Y-mAbs Therapeutics, Inc.

Y-mAbs Therapeutics R&D Day

Company update

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This presentation contains forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995. The forward-looking statements involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this presentation, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management and expected market growth are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Such statements include, but are not limited to, statements about regulatory approvals, clinical trial timing and plans, the achievement of clinical and commercial milestones, future financial and operating results, business strategies, market opportunities, financing, and other statements that are not historical facts. Our product candidates and related technologies are novel approaches to cancer treatment that present significant challenges. Actual results may differ materially from those indicated by such forward-looking statements as a result of various factors, including but not limited to: risks associated with the Company's development work, including any delays or changes to the timing, cost and success of our product development activities and clinical trials including if we encounter difficulties enrolling patients in our clinical trials; the risks of delays in FDA and/or EU approval of our drug candidates or failure to receive approval; the risks related to commercializing any approved new pharmaceutical product including the rate and degree of market acceptance of our product candidates; development of our sales and marketing capabilities and risks associated with failure to obtain sufficient reimbursement for our products; our inability to enter into collaboration or alliances with partners; risks associated with protection of our intellectual property rights; and other risks and uncertainties affecting the Company including those described in the "Risk Factors" section included in documents the Company files from time to time with the Securities and Exchange Commission. Any forward-looking statements contained in this presentation speak only as of the date hereof, and the Company undertakes no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

This presentation includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties or us. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. All of the market data used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data. The industry in which we operate is subject to a high degree of uncertainty, change and risk due to a variety of factors, which could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

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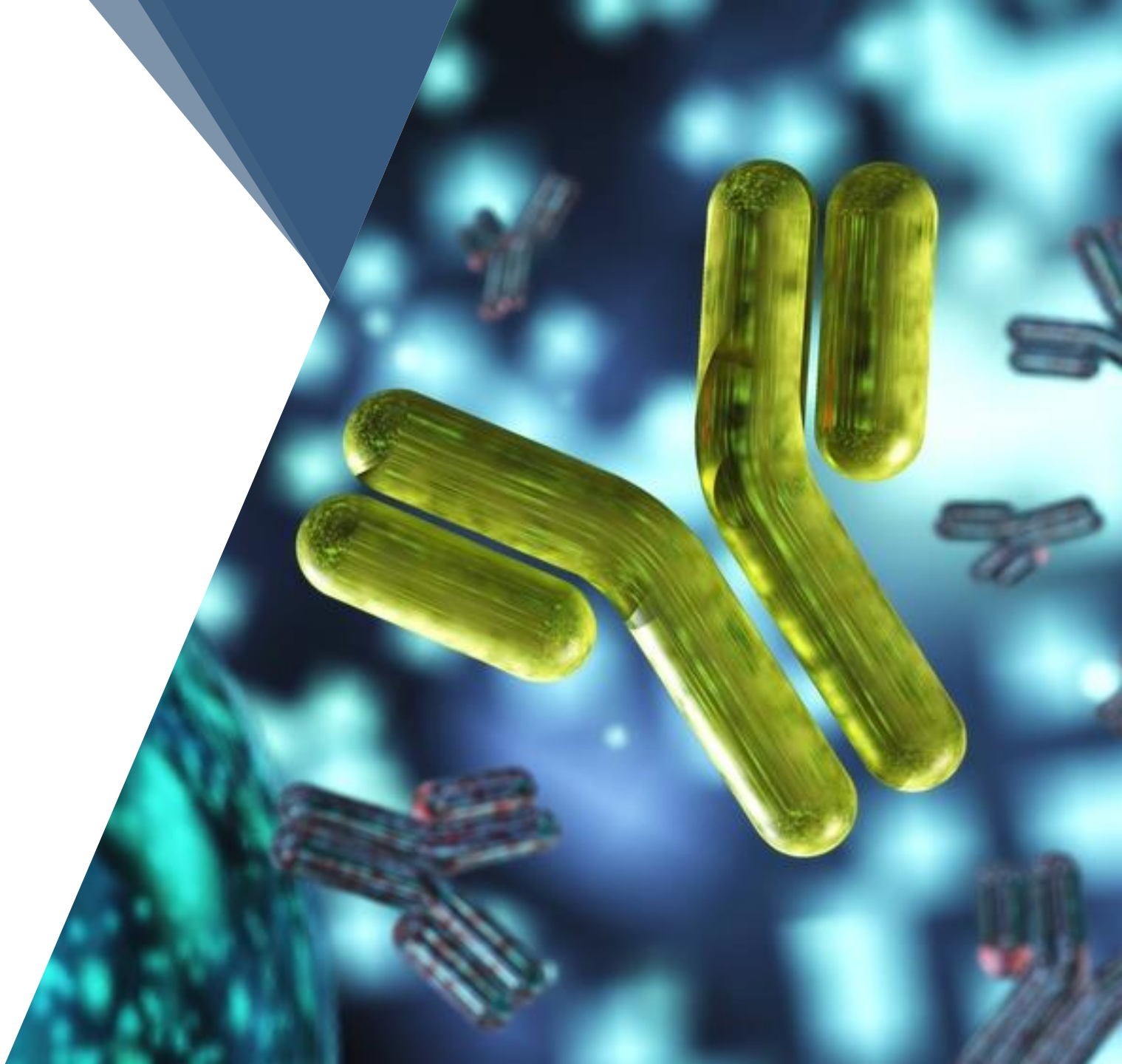
^{131}I-Omburtamab

