



# AXL inhibitors for aggressive disease

Corporate Presentation  
January 2021

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# BerGenBio Corporate Overview



## World leaders in understanding AXL biology

AXL tyrosine kinase mediates aggressive disease: immune evasion, therapy resistance & metastatic cancer, fibrosis and viral infection

Selective AXL inhibitors have the potential to treat many serious unmet medical needs

**Pipeline opportunities in multiple aggressive diseases**



## 2 selective AXL inhibitors in clinical development

Bemcentinib (oral once a day pill)  
Tilvestamab (mAb)

Bemcentinib broad Phase II program  
Monotherapy and combos with CPI, targeted & chemo

Biomarker correlation, parallel CDx development

Bemcentinib clinical data points 2020:  
**AML** (chemo-combo)  
**NSCLC** (KEYTRUDA combo) **COVID19** (mono)



## Resourced to deliver milestones

Listed on Oslo Børs: BGBIO

Clinical trial collaborations  
Merck, UKRI, and leading academic centres EU & USA

47 staff at two locations:  
HQ & R&D in Bergen, Norway;  
Clinical Development in Oxford, UK

**Cash Q3'20 NOK778m (\$82m)**

# Introduction AXL biology



# Our drugs selectively inhibit AXL signaling

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

Elevated AXL signaling strongly associated with cancer progression, immune evasion, drug resistance and metastasis

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

## Fibrosis

- Renal
- NASH
- IPF
- MF
- COPD

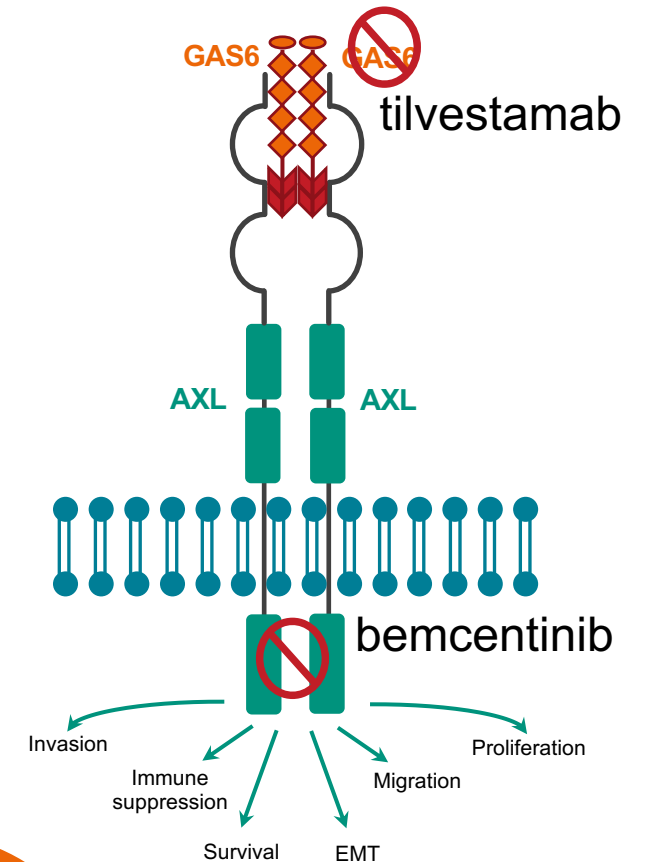
AXL

## Cancer

- Immune evasive
- Drug resistant
- Metastatic

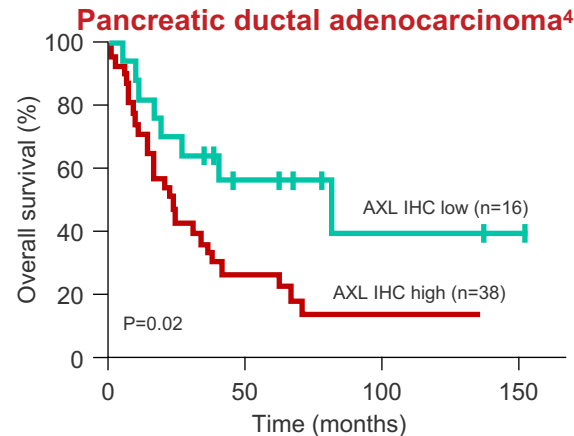
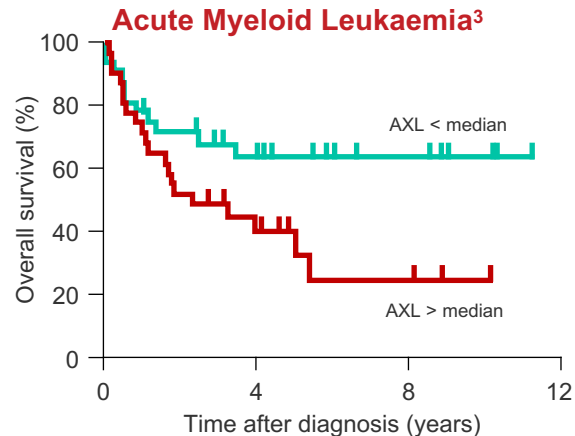
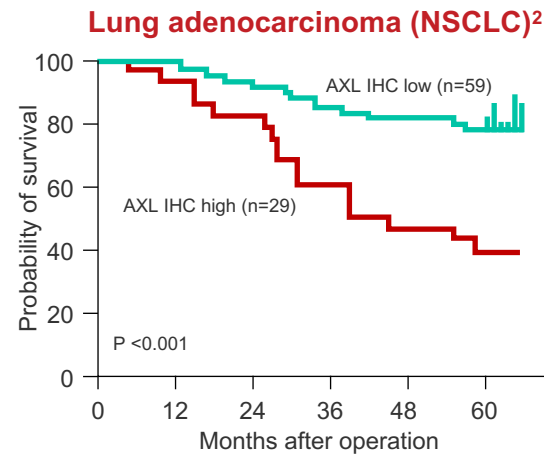
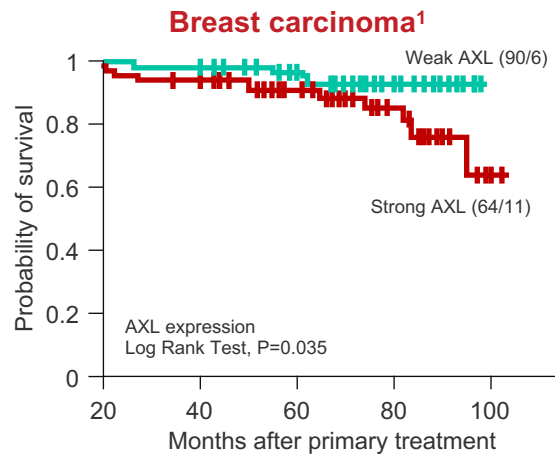
## Viral infection

- Sars\_Cov\_2
- Ebola
- Zika



# AXL is an independent negative prognostic factor in a broad variety of cancers

## Strong AXL expression correlates with poor survival rate



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

Astrocytic brain tumours

Breast cancer

Gallbladder cancer

GI

- Colon cancer

- Oesophageal cancer

- Gastric cancer

Gynaecological

- Ovarian cancer

- Uterine cancer

HCC

HNC

Haematological

- AML

- CLL

- CML

Melanoma

Mesothelioma

NSCLC

Pancreatic cancer

Sarcomas

- Ewing Sarcoma

- Kaposi sarcoma

- Liposarcoma

- Osteosarcoma

Skin SCC

Thyroid cancer

Urological

- Bladder cancer

- Prostate cancer

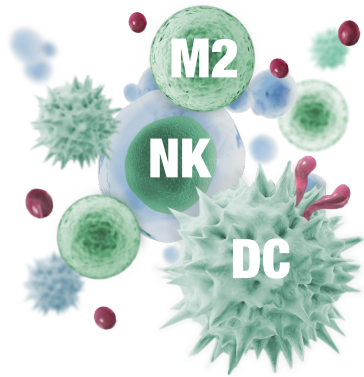
- RCC

# AXL is a key survival mechanism 'hijacked' by aggressive cancers and drives drug resistance, immune-suppression & metastasis

very low expression under healthy physiological conditions

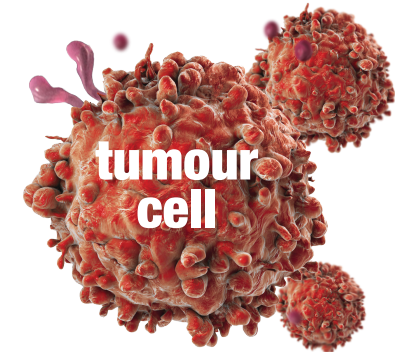
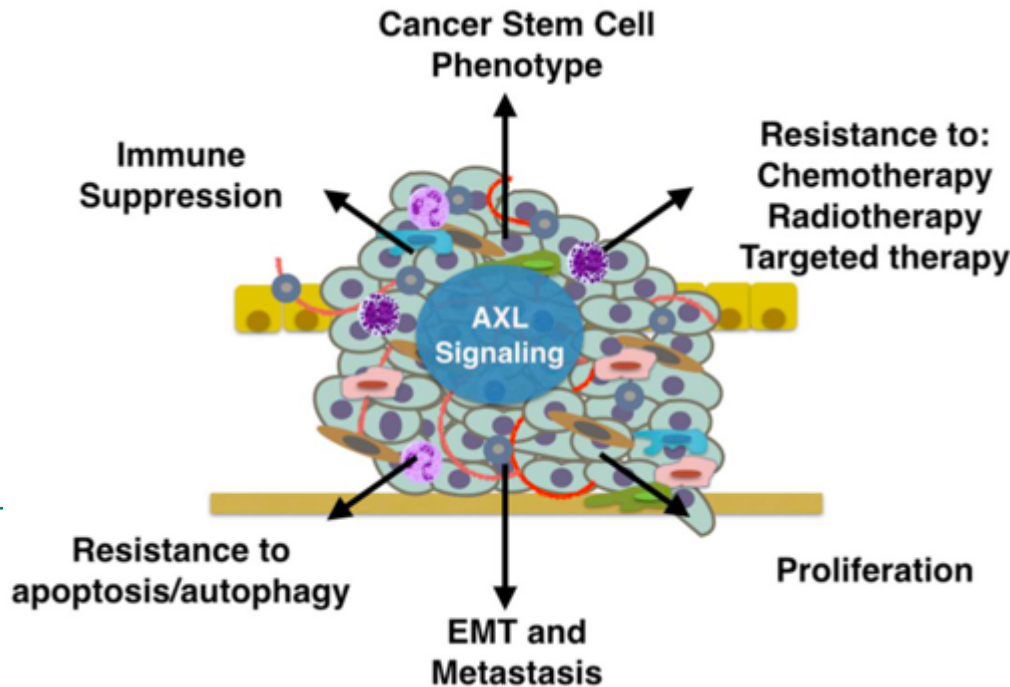
overexpressed in response to hypoxia, inflammation, cellular stress & drug treatment

overexpression correlates with worse prognosis in most cancers



AXL increases on immune cells and suppresses the innate immune response

- M1 to M2 macrophage polarisation
- Decreased antigen presentation by DCs
- Prevent CD8+ T cell mediated cell death
- Activates Treg cells



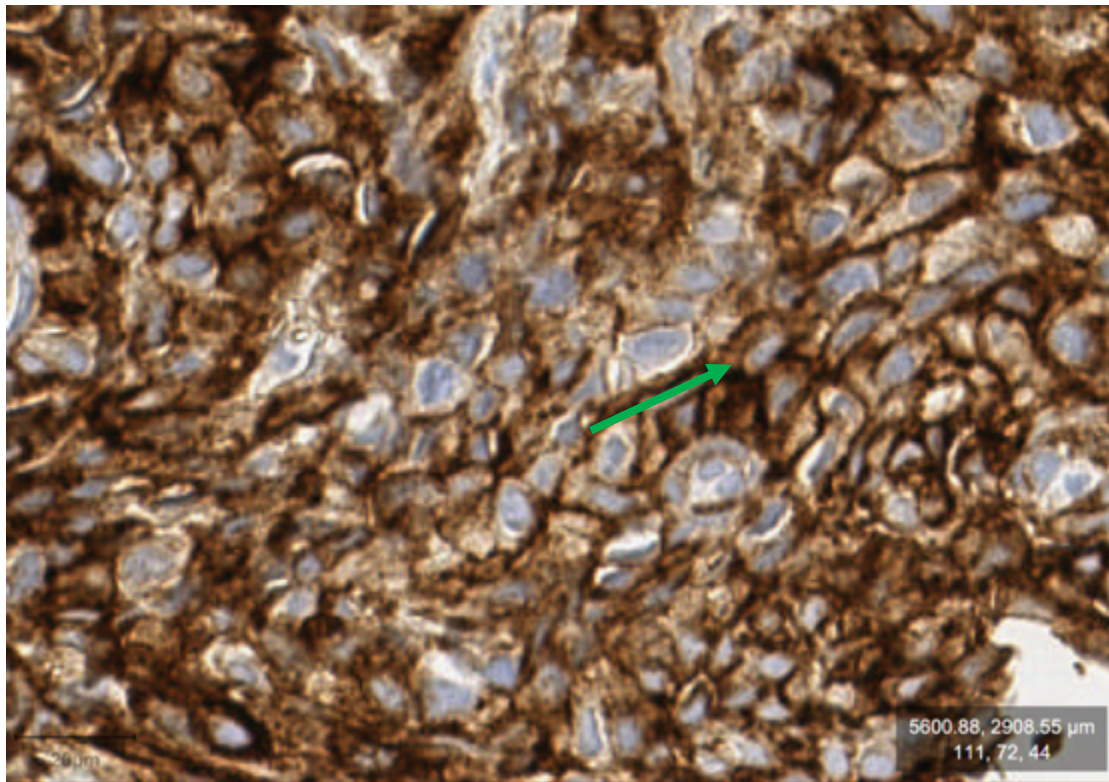
AXL increases on the tumor cell and causes cancer escape and survival

- AXL is a unique type I interferon (IFN) response checkpoint
- Acquired drug resistance
- Immune cell death resistant
- Metastasis

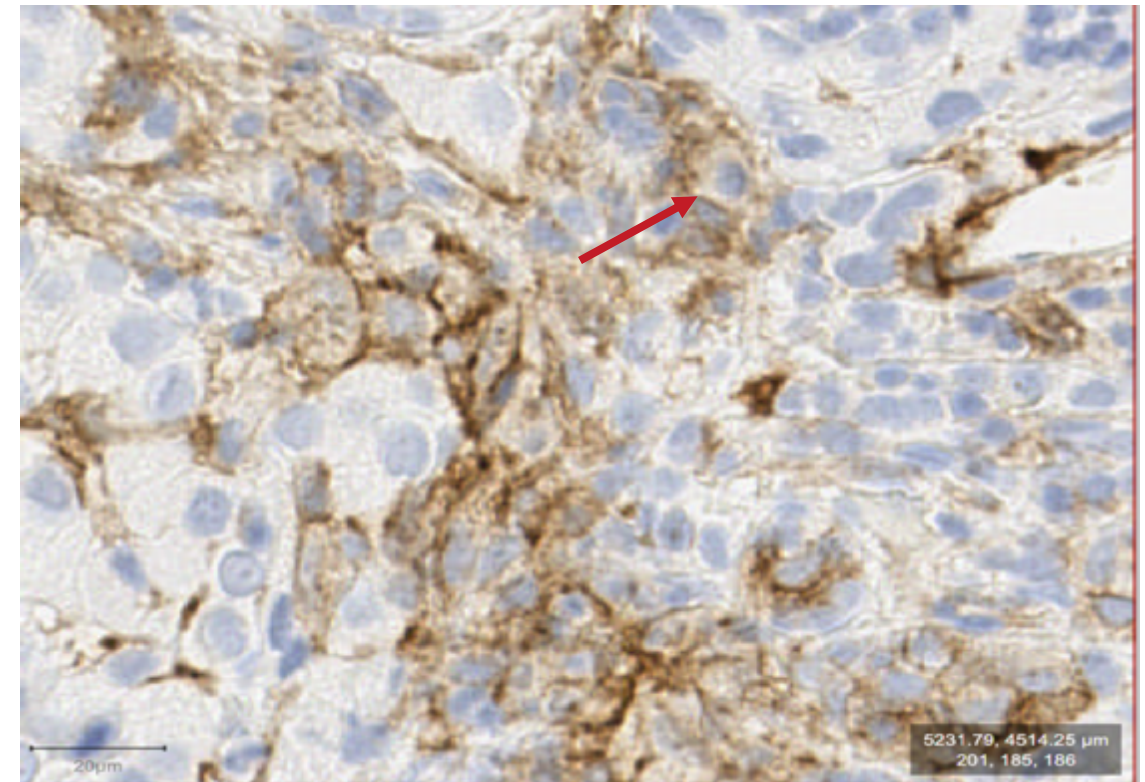


# Composite AXL score (cAXL) - status defined by presence of AXL on membranes of tumor + immune cells

Example of high AXL expression on tumour cells: cAXL status of this patient is positive



