Corporate Presentation

September 2023

AMBRX

Forward-Looking Statements

Certain statements contained in this presentation, other than statements of historical fact, are "forward-looking" statements, within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by the use of words such as “believes,” “expects,” “hopes,” “may,” “will,” “plan,” “intends,” “estimates,” “could,” “should,” “would,” “continue,” “seeks,” “pro forma,” or “anticipates,” or other similar words (including their use in the negative), or by discussions of future matters. These forward-looking statements include, without limitation, statements regarding the timing, progress and results of preclinical studies and clinical trials for our product candidates; our product development plans and strategies; plans and expectations with respect to regulatory filings and approvals; the potential benefits and market opportunity for our product candidates and technologies; expectations regarding future events under collaboration and licensing agreements, as well as our plans and strategies for entering into further collaboration and licensing agreements; expectations regarding our future financial position and results of operations; and our expected cash runway; and expected benefits of our reprioritizing.

Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially and historical results should not be considered as an indication of future performance. These risks and uncertainties include, among others, risks inherent in the development and regulatory approval process for novel therapeutics; the fact that future preclinical and clinical results/data may not be consistent with initial or preliminary results/data or results/data from prior preclinical studies or clinical trials; potential delays in development timelines, including delays in clinical trials; the potential impact of the COVID-19 pandemic; our reliance on third parties for development and manufacturing activities; changes in competitive products or in the standard of care; the risk of early termination of collaboration agreements; the risk that our proprietary rights may be insufficient to protect our product candidates or that we could infringe the proprietary rights of others; the fact that we will need additional capital and such capital may not be available on acceptable terms or at all; and changes in laws and regulations. Other factors that may cause our actual results to differ from current expectations are discussed in our filings with the U.S. Securities and Exchange Commission, including the section titled “Risk Factors” contained therein.

Caution should be exercised when interpreting results from separate trials involving separate products or product candidates. There are differenced in the clinical trial design, patient populations, follow-up times, and the product candidates themselves.

These forward-looking statements are based on information available to, and expectations of, Ambrx as of the date of this presentation. Ambrx disclaims any obligation to update these forward-looking statements, except as may be required by law.

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Antibody Drug Conjugates (ADCs) – Targeted Cancer Cell Killing Design

ADCs

Antibody Drug Conjugates (ADCs) are composed of 1) a cancer killing chemotherapeutic payload, 2) an antibody-targeting a cancer cell and 3) a linker connecting the antibody to the payload

Problem

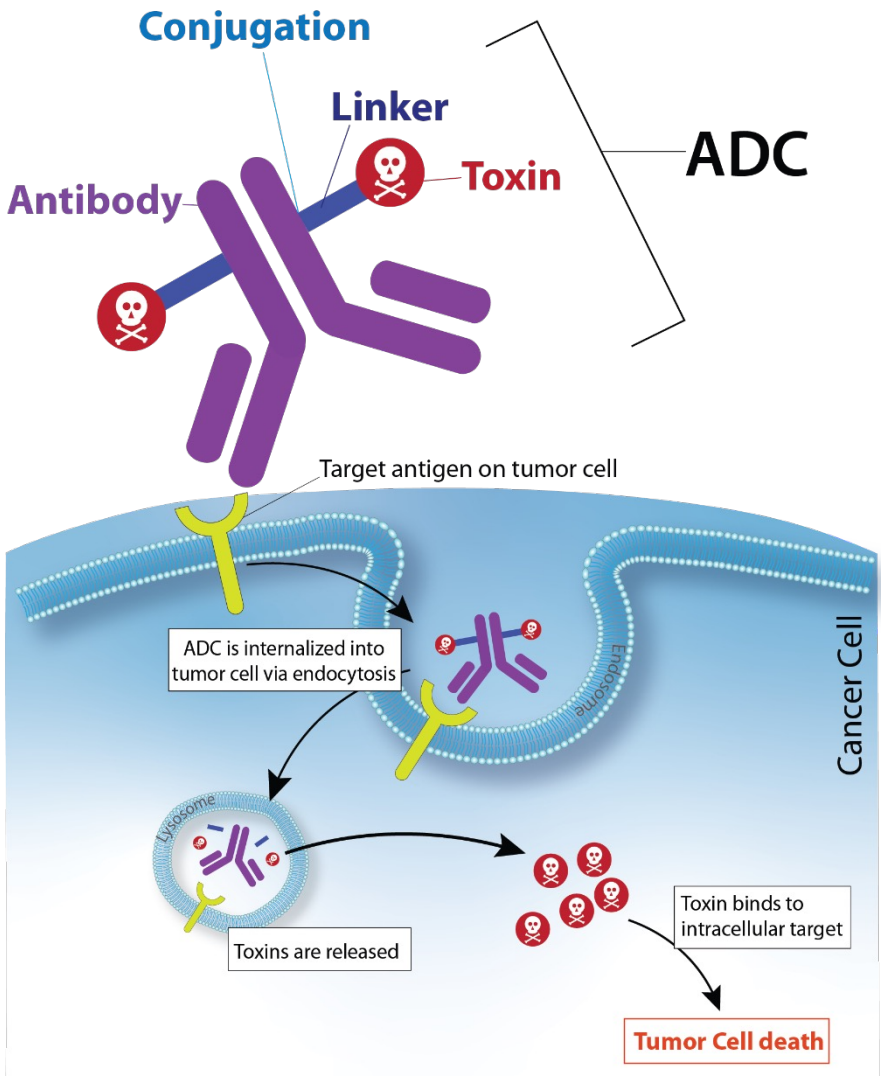
ADCs that have weak linkage/conjugation can prematurely release their toxic payload, which can damage healthy tissues and lead to an unfavorable toxicity profile

Our Solution

Ambrx's proprietary conjugation technology using synthetic amino acids prevents the premature release of its cancer killing toxic payload

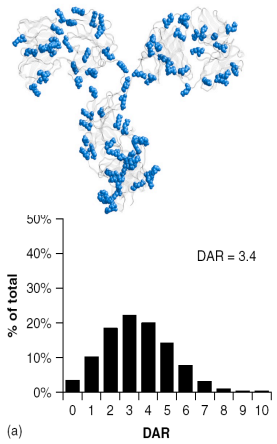
Benefits

Ambrx's technology incorporates the advantages of highly specific targeting mAbs securely linked to a highly potent chemo cancer killing payload to achieve targeted and efficient elimination of cancer cells



Ambrx's Proprietary Site-Specific Conjugation Designed to Produce Stable, Homogenous ADCs

Lysine Conjugation 80 Sites

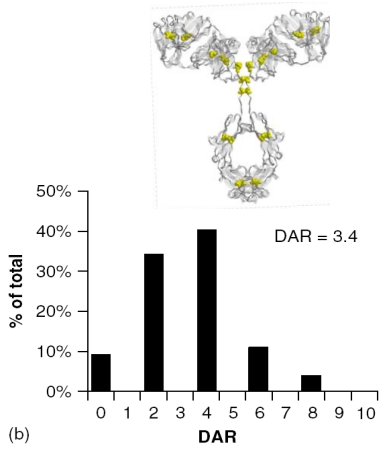


Maximum tolerated dose

Narrow Therapeutic Window

Minimum effective dose

Cysteine Conjugation 32 Sites

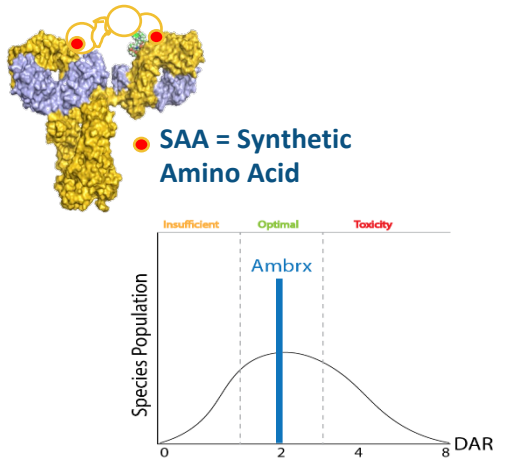


Maximum tolerated dose

Less Narrow Therapeutic Window

Minimum effective dose

Ambrx's SAA Conjugation 2 Selected Sites



Maximum tolerated dose

Larger Therapeutic window

Minimum effective dose

SAA conjugation can overcome the inherent limitations of conventional ADC conjugation methodologies that utilize naturally occurring cysteines and lysine payload conjugations which negatively impact reactivity, stability and selectivity*

*Bioconjugate Chem (2008), 19(8), 1673-1683

Ambrx: Multiple Potential Value Drivers

Two Antibody Drug Conjugate (ADC) Programs Delivering Data in 2023

ARX517 Anti-PSMA ADC:
Safety and efficacy data focusing on prostate cancer expected this year from APEX-01, ongoing dose escalation Phase 1 US clinical trial

ARX788 Anti-HER2 ADC:
Safety and efficacy data focusing on breast cancer expected this year from ongoing US clinical trials I-SPY 2.2, and Pan-Tumor-01