- Regulatory filing update
- Study 101 update



^{131}I-Omburtamab - BLA and MAA submission timelines

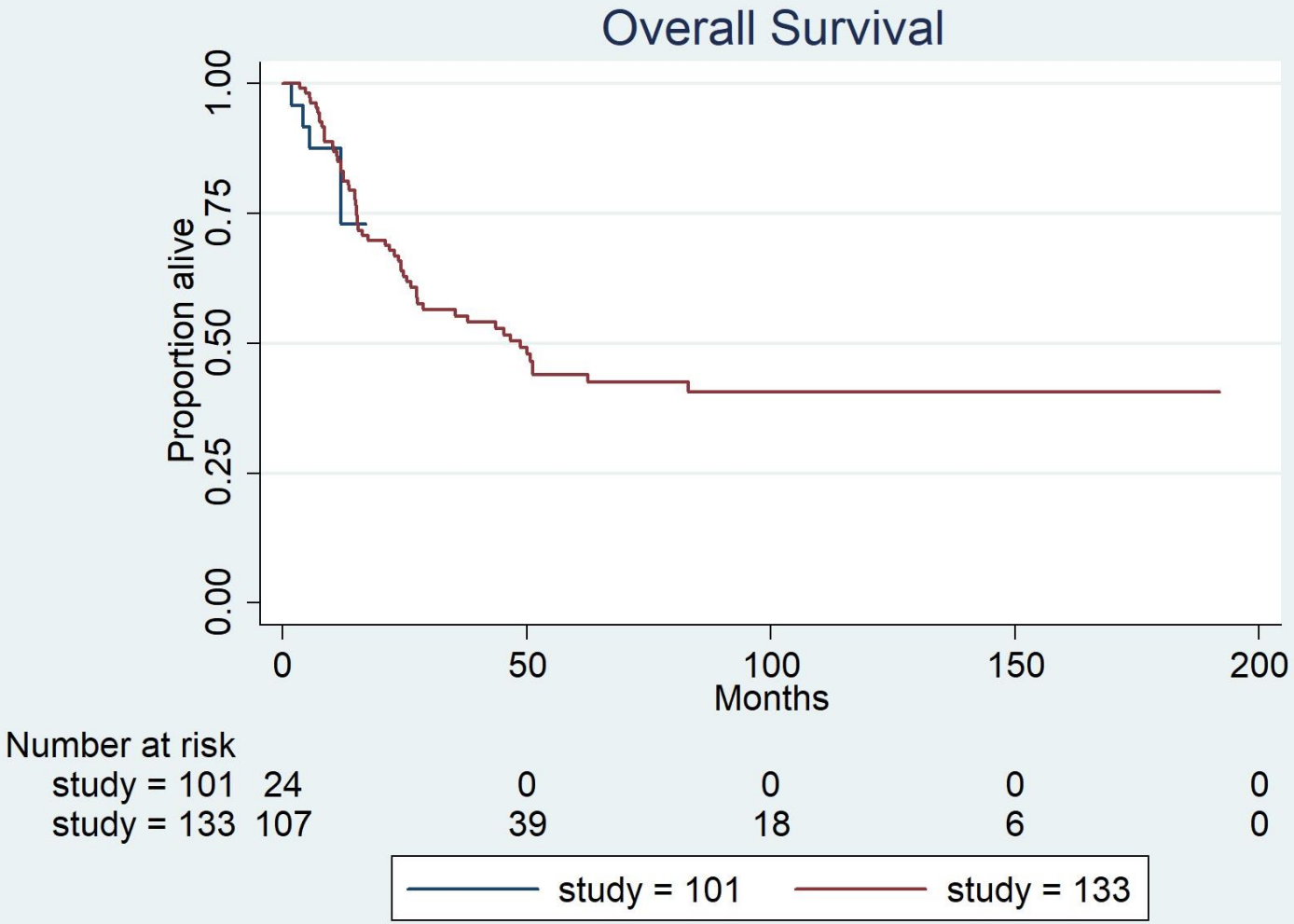
FDA:

- Y-mAbs is in close discussions with the FDA. Final agreement on content of the BLA package that will enable filing, is anticipated in early Jan 2021.
- We estimate submission of the file shortly after reaching an agreement with the FDA.