Example of tumour with a high number of AXL positive immune cells: cAXL status of this patient is positive



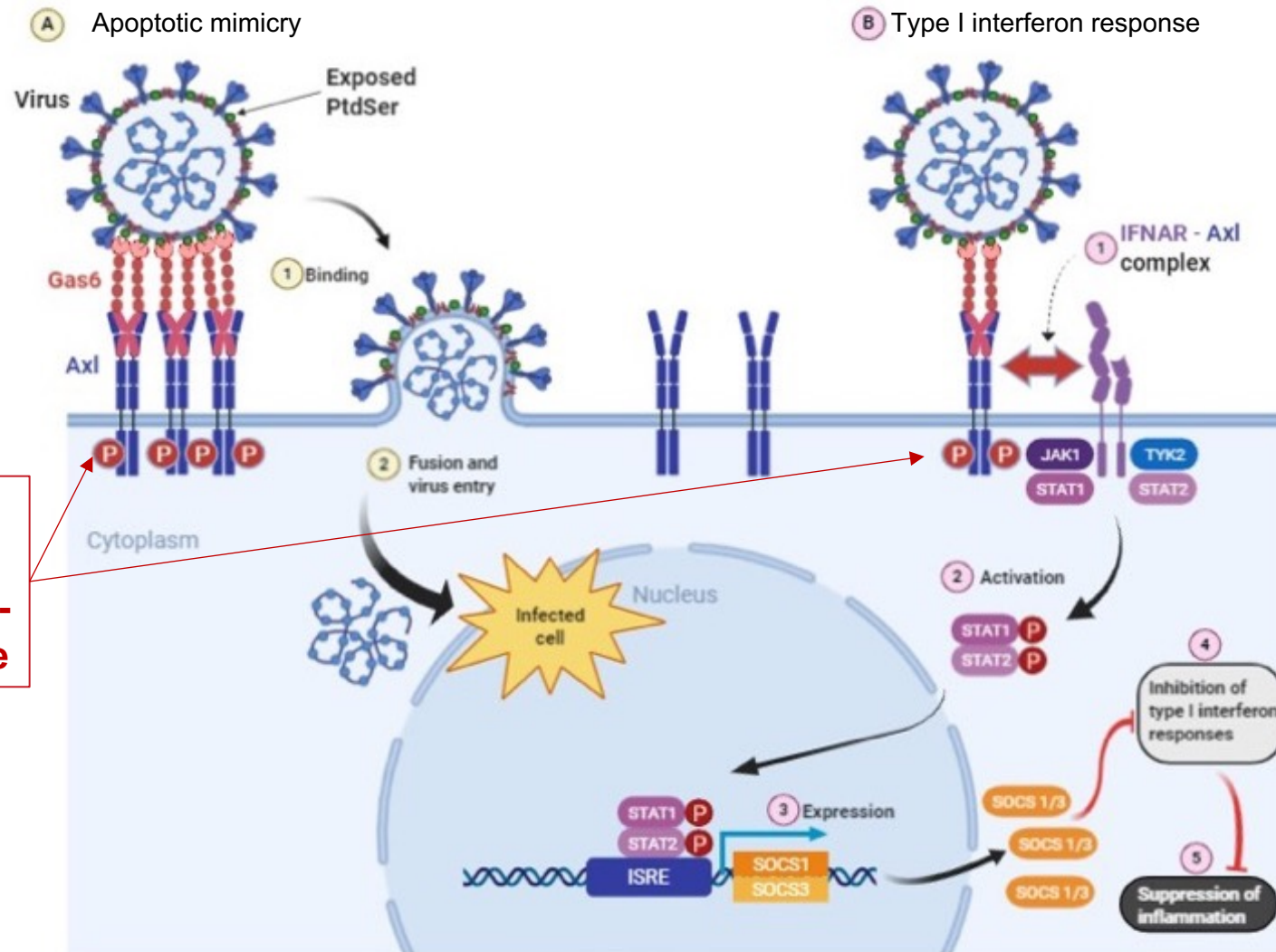
- Arrows directed at examples of positively-stained **tumour** and **immune** cell, respectively
- Both patients experienced significant tumour shrinkage on bemcentinib + pembrolizumab treatment combination

# AXL is targeted by enveloped viruses to enter cells and dampen the viral immune response

Enveloped viruses display phosphatidylserine that is recognized by GAS6, the AXL receptor ligand, that mediates viral entry through “apoptotic mimicry”.

**bemcentinib blocks AXL-dependent viral entry and enhances anti-viral interferon response**

**Bemcentinib potently inhibits SARS-CoV-2 infection of cells.<sup>1</sup>**

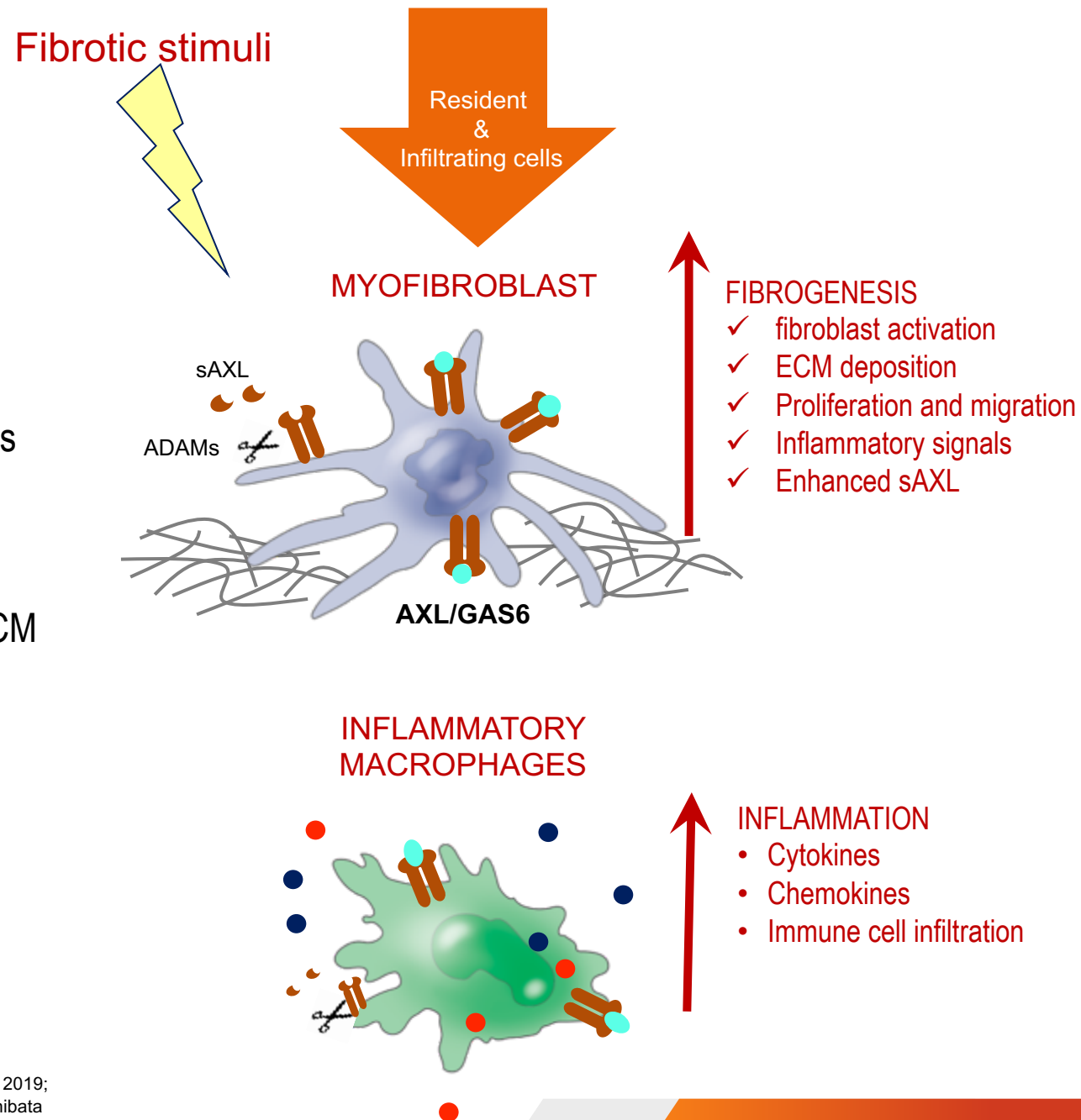


Viral-mediated AXL receptor activation dampens type I interferon responses, a key anti-viral defence mechanism for all cells



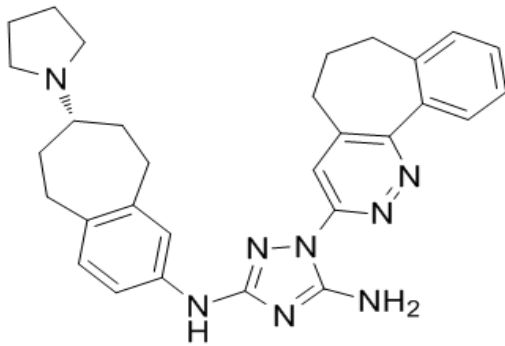
# The role of AXL in fibrosis

- AXL Regulates and modulates key fibrogenic pathways
  - TGF $\beta$  signaling<sup>1,2</sup>
  - Mechanosensing Hippo pathway<sup>3</sup>
  - Peroxisome proliferator-activated receptor<sup>4</sup>
- Axl regulates cellular plasticity implicated in fibrotic pathologies e.g. EMT, EndMT, Macrophage polarity
- AXL is a negative regulator of epithelial cell barrier integrity<sup>5</sup>
- Axl is required for hepatic stellate cell (HSC) activation and ECM deposition<sup>6</sup>
- Pharmacological modulation of Axl inhibits pre-clinical fibrosis development:
  - Liver (CCl<sub>4</sub><sub>6</sub>/HighFatDiet<sub>7</sub>),
  - Renal (UUO<sub>8</sub>)
  - Pulmonary (Asthma<sup>9</sup>, Bleo<sup>10</sup>, IPF<sup>10</sup>) / COPD



# Introduction bemcentinib

# Bemcentinib, a first-in-class, potent, oral, highly selective AXL inhibitor




- ✓ Nanomolar in vitro potency ( $IC_{50} = 14 \text{ nM}$ )
- ✓ Uniquely selective for AXL
  - ✓ 50-100 fold selective *cf.* TAM kinases



- ✓ Manufacturing at increased scale for late stage regulatory filing
- ✓ Size 0 100mg HPMC capsules
- ✓ 3 years stability confirmed
- ✓ Formulation development
  - ✓ Enhanced solubility
  - ✓ Nano dispersion

- ✓ Once daily oral dosing
- ✓ Extensive Phase I & II experience
  - ✓ >350 patients
- ✓ Safety and tolerability profile supports use in combination with other drugs
- ✓ MOA is synergistic with other therapies, enhancing response



# Pipeline of sponsored clinical trials

Candidate	Targeted Indication	Preclinical	Phase I	Phase II	Registrational
Bemcentinib monotherapy	>2L AML & MDS				
Bemcentinib combination with LDAC	2L AML				
Bemcentinib combination with Pembrolizumab 	2L NSCLC chemo refractory				
	2L NSCLC CPI refractory				
	2L NSCLC CPI+chemo refractory				
Bemcentinib monotherapy	Hospital COVID19 patients				
Tilvestamab (BGB149)	Phase I				

Ongoing Trial

Completed Trial

# Pipeline of Investigator Sponsored Trials (ISTs)

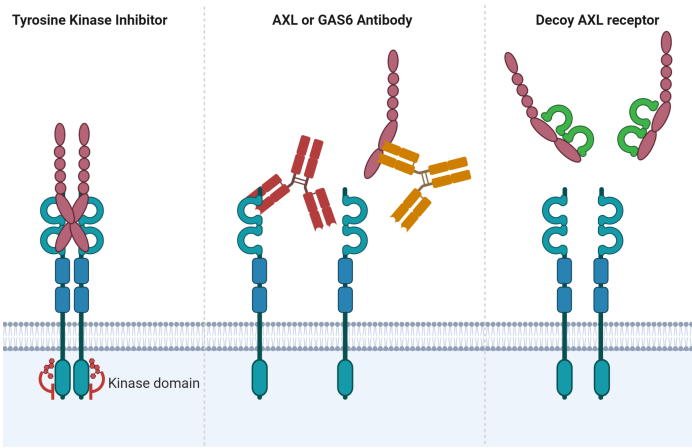
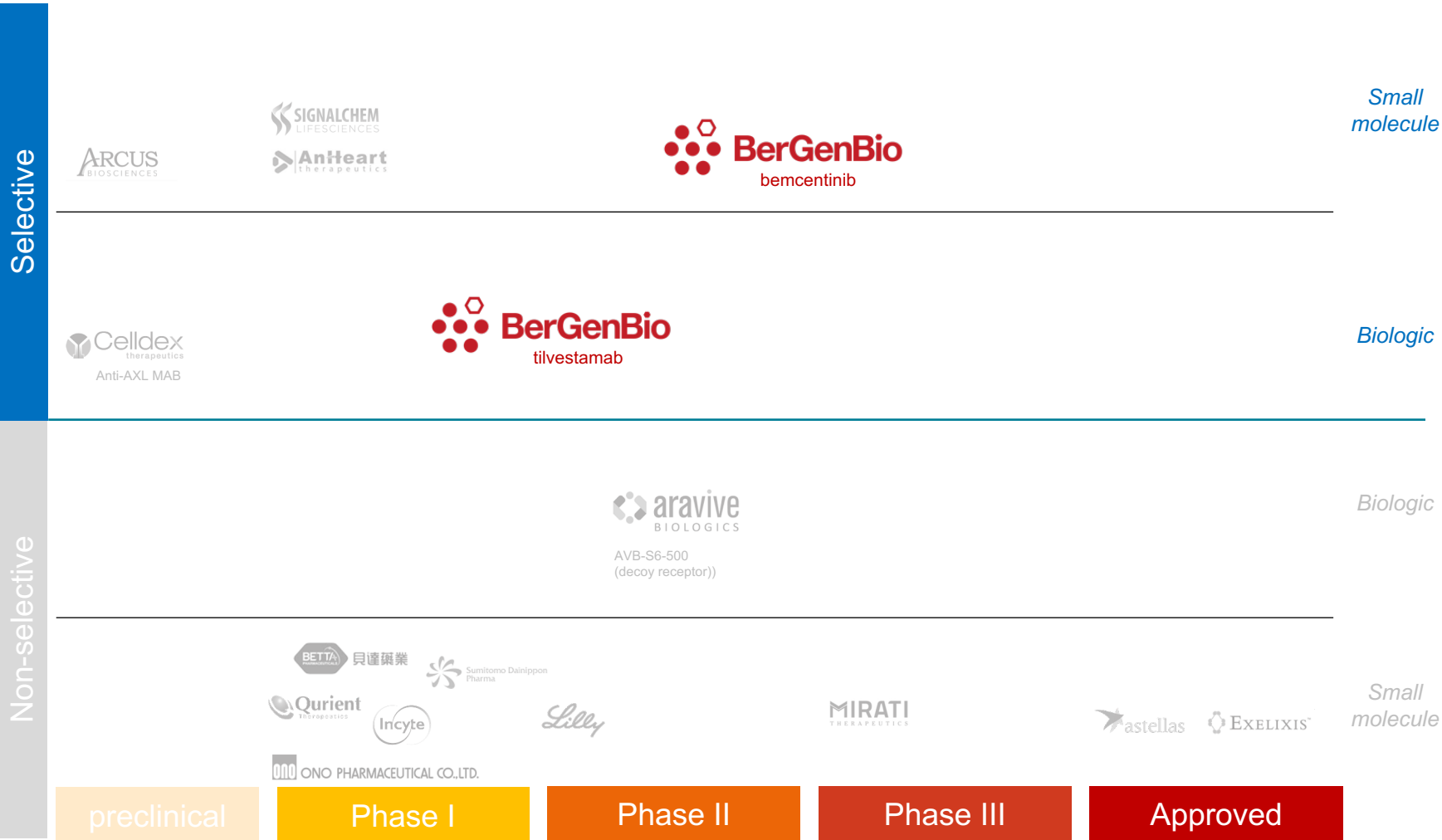
Candidate	Targeted Indication	Phase I	Phase II	Registrational	Sponsor
Bemcentinib	COVID-19	Monotherapy			Uni. Hospital Southampton/UKRI funded 
	2L AML	Monotherapy			European MDS Cooperative Group
	2L NSMDS	Monotherapy			European MDS Cooperative Group
	Recurrent Glioblastoma	Monotherapy			Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins
	Relapse Mesothelioma	+ pembrolizumab			University of Leicester 
	1L Metastatic Melanoma	+ pembrolizumab or +Dabrafenib/Trametinib			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