Engineered Precision Biologics (EPBs) Platform

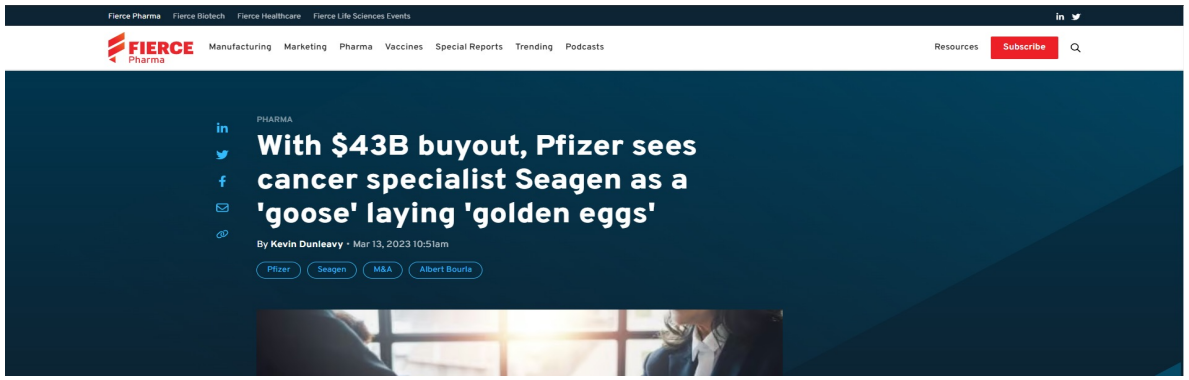
Scripps Research

Spun out of Scripps Research, Ambrx is the pioneer of the expanded genetic code technology platform for incorporation of synthetic amino acid (SAA) into proteins at any selected site in industry standard cell lines

SAAs allow engineered precision biologics (EPBs) with site-specific, homogenous and stable conjugation, overcoming limitations of traditional conjugation technologies

Portfolio of US patents, pending applications, and exclusive patent licenses, which cover our core technology platforms and products

ADC Golden Age, Pfizer-Seagen $43B Buyout at a 20X Revenue Multiple



The company hit $2 billion in revenue last year, a 25% increase from 2021. Pfizer said that it expects the products brought by Seagen to bring $10 billion in annual revenues by 2030, with growth beyond that because of its rich pipeline.

"We are not buying the golden eggs," Pfizer CEO Albert Bourla said on a conference call on Monday. "We are acquiring the goose that is laying the golden eggs."

Bourla added that the combination of the two companies' strengths will allow for more potential oncology breakthroughs and accelerate their progress to the market. The merger also will boost their marketing capabilities, he said.

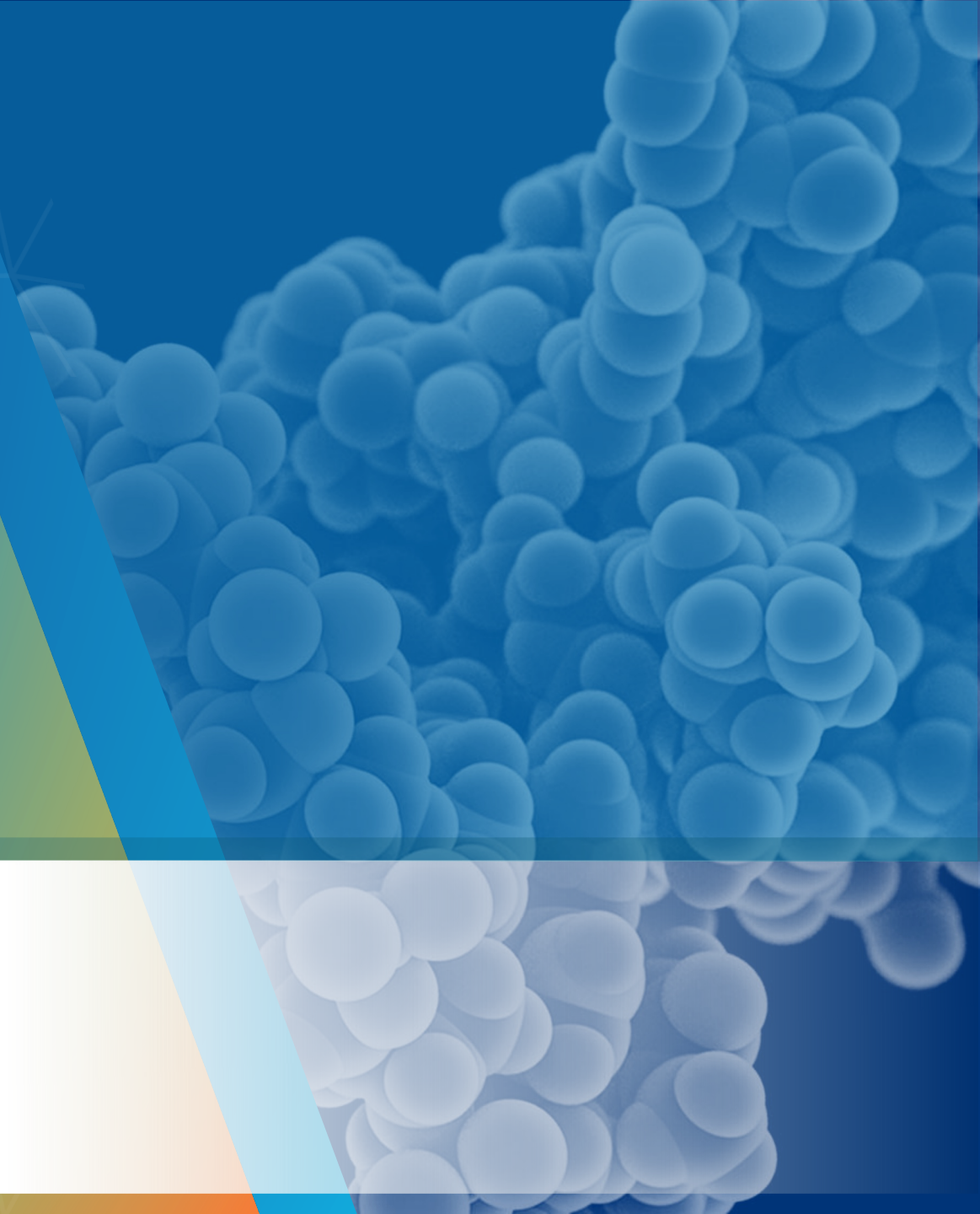
Given the difficulty in developing a biosimilar, ADCs are a therapeutic modality that command a significant premium

Other examples include:

- Gilead's acquisition of Immunomedics for $21B (2021)
- Multi-billion Daiichi Sankyo and AstraZeneca collaboration

ARX517

Anti-PSMA ADC for Prostate and Other Cancers



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ARX517 is the Only ADC Targeting PSMA in Prostate Cancer in Clinical Development

Created with proprietary SAA technology

- Fully humanized anti-PSMA monoclonal antibody (mAb) produced in CHO cells with site-specific incorporation of SAA for conjugation
- Contains two (2) drug-linkers (AS269, a tubulin polymerization inhibitor) per mAb, a DAR2 ADC
- Highly stable linkage – site-specific conjugation via oxime chemistry

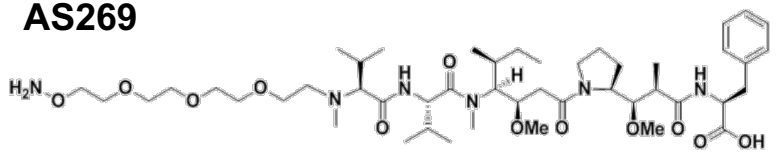
Superior ADC stability design offers an advantage over previous ADC competitors that have failed due to conjugation instability