EMA:

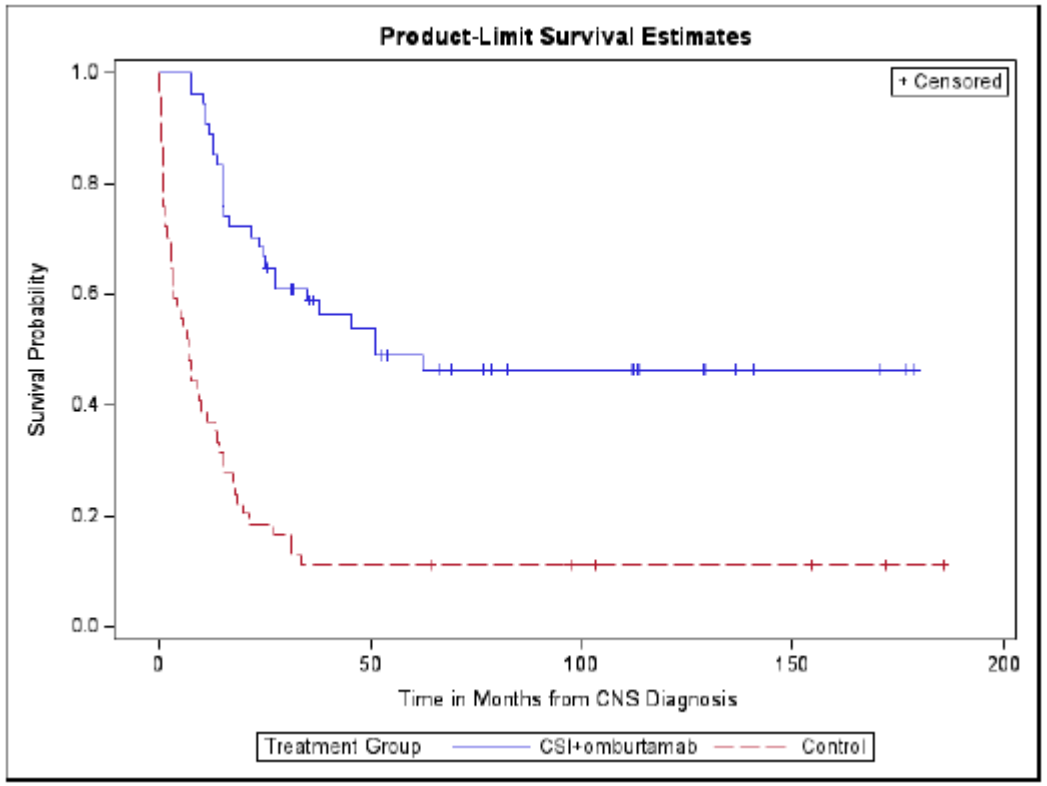
- A PIP for ^{131}I-Omburtamab in CNS neuroblastoma has been agreed and validated by the PDCO. Furthermore, Y-mAbs has had a promising and informative meeting with the EMA in Nov 2020.
- Y-mAbs intends to proceed with the filing of the MAA as planned in Q1 2021.

^{131}I-Omburtamab - Results from the multicenter trial **Trial 101**



Results confirm the improved outcomes observed in MSK trial 03-133

^{131}I-Omburtamab – Preliminary results of Propensity score on Trial 03-133 vs CGCCR



n=54 subjects in both groups

In the set of matched subjects, 3 year survival was greater in the CSI+omburtamab subjects, than in the external control subjects

Table 3. Survival results for matched subjects.

Parameter	03-133 CSI+omburtamab (n=54)	CGCCR (n=54)	p-value[1]
3 year survival proportion (95% CI)	0.59 (0.44, 0.71)	0.11 (0.05, 0.21)	<0.001

[1]p-value from proportional hazards model with robust variance estimator

^{131}I-Omburtamab - Independent radiographic evaluation of tumor response from **Trial 101**

Number of patients in the full analysis set	**24**
Objective Radiographic Response (CR and PR), N (%) [95% CI*]	4 (40.0) [12.2 ; 73.8]
Best Overall Radiographic Response	
Complete response	2 (20.0)
Partial response	2 (20.0)
Stable disease	5 (50.0)
Progressive disease	1 (10.0)
Total	10 (100.0)
No evidence of disease / Not evaluable (N)	14

N: Number of subjects, %: Percentage of subjects

Best overall radiographic response is assessed at **Week 26** by independent review of images.

Results confirm the direct anti-tumor effect of 131I-omburtamab

Disease Control at Week 26 in 9 out 10 pts (90%)

