

# AXL inhibition to prolong life

First-in-class medicines to treat aggressive cancers

Jefferies London Healthcare Conference – November 15-16<sup>th</sup> 2017  
Richard Godfrey, CEO



BerGenBio

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# Corporate snapshot

## Background

Leaders in developing therapeutics that target **AXL**, a protein that makes cancers and their environment highly aggressive and which is associated with poorer outcomes across many cancers

**Diversified pipeline**, lead drug is tested in several indications of high unmet medical need and large market potential

Promising efficacy with sustained treatment benefit and confirmed favourable safety

Companion diagnostic supported by biomarker tests



## BGB324



First-in-class highly selective small molecule AXL inhibitor

Broad phase II clinical programme in NSCLC, TNBC, AML/MDS, melanoma

## Pipeline



BGB324  
AXL antibody

AXL ADC (partnered)  
Immunomodulatory small molecules

## OSE:BGBIO



Raised USD 50m in IPO on OSE in April '17  
USD 120m market cap (Nov 13<sup>th</sup> 2017)

## Corporate



35 staff  
Headquarters and research in Bergen, Norway; Clinical Trial Management in Oxford, UK

# Developing AXL inhibitors to target aggressive cancers

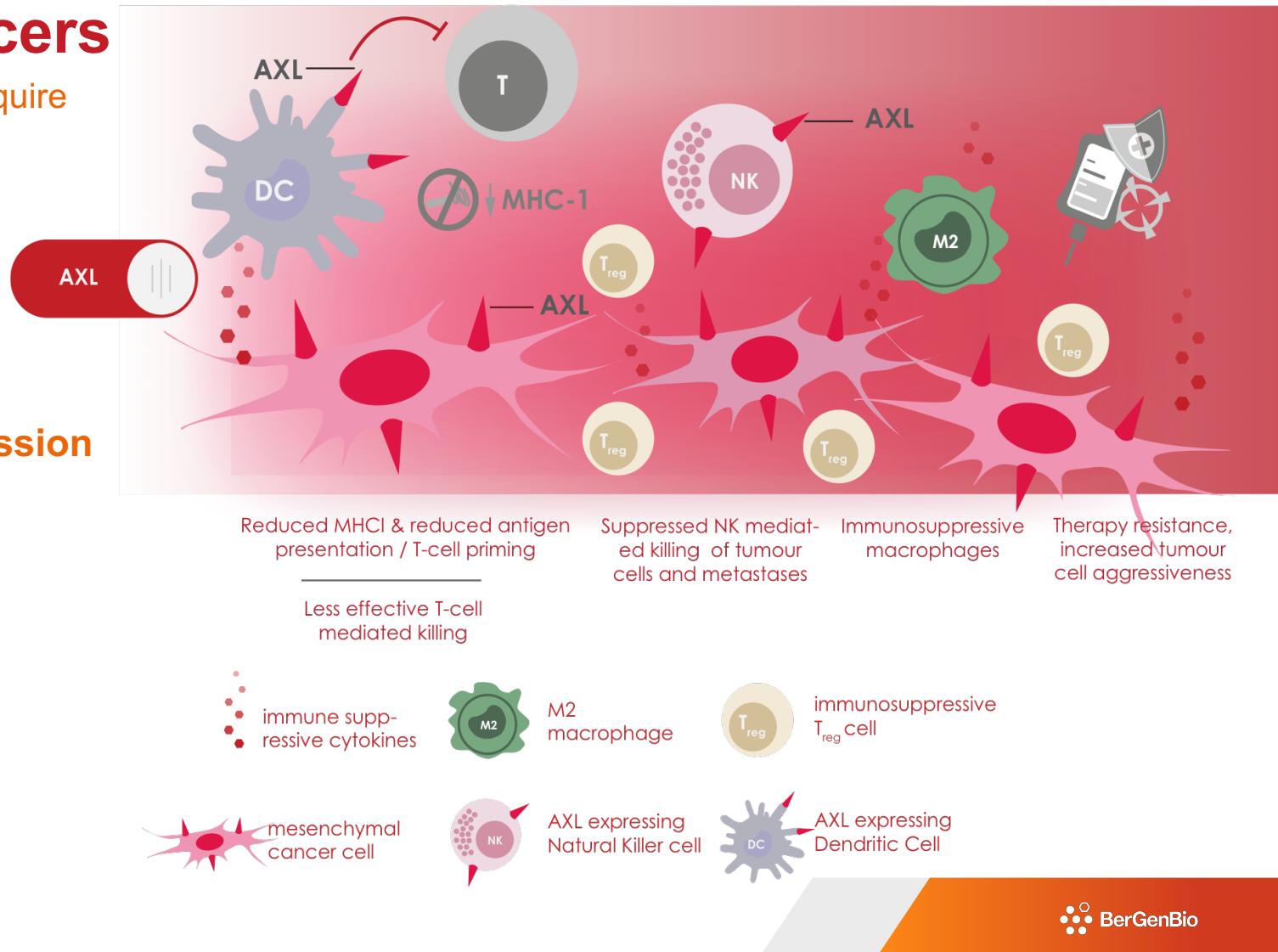


# Aggressive cancers

evade the immune system, acquire drug resistance and spread

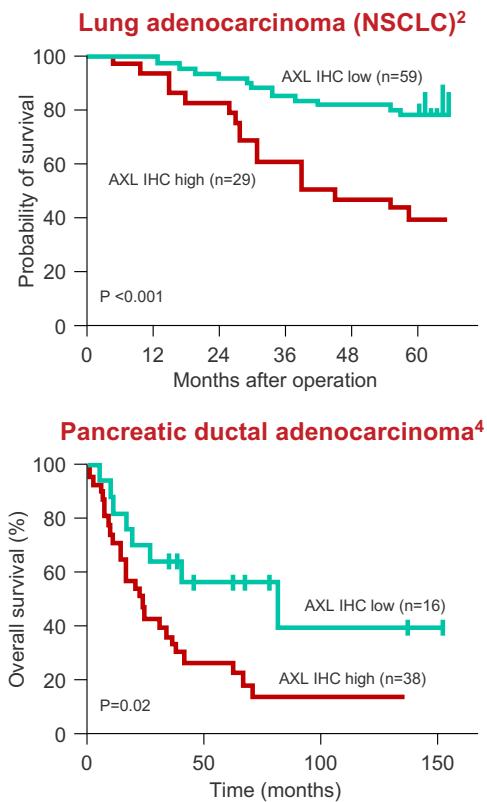
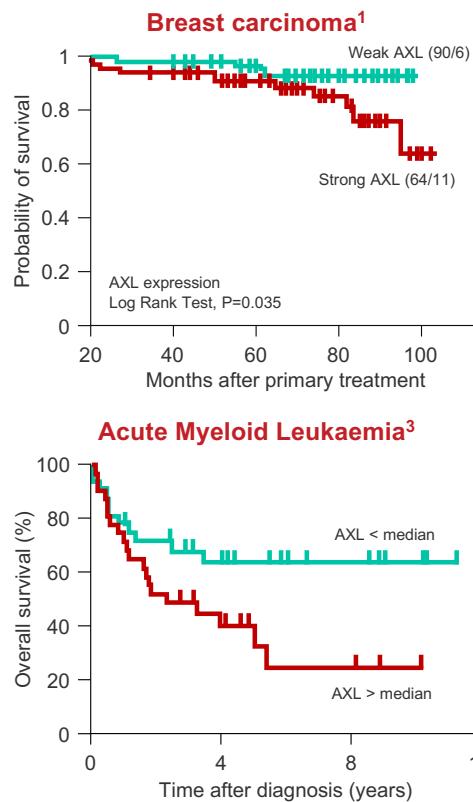
**AXL is a key regulator of aggressive cancers driving:**

