

BGBIO NO - Pharmaceuticals - Result preview - 24 January 2018

BerGenBio ASA

Arctic Buy

Risk	High
Target (NOK)	63.0
Price (NOK)	28.5
Market Cap (NOKm)	1 416
Enterprise Value (NOKm)	1 303
No of shares, fully dil. (m)	52.9

Q4/17e: High time to hop on board. Raising TP to NOK 63 (27).

- The company delivers.** BerGenBio is currently evaluating its Axl-inhibitor BGB324 in four company-sponsored trials and two investigator-lead trials. The company has made solid progress, and reports patient recruitment for all trials to be either on or ahead of target. In addition, BerGenBio reports full compliance on biomarker data collection (incl. tissue biopsies and blood samples), which strengthens the case substantially as we believe it is key to success both for clinical development and later on for commercialization. We expect major interim clinical read-outs from six phase II trials during ASCO 2018 (June 1-5, 2018).
- Early clinical data looks promising and confirms scientific rationale.** During the last quarter and post-period BerGenBio presented promising early data from two company-sponsored trials and one investigator-lead trial. In addition to promising and competitive response rates in AM/high-risk MDS (BGB324 monotherapy) and last-line NSCLC patients (Docetaxel combo), it showed proof of concept to reduce rates of resistance to EGFR inhibitors (targeted therapy). Moreover, a new publication confirmed similar mechanisms for resistance are likely to apply with BRAF/MEK inhibitors in malignant melanoma, a study BerGenBio already had initiated a year ago. We believe this confirms that the company is ahead of the curve and likely to enter the market with a first-in-class drug if it continues to deliver, and early results hold up in larger patient populations.
- Potential for combinability is key and accounts for substantial commercial upside.** BerGenBio reports favorable safety for BGB324 in combination with all other treatment modalities it has been combined with in clinical studies so far, even in fragile and last-line patient populations. This confirms the potential for BGB324 as a combinatory asset that could be positioned as a standard add-on treatment in a wide range of cancer indications, and hence capture substantial market share.
- We reiterate our Buy recommendation and increase our target price to NOK 63.00 (from NOK 27.00)** on the back of current developments for the company and in the field. Much of our increased target price is driven by i) the addition of another indication (melanoma) to our risk adjusted NPV (some 19% of total), and ii) increased est. market share for BGB324 in EGFR mutation-positive NSCLC (from 20% to 50%), reflecting higher peak sales projections. We believe BerGenBio to be an attractive target for a partnering/licensing deal or takeover. Therefore, we have included considerations and calculations of a deal scenario in this preview.

Key Figures

NOKm	2016	2017e	2018e	2019e	2020e
Sales					
Adj. EBITDA	-131	-168	-159	-145	-132
Adj. EBIT	-132	-168	-159	-145	-132
Adj. EBIT margin	n.m.	n.m.	n.m.	n.m.	n.m.
EPS (NOK)	-4.2	-3.3	-3.2	-2.9	-2.6
Adj. dil. EPS (NOK)	-3.9	-3.1	-3.0	-2.7	-2.5
Adj. EPS growth	n.m.	n.m.	n.m.	n.m.	n.m.
Net IB debt	-162	-358	-201	-159	-29
ROE	-84.7%	-46.7%	-79.0%	-91.4%	-505.9%
ROCE	-85.8%	-47.3%	-80.3%	-92.9%	-513.7%
DPS (NOK)	0.0	0.0	0.0	0.0	0.0
Dividend yield		0.0%	0.0%	0.0%	0.0%
FCFE yield		-11.9%	-10.3%	-9.3%	-8.5%
EV/Sales		n.m.	n.m.	n.m.	n.m.
Adj. EV/EBITDA		n.m.	n.m.	n.m.	n.m.
Adj. EV/EBIT		n.m.	n.m.	n.m.	n.m.
P/E		n.m.	n.m.	n.m.	n.m.
P/B		4.0x	14.3x	27.3x	220.4x

Share Price



Arctic vs Consensus

NOKm	Arctic			Consensus			Deviation		
	2017e	2018e	2019e	2017e	2018e	2019e	2017e	2018e	2019e
Sales	0	0	0	0	0	0	#####	#####	#####
EBITDA	(168)	(159)	(145)	(192)	(275)	(232)	13 %	42 %	37 %
EBIT	(168)	(159)	(145)	(193)	(275)	(232)	13 %	42 %	37 %
EPS	(3.3)	(3.2)	(2.9)	(4.0)	(5.4)	(4.8)	17 %	42 %	40 %

Forecast Changes

NOKm	New			Old			Change		
	2017e	2018e	2019e	2017e	2018e	2019e	2017e	2018e	2019e
Sales	0	0	0	0	0	0	#####	#####	#####
EBITDA	(168)	(159)	(145)	(170)	(250)	(157)	1 %	36 %	8 %
EBIT	(168)	(159)	(145)	(170)	(250)	(157)	1 %	36 %	8 %
EPS	(3.3)	(3.2)	(2.9)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

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Company description

BerGenBio is a clinical stage biopharmaceutical company with an innovative and proprietary pipeline of novel drugs for aggressive cancers that can be used in combination with emerging cancer immunotherapies and more traditional therapies in a broad range of cancer indications. The drugs target epithelial-to-mesenchymal transition (EMT); a cellular process widely recognized to play a key role in cancer metastasis, immune evasion and acquired drug-resistance. The company is based in Bergen, Norway and has an office and scientific research facilities in Oxford, UK as well.

Arctic case

BGB324 is a highly selective, first-in-class Axl inhibitor with encouraging early stage clinical data. Axl expression is implicated in the pathophysiology of a large number of cancer types and is shown to correlate with poor overall survival in aggressive cancers. This makes Axl a particularly attractive target for drug development. BGB324 is well-tolerated by patients for extended duration of treatment. We are encouraged by early data showing promising signs of clinical benefit and believe the development of a companion diagnostic in parallel for a personalized treatment approach is an important advantage.

Potential for combinability and substantial commercial upside. BGB324 is shown to have potential for synergistic activity in combination with other therapies. Axl inhibition may be crucial to render the tumor microenvironment less immunosuppressive and allow for stronger cytotoxic T-cell responses. We believe BGB324's favorable safety profile and tolerability will allow it to be used both in combination and as a maintenance therapy. Even if still at an early stage, we believe BerGenBio as a first-to-market mover could capture significant market share in multiple aggressive cancer indications and gain substantial commercial upside. We believe the company's development program ensures significant news flow and value inflection points in the next 6 - 18 months.

Bull case

Clinical trials executed according to timelines with positive phase II data read outs from all four studies in H2/18. Good correlation between companion diagnostic and clinical results. Continued collaboration with Merck or partnership/licensing with big pharma on phase III combination protocols. Cash position gives runway in H1/19 and fundraising on the back of positive data read outs. Regulatory environment eases up concerning approval for (genetic) targets - as seen for Keytruda - rather than indication based approvals, which would allow for fewer studies.

Bear case

Unfavorable clinical read-outs and/or limited correlation between clinical results and AXL status (companion diagnostics, CDx). Phase II data triggers no partnerships and/or licensing deals. Increased competition and other (genetic) targeted drugs hitting market first.

Catalysts

- Positive data read-outs from clinical trials
- Partnerships and/or licensing deals with big pharma/large biotech
- Regulatory environment easing up regarding biomarkers and indications

Risks

- Negative read-outs in one of indications may negatively affect company value and the value of other indications
- Additional financing rounds diluting current shareholders and taking a hit on the stock
- Incomplete collection of biomarker data not allowing for clear correlation between CDx and clinical outcomes, and therefore clear patient stratification
- Sector sentiment

Comments

Clinical development

Progress and expected news flow

BerGenBio is currently evaluating its Axl-inhibitor BGB324 in four company-sponsored trials and two investigator-lead trials (see table below). The company has made solid progress, and reports patient recruitment for all trials to be either on or ahead of target. We expect major interim read-outs from six phase II trials during ASCO 2018 (June 1-5, 2018). Related, abstracts for the ASCO meeting will be released on **May 16, 2018**. Another arena for data release would be AACR 2018 (April 14-18, 2018), but with the late-breaking abstract submission for AACR due on Jan 23, we believe it is more realistic to expect substantial read-outs during ASCO. Initial read-outs for all company-sponsored trials are expected in the end of H2/18. The company has reaffirmed timelines for (interim) read-outs at several occasions.