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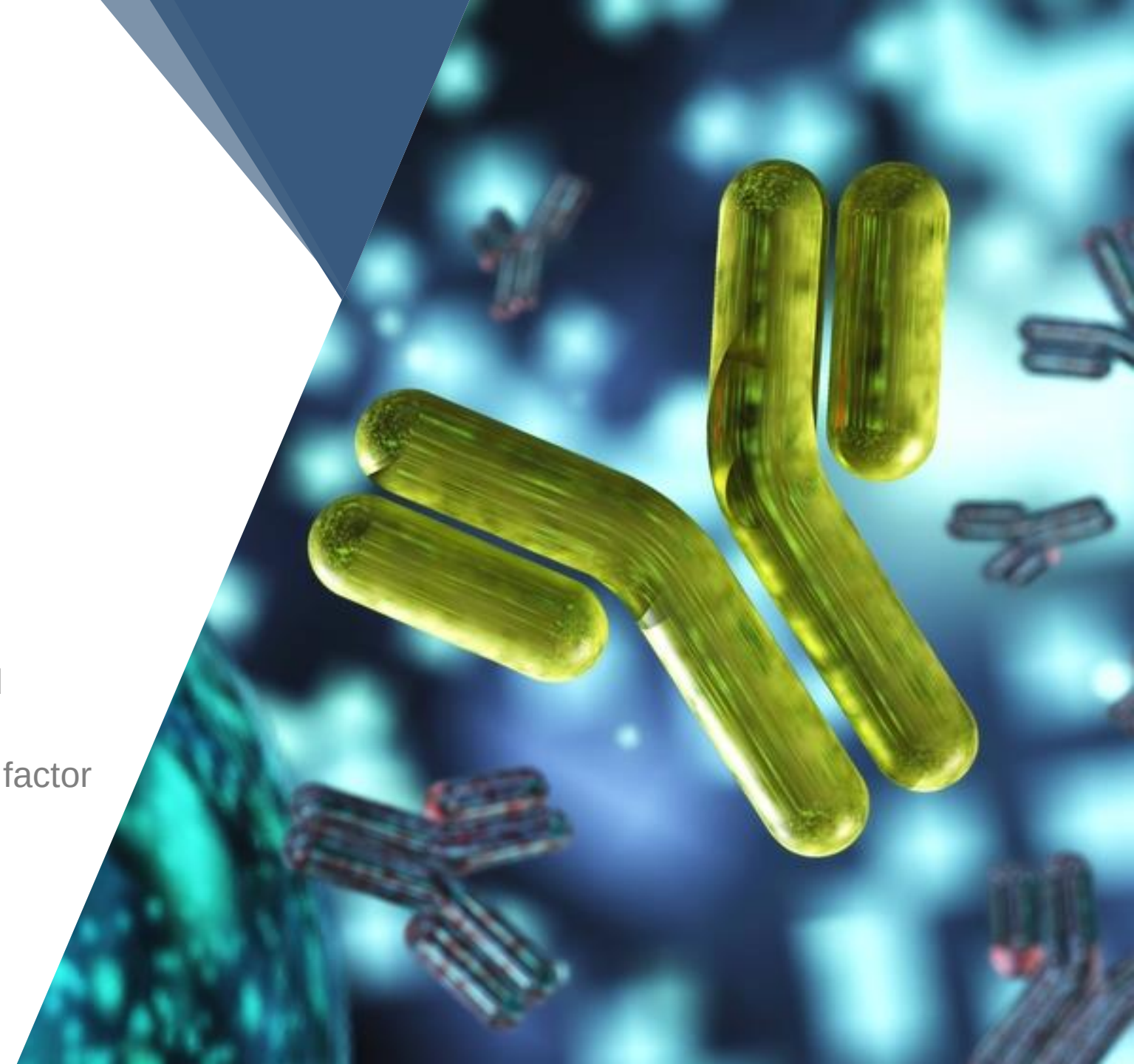
Naxitamab

Osteosarcoma

Study15-096: A phase II study of humanized monoclonal antibody 3F8 (Hu3F8) with granulocyte-macrophage colony stimulating factor (GM-CSF) in the treatment of recurrent osteosarcoma



Naxitamab in Osteosarcoma – Study 15-096 - Trial status, patient accrual & new sites initiated

As of December 2, 2020: 33 total patients accrued (target: 39)

Patient Accrual:

Year	Pt Enrolled
2015	6
2016	4
2017	4
2018	9
2019	6
2020	4

New sites:

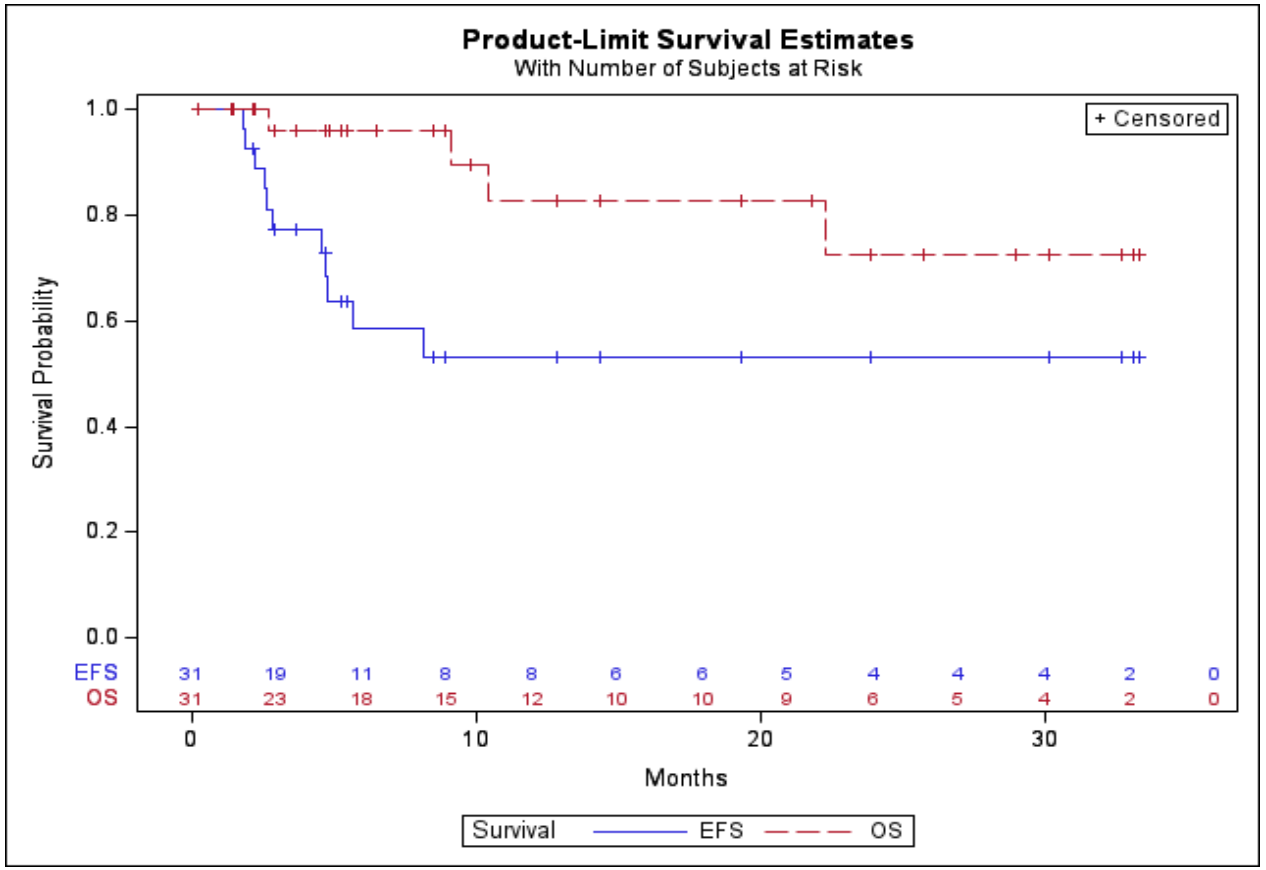
- MD Anderson: IRB approved and site initiated on 14-Dec-2020 and expected to start enrolling patient in Jan-2021
- CHLA: IRB approved and site initiated on 03-Dec-2020 and expected to start enrolling patient in Jan-2021

Naxitamab in Osteosarcoma – Study 15-096 – Draft recent analysis

(Dec 14, 2020)

Baseline characteristics	N (%)
Full analysis set (N)	31
Gender	
Male	21 (68%)
Female	10 (32%)
Race	
White	23 (74%)
Black	3 (10%)
Asian	2 (6%)
Other	1 (3%)
Not reported	2 (6%)
Age at initial diagnosis (Years)	
Mean (SD)	14.3 (5.2)
Median (Min; Max)	17 (8;29)
Extent of disease at diagnosis	
Local	23 (74%)
Metastatic	6 (19%)
Not reported	2 (6%)

Kaplan-Meier curves of **overall survival** (OS) and **event-free survival** (EFS) – Study 15-096



Naxitamab in Osteosarcoma – Study 15-096 – Adverse Events

Treatment emergent adverse events	Grade 3 and 4 adverse events N (%)
Safety Analysis Set (N)	31
Pain	11 (35%)
Hypotension	7 (23%)
Hypertension	5 (16%)
Hypophosphatemia	3 (10%)
Urticaria	2 (6%)
Vomiting	2 (6%)
Hypokalemia	2 (6%)
Lymphocyte count decreased	2 (6%)
Hyponatremia	2 (6%)
Neutrophil count decreased	2 (6%)
Dyspnea	1 (3%)
Fever	1 (3%)
Hyperglycemia	1 (3%)
Nausea	1 (3%)
Hypocalcemia	1 (3%)
Platelet count decreased	1 (3%)
Allergic reaction	1 (3%)
White blood cell decreased	1 (3%)
Alanine aminotransferase increased	1 (3%)
Sinus tachycardia	1 (3%)
Lipase increased	1 (3%)
Dehydration	1 (3%)
Adult respiratory distress syndrome	1 (3%)
Anaphylaxis	1 (3%)
Apnea	1 (3%)
Aspartate aminotransferase increased	1 (3%)
Chills	1 (3%)
Hypermagnesemia	1 (3%)
Hypoxia	1 (3%)
Pancreatitis	1 (3%)
Rash maculo-papular	1 (3%)
Stridor	1 (3%)

Nivatrotamab (GD2xCD3)

Study 18-034: Phase I/II study of humanized 3F8 bispecific antibody (Hu3F8 BsAb) in patients with relapsed/refractory neuroblastoma, osteosarcoma, and other GD2(+) solid tumors

Clinical Experience for Nivatrotamab (18-034)

Clinical experience with nivatrotamab is derived from the first-in-human (FIH) clinical trial (no.18-034, ClinicalTrials.gov id: NCT03860207).