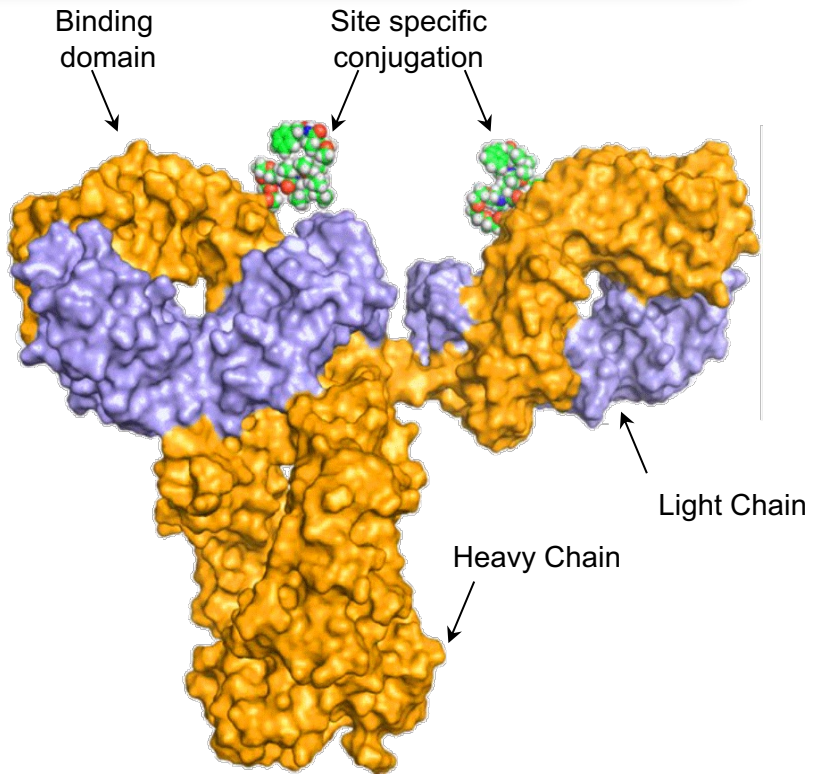
First-in-Human APEX-01 Phase 1 dose escalation ongoing

https://clinicaltrials.gov/ct2/show/NCT04662580?term=arx517&draw=2&rank=1

Potential to Become First-in-Class & Best-in-Class PSMA-ADC

AS269





ARX517 Addresses Stability Issues of Prior ADCs Targeting PSMA

Name	PSMA-ADC	MLN-2704	MEDI-3726	ARX517
Company	Progenics, Seagen	Millenium/Takeda	MedImmune, ADCT	Ambrx
Antibody	fully human IgG1	J591 (humanized)	J591 (humanized)	J591 (humanized)
Payload	MMAE	DM1	PBD dimer (SG3199)	AS269
Payload cell permeability	yes	yes	yes	No
DAR	~4	~4	~1.8	2
Conjugation	Cysteine	Lysine	Cysteine	pAF site-specific, oxime
Linker	cleavable (val-cit)	cleavable (disulfide)	cleavable (val-ala)	noncleavable
Linker stability	unstable	unstable	unstable	stable
Stage	discontinued (Ph2)	discontinued (Ph1)	discontinued (Ph1)	Ph1 Ongoing
Tox (SAE)	neutropenia, neuropathy, 2 deaths at 2.5m/kg	peripheral neuropathy	Myelosuppression, skin tox, vascular leakage	None
DLT	neutropenia, neuropathy	peripheral neuropathy	Thrombocytopenia, vascular leakage, ↑ALT/GGT	N/A
T1/2 (day)	~2	~2.5 (2 in monkey)	< 2	~14 in Monkey at 9mpk
Highest Dose (mg/kg)	2.8	~12.5	0.3	Ongoing P1 dose escalation currently at 2.9 mg/kg
Major liability	instability: high [serum MMAE], short ADC t1/2	instability: high [serum DM1], short ADC t1/2	PBD-mediated toxicity	N/A
Reference	Petrylak et al, The Prostate. 2019:1-10.	Milowsky et al, Urol Oncol. 2016, 34(12): 530.e15-21.	DeBono et al, Clin Cancer Res. 2021, 27(13):3602-3609.	AACR2023

Comparison based on a review of published literature. For illustrative purposes only. No head-to-head trials with ARX788 have been conducted.

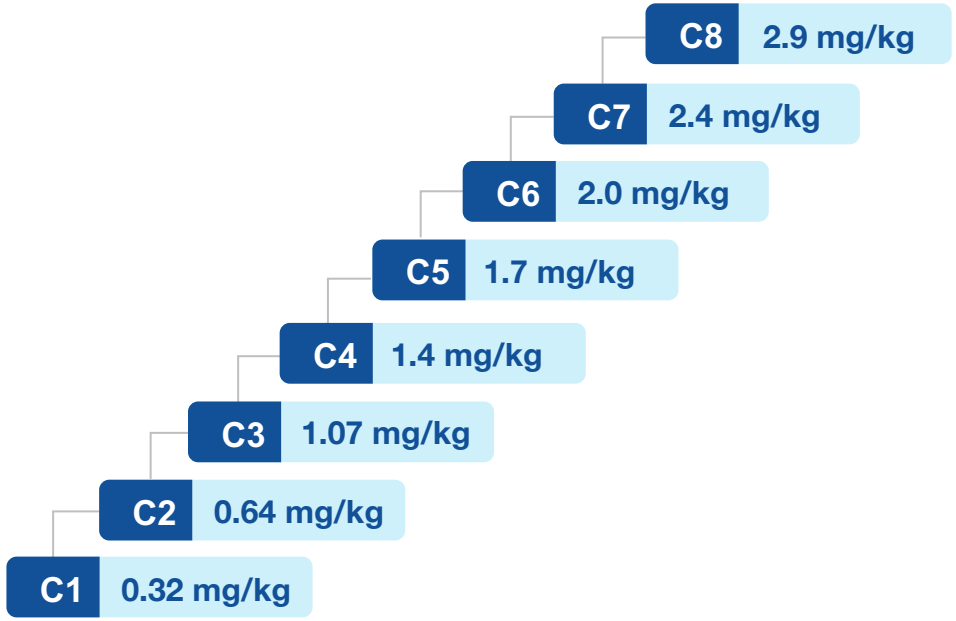
ARX517 - APEX-01 Phase 1 / 2 Trial Design in mCRPC

Dose Escalation

Q3W Dosing, i3+3 Design

RP2D Expansion

RP2D Dose Expansion Ongoing



Preliminary Data*

- Promising early safety and efficacy data observed
- No drug-related SAEs, no DLTs for all Cohorts evaluated
- In Cohort 6 (2.0 mg/kg dose), confirmed PSA responses in the first 3 patients with a greater than 50% reduction in PSA levels, with two patients having a reduction in PSA >90% and one patient with soft tissue measurable disease experiencing a confirmed RECIST v1.1 partial response
- > 30% PSA reductions observed in one or more patients in all previous cohorts starting at 0.64 mg/kg
- Patients were heavily pretreated, with a median of five prior lines, including lutetium Lu 177 vipivotide tetraxetan (PLUVICTO)

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* Company Press Release, February 16. 2023

Eligibility Criteria

Must have had a least two FDA approved treatments for prostate cancer one of the following:

- PSA progression by a minimum of 2 rising PSA values or
- Radiographic progression by RECIST v 1.1 or
- Disease progression by the presence of new bone lesions.

Patients not biomarker selected for PSMA expression

Objectives

Primary: safety, tolerability & RP2D

Secondary: radiographic response, PSA Response (PSA30, PSA50, PSA90)

The Case for ARX517 in mCRPC

PSMA is highly expressed (89%) in metastatic castration resistant prostate cancer (mCRPC), as well as neovasculature of various solid tumors

PSMA is a clinically validated target and an established market for mCRPC

- PLUVICTO® has validated the PSMA as an effective prostate cancer target

Widespread adoption and clinical application of PLUVICTO may be challenging due to the limitations on utilization of radiotherapy[1]

As an infused product, and not a radioligand, we believe an opportunity exists for ARX517

- ARX517 does not require referrals to radiation oncology / nuclear medicine or specialized facilities for administration
- ARX517 can be utilized by community medical oncologists

[1]Market research Sept. 2022 done by First Principle

ARX788 *(Anvatabart Opadotin)*

Anti HER2 ADC for HER2+ Metastatic Breast Patients in Post ENHERTU Settings

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ARX788 (*Anvatabart Opadotin*) - Potential to Become ADC of Choice for Post-ENHERTU Patients

Fully humanized anti-HER2 mAb incorporated a synthetic amino acid at the optimized location on each of the two heavy chains to enable precision conjugation

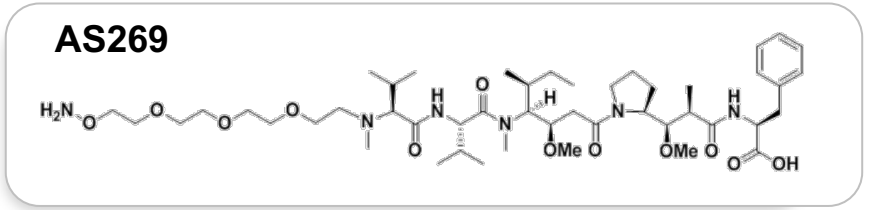
- DAR=2: Contains two (2) drug-linkers (AS269, a tubulin polymerization inhibitor) per mAb

