Adj. NPV to milestone				30%												
Deal value considering milestone phasing				979												
(EURm) GALAPAGOS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sales				48	222	444	783	976	1 203	1 476	1 660	1 750	1 821	1 863	1 906	1 950
(+) Milestones	0	57	0	131	0	0	149	0	171	0	196	0	0	0	0	275
(+) Royalties	0	0	0	7	33	67	118	146	180	221	249	262	273	279	286	292
in % of sales				15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
(-) R&D	55	68	68													
= EBITDA	-55	-11	-68	138	33	67	267	146	351	221	445	262	273	279	286	567
(-) Taxes	0	0	0	10	2	5	19	10	25	15	31	18	19	20	20	40
% of EBITDA	0%	0%	0%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Free cash-flows	-55	-11	-68	129	31	62	248	136	327	206	414	244	254	260	266	527
Net Present Value	845															
WACC	11,5%															
Contribution per Share	22															

Source: Bryan, Garnier & Co ests.

### 3.2.2. Base case deal scenario

While we have previously factored a royalty rate ranging from 15% to 18% (ABBV deal) into our estimates we would be surprised to see any partnership with a royalty rate below the 20% threshold for a new deal. This would reflect filgotinib's strong data package and a shared risk on development costs in our view.

Plugging this scenario into our model translates into a EUR27/share contribution from the filgotinib candidate. Our base case leads us to a EUR52 fair value.

**Fig. 7: Filgotinib - BASE case EUR27/share**

(EURm) PHARMA	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Clinical stage	Ph II	Ph III	Ph III	Appr.												
Revenues		0	0	48	222	444	783	976	1 203	1 476	1 660	1 750	1 821	1 863	1 906	1 950
% var y-o-y					364%	100%	76%	25%	23%	23%	12%	5%	4%	2%	2%	2%
(+) Gross margin		0	0	31	156	333	627	780	962	1 181	1 328	1 400	1 457	1 491	1 525	1 560
in % of sales				65%	70%	75%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
(-) R&D		68	68	0	0	0	0	0	0	0	0	0	0	0	0	0
(-) SG&A		0	0	15	15	15	15	12	12	15	15	14	13	11	10	8
in % of sales		n/s	n/s	31%	7%	3%	2%	1%	1%	1%	1%	1%	1%	1%	1%	0%
o/w Sales costs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o/w Mktg & Ph IV		0	0	15	15	15	15	12	12	15	15	14	13	11	10	8
(-) Royalties		0	0	10	44	89	157	195	241	295	332	350	364	373	381	390
in % of sales		20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
= EBITDA		-68	-68	7	96	229	455	574	710	871	981	1 036	1 080	1 107	1 134	1 162
(-) Taxes				2	34	80	159	201	248	305	343	363	378	387	397	407
% EBITDA				35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
= FCF	0	-68	-68	4	62	149	296	373	461	566	638	673	702	719	737	755
Net Present Value (M€)				2 667												
WACC (%)				7,0%												
Probability of success (%)				60%												
Risk-adj. NPV				1 600												
Deal NPV for GLPG				480												
% of Risk Adj. NPV to milestone				30%												
Deal value considering milestone phasing				894												
(EURm) GALAPAGOS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sales				48	222	444	783	976	1 203	1 476	1 660	1 750	1 821	1 863	1 906	1 950
(+) Milestones	0	57	0	131	0	0	133	0	153	0	175	0	0	0	0	245
(+) Royalties	0	0	0	10	44	89	157	195	241	295	332	350	364	373	381	390
in % of sales				20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
(-) R&D	55	68	68													
= EBITDA	-55	-11	-68	141	44	89	290	195	393	295	507	350	364	373	381	635
(-) Taxes	0	0	0	10	3	6	20	14	28	21	35	24	25	26	27	44
% of EBITDA	0%	0%	0%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Free cash-flows	-55	-11	-68	131	41	83	270	181	366	275	471	325	339	347	355	591
Net Present Value	1037															
WACC	11,5%															
Contribution per Share	27															

Source: Bryan, Garnier & Co ests.

### 3.2.3. Attractive deal scenario not to be overlooked

Our bull case assumes a royalty rate of 25%, leading to a EUR32 fair value on filgotinib for GLPG.

