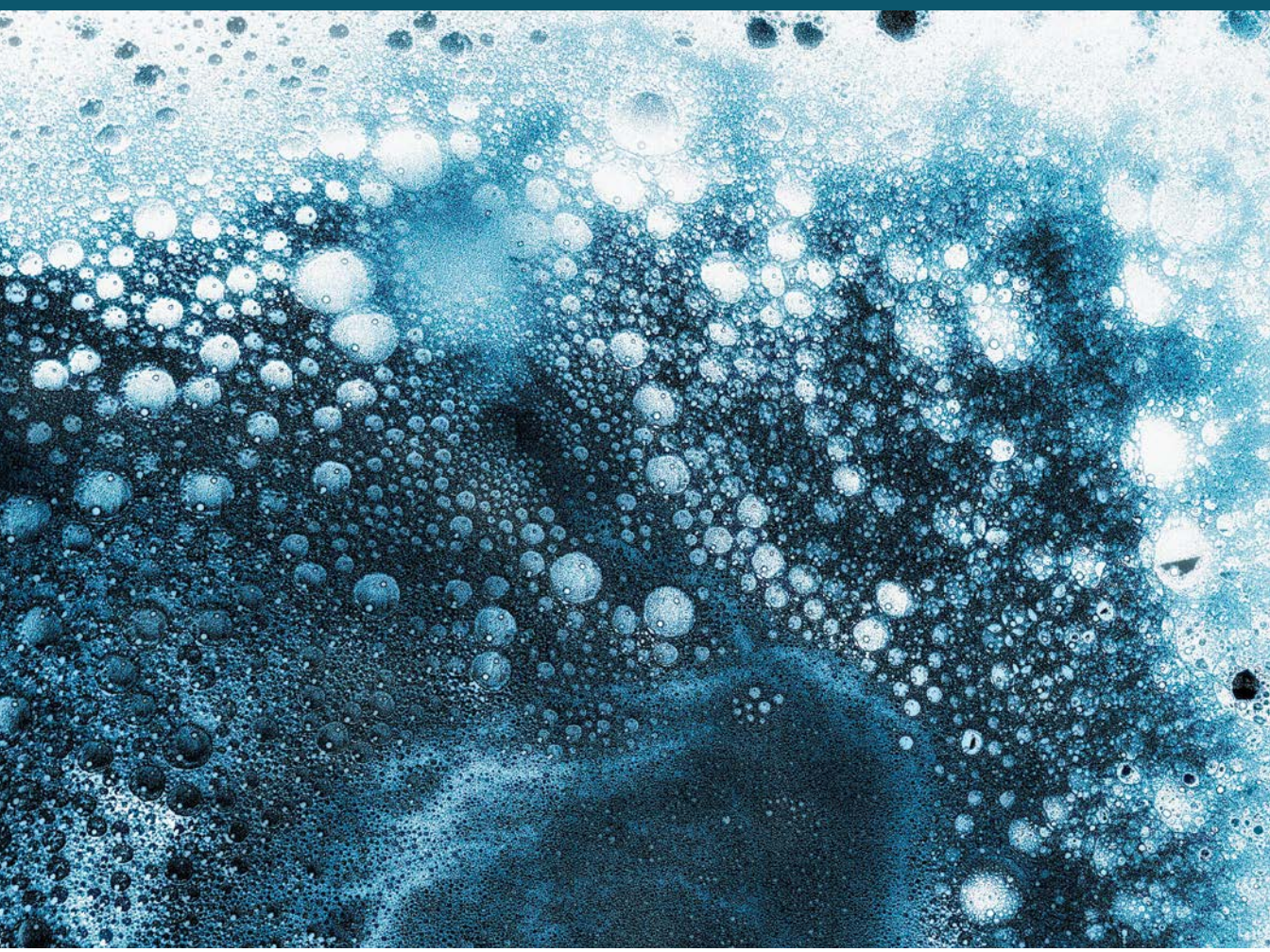
NRC·CNRC

Atypical Fermentation Facility



National Research Council Canada
Conseil national de recherches Canada

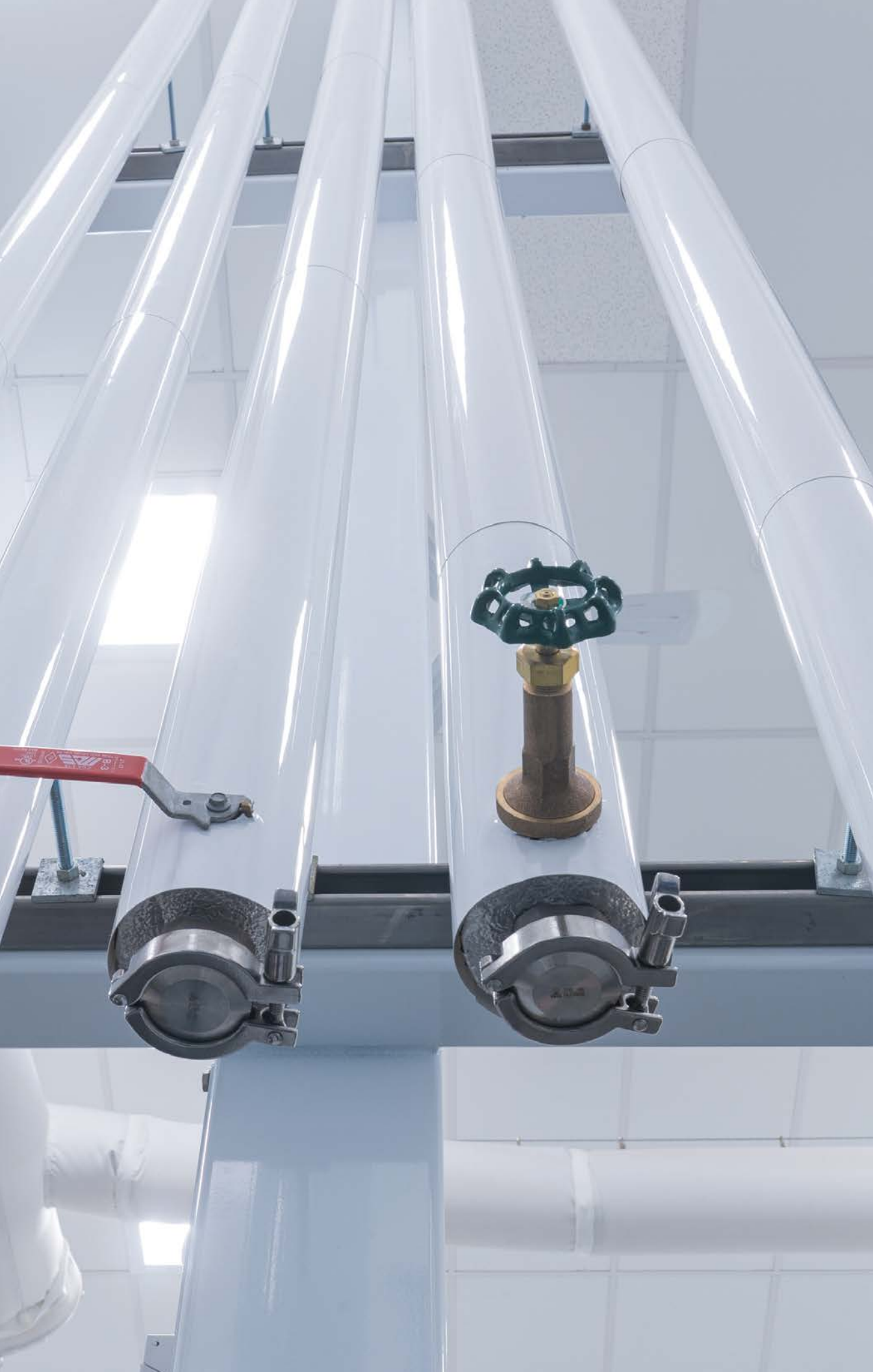
Canada

From start to finish:

Fermentation processes and testing

The Atypical Fermentation Facility at the National Research Council of Canada's Aquatic and Crop Resource Development Research Centre specializes in research and technology development for sustainable transformation of Canadian bio-based resources into higher-value products.

Located in Prince Edward Island, Canada, the facility has everything you need for your classic or custom fermentation project, whether you're looking to scale up, scale down, select a specific strain or optimize your processes. Our equipment is also well suited for processes requiring that extra element of customization and flexibility.



Our team specializes in atypical fermentation in a number of areas:

Host systems

- Marine and terrestrial microorganisms (bacteria, yeast and fungi)
- Filamentous and sporulating strains
- Environmentally constrained strains (e.g. anaerobes)

Feedstocks

- Non-classical carbohydrates (e.g. starches, lignocellulosic sugars)
- Other carbon sources (e.g. alcohols, organic acids)
- Mixed feedstocks (e.g. flours and residual streams)
- Solid-state and semi-solid matrices

Reactors

- A range of stock, custom and modular reactors with various
  - scales
  - aspect ratios
  - agitation systems

Atypical fermentation requires an atypical facility and innovative approaches to solving your technical challenges.

We have a variety of equipment for activities ranging from process and strain development to pre-pilot scale up. They include:

Process development and optimization: bioreactors from 100 ml to 10 L scale

- Multiple vessels at each scale for experimental replicates, including DASbox ®, DASGIP ® and SciVario ® parallel bioreactor systems
- Stock and custom bioreactors compatible with Eppendorf ® bioprocess systems

Process scale-up: sterilize-in-place (SIP) and clean-in-place (CIP) bioreactors from 20 L to 1,000 L

- Stock and custom bioreactors for a variety of process types and fermentation conditions
- Development- and pilot-scale downstream processing

Contact
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