

CARB-X

Combating Antibiotic-Resistant Bacteria

**BOSTON
UNIVERSITY**

2024 CARB-X Funding Rounds

What You Need to Know

Agenda

- About CARB-X
- Overview of 2024 Funding Call Design
- How to Apply
- Q&A



About CARB-X

CARB-X

The global partnership accelerating early-stage antibacterial R&D



- Three pillars: therapeutics, preventatives and diagnostics
- Non-dilutive funding **and** comprehensive support model
- Programs enter through active funding calls
- Focused on performance characteristics, pathogens + infectious syndromes with highest morbidity and mortality rates attributable to/associated with AMR
- Created the world's most scientifically-diverse discovery & early-development portfolio, with **significant progress**:



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Portfolio built and refined to respond to global burden of disease



Source: Antimicrobial Resistance Collaborators, *The Lancet*, published online January 20, 2022

* = mostly targeted secondary indication;
 dark grey = global deaths attributable to AMR in 2019;
 light grey = global deaths associated with AMR in 2019

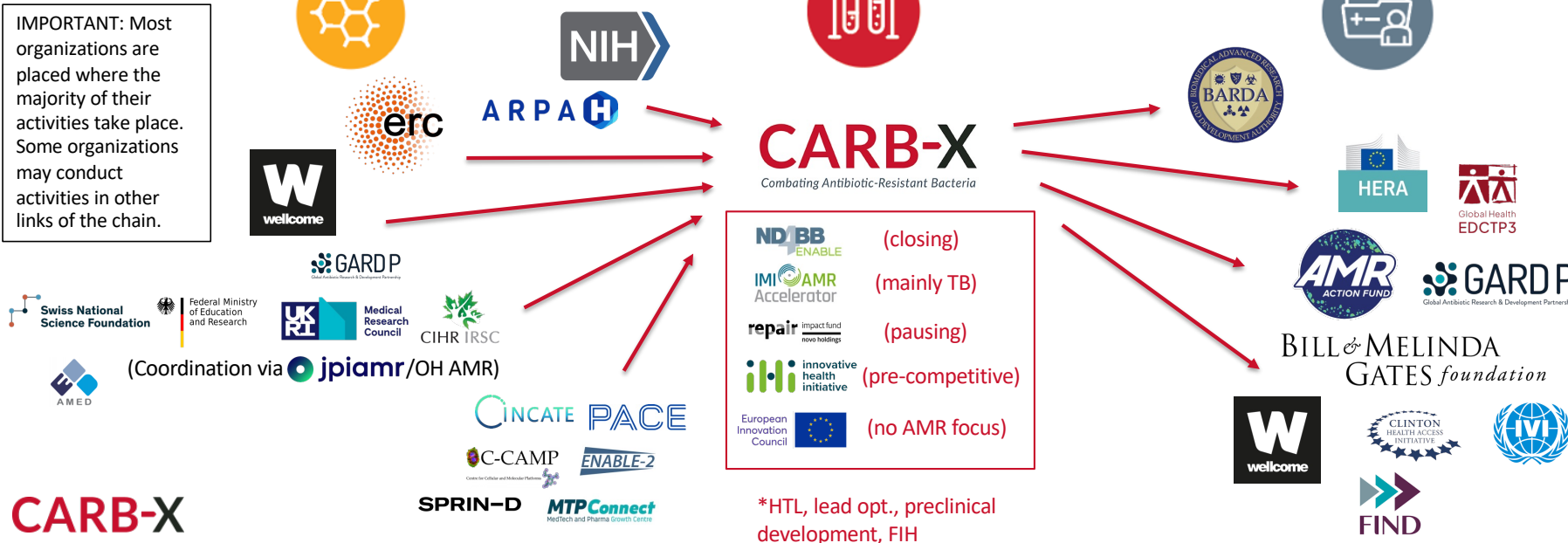
Gonorrhea Excluded from *The Lancet* study

CARB-X ● =first 92 projects ● =omnibus

CARB-X is a crucial link in the antibacterial innovation chain



IMPORTANT: Most organizations are placed where the majority of their activities take place. Some organizations may conduct activities in other links of the chain.



