

TechConnect Ventures
Sprint Challenge Brief:

Alternatives For Titanium Dioxide In Food

BACKGROUND

What do sunscreens, tattoos, plastics, and the Saturn V rocket all have in common?

The answer is Titanium Dioxide.

Titanium Dioxide (TiO₂) is an inorganic mined material that has found applications across many spaces including in coatings, paints, sunscreens, and food. In powder form, TiO₂ can be used to increase opacity and to add or improve color. Powdered TiO₂ is found in a large number of consumer products such as toothpaste, frostings, powdered food products, dairy products and more.

To diversify their ingredient portfolio, TechConnect Ventures' client, an international food and beverage corporation with billions in annual revenue, is seeking alternatives to TiO₂. In particular, the client is interested in learning about alternatives to TiO₂ that have been or could be adapted from other application spaces such as:

- Personal care
- Paints and coatings
- Ceramics and other engineered materials

Any proposed technology must be capable of:

- Remaining in a liquid suspension
- Avoiding settling
- Providing desired optical effects:
 - Opacity
 - Color
- Approval for usage in food and beverages

Potential pathways of interest include:

- Organizations possessing or developing new, novel food-grade alternatives to titanium dioxide
 - Innovative processing techniques for existing materials are also of interest
- Subject matter experts (SMEs) capable of providing guidance on selection of food-grade alternatives to titanium dioxide through:
 - Consultative engagement OR
 - Joint development OR
 - Contract research

While the client is primarily interested in commercial technologies, early-stage approaches are still of interest, provided that any proposed technology would likely be ready for commercial implementation within an 18 month timeframe.

The client is not interested in approaches that utilize calcium carbonate or similar chemistries. Likewise, technologies utilizing nanoparticles of any composition are out of scope.

The client team will evaluate all submissions and top-rated respondents will be invited by TechConnect Ventures to a pitch event wherein they will have the opportunity to interact with 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:

- Anticipated performance of proposed technology in:
 - Powdered beverages and/or
 - Confectionary products and/or
 - Other food products
- Current or anticipated regulatory status
- Anticipated annual volume
- Anticipated per unit cost
- 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