Ongoing Trial

Completed Trial



# Bemcentinib is most advanced and broadly developed selective AXL inhibitor



# AXL inhibitor treatment of AML with bemcentinib

- FDA granted Orphan status in AML
- FDA granted Fast Track Designation in AML

# Acute Myeloid Leukaemia (AML)

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

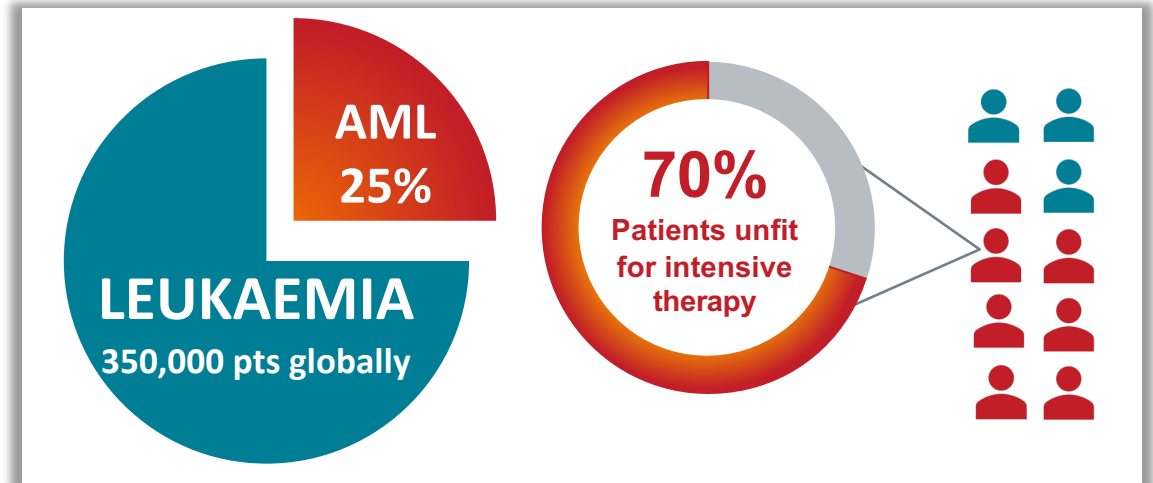
AML is a rare aggressive cancer of the blood and bone marrow characterised by difficult to treat malignancies

~ 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>

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



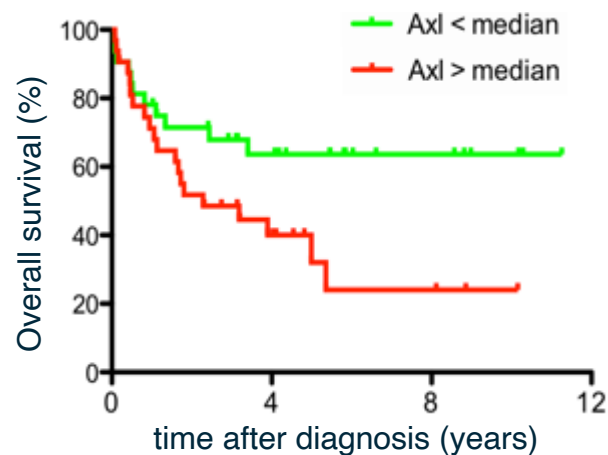
(1) Cancer.gov; (2) SEER; (3) [https://www.who.int/selection\\_medicines/committees/expert/20/applications/AML\\_APL.pdf?ua=1ble](https://www.who.int/selection_medicines/committees/expert/20/applications/AML_APL.pdf?ua=1ble)

(4) <https://www.cancer.net/cancer-types/leukemia-acute-myeloid-aml/statistics> (5) <https://www.businesswire.com/news/home/20190319005442/en/> (6)

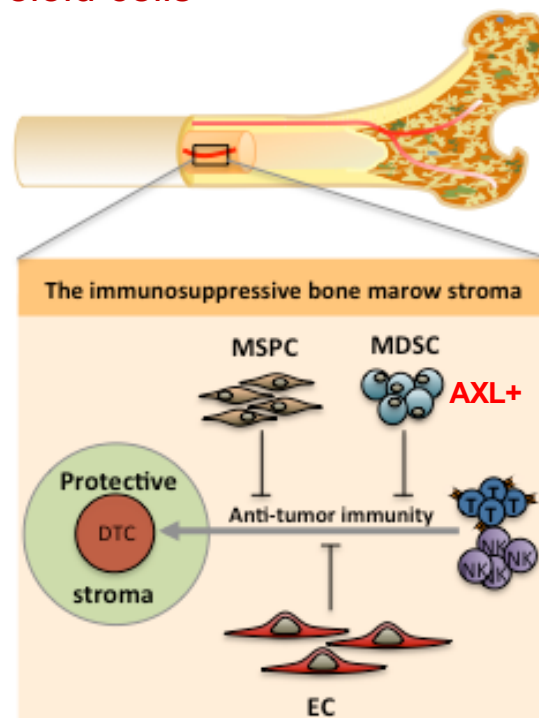
<http://asheducationbook.hematologylibrary.org/content/2010/1/62.long>, (7) <https://www.ncbi.nlm.nih.gov/books/NBK65996/>

# Bemcentinib inhibits AML/MDS cell survival and enhances anti-leukemic immunity

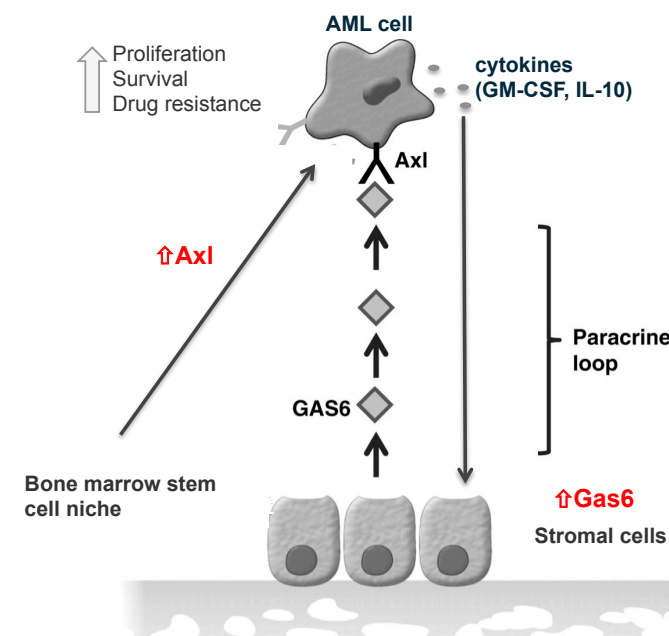
Axl is associated with therapy resistance and poor overall survival in AML patients.



Immunosuppressive niches in the bone marrow show enhanced AXL on AML, MDS progenitor and myeloid cells



A paracrine axis between AML cells and the BM stroma establishes an immune and therapy- protective tumor cell niche



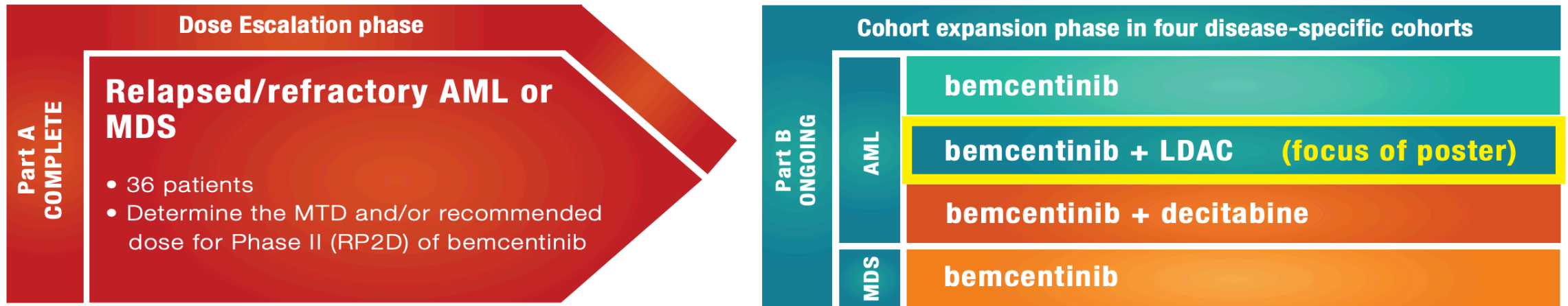
# Bemcentinib therapy for AML/MDS: rationale

- AXL is expressed in ca. 50% of all AML cases and is a negative prognostic factor<sup>5</sup>
- Bemcentinib inhibits survival of AML cells in vitro and enhances sensitivity toward cytarabine in fresh AML blasts and AML cell lines<sup>6</sup>
- Bemcentinib potentiates the efficacy of chemotherapy<sup>7</sup>, prevents development of acquired drug resistance<sup>8</sup>
- Selective targeting of AML/MDS stem-progenitor cell population
- Reprogramming of GAS6-rich AML/MDS-supportive bone marrow microenvironment
- Enhanced anti-leukemia/MDS immunity through AXL targeting of immune suppressive macrophage population, dendritic cells, NK cells
- Leads to anti-tumor T cell adaptive immunity and repression of T reg compartment



# Study Design

Focus on bemcentinib+LDAC combination in patients with relapsed AML



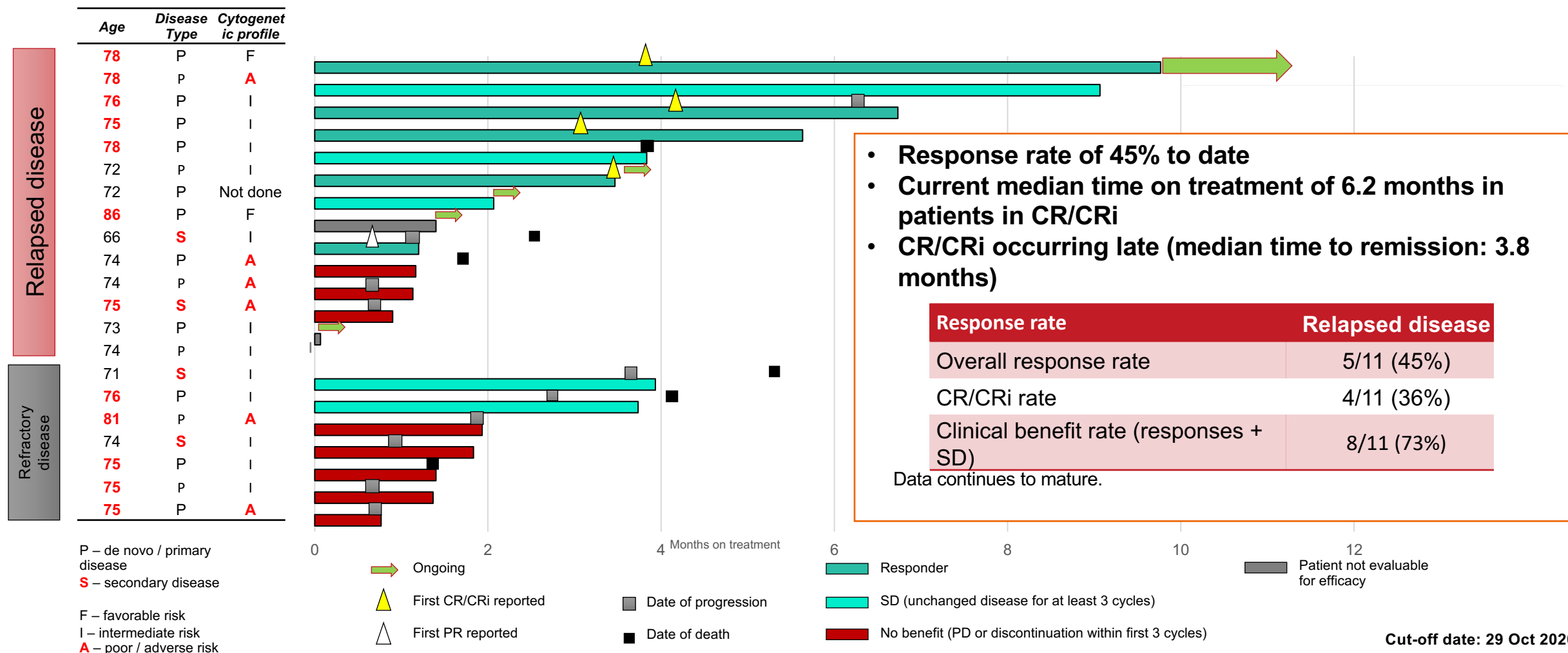
## Key inclusion criteria

- Patients with AML (with exception of AML M3) who are not suitable for intensive chemotherapy as a result of advanced age or co-morbidities
- Are suitable to receive treatment with cytarabine

## Endpoints

- **Primary:** safety and tolerability
- **Secondary:** ORR, RFS (relapse-free survival), OS, PK profile

# Encouraging clinical activity observed in bemcentinib + LDAC combination in relapsed AML (Recruitment is ongoing)



# Demographics and disease characteristics

## Patients on bemcentinib-LDAC combination

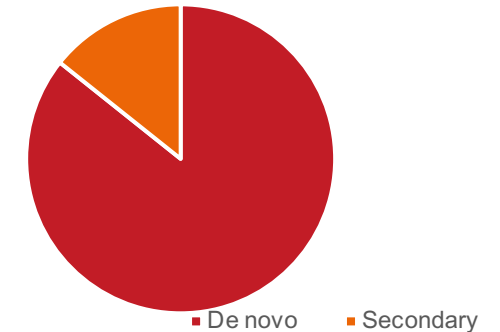
All patients, n=28

Demographics and disease characteristics		n	%
<b>Sex</b>			
	Male	20	71%
	Female	8	29%
<b>Age</b>			
	Median	75	
	Range	66-86	
	<75 years	9	32%
	≥75 years	19	68%
<b>ECOG at screening</b>			
	0	10	36%
	1	16	57%
	2	2	7%
<b>% blasts at screening (bone marrow)</b>			
	Median	38	
	Range	3-96	
	<20%	4	14%
	≥20%	23	82%
	Unknown	1	4%
<b>No. lines previous therapies</b>			
	Median	1,5	
	Range	0-8	
	0	7	25%
	1	7	25%
	2	8	29%
	≥3	6	21%
<b>Disease status</b>			
	Newly-diagnosed	7	25%
	<b>Relapsed</b>	<b>14</b>	<b>50%</b>
	Refractory	7	25%

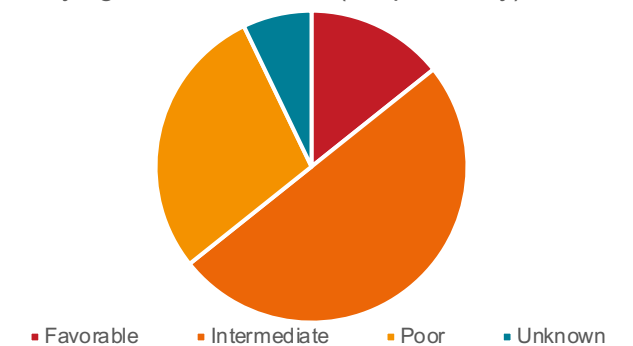
Relapsed AML only, n=14

Demographics and disease characteristics		n	%
<b>Sex</b>			
	Male	9	64%
	Female	5	36%
<b>Age</b>			
	Median	74,5	
	Range	66-86	
	<75 years	7	50%
	≥75 years	7	50%
<b>ECOG at screening</b>			
	0	8	57%
	1	5	36%
	2	1	7%
<b>% blasts at screening (bone marrow)</b>			
	Median	34	
	Range	7-94	
	<20%	3	21%
	≥20%	10	71%
	Unknown	1	7%
<b>No. lines previous therapies</b>			
	Median	2	
	Range	1-8	
	1	6	43%
	2	6	43%
	≥3	2	14%

Disease Diagnosis (relapsed only)



Cytogenetic Risk Class (relapsed only)



Cut-off date: 29 Oct 2020



American Society of Hematology

**Patients with relapsed AML** – patients who have achieved an objective response to their most recent AML treatment

# Safety: bemcentinib + LDAC combination is well tolerated in this elderly, frail population

TRAEs occurring in  $\geq 10\%$  of patients

## All patients (n=28)

Preferred term	Any grade n (%)	Grades $\geq 3$ n (%)
<b>Hematologic</b>		
Anaemia	11 (39)	9 (32)
Platelet count decreased	8 (29)	8 (29)
Thrombocytopenia	6 (21)	6 (21)
Neutrophil count decreased	4 (14)	4 (14)
White blood cell count decreased	4 (14)	4 (14)
<b>Non-hematologic</b>		
Electrocardiogram QT prolonged	11 (39)	3 (11)
Diarrhoea	6 (21)	0
Nausea	5 (18)	1 (4)
Mouth haemorrhage	4 (14)	0
Vomiting	4 (14)	0
Gastrointestinal haemorrhage	3 (11)	1 (4)

Treatment-related AEs are defined as being possibly, probably or definitely related to bemcentinib or LDAC