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What CARB-X funds in our link of the chain

Tx

- Hit-to-Lead through FIH

Pv

- Antigen/composition discovery through FIH

Dx

- Feasibility through alpha-prototype development

How programs enter portfolio: active funding calls

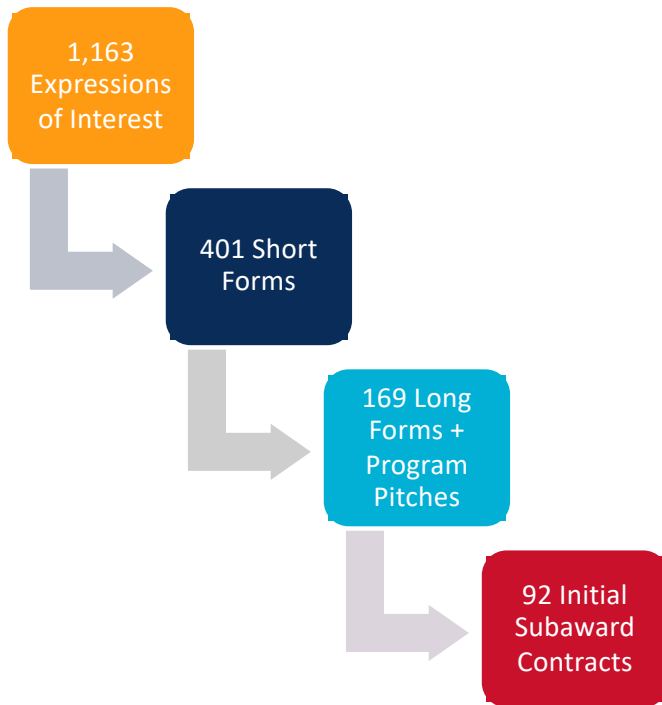
- 8 funding calls (2016-2020)
 - First 4 “all-comer” calls, predicated on a product focused on one or more priority pathogens
 - Last 4 thematic (non-traditional products; vaccines & biotherapeutics; rapid diagnostics and Gram-negative-targeting therapeutics)
- 1 omnibus solicitation (2022-2023)
 - 3 funding themes (oral therapeutics; vaccines against top etiologies for neonatal sepsis; cross-pillar gonorrhoea products)
 - 3 sequential intakes to allow for package-building or resubmission
- New funding themes shaped by 2023 Strategic Review

Stages and evaluation of applications

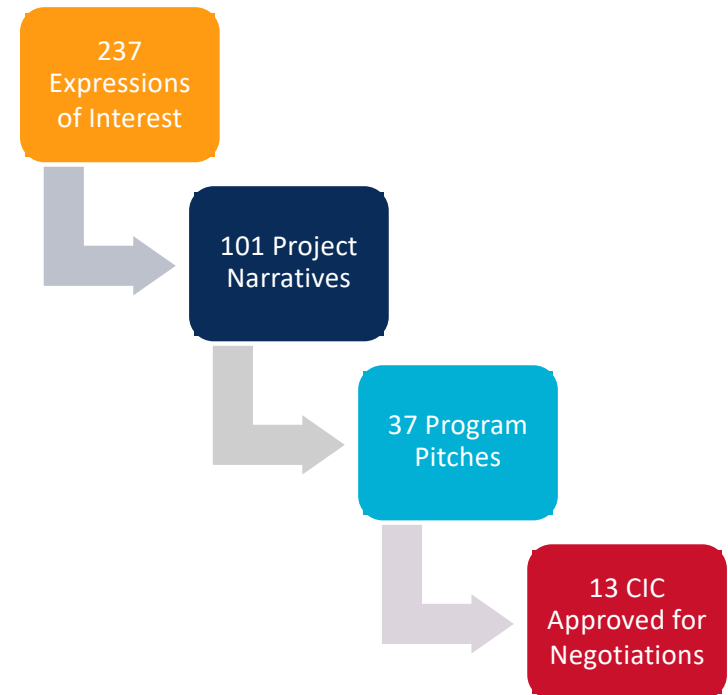
- non-confidential Expression of Interest (EOI)
 - reviewed by CARB-X R&D for responsiveness
- confidential written proposal/project narrative + high-level budget
 - juried by sub-teams of external Advisory Board
- presentation to virtual advisory board (invitation only)
 - juried by full external Advisory Board
- negotiations to enter CARB-X portfolio
 - recommended by Advisory Board and CARB-X R&D
 - decided by CARB-X Investment Committee

