

## **BIOTECH WEBINAR**

**Business Update** 

22<sup>nd</sup> April 2021





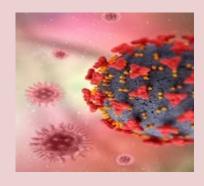
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### **BerGenBio – Investment highlights**













#### PhII COVID-19

Top line data:

- ✓ Safety
- ✓ Fewer deaths
- Time to clinical improvement
- ✓ Patient subpopulations

update in May

## TWO first in class selective AXL inhibitors

Bemcentinib - oral once-a-day capsule

> Tilvestamab – humanised functionally blocking mAb

## Diversified Clinical Pipeline

AML
MDS
NSCLC
Multiple ISTs
Covid-19

## Near term clinical milestones

COVID-19 -AML & MDS Registration path

**NSCLC** 

## Pioneering biology

World leaders in understanding AXL biology, as a mediator of aggressive cancer, fibrosis and viral infections

## Well resourced organisation

Experienced Oxford based R&D team

Industry & academic partnership and collaborations

AML – Acute Myeloid Leukaemia
MDS – Myelodysplastic Syndrome
NSCLC – Non-Small Cell Lung Cancer
IST – Investigator Sponsored Trial
AXL – Receptor Tyrosine Kinase AXL



## **Value Driving Milestone**

2020











**U U** Q2/3

2021





Bemcentinib in COVID-19 Ph II

2L NSCLC data

Relapse AML and MDS data

Tilvestamab Phase Ia/Ib Data COVID-19
Phase II

COVID-19 Development AML mOS data & regulatory alignment

Tilvestamab Ph II

Two rPh II

- UK
- India & South Africa

Interim data
- 2.5 x mPFS in cAXL patients

Interim data confirms a new significant patient population

Phase Ia complete. Phase Ib PK-PD translational study initiated

Top line data

- Clinical data at Day 29
- Determine development & regulatory options
- Survival data
- Regulatory alignment

- Prepare to Initiate Ph II





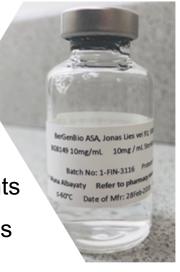
### Two first-in-class, potent, highly selective AXL inhibitors in clinical development

#### **Bemcentinib\***

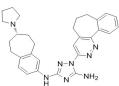
#### Tilvestamab\*\*



- Oral, once a day
- Size 0 capsule
- Stable simple drug product
- Favorable Safety and tolerability confirmed >400 patients
- Combines well with other drugs
- Phase III ready



- Fully humanized mAb,
  - functionally blocking
- Biweekly infusion
- Robust manufacture and stable formulation
- High affinity, displaces GAS6
- Phase la complete
  - No DLTs, dose proportionate PK-PD
- Phase lb/lla ongoing
  - Serial biopsies to confirm PK-PD