## Relapsed only (n=14)

Preferred term	Any grade n (%)	Grades $\geq 3$ n (%)
<b>Hematologic</b>		
Anaemia	6 (43)	4 (29)
Platelet count decreased	4 (29)	4 (29)
Neutrophil count decreased	2 (14)	2 (14)
Thrombocytopenia	2 (14)	2 (14)
White blood cell count decreased	2 (14)	2 (14)
<b>Non-hematologic</b>		
Electrocardiogram QT prolonged	6 (43)	2 (14)
Diarrhoea	3 (21)	0
Vomiting	3 (21)	0
Decreased appetite	2 (14)	0
Fatigue	2 (14)	0
Mouth haemorrhage	2 (14)	0
Mouth ulceration	2 (14)	1 (7)
Nausea	2 (14)	1 (7)
Rash maculo-papular	2 (14)	0
Stomatitis	2 (14)	1 (7)

- Safety profile of combination treatment consistent with that of the individual drugs
- No grade 5 TRAEs have been reported, one grade 4 non-hematologic TRAEs reported (upper GI hemorrhage, unrelated to bemcentinib)

Safety cut-off date: 01 Oct 2020



# AXL inhibitor treatment of MDS with bemcentinib



# Rationale for targeting AXL in MDS with bemcentinib

1

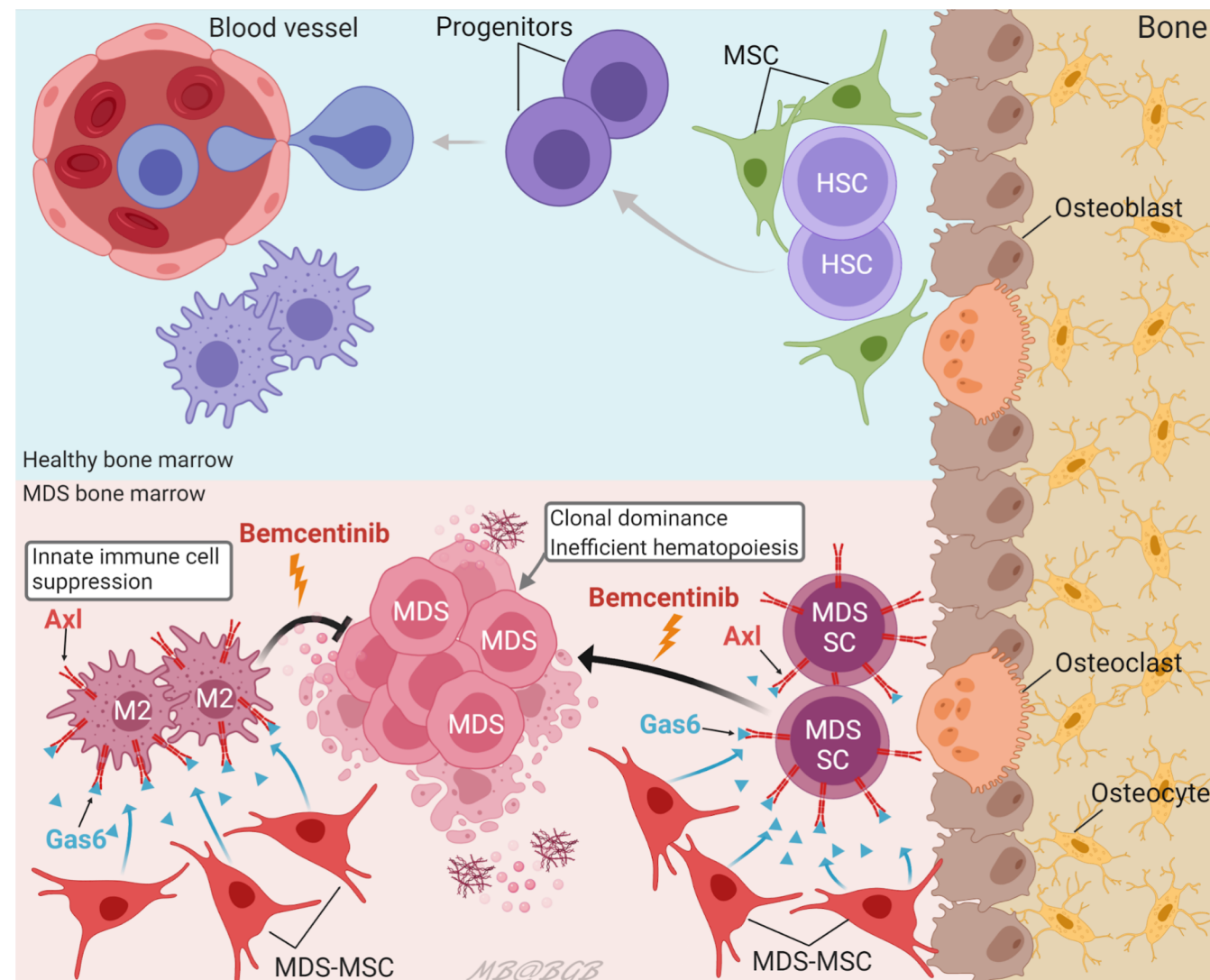
Patients failing HMA still have a dismal outcome with median survivals of less than 6 months<sup>1,2</sup> and very limited available treatment options

2

AXL mediates proliferation and survival of leukemic cells, innate immune cell suppression and resistance to chemotherapeutic agents<sup>3</sup>

3

Bemcentinib (BEM) is a selective small molecule inhibitor of AXL, a surface membrane protein kinase receptor overexpressed on leukemic (stem) cells<sup>3</sup>



Abbreviations: HMA: Hypomethylating agents, AXL: Axl Receptor Tyrosine Kinase Gas6: Growth arrest-specific Protein 6, SC: stem cell, MSC: mesenchymal stem cells

1 Prebet *et al.* American Society of Clin. Onc. (2011);  
 2 Komrokji *et al.*, Clin. Lymphoma Myeloma Leuk., 2015  
 3 Medyouf H, Annals of Oncology, 2018, Abstract 5735

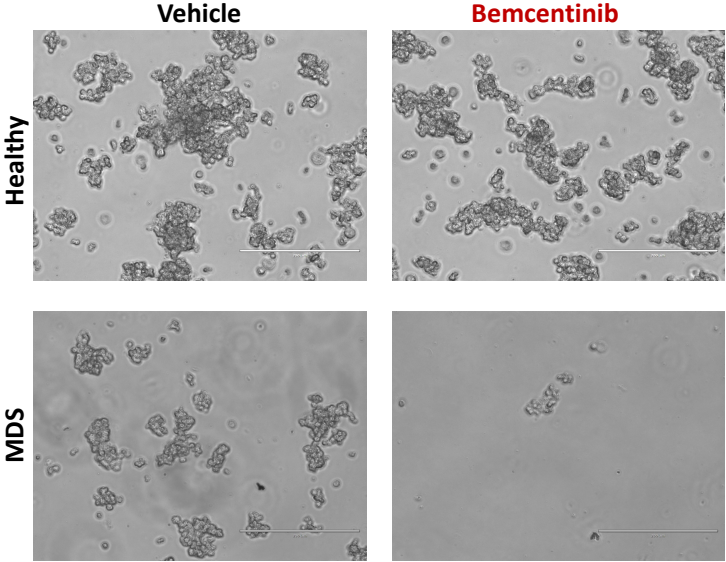
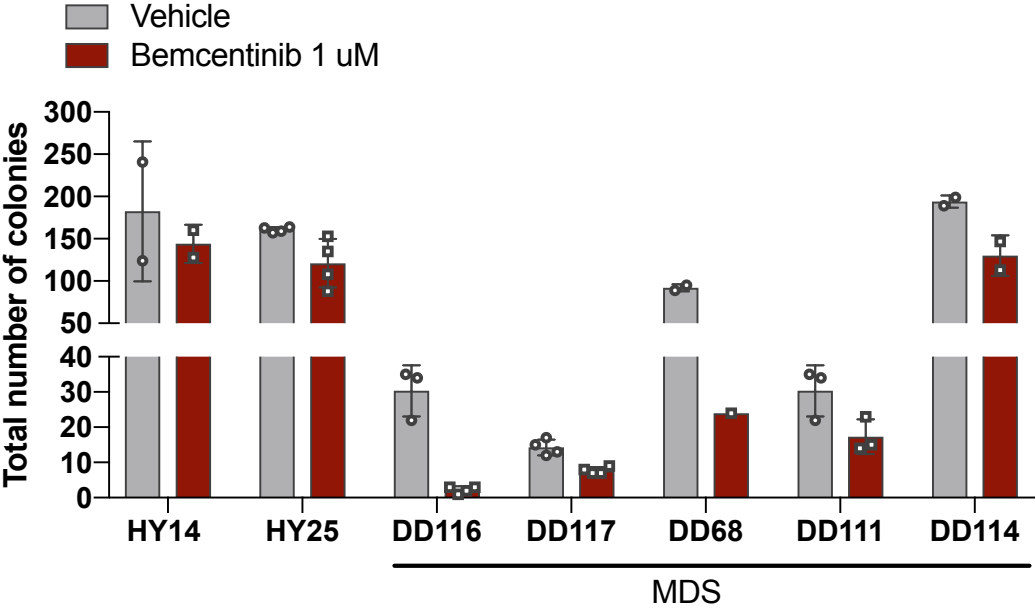
Figure: BerGenBio, Bergen, Norway

# Bemcentinib: Background and Rationale

- 4

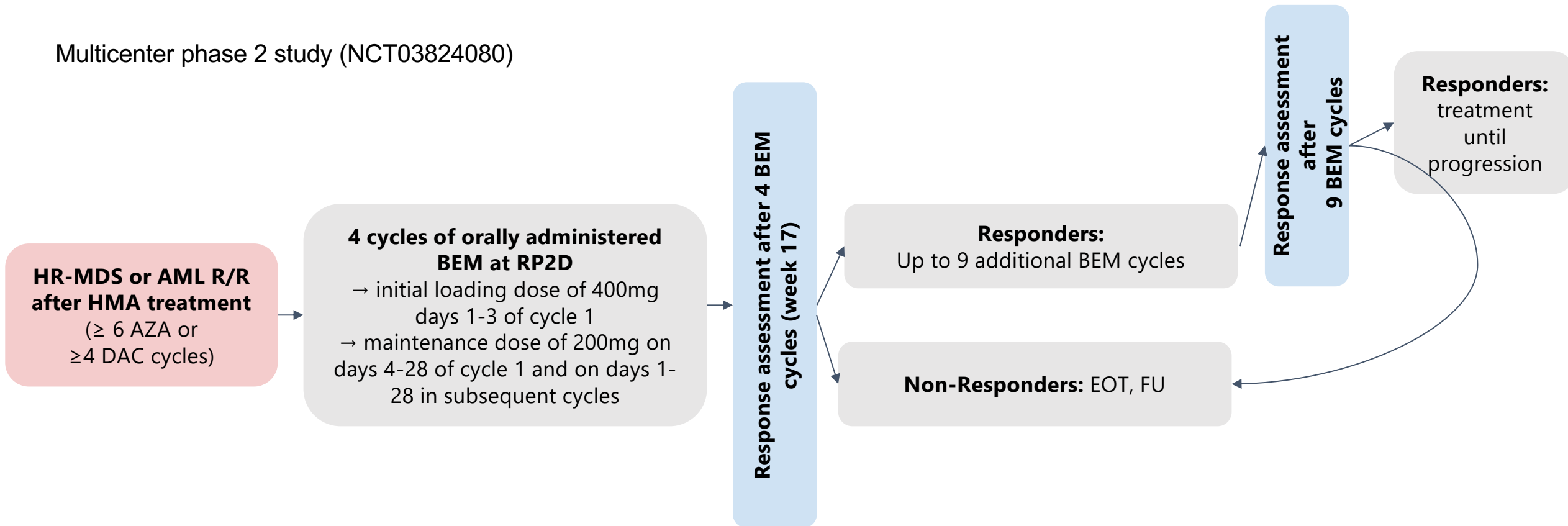
Blockade of the Gas6/AXL signalling axis selectively impaired MDS growth in an ex-vivo stroma-dependent co-culture setting

→ Effects were especially observed in the CD34+ MDS stem cell compartment



# Relapse MDS / AML Study design and mono therapy treatment plan

Multicenter phase 2 study (NCT03824080)



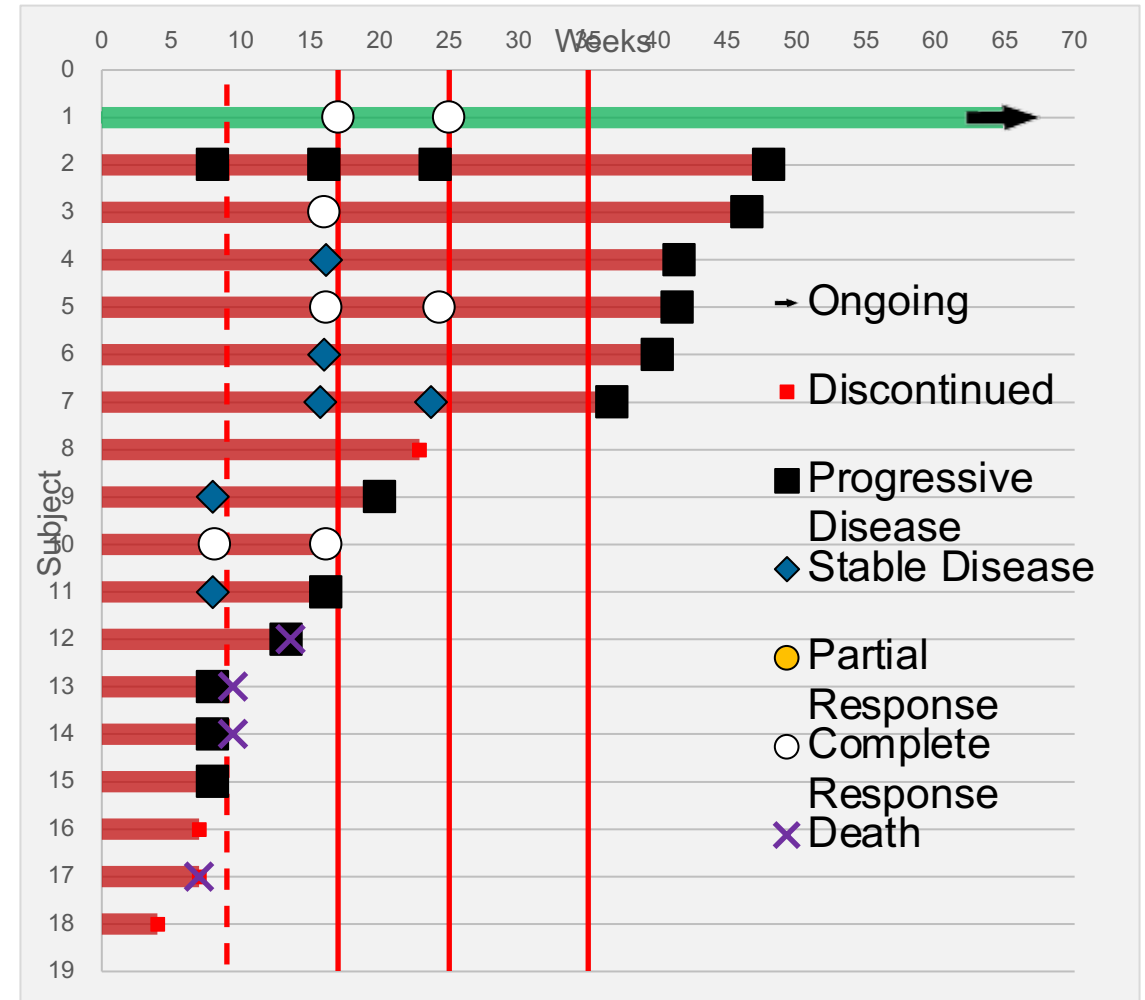
**Primary endpoint:** Overall response (including CR, CRi, PR, SD) rate after 4 BEM cycles

**Secondary endpoints:** safety and toxicity, OS, PFS, time to treatment failure, response duration, translational project evaluating the role of biomarkers and response

} Analysis is ongoing

# Encouraging clinical activity observed with bemcentinib in relapsed MDS

Best Response	Number (%); Median [range]
<b>ORR</b> (CR, CRi, PR, SD) (SAF, n=46)	10 (22%)
HR-MDS (n=22)	8 (36%)
AML (n=24)	2 (8%)
<b>CR/ CRi</b>	
HR-MDS	4 (18%) CR:1 (4%); CRi:3 (14%)
AML	0 (0%)
<b>PR</b>	
HR-MDS	1 (5%)
AML	0 (0%)
<b>SD</b>	
HR-MDS	3 (14%)
AML	2 (8%)



- Median response duration at cut-off\* in patients who have discontinued treatment: **269 days**  
→ *Data continuous to mature*
- Treatment is still ongoing in **3 patients** as of the cut-off

