

TechConnect Ventures

Sprint Challenge Brief:

Innovative Alternatives to Sugar

BACKGROUND

Regardless of the end product, every compound in a chemical reaction plays a part. The same is true in cooking and baking: every ingredient plays at least one role in the process: modifying viscosity up or down, altering color, adjusting the flavor profile and more.

Some might assume that the only role sugar plays in a food product is to provide sweetness, but it actually impacts other dimensions of the product as well including color, texture, and melting properties. Consequently, replacing sugar is not as simple as replacing one sweetener for another: change the sweetener and additional crucial parameters for consumer experience may also be impacted.

This is the problem modern food scientists are encountering: while some proposed alternatives can provide comparable sweetness to sugar, the other performance attributes are not the same and consumers notice.

The client for this project, a leader in the food and beverage space, is exploring alternative bulking agents (likely soluble fiber) that perform like sugar:

- Behaves like sugar when used in a food product
 - Texture
 - Melt profile
 - Browning
 - Low Glycemic index
 - Low Calorie/digestion resistant
 - Water Soluble
 - Easy to Crystallize
 - Natural or label friendly
 - Low Hygroscopicity
 - Food safe or potential to be
 - Well Tolerated
- Not considered to be a sugar by regulatory agencies

Additional performance desirables include:

- DP 3 – 20
 - Ideally DP 3 – 5
- Partially or completely indigestible
- Under 2.5 calories

Proposals describing bulking agents of advanced maturity are of greatest interest, however all technologies that have advanced beyond conceptual stage are of interest.

Representatives from the client team will review and evaluate all proposed technologies. Highly rated respondents will be contacted by TechConnect Ventures and invited to pitch their technology to the client.

The goal of this sprint is to facilitate contact and interactions between the Sprint sponsor and active researchers or technology developers in this space. Submissions and novel concepts from individuals and organizations in academia and research are of significant interest, but all viable technology providers are invited to respond for potential commercial opportunities with the client.

REQUIREMENTS

Solvers submitting an Entry are encouraged to highlight key innovation areas in their Submission that meet criteria including:

- Description of proposed polysaccharide
- Anticipated performance compared to sugar:
 - Solubility
 - Melt profile
 - Flavor profile
 - Texture
 - Crystallinity
 - Tg
 - Glycemic index
 - Digestibility/fiber content if known
 - Tolerance if known
- Anticipated end use(s)
- Amount available for evaluation
- Technical maturity

BUSINESS OPPORTUNITY FOR SOLVERS

All complete and eligible Entries will be included in an exclusive Innovation Opportunity Report that will be presented to our client. Solvers with well-matched capabilities may be contacted directly by either TechConnect Ventures or the client to discuss potential partnership opportunities, including – but not limited to – demonstrations, consulting, contract research, licensing, and more. Top-rated Entries may also be invited to register or participate in an upcoming TechConnect Ventures event or pitch program.

PARTICIPATION RULES & GUIDELINES

Solvers are encouraged to review the [Rules](#) and [Guidelines](#) provided on the Sprint page for details about participation, including submission criteria, eligibility information, and more.

QUESTIONS? Contact Executive Director, Nick Kacsandi at info@techconnectventures.com