

## CARB-X Complete Portfolio, as of 9/13/23

Since CARB-X was launched in July 2016

### CARB-X GRADUATES - THERAPEUTICS

| Product Developer & Graduation Date | Product                        | Bacteria                                 | Novelty*    |             |          | Hit-to-lead | Development Stage |              |         |
|-------------------------------------|--------------------------------|------------------------------------------|-------------|-------------|----------|-------------|-------------------|--------------|---------|
|                                     |                                |                                          | New Abx Cls | New Abx Tgt | Non trad |             | Lead Optimization | Pre-Clinical | Phase 1 |
| Clarametyx Biosciences 11/22        | CMTX-101 Monoclonal antibody   | ESKAPE, MRSA                             | •           | •           | •        |             |                   |              |         |
| GlaxoSmithKline 12/21               | GSK3882347 FimH antagonist UTI | <i>E. coli</i>                           | •           | •           | •        |             |                   |              |         |
| Entasis Tx. 12/20                   | ETX0282CPDP Oral combination   | Gram-negative pathogens                  |             |             |          |             |                   |              |         |
| Tetraphase 06/19                    | TP-6076                        | <i>Acinetobacter, Enterobacteriaceae</i> |             |             |          |             |                   |              |         |
| Iterum 03/19                        | Sulopenem                      | Gram-negative activity                   |             |             |          |             |                   |              |         |
| Spero 03/18                         | SPR741                         | Gram-negative activity                   | •           |             | •        |             |                   |              |         |
| Oppilotech 10/17                    | LPS                            | Gram-negative pathogens                  |             |             |          |             |                   |              |         |

### CARB-X GRADUATES - PREVENTATIVES

| Product Developer & Graduation Date | Product             | Bacteria                           | Novelty*   |  | Hit-to-lead | Development Stage |              |         |
|-------------------------------------|---------------------|------------------------------------|------------|--|-------------|-------------------|--------------|---------|
|                                     |                     |                                    | Type       |  |             | Lead Optimization | Pre-Clinical | Phase 1 |
| Seres 04/21                         | SER-155. Microbiome | Broad spectrum activity vs CRE/VRE | Microbiome |  |             |                   |              |         |
| Vedanta 09/18                       | VE303               | <i>C.difficile</i>                 | Microbiome |  |             |                   |              |         |

### CARB-X GRADUATES - DIAGNOSTICS

| Product Developer & Graduation Date | Product                                                     | Bacteria               | Type                    | Development Stage |              |              |                           |
|-------------------------------------|-------------------------------------------------------------|------------------------|-------------------------|-------------------|--------------|--------------|---------------------------|
|                                     |                                                             |                        |                         | Feasibility       | Optimization | Develop-ment | Verification & Validation |
| Pattern Bioscience 06/23            | Digital culture single cell biometric analysis              | RTIs, UTIs, BSIs       | Hospital Dx             |                   |              |              |                           |
| Helixbind 03/22                     | Rapid/BSI, Automated culture-free                           | Bloodstream infections | Hospital Dx pathogen ID |                   |              |              |                           |
| Proteus 02/22                       | Rapid POC Dx, Optical bacterial imaging                     | POC Diagnostic         | Rapid Point of Care Dx  |                   |              |              |                           |
| Specific Diagnostics 03/20          | SPECIFAST REVEAL™, Colorimetric Sensor Array to detect VOCs | Bloodstream infections | Hospital Dx             |                   |              |              |                           |
| T2 Biosystems 09/19                 | Expanded bacteria and resistance panels for T2Dx            | Bloodstream infections | Hospital Dx             |                   |              |              |                           |