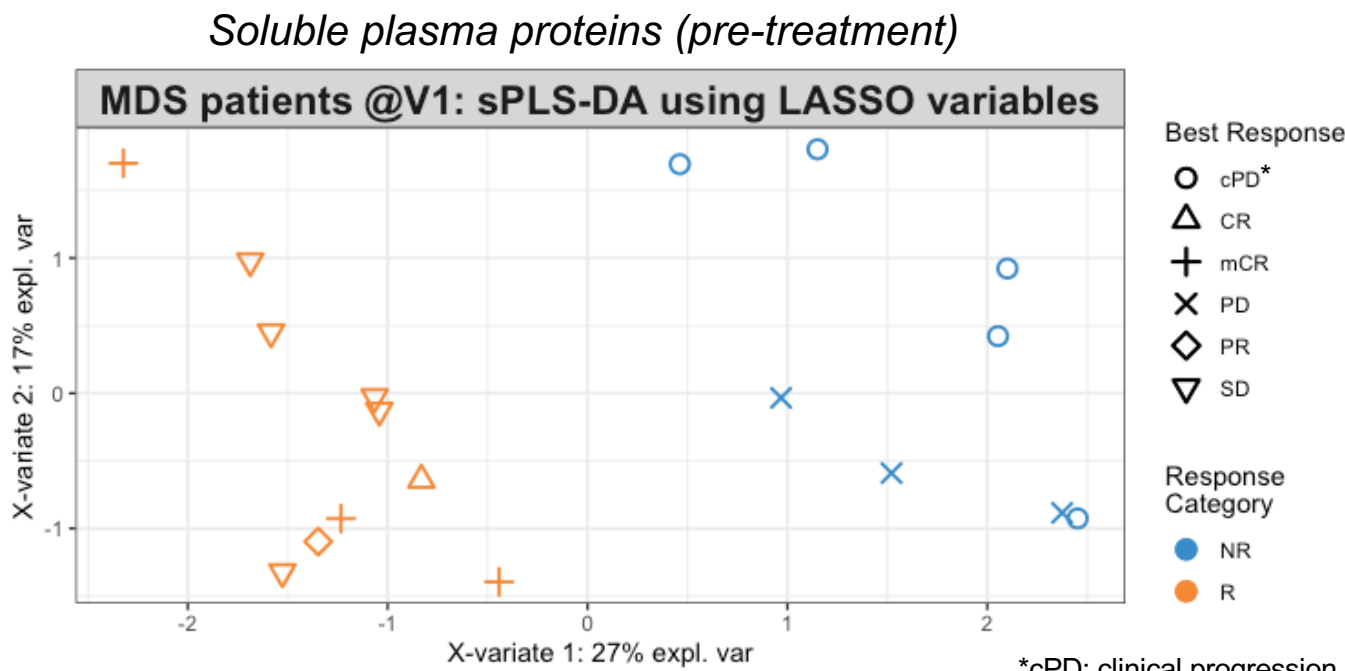
# Safety: bemcentinib mono therapy is well tolerated

- ✓ Single agent BEM was generally safe and well tolerated in this patient population

Adverse Event (n=41)	Grade III/IV; N(%)	Grade V; N(%)
Infectious complications	12 (29)	4 (10)
Hematological toxicity	9 (22)	-
Gastrointestinal disturbance	3 (7)	1 (2))
Deterioration of general condition	5 (12)	2 (5)
Respiratory Failure	2 (5)	1 (2)
Acute kidney injury	-	1 (2)
ECG QTc prolongation	1 (2)	-

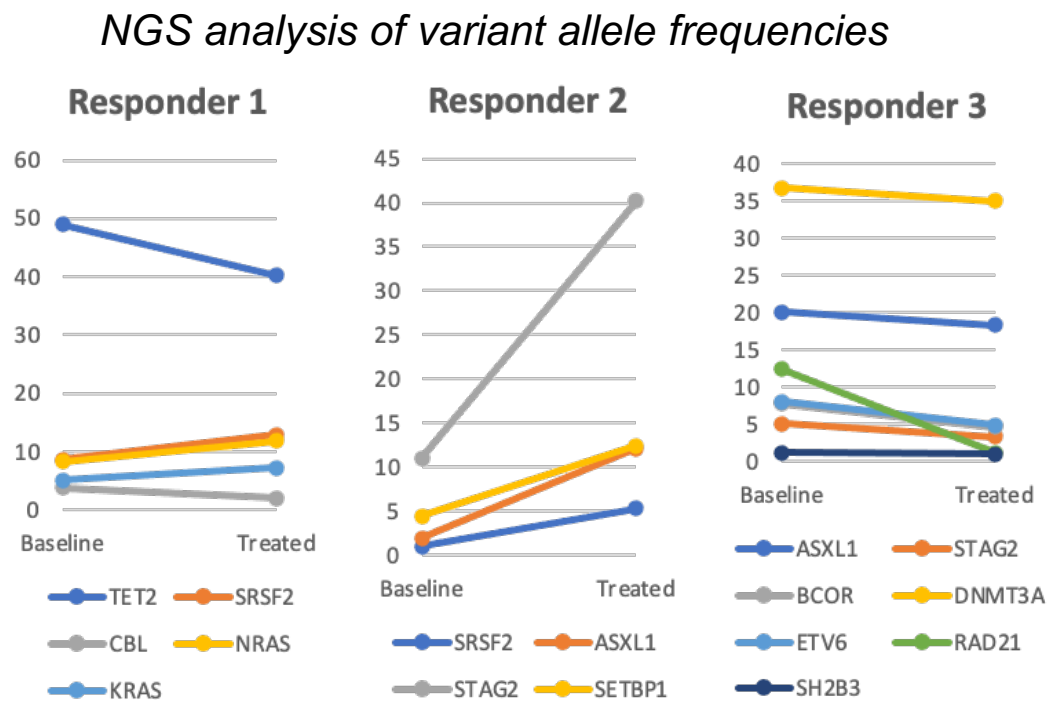
# Translational analysis

- A small set of soluble plasma biomarkers (e.g. sAXL, Immune mediators) predict response to bemcentinib monotherapy in MDS patients
- NGS analysis of variant allele frequencies in leukemic blasts from MDS responders (CR/CRi) showed no significant change in dominant clonal variants
- These translational findings suggest that bemcentinib treatment possibly promotes differentiation and enhances immune response as observed in pre-clinical models.
- Further translational analyses are ongoing



Note: Responders in above analysis included patients who reported any response (CR, mCR, PR, SD) at any point during the course the trial, which includes two patients showing a response and progressing by week 17.

\*cPD: clinical progression (EoT before response assessment)





# Bemcentinib clinical development in 2L Non Small Cell Lung Cancer (NSCLC)

# Study Design

## Open-label multi-center single arm phase II study

### Cohort A

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

### Interim Analysis

Cohort A  
Stage 1

**N=22 patients**

(each patient has the potential for at least 24 weeks follow-up)

### Final Analysis

Cohort A  
Stage 2

**N=48 patients**

(each patient has the potential for at least 24 weeks follow-up)

### Cohort B

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

### Interim Analysis

Cohorts B  
Stage 1

**N=16 patients**

(each patient has the potential for at least 24 weeks follow-up)

### Final Analysis

Cohorts B  
Stage 2

**N=29 patients**

(each patient has the potential for at least 24 weeks follow-up)

### 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

Cohorts C  
Stage 1

**N=13 patients**

(each patient has the potential for at least 24 weeks follow-up)

### Final Analysis

Cohorts C  
Stage 2

**N=29 patients**

(each patient has the potential for at least 24 weeks follow-up)

# Patient Disposition and Demographics

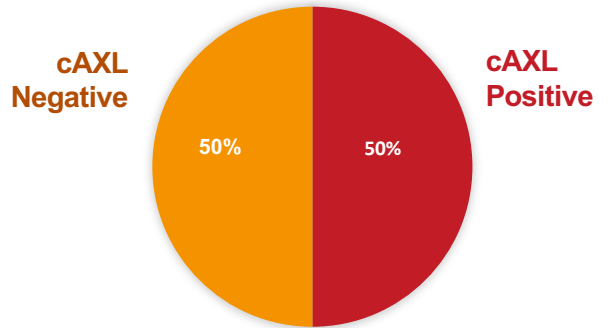
Patient disposition	N
Screened	74
Enrolled	50
Evaluable	44
Ongoing	4

Disease mutations	N (%)
None	36 (72)
KRAS	7 (14)
TP53	2 (4)
EGFR	3 (6)
Other	4 (8)

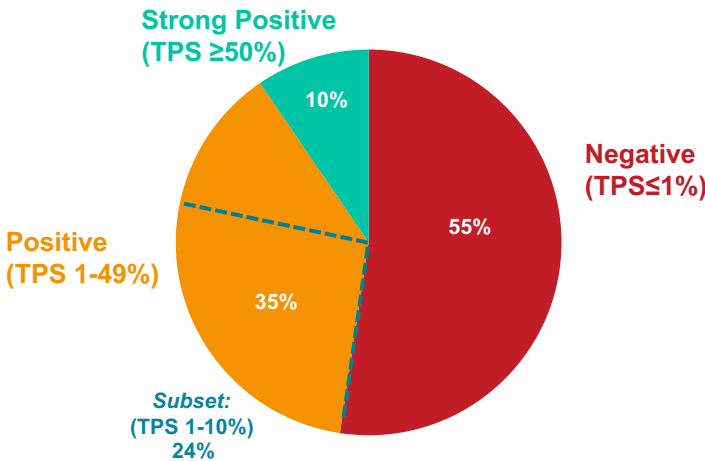
Patient demographics		N (%)
Age	Median	65
	Range	39-82
ECOG at screen	0	22 (44)
	1	28 (56)
Sex	Female	20 (40)
Smoking Status	Smoker	10 (20)
	Ex-smoker	29 (58)
	Never smoked	10 (20)
	Unknown	1 (2)

## Biomarkers

cAXL status  
n = 30

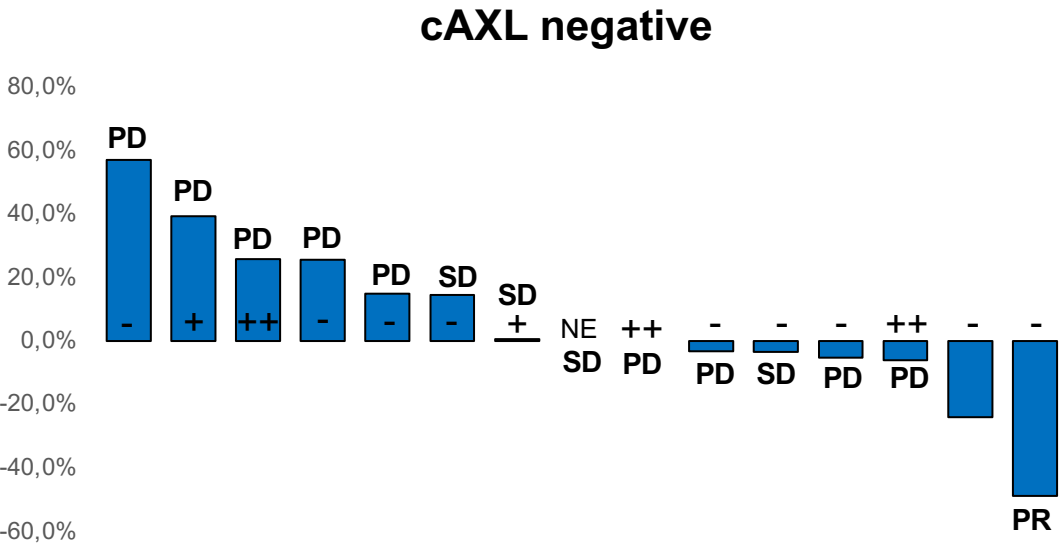
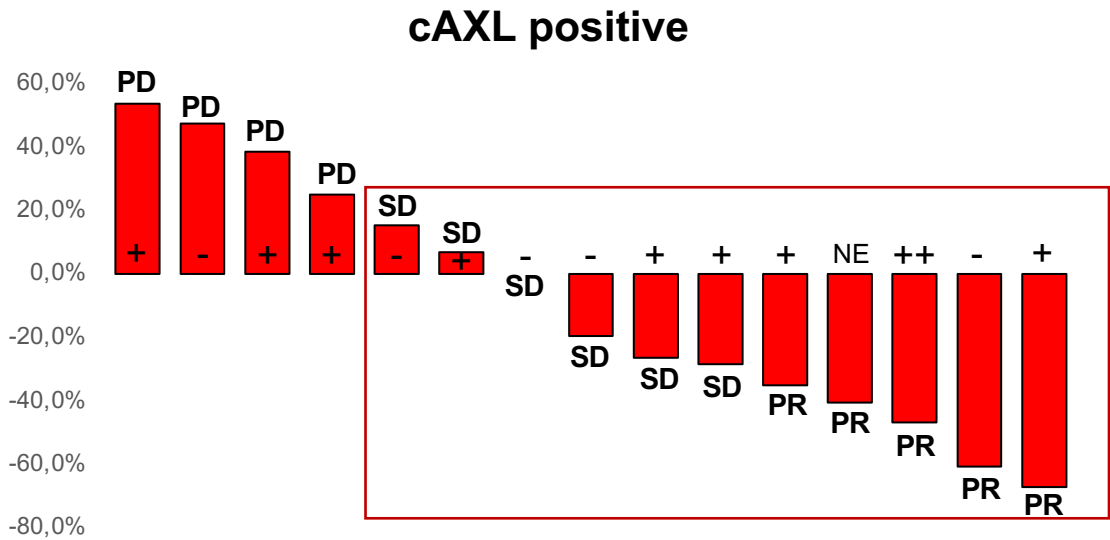


PD-L1 status  
n = 37

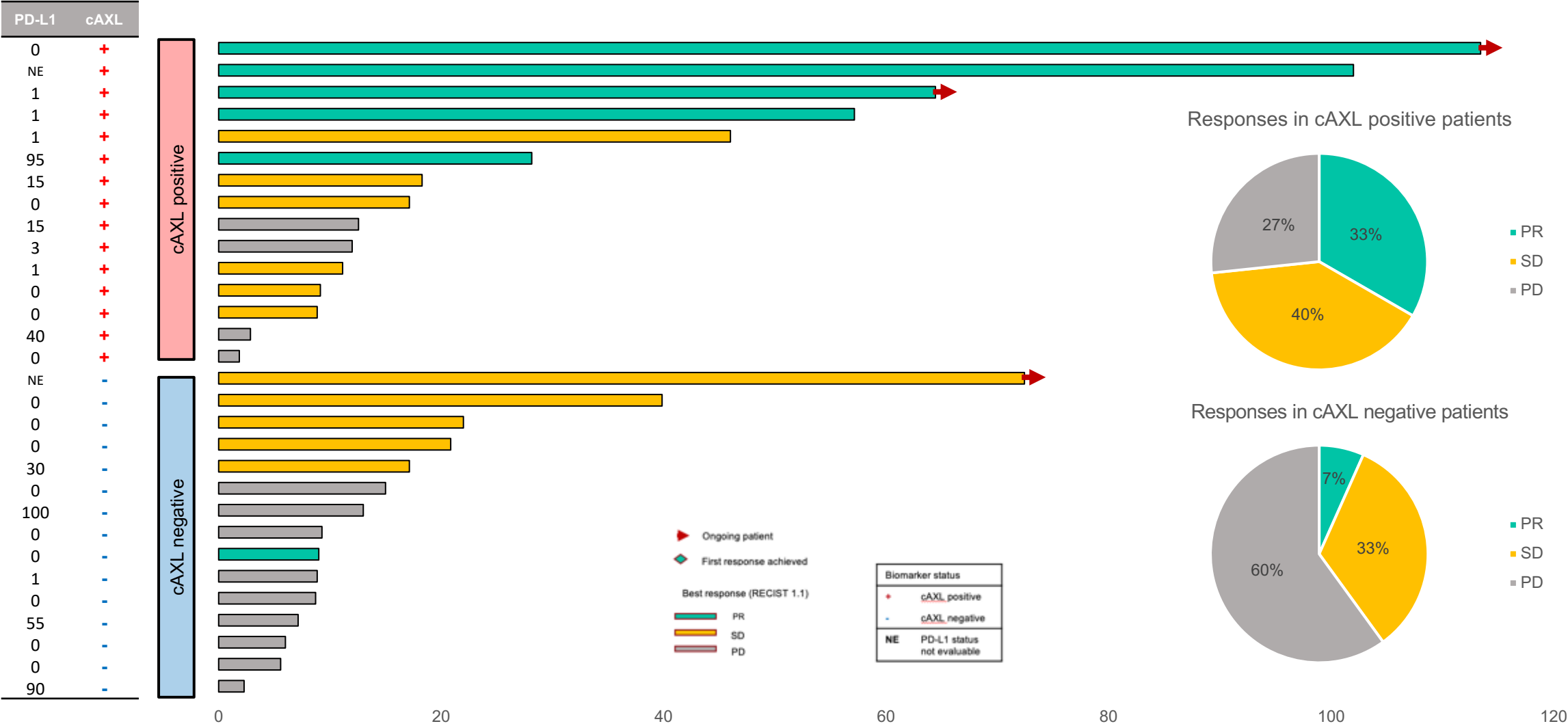


# Change in tumour size from baseline in cAXL

(evaluable patients only)