As of October 2020:

- 10 patients have been administered 6 dose levels of nivatrotamab, ranging from 0.0045 mcg/kg/dose to 8 mcg/kg/dose and 0.009 to 9.3 mcg/kg/cycle via IV administration.
- Two dose administrations per cycle were applied using a low priming dose and a subsequent treatment dose. The priming dose was set to 1.3 mcg/kg/dose.
- No dose-limiting toxicities (DLTs) were observed in dose levels 1 to 5 where in total 7 patients were exposed with maximum dosing of 4.8 mcg/kg/cycle in these patients. The maximum single exposure in the first 5 dose levels was 245 mcg therapeutic dose or 336 mcg total dose per cycle (at dose level 5).
- Additionally, 3 patients were dosed at dose level 6, dosing patients up to 9.3 mcg/kg per cycle. Two patients experienced DLTs at dose level 6, and the study is planned to continue with increased steroid pre-medication at a lower dose level.
- No current reports of CR or PR from the patients enrolled so far.

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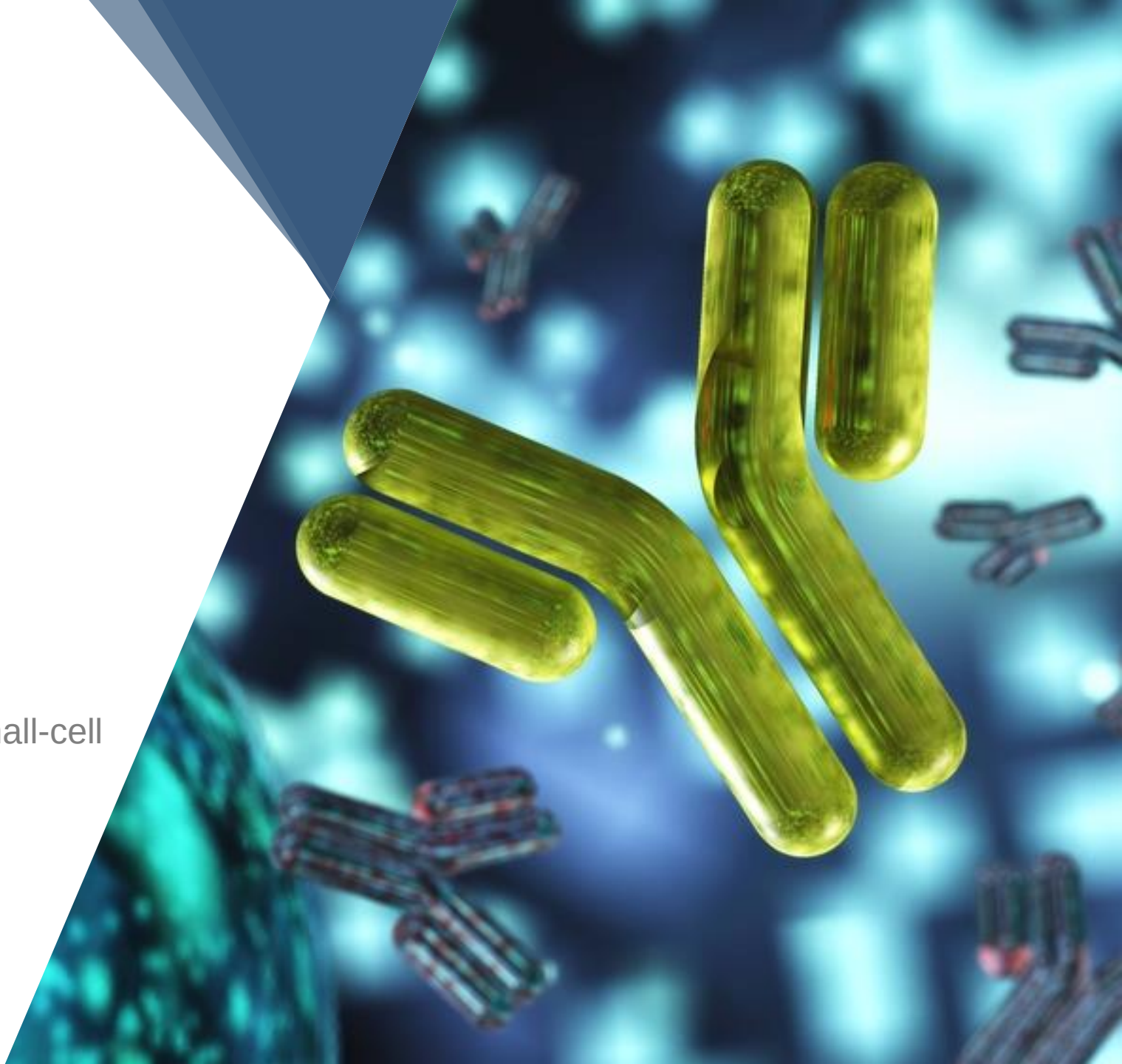
Nivatrotamab (GD2xCD3) In SCLC

Study 402: Safety and clinical activity of nivatrotamab, an anti GD2×CD3 bispecific antibody, in relapsed/recurrent metastatic small-cell lung cancer - An open-label, single-arm, multicenter, phase 1/2 trial