**Fig. 8: Filgotinib - BULL case EUR32/share**

(EURm) PHARMA	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Clinical stage	Ph II	Ph III	Ph III	Appr.												
Revenues		0	0	48	222	444	783	976	1 203	1 476	1 660	1 750	1 821	1 863	1 906	1 950
% var y-o-y					364%	100%	76%	25%	23%	23%	12%	5%	4%	2%	2%	2%
(+) Gross margin		0	0	31	156	333	627	780	962	1 181	1 328	1 400	1 457	1 491	1 525	1 560
in % of sales				65%	70%	75%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
(-) R&D		68	68	0	0	0	0	0	0	0	0	0	0	0	0	0
(-) SG&A		0	0	15	15	15	15	12	12	15	15	14	13	11	10	8
in % of sales		n/s	n/s	31%	7%	3%	2%	1%	1%	1%	1%	1%	1%	1%	1%	0%
o/w Sales costs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o/w Mktg & Ph IV		0	0	15	15	15	15	12	12	15	15	14	13	11	10	8
(-) Royalties		0	0	12	56	111	196	244	301	369	415	437	455	466	477	487
in % of sales		25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
= EBITDA		-68	-68	4	85	207	416	525	649	797	898	948	989	1 014	1 039	1 065
(-) Taxes				1	30	72	146	184	227	279	314	332	346	355	364	373
% EBITDA				35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
= FCF	0	-68	-68	3	55	135	270	341	422	518	584	616	643	659	675	692
Net Present Value (M€)				2 428												
WACC (%)				7,0%												
Probability of success (%)				60%												
Risk-adj. NPV				1 457												
Deal NPV for GLPG				437												
% of Risk Adj. NPV to milestone				30%												
Deal value considering milestone phasing				800												
(EURm) GALAPAGOS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sales				48	222	444	783	976	1 203	1 476	1 660	1 750	1 821	1 863	1 906	1 950
(+) Milestones	0	57	0	131	0	0	116	0	132	0	152	0	0	0	0	213
(+) Royalties	0	0	0	12	56	111	196	244	301	369	415	437	455	466	477	487
in % of sales				25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
(-) R&D	55	68	68													
= EBITDA	-55	-11	-68	143	56	111	311	244	433	369	567	437	455	466	477	700
(-) Taxes	0	0	0	10	4	8	22	17	30	26	40	31	32	33	33	49
% of EBITDA	0%	0%	0%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Free cash-flows	-55	-11	-68	133	52	103	290	227	403	343	527	407	423	433	443	651
Net Present Value	1227															
WACC	11,5%															
Contribution per Share	32															

Source: Bryan, Garnier & Co ests.



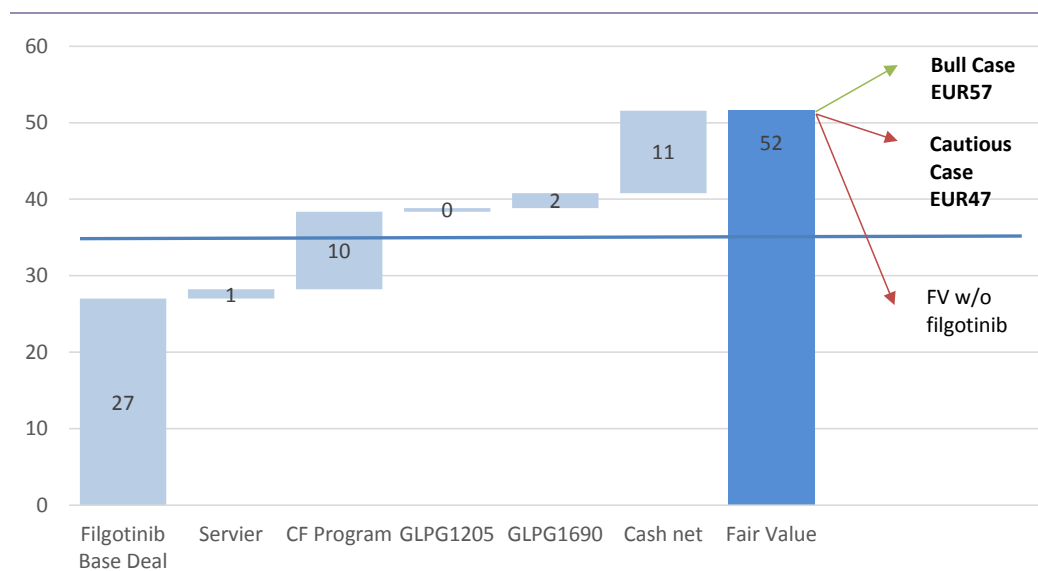
## 4. Valuation & Newflow

### 4.1. Cautious scenario pointing to 27% upside

Our three main scenarios are all well above GLPG share price, our cautious scenarios points out to 27% upside at current levels (EUR36.5). We do not rule out that once the dust has settled, GLPG would be value.