BGBIO - Ongoing clinical studies

Four company sponsored studies and two investigator initiated trials are currently recruiting

Study ID	Name	Phase	Indication	Drug(s)	Est. # pts	Study start	Primary completion	Study completion	Tissue Collection
BGBIO sponsored trials									
NCT02488408	BGBC003	Ib/II	AML/MDS	BGB324 +/- cytarabine/decitabine	75	Sep 14	Aug 18	Aug 18	Bone marrow + blood
NCT02424617	BGBC004	Ib/II	NSCLC (EGFR+ve)	BGB324 + erlotinib	66	Mar 15	Dec 17	Jul 18	Blood
NCT03184571	BGBC008	II	NSCLC (adeno)	BGB324 + KEYTRUDA	48	Oct 17	Dec 18	Dec 19	Tissue biopsies + blood
NCT03184558	BGBC007	II	TNBC	BGB324 + KEYTRUDA	56	Jul 17	Dec 18	Dec 19	Tissue biopsies + blood
Investigator-Initiated trials									
NCT02872259	IIT*	II	Melanoma	BGB324 + KEYTRUDA or dabrafenic/trametinib	92	Jan 17	Mar 20	Mar 20	Tissue biopsies + blood
NCT02922777	IIT**	II	NSCLC	BGB324 + docetaxel	30	Nov 16	Nov 18	Nov 20	Blood

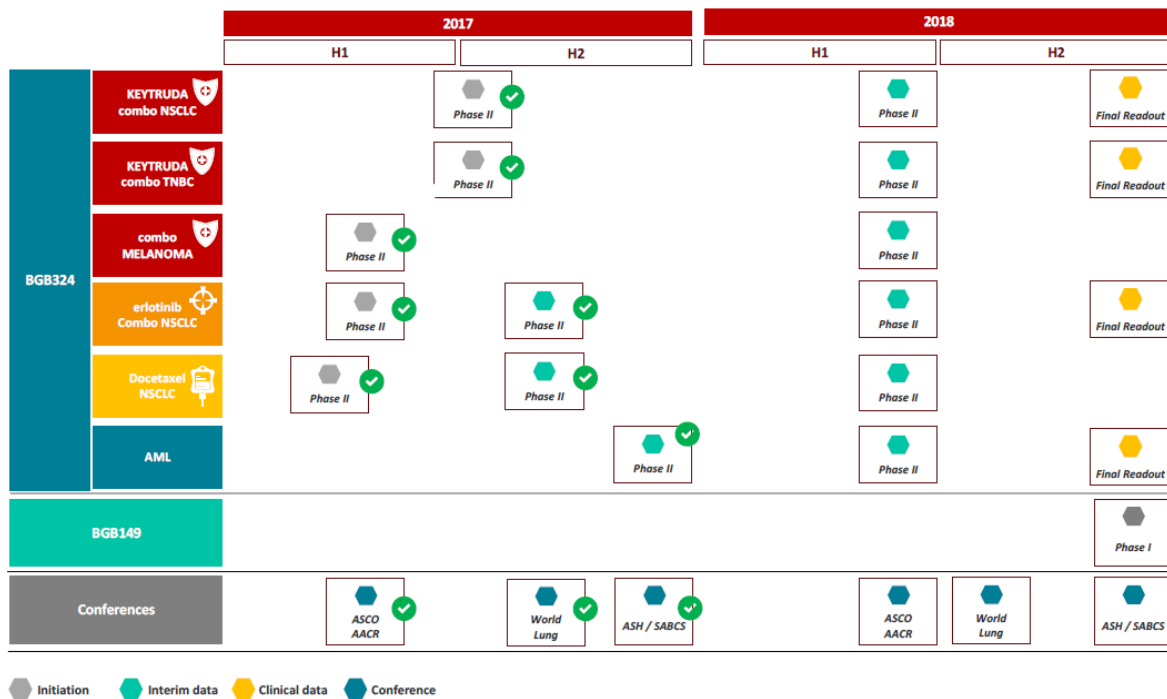
* Sponsor: Haukeland University Hospital

** Sponsor: University of Texas Southwestern Medical Center

Source: Arctic Securities research, Company data, clinicaltrials.gov; note: dates reflect study entries in clinicaltrials.gov database

Significant value drivers are expected over the next 12 months

Milestones



Source: Company data

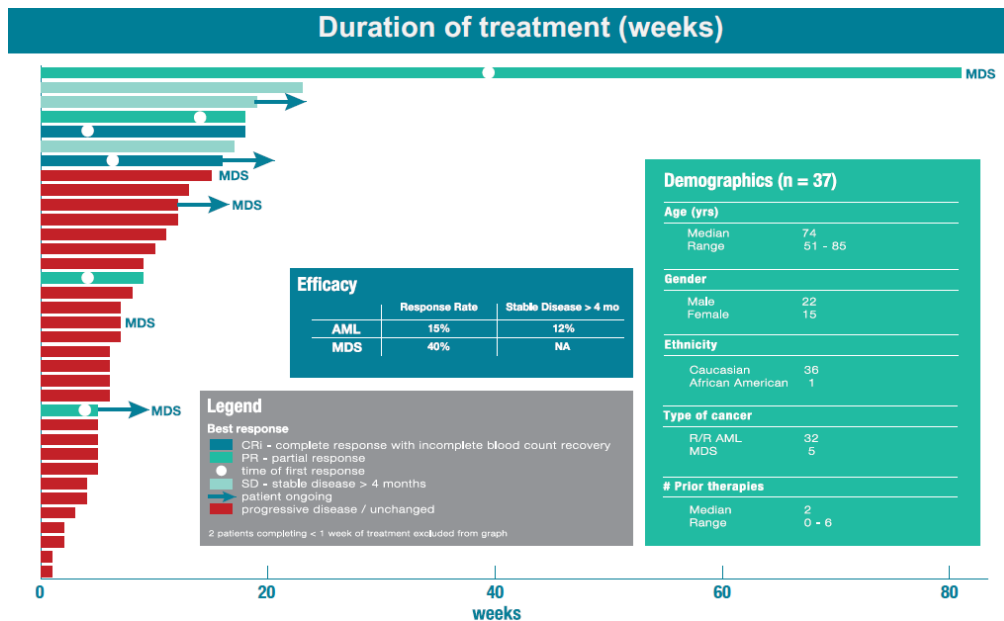
Considerations concerning recently presented clinical data

BerGenBio presented data from two company-sponsored trials and one investigator-initiated trial during the last quarter and post period.

- AML/high-risk MDS: BGB324 +/- cytarabine/decitabine (BGBC003).** BGBIO reported promising signs of benefit of BGB324 monotherapy in 37 relapsed/refractory AML and high-risk MDS patients, with a clinical benefit rate of some 27% (complete response (CR) (2), partial response (PR) (5) and stable disease (7)) and response rate of some 19% (CR + PR). In addition, treatment with BGB324 was well-tolerated.

Promising early data of efficacy of BGB324 monotherapy in R/R AML & high risk MDS

CBR of some 27% with favorable safety



Source: Company data presented during ASH17 (December 2017)

The targeted patients (> 65 years, R/R) are fragile and have a high-unmet medical need, as few other treatment options are available and chemotherapy often causes too much toxicity and side effects. Comparing results with BGB324 to other recent clinical trial data, we believe these early clinical data are competitive (see table below). Especially, the companion diagnostic BerGenBio is developing in parallel with BGB324, will allow to select for the right patients (high Axl) in future trials, likely leading to higher response rates. After some challenges last year to collect biopsies from all patients due to invasiveness of the procedure, the company firmed up its routines and now reports full compliance on the collection of all samples. During ASH17, the company presented strong (reverse) correlation with four new predictive biomarker candidates blood plasma. We find this highly encouraging and supportive for the case from both development and commercial perspectives.