SCLC – The Disease

Anti-GD2xCD3 in adults with relapsed SCLC -10/10 pts aGD2 binding

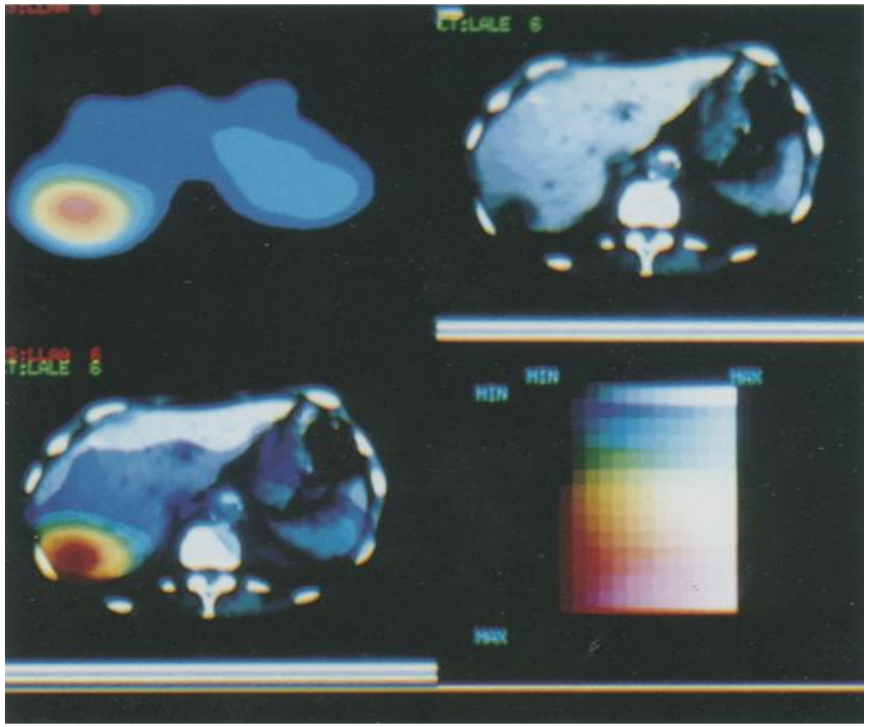
- Lung cancer is comprised of non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC). Small cell lung cancer which constitutes about 13-15% of lung cancers is biologically and clinically distinct from non-small cell cancer.
- App 225.000 new cases and 135.000 deaths per year in US
- It is on a spectrum of neuroendocrine cancer that express the disialoganglioside GD2. Clinically SCLC is more malignant than NSCLC with a rapid doubling time, early metastasis to the liver, brain and bone. SCLC respond rapidly to cytotoxic treatment however develop fast resistance to therapy.

The prognosis for patients with SCLC is dismal despite improvements in diagnosis and therapy made during the past 25 years. Without treatment, SCLC has the most aggressive clinical course of any type of pulmonary tumor, with median survival from diagnosis of only 2 to 4 months. The overall survival at 5 years is 5% to 10%.

SCLC – GD2 expression

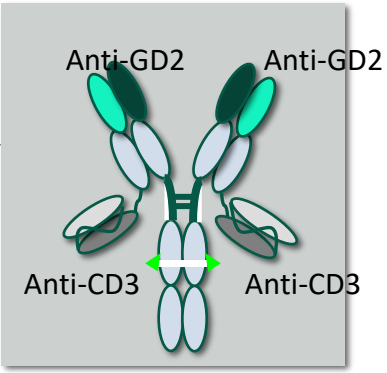
Anti-GD2 in SCLC patients showed 10/10 pts with aGD2 binding – also in liver metastasis

Patient number	Previously identified sites	Identified by 3F8 scan
1	Right diaphragm (CT)	Yes
	Right hilar, mediastinal adenopathy (CT)	Yes
	T8 vertebra (BS)	Yes
2	Shaft of right femur (BS)	Yes
	Right mid-lung mass with right paratracheal and superior mediastinal adenopathy (CT)	Yes
3	Left upper lobe mass involving the left hilum (CT)	Yes
4	Mass involving left mid and upper lung fields involving the left hilum with extensive mediastinal adenopathy (CT)	Yes
	Proximal right femur (BS)	Yes
	Left iliac crest (seen on BS, not confirmed radiologically)	No
5[a]	Right medial lung mass (CXR)	Yes
	Diffuse liver involvement (CT)	Yes
6	Superior segment right lower lobe with right hilar and mediastinal adenopathy (CXR)	Yes
7	Left perihilar mass, hilar adenopathy (CXR)	Yes
8	Right pulmonary mass with right hilar and mediastinal adenopathy (CT)	Yes
9	Right upper lobe mass, hilar and mediastinal adenopathy (CT)	Yes
	Multiple small brain metastases (CT)	No
10	Right hilar mass with hilar and mediastinal adenopathy (CT)	Yes
	Multiple liver metastases (CT)	Yes