- **Innate immune suppression**
- **Therapy resistance**
- **Cancer spread**



# AXL correlates with poor prognosis

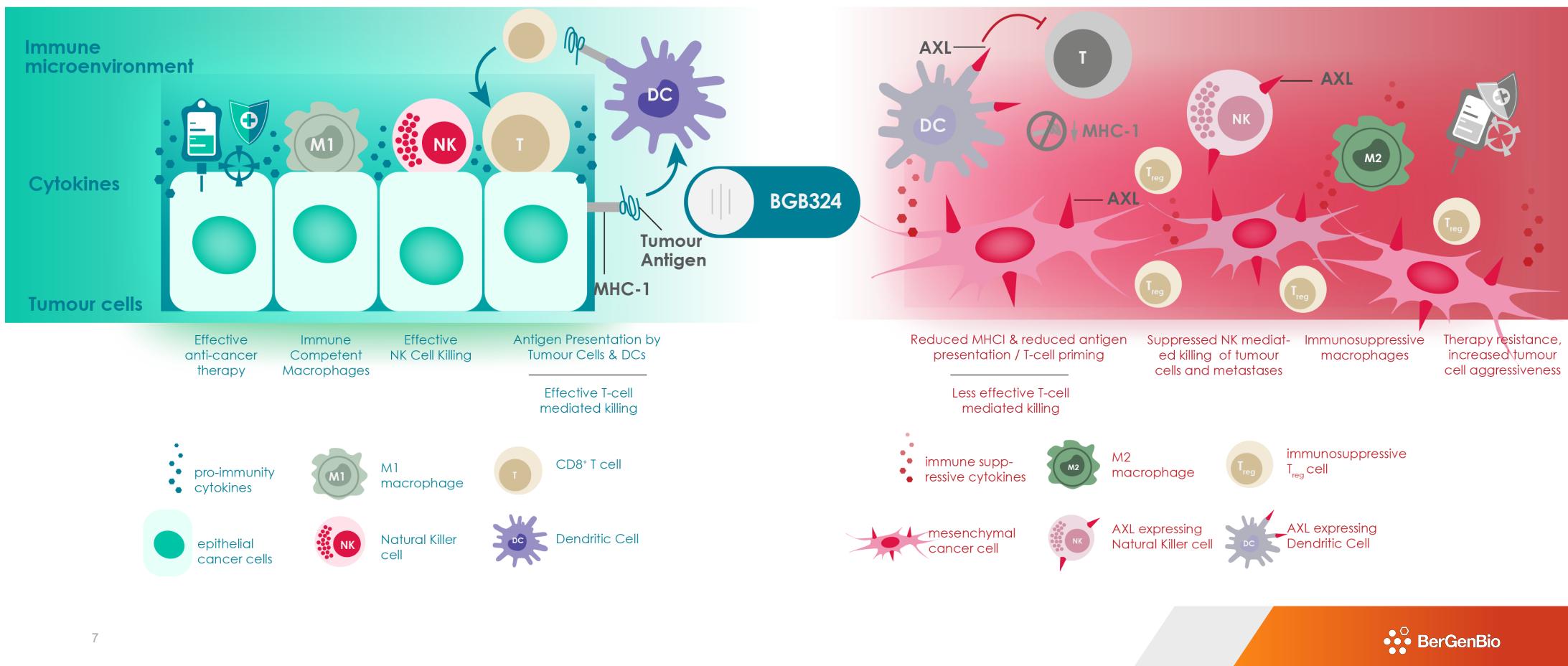
## Strong AXL expression correlates with poor survival rate



## Broad evidence of AXL linked with poor prognosis<sup>5</sup>

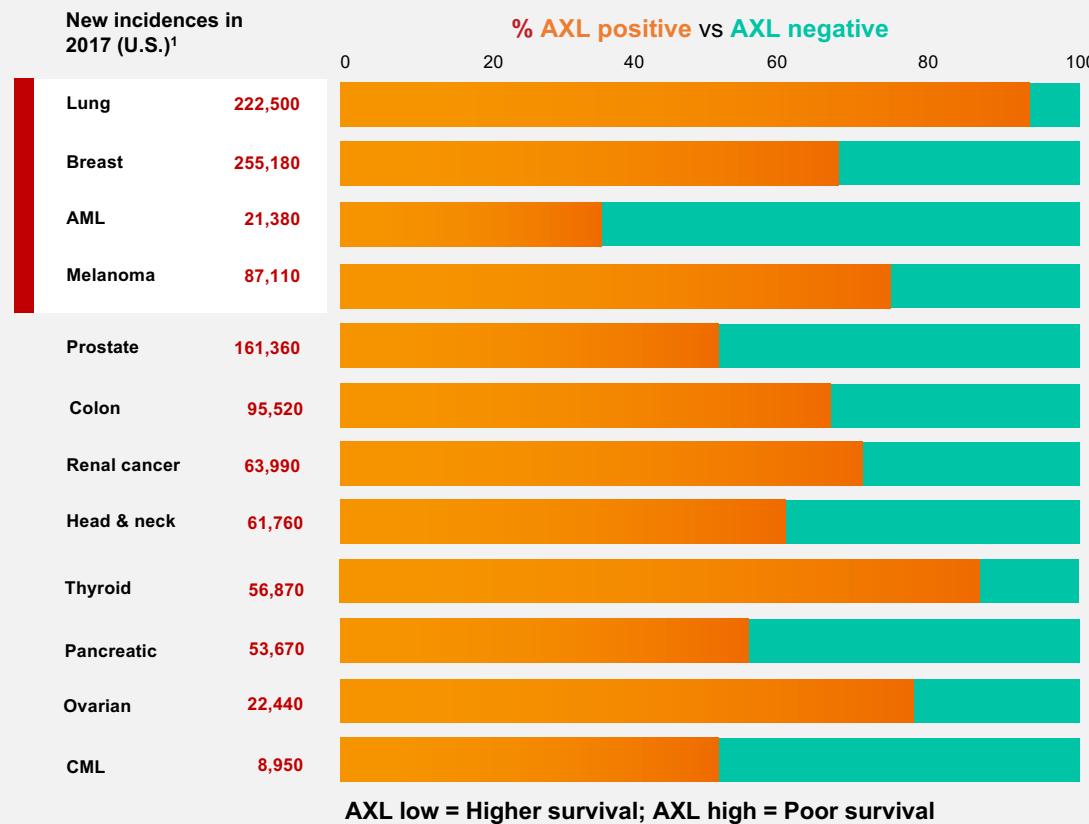
Astrocytic brain tumors	Melanoma
Breast cancer	Mesothelioma
Gallbladder cancer	NSCLC
GI	Pancreatic cancer
• Colon cancer	Sarcomas
• Esophageal cancer	• Ewing Sarcoma
• Gastric cancer	• Kaposi's sarcoma
Gynaecological	• Liposarcoma
• Ovarian cancer	• Osteosarcoma
• Uterine cancer	Skin SCC
HCC	Thyroid cancer
HNC	Urological
Haematological	• Bladder cancer
• AML	• Prostate cancer
• CLL	• RCC
• CML	

