

Synthetic Biology Approaches for Sustainable Production of Chemicals for the Fabric, Home Care and Beauty Industries



Procter & Gamble, a world leading consumer goods company, is seeking synthetic biology expertise and approaches to produce platform chemicals, surfactants, chelants, polymers, perfume raw materials and enzymes. The Procter & Gamble team is looking to explore solutions for sustainable, scalable production of chemicals (and their precursors) for use in the fabric, home care and beauty industries.

The team has specific interests in sustainable synthesis of C1/C2 chemistry (platform chemicals) and long chain C12-14 and C16-18 chemistry, e.g. long chain fatty acids/alcohols and oils.

Approaches of Interest

The team is open to any novel and scalable synthetic biology approaches that can be applied to make production processes more sustainable and cost-effective. There is a particular interest in:

- Valorisation of CO₂, formate or methanol using biological processes (including fermentation, cell-free processes, photosynthesis), to generate Consumer Goods ingredients
- Synthetic biology techniques to produce platform chemicals (e.g. methanol, ethanol, ethylene), detergent actives (including linear alkylbenzene sulfonate (LAS)), and long chain fatty acids/alcohols and oils
- Consumer Goods ingredients which are of particular interest for sustainable manufacturing:
 - Cleaning polymers, chelants, and surfactants (or their precursors e.g. fatty acids/alcohols, ethylene and L-alanine), including sustainable routes to linear alkylbenzene sulfonate (LAS)
 - Production of common solvents (e.g. propanediol) or alternatives for solvents
 - Aromatic chemistry approaches for low carbon footprint perfume raw materials
 - Enzymes with the ability to make detergent ingredients or be used in low temperature cleaning applications

Developmental Stages of Interest






- Opportunities at all stages of development are considered. However, approaches that have clear potential to be scalable and cost-effective are of particular interest
- Technology readiness level (TRL) of the approach should be stated where relevant

Submission Information and Opportunity for Collaboration

Submission of one page, 200-300 word briefs are encouraged, along with any supplementary information e.g. relevant publications. In submitting to this campaign, you confirm that your submission contains only non-confidential information.

Our client is open to a range of collaboration opportunities, with the most appropriate outcome being decided on a case-by-case basis. Example outcomes include licensing assets, project funding, and joint research collaborations.

Opportunities sought

-  Technologies
-  Academics and expertise
-  Centres of excellence
-  Research projects
-  Spinout companies

Submissions

Please submit relevant, non-confidential opportunities online via: discover.in-part.com

Deadline: **4th September 2023 - 10:59 pm GMT**

Have any questions?

Contact our team at discover@in-part.co.uk