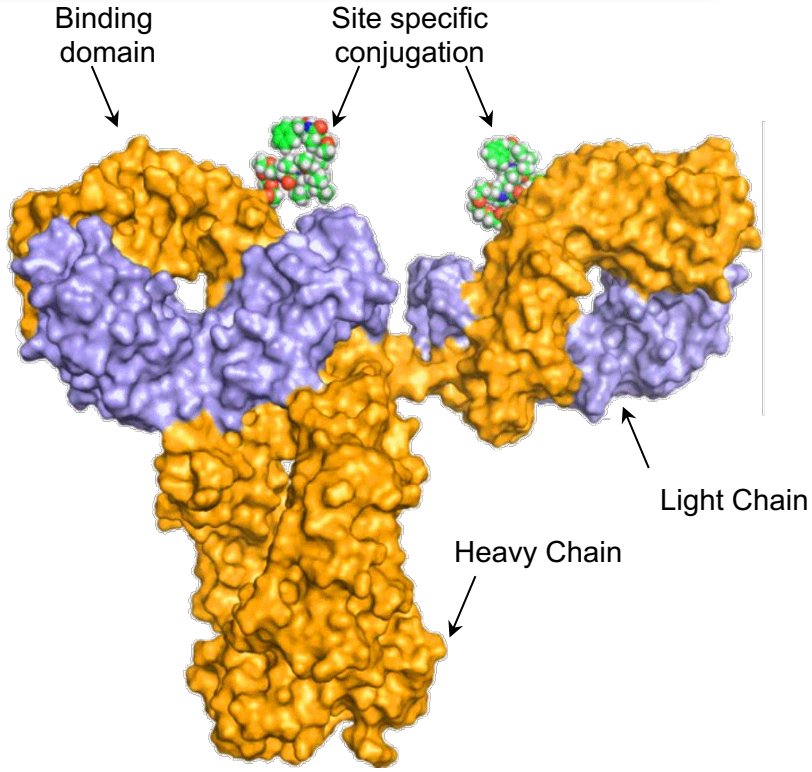
Highly stable, site specific & homogenous conjugation design features ("strong anchor")

- Highly stable linkage using a highly specific and stable oxime chemistry
- Increased drug delivery efficiency & specificity, reducing drug usage
- Minimize off-target toxicity: extremely low payload concentration in blood circulation, limiting potential for systemic toxicity

ARX788 data demonstrated activity in breast cancer

- Breast-01 (Phase 1) and Breast -02 (Phase 3) demonstrated that ARX788 can deliver compelling responses in a heavily pretreated HER2 positive metastatic breast cancer patients in China
- Data presented at SABCC demonstrated that ARX788 had activity post-KADCYLA® and therefore may work post-ENHERTU
- Preliminary anti-tumor activity observed in a small number post-ENHERTU, post-KADCLYA and HER2 low patients in Breast-03 and Pan-Tumor-01 in U.S.





Breast-01 (China) and PanTumor-01(US/AU)

Breast-01†

69 adult patients in China, ORR was 65.5%, DCR was 100% and the median PFS was 17.02 months

ARX788 was well tolerated with most adverse events (AEs) being Grade 1 or 2 and manageable, low systemic toxicity was observed, no DLT or drug-related deaths occurred

ARX788 has robust anti-tumor activity, generally good tolerance, circulating stability and unique pharmacokinetic profile in HER2-positive metastatic breast cancer patients who had progressed on prior anti-HER2 therapies

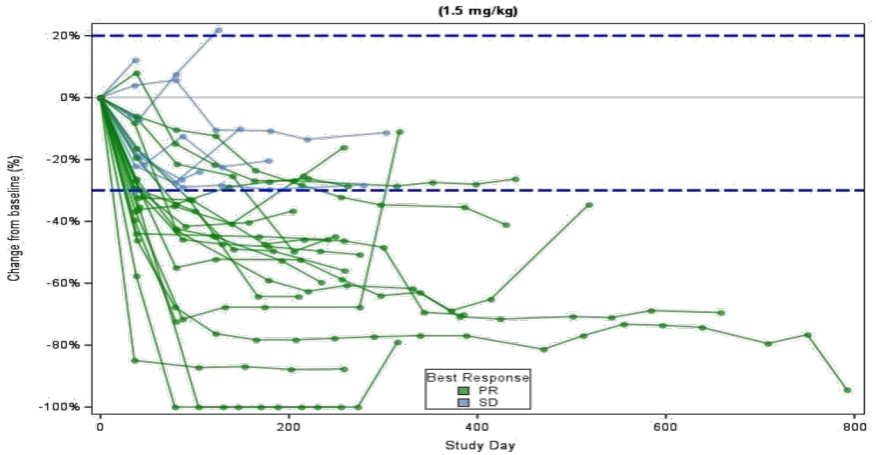
Pan-Tumor-01††

Pan-Tumor-01 (US/AU) demonstrated comparable clinical response to Breast-01 with ORR at 67% and DCR 100% at 1.5mg/kg (N=3)

Confirmed ORR with ARX788 in patients whose disease is resistant or refractory to prior HER2 treatment (trastuzumab, ADCs, TKIs, and bispecific antibodies)†

Prior anti-HER2 therapy*	Confirmed ORR
Trastuzumab containing regimens*	19/29 (66%)
HER2 ADCs (T-DM1, DX126-262, A166, BAT8001, and HS630) regimens**	4/5 (80%)
HER2 TKIs (lapatinib, pyrotinib, neratinib, AST-1306, and Hemay-022) regimens	15/23 (65%)
Both HER2 ADC and HER2 TKI regimens	3/4 (75%)
Bispecific antibodies (KN026 and M802) containing regimens	3/4 (75%)

* All patients at 1.5 mg/kg Q3W received prior trastuzumab-containing regimens ** One patient who received prior pertuzumab also achieved confirmed PR. Data cut-off: June 30, 2021



† Breast-01 conducted in China by Ambrx's partner, NovoCodex Biopharmaceuticals and published Clinical Cancer Research (2022) 28 (19): 4212–4221 (Zhang, et. al.) https://doi.org/10.1158/1078-0432.CCR-22-0456

†† Presented: ASCO 2021

Breast-01 Demonstrated ARX788 Has Competitive Activity Potential in the HER2+ mBC ADC Landscape

HER2+ ADCs in Breast Cancer Efficacy Landscape*

	TDM1	T-DXd	T-DXd	T-DXd	ARX788	RC48-ADC	SYD985
Pop	2L	2L	3L	Median 6L	Median 5L	Median 4L	3L
ORR	35.00%	78.50%	69.70%	60.90%	65.50%	40.00%	27.80%
DOR	23.8m	36.6m	19.6m	14.8m	14.4m	-	
PFS	6.8m	28.8m	17.8	16.4m	17.0m	6.3 m	7m
Trial	DB03	DB03	DB02	DB01	Breast-01		
Source	Hurvitz_Cancer Res (2023) 83 (5_Supplement): GS2-02	Hurvitz_Cancer Res (2023) 83 (5_Supplement): GS2-03	Krop_Cancer Res (2023) 83 (5_Supplement): GS2-01.	Modi_NEJM 2020; 382; 7: 610-621	Zhang_Clin Cancer Res 2022	Wang_Journal of Clinical Oncology 39, no. 15_suppl 1022-1022.	Saura_Annals of Oncology (2021) 32 (suppl_5): S1283-S1346
Trial Number	NCT03529110	NCT03529110	NCT03523585	NCT03248492	CTR20171162	NCT02881138 NCT03052634	NCT03262935

In a heavily pretreated patient population, ARX788 has demonstrated robust ORR

*Based on a review of published literature. For illustration purposes only. No head-to-head trials with ARX788 have been conducted.
**Breast-01 conducted in China by Ambrx's partner, NovoCodex Biopharmaceuticals
***SeaGen acquired rights for RC48 for $200M as well as $2.4B in milestones

Systemic Toxicity: ARX788 (Breast Cancer and Pan-tumor) is Significantly Lower than ENHERTU (USPI)*

	ARX788 (1.5 mg/kg Breast cancer, Pan-Tumor population) Number of patients (%)				ENHERTU (5.4 mg/kg)* Number of patients (%)	
	Breast-01 (N=29)		Pan tumor-01 (N=17)		N=234 mBC	
	All Grades	Grade 3 or 4	All Grades	Grade 3 or 4	All Grades	Grade 3 or 4
Nausea	2 (6.9%)	0	5 (29.4%)	1 (5.9%)	79%	7%
Vomiting	2 (6.9%)	0	3 (17.6%)	1 (5.9%)	47%	3.8%
Constipation	4 (13.8%)	0	1 (5.9%)	0	35%	0.9%
Diarrhea	1 (3.4%)	0	1 (5.9%)	0	29%	1.7%
Neutropenia	5 (17.2%)	0	1 (5.9%)	0	62%	16%
Decreased WBC	5 (17.2%)	0	1 (5.9%)	0	70%	7%
Thrombocytopenia	4 (13.8%)	1 (3.4%)	1 (5.9%)	0	37%	3.4%
Anemia	5 (17.2%)	0	2 (11.8%)	0	31%	7%
Fatigue	7 (24.1%)	0	5(29.4%)	0	59%	6%
Neuropathy	0	0	1 (5.9%)	0	<10%	<2%
Dizziness	1 (3.4%)	0	0	0	10%	0
Headache	1(3.4%)	0	2 (11.8%)	0	19%	0