Other clinical trial data for R/R AML patients presented during ASH17

We believe BGB324 (monotherapy) could be competitive in a second line setting

	Study	Intervention	ORR
Single agent	BerGenBio 37 patients	BGB324 all comers, elderly R/R patients	19%
	Pratz <i>et al</i> ¹ 31 patients	TAK-659 investigational FLT-3 and SYK inhibitor	9%
	Daver <i>et al</i> ⁴ 51 patients	FLX925 Dual FLT3 and CDK4/6	0%
	Dawson <i>et al</i> ⁶ 46 patients	GSK525762 BET inhibitor	11%
	DiNardo <i>et al</i> ⁵ 258 patients – selected for mIDH1 mutation	Ivosidenib (AG-120) mutant IDH1 (mIDH1) inhibitor	30%
Combination	Goldberg <i>et al</i> ² 24 patients	Venetoclax* + hypomethylating agent (HMA) or low dose cytarabine (LDAC)	28%
	Rausch <i>et al</i> ³ 27 patients	Venetoclax + HMA or LDAC	22%

*Venetoclax + LDAC received breakthrough designation in 1st line AML (July 2017)

(1) ASH 2017 abstract 2622 (2) ASH 2017 abstract 1353 (3) ASH 2017 abstract 1356 (4) ASH 2017 abstract 1343 (5) ASH 2017 abstract 725 (6) ASH 2017 abstract 1377

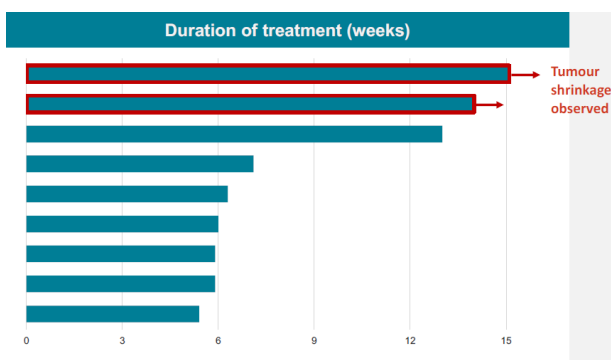
Source: Company data

The study commences to evaluate BGB324 (monotherapy) in a second-line setting and has begun inclusion of patients in the combination cohort of the trial (BGB324 + decitabine or azacitidine (chemotherapy)). An initial read-out is expected in H2/18, likely during ASH18 (December 2018). We do expect more interim data during ASCO (June 1-5, 2018) as well.

- Related to the JP Morgan Healthcare meeting in San Francisco in the second week of January, BerGenBio announced it had met its first efficacy endpoint in **BGBC004**, its combination trial with the Epidermal Growth Factor Receptor (EGFR) inhibitor, erlotinib (Tarceva), in NSCLC. Patients with high EGFR expression are commonly treated with EGFR inhibitors. However, most tumors develop resistance to these targeted therapies after some 8-10 months of treatment. Axl is shown to play an important role in the development of this drug resistance and inhibiting Axl with BGB324 has previously shown to influence this process in a preclinical setting. In this proof of concept study (n=9) BGB324 indeed showed to reduce rates of acquired resistance to erlotinib with a disease control rate of 33% (two patients with sustained disease control, one patient asymptomatic after two years on treatment). The study has now commenced into arm C where the company seeks to evaluate whether BGB324 also could prevent resistance to EGFR therapy (erlotinib and others) in a first line setting.

BGB324 reduces rate of resistance to erlotinib

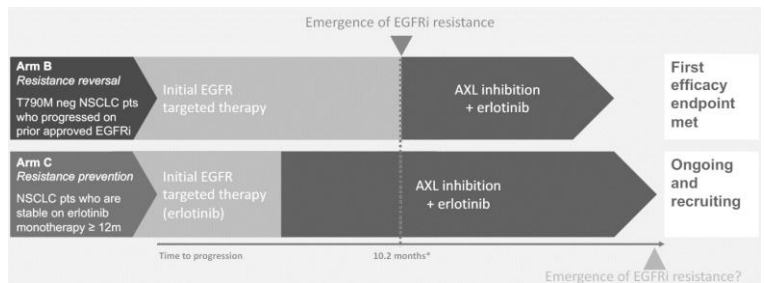
Disease control rate of 33%, well-tolerated in combination



Source: Company data, JPM18 presentation deck

BGBC004 continues to recruit

Arm C: Can BGB324 prevent resistance to EGFR therapy in 1st line



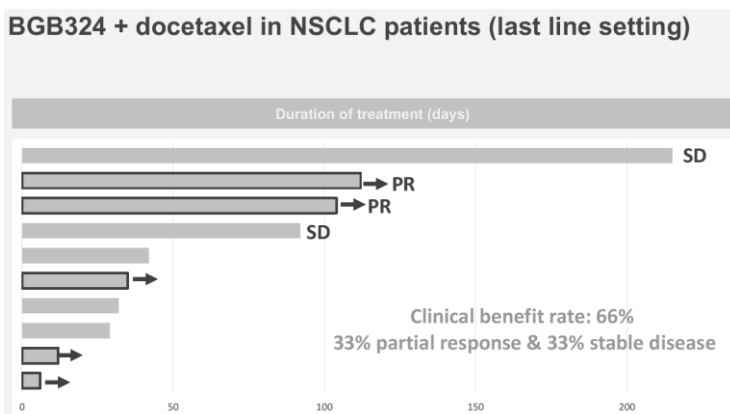
Source: Company data, JPM18 presentation deck

Even if in a small group of patients so far, we find these data very interesting and highly compelling. Reduction of resistance could already entail an enormous market potential for BGBIO, as these therapies are often blockbuster drugs commonly used in large patient groups. If, in addition, BerGenBio shows that BGB324 can prevent resistance to these therapies, one can imagine BGB324 will become the standard add-on to all EGFR inhibitors. Interestingly, the mechanisms of resistance to tyrosine kinase inhibitors and several other targeted therapies for cancer (i.e. BRAF/MEK inhibitors) seem to involve Axl upregulation universally (see section on melanoma/BRAF inhibitors below). This suggests BGB324 could become a cornerstone of combination cancer therapy in a wide range of indications.

- In Q4/17, data was presented from BGBI005, the investigator-lead study of BGB324 in combination with docetaxel (chemo) in patients with NSCLC in a last line setting. Importantly, data showed the combination regimen was well-tolerated in this heavily pre-treated population. In addition, early efficacy data showed a clinical benefit rate of 66% (33% partial response, 33% stable disease). One should remember these patients have no other treatment options and even stable disease over a prolonged period of time could be very meaningful. Initial read-out of the study is expected in H2/18. We do however assume more interim data to be presented during ASCO 2018.

BGBI005: BGB324 + docetaxel in last line NSCLC patients

CBR of 66%, well-tolerated in combination



Source: Company data

We believe BGB324 could have a place in this clinical setting, which could entail significant market potential as it is estimated that some 85,000 NSCLC patients receive docetaxel in later line (company data). Since this is an investigator-lead trial, we have not yet included this indication in our valuation model. For now, we recognize this indication could be of substantial commercial upside to the case if successful.

