



**ACTIVE - THERAPEUTICS PROJECTS (CONTINUED)**

Product Developer	Product	Bacteria	Type	Hit-to-lead	Lead Optimization	Pre-Clinical	Phase I
GangaGen Biotech	Klebicins, Engineered proteins	<i>Klebsiella pneumoniae</i>	• • •	→			
Helmholtz Centre HZI	HZI-LDC <i>S. aureus</i> α-hemolysin Inhibitors	<i>Staphylococcus aureus</i>	• • •	→	→		
Helmholtz Institute HIPS	HZI-HIPS Elastase (LasB) Inhibitors	<i>Pseudomonas aeruginosa</i>	• • •	→			
Locus Biosciences	LBP-KP01 CRISPR-Cas3 Bacteriophage	<i>Klebsiella pneumoniae</i>	• • •	→	→		

**ACTIVE - PREVENTATIVES PROJECTS**

Product Developer	Product	Bacteria	Type	Hit-to-lead	Lead Optimization	Pre-Clinical	Phase I
SNIPR BIOME ApS	SNIPR001 CRISPR-engineered preventative	<i>Escherichia coli</i>	Bacteriophage			→	→
Integrated Biotherapeutics	IBT-V02 Multi-valent vaccine	<i>S. aureus</i>	Vaccine		→	→	
Vaxcyte (formerly SutroVax)	GAS Carbohydrate conjugate vaccine	Group A <i>Streptococcus</i>	Vaccine		→	→	
GlaxoSmithKline	GSK INTS-TCV INTS-typoid conjugate vaccine	<i>Salmonella enterica</i>	Vaccine			→	→
GlaxoSmithKline	GSK Strep A vaccine	Group A <i>Streptococcus</i>	Vaccine			→	
Vedanta	VE707 Microbiome	CRE - ESBLs	Microbiome			→	
Jenner Institute	NOMV Vaccine	<i>N. gonorrhoea</i>	Vaccine		→		
Vaxdyn	KAPAVAX Trivalent vaccine	Gram-negative pathogens	Vaccine		→		
Idorsia	VXN-319 vaccine	<i>K. pneumoniae</i>	Vaccine	→			
Lumen Bioscience	LMN-GI-EEC-401 Oral antimicrobial immunotherapy (mAb)	<i>C. jejuni</i> & enterotoxigenic <i>E. coli</i>	Biologic	→			

**ACTIVE - DIAGNOSTICS PROJECTS**

Product Developer & Graduation Date	Product / Technology	Bacteria	Type	Feasibility	Optimization	Development	Verification & Validation
Pattern Bioscience	Digital culture single cell biometric analysis	RTIs, UTIs, BSIs	Hospital Dx	→	→	→	
Day Zero Diagnostics	ID & AST Whole genome sequencing & machine learning	Drug-resistant pathogens	Hospital Dx		→	→	
Avails Medical	Avails eAST, Rapid Electronic AST	Bloodstream infections	Rapid point of care Dx	→	→		
Baebies Inc.	FINDER Bacteremia ID/AST	Neonatal Sepsis	Near-Patient Dx	→			
GenomeKey	ID & AST Machine learning & Whole Genome	Sepsis	Rapid point of care Dx	→			
Speedx	Resistance Plus InSignia Rapid Molecular ID/AST	<i>N. gonorrhoea</i> & <i>C. trachomatis</i>	Rapid point of care Dx	→			

**Formerly funded projects**

Projects listed in this section were formerly funded, and are no longer supported by CARB-X for a variety of reasons

CARB-X Final Investment Date	Therapeutics and Preventatives	Bacteria	Novelty/Type*			Therapeutics and Vaccines Development Stage			
			New Abx Cls	New Abx Tgt	Non trad	Hit-to-Lead	Lead Optimization	Pre-Clinical	Phase I
Basilea Pharmaceutica International 2/23	DXR Novel Class Inhibitor	Gram-negative pathogens	•	•		→			
Entasis Therapeutics 12/22	Non-beta-lactam PBPI	Gram-negative pathogens	•				→		
Evotec SE 12/22	TriBE broad spectrum antibiotics	Gram-negative, Gram-positive	•	•			→		
Eligo Bioscience 12/22	EB004. CRISPR-based bacteriophage	Gram-negative pathogens			Bacteriophage	→			
University of Queensland 11/22	OCTAPEPTIN Engineered peptides	Gram-negative pathogens	•		•		→		
BioVersys 09/22	BV300 Novel Class Pyrrolocytosines	ESKAPE, MRSA	•				→		
VenatoRx 09/22	Oral cyclic-boronate PBP inhibitor	<i>Neisseria gonorrhoeae</i>	•			→			
Microbiotix 09/22	Trans-translation inhibitors, oral antibiotic	MDR <i>Neisseria gonorrhoeae</i>	•	•		→			