## Active Product Pipeline, as of 9/13/23

Products currently funded and supported by CARB-X

### ACTIVE - THERAPEUTICS PROJECTS

| Product Developer                   | Product                                          | Bacteria                          | Novelty*    |             |          | Hit-to-lead | Development Stage |              |         |
|-------------------------------------|--------------------------------------------------|-----------------------------------|-------------|-------------|----------|-------------|-------------------|--------------|---------|
|                                     |                                                  |                                   | New Abx Cls | New Abx Tgt | Non trad |             | Lead Optimization | Pre-Clinical | Phase I |
| Bugworks Research                   | GYROX. Gyrase-topoisomerase inhibitor            | Gram-negative pathogens           | •           |             |          |             |                   |              |         |
| Trellis Bioscience                  | TRL1068 Monoclonal antibody                      | Broad spectrum                    | •           | •           | •        |             |                   |              |         |
| Peptilogics                         | PLG0206 Direct-acting engineered peptides        | Broad spectrum                    | •           |             | •        |             |                   |              |         |
| Macro Biologics (formerly Amicrobe) | Amicidin-β. Local antimicrobial                  | Broad spectrum                    | •           |             | •        |             |                   |              |         |
| Phico Therapeutics                  | SASPject PT3.9 Engineered Bacteriophage          | <i>Pseudomonas aeruginosa</i>     | •           | •           | •        |             |                   |              |         |
| Mutabilis                           | EBL-1463 Non -beta-lactam PBP inhibitor          | CRE bacteria                      | •           |             |          |             |                   |              |         |
| Debiopharm                          | Debio1453. FabI inhibitor                        | <i>Neisseria gonorrhoeae</i>      | •           |             |          |             |                   |              |         |
| Microbiotix                         | T3SS Inhibitor, virulence modifier               | <i>Pseudomonas aeruginosa</i>     | •           | •           | •        |             |                   |              |         |
| Cellics Therapeutics                | Macrophage Nanosponge                            | Broad spectrum toxins & cytokines | •           | •           | •        |             |                   |              |         |
| Centauri Therapeutics               | ABX01 Dual acting large molecule                 | Gram-negative pathogens           | •           | •           | •        |             |                   |              |         |
| Spexis (formerly Polyphor)          | OMPTA Thanatin                                   | <i>Enterobacteriaceae</i> CRE     | •           | •           | •        |             |                   |              |         |
| 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>      | •           | •           | •        |             |                   |              |         |
| 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 |                        |                        | <div><div></div></div> | <div><div></div></div> |
| Integrated Biotherapeutics      | IBT-V02 Multi-valent vaccine                          | <i>S. aureus</i>                                  | Vaccine       |                        | <div><div></div></div> | <div><div></div></div> |                        |
| Vaxcyte (formerly SutroVax)     | GAS Carbohydrate conjugate vaccine                    | Group A <i>Streptococcus</i>                      | Vaccine       |                        | <div><div></div></div> | <div><div></div></div> |                        |
| GlaxoSmithKline                 | GSK INTS-TCV iNTS-typhoid conjugate vaccine           | <i>Salmonella enterica</i>                        | Vaccine       |                        |                        | <div><div></div></div> | <div><div></div></div> |
| GlaxoSmithKline                 | GSK Strep A vaccine                                   | Group A <i>Streptococcus</i>                      | Vaccine       |                        |                        | <div><div></div></div> |                        |
| Vedanta                         | VE707 Microbiome                                      | CRE - ESBLs                                       | Microbiome    |                        |                        | <div><div></div></div> |                        |
| Jenner Institute                | NOMV Vaccine                                          | <i>N. gonorrhea</i>                               | Vaccine       |                        | <div><div></div></div> | <div><div></div></div> |                        |
| Vaxdyn                          | KAPAVAX Trivalent vaccine                             | Gram-negative pathogens                           | Vaccine       |                        | <div><div></div></div> | <div><div></div></div> |                        |
| Idorsia (formerly Vaxxilon)     | VXN-319 vaccine                                       | <i>K. pneumoniae</i>                              | Vaccine       | <div><div></div></div> | <div><div></div></div> |                        |                        |
| Lumen Bioscience                | LMN-GI-EEC-401 Oral antimicrobial immunotherapy (mAb) | <i>C. jejuni</i> & enterotoxigenic <i>E. coli</i> | Biologic      | <div><div></div></div> | <div><div></div></div> |                        |                        |