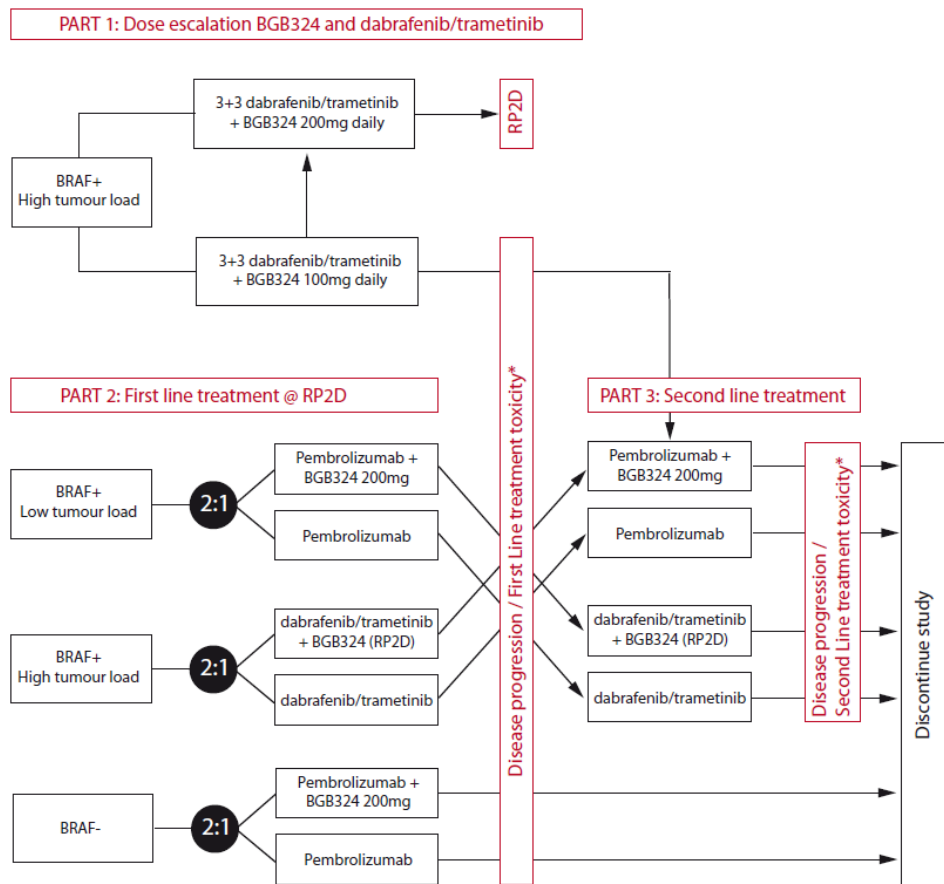
New Nature Medicine publication confirms important role for Axl inhibition in treatment-resistant melanoma

A new publication in Nature Medicine confirms the important role of Axl in the treatment resistance to BRAF and MEK inhibitors in a preclinical melanoma model (Boshuizen J et al 2018; <https://www.nature.com/articles/nm.4472>). The BRAF gene is a well-known proto-oncogene, involved in sending signals inside cells that are involved in directing cell growth and hence, causes tumor cells to proliferate. It was found that BRAF mutations are present in 40% of human skin melanomas (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4491198/>). Patients with the BRAF mutation are eligible for treatment with an BRAF/MEK inhibitor combination. However, not unlike other target therapies, many tumors develop resistance to them. This study shows these resistant melanoma cells upregulate Axl. Moreover, researchers show that inhibition of Axl effectively eliminates Axl-expressing tumors. The study emphasizes patients should be treated with a triple combination of BRAF, MEK and Axl inhibitors, as i) some cells will still be sensitive to BRAF/MEK inhibitors, and ii) BRAF/MEK inhibitors seem to upregulate the expression of Axl in tumor cells.

BGBIO had already seen similar data some time ago. These data were the foundation of its ongoing, investigator-lead melanoma study BGBI006 that was initiated in January 2017. The randomized clinical phase Ib/II trial compares safety and efficacy of BGB324 in combination with dabrafenib + trametinib (BRAF + MEK inhibitor combination) or pembrolizumab (checkpoint inhibitor) with that of dabrafenib+trametinib or pembrolizumab alone (see figure). According to latest updates by management, the study is recruiting well and safety data so far seems encouraging, and the company hopes to report some early safety and efficacy data during ASCO 2018 (June 1-5, 2018).

Study design of BGBI006: phase II melanoma study

Real-world study with BGB324 in a randomized controlled design



Source: Company data

We find available data compelling and believe it is to BGBIO's advantage that these findings were confirmed and published by others as well. Nature Medicine is one of the highest-ranking biomedical journals and we believe the publication will create broader awareness of the importance of Axl, and Axl inhibition as a cornerstone of combination cancer therapy. In addition, the more "mainstream" biotech news outlets picked up the publication,



which we believe could only be positive from a market perspective. Also, in our opinion, this instance shows BerGenBio is ahead of the curve and likely to enter the market with a first-in-class drug if it continues to deliver, and early results hold up in larger patient populations.

We had not previously included the malignant melanoma indication in our valuation model for BGB324. However, with BGBI006 progressing as is our impression it does, and with data validated/confirmed in a peer-reviewed publication, it seems appropriate to do so now. This clearly drives much of our increased NPV and target price. We refer to our financial estimates section below for further details.

Changes to Financial Estimates

Inclusion of malignant melanoma

With the data that was presented recently and the progress BGBIO reports on its investigator-lead phase II randomized clinical trial in malignant melanoma (BGBI006), we believe it is appropriate to include the upside from this program in our valuation model and NPV. We describe our estimates in this section.

Peak sales projections

Malignant melanoma: market considerations

Late stage (III-IV), unresectable malignant melanoma is attracting considerable attention from drug developers, and the pipeline of drug candidates is expansive. Clinical development in unresectable or metastatic melanoma has yielded significant progress. Several important new therapeutic agents have launched since 2011 - amongst these checkpoint inhibitors - raising the bar for new therapies to demonstrate clinically meaningful efficacy improvements. As malignant melanoma is an immune-responsive tumor type, it is serving as a primary “proof of concept” indication for most immunotherapies. Most notably, melanoma has been the primary indication for checkpoint inhibitors and several of these are approved for clinical use, and tested in combination regimens with very promising results. Total market share for checkpoint inhibitors for the treatment of melanoma is expected to grow to some 65% in 2023 (from some 55-60% today).

Other relatively recent therapies for melanoma target BRAF mutations, which are present in some 40% of all patients with malignant melanoma of the skin. The BRAF gene is a well-known proto-oncogene, involved in sending signals inside cells that are involved in directing cell growth and hence, causes tumor cells to proliferate. BRAF/MEK/ERK pathway inhibitors are set to remain a popular treatment strategy in melanoma, and it is expected these drugs will capture some 25% of the total malignant melanoma market value. As described in the Clinical Data section above, patients commonly become resistant to therapy.

While checkpoint inhibitors and BRAF/MEK/ERK pathway inhibitors are expected to be the backbone of malignant melanoma therapy in years to come, the vast majority of patients will require treatment with a (triple) combination regimen to improve response rates and reduce and potentially prevent resistance to therapy. Therefore, combination strategies involving immuno- and targeted therapies are expected to be at the forefront of shaping the melanoma market, and developers that can effectively employ these combination strategies will be in a strong position. This makes BGB324 a particularly attractive asset for (large) pharmacos interested in partnering to combine - and hence optimize - their therapies.

Target population for BGB324

BGBIO reports (early) signs of favorable safety of BGB324 in combination with checkpoint inhibitors (BGBC007, BGBC008, BGBI006) and with BRAF/MEK pathway inhibitors (in BGBI006) and other targeted therapies (BGBC004). Based on early clinical and preclinical data, we believe BGBIO has a sound scientific rationale and a true shot on goal to develop BGB324 in combination regimens with both BRAF/MEK pathway inhibitors and checkpoint inhibitors in a first or second line setting in malignant melanoma. We therefore include both subpopulations of patients with high PD-L1 checkpoint ligand expression or positive for BRAF mutations in our estimates, resp. 50% and 40%, accounting for some 90% of all stage III-IV unresectable, drug-treatable patients. It should be noted that we have not adjusted for possible overlap of these to subpopulations, due to a lack of available data. We then assume that some 50% of patients show high Axl expression and arrive at our assumed total addressable market (TAM). Even in this market we believe that BGB324 is unique in its mode of action compared to other drug candidates and can become a cornerstone of combination therapy in malignant melanoma. Therefore, we consider a 50% market share of our defined TAM is feasible, and ramp up to peak sales over 5 years and use consolidated percentages of ramp up for each year (David FS et al, The Pharmagellan guide to biotech forecasting and valuation). Find table below for final peak sales projections.

