



Company Presentation

August 2022

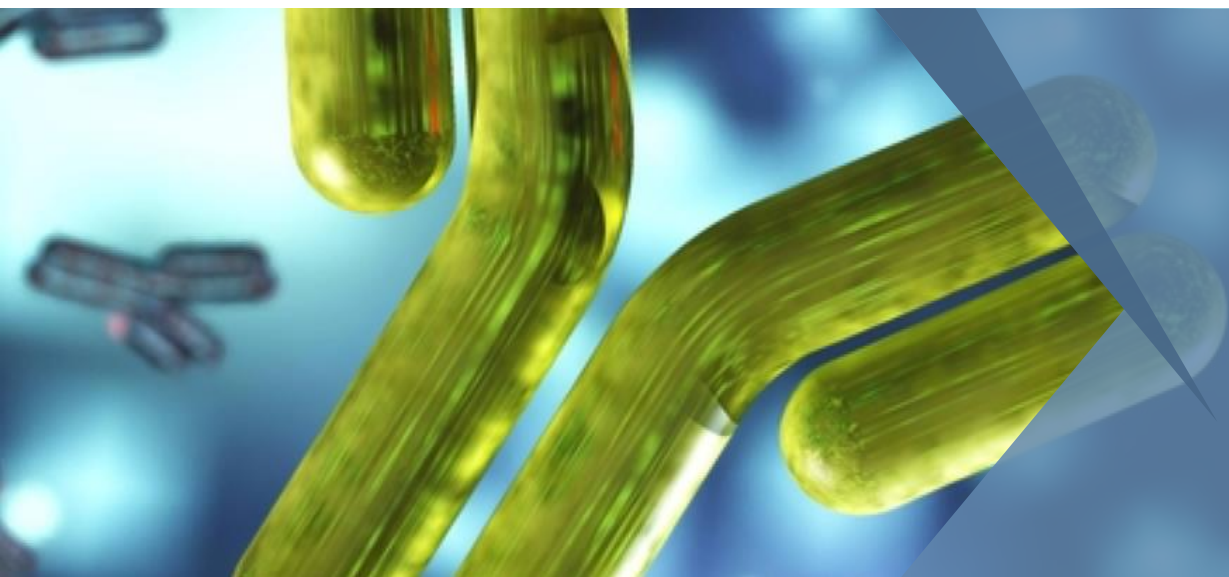


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This presentation contains forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995. The forward-looking statements involve substantial risks and uncertainties. All statements, other than statements of 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 our financial condition and need for additional capital; 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; risks related to our dependence on third parties including for conduct of clinical testing and product manufacture; 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 our Annual Report on Form 10-K and other 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.

MISSION



Our mission is to become the world leader in developing better and safer antibody-based oncology products addressing clear unmet pediatric and adult medical needs

Y-mAbs Platforms to Drive Sustainable Long-term Value

Innovative Platforms

Antibodies and Vaccines

Radio-immunotherapy

Pretargeted Radioimmunotherapy (PRIT): SADA Platform Liquid Radiation™

2022-2024 Milestones

Initiation of Naxitamab label expansion into Osteosarcoma and adult indications

Potential FDA and EMA approval of omburtamab in 2022

Partnership potential for SADA Technology and antibody portfolio

Commercial Leverage

DANYELZA
(naxitamab-gqgk)

Anti-GD2 Antibody marketed for R/R High-Risk Neuroblastoma

OMBLASTYS
(¹³¹I-omburtamab)
PDUFA Nov 2022

Anti-B7-H3 Antibody for CNS/LM from Neuroblastoma

MAA submitted
Anti-B7-H3 Antibody for CNS/LM from Neuroblastoma

Capital Efficiency

\$133.7 million in cash and equivalents as of June 30, 2022

Multiple candidates eligible for **Priority Review Vouchers** on approval (each currently sell for ~\$100m)

Strong Pipeline

Programs	Preclinical	Phase 1	Phase 2/Pivotal Study	Approved	Next Anticipated Milestones
Lead Candidates	DANYELZA (naxitamab-ggqk)				FDA approved
	OMBLASTYS (¹³¹ I-omburtamab) RPDD ¹ ✓				PDUFA November 2022, MAA submitted Q2 2021
Vaccine	GD2-GD3 Vaccine RPDD ✓				Multicenter Phase 2 study being planned
SADA Technology	GD2-SADA				GD2 Positive solid tumors – IND cleared in July 2022. Additional INDs being prepared
BiSpecific	CD33xCD3				Pediatric R/R AML

¹ Indicates eligibility for a Priority Review Voucher (PRV) on approval

A horizontal banner image showing a close-up, slightly blurred view of several glass test tubes containing a yellowish liquid. The background is a soft, out-of-focus blue. A dark blue diagonal shape overlaps the right side of the image.