| ACTIVE - DIAGNOSTICS PROJECTS       |                                                     |                                             |                        |                        |                        |                        |                           |
|-------------------------------------|-----------------------------------------------------|---------------------------------------------|------------------------|------------------------|------------------------|------------------------|---------------------------|
| Product Developer & Graduation Date | Product / Technology                                | Bacteria                                    | Type                   | Feasibility            | Optimization           | Develop-ment           | Verification & Validation |
| Day Zero Diagnostics                | ID & AST Whole genome sequencing & machine learning | Drug-resistant pathogens                    | Hospital Dx            |                        | <div><div></div></div> | <div><div></div></div> |                           |
| Avails Medical                      | Avails eAST, Rapid Electronic AST                   | Bloodstream infections                      | Rapid point of care Dx | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> |                           |
| Baebies Inc.                        | FINDER Bacteremia ID/AST                            | Neonatal Sepsis                             | Near-Patient Dx        | <div><div></div></div> |                        |                        |                           |
| GenomeKey                           | ID & AST Machine learning & Whole Genome            | Sepsis                                      | Rapid point of care Dx | <div><div></div></div> |                        |                        |                           |
| Speedx                              | Resistance Plus InSigna Rapid Molecular ID/AST      | <i>N. gonorrhea</i> & <i>C. trachomatis</i> | Rapid point of care Dx | <div><div></div></div> |                        |                        |                           |

Formerly funded projects

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

| Novelty/Type* Therapeutics and Vaccines Development Stage |                                                    |                                  |               |             |          |                        |                        |                        |         |
|-----------------------------------------------------------|----------------------------------------------------|----------------------------------|---------------|-------------|----------|------------------------|------------------------|------------------------|---------|
| CARB-X Final Investment Date                              | Therapeutics and Preventatives                     | Bacteria                         | New Abx Cls   | New Abx Tgt | Non trad | Hit-to-Lead            | Lead Optimization      | Pre-Clinical           | Phase I |
| Helmholtz Institute HIPS 8/23                             | HZI-HIPS Elastase (LasB) Inhibitors                | <i>Pseudomonas aeruginosa</i>    | •             | •           | •        | <div><div></div></div> |                        |                        |         |
| Summit Therapeutics 4/23                                  | SMT-738 first-in-class LolCDE targeting antibiotic | CRE bacteria                     | •             | •           |          |                        |                        | <div><div></div></div> |         |
| Basilea Pharmaceutica International 2/23                  | DXR Novel Class Inhibitor                          | Gram-negative pathogens          | •             | •           |          | <div><div></div></div> |                        |                        |         |
| Entasis Therapeutics 12/22                                | Non-beta-lactam PBPI                               | Gram-negative pathogens          | •             |             |          |                        | <div><div></div></div> | <div><div></div></div> |         |
| Evotec SE 12/22                                           | TriBE broad spectrum antibiotics                   | Gram-negative, Gram-positive     | •             | •           |          |                        | <div><div></div></div> |                        |         |
| Eligo Bioscience 12/22                                    | EB004. CRISPR-based bacteriophage                  | Gram-negative pathogens          | Bacteriophage |             |          | <div><div></div></div> |                        |                        |         |
| University of Queensland 11/22                            | OCTAPEPTIN Engineered peptides                     | Gram-negative pathogens          | •             |             | •        |                        | <div><div></div></div> | <div><div></div></div> |         |
| BioVersys 09/22                                           | BV300 Novel Class Pyrrolocytosines                 | ESKAPE, MRSA                     | •             |             |          |                        | <div><div></div></div> |                        |         |
| VenatoRx 09/22                                            | Oral cyclic-boronate PBP inhibitor                 | <i>Neisseria gonorrhoeae</i>     | •             |             |          | <div><div></div></div> |                        |                        |         |
| Microbiotix 09/22                                         | Trans-translation inhibitors, oral antibiotic      | MDR <i>Neisseria gonorrhoeae</i> | •             | •           |          | <div><div></div></div> |                        |                        |         |
| Affinivax 09/22                                           | MAPS vaccine                                       | <i>S. aureus</i>                 | Vaccine       |             |          |                        | <div><div></div></div> |                        |         |
| Forge Therapeutics 09/22                                  | FG-LpxC-LUNG. LpxC inhibitor                       | Gram-negative pathogens          | •             | •           |          |                        | <div><div></div></div> | <div><div></div></div> |         |
| Debiopharm 07/22                                          | Debio1454. FabI inhibitor                          | <i>Acinetobacter baumannii</i>   | •             |             |          |                        | <div><div></div></div> |                        |         |
| ContraFect 04/22                                          | Gram-negative lysins                               | <i>Pseudomonas aeruginosa</i>    | •             | •           | •        | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> |         |