Price assumptions

We stick to our drug price assumptions for BGB324 and believe our assumptions of USD 13,000 per month of treatment in the US and USD 7,000 per month of treatment in other markets are to the conservative side. Based on survival data in this indication and the relatively early setting in which the drug would be positioned (first and/or second line), we assume an average treatment cycle of 12 months per patient. When we adjust for the ratio of patients in US and EU markets, we arrive at a total of USD 126,000 per patient (full treatment cycle). We do recognize that the duration of treatment can vary significantly and will adjust our numbers when more data becomes available. We assume cost of goods (COGS) of some 10% and calculate royalty rates to Rigel of 5%-9% in accordance with the current agreement, and based on aggregated annual sales in each year. Find table below for final peak sales projections.

We use industry statistics for probability weighting and assume an 11% likelihood of approval (LOA) in line with other phase II oncology trials. However, once BGBIO starts to include patients based on its companion diagnostic (CDx), we will likely increase chances of success for each phase in line with publications on increased probability of clinical trial success for drugs developed in parallel with an CDx.

Immuno-Oncology	INPUT
Chance of success in Ph.1 (to Ph.2)	63 %
Chance of success in Ph.2 (to Ph.3)	29 %
Chance of success in Ph.3 (to MAA)	46 %
Chance of approval	82 %
Chance of approval from ph.1	6.9 %
Chance of approval from ph.2	11.0 %
Chance of approval pivotal trial*	37.9 %



Peak sales projections for BGB324 in Malignant Melanoma

Price of treatment is based on an average treatment cycle of 12 months per patient

Malignant Melanoma	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
Total incidence (US+EU) malignant melanoma	131 710	133 513	135 343	137 203	139 090	141 008	142 955	144 932	146 940	148 980	151 051	153 155	155 292	157 462
Incidence US	74 910	76 258	77 631	79 028	80 451	81 899	83 373	84 874	86 402	87 957	89 540	91 152	92 793	94 463
Incidence EU	56 800	57 254	57 712	58 174	58 640	59 109	59 582	60 058	60 539	61 023	61 511	62 003	62 499	62 999
% stage III-IV unresectable	15 %	15 %	15 %	15 %	15 %	15 %	15 %	15 %	15 %	15 %	15 %	15 %	15 %	15 %
Total stage III-IV unresectable, drug-treatable patients	19 757	20 027	20 302	20 580	20 864	21 151	21 443	21 740	22 041	22 347	22 658	22 973	23 294	23 619
% BRAF+ve patients(of total)	40 %	40 %	40 %	40 %	40 %	40 %	40 %	40 %	40 %	40 %	40 %	40 %	40 %	40 %
Total BRAF+ve melanoma patients	7903	8011	8121	8232	8345	8460	8577	8696	8816	8939	9063	9189	9318	9448
% patients expressing PD-L1 (of total)	55 %	55 %	55 %	55 %	55 %	55 %	55 %	55 %	55 %	55 %	55 %	55 %	55 %	55 %
Total PD-L1-expressing patients	10866	11015	11166	11319	11475	11633	11794	11957	12123	12291	12462	12635	12812	12991
Total BRAF+ve or PD-L1+ve patients	18769	19026	19286	19551	19820	20094	20371	20653	20939	21230	21525	21825	22129	22438
% AXL+ve patients	50 %	50 %	50 %	50 %	50 %	50 %	50 %	50 %	50 %	50 %	50 %	50 %	50 %	50 %
Total eligible malignant melanoma patients	9384	9513	9643	9776	9910	10047	10186	10326	10469	10615	10762	10912	11065	11219
Eligible US patients	5337	5433	5531	5631	5732	5835	5940	6047	6156	6267	6380	6495	6611	6730
Eligible EU patients	4047	4079	4112	4145	4178	4211	4245	4279	4313	4348	4383	4418	4453	4489
Market share	0 %	0 %	0 %	0 %	0 %	0 %	0 %	8 %	21 %	34 %	43 %	50 %	50 %	50 %
Total pts treated w/BGB324	0	0	0	0	0	0	0	774	2 199	3 609	4 628	5 456	5 532	5 610
Average price per treatment cycle per patients (USD)	126 000	126 000	126 000	126 000	126 000	126 000	126 000	126 000	126 000	126 000	126 000	126 000	126 000	126 000
COGS	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %	10 %
Total revenue from sales before royalties (USDm)	0	0	0	0	0	0	0	88	249	409	525	619	627	636
Royalties to Rigel 5%-9%								5 %	7 %	7 %	9 %	9 %	9 %	9 %
Total revenue from sales after royalties (USDm)	0	0	0	0	0	0	0	83	232	381	478	563	571	579
Total revenue from sales to BGBIO (NOKm)	0	0	0	0	0	0	0	693	1 925	3 159	3 964	4 673	4 738	4 805
LOA	11 %	11 %	11 %	11 %	11 %	11 %	11 %	11 %	11 %	11 %	11 %	11 %	11 %	11 %
Probability adjusted revenue (NOKm)	0	0	0	0	0	0	0	76	212	348	436	514	521	529

Source: Arctic Securities research, Decision Resources, www.pubmed.com

Cost projections

It should be noted that we have not added additional phase II clinical development costs to our model as the ongoing study in malignant melanoma is investigator-lead and hence not paid for by BGBIO. The relatively minor drug costs are already included in our cost estimates.

Phase III clinical development costs are contingent on successful phase II outcomes. We stay true to our previously adopted methodology and have not included phase III costs for any of the indications other than for the AML/MDS trial (probability weighted as described below). This would presumably require a new equity raise, which we presume, would be conducted at a substantially higher price than today's value. It should however be recognized that there is a significant likelihood that the company will have a number of options for further development if it continues to deliver. It may i) raise equity to further evaluate BGB324 in phase III pivotal trials, ii) further co-develop BGB324 with a partner (split costs) or iii) enter a licensing agreement with a partner that will either pay an upfront and milestones and/or pay for further development. Time will tell which (variation) of these scenarios is the most likely.

Other estimate changes

- Based on the data presented from the BGBC004 trial (BGB324 in combination with EGFR inhibitors in patients with EGFR positive NSCLC) we have increased our market share projections from 27% to 50% of our total addressable market (TAM). Firstly, BGBIO has included other EGFR inhibitors than erlotinib in the trial thereby increasing its potential combination spectrum. Secondly, if BGBIO can confirm the data showing proof of concept of reduced resistance to therapy in larger studies, and in addition show it can prevent resistance, we believe BGB324 would become a standard add-on to therapies in this indication. This would entail substantial capture of market share, and we believe our increased estimate of 50% market share in this subpopulation, is realistic. Despite promising early data, we maintain our 11% likelihood of approval (LOA) in line with statistics.
- The company has previously communicated it may develop BGB324 itself for the AML/high-risk MDS indication. We assume a trial would commence during 2019 and therefore we find it justifiable to include the estimated probability-weighted phase III trial costs. We assume up to 300 patients would be included in the study at a cost of some USD 90,000 per patient, in line with phase II costs per patient. We phase out the costs over 2019 and 2020 and probability-weight the costs with the statistical chance of success from phase II to phase III of 36% for hematological cancers. We clarify that the milestone to Rigel of commencement into phase III is probability-weighted similarly.
- We updated the model with a couple of low-impact changes to our estimates in line with how the case is developing:
 - We had previously calculated a LOA of 16% for the ongoing phase II study in AML/high-risk MDS. This was at a slight discount to statistics for hematological cancers, as AML is considered one of the more difficult indications amongst hematological cancers. With the results that have so far been presented for BGB324 in this indication, and the strong correlation with biomarkers that was found, we believe a LOA of 18%, in line with statistics, is more than justifiable.
 - We had previously estimated the inclusion of 56 patients in BGBC003 (AML/high-risk MDS trial), but now increase this to 70 patients. With an estimated cost of USD 90,000 per patient, this entails an additional cost of some NOK 10.5m, which is phased out over remainder of 2017 and 2018.