Commercial Readiness

DANYELZA® (naxitamab-gqqk):
Anti-GD2 Antibody for
R/R High-Risk Neuroblastoma

OMBLASTYS® (omburtamab):
Anti-B7-H3 Antibody for
CNS/LM from Neuroblastoma

Commercial Opportunities – DANYELZA and omburtamab

Compound	Indication	Total Incidence per Year (US)	Addressable Patient Population per Year (US)
GD2 DANYELZA (naxitamab)	Neuroblastoma – 2nd Line	300	300
	Neuroblastoma – Front Line	800	450
	Osteosarcoma – 2 nd Line	450	200
B7-H3 omburtamab	Neuroblastoma Metastatic to the Central Nervous System (CNS/LM from NB)	80	80
	Diffuse Intrinsic Pontine Glioma (DIPG)	300	300
	Desmoplastic Small Round Cell Tumors (DSRCT)	100	100

DANYELZA: Only FDA-Approved Medicine for R/R NB Patients



FDA approval for patients with R/R Neuroblastoma (NB)

- Rapid infusion, less pain, fewer hospitalization days, high degree of treatment compliance
- Outpatient treatment



Neuroblastoma

- NB forms in certain types of nerve tissue. It most frequently starts from one of the adrenal glands but can also develop in the neck, chest, abdomen or spine.
- NB is the most common cancer in babies and the third-most common cancer in children



U.S. commercial launch performance

- Q2 net sales of \$9.8 million
- 36 active sites across the U.S.



Solid drivers of market uptake

- Pre-launch efforts drove market development and market access
- Significant engagement with key stakeholders

DANYELZA™
naxitamab 40mg/10mL INJECTION

DANYLEZA: Primary and Secondary Refractory Patients

Study 12-230 (SIOP October 2019 - Investigator evaluated responses)

23 evaluable patients with primary refractory high-risk NB: **78% ORR**

50% two-year progression free survival (PFS) was observed

Study population of 35 secondary refractory patients with relapsed NB resistant to salvage therapy: **37% ORR**

36% two-year PFS was observed

Study 201 (SIOP October 2020 - Independent review assessment)

25 patients enrolled, of which 22 patients were evaluable: **68% ORR and 59% CR**

Bone marrow (BM) clearance in subjects with positive BM at trial start: CR in BM was observed in 7 of 9 subjects.

High-Risk Neuroblastoma Frontline Treatment Regimes

Dinutuximab 10-20 hours infusion (x4 per week)

Induction

- Chemotherapy
- Stem Cell Collection
- Surgical Resection of Primary tumor

Consolidation

- High Dose Chemotherapy with ASCT
- Radiation Therapy

Maintenance

- Immunotherapy
- Cis-Retinoic Acid
- IL-2

Naxitamab app. 30-60 min infusion (x3 per week)

Induction

- Chemotherapy
- Stem Cell Collection
- Surgical Resection of Primary tumor

Consolidation

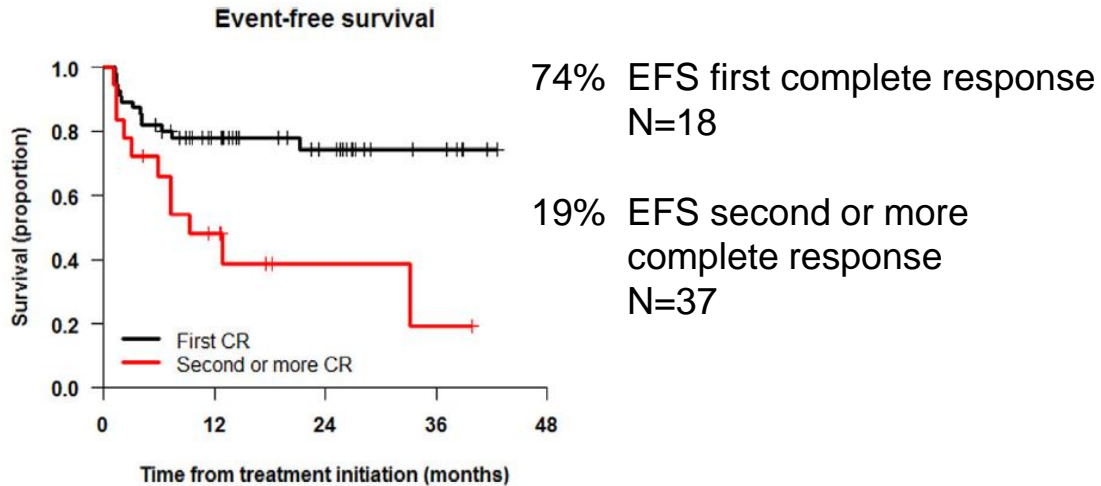
- High Dose Chemotherapy without ASCT
- Radiation Therapy

Maintenance

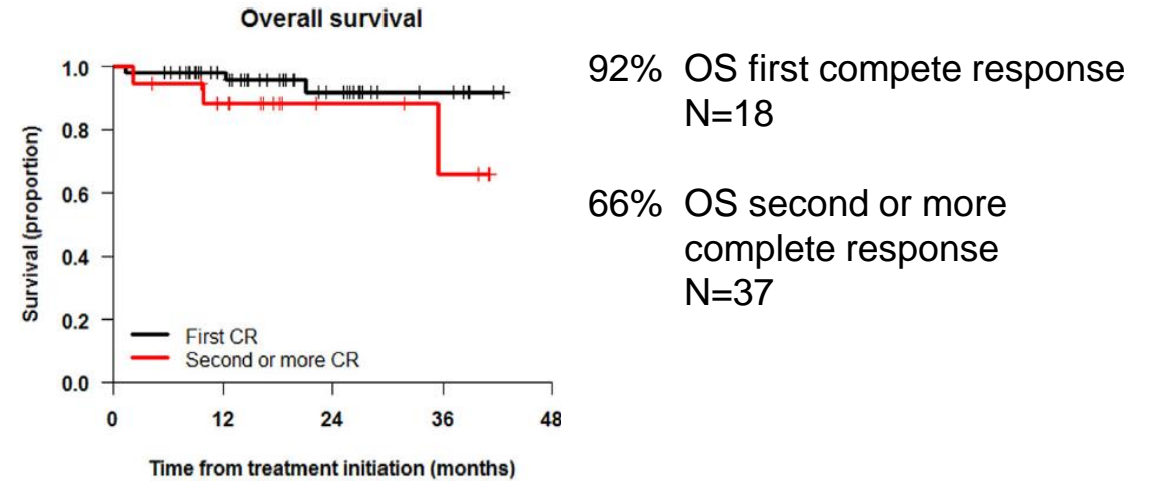
- Immunotherapy
- Cis-Retinoic Acid

Naxitamab: Frontline NB Data without Standard ASCT

3-year Event Free Survival:



3-year Overall Survival:



Data from Dr. J. Mora, ASCO 2021

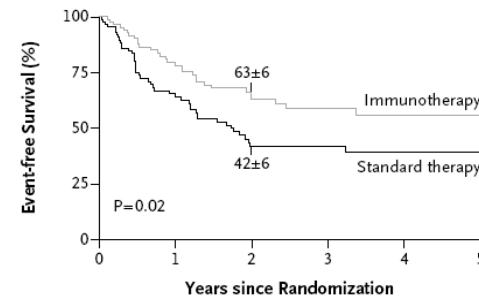
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

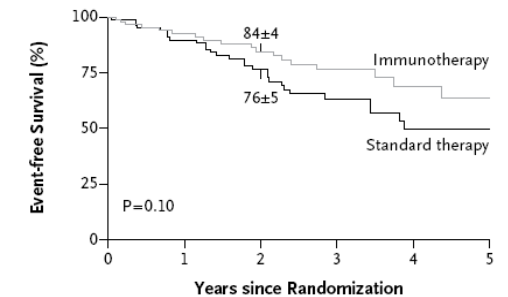
Anti-GD2 Antibody with GM-CSF, Interleukin-2, and Isotretinoin for Neuroblastoma

Yu, AL, et al, New England Journal of Medicine, 2010

C Event-free Survival for ≥1-Yr-Olds with Stage 4 Disease



D Overall Survival for ≥1-Yr-Olds with Stage 4 Disease



Naxitamab – Potential Label Expansion - Anticipated Study Initiation

Cancer indications	Treatable patient population (US)	GD2 expression	2020	2021	2022	2023	2024
Neuroblastoma FDA approval for R/R HR-NB in Nov 2020	800	~ 99-100%	R/R - High Risk Neuroblastoma	Front-line HR Neuroblastoma	Chemo combo in R/R HR NB		
Relapsed/Recurrent Osteosarcoma	200	~88%	Relapsed Osteosarcoma Study 15-096			Pivotal RCT	
Soft-Tissue Sarcomas	2,900 (1 st -line population)	>90%				Phase 1/2	
Triple Negative Breast Cancer	8,900 (2 nd line & 3 rd line <i>plus</i>)	>50%				Phase 1/2	
Melanoma - Newly unresectable & met.	11,400 (2 nd line & 3 rd line <i>plus</i>)	>50%				Phase 1/2	

ISS - BCC018 – An Overview

Protocol

- A Phase II Study of Naxitamab Added to Induction Therapy for Subjects with Newly Diagnosed High-Risk Neuroblastoma
- Naxitamab in combination with standard induction therapy
- Evaluating efficacy and safety
- Sites in 40-50 sites in US & Canada
- Target enrolment 86 patients in total, FPFV expected August 2022
- Accrual estimated to require 3-5 years

Sponsor

- Beat Childhood Cancer (BCC)

Coordinating Center

- Beat Childhood Cancer, Atrium Health

Supported by

- Beat Childhood Cancer Foundation
- Y-mAbs Therapeutics (naxitamab IMP)

Coordinating Investigators

- Dr. Jacqueline Kraveka (Medical University of South Carolina)
- Dr. Giselle Saulnier Sholler (BBC)

Naxitamab: Key Takeaways

Addresses Significant Unmet Needs in R/R High-Risk NB • Potential to Expand to Broader Populations



Studies 12-230 and 201 formed primary basis of approval in November 2020



Granted ODD and BTD. Frontline studies ongoing



US commercialization in high-risk NB initiated. Chinese partnership with SciClone



Multiple potential advantages over other GD2 targeting antibody-based therapies: Modest toxicity, shorter infusion time, ability to be administered in outpatient setting

Omburtamab: Regulatory Path to BLA Approval



U.S.

Studies 03-133 and 101 formed basis of BLA resubmitted in March 2022, PDUFA November 2022.