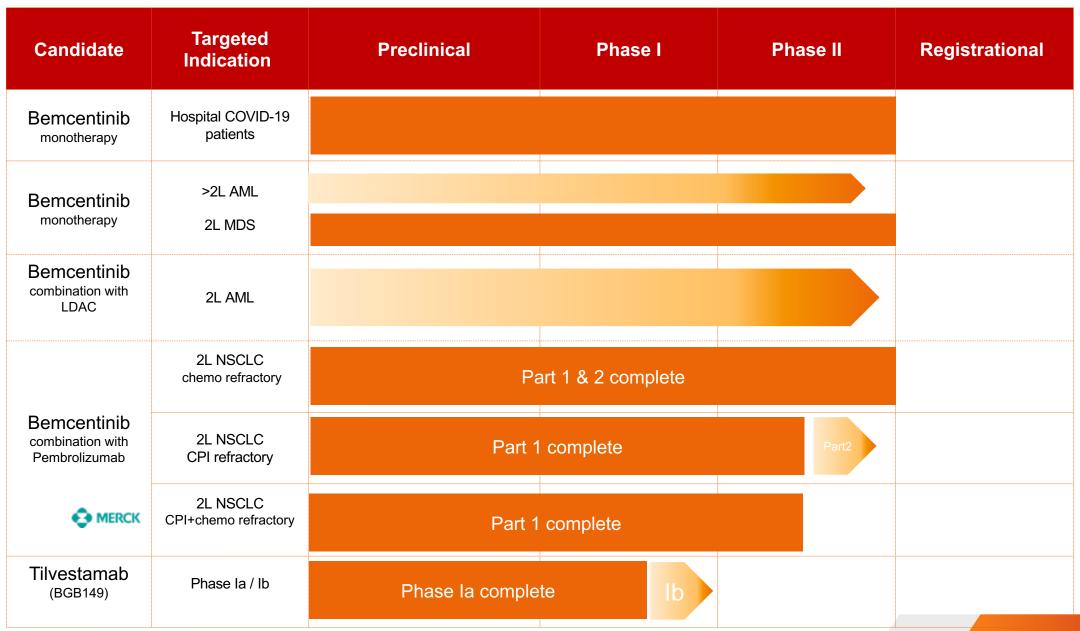


- Nano-molar potency
- 50-100 selective for AxI

<sup>\*</sup> In licensed from Rigel Pharmaceuticals Inc, 2011 – Global development and commercialization rights

<sup>\*\*</sup> Developed by BerGenBio, wholly owned asset

## Pipeline of <u>sponsored</u> clinical trials



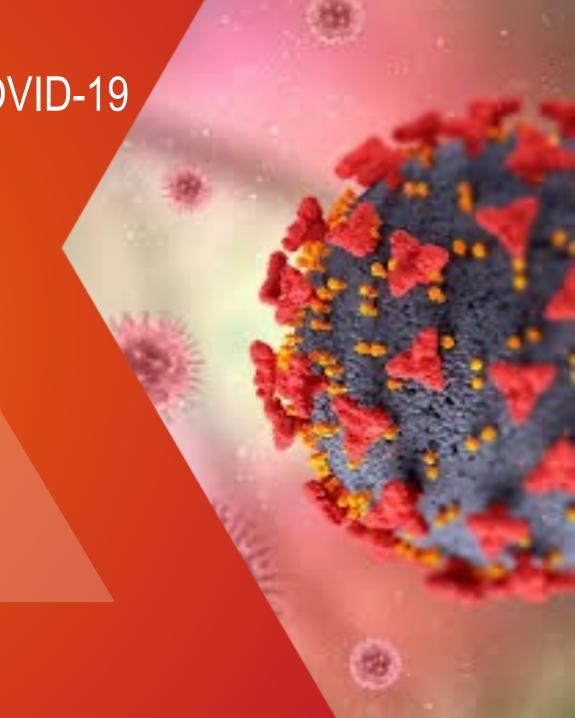
## Pipeline of <u>Investigator Sponsored Trials</u> (ISTs)

Candidate	Targeted Indication	Phase I	Phase II	Registrational	Sponsor
Bemcentinib	COVID-19	Monotherapy			Uni. Hospital Southampton/UKRI funded
	2L AML	Monotherapy			European MDS Cooperative Group
	2L HR-MDS	Monotherapy			European MDS Cooperative Group
	Recurrent Glioblastoma	Monotherapy			Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins
	Relapse Mesothelioma	+ pembrolizumab			University of Leicester   MERCK
	1L Metastatic Melanoma	+ pembrolizumab or +Dabrafenib/Tr	rametinib		Haukeland University Hospital
	2-4L Stage 4 NSCLC	+ docetaxel			UT Southwestern Medical Center
	1L metastatic or recurrent PDAC	+ Nab-paclitaxel +Gemcitabine +Cisplatin			UT Southwestern Medical Center

Bemcentinib clinical development in COVID-19

Two randomised phase II studies in 175 hospitalised COVID-19 patients (UK, India & South Africa)

- ACCORD-2 trial 60 patients (28 bemcentinib)
- BGBC020 trial 115 patients (58 bemcentinib)