*Data from ENHERTU USPI, Reference ID: 4732117, 01/2021
Based on a review of published literature. For illustration purposes only. No head-to-head trials with ARX788 have been conducted.
Data cut-off : Jun-30-2021 for Breast-01, Jul-14-2021 for Gastric-01; Jul-12-2021 for Pan tumor-01

ARX788 has Demonstrated Clinical Efficacy at 1.7 mg/kg Q3W
The Lowest Dosage Among HER2 ADCs in mBC

	ADC	TARGET	PAYLOAD	DOSE (mg/kg)	Cmax (ug/mL)	AUCinf (d*ug/mL)	$t_{1/2}$ (d)	CL (mL/d/kg)	V (mL/kg)	Tmax (h)
	ARX788	**HER2**	**pAF-AS269**	**1.7**	**37.9**	**228**	**5.16**	**8.11**	**57.3**	**168**
	KADCYLA	HER2	DM1	3.6	76.2	300	3.1	12.7	58.4	2
	ENHERTU	HER2	DXd	5.4	127	590	6.03	10.1	75.2	5.3
PK of other ADCs	PSMA-ADC	PSMA	MMAE	2	30	47.1	1.84	59.3	108.7	66.9
	MEDI3726	PSMA	PBD	0.2	4.94	7.46	1.81	38.3		-
	ADCETRIS	CD30	MMAE	1.8	32	79.4	4.43	25.1	117	2.09
	PADCEV	Nectin-4	MMAE	1.25	27.7	108	3.35	35.7	156	48
	TRODELVY	TROP2	SN-38	10	239	211	0.67	45.3	43.7	3.17
	BESPONSA	CD22	Calicheamicin	1.8†	0.308	41.6	12.3	91.2	89.1	-
	BLENREP	BCMA	MMAF	2.5	42	194	12			

† mg/m^2

Delayed Peak Time of Free Payload (CMAX) in ARX788 Demonstrates Stability and Potentially Alleviates Off Target Toxicity

Breast-02 Pivotal Phase 3 Study of ARX788 for the Treatment of HER2+ mBC Achieved Positive Results

- **Breast-02 is a randomized, controlled, pivotal Phase 3 clinical trial of ARX788 for the treatment of HER2+ patients with locally advanced or mBC in China**
- **The study enrolled 441 HER2+ BC patients who were previously treated with taxane and trastuzumab**
- **1:1 randomization to ARX788 or the control (lapatinib combined with capecitabine)**
- **Primary endpoint was PFS based on Blinded Independent Review Committee (BIRC) assessment**
- **Interim analysis was conducted by an Independent Data Monitoring Committee (IDMC) when two-thirds (2/3) of the PFS events occurred**
- **IDMC determined that the study met its pre-specified interim primary efficacy endpoint with statistical significance, demonstrating a greater PFS benefit compared to the control**
- **NovoCodex has submitted a communication application to seek marketing approval in China pending discussion with National Medical Products Administration (NMPA)**

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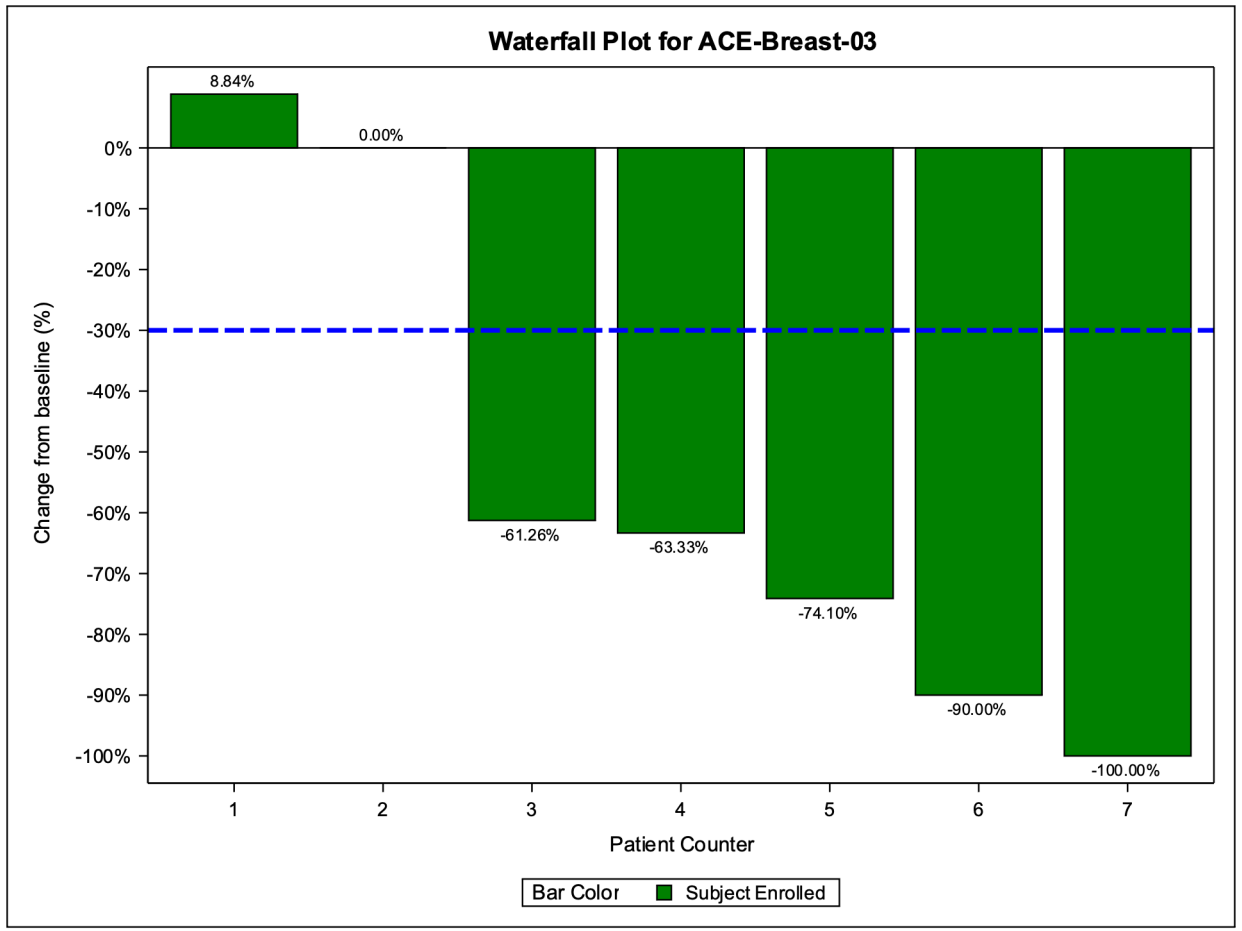
*Breast-02 conducted in China by Ambrx's partner, NovoCodex Biopharmaceuticals

ARX788 Provided a Clinical Benefit to Post KADCYLA (T-DM1) Patients



Key Takeaways*

Statistically significant reduction in tumor size in patients previously treated with T-DM1 who had disease progression

4/7 patients also previously received HER2 TKI treatment

Confirmed (ORR) was 57.1% (4/7 pts) and an unconfirmed ORR of 71.4% (5/7 pts)

(DCR) was 100% (7/7 pts)