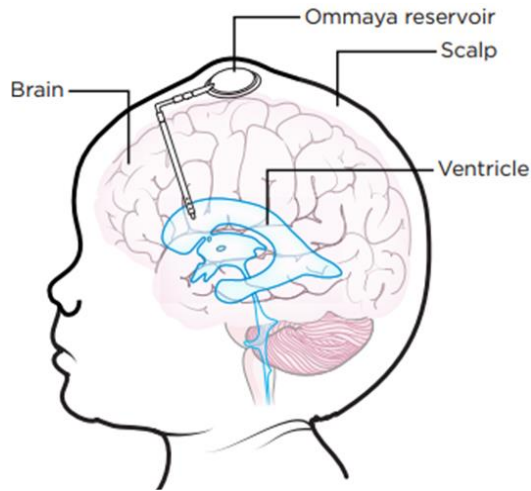
Europe:

Marketing Authorization Application submitted April 2021

Omburtamab: Delivered in an Outpatient Setting – 2 Doses per Patient

CNS/LM from NB patients

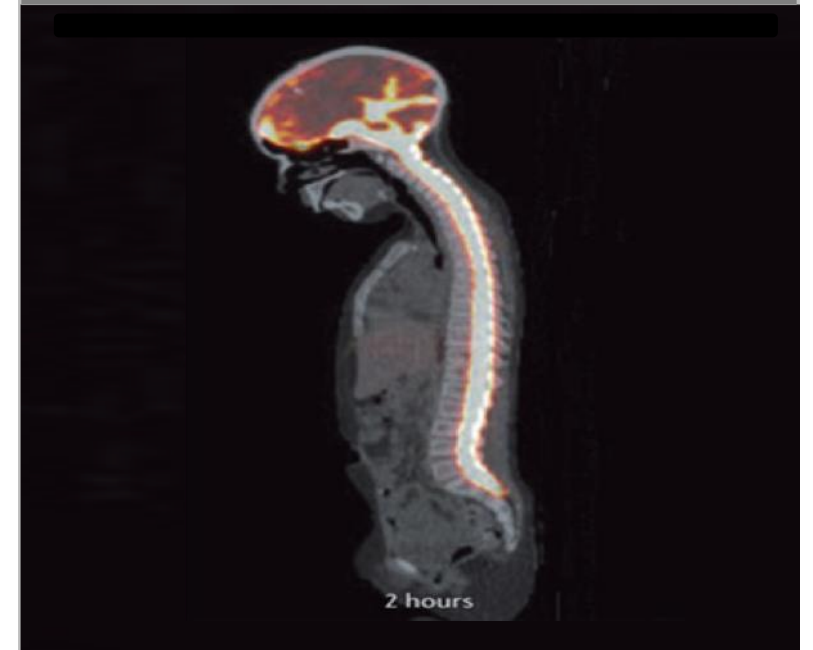
Administration of radiolabeled omburtamab via Ommaya reservoir



Omburtamab being delivered in an outpatient setting



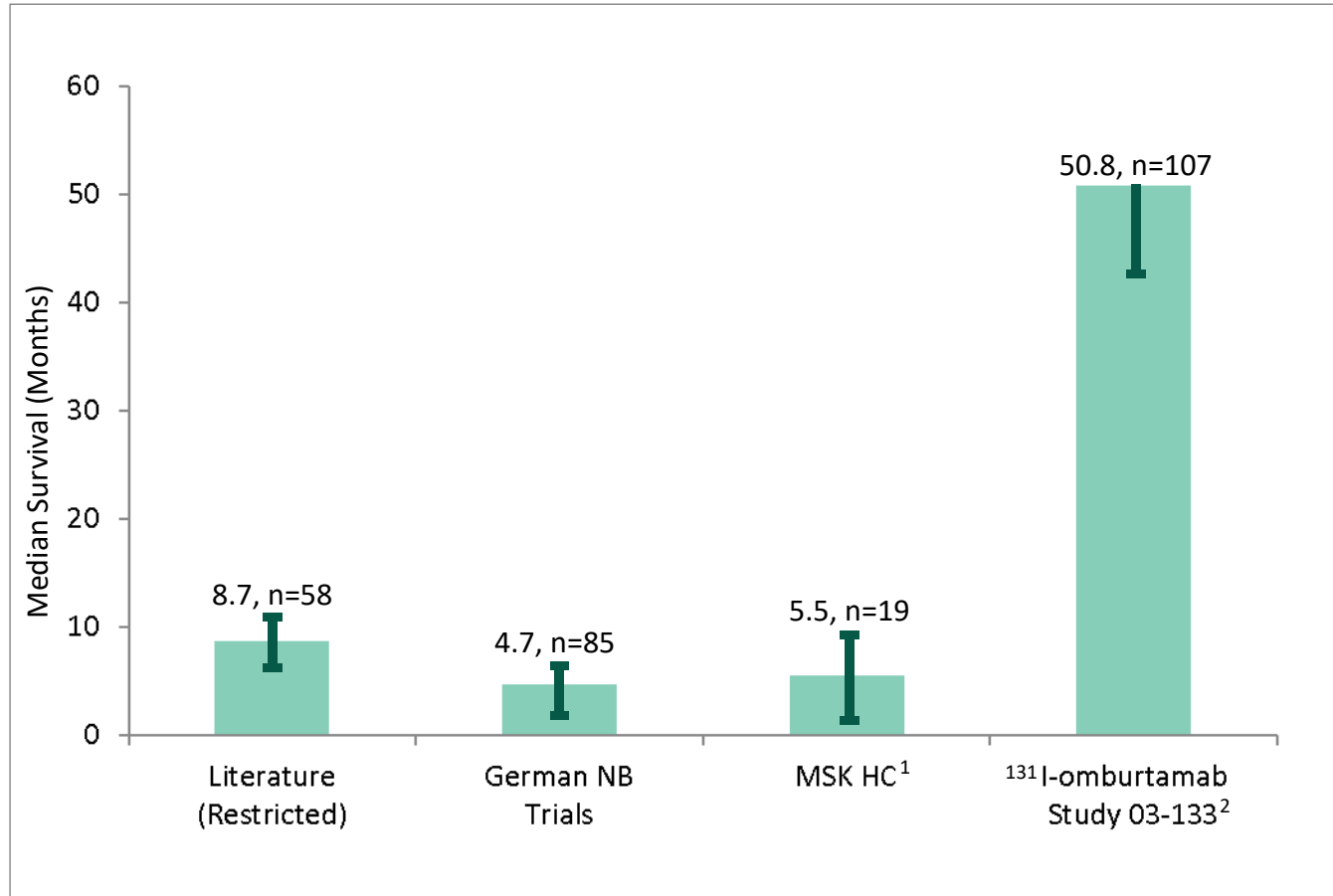
PET scan of distribution of radiolabeled omburtamab two hours after administration