# Time on treatment in patients evaluable for cAXL



Responses in cAXL positive patients

PR	33%
SD	40%
PD	27%

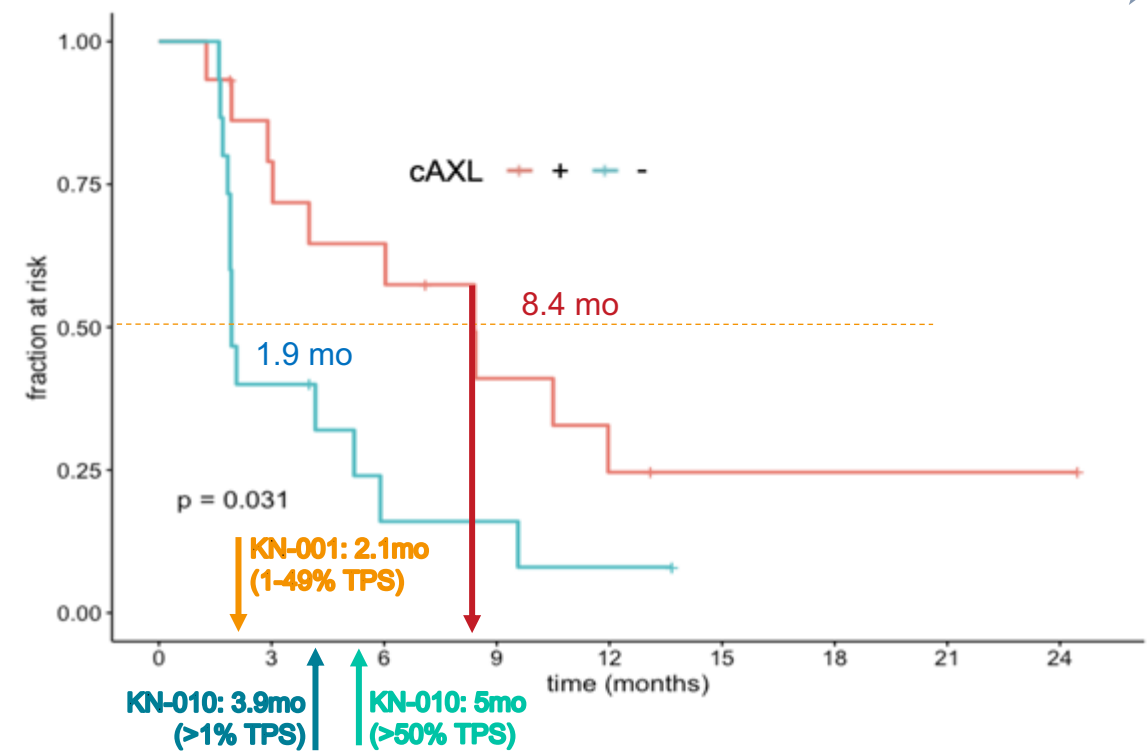
Responses in cAXL negative patients

PR	7%
SD	33%
PD	60%

# Enhanced survival in cAXL +ve patients with addition of bemcentinib to pembrolizumab

AXL is an adverse prognostic biomarker

mPFS 8.4 months in cAXL+ patients



Cohort	mOS	12-mo OS
Cohort A – cAXL +ve pts**	17.3 mo*	79%
Cohort A – cAXL -ve pts**	12.4 mo*	60%
BGB Cohort A – all pts**	12.6 mo*	64%* (up to 67%)
CheckMate-057 (Opdivo)	12.2 mo	51%
KEYNOTE-010 (Keytruda)	10.4 mo	43.2%

\*OS data still maturing, current calculation (cut-off survival: 28-May-2020)

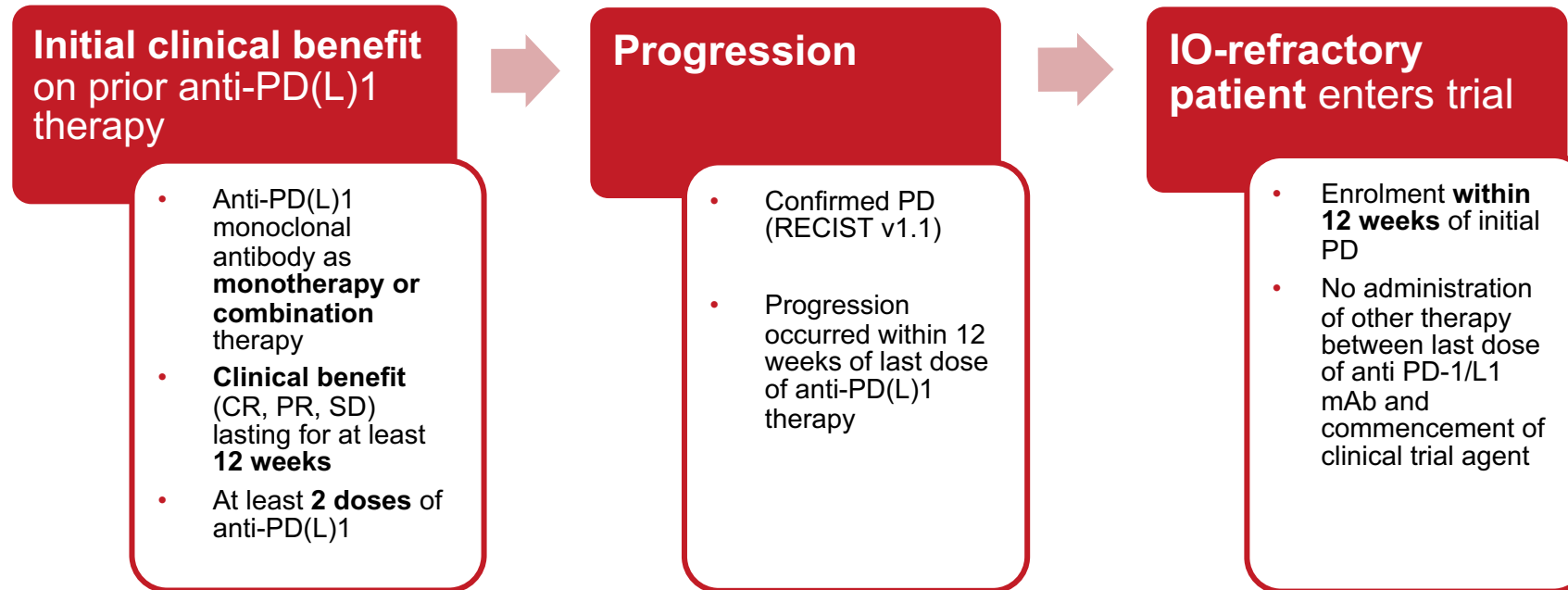
\*\*pts who have been on study treatment for at least 1 cycle (n=42)

- 4-fold improvement in PFS in cAXL +ve vs. cAXL -ve patients.
- 12 mo OS in cAXL positive patients 79% vs 60% in cAXL negative patients
- Clinical benefit reflected in mOS of cAXL +ve patients vs. cAXL -ve
- cAXL -ve patient survival data is comparable to historic controls



# Bemcentinib + KEYTRUDA in CPI refractory patients

CHECK POINT INHIBITOR REFRACTORY PATIENTS: precise and specific definition



# Patient Disposition and Demographics

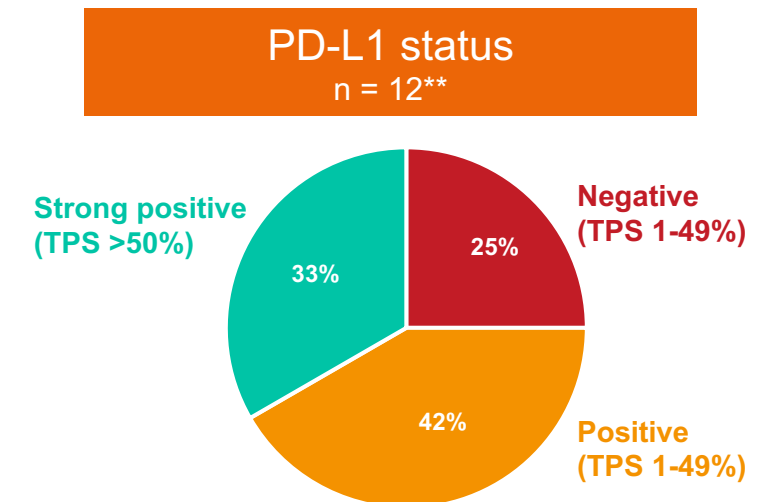
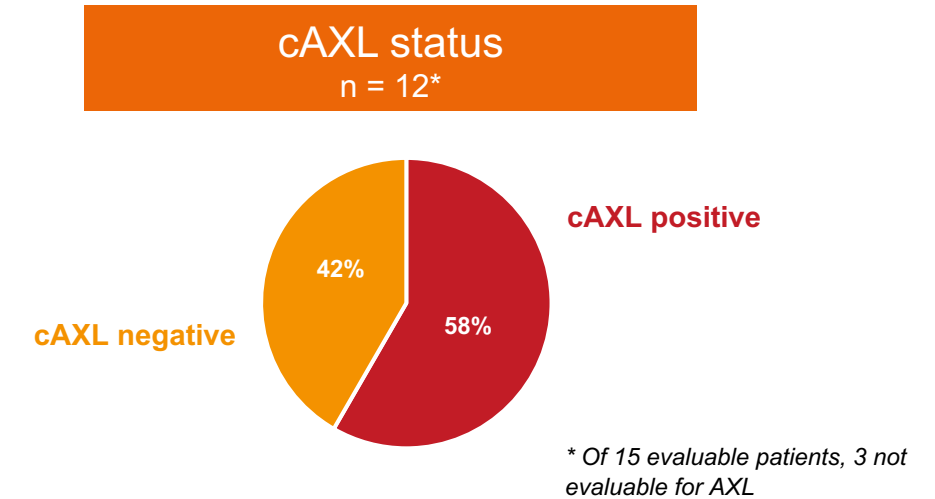
Patient disposition	N
Screened	21
Enrolled	16
Evaluable*	15
Ongoing	3

\* with at least 1 post-baseline scan assessment

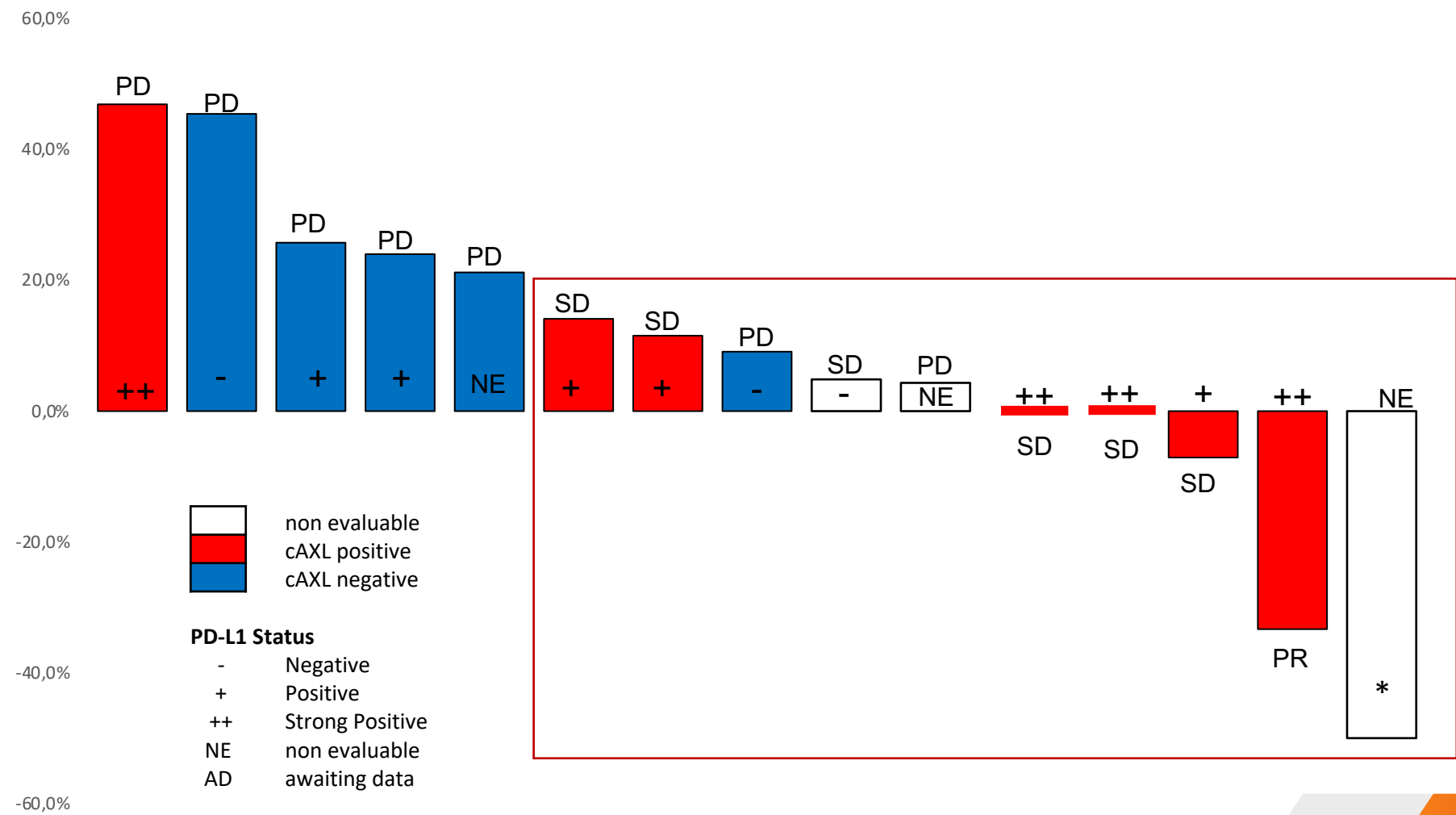
Disease mutations	N (%)
None	13 (81)
KRAS	2 (13)
BRAF	1 (6)

Patient demographics	N (%)
<b>Age</b>	Median 64,5
	Range 40-76
<b>ECOG at screen</b>	0 6 (38)
	1 10 (63)
<b>Sex</b>	Female 3 (19)
	Male 13 (81)
<b>Smoking status</b>	Smoker 6 (38)
	Ex-smoker 8 (50)
	Never smoked 0 (0)
	Unknown 1 (6)

