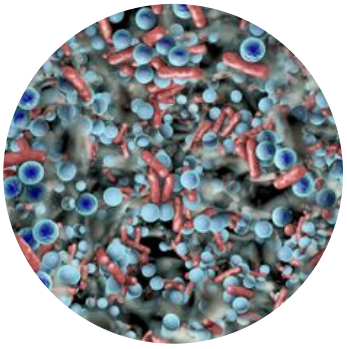
IN-PART DISCOVER

Industry Call for Opportunities

Advanced Materials for the Generation of Bio-Based Products via Immobilised Non-Mammalian Organisms



A privately held, US headquartered, multinational materials science company (>$4B revenue) focused on discovery and product innovation is seeking collaborative opportunities to develop materials and process technologies for the **immobilisation or encapsulation of live non-mammalian organisms for use in fermentation**. In particular, our client is looking for **substrates for biofilm formation**, **bioreactor technologies suited for said substrates as well as technologies that have the ability to reduce/remove diffusion limitations within a biofilm and/or increase useable cell densities within a bioreactor**.

Approaches of Interest

- Centres of Excellence in growing and modelling the growth of biofilms (ideally with a focus on 3D structured materials) e.g., how biofilm growth can be controlled through media composition, temperature, time, shear, etc.
- Research groups developing novel materials or support structures for biofilm formation
- Research groups developing novel reactor schemes for use of structured biocatalysts (biofilm or other immobilisation techniques)
- Key opinion leaders in industrial biotechnology that can speak to the TRL, advantages, challenges related to the industrial scale use of the technologies mentioned above and what barriers exist in the field
- Expertise in tailoring cell/substrate interaction
- Strategies to improve the productivity of immobilised organisms

Stage of Development

- Technology readiness level at TRL 2 and above is of interest

Out of Scope

- Mammalian cell organisms or enzyme only processes (expertise in comparing biofilm and enzymatic processes is of interest)
- Approaches for water treatment application
- Technologies that leverage discrete, small geometry substrates such as beads, particles, self-aggregation (flocculation), crosslinking of cells, etc.
- Strategies focused on the manipulation of the DNA of organisms to achieve increased productivity/viability (except for a focus on improving or creating the ability to generate a biofilm)

Submission Information

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

Opportunity for Collaboration

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/PhD/Post-Doc funding, research collaborations, and consulting agreements.

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: **24th January 2022 - 11:59 pm GMT**

Have any questions?
Contact our team at discover@in-part.co.uk