After induction treatment including all or some of the three treatments (chemotherapy, surgery, and radiation) patients will receive radiolabeled omburtamab

Omburtamab: Clinical Overview

Studies 03-133 and 101: ¹³¹I-omburtamab Improves Survival in CNS/LM from NB Patients



¹ MSK HC = neuroblastoma patients with CNS/LM treated at MSK prior to 2003

² ¹³¹I-omburtamab = Patients with CNS/LM treated under Study 03-133

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
<small>N: Number of subjects, %: Percentage of subjects Best overall radiographic response is assessed at Week 26 by independent Review of images.</small>	

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

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

Omburtamab: Label Expansion Through Broad Clinical Platform

Omburtamab (B7-H3)	Phase 1	Phase 2/Pivotal Study	Highlights
Accelerated Pathway	Phase 2: CNS/LM from NB (Pediatric) – Study 101		Multi-center PK study; PDUFA November 2022 – MAA submitted in Q2 2021
	Phase 1: CNS/LM – Study 03-133		MSK single-center efficacy data
Label Expansion	Phase 1: DIPG – Study 11-011		Study update presented at ASCO 2021
	Phase 2: DIPG multi-center		Multi-center study, IND filed Q4 2021
	Phase 2: DSRCT – Study 19-182		Study update from Phase 1 presented at CTOS Nov 2019

Omburtamab: Key Takeaways

Addresses Significant Unmet Needs and has the Potential to Expand its Application to Broader Populations



No approved products for patients with R/R NB who have CNS/LM from NB

Goal of treatment is generally palliative



Granted ODD, BTD, and RPDD; May qualify for a sBLA for DIPG and DSRCT assuming positive pivotal data



Demonstrated median OS of approximately 51 months

Historical median OS of ~6-9 months and no expected five-year survival



Studies 03-133 and 101 formed primary basis for BLA resubmission for CNS/LM from NB in Q1 2022 MAA submitted in Q2 2021. Large potential market opportunity for the treatment of LM from tumors expressing B7-H3

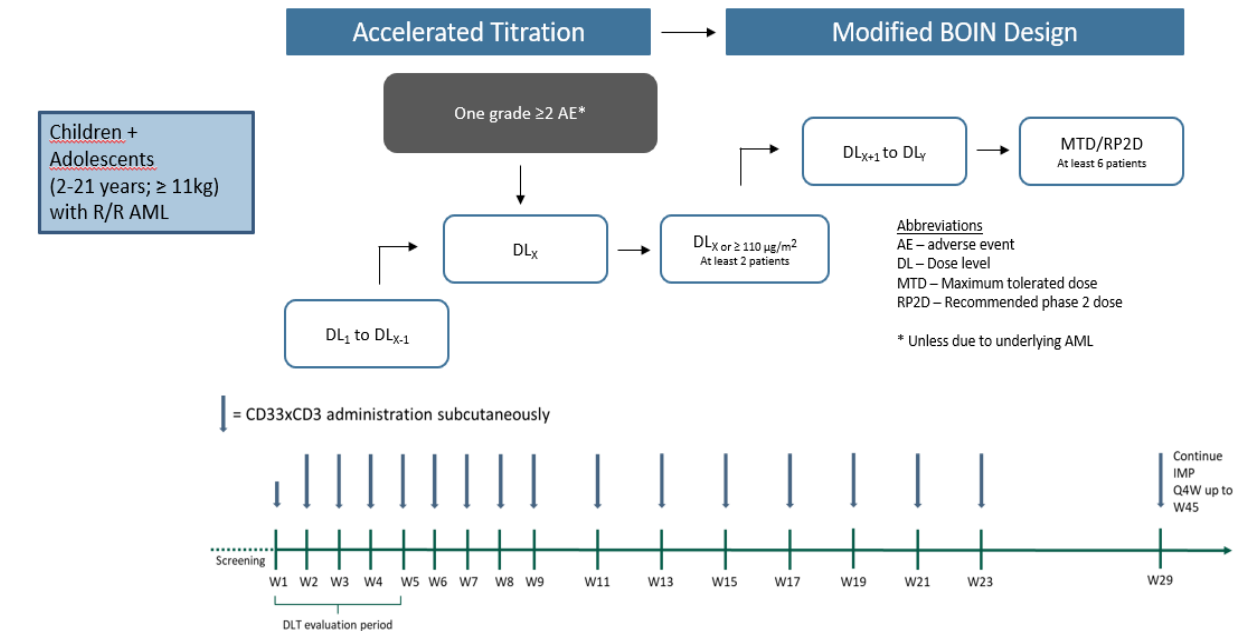


Bispecific Antibodies

Y-BiClone anti-CD33xCD3 - Clinical Development – Trial 801

- Initial development in pediatric AML - estimated 800 new cases per year (US)
- multicenter phase 1 trial initiated - to establish the safety profile, immunogenicity, initial signals of efficacy and RP2D
- 36 patients targeted
- Close collaboration with COG: 17 participating sites planned
- IND open (19 Apr 2022)
- First patient dosed May 2022