## Biomarkers

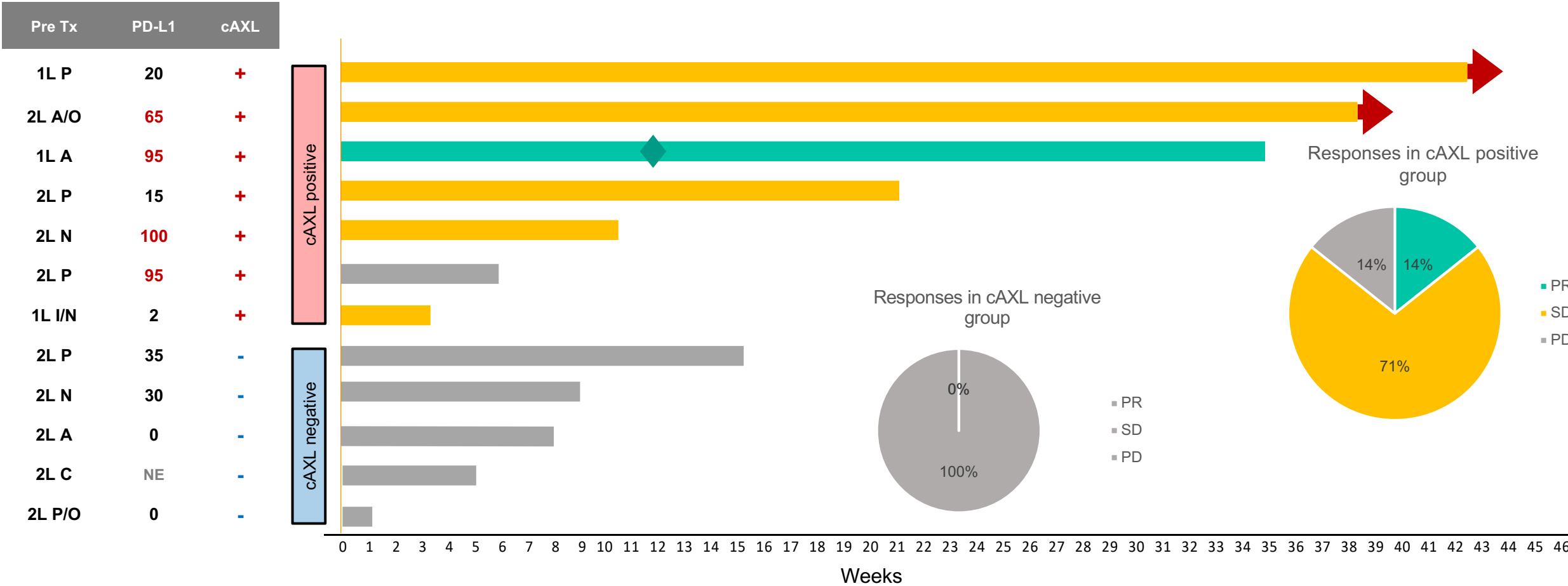


# Best % change in sum of target lesions from baseline



Data cut-off: 17-April-2020

# Time on treatment in patients evaluable for cAXL

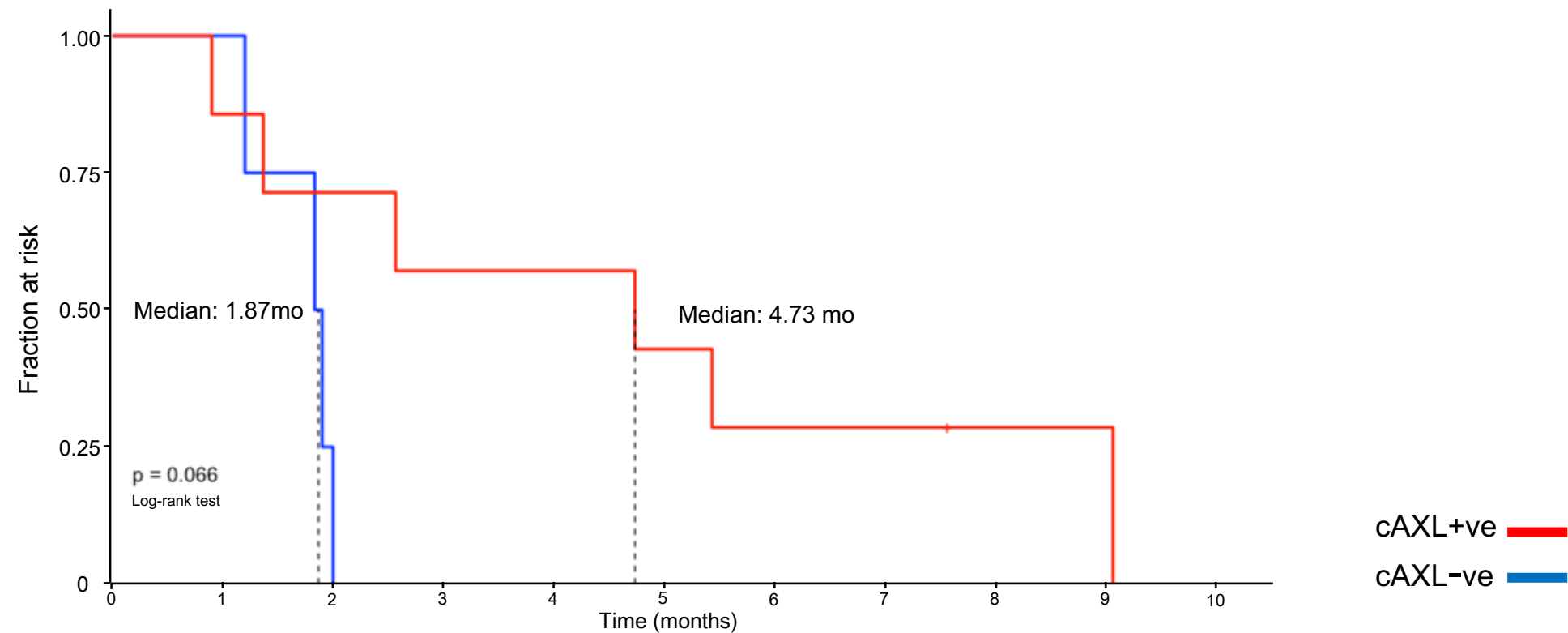


+ cAXL positive  
- cAXL negative

**Previous immunotherapy (1 or 2L)**  
P: pembrolizumab; A: atezolizumab; N: nivolumab; C: cetrelimab; I: ipilumimab; O: other

Data cut-off: 17-April-2020

# mPFS improvement in cAXL +ve patients

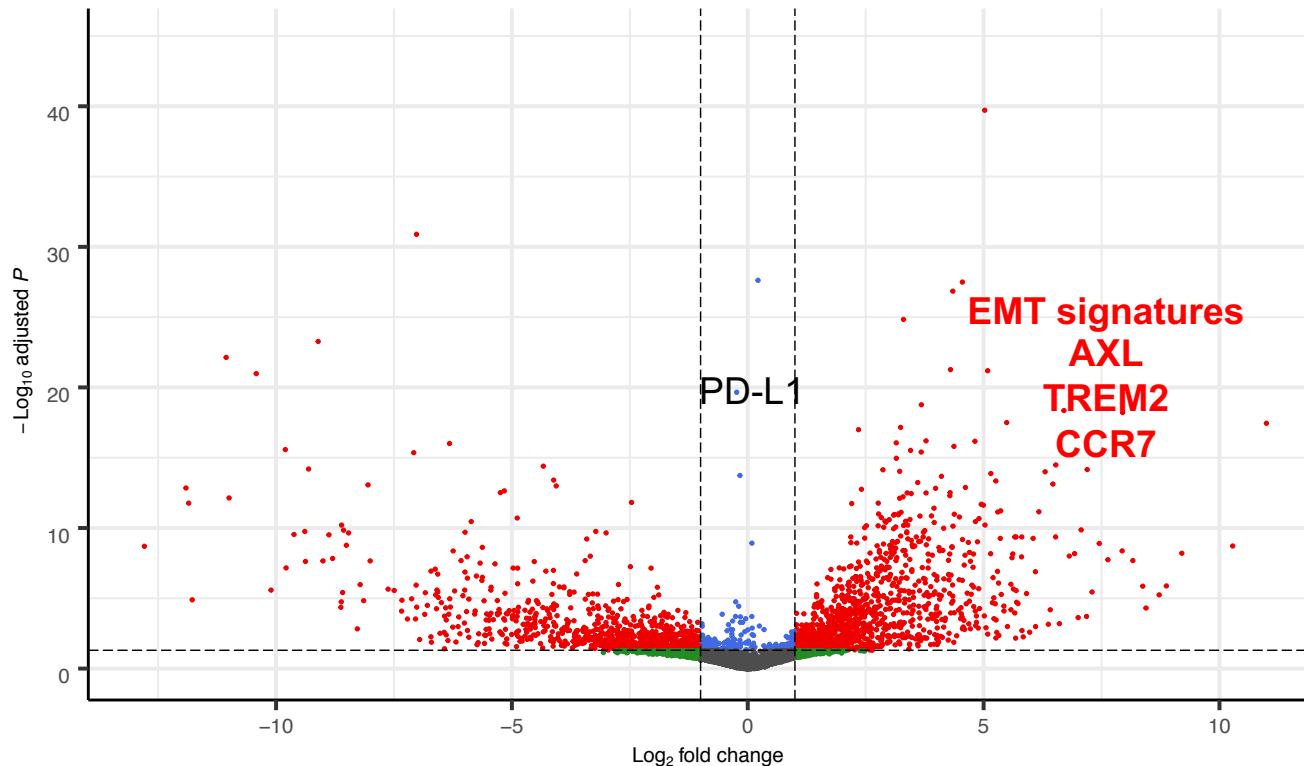






# Clinical translational findings

Whole tumor gene expression of Cohort B1 patients benefiting from bemcentinib-pembrolizumab



**Volcano Plot:** Differential gene expression analysis of patients showing benefit (n=5) vs patients with PD (n=3)

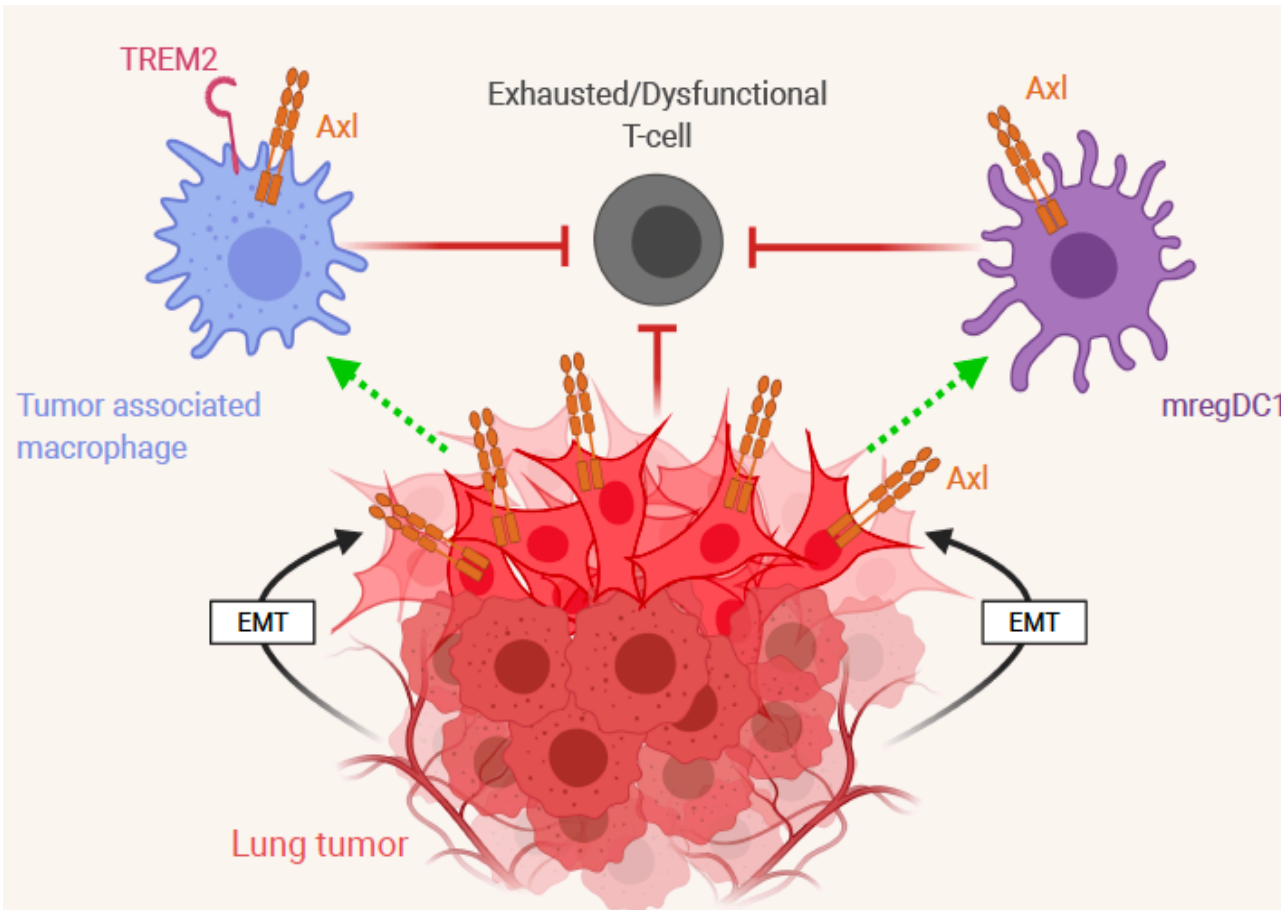
**RNAseq analysis** identifies gene signatures from benefiting patients:

- Increased AXL expression
- Genes associated with tumor cell EMT<sup>1</sup>
- Presence of TREM2+ TAMs<sup>#,2</sup>
- Presence of CCR7+ mregDC1<sup>##,3</sup>

#tumor-associated macrophages  
##regulatory dendritic cells

# Proposed mechanism

AXL<sup>+</sup> suppressive myeloid cells drive T cell dysfunction

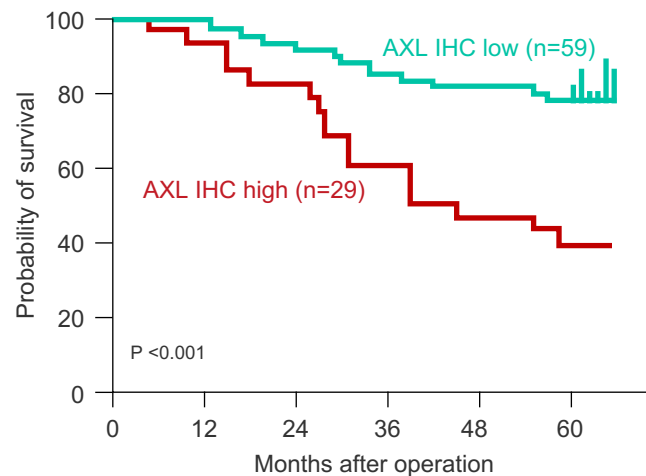


- AXL promotes tumor-cell EMT and recently-described regulatory myeloid cells:
  - AXL<sup>+</sup> TREM2<sup>+</sup> Tumor Associated Macrophage<sup>1,2</sup>
  - AXL<sup>+</sup> CCR7<sup>+</sup> mregDC<sup>13</sup>
- AXL expression in these cells promotes T cell dysfunction/exhaustion<sup>2</sup>
- Bemcentinib may reverse acquired resistance to checkpoint inhibition by targeting AXL<sup>+</sup> TREM2 macrophages and regulatory DCs
- Bemcentinib inhibition of AXL reverses this state of immune suppression in the microenvironment, and promotes checkpoint inhibitor re-engagement

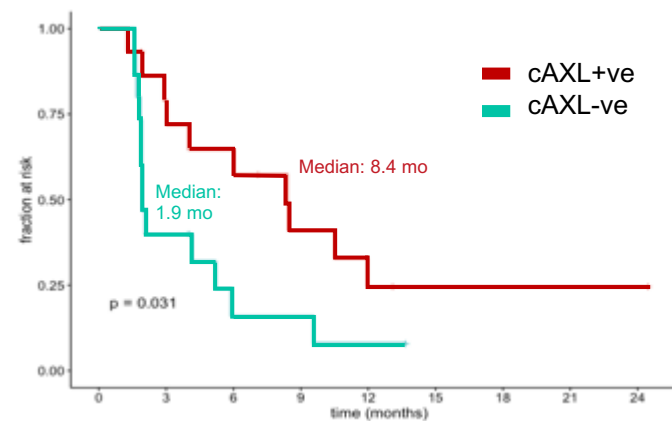
# AXL expression defines a poor prognosis subgroup of NSCLC

cAXL+ patients have significantly enhanced survival with bemcentinib + pembrolizumab in CPI-naïve and refractory patients

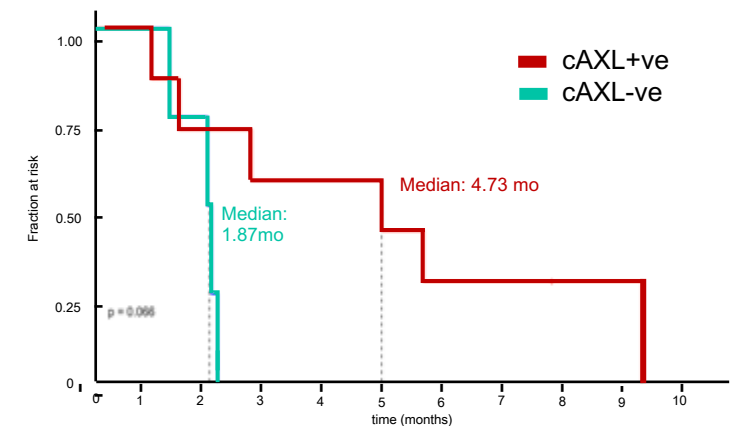
In NSCLC, the AXL expression encodes poor-prognosis<sup>1</sup>: defines expectations of the control arm



Cohort A PFS : CPI-naïve



Cohort B1 PFS: CPI-refractory



**BIOLOGY = RATIONALE = OUTCOME**

# Bemcentinib + pembrolizumab combination offers an excellent safety profile - not dissimilar to pembrolizumab alone

## Safety profile of 008 cohorts A + B1

Most frequently reported TRAEs<sup>††</sup> ( $\geq 10\%$  of patients) in 008 cohorts A and B1

Preferred term (ungrouped)	All Grades n (%)	Grades $\geq 3$ n (%)
Diarrhoea	20 (30%)	0
Alanine aminotransferase increased	19 (29%)	7 (11%)
Aspartate aminotransferase increased	18 (27%)	3 (5%)
Asthenia	11 (17%)	4 (6%)
Electrocardiogram QT prolonged	10 (15%)	2 (3%)
Anaemia	9 (14%)	2 (3%)
Blood creatinine increased	9 (14%)	0
Fatigue	9 (14%)	1 (2%)
Nausea	9 (14%)	0

Cut-off date: 17 Apr 20

## Treatment combination was well tolerated

- No grade 5 TRAEs reported
- Of the most frequent TRAEs, one grade 4 TRAE reported (AST increase), which resolved upon interruption of study treatment

## Expected safety profile of Pembrolizumab

Most frequently reported TRAEs ( $>10\%$  of patients), of any grade, in patients treated with pembrolizumab monotherapy<sup>††</sup>

Preferred term	n (%)
Fatigue	678 (24%)
Pruritus	467 (17%)
Rash	386 (14%)
Diarrhoea	343 (12%)
Nausea	304 (11%)
Arthralgia	281 (10%)