Commercial upsides to our case

After our estimate changes described above, we see the following commercial upsides to our case, which are not included in the valuation model and NPV:

- An increased probability of clinical development success is seen when a drug is developed in parallel with a companion diagnostic, as is the case for BGB324. We have not yet adjusted our LOA to these statistics as the company is not yet selecting patients based on its companion diagnostics. It is however likely that this will be the case and part of the phase III study design, once the biomarker is in place. It seems justifiable to adjust the LOA for the phase III program, once one has gotten the regulatory go ahead to select patients based on the companion diagnostic in future study design.

Statistical chance of success per development phase

Hematological and solid tumors

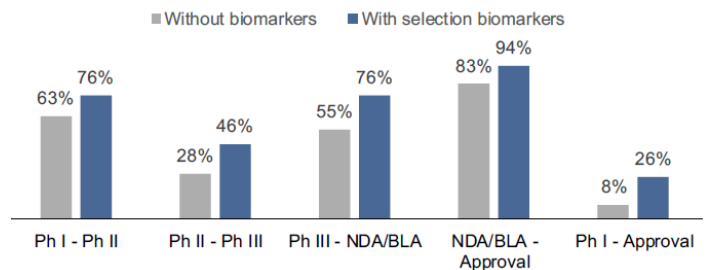
Hematological cancers	Chance of success	LOA
Phase I to II	59 %	10 %
Phase II to III	36 %	18 %
Phase III to NDA/BLA	56 %	49 %
NDA to approval	89 %	89 %

Oncology - solid tumors	Chance of success	LOA
Phase I to II	64 %	7 %
Phase II to III	29 %	11 %
Phase III to NDA/BLA	46 %	34 %
NDA to approval	82 %	82 %

LOA: likelihood of approval, NDA: new drug application, BLA: biologic license application

Source: Arctic Securities research, BioMedTracker 2012, Nature Rev Drug Dev 2016

Increased probability of success with a companion diagnostic



Source: Arctic Securities research, Olsen & Jørgensen (2014) Frontiers in Oncology

- We believe there is significant upside to our peak sales estimates of BGB324 in combination with targeted therapies in NSCLC (EGFR+ve) and malignant melanoma. If study results show successful we believe BGB324 could become a standard add-on therapy for all patients on these therapies that have upregulated Axl expression, both in a first and second line setting.
- We remind of BGBIO's licensing agreement with ADC Therapeutics related to the development of an Axl-ADC (antibody drug conjugate). The project is still in preclinical development and hence, milestones are not yet included in our valuation model. Potential milestone payments could amount to USD 34.3m (development and regulatory milestones) upon successful development of an Axl-ADC with a first potential milestone in Q1/19.
- The investigator-lead study of BGB324 in combination with chemotherapy (docetaxel) in last line NSCLC (BGBI005) is not included in our valuation model. Based on recently presented data, we believe BGB324 could have a place in this clinical setting, which could entail significant market potential. It is estimated that some 85,000 NSCLC patients receive docetaxel in a late-line setting (company data). For now, we recognize this indication could be of substantial commercial upside to the case if successful but await more data and a strategic update from the company before we include it in our model.

Valuation

Valuation

The fair value of equity is based on DCF calculations with consideration of peers and market sentiment. Our DCF model is composed of separate sub-models for the indications in which BerGenBio currently develops BGB324 and our calculations are based on the following principles:

- We have started with our peak sales assumptions as outlined in the previous section and assumed that sales ramp up for 5-6 years, depending on the indication, before reaching the peak. We estimate about 14 years from launch to competition from generics, whereafter sales gradually fall for 7 years until they finally amount to 40% of peak sales and stay flat for another 3 years.
- We assume launch for BGB324 in AML/MDS in 2022 and ramp up of first sales in 2023. Product launch in the solid tumor indications are assumed in 2023, with first sales in 2024.
- COGS is estimated at some USD 8,000 - 10,000 per patients, and is projected in the model as gross margins of 90%.
- We have calculated an 11% likelihood of approval (LOA) from phase II for all solid tumor indications and an LOA of 18% for AML/MDS in line with available statistics. LOA for hematological cancers is somewhat higher than for solid tumors, with some indications, like Non-Hodgkin's Lymphoma, bringing up averages significantly. Clinical data and development show AML and MDS are not indications with the highest rates of LOA in hematological cancer, but after evaluation of BGBIO's interim data within the indication we find the 18% LOA realistic.

DCF input

Parameters to our Discounted Cash Flow

Risk free	3.0 %
Market risk premium	5.5 %
Levered Beta	1.28
Return on cash	2.0 %
Debt tax rate	24 %
Marginal tax rate	24 %
WACC (calculated)	10.0 %
WACC	10.0 %
CAPM CoE	10.0 %
Equity ratio	100.0 %

Chance of success per phase and LOA

For solid tumors and hematologic cancers

Oncology - solid tumors	Chance of success	LOA
Phase I to II	64 %	7 %
Phase II to III	29 %	11 %
Phase III to NDA/BLA	46 %	34 %
NDA to approval	82 %	82 %

Hematological cancers	Chance of success	LOA
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NDA to approval	89 %	89 %

LOA: likelihood of approval, NDA: new drug application, BLA: biologic license application

Source: Arctic Securities research

Source: Arctic Securities research, BioMedTracker 2012, Nature Rev Drug Dev 2016

- All phase II development costs are included, as trials are conducted in parallel and we thus expect costs to be incurred.
- We have included phase III costs for the AML/MDS program in our model but have probability-weighted these costs and all milestone payments that are triggered upon progression of BGB324 into later-stage development are probability-weighted. We do not include other phase III costs in our model as described earlier. For clarification, we do still risk-adjust our revenue stream for likelihood of approval from phase II.
- We have included development costs related to compounds in the discovery and preclinical pipeline, as these costs will be incurred in the coming years, even if no potential value effects from these projects are included in our projections.
- Payroll costs and other operating costs are included as described in previous analyses.
- We have applied a WACC of 10%. We prefer to interpret the cost of capital in a theoretically appropriate way, and account for idiosyncratic risk through conservative measures of earnings expectations.
- The company has 3,090,000 options outstanding with a weighted average exercise price of NOK 13.68/share. We value these options at NOK 66m using a Black-Scholes pricing model.

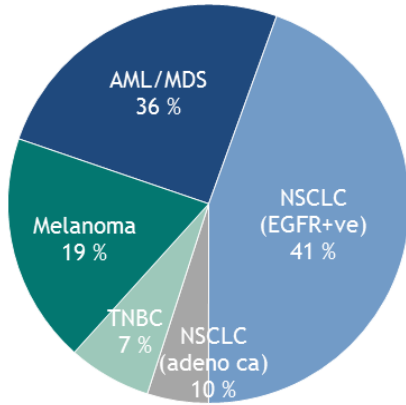
Based on the described assumptions and input, we arrive at a fair value of NOK 3,159m, which equates to NOK 63/share.



Risk-adjusted gross NPV of different indications

NEW

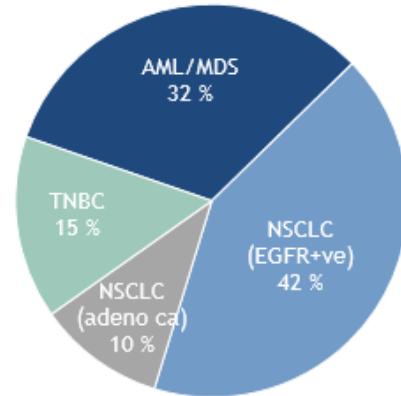
Risk adjusted gross NPV value of drug development programs



Source: Arctic Securities research

OLD

Risk adjusted gross NPV value of drug development programs



Source: Arctic Securities research

Scenario analysis: licensing agreement

We consider BGBIO an especially attractive target for partners as BGB324's mode of action is considered most efficacious in combination with other therapies. I.e. recently presented early data shows clinical proof of concept for the scientific rationale that BGB324 can reduce resistance to EGFR-inhibitors (blockbuster therapies) and the company is currently evaluating whether it can prevent resistance to these therapies in a clinical setting as well. Moreover, BGB324 is reported to show favorable early safety profiles in combination with other treatment modalities, i.e. chemotherapy, target therapies and checkpoint inhibitors, as described earlier. We assume manufacturers of these drugs would be interested to take a seat at the table and discuss a development and licensing deal if phase II (interim) data continues to show promising signals.