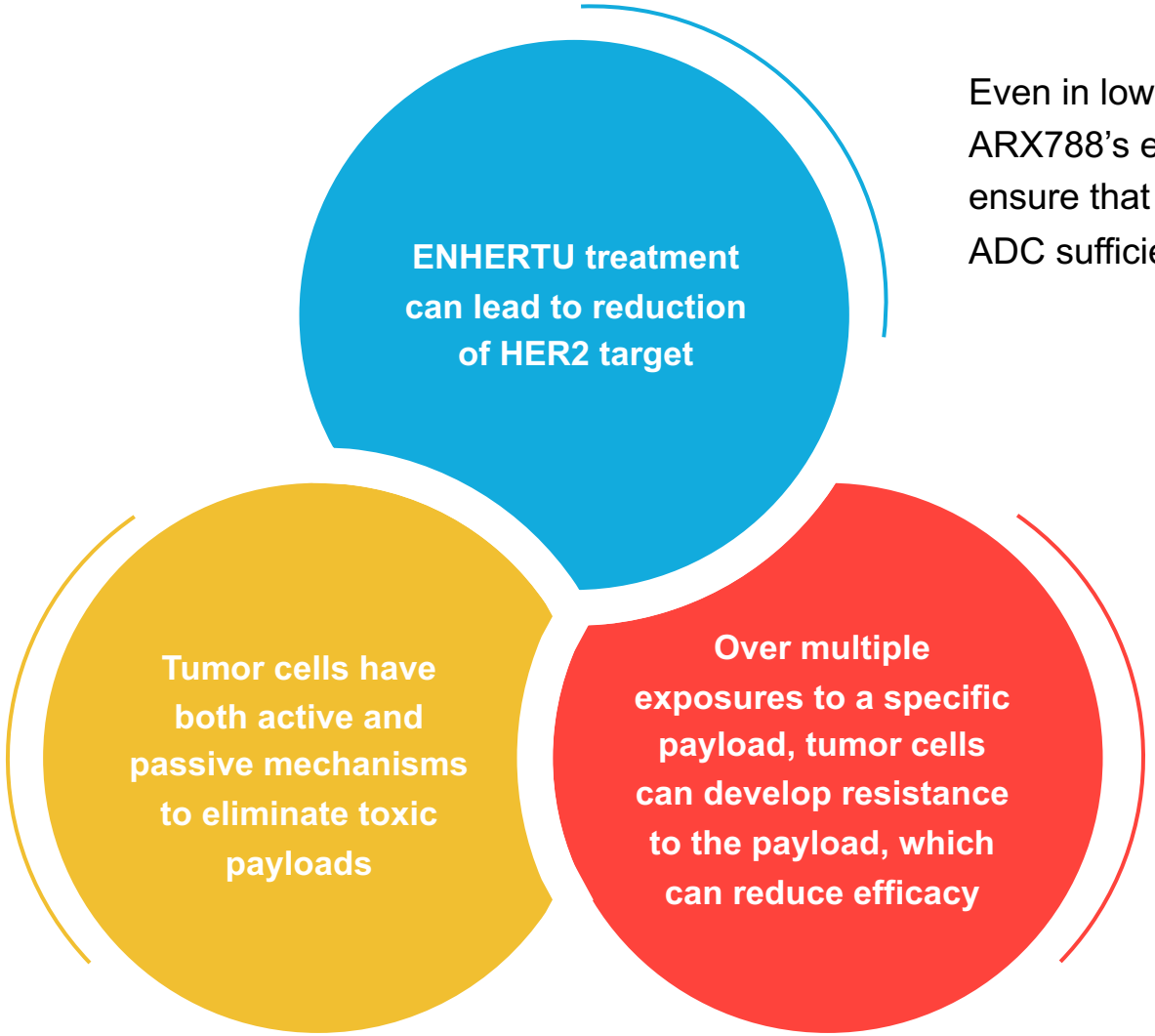
Treatment with ARX788 remains ongoing with the median time of ARX788 therapy of 7.2 months

ARX788 was generally well-tolerated, and AEs were manageable with the most common treatment-related AEs being

https://s27.q4cdn.com/912984828/files/doc_presentations/2022/12/_2022-SABCS-ACE-Breast-03_Ambrx.pdf

* San Antonio Breast Cancer Conference, 2022

Mechanisms to Potentially Overcome Resistance to ENHERTU



Even in low HER2 target environment, ARX788's engineered stability designed to ensure that it always delivers a fully loaded ADC sufficient to kill the cancer cell

The payload of ARX788 is engineered to deter multiple drug resistance (MDR), thereby avoiding active elimination, and is non-cell permeable, which prevents passive escaping

ENHERTU uses a DNA-targeting toxic agent (TOPOi), while ARX788 has a different payload, a potent tubulin inhibitor, which can overcome TOPOi resistance

Rationale for Planned Phase 2 Study of ARX788 in HER2+ mBC post-ENHERTU

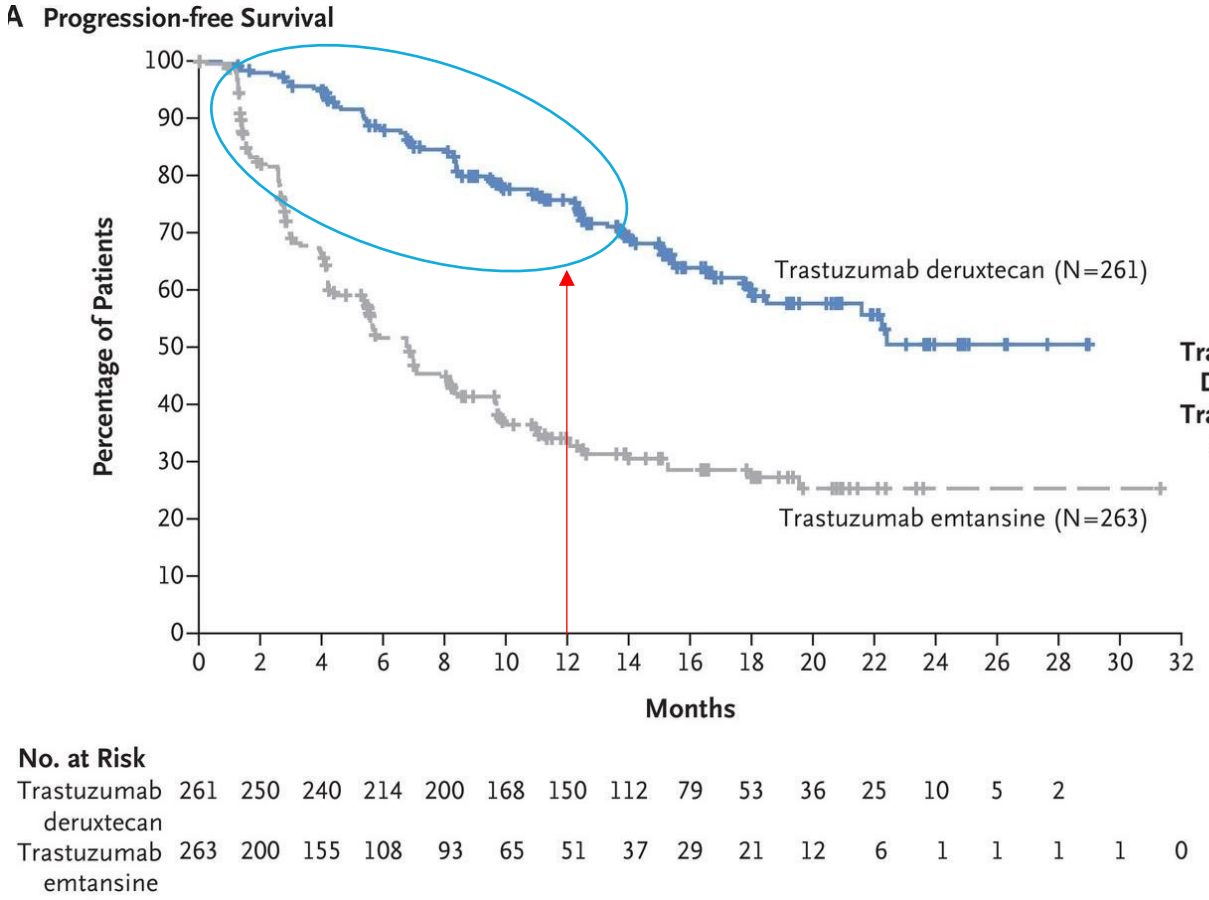
- **Completed study Breast-01 (Phase 1) demonstrated robust response rate HER2+ metastatic breast cancer (mBC) in China and encouraging responses observed in Pan-Tumor-01 in the US**
  - Data published in Clinical Cancer Research (2022) & ASCO (2021)
- **Preliminary observations from Breast-03 and Pan-Tumor-01 US studies in small number of patients provide rationale for anti-tumor activity in post-ENHERTU, post-KADCYLA and HER2 low patients**
  - Post-KADCYLA data presented at SABCC (2022)
- **Breast-02, a randomized, controlled, pivotal Phase 3 clinical trial of ARX788 for the treatment of HER2+ patients with locally advanced or mBC in China met its pre-specified interim primary efficacy endpoint with statistical significance**
- **Mechanisms to Potentially Overcome Resistance to ENHERTU**

Amend existing Breast-03 protocol to conduct a small signal seeking study in US in ~40 patients

- No more than 3 prior lines of therapy and recent assessment of HER2+ status
- Dosing 1.5 mg/kg Q3W
- Primary endpoint: ORR; Secondary endpoints: PFS, OS, DoR

ENHERTU Changed the Breast Cancer ADC Landscape, but 24.2% of Patients on ENHERTU Progress within 12 Months

Lack of post-ENHERTU data supporting the effectiveness of KADCYLA and/or TUKYSA® potentially creates a new large market opportunity with no standard of care



	Median Progression-free Survival (95% CI)	12-Mo Progression-free Survival (95% CI)
	mo	%
Trastuzumab Deruxtecan	NR (18.5–NE)	75.8 (69.8–80.7)
Trastuzumab Emtansine	6.8 (5.6–8.2)	34.1 (27.7–40.5)

Hazard ratio for disease progression or death, 0.28 (95% CI, 0.22–0.37)
P<0.001

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)02420-5/fulltext

Post-ENHERTU Market Could Be a Billion Dollar Opportunity

01 Assuming price is in line with TRODELVY (~$25,000 for 4 wks) and similar PFS (~ 6 mo) equates to $150,000 per patient per course

02 Assuming 50% lower pricing ex-US, this translates into a potential market opportunity greater than $1B in annual peak sales

03 Further upside is possible if ENHERTU is approved in 1L (ongoing Destiny-Breast 09 study), which may open opportunity for ARX788 in the 2L setting

