

**CARB-X Antibacterial Treatment and Prevention Product Portfolio 2019.03.04**

Sponsor	Product	Novelty			Description	Priority		Development Stage			
		New Abx Class	New Non-traditional Product	New Target		CDC	WHO	Hit to Lead	Lead Optimization	Pre-Clinical	Phase I
Achaogen	Next-Generation AG				Next gen AG with extended Gram-negative coverage (Pseudomonas)	✓	✓		Gram-negative activity including <i>Pseudomonas</i>		
Amicrobe	Amicidin-β		✓		Next-generation local antimicrobial	✓	✓			Broad spectrum	
Antabio	PEI		✓	✓	<i>Pseudomonas</i> elastase inhibitor	✓	✓		<i>P. aeruginosa</i>		
Bugworks Research	GYROX	✓			Gyrase-topoisomerase inhibitor	✓	✓		Gram-negative activity		
Gidara Therapeutics	CD201		✓	✓	Bifunctional immunotherapy	✓	✓		<i>Acinetobacter + P. aeruginosa + Enterobacteriaceae</i>		
ContraFect	Gram-negative amirins	✓			Phage-encoded lytic therapeutic	✓	✓		Gram-negative activity		
ContraFect	Gram-negative lysins		✓	✓	Recombinant lysin protein	✓	✓		<i>P. aeruginosa</i>		
Curza	CZ-02	✓		✓	Novel class Gram-negative	✓	✓		Broad Spectrum		
Debiopharm International SA	Debio1453	✓		✓	Narrow-spectrum inhibitors of FabI	✓	✓		<i>Neisseria Gonorrhoeae</i>		
Entasis Therapeutics	ETX0282CPDP				Oral Gram-negative combination	✓	✓			Gram-negative activity	
Entasis Therapeutics	Non-BL PBPI	✓			Non-beta-lactam PBPI	✓	✓		Gram-negative activity		
Forge Therapeutics	FG-LpxC-LUNG	✓		✓	LpxC inhibitor	✓	✓		Gram-negative activity		
Forge Therapeutics	FG-LpxC-UTI	✓		✓	LpxC inhibitor	✓	✓		Gram-negative activity		
Idorsia	TopESKAPE	✓			Dual-acting topoisomerase inhibitor	✓	✓		<i>Acinetobacter, Pseudomonas, and Enterobacteriaceae</i>		
Inhibix	INBRX-111		✓	✓	Multi-specific antibody	✓	✓			<i>P. aeruginosa</i>	
Integrated BioTherapeutics	IBT-V02		✓		Multi-valent toxoid vaccine	✓	✓			<i>S. aureus</i>	
Iterum	Sulopenem				Oral and IV penem	✓	✓				Gram-negative activity
Macrolide	Novel Macrolides				Novel macrolide antibiotics with Gram-negative activity	✓	✓		Gram-negative activity		
Melinta	Pyrolocytosine	✓		✓	Novel class, MDR ESKAPE	✓	✓		Broad spectrum		
Microbiotix	T3SS Inhibitor		✓	✓	Virulence modifier	✓	✓		<i>P. aeruginosa</i>		
MicruRx	MRX-8				Soft drug polymyxin	✓	✓			Gram-negative activity	
Polyphor	OMPTA POL7306	✓		✓	Novel class, MDR/XDR ESKAPE	✓	✓			Gram-negative activity	
Recida Therapeutics	RC-01	✓		✓	LpxC inhibitor	✓	✓			Enterobacteriaceae + <i>P. aeruginosa</i>	
SciBac	SCB-102		✓		Microbiome	✓	✓			<i>C.difficile</i>	
Seres Therapeutics	SER-155		✓		Microbiome - transplant patients	✓	✓		Broad spectrum activity vs CRE/VRE		
Summit Therapeutics	SMT-571 Series	✓		✓	Novel class, orally active antibiotic	✓	✓			<i>Neisseria Gonorrhoeae</i>	
Tetraphase Pharmaceuticals	TP-6076				Next-generation tetracycline	✓	✓				<i>Acinetobacter + Enterobacteriaceae</i>
Vedanta	VE303		✓		Microbiome	✓					<i>C.difficile</i>
VenatoRx	VNRX-PBP	✓			β-lactamase resistant PBP inhibitor	✓	✓		Entero-bacteriaceae		
Visterra	VI5705		✓	✓	Antibody-drug conjugate	✓	✓		<i>P. aeruginosa</i>		

**CARB-X Antibacterial Devices and Diagnostic Product Portfolio**

Sponsor	Type	Technology	Description			
			Feasibility Demonstration	Optimization and Preparation for Development	Product Development	System Integration and Testing
Helixbind	Hospital Dx	Automated culture-free pathogen ID			Bloodstream Infections	
Proteus	Rapid POC Dx	Optical bacterial imaging		POC Diagnostic		
Specific Diagnostics	Hospital Dx	Colorimetric Sensor Array to detect VOCs			Bloodstream Infections	
Tails	Point of care Dx	Pathogen ID; Phenotypic AST		AST <i>Neisseria gonorrhoeae</i> ; NID NG and <i>Chlamydia trachomatis</i>		
T2 Biosystems	Hospital Dx	Expanded bacteria and resistance panels for T2Dx			Bloodstream infections	

The above projects are Powered by CARB-X utilizing non-dilutive funding from BARDA, Wellcome Trust, & NIAID. Characterizations of new Abx Class and New Target by CARB-X, following Pew pipeline analysis: <http://www.pewtrusts.org/en/multimedia/data-visualizations/2014/antibiotics-currently-in-clinical-development>. Other characterizations by CARB-X experts and external expert opinion. Abx = traditional small molecule antibiotic. Non-traditional Product = not a traditional small molecule antibiotic.