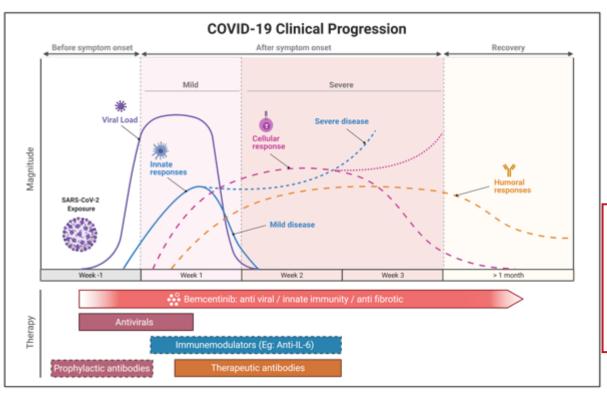


## Bemcentinib is a potential promising COVID-19 therapy that could warrant accelerated approval

- Currently no approved comprehensive COVID-19 therapy
  - o Survival benefit, early hospital discharge & antiviral effect
- AXL pathway is a novel mechanism utilised by several enveloped viruses to enter host cells and dampen viral
  immune response<sup>1,2</sup>
- Bemcentinib is once-a day pill, potent and highly selective inhibitor of AXL tyrosine kinase
  - Preclinical data confirms bemcentinib inhibits SARS-CoV-2 host cell entry and enhances anti-viral Type I interferon response<sup>1,3</sup>
  - o MoA independent of spike protein (or mutations) and therefore should remain effective against current and future variants
- Bemcentinib investigated in **two PhII clinical studies** in hospitalised COVID-19 patients (UK, South Africa & India)
  - Generally well-tolerated in COVID-19 (86 patients) => consistent with >350 patients studied in oncology programme (mild and reversible adverse events)

### Bemcentinib broad positioning for potential treatment of COVID-19

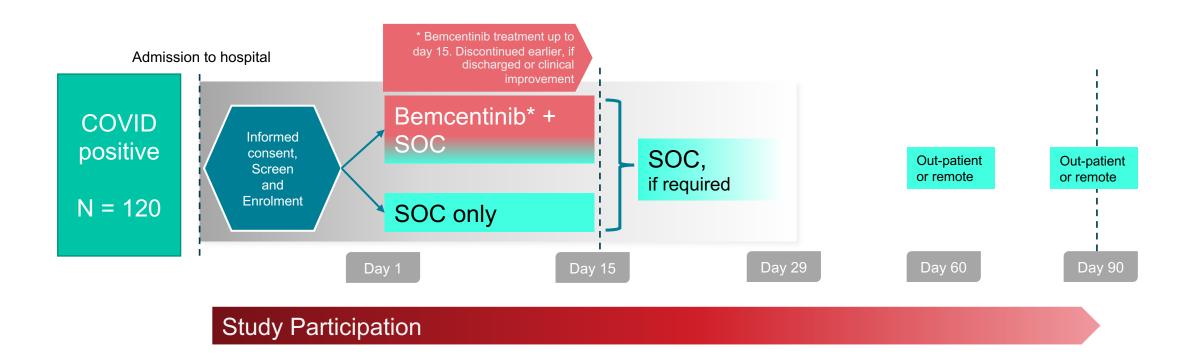
#### **Stages of the disease**



#### **WHO Ordinal Patient classification**

		Setting	Severity	Supportive intervention	BGBC020 ACCORD2	Dexamethas one	IL-6 receptor antagonists	Remdesivir
•	0	Uninfecte d	no clinical or virological evidence of infection					
	1	Ambulato ry	no limitation of activities					
	2		limitation of activities					
	3		mild	no oxygen therapy	bemcentinib			
	4			oxygen by mask or nasal prongs	ncer			
	5	Hospitali sed	severe	noninvasive ventilation or high- flow oxygen	pen			
	6			intubation and mechanical ventilation				
	7			ventilation and additional organ support –				
•	8		Death					

## Clinical Study design BGBC020 and ACCORD2 share identical design



## Bemcentinib studied in hospitalised COVID-19 patients across three district geographies, with differing demographics and ethnicities

Patient Accrual	BGBC020: India	BGBC020 South Africa	ACCORD2 UK	Total
	Pakistan  HANYAN  New Deby of Blood  PAASTHAN  Annual  PAASTHAN  Annual  Deby OULARAT  OULARA	Galogoog Tourism Touri	Preston  Southorpe  Grissoy  Doncaster  Doncaster  Lingolyshire  World's AONE  Peak District  National Park  Lingolyshire  World's AONE  Chetera ford  Chetar ford  Chetar ford  Chetar	
Bemcentinib	30	28	28	86
SoC	30	27	32	89
				175

#### **Bemcentinib randomised Studies in COVID-19**

COVID: BGBC020

BGBC019 – ACCORD -120 pts & BGBC020 – 120 pts

#### **Primary objective**

To evaluate the efficacy of bemcentinib as add-on therapy to standard of care (SoC) in patients hospitalised with coronavirus disease 2019 (COVID-19).



