

Protein Medicinal Chemistry with an Expanded Genetic Code

Oncology Product and Platform Partnering Opportunity

April 2017



Ambrx has Made Advances in Proprietary Platform and Titer while Achieving Clinical Validation

- Private company based in La Jolla, California
- Focused development of bio-conjugates utilizing propriety site-specific non-natural amino acid
- Diverse portfolio of novel wholly owned product candidates including Antibody-Drug Conjugates (ADC) and Bi-Specifics
 - ADC: ARX-788 (Phase I) clinical validation of platform technology and cost effective titer yields have been achieved
 - Bi-Specific: Anti-CD3 Folate (Pre-Clinical) incorporates platform technology allowing for differentiating optimal balance of efficacy / toxicity
- Major product and platform partnerships with Astellas / Agensys, BMS and Eli Lilly and Company
- Significant improvements in mammalian expression platform with titer up to 1.5 - 2.0 g/L

Ambrx Portfolio Includes an Array of Wholly Owned and Partnered Based on Technology Platform

Discovery	Preclinical	Phase 1	Phase 2	Phase 3	Marketed
Ambrx Programs					
ARX-788 Anti-HER2 ADC -				Ambrx	
Anti-PSMA ADC - Oncolog				Ambrx	
Anti-CD3 Folate Bi-Specific				Ambrx	
Anti-CD70 ADC - Oncology				Ambrx	
Multiple ADCs					Ambrx
Collaboration Program	าร				
ARX-618 FGF21 - NASH				Bristol-Myers Squibb	
Relaxin (Next Generation) - Heart Failure				Bristol-Myers Squibb	
ADCs – Oncology (multiple	e)				X astellas
Bio-Conjugates for Animal Health (multiple)					
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¹ Partnered in China with Zhejiang Medicine. Ambrx retains rest-of-world rights for ARX788 development and commercialization.



Ambrx Platform Technology Remains Differentiated and Best-in-Class within ADC Field

Proprietary Site-Specific Non-Native Amino Acid Incorporation Technology is Least Limiting Conjugation Tool

- □ Most elegant way to build a <u>site-specific ADC</u> through direct conjugation
- No complex <u>work-arounds</u> necessary (e.g. de-capping, re-oxidizing and ring opening for engineered cysteine, etc.)
- No ligation enzyme and its corresponding recognition sequence on antibody necessary
- □ <u>Highly stable</u> linker enables <u>wild-type antibody-like</u> *in vivo* PK
- Interchangeable platform that allows for incorporation of other innovator technologies (e.g. warhead, linker, etc.)
- □ Sole technology with complete and <u>all encompassing IP protection</u>
- Robust manufacturability with titer up to 1.5 2.0 g/L

Site-Specific Incorporation of Ambrx Amino Acid Leads to Robust Manufacturability Using Traditional Facility



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 **Ambrx amino acid** (1) into the specified site of the protein product (5)

- E. coli strains and stable CHO cell lines with build-in Ambrx technology
- Multiple Ambrx amino acid amenable for wide selection of orthogonal conjugation chemistries
- Highly compatible with current manufacturing facility and process
- Robust scalability: E. coli-50,000 L; CHO-2,000 L

Ambrx g

ARX-788 is Potential Best-In-Class Phase I Anti-HER2 ADC for R/R Metastatic Breast Cancer



- ARX-788 is an anti-HER2 ADC that incorporates non-natural amino acid
- ARX-788 is currently in a Phase 1 trial to define the recommended dose for Phase 2
- Payload is Amberstatin (AS269), a proprietary Ambrx microtubule inhibitor
- Conjugation of Amberstatin to anti-Her2 antibody is site-specific and quantitative (DAR = 1.9)

Anti-PSMA ADC Exhibits Differentiated In Vivo Stability and Efficacy and is 18 Months from IND

- Potential best and first-in-class ADC therapeutic
 - Pre-clinical models suggest anti-PSMA ADC is more efficacious and stable compared to competition
 - Ambrx site-specific conjugation technology embedded within anti-PSMA ADC has been clinically validated in ARX-788
- Target market is relapse / refractory prostate cancer



Ambrx Has Built a Robust Bi-Specific Product and Platform Based on Proprietary Technology

- Product
 - Only anti-CD3 Folate bi-specific that is conjugated to a small molecule (folate) for tumor targeting. Asset is 18 months from IND.
 - Potential indications in ovarian, NSCLC and triple negative breast cancer
 - Humanized and cyno cross-reactive anti-CD3 antibody
 - Full set of variants with different anti-CD3 affinity to optimize efficacy while reducing the potential for cytokine-release storm / toxicity
 - Half-life extender allows for improved PK
- Platform
 - Next generation anti-CD3 bi-specific based platform with potential applications in multiple oncology targets
 - Ambrx technology allows for direct conjugation between anti-CD3 antibody and anti-tumor ligand (e.g. whole antibody, fab or folate) which facilitates improvements in half-life and manufacturability over competition



Ambrx is Seeking Global Product and Platform Partnerships for ADC and Bi-Specific Fields

- Product Collaboration
 - Includes ARX-788 (Phase I) , anti-PSMA and anti-CD3 Folate (both 18 months to IND)
 - Flexible in deal structure (exclusive to geographical regions, joint development and/or option of joint-development, etc.)
- Platform Collaboration
 - Utilize partner target and/or warhead, antibody, etc. for ADC
 - Ambrx would re-engineer antibody to enable un-natural amino acid conjugation
 - Flexible in deal structure



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