# BGB324 restores sensitivity to immune cell attack, therapy, and prevents spread

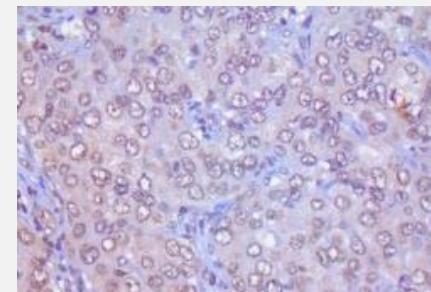


# Which cancers are we targeting

## Most common tumours express high AXL levels

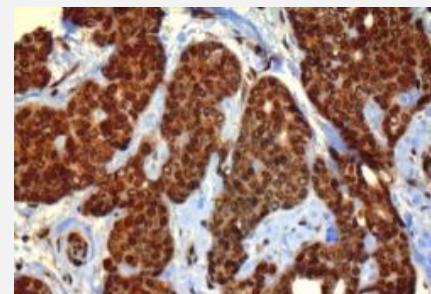


Low Axl expression<sup>2</sup>



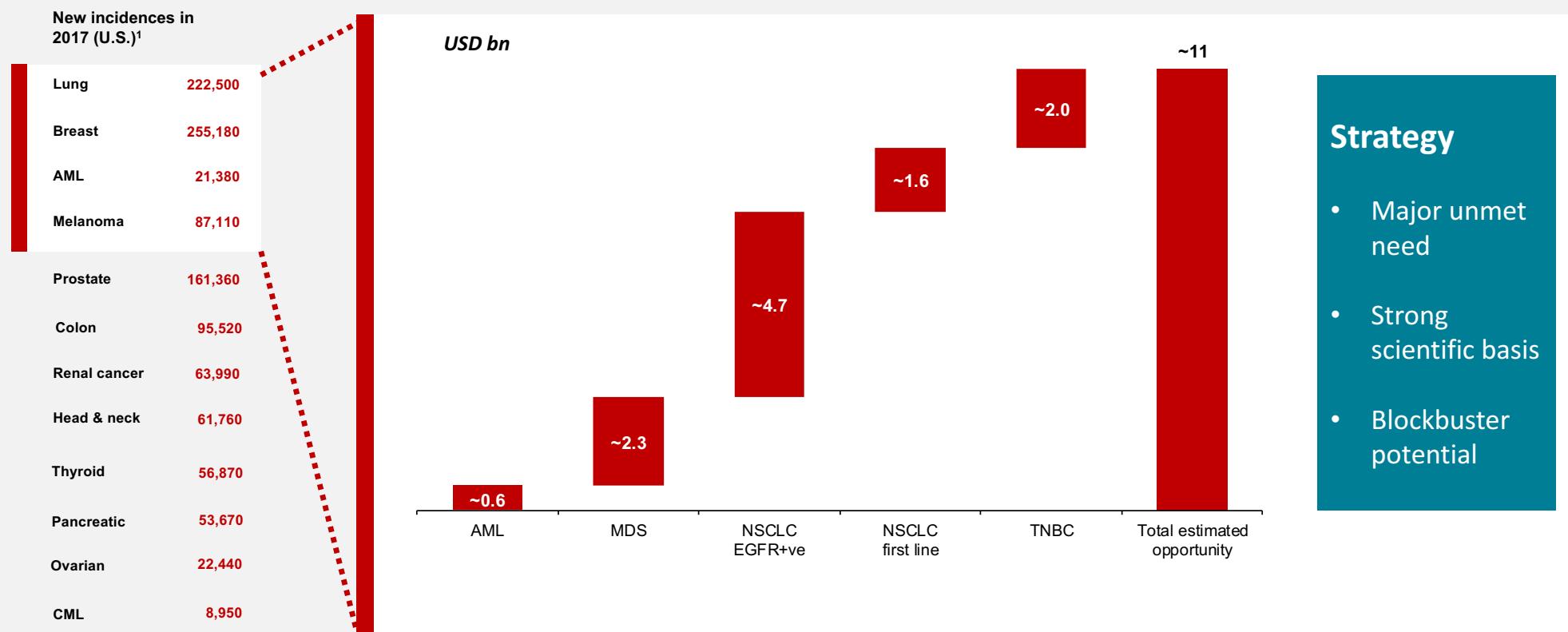
Companion diagnostic in development to identify AXL positive patients

High Axl expression<sup>2</sup>



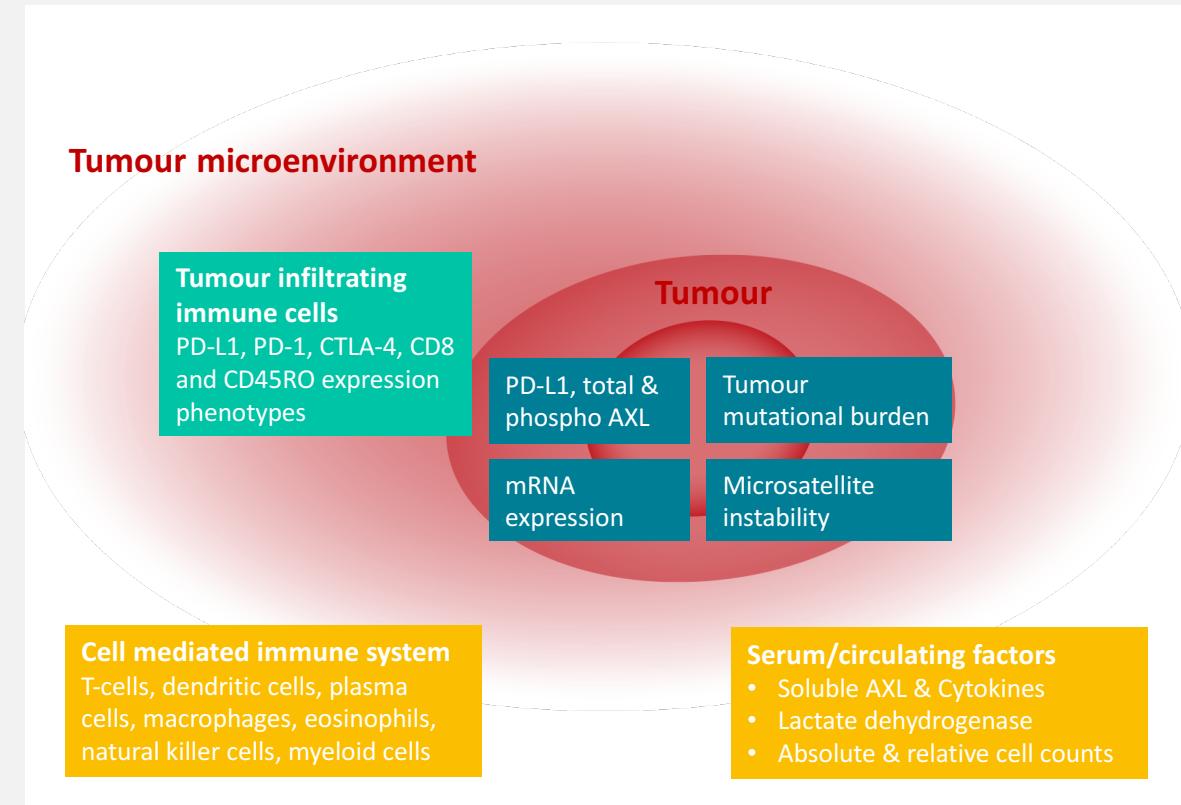
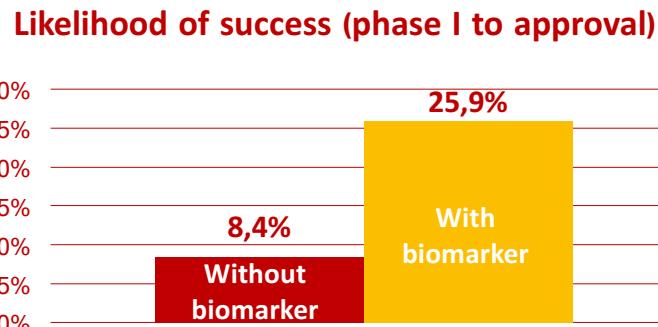
# Targeting cancers with an addressable market of USD 11bn