#### **Primary endpoint**

Time to sustained clinical improvement of at least 2 points (from randomisation) on a 9-point category ordinal scale, live discharge from the hospital, or considered fit for discharge (a score of 0, 1, or 2 on the ordinal scale), whichever comes first, by Day 29 (this will also define the "responder" for the response rate analyses).

#### **Key Secondary objectives**

- To evaluate the ability to prevent deterioration according to the ordinal scale by 1, 2, or 3 points
- To evaluate the number of oxygen-free days
- To evaluate severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) viral load



#### **Key Secondary objectives**

- The proportion of patients not deteriorating according to the ordinal scale by 1, 2, or 3 points on Days 2, 8, 15, and 29
- Duration (days) of oxygen use and oxygen-free days
- Qualitative and quantitative polymerase chain reaction (PCR)
  determination of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in oropharyngeal/nasal swab while hospitalised on Days 1, 3, 5, 8, 11, 15, and 29

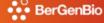
#### **Exploratory objectives**

- · To evaluate PK of bemcentinib
- To evaluate SARS-CoV-2 viral load
- To collect samples for serology research, viral genomics, serum antibody production, and COVID-19 diagnostics



#### **Exploratory objectives**

- PK concentration and parameters
- Qualitative and/or quantitative PCR determination of SARS-CoV-2 in blood (on Day 1) and saliva
- Analysis of samples collected at baseline prior to treatment and at specific time points



### **Clinical Data Update**

- ✓ Day 29 follow up of last patient enrolled in both BGBC020 and ACCORD2\_002
- ✓ Data receipt is on going and evaluation of efficacy is underway
- ✓ Exploring subsets of patients with baseline markers indicative of increased disease severity, with potential for greater benefit
- ✓ Numerically lower number of deaths in bemcentinib treated patients

#### **Patient Disposition**

81% grade 4 – require oxygen but not ventilatory assistance

75% patients received steroids

50% patients received remdesivir

No safety signals of concern

#### Survival

#### ACCORD2 002

1 death in 28 bemcentinib treated patients

5 deaths in 32 SOC treated patients

#### BGBC020

2 deaths in 58 bemcentinib treated patients

3 deaths in 57 SOC treated patients

#### **End Points**

**Primary**: time to clinical improvement of at least two points (from randomisation) on the 9-point WHO ordinal scale, or live discharge from the hospital, whichever comes first.

> <u>numerically in bemcentinib's favour</u> (p>0.05- statistical significance)

(small study, in a diverse population and demographic)

#### **Key Secondary**:

- Avoidance of worsening of the WHO scale throughout hospitalisation,
- > Duration for which patients required oxygen,
- Changes over time in levels of virus detected in different body fluids.



### **Summary**

#### **Bemcentinib potential treatment for COVID-19**



#### Bemcentinib advantage

- For a very broad spectrum of COVID-19 patients, throughout the disease cycle
- Convenient, once-a-day oral pill, which combines with other treatments including steroids and/or remdesivir, and others
- Favorable safety profile, no safety signals of concern reported
- The novel mechanism of action is independent of the SARS-CoV2 spike protein and thus would be expected to retain its effect with the emergence of new, potentially vaccine-resistant, strains of the virus.
- Potential for broad application across multiple indications
- Able to combine with other drugs to establish best treatment regiments





### **AXL** mediates aggressive disease

Very low expression under healthy physiological conditions

### AXL signaling is upregulated by hostile cellular microenvironment and viral infection

#### Cancer

- Immune evasiveDrug resistantMetastatic
- Elevated AXL signaling strongly associated with cancer progression, immune evasion, drug resistance and metastasis

#### Viral infection

- •SARS-CoV-2 •Ebola
  - Ebola • Zika

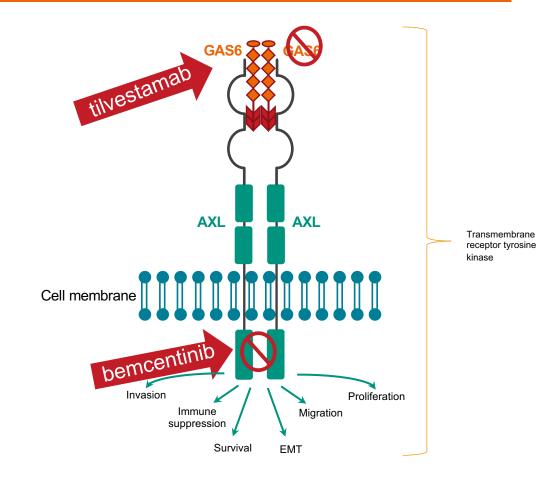
AXL mediates viral entry to cells and dampening of viral immune response