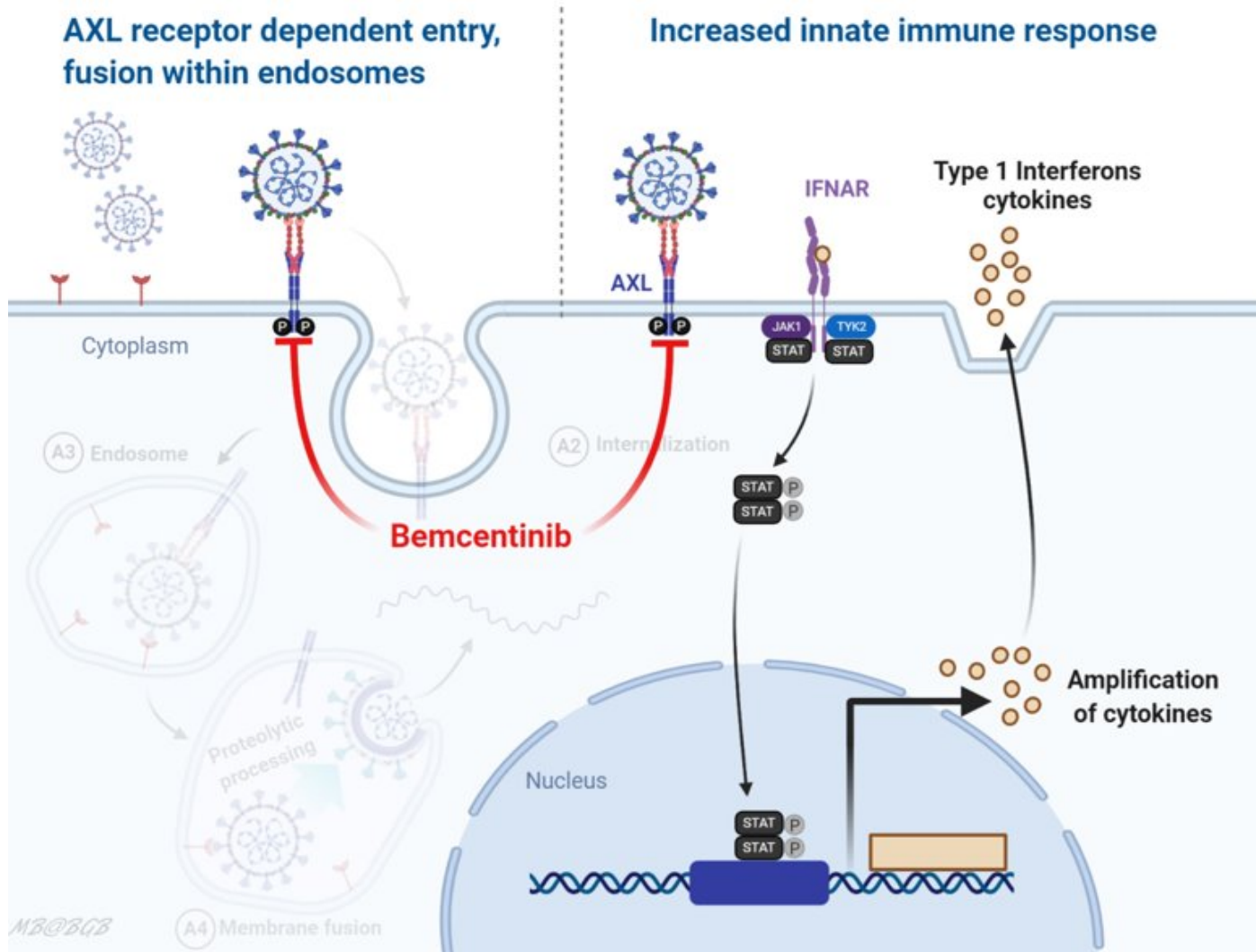
<sup>†</sup> Cross-study, reference safety dataset; Includes all participants who received at least one dose of pembrolizumab in KN001 Part B1, B2, B3, D, C, F1, F2, F3; KN002 (original phase), KN006, and KN010.

<sup>††</sup> Definitely, probably or possibly related to bemcentinib or pembrolizumab

# Bemcentinib clinical development in COVID 19



# Potential of Bemcentinib on SARS-CoV-2 infection of host cells



- Utilization of AXL contributes to ACE2-dependent entry
- AXL enhances virus infection by facilitating virus entry via an endosomal pathway
- Bemcentinib control of virus infection likely involves both :
  - reduced viral entry and
  - enhanced interferon responses

# Two rPh II trials in hospitalized COVID-19 patients

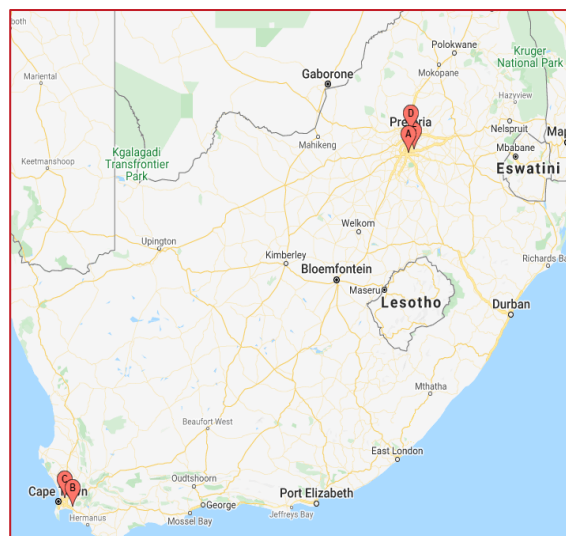
- 2 x 120 patients
- Clinical and translational end points

## ACCORD II STUDY



- Multicentre, seamless, Phase II adaptive randomisation platform trial
- Assessing the safety and efficacy of three candidate agents
- Up to 25 sites across the UK
- 60 patients will receive bemcentinib and 60 patients in a control group will receive standard of care treatment.

## BGBC020 – SOUTH AFRICA



- Company sponsored randomised Phase II trial
- 60 patients will receive bemcentinib and 60 patients in a control group will receive standard of care treatment
- Assessing the safety and efficacy of bemcentinib
- 5 sites across South Africa
- 7 sites across India.
- .

## BGBC020 - INDIA



# Bemcentinib trial in COVID-19 patients

## WHO COVID19: 9-point category ordinal scale

	Setting	Severity	Supportive intervention	Bemcentinib (ACCORD 2)	Dexamethasone	Remdesivir
0	Uninfected	no clinical or virological evidence of infection				
1	Ambulatory	no limitation of activities				
2		limitation of activities				
3	Hospitalised	mild	no oxygen therapy			
4			oxygen by mask or nasal prongs			
5		severe	noninvasive ventilation or high-flow oxygen			
6			intubation and mechanical ventilation			
7			ventilation and additional organ support – - vasopressors - renal replacement therapy (RRT) - extracorporeal membrane oxygenation (ECMO)			
8		Death				

### Endpoints:

- **Time to clinical improvement of at least 2 points** (from randomisation) of patient's stage 3, 4 or 5 on a 9-point category ordinal scale, or live discharge from the hospital, whichever comes first

### 9-Point Category Ordinal Scale:

0. Uninfected, no clinical or virological evidence of infection
1. Ambulatory, no limitation of activities
2. Ambulatory, limitation of activities
- 3. Hospitalised – mild disease, no oxygen therapy**
- 4. Hospitalised – mild disease, oxygen by mask or nasal prongs**
- 5. Hospitalised – severe disease, noninvasive ventilation or high flow oxygen**
6. Hospitalised – severe disease, intubation and mechanical ventilation
7. Hospitalised – severe disease, ventilation and additional organ support – pressors, renal replacement therapy (RRT), extracorporeal membrane oxygenation (ECMO)
8. Death

# Bemcentinib randomised Phase II 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

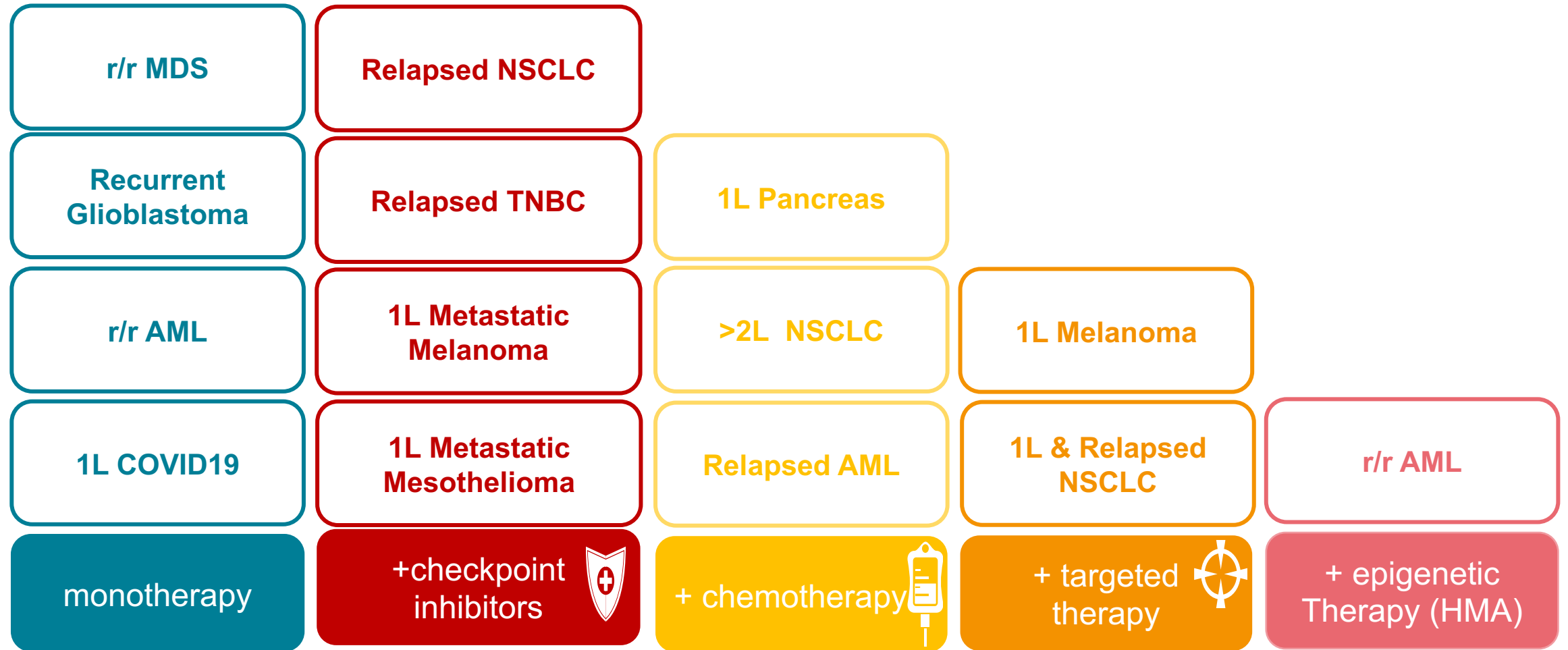
- To evaluate PK of bemcentinib
- To evaluate SARS-CoV-2 viral load
- To collect samples for serology research, viral genomics, serum antibody production, and COVID-19 diagnostics



## 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

# Executing a broad development program for Bemcentinib



**Bemcentinib foundation for cancer therapy**

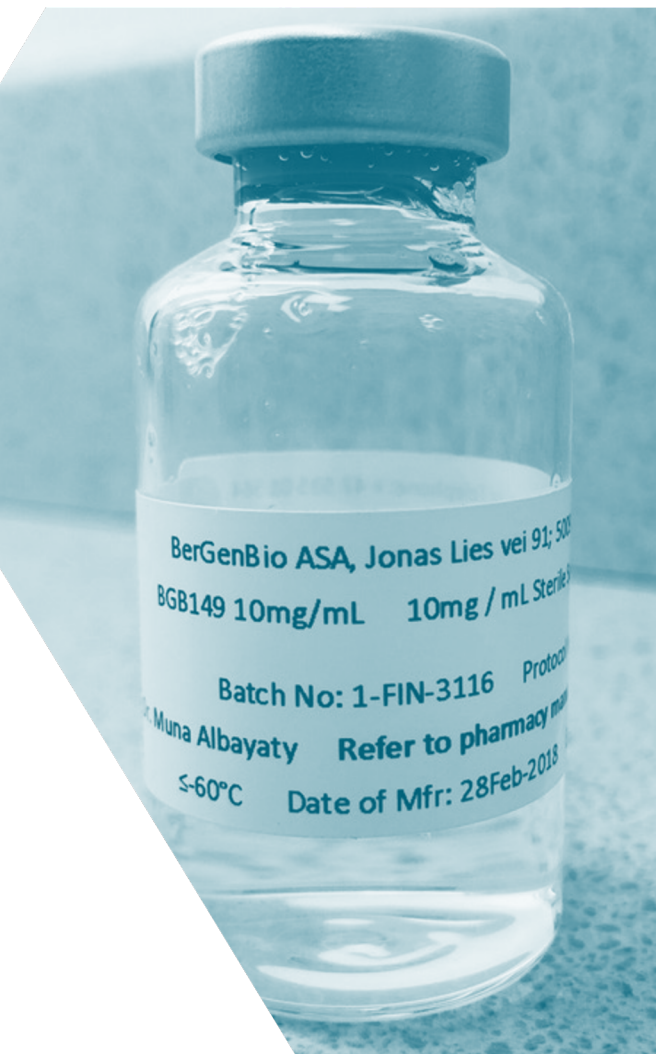


# Introduction Tilvestamab (BGB149) anti-AXL monoclonal antibody



# TILVESTAMAB: Anti-AXL monoclonal antibody

## Phase I clinical trial ongoing



Functional blocking fully-humanised IgG1 monoclonal antibody

Binds human AXL, blocks AXL signalling

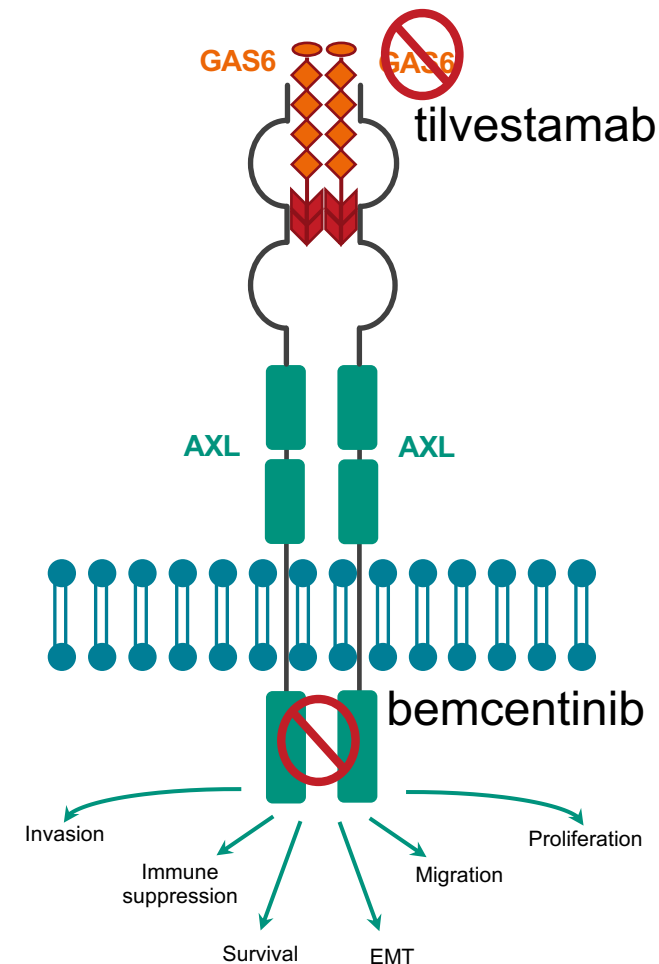
High affinity (KD: 500pM), displaces GAS6  
Anti-tumour efficacy demonstrated *in vivo*

Robust manufacturing process established,  
18 months stability

Phase Ia healthy volunteer SAD study complete

**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

Phase I SAD trial complete  
Phase Ib/IIa MAD in set up phase



Well positioned for success ....



# Outlook

## Strong cash position

- Well funded, Q3 cash position \$82m (NOK 778 million)

## Promising pipeline

- Two first-in-class drug AXL inhibitors in multiple Ph II clinical trials
- Pioneering biology and a substantial amount of favourable clinical POC, safety and translational data

## Compelling Phase II POC

- Relapse AML in combination with LDAC
  - FDA Fast Track Designation and Orphan Status
- Relapse MDS monotherapy
  - predictive biomarkers
- 2L NSCLC: CPI combination,
  - significant survival benefit and predictive biomarkers

## Strong science supporting COVID-19 treatment in 2 randomised phase II trials

- Anticipate top line clinical data Q1'21

# Analyst coverage



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