## Most common tumours express high AXL levels

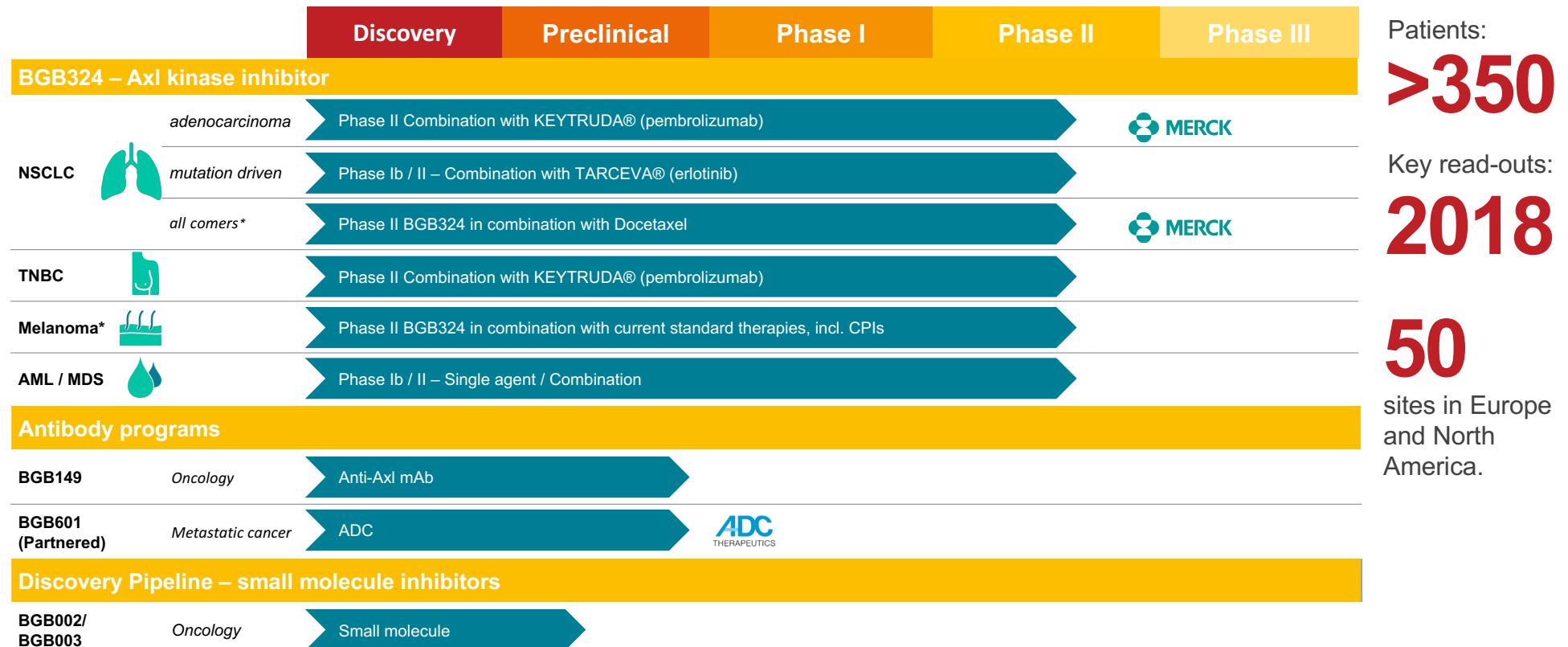


# Companion diagnostic for personalised medicine

- Selecting patients most likely to benefit from treatment
- Improving probability of approval
- Increase reimbursement rate



# Broad development pipeline

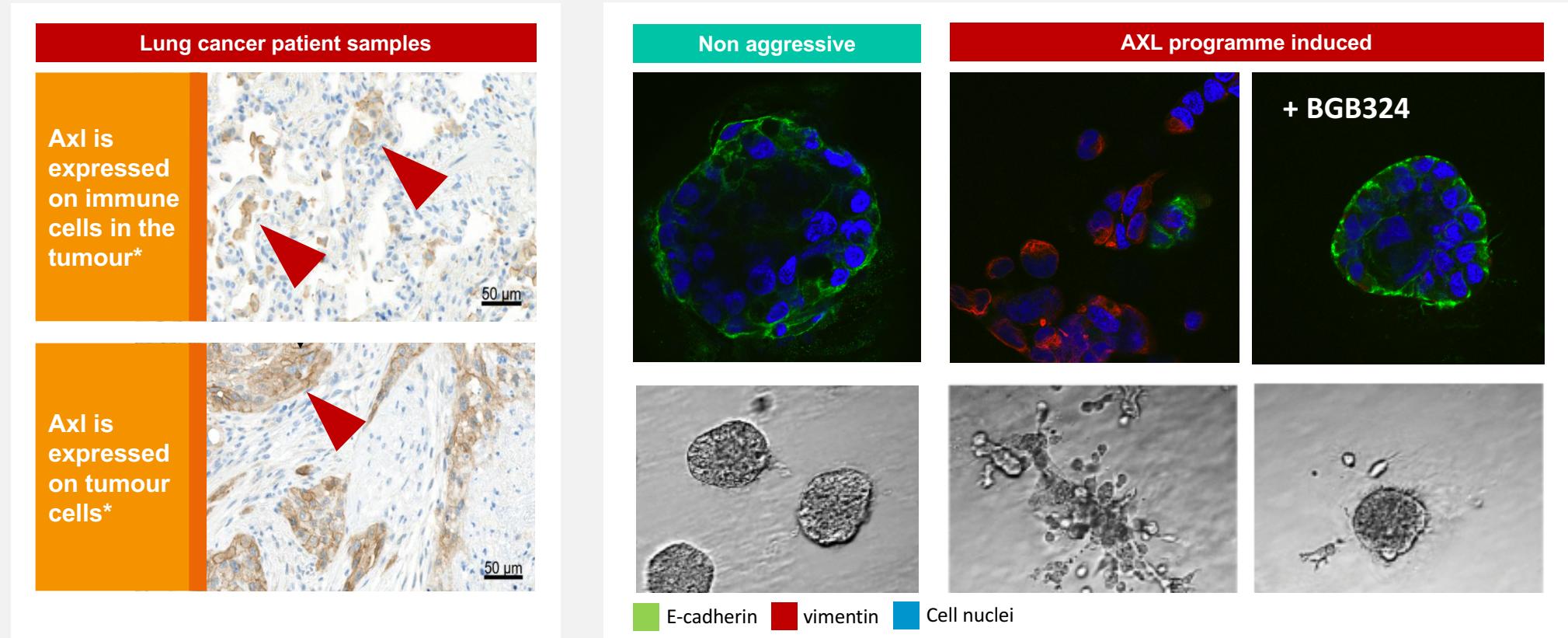


\*Investigator-sponsored trials

# BGB324 is a selective, first-in-class orally bioavailable inhibitor of AXL

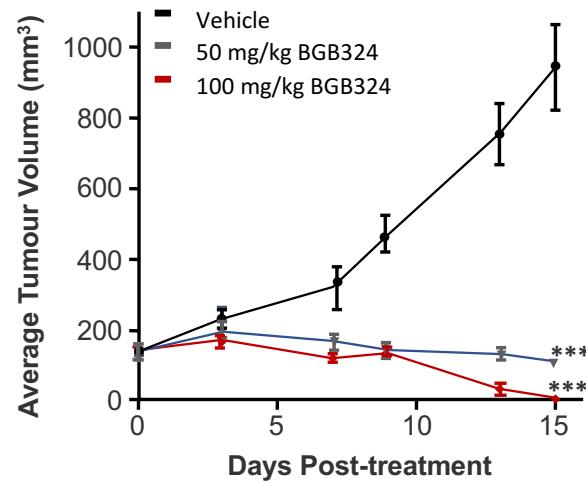
Targeting aggressive cancer cells &  
immunosuppressive tumour microenvironment

