Seeking Novel Encapsulation Technologies for Functional (and other) Beverage Ingredients

An increase in health awareness by consumers has led to an increased demand for functional beverages. However, many functional ingredients present challenges (e.g., stability, solubility, taste) in low pH beverages, particularly in production or shelf-life. PepsiCo is looking for encapsulation technologies for various functional (and other) ingredients in beverages. Ideally the technology can work across various beverage systems and ingredients, however multiple technologies for different systems/ingredients are also of interest.

Solutions should have strong commercial feasibility, with key factors being scale-up, cost, regulation, and whether it can be a platform for many diverse ingredients. Research with potential to complete proof of concept within 6-18 months is preferable.

Approaches of Interest:

PepsiCo is interested in encapsulation technologies for multiple ingredients including hydrophobic or oil-soluble ingredients, and hydrophilic or water-soluble ingredients. Ingredients of interest can include things like (but not limited to) botanicals, natural colourants like anthocyanins, and vitamins.

Essential research requirements:

- Safe to consumer with safety data to understand toxicology effects
- The encapsulant is stable in acidified beverage with a neutral pH trigger
- The encapsulant is stable both in concentrated and diluted system
- Stable in pH 2.7-3.2 beverage at ambient for 6-9 months (no sedimentation or phase separation)
- Stable after thermal process (approximately 200-205F for 33 seconds)
- No or minimal sensory impact to final product
- Minimum 6 months ingredient shelf-life

Preferred (non-essential) requirements: Long shelf-life (12 months or more), consumer friendly label (no harsh names), accommodate substrate load of at least 50%, deliver substrate ranging from 150-600ppm in the finished beverage.

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. Repeat submissions to PepsiCo should contain new research developments.

PepsiCo is open to a range of collaboration types with the most appropriate outcome determined on a case by case basis. Examples include licensing assets, project funding in the region of $25,000 to $100,000, and research collaborations with support provided by PepsiCo expertise.

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: 5th December 2022 - 11:59 pm GMT

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

PepsiCo is a global food and beverage leader with a product portfolio including many iconic brands that generate more than $1 billion each in annual retail sales, and are enjoyed in more than 200 countries and territories around the world.