Trial 801: Phase I design



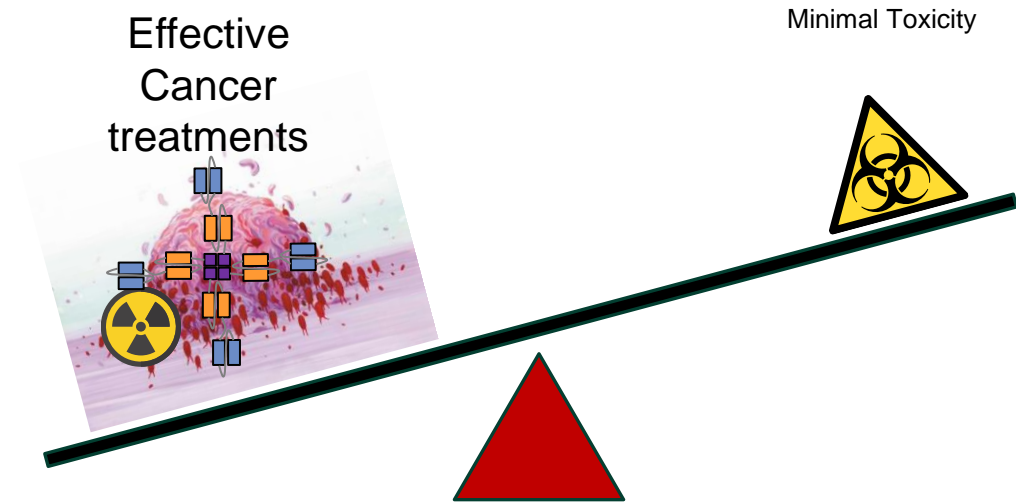
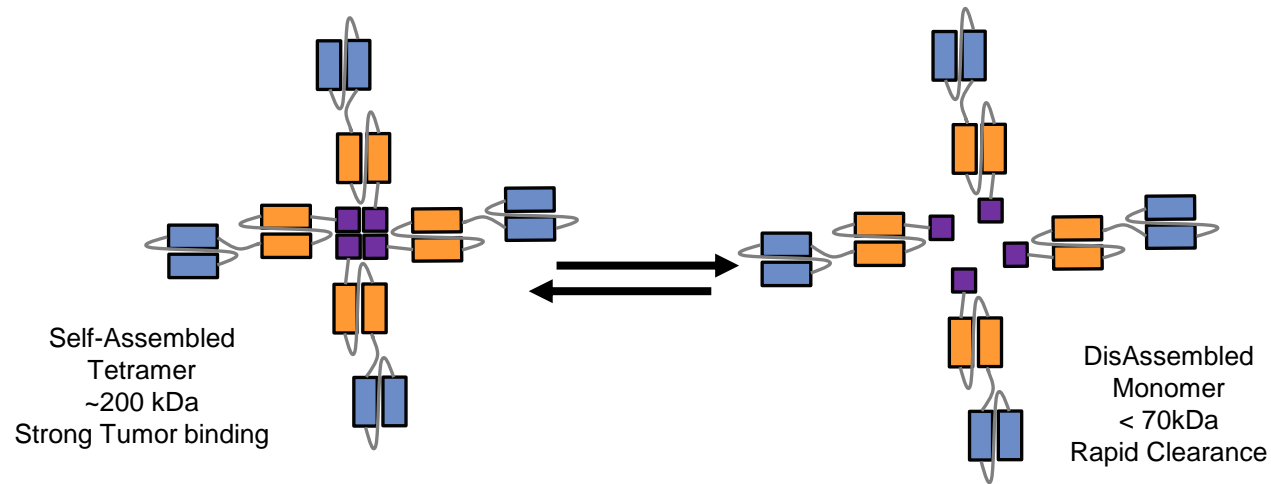
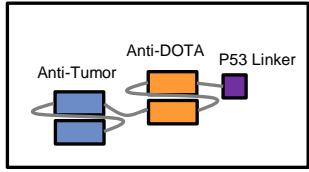
A horizontal banner image showing a close-up, slightly blurred view of several test tubes containing a yellowish liquid. The background is a soft, out-of-focus blue. A diagonal blue line cuts across the image from the top left towards the center.

SADA Technology Platform

Liquid Radiation™

SADA Technology - High affinity for tumor targets and rapid clearance from blood stream

SADA domains uniquely selected to allow proteins to change size based on concentration