Application outcomes

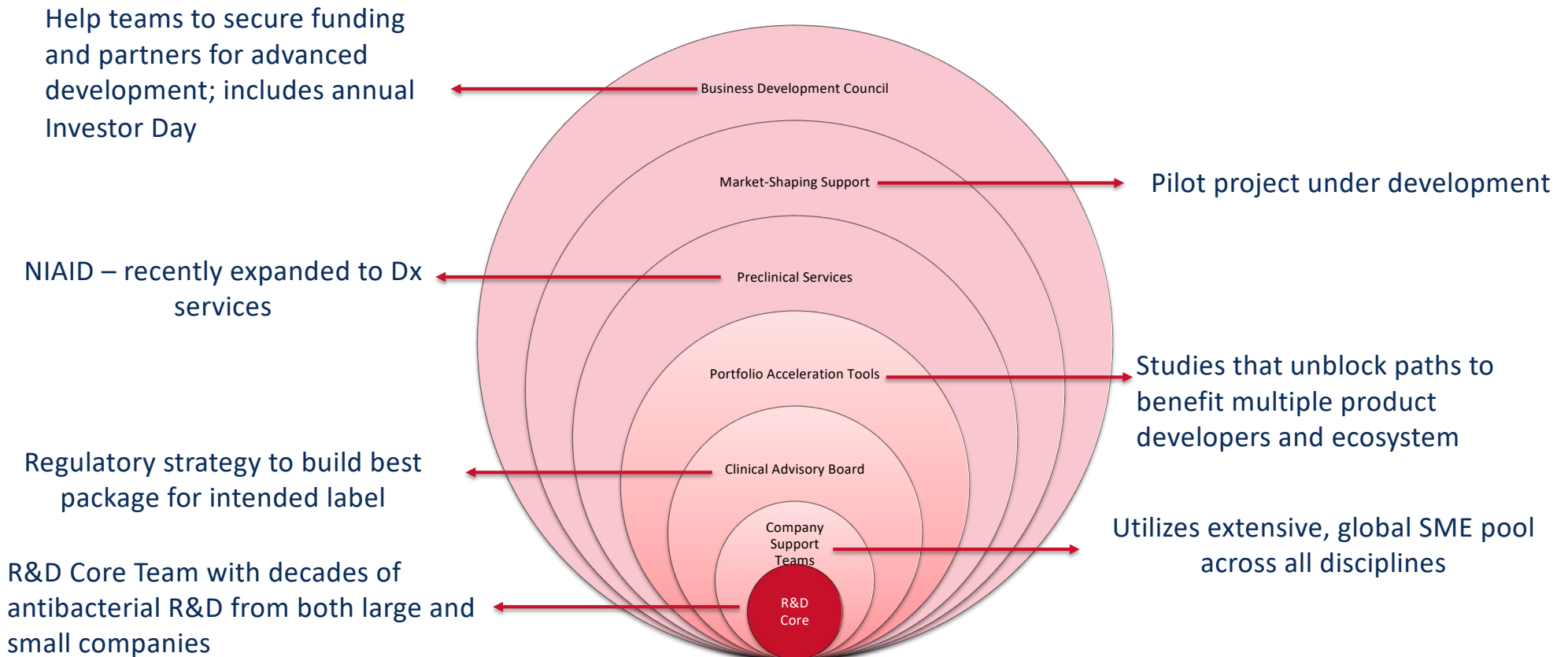
2016 - 2020



2022 - 2023

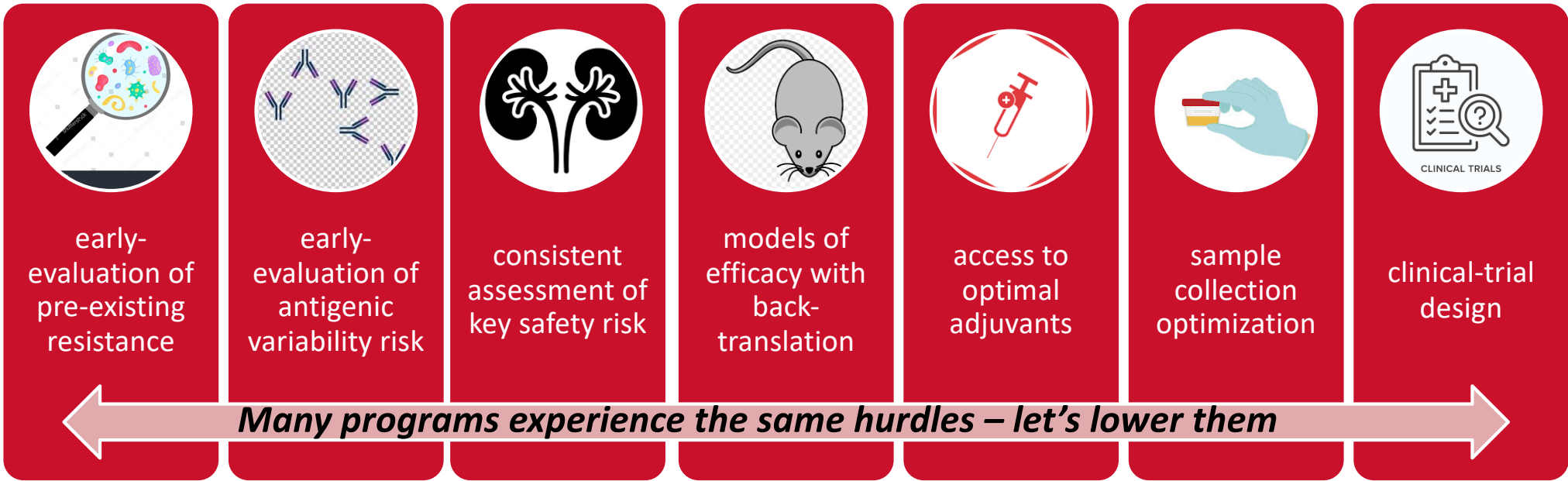


A unique and layered support model



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A look at portfolio acceleration tools



Many programs experience the same hurdles – let's lower them

IHMA program cuts across all pillars
 23 Tx (susceptibility); 7 Pv (antigenic conservation); 6 Dx (challenge panels)
 refresh underway

Queensland nephrotoxicity studies transitioning to NIAID Preclinical Services

lung model standardization (IMI Combine/iiCON) and validation (CARB-X/Hartford Hospital)

discussions with NIAID to aid both vaccine developers and adjuvant innovators

urine, sputum challenging samples – better methods unlock interest in Dx development

Superiority-design workshops; decolonization systematic review consortium

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This is your CARB-X team



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Overview of 2024 Funding Call Design

GRAM-NEGATIVE PATHOGENS

Required: direct-acting, small-molecule antibiotic (or small molecules that can be used in combination with an existing drug that can restore the potency of that drug to clinically useful levels in an in vitro MIC assay by inhibition of a specific resistance mechanism); MW < 1500

Preferred: properties to deliver both intravenous and oral forms