Affinivax 09/22	MAPS vaccine	<i>S. aureus</i>	Vaccine					
Forge Therapeutics 09/22	FG-LpxC-LUNG. LpxC inhibitor	Gram-negative pathogens	•	•				
Debiopharm 07/22	Debio1454. Fabi inhibitor	<i>Acinetobacter baumannii</i>	•					
ContraFect 04/22	Gram-negative lysins	<i>Pseudomonas aeruginosa</i>	•	•	•			
Spexis (formerly Polyphor) 03/22	OMPTA POL7306	Gram-negative ESKAPE pathogens	•	•				
Taxis Pharmaceuticals 03/22	EPI-PA Efflux Pump Inhibitor	<i>Pseudomonas aeruginosa</i>			•			
Lytica Therapeutics 03/22	STAMPS Large molecule direct-acting	Gram-negative pathogens	•					
BioVersys 01/22	AVATAR-SA Anti-virulence agent	<i>S. aureus</i> , MRSA			•			
Microbion 01/22	Novel bismuthiol, Pravibismane suspension	<i>P. aeruginosa</i> , <i>S. aureus</i> , NTM	•	•				
Oxford Drug Design 01/22	DaaRSi. Aminoacyl-tRNA Syn. Inhibitor	Gram-negative pathogens	•	•				
MicRx 01/22	MRX-8. Soft drug polymyxin	Gram-negative pathogens						
Facile Therapeutics 04/21	EBSELEN Prevention of <i>C.difficile</i> recurrence	<i>C. difficile</i>				Small molecule		
Antabio 08/21	PEI Pseudomonas elastase inhibitor	<i>Pseudomonas aeruginosa</i>			•			
ContraFect 06/21	Amurins. Phage-encoded lytic	Gram-negative pathogens	•					
Idorsia 04/21	TopESKAPE. Topoisomerase inhibitor	<i>Acinetobacter</i> , <i>P. aeruginosa</i> , <i>Enterobacteriaceae</i>	•					
Techulon 04/21	PPNA-XPA	<i>P. aeruginosa</i> and <i>A. baumannii</i>			•			
Summit 09/20	SMT-571. Oral	<i>Neisseria gonorrhoeae</i>	•	•				
Zikani 08/20	Novel macrolide antibiotic	Gram-negative pathogens						
Forge Therapeutics 07/20	FG-LpxC-UTI. LpxC inhibitor	Gram-negative pathogens	•	•				
Bravos BB100 08/20	BB100 Monoclonal antibody	<i>Escherichia coli</i>			•			
Inhibrx 03/20	INBRX-111	<i>P. aeruginosa</i>			•			
Procarta 02/20	Pro-202 Oligonucleotidebased antibiotic	Gram-negative pathogens	•					
VenatoRx 12/19	VNRX-PBP. $\beta$ -lact. resistant PBP inhibitor	<i>Enterobacteriaceae</i>	•					
SciBac 05/19	SCB-102	<i>C.difficile</i>				Microbiome		
Recida Tx 04/19	RC-01	<i>Enterobacteriaceae</i> , <i>P. aeruginosa</i>	•	•				
Curza 04/19	CZ-02	Broad spectrum	•					
Achaogen 03/19	Next-Generation AG	Gram-negative pathogens including <i>Pseudomonas</i>						
Melinta 02/19	Pyrrrolycosine	Broad spectrum	•					
Eligochem 12/18	Helical AMP	Gram-negative pathogens	•					
Shionogi 09/18	AGN-BL	<i>Enterobacteriaceae</i>						
Visterra 09/18	VIS705	<i>P. aeruginosa</i>			•			
Cidara Tx 04/18	CD201	<i>Acinetobacter</i> , <i>P. aeruginosa</i> , <i>Enterobacteriaceae</i>			•			
Achaogen 10/17	AKAO-LpxC	<i>P. aeruginosa</i>	•	•				
Redx Pharma 10/17	NBTI	<i>Acinetobacter</i> , <i>P. aeruginosa</i> , <i>Enterobacteriaceae</i>	•					

Diagnostics Development Stage							
CARB-X Final Investment Date	Diagnosics		Type	Feasibility	Optimization	Development	Verification & Validation
Accelerate Diagnostics 12/22	SRS Optical Imaging	Sepsis	Rapid point of care Dx				
Module Innovations 05/22	ID & AST ASTSENSE UTIs	UTIs	Rapid point of care Dx				
Novel Microdevices 05/22	NOVEL DX Rapid Molecular Diagnostic	Sexually transmitted infections	Rapid Point of Care Dx				
Talis 08/21	POC Dx, Pathogen ID	ID <i>N. gonorrhoea</i> & <i>C. trachomatis</i>	Rapid point of care Dx				
MicroDx 08/18	Near care Dx	Urinary Tract Infections	Rapid Near to Care Dx				

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\* New Antibiotic Class; New Molecular Target; Non-Traditional Product. Solid red arrows reflect completion of the stage, transparent coloring indicates current stage of development for active projects, and stage in which 'formerly funded' projects exited the portfolio. Arrow between stages indicate successful transition of the project through an Option stage gate.