# BGB324 targets immunosuppression and therapy resistance

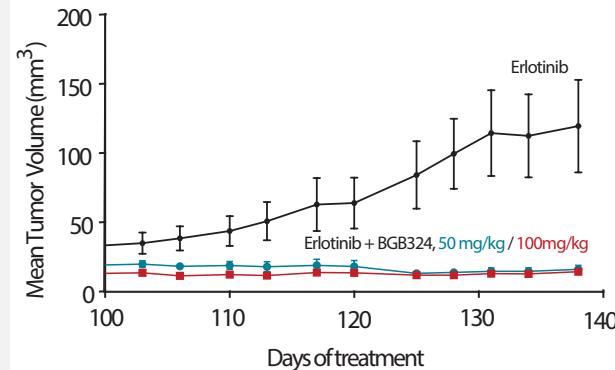


# Compelling pre-clinical data highlights BGB324's broad clinical utility

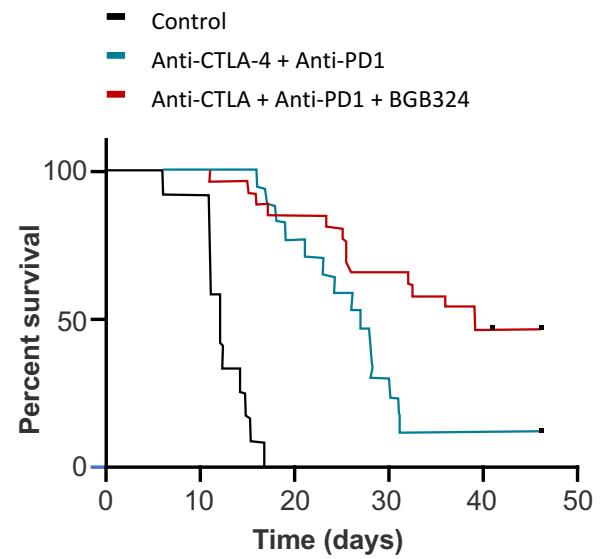
## Single agent activity in AML



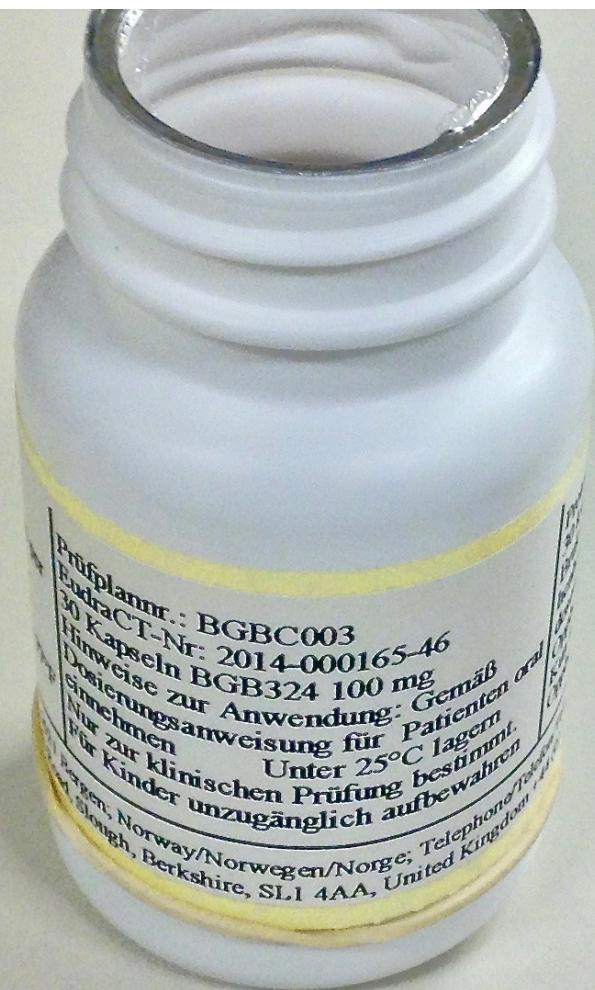
## Combination w/ targeted therapy



## Combination w/ CPIs



And...it's a simple pill  
taken once a day



# BGB324 clinical development: AXL inhibition as cornerstone for cancer therapy

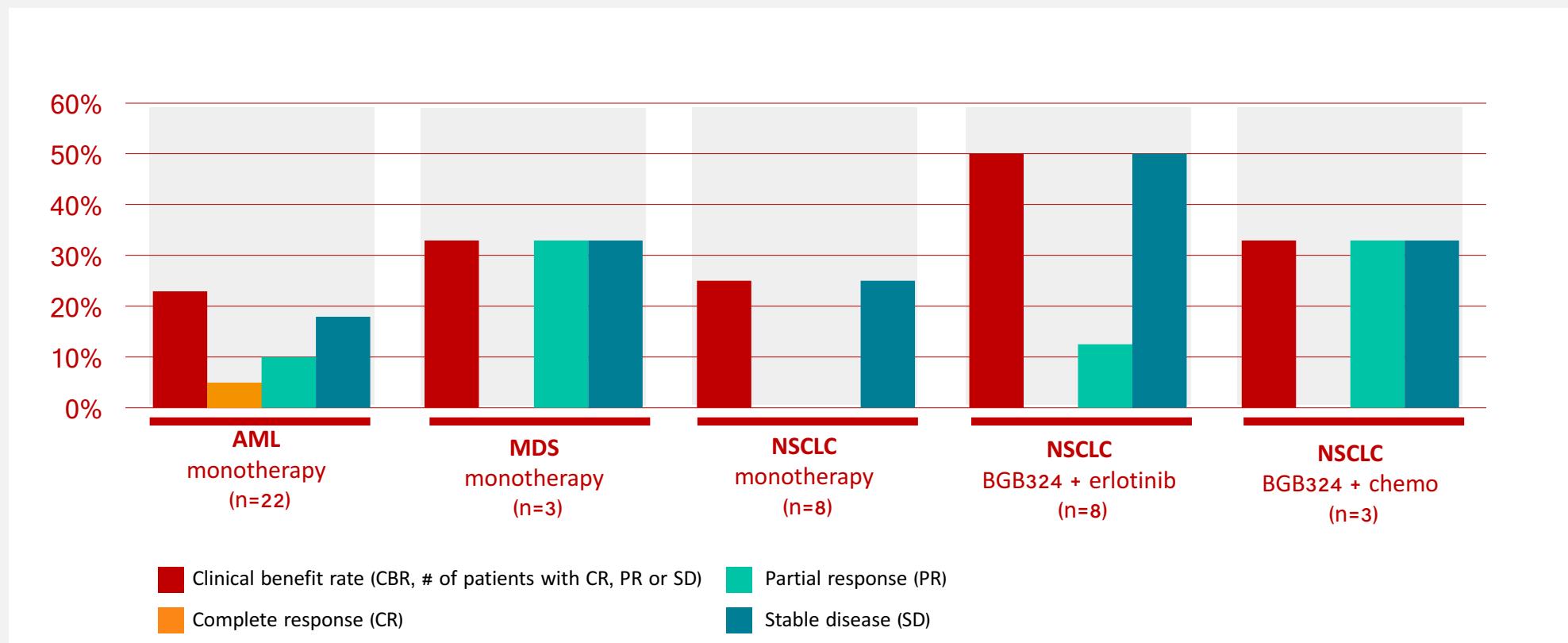
Aiming at patient selection based on  
proprietary biomarkers

# Broad clinical development for BGB324 – 6 trials in phII

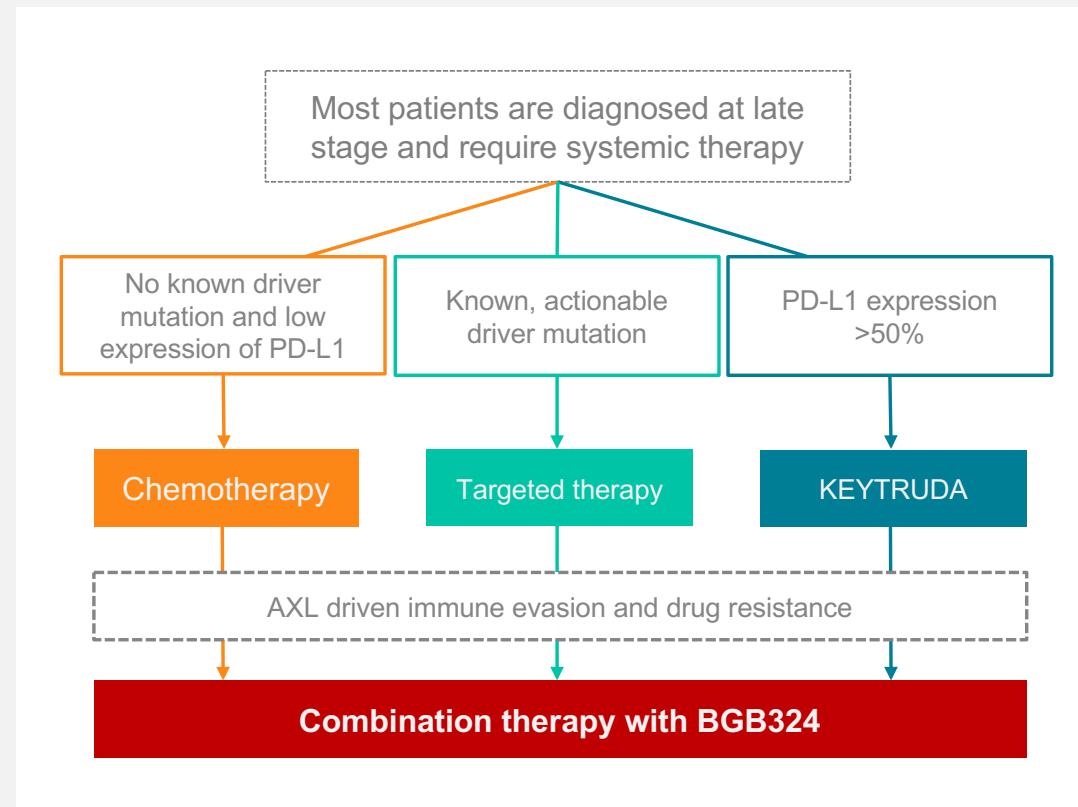
Indication	Patient population	Combination	Collaboration	Trial details
NSCLC	adenocarcinoma	KEYTRUDA®	MERCK	up to 48 pts
	mutation driven	Tarceva® erlotinib		up to 66 pts
	all comers*	docetaxel	UTSouthwestern Medical Center	up to 30 pts
TNBC		KEYTRUDA®	MERCK	up to 56 pts
Melanoma*		KEYTRUDA® Tafinlar. (dabrafenib) + Mekinist. (trametinib)	HELSE BERGEN Haukeland universitetssjukehus	up to 92 pts
AML / MDS		DACOGEN. decitabine for injection		single agent, cytarabine up to 75 pts