Target Indications: hospital-associated and ventilator-associated bacterial pneumonia, complicated urinary-tract infection (and associated bacteremias)

PREVENTION OF INVASIVE DISEASE

Required: novel approaches, with supportive preliminary data

Preferred: non-vaccine and non-monoclonal-antibody-based, unless novelty can be underscored with supporting preclinical data

Target Pathogens: *Staphylococcus aureus* and *Escherichia coli*

2024 Funding Call Themes

DIAGNOSTICS FOR NEONATAL SEPSIS

Key criteria: small sample volumes, rapid time-to-result, low cost-of-goods, POC data on clinical or contrived samples

Target Tests: (1) rapid triage (bacterial vs other; host response); (2) bacterial identification; (3) genotypic or phenotypic susceptibility tests

ALTERNATIVE SAMPLE TYPES FOR DIAGNOSING LOWER RESPIRATORY TRACT INFECTIONS

Required: sample types other than bronchoalveolar lavage, endotracheal aspirate or sputum

Preferred: demonstration of detection of at least one bacterial pathogen in contrived or clinical samples at a clinically-relevant threshold

Development stages in scope, minimal entry criteria and TPPs will be available on www.carb-x.org

2024 solicitation

- There will be two funding intake cycles
- Applications for any of the four themes welcomed for each intake cycle



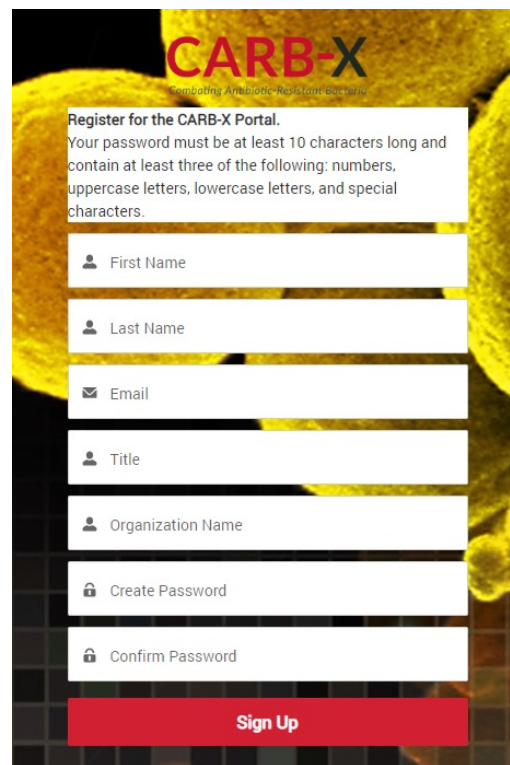
Key dates for first cycle

- EOI portal live: 18 March 2024 @ 10:00 ET
- EOI submission deadline: 29 March 2024 by 23:59:59 ET