Estimated drug treated patients in 3L+ (3L or later) HER2+ BC: ~10,000 to >14,000, depending on source

- 9,800 drug-treated patients per Decision Resource Group (DRG)[1]
- >14,000 patients per HER2 competitors Roche and AstraZeneca estimates of patient populations published in their investor materials (September, 2020 (Roche) and June, 2022 (AstraZeneca))

[1]Market research on file, Sept. 2022, First Principle

ARX788 Selected for Inclusion in Prestigious I-SPY 2.2

A Phase 2 Trial to Treat HER2-Positive Breast Cancer
in the Neoadjuvant Setting

The adaptive trial assesses developing targeted agents to combine them with less toxic chemotherapeutic regimens or to completely replace cytotoxic chemotherapy

ARX788 will be assessed as a single agent in patients with HER2-positive early-stage breast cancer in the neoadjuvant setting

I-SPY 2.2 is designed to quickly analyze encouraging experimental therapies and detect the most effective ones in specific patient subgroups depending on molecular characteristics

Enrollment commenced in May 2022

I-SPY 2.2 - A Responsive Adaptive Trial to Prioritize Promising Investigational Agents

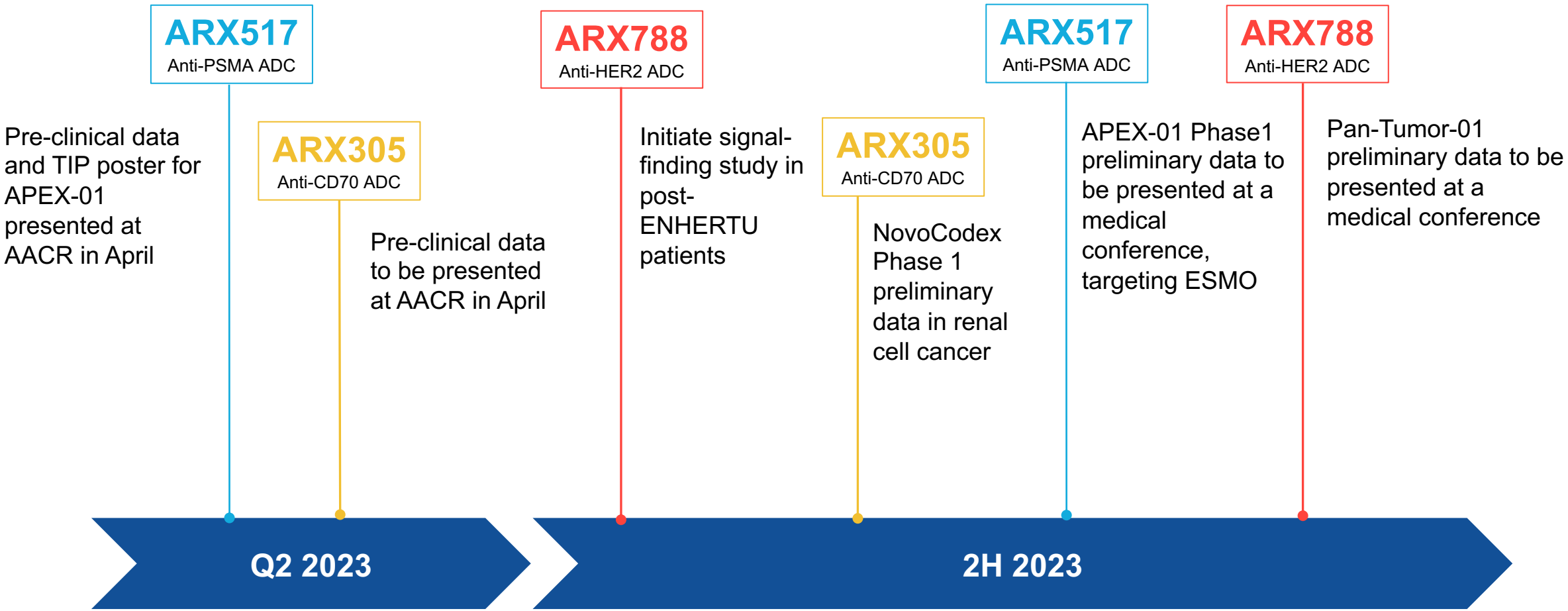
Financial Information Highlights

Financial Information	
Cash, cash equivalents and investments as of 6/30/2023:	$235.1M
Outstanding Shares (ADS) as of 8/7/2023:	62.0M
Clean Balance Sheet:	No outstanding warrants or debt

AMAM (NASDAQ) (6/30/2023)	
Market Capitalization:	$1B
Average Daily Trading Volume:	~0.4M shares
Share Price	$16.46

Cash Runway into 2026**

Anticipated 2023 Clinical Milestones



Ambrx Leadership

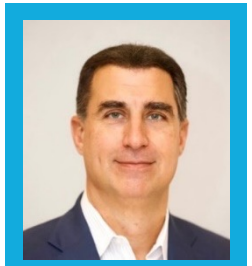
Daniel O'Connor, JD
CEO and President

Sonja Nelson, CPA
Chief Financial Officer

Shawn Zhang, PhD
Chief Scientific Officer

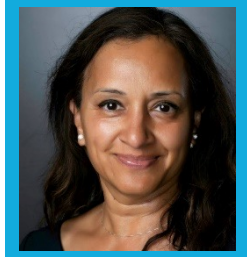
Ying Buechler, PhD
Chief Technology Officer

Sandra Aung, PhD
Chief Clinical Officer



Andrew Aromando
Chief Operating Officer

Jared Kelly, JD
General Counsel



Renu Vaish, MS
Chief Regulatory Officer

Robert Azzara, MBA
Vice President, Human Capital

ImClone Systems Incorporated
ImmunityBio
Mitsubishi Tanabe Pharma
aTyr
NEKTAR
IQVIA
Lowenstein Sandler
SpringWorks THERAPEUTICS
BeyondSpring PHARMACEUTICALS
ADVAXIS IMMUNOTHERAPIES™
NantKwest
salk Where cures begin.
CANJI Inc.
UbiVac
Syneos Health
ReedSmith
Celgene
Immunomedics
pharmanet
cadence PHARMACEUTICALS
中國科學院 CHINESE ACADEMY OF SCIENCES
MERCK
ADVAXIS IMMUNOTHERAPIES™
KPMG
oncosec IMMUNOTHERAPIES
wcg
WHITE & CASE
Kite A GILEAD Company
HUYA
CSH

Ambrx Oncology Pipeline

Candidate	Indications	Trial Setting (Name)	Preclinical	Phase 1	Phase 2	Next Anticipated Milestone(s)
Ambrx Sponsored Oncology Programs						
ARX788 Anti-HER2 ADC	Neo Adjuvant BC	I-SPY 2.2				Complete enrollment
	HER2+ mBC post-ENHERTU™	Breast-03				Preliminary data update – 2024 Initiate post-ENHERTU study
	Numerous Cancer Types including HER2+ mBC	Pan Tumor 01 (enrollment closed)				Preliminary data update – 2H 2023
ARX517 Anti-PSMA ADC	Advanced Prostate Cancer	APEX-01				Preliminary data update – 2H 2023
Partnered Program with NovoCodex						
ARX305 Anti-CD70 ADC	Renal Cell & other cancers	--				US IND cleared Preliminary partner data update – 2023