We acknowledge that our current valuation model is not optimally reflecting BGBIO's value in the likely scenario it will enter a (licensing) deal with an industry partner. Moreover, it is challenging to consider the "right one" as there are a wide range of possible deal scenarios one could cogitate, triggering a variety of assumptions that will give widely differing returns and a wide range of different financial terms for BGBIO in its own licensing deal with Rigel. Therefore we seek to clarify some of the terms that should be considered and, as a matter of exercise, consider one specific, hypothetical scenario with regards to valuation.

Considerations: licensing agreement with Rigel Pharmaceuticals Inc.

BerGenBio in-licensed the rights on two patent families (composition of matter and use patents) for BGB324 from Rigel Pharmaceuticals (RIGL-US) in 2011 (we refer to page 22-24 of our IoC report from May 24, 2017 for more details: http://online.arcticsec.no/PDF/cr_60827.pdf).

The financial terms entail either of 1 and 2 below, but not both:

1. Milestones and royalties - in the event BerGenBio (or a successor) commercializes BGB324 itself:
 - a. BerGenBio must pay development and regulatory milestones
 - b. BerGenBio must pay a royalty to Rigel depending on the aggregated annual net sales per year, as shown in the table below

In-license deal with Rigel Pharmaceuticals (1/2)

Milestone payments

Milestone Event	Milestone Payment
(i) Commencement of the first Phase II Clinical Trial for the first Product	\$5,000,000
(ii) Commencement of the first Phase III Clinical Trial for the first Product	\$8,000,000
(iii) Submission of an NDA (or equivalent) for the first Product	\$ 12,000,000
(iv) First Regulatory Approval (or equivalent approval) for the first Product	\$ 16,000,000

Source: Company data

Royalty Rates

Aggregate Annual Net Sales of the Products in the Territory for a Particular Year	Royalty Rate Applicable to All Net Sales in such year
Net Sales are less than \$500 million	5%
Net Sales are greater than \$500 million but are less than \$1 billion	7%
Net Sales are greater than \$ 1 billion	9%

Source: Company data

2. **Revenue share** - in the event BerGenBio decides not to develop and commercialize BGB324 and instead sub-licenses development and/or commercialization
- The definition requires a case-by-case evaluation to determine whether the terms are triggered
 - When the terms are triggered, and involves other assets of BerGenBio in addition to the license under the Rigel Technology, the following require evaluation:
 - The value of all assets subject to the sub-license including PP&E and other tangible assets, in addition to Rigel Technology and BerGenBio owned IP involved, and
 - A calculation of the value of only the Rigel Technology licensed by Rigel, and the fraction it represents of the total value. Considerations are used to establish a revenue share to be paid to Rigel as set out in the table below
 - Provisions for the adjustment of milestone payments due to BerGenBio are outlined in the event BerGenBio chooses to sublicense BGB324 only in certain geographies

In-license deal with Rigel Pharmaceuticals (2/2)

Revenue share in event of sub-licensing for development and commercialization

Timing of Out-license	Out-license revenue share percentage
Prior to Completion of a Phase Ia Clinical Trial	60%
After the Completion of a Phase Ia Clinical Trial	50%
After the Completion of a Phase Ib Clinical Trial	45%
After the Completion of the first Phase 2 Clinical Trial	40%
After the Completion of a Phase II Clinical Trial where sixty (60) or more patients are enrolled; after the Completion of one or more Phase II Clinical Trials where sixty (60) or more patients are enrolled; or, initiation of a Phase III Clinical Trial	35%
After the Completion of a Phase III Clinical Trial	30%

Source: Company data

Therefore, in the likely case BGBIO strikes a deal, the second scenario would kick in. However, we believe an agreement would likely trigger renegotiation with Rigel.

The licensing deal does not include value creation from subsequent BGB324 IP created by BerGenBio (e.g. use in combination with CPI, synthetic pathways manufacturing, formulation) and value from the BerGenBio biomarker IP.

It is interesting to consider that revenue share would not include new patents that are part of BGBIO's own value creation and that were filed and are owned solely by BGBIO. E.g., use of BGB324 in combination with checkpoint inhibitors and value from biomarker patents would not be due any consideration concerning the financial terms for revenue share with Rigel.

Scenario assumptions

For our scenario calculations, we use the flowing assumptions and terms. We emphasize once more that this is an example of a hypothetical scenario and that one should consider a wide variety of possibilities and scenarios:

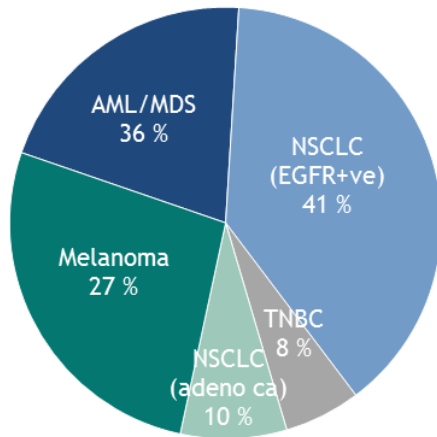
- BGBIO enters an agreement with one partner for all indications after phase II read-outs, and that this partner will come in for joint co-development in phase III. According to more recent oncology partner deals we assume a more back-end loaded one with a rather low upfront and accelerating milestone payments. Based on industry analysis for deals in this development phase we assume a mid-range total deal size of some USD 1,150m, excl. co-development costs. We allocated milestone payments (in accelerating size) to the period 2019-2021, probability-weighted for LOA, but assume BGBIO is phase III ready. We do not however probability-weight the upfront payment, which we assume will be some USD 150m. In addition, we calculate a 20% royalty to BerGenBio. We assume the current financial terms with Rigel would require a revenue share of 35% to Rigel of both upfront /milestone payments and royalties. However, we assume 60% of the programs included in the licensing deal will involve combination regimens not due consideration concerning the financial terms with Rigel. Therefore, we only calculate revenue share on half of the total deal value and assume full royalties to BGBIO on revenues from these programs (NSCLC adeno, TNBC and melanoma). We do not include phase III clinical trial costs in the scenario in order to keep it more comparable to our base case cost base and valuation.
- Taking in consideration the assumptions as described above, we calculate a fair value to NOK 2,119m - NOK 2,590m, which equals NOK 43-52/share. This is lower than in our base case, but still entails significant upside to today's share price. We do emphasize that this is a highly speculative scenario and assume that management will be better at both timing a deal and negotiating deal terms than we facilitate in this particular scenario. In addition, the Rigel agreement does not envisage all scenarios. We believe it is likely the agreement with Rigel could be subject to renegotiation or settlement at some stage.



