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Corporate Innovation Challenge: Microbiome Modulation for Gum Health

Oral Health | Open to Academic & Industry Submissions | Posted: March 2026
Deadline for Submission - May 1, 2026 at 11:59pm BST! ⏰

Submitted solutions will be reviewed between May 15 - June 15, at which point you will be notified if your submission has been shortlisted to proceed to the next round of analysis and technical discussion. Potential funding opportunities for selected submissions will be discussed at the following stage.

A Scientifically Significant Problem

The oral microbiome is increasingly recognised as a dynamic ecosystem whose disruption — dysbiosis — is the primary aetiological driver of gingivitis and, if left unresolved, periodontitis. The clinical and systemic consequences are substantial: periodontitis is now robustly associated with diabetes, cardiovascular disease, and cerebrovascular events, making the oral microbiome a compelling target with broad translational relevance.

We are inviting submissions from leading researchers who can offer ingredient-based solutions capable of:

- **Protecting** a healthy microbiome against dysbiotic transition, thereby reducing gingivitis onset
- **Treating** early-stage dysbiosis and incipient gingivitis to restore microbial balance
- **Building Resilience** — shifting the microbiome toward a robustly stable, healthier state

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The Opportunity for Academic and Industry Researchers

This challenge offers both academic researchers and industry innovators the opportunity to translate their science into real-world consumer health impact — at scale.

We are seeking ingredient-based solutions suitable for incorporation into **everyday oral care consumer products**. We actively welcome submissions from organisations and experts whose primary work sits outside oral care — including those working in gut, skin, or environmental microbiomes, or in adjacent ingredient and biotechnology sectors — where the underlying science could translate into an orally compatible ingredient.

In-Scope Solution Types

Prebiotics Ingredients that selectively support beneficial oral microbes, enabling competitive exclusion of gingivitis-associated species, or that produce a broadly favourable shift in microbiome composition.

Postbiotics Inactivated microorganisms (e.g. heat-killed/tyndallised) and/or their defined metabolites or structural components that, when delivered into the oral cavity, positively modulate the microbiome in favour of health-associated species.

Oral Environment Modifiers Ingredients that alter the physicochemical or biochemical environment of the oral cavity — including at the gingival margin — to selectively favour health-associated microbial populations.

We also welcome submissions from researchers working in **computational microbiome modelling** or **AI-driven discovery**, where outputs could be translated into a tangible ingredient meeting the scope criteria.

While the final application is oral care, we encourage proposals from organisations whose technologies originate in microbiome therapeutics, microbial metabolite discovery, computational microbiome modelling, or AI-driven discovery platforms, provided that the resulting solution can translate into an ingredient compatible with consumer oral care products.

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❌ **Out of scope:** Probiotic (live microorganism) solutions are explicitly excluded from this call.

Key Requirements

Criterion	Requirement
Product Format	Compatible with conventional oral care products; Preferred formats: Toothpaste and Mouthwash
Formulation Compatibility	Compatible with standard oral care excipients: fluoride, surfactants, flavours
Regulatory Status	GRAS status preferred; established safe-use history in oral care also considered
IP / Freedom to Operate	FTO in major markets (UK, EU, US, China, India) essential; patentable IP preferred
Cost Profile	Low-to-medium cost ingredients; Rx-level actives are out of scope
Launch Readiness	Deliverable into a product for launch by **2030**
Geography	All geographies in scope

Evidential Standards

We welcome submissions at a range of evidential stages:

- **In vitro data** from laboratory or ex vivo models demonstrating relevant oral microbiome modulation *(preferred)*
- **Theoretical frameworks** grounded in established microbiological, biochemical, or ecological understanding

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- **In vivo / human clinical data** on microbiome impact, substantivity, and kinetics *(highly valued where available)*

Development Stage & Collaboration Opportunity

Solutions at different stages of development are welcome.

Ready-to-implement ingredients that already meet the scope requirements (e.g., compatible with oral care formulations and regulatory expectations) may be considered for rapid evaluation and potential integration into product development pipelines.

Early-stage technologies that demonstrate a clear scientific rationale and potential to meet the scope criteria may also be considered for collaborative development.

For early-stage technologies requiring further validation or adaptation, collaborative development funding opportunities may be available, *including:*

- Proof-of-concept validation studies
- Ingredient translation into oral care formats
- Oral microbiome impact characterisation

Technologies originating in adjacent microbiome fields (gut, skin, environmental) are strongly encouraged to apply if cross-application potential exists.

If you have relevant expertise, technology, or data — or know someone who does — we'd love to hear from you. Please respond with a brief overview of your solution and supporting evidence.

Who Should Apply

We are seeking submissions from academics, ingredient suppliers, biotechs, start-ups, and research organisations with expertise in one or more of the following:

- Oral microbiology and the oral microbiome
- Prebiotic and postbiotic science and formulation

- Microbiome ecology, modulation, and resilience
- Oral care product and ingredient science
- Regulatory science for consumer health ingredients

Submissions are welcome at all stages of development — from early-stage technologies with strong scientific rationale through to implementation-ready ingredients.

Submit Your Technology Solution

If your research addresses this challenge — directly or through adjacent science with translational potential — we would welcome a brief overview of your solution and any supporting data or frameworks.

We also encourage you to share this challenge with colleagues whose work may be relevant.

[Submit your solution by May 1, 2026 11:59 BST] → **Submission Form**

Please contact cais.jurgens@crowdhelix.uk with any questions regarding the challenge or your submission.