Moreover, our partnership scenarios could be viewed as conservative has they assume a quite limited upfront which we have modelled to fully integrate a potential tox risk at the highest dose extensively discussed in section 1. To keep in mind that the Crohn's Disease trial topline results expected in December could drive either an higher upfront or milestones payments.

**Fig. 9: GLPG's fair value by project**



Source: Bryan, Garnier & Co ests.

### 4.2. A lot to be excited about beyond filgotinib

Galapagos upcoming newsflow should be dense and drive value creation for shareholders:

- Q4 2015: Phase I results for GLPG1837 in Cystic Fibrosis
- Q4 2015: Nov 8<sup>th</sup> and 10<sup>th</sup>, North American CF Conference. 5 posters to be presented by Galapagos
- Late 2015: phase I in Osteoarthritis to be initiated. The compound is in partnership with Servier. Galapagos retains US rights which could be partnered to a pharma company.
- Late 2015: phase II results for GLPG1205 in Ulcerative colitis.
- Early 2016: phase II results for GLPG1690 in Idiopathic Pulmonary Fibrosis.

# Price Chart and Rating History

## Galapagos



### Ratings

Date	Ratings	Price
04/01/12	BUY	EUR10.55

### Target Price

Date	Target price
28/09/15	EUR50
11/08/15	EUR61
30/07/15	EUR57
08/06/15	EUR51
28/04/15	EUR41.5
15/04/15	EUR32.5
14/04/15	EUR28.5
17/03/15	EUR26
10/03/15	EUR25.5
08/01/15	EUR23
06/02/13	EUR22.5
17/01/13	EUR21.5
05/03/12	EUR20
04/01/12	EUR15.2

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## Bryan Garnier stock rating system

For the purposes of this Report, the Bryan Garnier stock rating system is defined as follows:

### Stock rating

BUY	Positive opinion for a stock where we expect a favourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential upside based on valuation), but also takes into account a number of elements including a SWOT analysis, positive momentum, technical aspects and the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
NEUTRAL	Opinion recommending not to trade in a stock short-term, neither as a BUYER or a SELLER, due to a specific set of factors. This view is intended to be temporary. It may reflect different situations, but in particular those where a fair value shows no significant potential or where an upcoming binary event constitutes a high-risk that is difficult to quantify. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
SELL	Negative opinion for a stock where we expect an unfavourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential downside based on valuation), but also takes into account a number of elements including a SWOT analysis, positive momentum, technical aspects and the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.

### Distribution of stock ratings

BUY ratings 65.5%

NEUTRAL ratings 30.2%

SELL ratings 4.3%

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7	Research agreement	A member of the Bryan Garnier Group is party to an agreement with the Issuer relating to the production of this Report.	No
8	Analyst receipt or purchase of shares in Issuer	The investment analyst or another person involved in the preparation of this Report has received or purchased shares of the Issuer prior to a public offering of those shares.	No
9	Remuneration of analyst	The remuneration of the investment analyst or other persons involved in the preparation of this Report is tied to investment banking transactions performed by the Bryan Garnier Group.	No
10	Corporate finance client	In the past twelve months a member of the Bryan Garnier Group has been remunerated for providing corporate finance services to the issuer or may expect to receive or intend to seek remuneration for corporate finance services from the Issuer in the next six months.	YES
11	Analyst has short position	The investment analyst or another person involved in the preparation of this Report has a short position in the securities or derivatives of the Issuer.	No
12	Analyst has long position	The investment analyst or another person involved in the preparation of this Report has a long position in the securities or derivatives of the Issuer.	No
13	Bryan Garnier executive is an officer	A partner, director, officer, employee or agent of the Bryan Garnier Group, or a member of such person's household, is a partner, director, officer or an employee of, or adviser to, the Issuer or one of its parents or subsidiaries. The name of such person or persons is disclosed above.	No
14	Analyst disclosure	The analyst hereby certifies that neither the views expressed in the research, nor the timing of the publication of the research has been influenced by any knowledge of clients positions and that the views expressed in the report accurately reflect his/her personal views about the investment and issuer to which the report relates and that no part of his/her remuneration was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in the report.	Yes
15	Other disclosures	Other specific disclosures: Report sent to Issuer to verify factual accuracy (with the recommendation/rating, price target/spread and summary of conclusions removed).	No

Summary of Investment Research Conflict Management Policy is available [www.bryangarnier.com](http://www.bryangarnier.com)



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