#### **Fibrosis**

- Renal
- NASH
- NATE
- COPD

Axl regulates cellular plasticity implicated in fibrotic pathologies e.g. EMT, EndMT, Macrophage polarity

#### **Bemcentinib & Tilvestamab selective AXL inhibitors**







## Two Companion Diagnostic Assays\* for patient selection

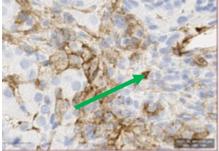
#### Composite AXL score (cAXL) – solid tumours

simultaneously computes the presence of AXL on membranes of tumor & immune cells

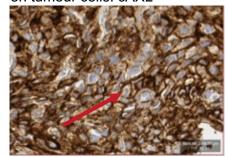


- Immunohistochemistry (ICH) method
- IHC most widely used CDx in cancer
- Requires a tissue biopsy
- Method stains for Axl protein
- Slides are read by trained pathologists
- cAXL score by a proprietary Dx algorithm

Example of tumour with a high number of AXL positive immune cells: cAXL<sup>+ve</sup>



Example of high AXL expression on tumour cells: cAXL+ve

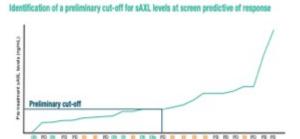


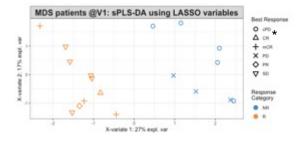
#### Soluble AXL score (sAXL) - Blood tumours (+ possibly Fibrosis & COVID-19)

Measures the concentration of soluble AXL in plasma



- Requires blood sample
- Automated assay method
- Inverse correlation with AML response rate
- Improved sensitivity and selectivity with a signature of blood based immune markers
- Reported for monotherapy in MDS







## Bemcentinib development Acute Myeloid Leukaemia

- ➤ FDA granted Orphan status in AML
- >FDA granted Fast Track Designation in AML
- Defining a new patient population: relapsed AML and MDS
  - Patients having failed HMA +/- BCL2, FLT3 or IDH inhibitors
  - Encouraging Patient Benefit Reported
  - Data update anticipated at EHA conference (June)



## Acute Myeloid Leukaemia (AML)

Most common type of acute leukaemia in adults<sup>1</sup>

AML is a rare aggressive cancer of the blood and bone marrow characterised by difficult to treat malignancies

~ 20,000 new cases diagnosed and >10,000 deaths in the US in 2018<sup>2</sup>

AML makes up 32% of all adult leukaemia cases

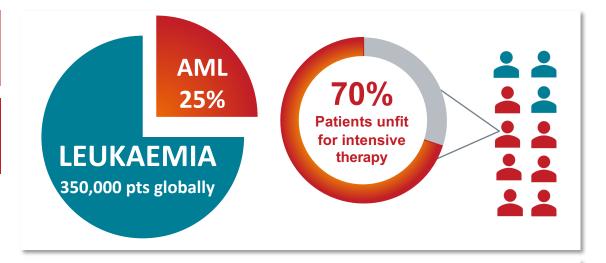
Occurs in a predominantly elderly, frail patient population; 68% of patients diagnosed with AML were aged >60 years <sup>6</sup>

Standard of Care:

1L: 66% CR/CRi, mOS 14.7mo.8

Relapse: mOS 4.5mo.