\*Investigator-sponsored trials

## Summary of responses reported in phase Ib Heavily pre-treated relapsed and refractory patients



# Potential for BGB324 to become a cornerstone therapy for NSCLC



- Lung cancer is the most frequent cause of cancer-related death in developed countries
- Strategy to position BGB324 as the cornerstone of treatment for NSCLC by combining with standard of care therapies



# Phase I/II trial in NSCLC of BGB324 with docetaxel

UTSouthwestern  
Medical Center

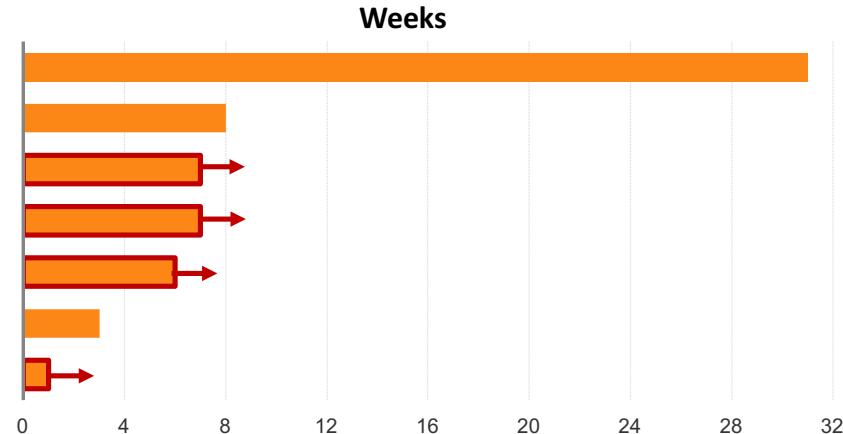
## BGBIL005 Phase I/II – NSCLC (2<sup>nd</sup> line – progressed/treatment-refractory disease) – *Investigator-sponsored study*

Vast majority of NSCLC patients will receive chemotherapy in 1<sup>st</sup> or 2<sup>nd</sup> line settings

BGB324 enhances the effect of chemotherapy in animal models

Trial involves patients with previously treated advanced NSCLC who have exhausted all treatment options

One patient on treatment for 10 months  
One partial response (Recist 1.1) with tumour shrinkage



**Sponsor Investigator: Dr David Gerber, UTSW Dallas**

“The vast majority of my lung cancer patients progress onto chemotherapy, combining this with BGB324 may significantly improve the performance of the chemo and could lead to meaningful disease modification in some patients.”



## Phase II trial in NSCLC of BGB324 with TARCEVA (erlotinib) - Resistance reversal

### BGBC004 Phase II – NSCLC EGFR-mutation driven

Phase Ib/II trial in up to 66 patients with advanced NSCLC patients in 1<sup>st</sup> and 2<sup>nd</sup> line settings (to prevent and reverse erlotinib resistance, respectively)

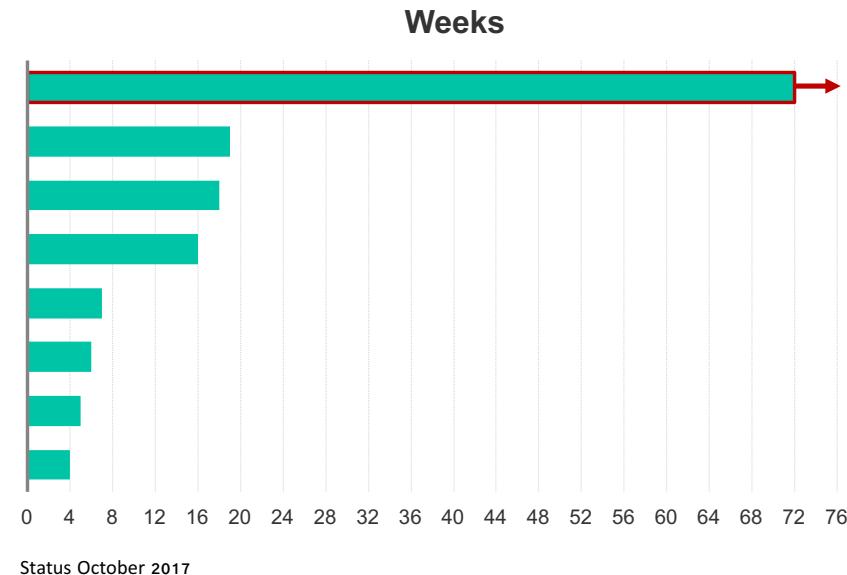
Patients classed as Stage IIIb or IV disease driven EGFR mutation (accounts for approx. 18% of NSCLC patients)

AXL-mediated resistance to erlotinib is common

Biomarker studies underway in parallel

#### 50% CBR:

3 SD > 4 months + 1 stable disease with partial response





## Phase II trial in NSCLC of BGB324 in combination with KEYTRUDA



### BGBC008 Phase 2 – NSCLC Adenocarcinoma of the lung

Up to 48 patients with previously treated unresectable adenocarcinoma of the lung

Biomarker studies (tissue sample and blood based) ongoing in parallel; PD-L1 assay to be performed by Merck

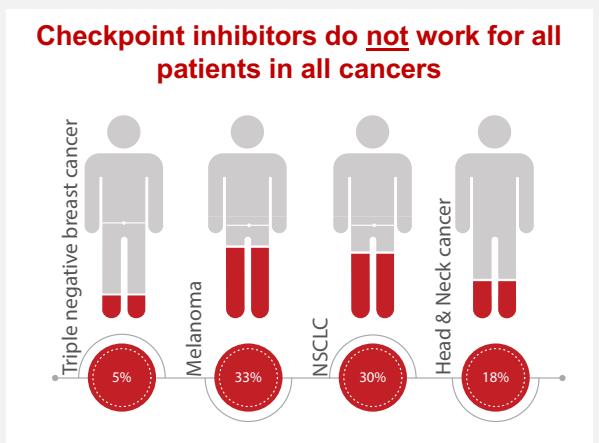
Patient recruitment ongoing in Norway, UK, Spain, US

**Primary endpoint:** Objective response rate

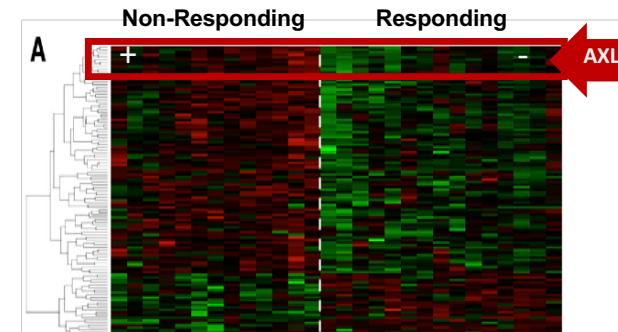
**Others endpoints:** Safety, duration of response, time to progression, survival at 12 months, response by biomarker expression