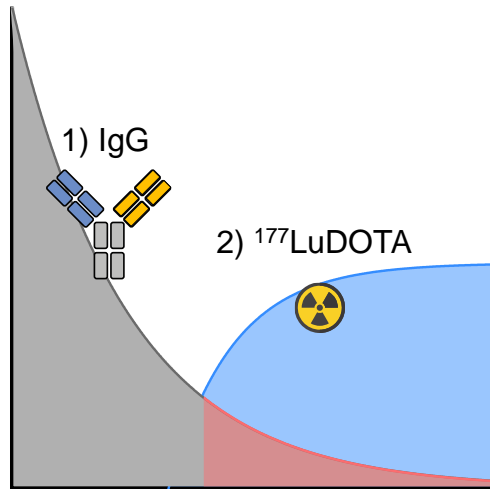


Adapted from Santich et al. Clin Canc Res 2020

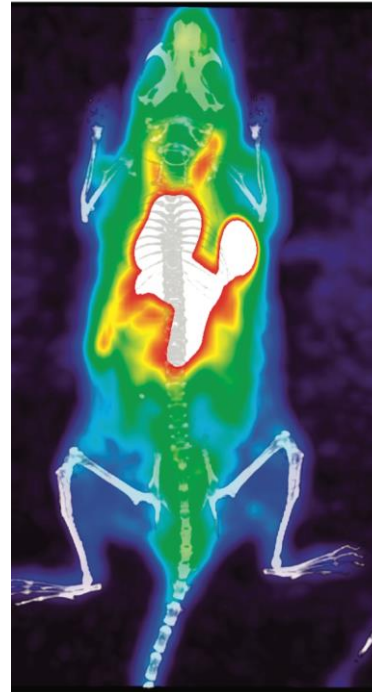
SADA has high tumor uptake with minimal exposure to all other tissues

Conventional antibody's persistence in blood stream leads to substantial unwanted exposure

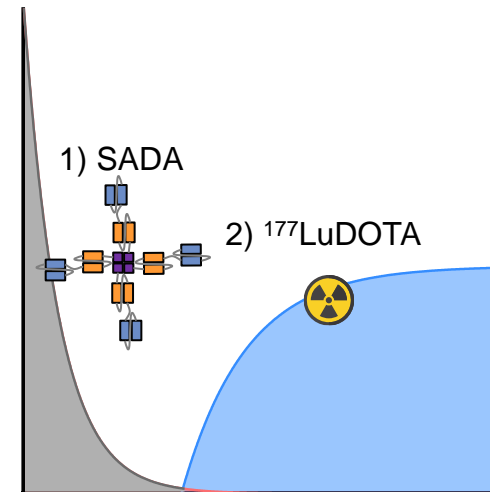
Pretargeted Radioimmunotherapy
(2-step, TI = ~20:1)



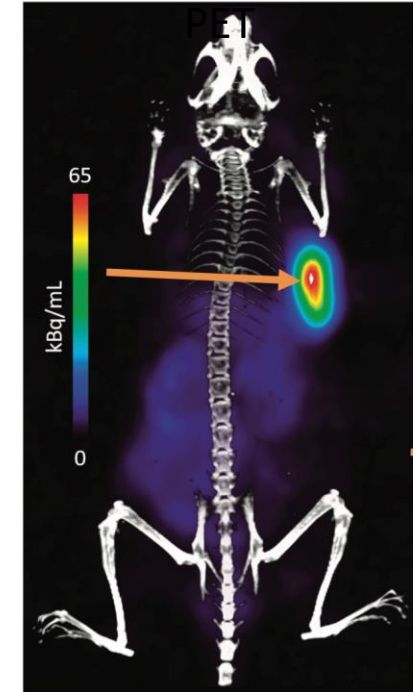
2-step IgG PET



Pretargeted SADA Technology
(2-step, TI > 50:1)



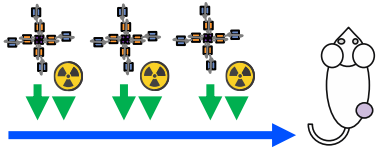
2-step SADA



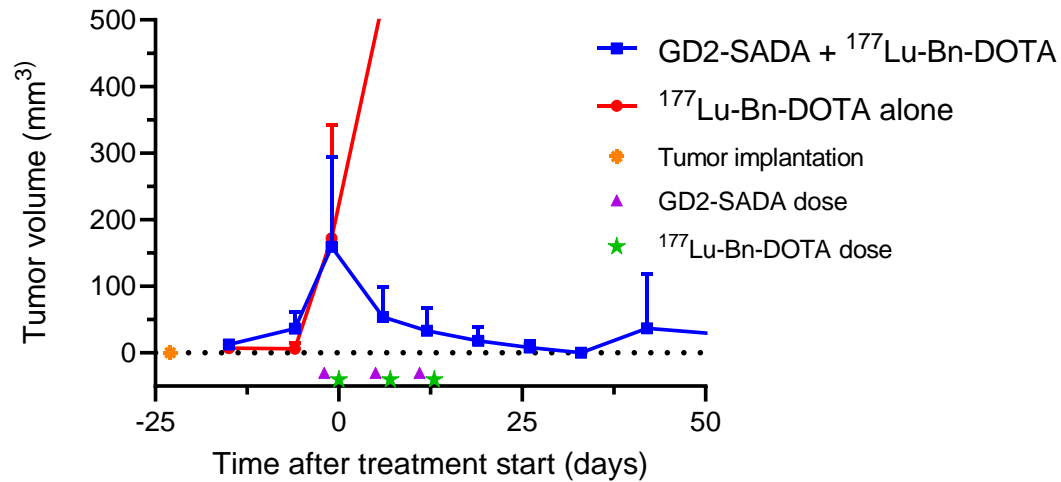
Adapted from Santich et al. Clin Canc Res 2021