How to apply

CARB-X Portal: Registration

- Beginning on 18 March 10:00 ET, applicants can register in the **CARB-X Portal** and complete the Expression of Interest for any of the four funding themes.
- You will find the link to the CARB-X Portal on our website: <https://carb-x.org/apply/apply-here/>
- Your login name will be the email address you registered with appended with *.carbx*
- Note: if you have already registered, you will receive an email with your username.



The screenshot shows the registration page for the CARB-X Portal. At the top, the CARB-X logo is displayed with the tagline "Combating Antibiotic-Resistant Bacteria". Below the logo, there is a registration form with the following fields: "First Name", "Last Name", "Email", "Title", "Organization Name", "Create Password", and "Confirm Password". A red "Sign Up" button is located at the bottom of the form. The background of the page features a microscopic image of bacteria.

CARB-X Portal: Completing the EOI

Templates for every EOI are available on our website: <https://carb-x.org/apply/apply-here/>


[2024 EOI Template for Therapeutics](#)

[2024 EOI Template for Preventatives](#)

[2024 EOI Template for Diagnostics for Neonatal Sepsis](#)

[2024 EOI Template for Alternative Sample Types](#)

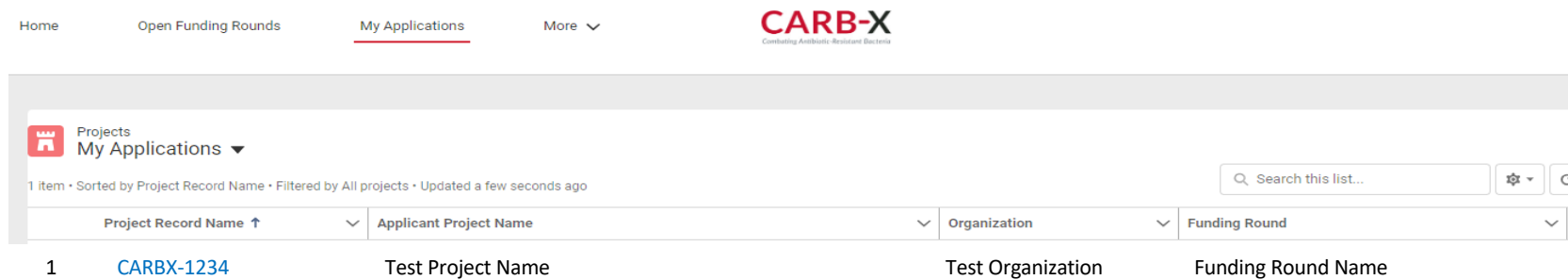
The EOI contains several sections with questions about your organization, your project, your product and/or proof-of-concept.

You may pause and save your draft EOI at any time by clicking the  button and entering a pause reason. You can then resume your EOI at any time under “My Applications.”

Please note: Once you resume a paused EOI, you **must** select **Save Draft** again before exiting – even if you make no changes. Otherwise, the EOI you resumed will be lost.

CARB-X Portal: Reviewing Your Submitted EOI





- Submitted EOIs are displayed on the **My Applications** tab



The screenshot shows the 'My Applications' tab in the CARB-X portal. The navigation bar includes 'Home', 'Open Funding Rounds', 'My Applications' (selected), and 'More'. The CARB-X logo is in the top right. Below the navigation, there's a 'Projects My Applications' section with a search bar and a table. The table has columns for 'Project Record Name', 'Applicant Project Name', 'Organization', and 'Funding Round'. One record is shown with the value 'CARBX-1234' under 'Project Record Name'.

Project Record Name ↑	Applicant Project Name	Organization	Funding Round
1 CARBX-1234	Test Project Name	Test Organization	Funding Round Name

- Click the **Project Record Name** to review your submitted responses which are organized under four object types:

-  **Project**
-  **Product**
-  **Product Characteristics**
-  **Product Pathogens**



Q&A