Scenario: Risk-adjusted gross NPV of different indications

NSCLC (EGFR+ve) represents the most significant value contributor according to our DCF

**Risk adjusted gross NPV value of
drug development programs**



Source: Arctic Securities research

Overview of shareholders

Overview of shareholders, end of Q3/17

Shareholder		Number of shares	Percentage share of total shares
METEVA AS		14,923,000	30.0%
INVESTINOR AS		6,609,800	13.3%
SARSIA SEED AS		2,117,900	4.3%
MP PENSJON PK		1,880,300	3.8%
VPF ALFRED BERG GAMBAK		1,852,500	3.7%
JPMORGAN CHASE BANK, N.A., LONDON	NOM	1,272,000	2.6%
KLP AKSJENORGE		1,220,047	2.5%
DATUM INVEST AS		1,209,200	2.4%
SARSIA DEVELOPMENT AS		1,195,000	2.4%
BERA AS		1,084,800	2.2%
NORSK INNOVASJONSKAP		973,100	2.0%
VPF NORDEA AVKASTNIN C/O		972,354	2.0%
KOMMUNAL LANDSPENSJONSKASSE		862,208	1.7%
VERDIPAPIRFONDET ALFRED BERG		845,000	1.7%
JPMORGAN CHASE BANK, N.A., LONDON	NOM	720,000	1.4%
VPF NORDEA KAPITAL		700,000	1.4%
VPF ALFRED BERG AKTIV		552,500	1.1%
BIRK VENTURE AS		495,500	1.0%
STATOIL PENSJON		440,000	0.9%
FLU AS		360,000	0.7%
Top 20 shareholders		40,285,209	81.0%
Total other shareholders		9,486,991	19.1%
Total number of shares		49,757,200	100.0%

Source: Company data

- Please note that BerGenBio's largest shareholder, Mr. Trond Mohn (Meteva AS), also holds 33.35 % of the shares in Arctic Securities AS through Meteva AS. Meteva AS is 100% owned by Mr. Trond Mohn.
- 2,402,500 options were outstanding at the end of the period

Profit & loss statement

Profit & loss (NOKm)	2016	2017e	2018e	2019e	2020e
Sales					
Operating expenses	-131	-168	-159	-145	-132
Adj. EBITDA	-131	-168	-159	-145	-132
EBITDA	-131	-168	-159	-145	-132
Depreciation	-0	-0			
EBITA	-132	-168	-159	-145	-132
Amortisation & impairment					
Other expenses or revenues					
Adj. EBIT	-132	-168	-159	-145	-132
EBIT	-132	-168	-159	-145	-132
Net interest	2	2	2	2	2
Pre-tax profit	-130	-166	-157	-143	-130
Taxes					
Net profit	-130	-166	-157	-143	-130
Reported EPS (NOK)	-4.20	-3.33	-3.15	-2.86	-2.62
Adj. EPS (NOK)	-4.20	-3.33	-3.15	-2.86	-2.62
Adj. EPS fully diluted (NOK)	-3.87	-3.14	-2.97	-2.70	-2.46
Sales growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBITDA growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBIT growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Pre-tax profit growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Net profit growth	n.m.	n.m.	n.m.	n.m.	n.m.
EPS reported growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EPS growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EPS fully diluted growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBITDA margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBITA margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBIT margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Pre-tax margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Net margin	n.m.	n.m.	n.m.	n.m.	n.m.

Source: Arctic Securities research

Balance sheet & cash flow

Balance sheet (NOKm)	2016	2017e	2018e	2019e	2020e
Other intangible assets					
Property, plant & equipment	0	0	0	0	0
Total non-current assets	0	0	0	0	0
Receivables	12	18	18	18	18
Cash & cash equivalents	162	358	201	159	29
Total current assets	174	377	220	177	47
Total assets	175	377	220	178	47
Total shareholders' equity	153	355	198	156	26
Deferred tax					
Provisions					
Long-term IB debt					
Total non-current liabilities					
Other current liabilities	21	22	22	22	22
Total current liabilities	21	22	22	22	22
Total liabilities	21	22	22	22	22
Total equity and liabilities	175	377	220	178	47
Cash & cash equivalents	162	358	201	159	29
Gross IB debt					
Net IB debt	-162	-358	-201	-159	-29
Working capital	-9	-3	-3	-3	-3
Capital employed	153	355	198	156	26
Net IB debt/Equity	-105.6%	-100.8%	-101.4%	-101.8%	-111.2%
Equity/Assets	87.8%	94.2%	90.1%	87.8%	54.2%
Cash flow (NOKm)	2016	2017e	2018e	2019e	2020e
Net profit	-130	-166	-157	-143	-130
Non-cash adjustments	5	-13	2	2	2
Operating cash flow	-124	-179	-154	-140	-128
Capital expenditures	-0	-0			
Free cash flow (FCF)	-125	-179	-154	-140	-128
Change in debt	-1				
Other non-cash adjustments	214	375	-2	98	-2
Change in cash	88	196	-157	-43	-130

Source: Arctic Securities research



Key ratios & Valuation

Share data	2016	2017e	2018e	2019e	2020e
Shares outstanding (m)	30.9	49.8	49.8	49.8	49.8
Shares fully diluted (m)	33.6	52.9	52.9	52.9	52.9
Shares fully diluted average (m)	33.6	52.9	52.9	52.9	52.9
Share price NOK (year-end)		20.70	28.50	28.50	28.50
Market capitalisation (NOKm)		1 093	1 505	1 505	1 505
Adj. enterprise value (NOKm)		1	1	1	1
EPS reported (NOK)	-4.20	-3.33	-3.15	-2.86	-2.62
Adj. EPS (NOK)	-4.20	-3.33	-3.15	-2.86	-2.62
Adj. EPS fully diluted (NOK)	-3.87	-3.14	-2.97	-2.70	-2.46
DPS (NOK)	0.00	0.00	0.00	0.00	0.00
Growth	2016	2017e	2018e	2019e	2020e
Sales growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBITDA growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBIT growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Pre-tax profit growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Net profit growth	n.m.	n.m.	n.m.	n.m.	n.m.
EPS reported growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EPS growth	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EPS fully diluted growth	n.m.	n.m.	n.m.	n.m.	n.m.
Margins	2016	2017e	2018e	2019e	2020e
Adj. EBITDA margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBITA margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. EBIT margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Pre-tax margin	n.m.	n.m.	n.m.	n.m.	n.m.
Adj. Net margin	n.m.	n.m.	n.m.	n.m.	n.m.
Valuation	2016	2017e	2018e	2019e	2020e
EV/Sales		n.m.	n.m.	n.m.	n.m.
Adj. EV/EBITDA		n.m.	n.m.	n.m.	n.m.
Adj. EV/EBIT		n.m.	n.m.	n.m.	n.m.
P/E		n.m.	n.m.	n.m.	n.m.
Adj. P/E		n.m.	n.m.	n.m.	n.m.
P/B		4.0x	14.3x	27.3x	220.4x
Profitability	2016	2017e	2018e	2019e	2020e
FCFE yield		-11.9%	-10.3%	-9.3%	-8.5%
ROE	-84.7%	-46.7%	-79.0%	-91.4%	-505.9%
ROCE	-85.8%	-47.3%	-80.3%	-92.9%	-513.7%
Dividend yield		0.0%	0.0%	0.0%	0.0%

Source: Arctic Securities research

Disclaimer

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Basis and methods for assessment

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Arctic’s research department operates with 3 recommendation categories based on the expected relative return within 6 to 12 months:

Buy	The return is estimated to be considerably in excess of the applicable sector/market index return.
Hold	The return is estimated to be more or less in line with the applicable sector/market index return.
Sell	The return is estimated to be considerably less than the applicable sector/market index return.

The analyst’s assessment of risk is identified by the following terms:

High risk	The share is likely to be considerably more volatile than the general index of the Oslo Stock Exchange. The reason may be the characteristics of the company or the company’s industry, or issues associated with the share as a security, such as a recent listing, a limited free float or the expectation of corporate action.
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Outperform	The bond is currently trading at a wider credit spread than the applicable credit index for the relevant rating category.
Market perform	The bond is currently trading at a credit spread in line with the applicable credit index for the relevant rating category.
Underperform	The bond is currently trading at a tighter credit spread than the applicable credit index for the relevant rating category.



The analyst's assessment of credit risk is identified by the following terms:

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AA+/AA/AA-	High quality
A+/A/A-	Strong payment capacity
BBB+/BBB/BBB-	Adequate payment capacity
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CCC+/CCC/CCC-	Current vulnerability to default
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- New accounting figures are released, or
- Any material news on a company or its industry is released.

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