Initial read-out  
expected  
2H 2018

# Strong rationale for combining BGB324 with checkpoint inhibitors



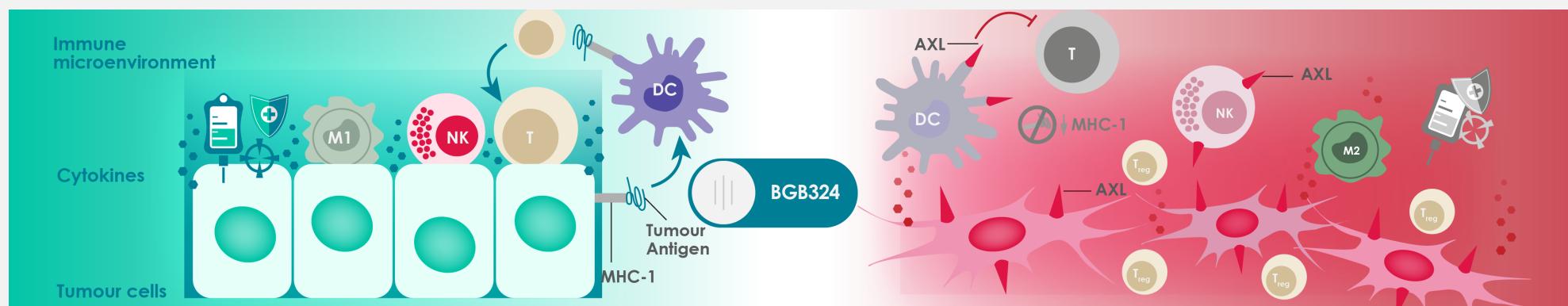
AXL up-regulation is the greatest change in non-responders



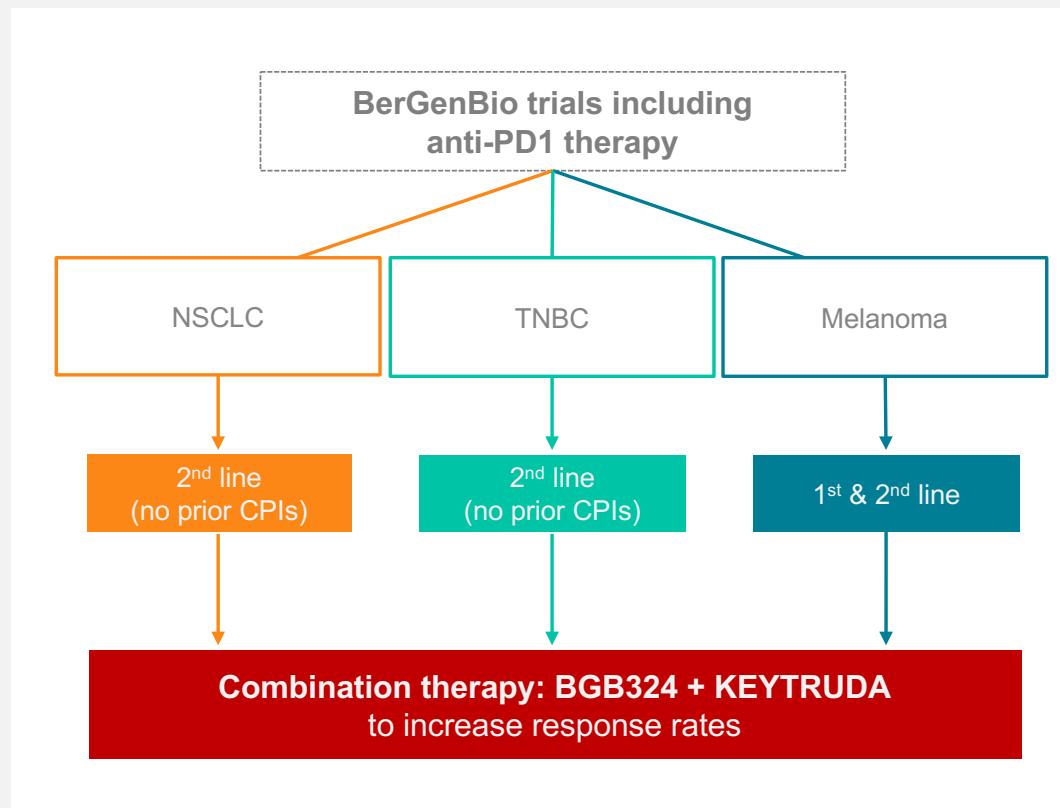
Combine BGB324 + CPI to increase response rate

BGB324  
+  
**KEYTRUDA**  
=

ONLY combination study addressing the fundamental mechanism of tumour resistance to CPIs



# Combination with BGB324 to increase efficacy of anti-PD1 therapy



- A significant proportion of patients do not respond to checkpoint inhibitor therapy
- Non-responders to checkpoint therapy have been shown to express AXL at higher rates
- Inhibiting AXL may increase the number of patients responding to checkpoint therapy
- Comprehensive biomarker programme analysing AXL, PD-L1 and immune signature

# Phase II trial in TNBC of BGB324 in combination with KEYTRUDA



## BGBC007 Phase 2 – Triple negative breast cancer (TNBC)

Up to 56 patients with previously treated, unresectable or metastatic TNBC

Biomarker studies (tissue sample and blood based) ongoing in parallel; PD-L1 assay to be performed by Merck

Patient recruitment ongoing in Norway, UK, Spain, US

**Primary endpoint:** Objective response rate

**Others endpoints:** Safety, duration of response, time to progression, survival at 12 months, response by biomarker expression

**Initial read-out  
expected  
2H 2018**



# Randomised Phase II trial of BGB324 in combination with targeted and I/O therapies in Melanoma

## BGBIL006 Phase II – Melanoma – *Investigator-sponsored trial*

‘Real world study’ Randomised Phase II – first line

Arm 1: BGB324 + pembrolizumab

Arm 2: BGB324 + dabrafenib and trametinib

Primary outcomes: Safety, objective response rate

Secondary outcomes: PFS, DoR, overall survival

Biomarker programme ongoing in parallel with  
collaborators at Massachusetts Institute of Technology  
(MIT) and Harvard Medical School

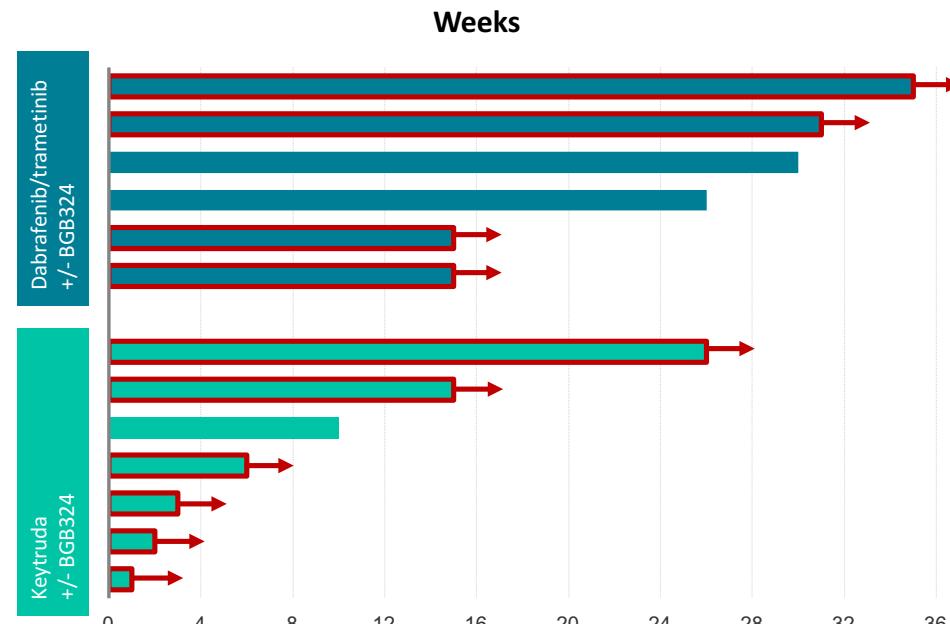
Sponsor Investigator: Dr Oddbjørn Straume,  
Haukeland University Hospital and University of  
Bergen Center for Cancer Biomarkers