5-year survival rates of 3-8% in patients over 60 years old 7





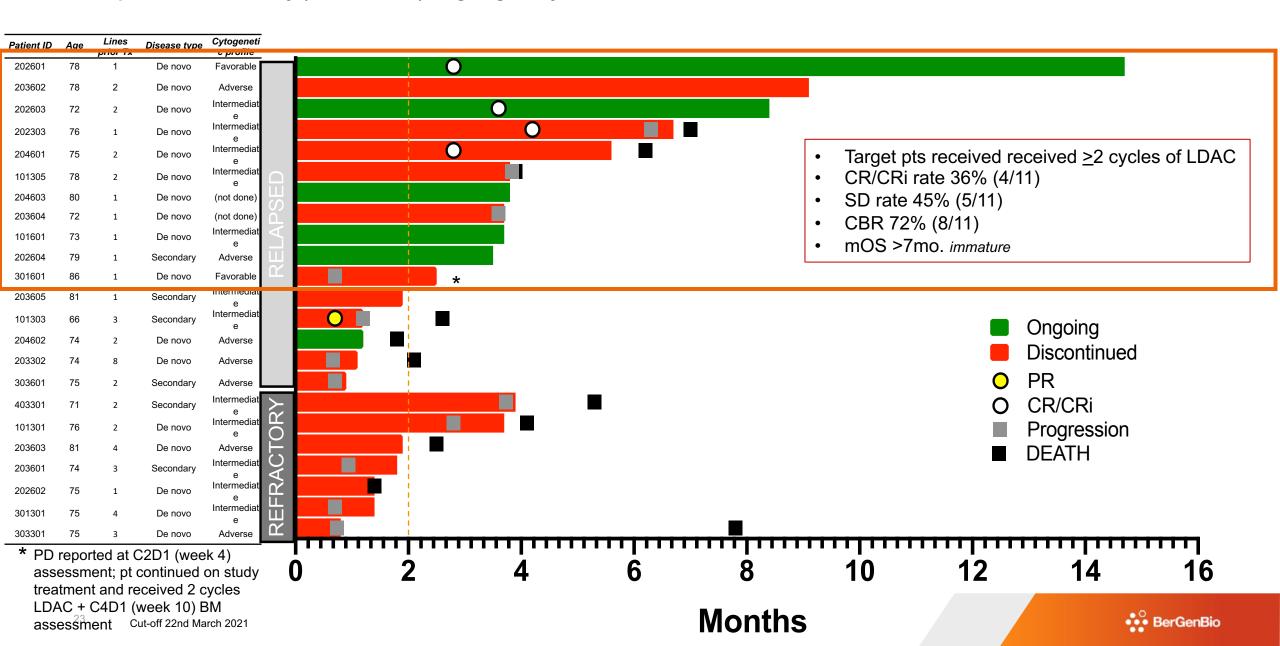


<sup>(4)</sup> https://www.cancer.net/cancer-types/leukemia-acute-myeloid-aml/statistics (5) https://www.businesswire.com/news/home/20190319005442/en/ (6) https://asheducationbook.hematologylibrary.org/content/2010/1/62.long, (7) https://www.ncbi.nlm.nih.gov/books/NBK65996/ (8) VIALE A & C



#### Time on treatment in relapsed/refractory AML patients (bemcentinib + LDAC)

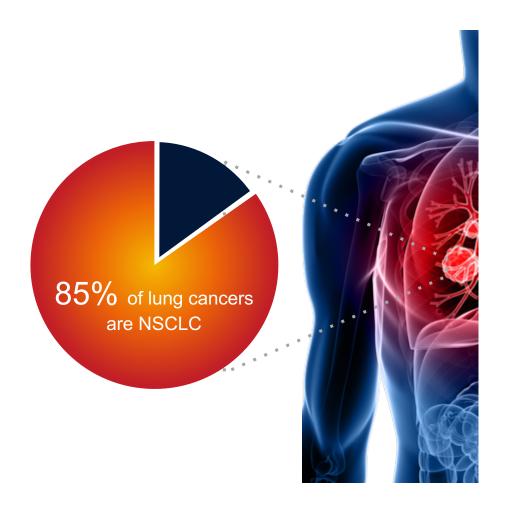
n=17 relapsed, n=7 refractory (16 evaluable) Ongoing study