Focused Pipeline on Proven Targets in Established Markets

Ambrx Preclinical Oncology Pipeline and Non-Oncology Programs

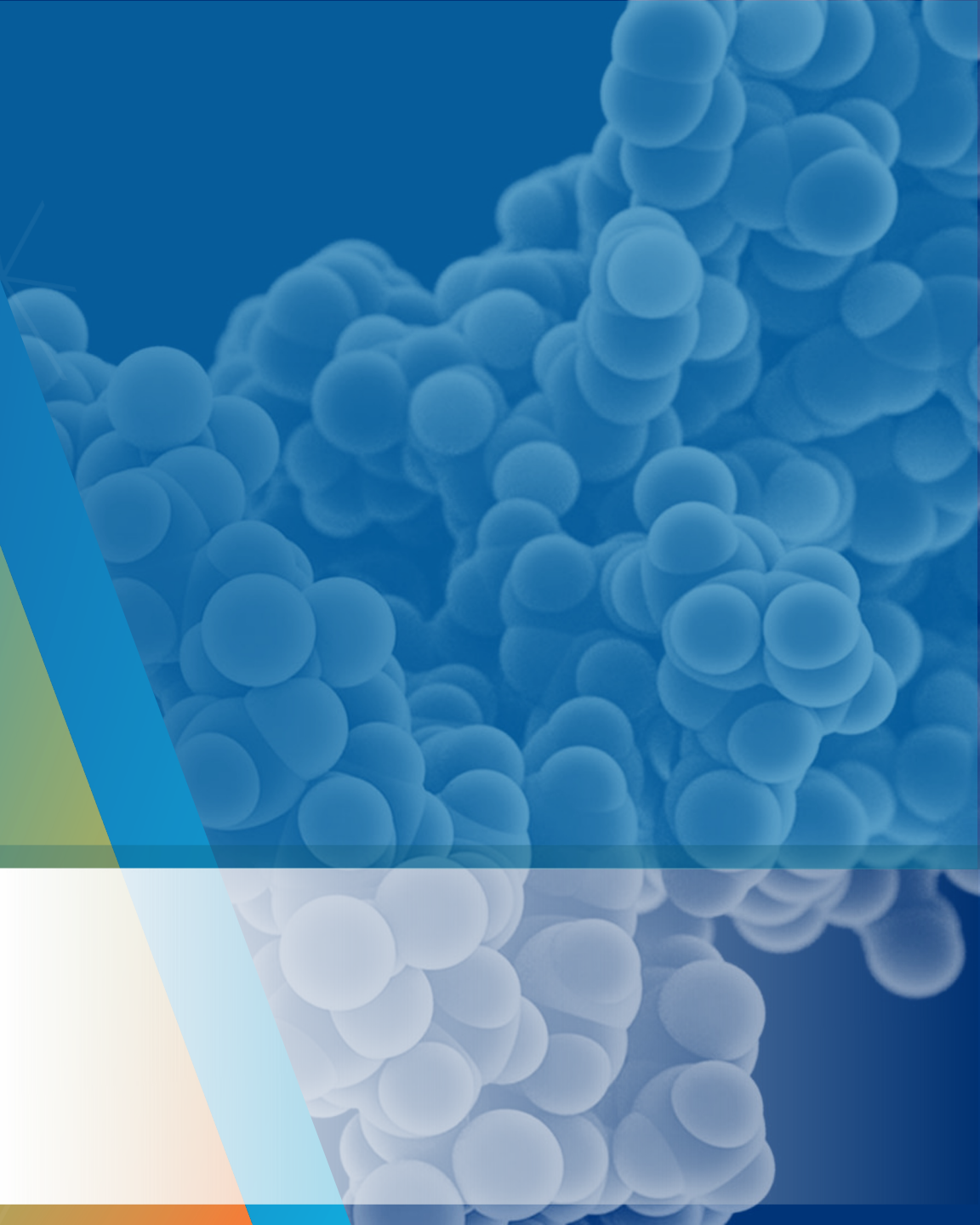
Candidate	Indications	Preclinical	Phase 1	Phase 2	Key Highlights
ARX111 Anti-TROP2 ADC	Numerous Cancer Types including TNBC, PDAC and NSCLC				TROP2 is over-expressed in a variety of solid tumors. ARX111's payload with differentiated MOA may address potential resistance to TOPOi ADCs. Stable linker and potent cell-impermeable payload class (MTI) for reduced off-target toxicity and enhanced on-tumor efficacy, particularly in TOPOi ADC-resistant settings, as well as improved in vivo anti-tumor activity in CDX model vs. benchmark.
ARX622 Anti-HER2 TLR7 Agonist ISAC*	Numerous Cancer Types including breast, gastric and ovarian				HER2-targeted delivery of immune-stimulatory payload, TLR7 agonist, a potent tumor antigen-dependent immune stimulator. ARX622 is designed to engage and boost the natural immune system, delivering a sustained whole-body anti-tumor effect.
ARX102 Alpha-off pIL-2	Numerous Cancer Types including renal cell and melanoma	IND enabling studies completed			ARX102 is a PEGylated IL-2 protein with virtually no α receptor binding (alpha-OFF) designed to abrogate the severe adverse effects associated with IL-2 therapy, thereby to increase the therapeutic window. ARX102 is the only modified IL-2 produced in mammalian cells which can confer full functionality to deliver IL-2's intended immuno-oncology effect on T-effector cells. IND enabling studies are completed.
Non-Oncology Programs					
ARX618 PEGylated FGF21	Non-alcoholic Steatohepatitis (NASH)	Phase 2b			FGF21 is a non-mitogenic hormone and an important regulator of energy metabolism. Multiple clinical trials, including Phase 1, Phase 2 and Phase 2b, have been performed and demonstrated: i) clear safety profile and treatments were well tolerated; and ii) anti-fibrotic and anti-NASH activity demonstrated on biopsy as well as non-invasive assessments.
ARX721 FA-Relaxin	Acute Heart Failure	Phase 1/2			Relaxin pathway has multiple positive activities in the heart, vasculature & kidney for treatment of chronic heart failure. Three clinical trials performed, one Phase 1 and two Phase 2.

Novel Strategy Using EPBs to Fight Cancer and Other Diseases

* ISAC – immune stimulating antibody conjugate

Appendix:

Preclinical Pipeline and Other Programs
Engineered Precision Biologics &
Site-Specific Conjugation



AMBRX

Engineered Precision Biologics – EPBs

ENGINEERED

Engineering proteins in living cells, both bacterial and mammalian, by incorporating synthetic amino acids (SAAs) into those proteins in very a site-specific manner

PRECISION

Precise site-selection of a stable and predictable attachment point in the protein for payload conjugation resulting in both stability and >90% homogeneity

BIOLOGICS

Biologics, which include a wide variety of formats (mAbs, cytokines, CD3 Fabs), and delivering a wide variety of payloads (cytotoxins, immune-stimulators, etc.)

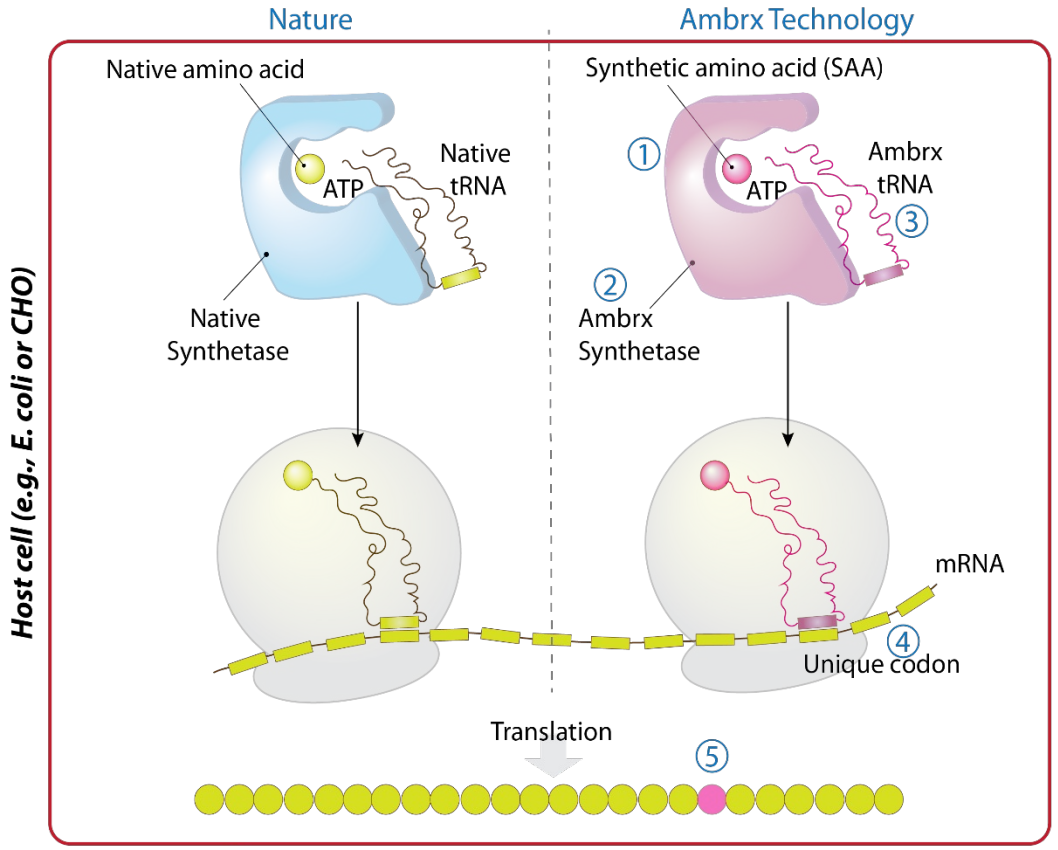
Ambrx's Proprietary Site-Specific Conjugation Produces Highly Stable and Homogenous ADCs

Expanded genetic code creates engineered proteins by site-specifically incorporating SAAs

Enables precise modification and orthogonal chemistry for stable conjugation

Enables novel drug design and potential wider therapeutic index

Manufacturing scalability. ReCODE (E. coli) - 50,000L: Imrestor (bG-CSF)/ EuCODE (CHO) - 2,000L: Multiple mAbs/ADCs



*The unique codon ④ is placed at a precise position in the DNA sequence and this is transcribed to a unique codon in the mRNA. The **Ambrx synthetase** ② and Ambrx tRNA ③ translate and transcribe the DNA sequence and incorporate the **Synthetic amino acid** ① into the specified site of the protein product ⑤*