Haukeland University Hospital



HARVARD  
MEDICAL SCHOOL



# Our strategy – re-thinking cancer treatment



## **AXL mediates aggressive cancers by driving**

- Immune evasion
- Drug resistance
- Metastasis



## **Patient selection**

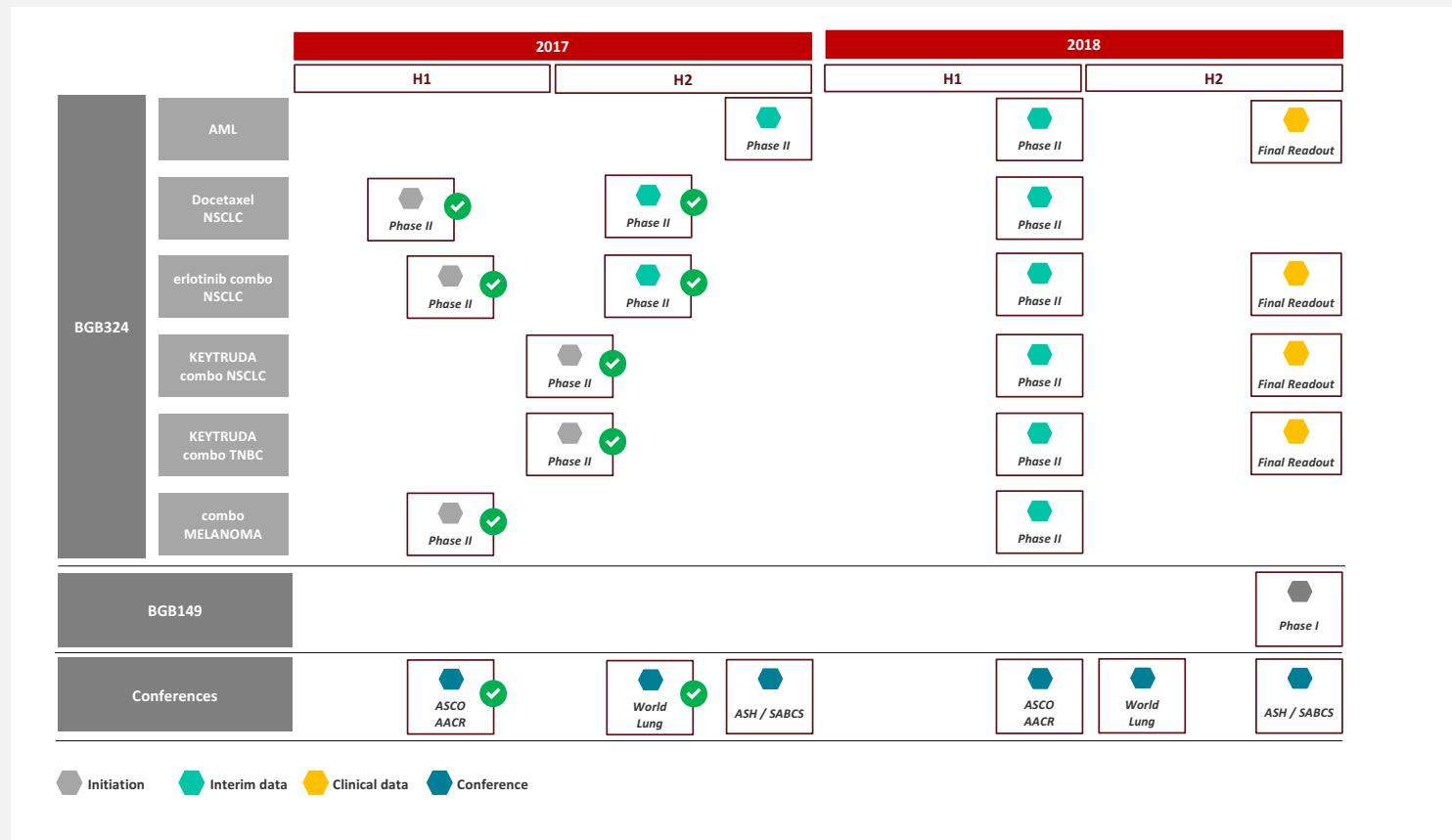
- Proprietary biomarkers
- Companion diagnostics development



## **Clinical position: BGB324 in combination with:**

- SoC chemotherapy
- SoC immunotherapy
- SoC targeted therapy

# Milestones 2017 & 2018



## Key partners and collaborators

THE UNIVERSITY OF TEXAS  
MD Anderson  
~~Cancer Center~~

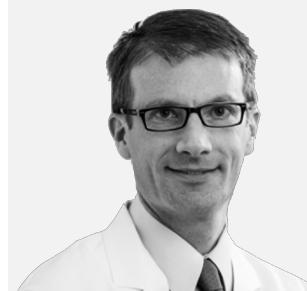


**MERCK**

**UT Southwestern**  
Medical Center



**Haukeland University Hospital**



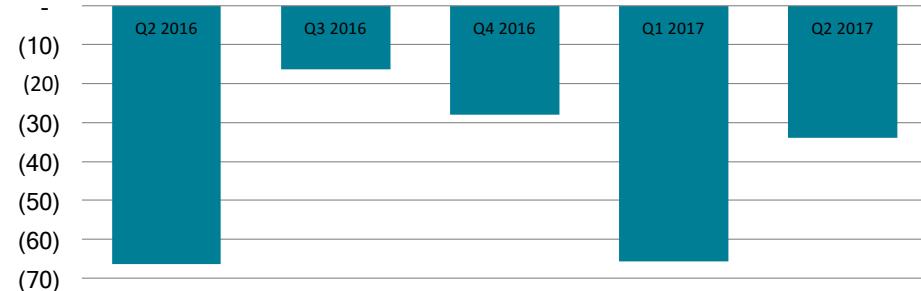
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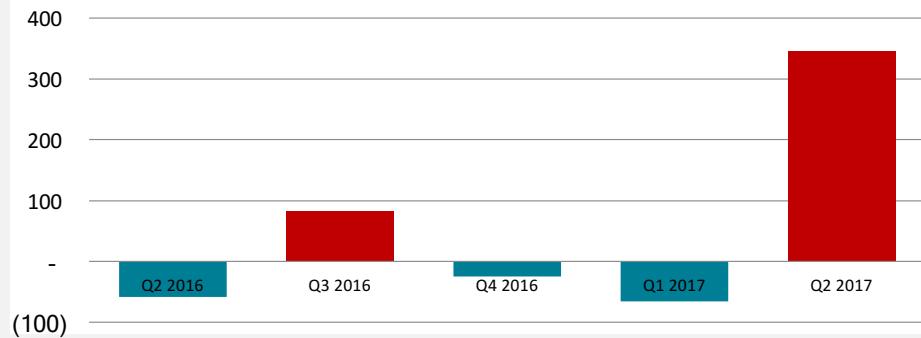
# Key financials (NOK million)

Key Figures (NOK million)	Q2 '17	Q2 '16	YTD '17	YTD '16	FY '16
Operating revenues	-	-	-	-	-
Operating expenses	33.8	66.5	99.6	87.2	131.6
Operating profit (loss)	(33.8)	(66.5)	(99.6)	(87.2)	(131.6)
Profit (loss) after tax	(34.1)	(66.2)	(99.1)	(86.5)	(129.8)
Basic and diluted earnings (loss) per share (NOK)	(0.70)	(225.83)	(2.41)	(307.27)	(419.68)
Cash position end of period	440.3	105.2	440.3	105.2	161.8

Operating Loss

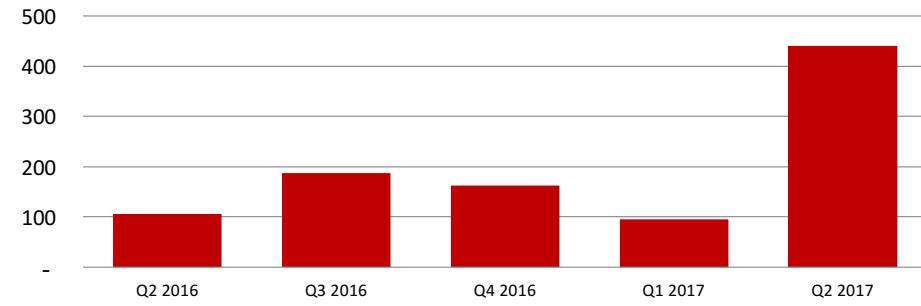


Cash Flow



Ref: BerGenBio 2Q 2017 report

Cash Position



## Summary and outlook / Investment case

First-in-class AXL inhibitors for aggressive cancers with addressable market in excess of \$11bn

BGB324 in multiple Phase II programmes with interim data readout @ ASCO 2018

Well resourced & experienced organisation to deliver pipeline and milestones

Clear strategy to develop and commercialise assets

# Thank you.

For further information please visit  
[www.bergenbio.com](http://www.bergenbio.com)

Developing first-in-class Axl inhibitors to treat  
aggressive cancer



BerGenBio