# Bemcentinib clinical development in Non-Small Cell Lung Cancer (NSCLC)



## NSCLC causes more cancer related deaths than breast, colon, pancreas and prostate combined



## The largest cancer killer, most patients depend on drug therapy

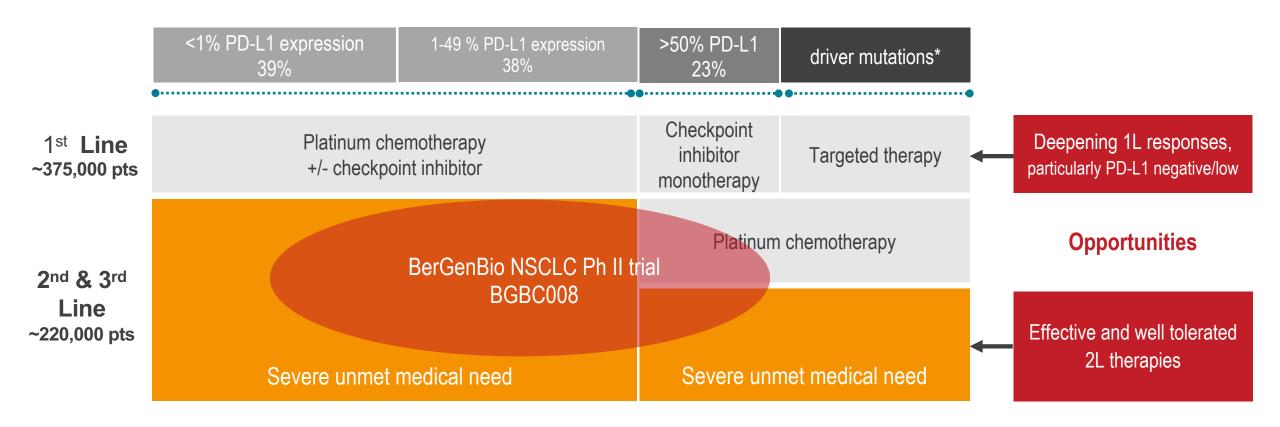
- 2.09 million new cases of lung cancer diagnosed/yr worldwide, making up 11.6% of all cancer cases<sup>1</sup>
- > 1.76 million lung cancer deaths/yr worldwide<sup>1</sup>
- NSCLC market opportunity \$39bn
- In the U.S, 5-year survival rate is approximately 18.6%, and **4.7%** in patients with distant metastases<sup>2</sup>

Non-small cell lung cancer is the most common type of lung cancer, making up 80-85% of lung cancers



### Non-Small Cell Lung Cancer (NSCLC)

Rapidly evolving SoC creates opportunities for novel effective, chemo free regimens





## Summary Update: 2L ad. NSCLC Study with bemcentinib + pembrolizumab

#### **Cohort A**

- Previously treated with a platinum containing chemotherapy
- CPI-naïve
- · Has PD at screening

#### **Interim Analysis**

Stage 1

N=22 patients

#### **Final Analysis COMPLETE**

Stage 2 N=48 patients

➤ Encouraging Survival in cAXL<sup>+</sup>

#### **Cohort B**

- Previously treated with a mono therapy PD-L1 or PD-1 inhibitor
- Must have had disease control on most recent treatment
- Has PD at screening

#### **Interim Analysis**

Stage 1 N=16 patients

► Encouraging mPFS in cAXL+

#### **Recruitment ONGOING**

Stage 2

N=29 patients

#### **Cohort C**

- Previously treated 1<sup>st</sup> line with a combination of checkpoint inhibitor
   platinum-containing chemotherapy
- Must have had disease control on 1<sup>st</sup> line therapy
- · Has PD at screening

#### **Interim Analysis**

Stage 1 N=13 patients

ORR and biomarker data pending

#### Hold

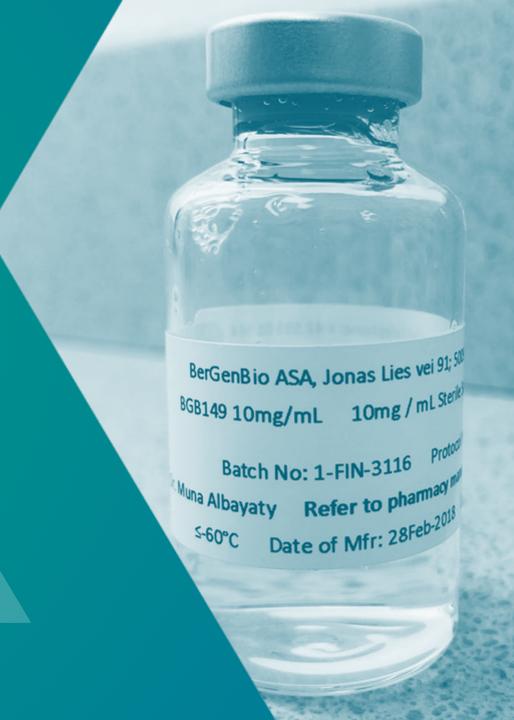
Stage 2

N=29 patients





Tilvestamab (BGB149) anti-AXL monoclonal antibody



### Tilvestamab development plan

2020

#### Phase la safety study

Complete 24 Healthy Volunteers

2021

#### Ph lb safety study -

ongoing

12-24 HGSOC<sup>1</sup> patients

3 dose levels / serial biopsies

Primary End Pt: Safety and PK

Secondary: immunoigenicity, PD, ORR, PFS, DCR,cAXL

Ph IIa POC

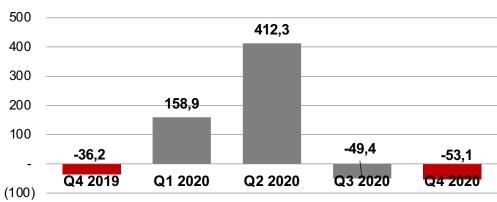
**Safety** – no dose limiting toxicity seen up to 3mg/kg dose

