

URGENT CALL FOR INNOVATIONS: [COVID-19 SERIES](#)

Sprint Challenge Brief: Novel materials or media for micro-/nano-particulate filtration

BACKGROUND

In support of multiple global industrial partners, TechConnect Ventures is calling for Entries describing novel materials and media for filtration of micro- or nano-sized particulates, including airborne pathogens. With the onset of the SARS-CoV-2 pandemic, there has been an increased demand for innovations that can reliably filter particulates (including virus) in both the industrial and general consumer sectors (e.g. face masks, PPE, etc.) through a variety of mechanisms (mechanical, electrostatic, hybrid), including:

- Filters at least $\geq 95\%$ of particles that are greater than 3 microns in diameter [required]
- Filters at least $\geq 95\%$ particles that are greater than 0.3 microns in diameter [desired]

TechConnect Ventures has significant reason to believe that next-generation solutions may already exist with these capabilities including:

- Natural and synthetic materials
- Woven, non-woven, bonded, and knit materials
- Maintains filtration abilities in variety of environments such as humidity and heat
- Materials that can be re-used or washed

Submissions and novel concepts from individuals and organizations at all levels are invited, including the academia, research, commercial and government sectors.

REQUIREMENTS

Solvers submitting an Entry should be encouraged to highlight key innovation areas in their Submission, with particular focus on (if applicable) performance, reliability, biocompatibility, comfort, fit, and reusability, including:

- Discussion of end application or use
- High filtration efficiency of particle sizes 0.1 μm – 3 μm .
- Durability
- Maintains performance in variety of environments such as humidity and heat
- For mask applications,
 - Flexible, adjustable or moldable
 - Does not inhibit normal respiration
 - Reusable, washable, or compatible with disinfection techniques for long-term use

Enabling technologies, manufacturing techniques, material treatments, coatings or other innovations that can improve the performance or useability of existing filter technologies are of considerable interest for this Sprint.

BUSINESS OPPORTUNITY FOR SOLVERS

All complete and eligible Entries will be included in an exclusive Innovation Opportunity Report that will be presented to our consortium of innovation-seeking clients and partners. Solvers with well-matched capabilities may be contacted directly by consortium members to discuss potential partnership opportunities. Top-rated Entries may also be invited to register or participate in an upcoming TechConnect Ventures event or pitch program.

EVALUATION

TechConnect Ventures and the members of its COVID-19 coalition will review all submissions within 4-6 weeks of the Submission Deadline. Based on the nature of the innovation and strength of the response relative to all submissions received, top innovators may be selected for further discussions, pitches or proposals which may lead to contractual or commercial engagements for the research, development or commercialization of the most promising technologies.

QUESTIONS?

Contact info@techconnectventures.com and reference the Sprint Topic.

PARTICIPATION RULES & GUIDELINES

1. You must complete the provided Submission webform on the Sprint Submission page.
2. You are encouraged to submit a short presentation or pitch deck. A template is available on the Submission page.
3. **3. DO NOT INCLUDE ANY INFORMATION MARKED CONFIDENTIAL, PROPRIETARY, SENSITIVE OR CLASSIFIED. SUBMISSIONS MARKED AS SUCH WILL NOT BE SHARED WITH CLIENTS.**

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