GD2-SADA in established mouse tumor models

PDX models; NB and SCLC

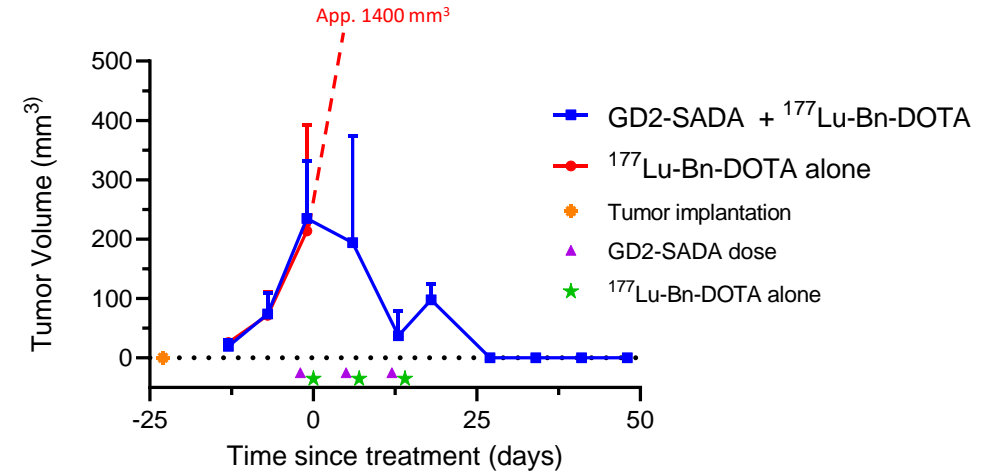


Neuroblastoma PDX



Model: BRG mice with s.c. PDX
Doses: 1x weekly for 3 weeks with 48hr interval,

SCLC PDX



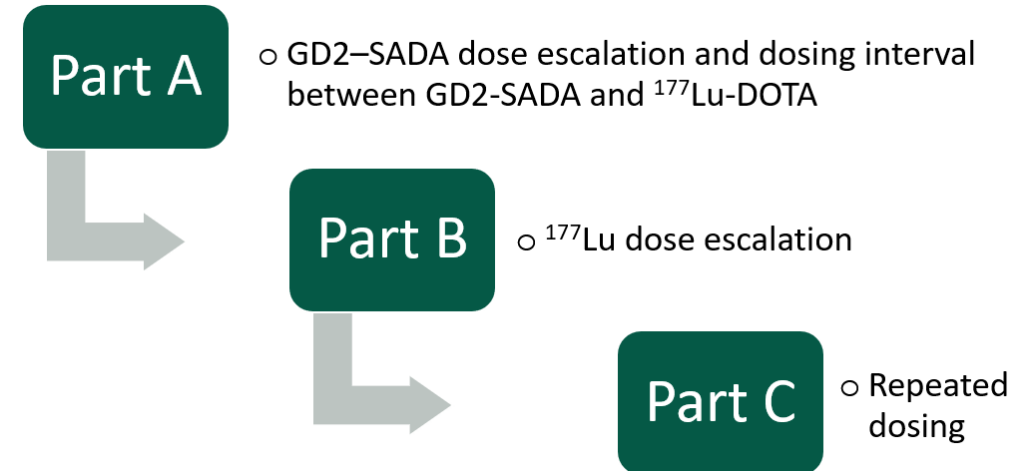
Model: BRG mice with s.c. PDX
Doses: 1x weekly for 3 weeks with 48hr interval

Adapted from Santich et al. Clin Canc Res 2020 and unpublished data

GD2-SADA - Clinical Development – Trial 1001

- Initial development in patients with Small Cell Lung Cancer, Sarcoma and Malignant Melanoma
- Multicenter phase 1 trial planned to open Q4-2022 in three parts:
 - A: dose-finding for protein SADA molecule (15-18 pts)
 - B: dose finding for radioactive payload (^{177}Lu -DOTA) (9-12 pts)
 - C: safety and initial signals of efficacy using repeating dosing (32 pts)
- 6 – 10 participating US sites planned
- Principal Investigator: Taofeek K Owonikoko, MD/PhD; UPMC Hillman Cancer Center
- IND submitted and first patient planned for Q4-2022

Trial 1001: Phase I design





Financial Summary

Strong Financial Position



Follow on: November 2019

\$144 Million

Follow on: February 2021

\$115 Million

Non-dilutive cash: January 2021

\$62 Million from PRV sale

\$133.7 Million

of cash and cash equivalents
as of June 30, 2022



\$489 Million

Raised to Date

1 PRV

PRV sold for \$105 Million

Y-mAbs retained 60% of net proceeds
\$62 million

3 RPDDs

Received for leading compounds

Investment Highlights

	Pediatric	Adult
DANYELZA (naxitamab-gqqk) and GD2-GD3 Vaccine	<ul style="list-style-type: none">• High-Risk Neuroblastoma• Osteosarcoma	<ul style="list-style-type: none">• Osteosarcoma
Omburtamab	<ul style="list-style-type: none">• CNS/LM from NB (¹³¹I)• DIPG and DSRCT (¹³¹I)	
SADA Platform	<ul style="list-style-type: none">• Neuroblastoma• Osteosarcoma	<ul style="list-style-type: none">• Small Cell Lung Cancer, Melanoma• Prostate Cancer, Breast Cancer

The background is a microscopic scene. On the left, a large, textured green sphere is partially visible. Scattered throughout are various rod-shaped bacteria, some in pairs or chains. Some of these rods have small red structures at their ends. The overall color palette is dominated by teal, blue, and green, with a soft, out-of-focus effect.

THANK YOU