**Pharmacokinetics** - exposure predictable with dose proportional Cmax increase Confirmatory evidence of *in* vivo target engagement with sAXL -- stabilisation in circulation

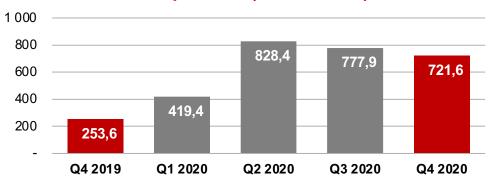


### Cash flow and cash position

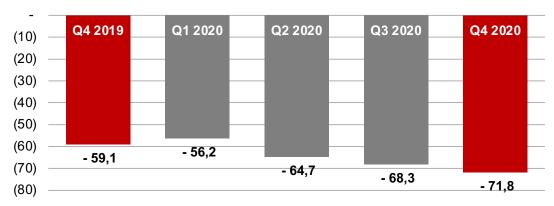




#### **Cash position (million NOK)**



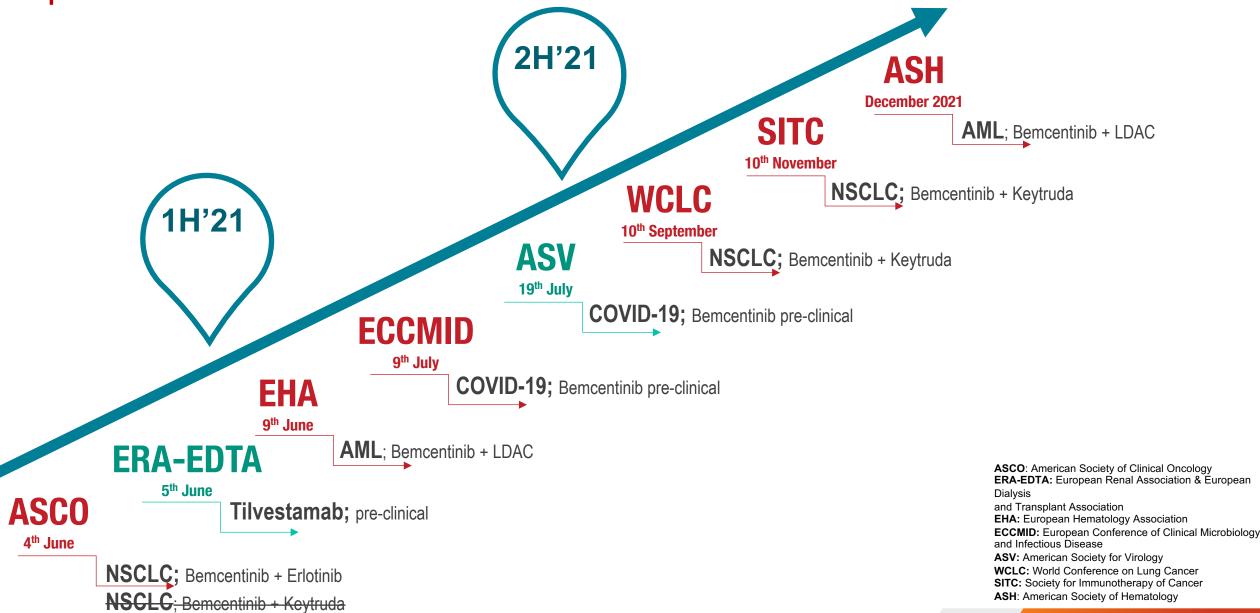
#### Operating profit (-loss) million NOK



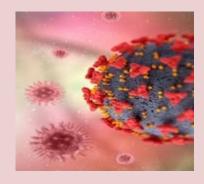
- Cash position Q4 2020 NOK 721.6 million (USD 84.6m).
- Quarterly average cash burn (Q419 Q420) NOK 54.0m (USD 5,8m)



Expected news flow at conferences in 2021



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