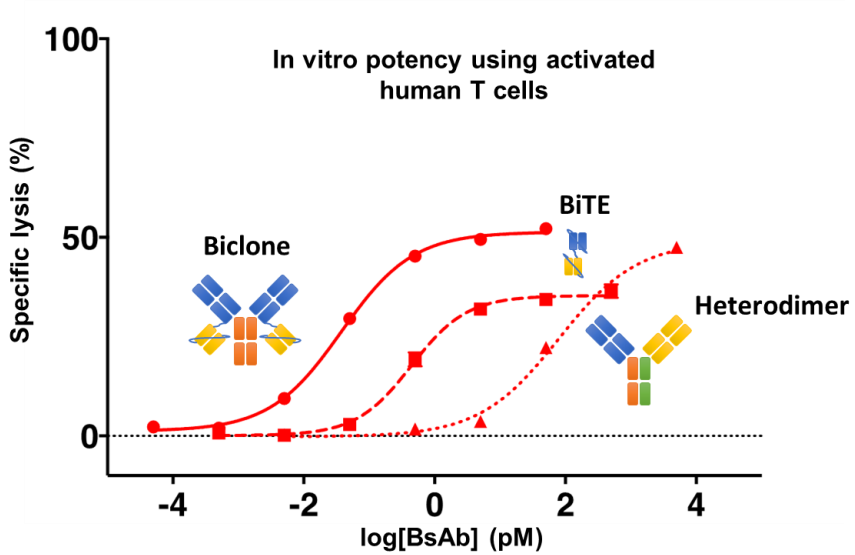
Color-enhanced SPET image *(topleft)* and CT scan image *(top right)* of the patient demonstrates the excellent localization to tumor sites. According to the scale used, red represents the greatest intensity of SPET signal. Shown below the two separate images is a fused SPET/CT scan image confirming the precise localization of the antibody to the single liver metastasis, seen as a large lesion, black in color, on the CT scan slice. Similar fusion images were produced for other liver metastases
Grant et al., Eur J Nucl Med (1996) 23:145-149

Bispecific Antibody Platform



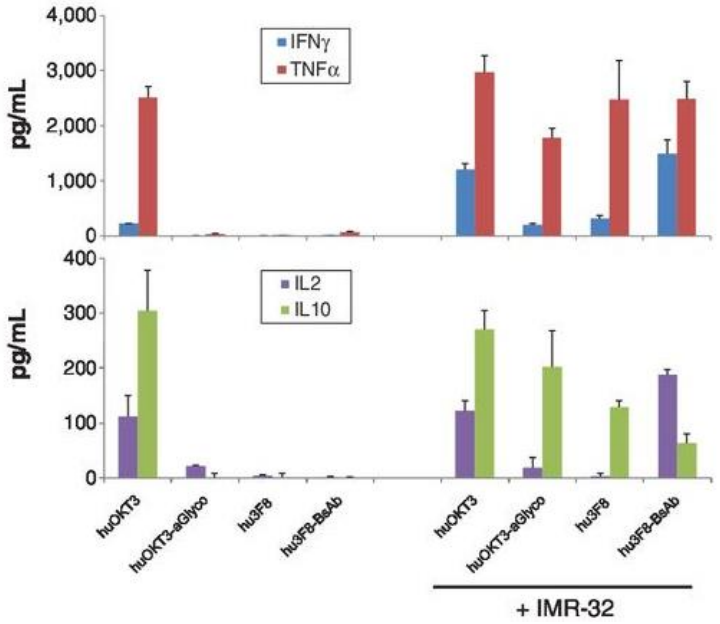
huGD2-BsAb have bivalent binding

Significantly higher potency



Adapted from Santich BH et al. Adv Neuroblastoma Res 2018

No T cell activation in the absence of tumor



Cytokine release from PBMCs +/- drug and neuroblastoma cells IMR-32
Xu H et al. Cancer Immunol Res 2015;3:266-277

Y-mAbs 402 clinical trial

Changes when compared to FIH approach

Y-mAbs has chosen to change dose route and dosing strategy

1) Route of administration changed to s.c. – known to reduce CRS – slower onboarding – Cmax estimated to be on day 2-5.

2) Dose frequency; based on MSKCC study limited to 2 doses per cycle. Based on KOL discussions:
   - Cycle length 2 weeks
   - Cycle 1 (week 1-2); dose day 1 and 8
   - Cycle 2-13 (week 3 to 26) dose day 1
   - Cycle 14 to x (Week 27-EOT): x1 monthly (on day 1 every 2nd cycle)

3) Premedication: to include methyl prednisolone/ dexamethasone (or equivalent)
   - 100 mg before dose 1 and 2; 50 mg: dose 3, 25 mg: dose 4 and thereafter p.n.

GD2xCD3 Biclone (Nivatrotamab) for development in SCLC

In total – 6 sites to be involved in the study

- Three sites identified, PI acceptance
  - Emory University School of Medicine – Dr Owonikoko,
  - Fox chase cancer center – Dr. Borghaei,
  - Washington University - Dr. Morgenstern.
- Y-mAbs IND submission planned for December 2020 – First patients enrolled Q1/Q2 2021

Patient Population 402

- The patient population for phase 1 of the trial will consist of primary metastatic (stage 4) or relapsed patients with SCLC regardless of platinum sensitivity. Patients will be eligible after failing the first-line platinum-containing treatment or after progressing on both second- and third-line treatments

- In phase 2, same patient population, and patients will be stratified into 2 groups based on whether they have platinum sensitive or resistant disease. Platinum sensitive disease is defined as platinum-free interval of ≥90 days and platinum resistant disease as platinum-free interval of ≤90 days.


THANK YOU