

## Selectively Printing Molecules and Generating Images on Curved Polymers

A global healthcare company with a history of successful academic collaborations is looking to identify research focused on **printing molecules and/or images on polymers for use in contact lenses and intraocular lenses**. This interest covers a wide range of polymers, such as hydrogels, silicone hydrogels, acrylics, and injection moulded plastics.



### Research Approaches of Interest

1) **The ability to print/transpose an image with high resolution (<math><10\mu\text{m}</math>) on a curved polymer**, e.g. onto a silicone hydrogel contact lens, with the aim of enhancing features/the appearance of the eye.

- This can incorporate either one or multiple images, which can be selectively applied to specific locations on the curved polymer
- Pigments, dyes or other molecules (which can be organic, soluble or inorganic) with particle sizes up to  $50\mu\text{m}$  are suitable
- These images can be created with multiple primary or blended colours, and can be multi-layered, and images can be incorporated either during or after the lens fabrication process
- Chemical engineering and physical chemistry approaches in printing that could be repurposed for contact lenses

2) **Technologies that could benefit eye health, such as wetting agents or therapeutic agents** that could be incorporated into the printing/polymer contact lens areas of interest.

- As the solutions to be printed may contain monomers or macromers, it is acceptable to use higher viscosity printing solutions to accommodate this (up to 1,000 cP)
- Images that are resistant to being rubbed off/removed during sterilisation processes would be ideal, but not essential

### Stage of Development

Opportunities from basic through to phase I of clinical trials are within scope.

### Out of Scope

- 'Smart' contact lenses





### Opportunity for Collaboration

Our client is seeking a partner/collaborator with unique expertise or assets in the field of contact lens/polymer printing and fabrication. The ideal scenario would involve starting collaborations with the teams behind the submitted opportunities.

### Submission Information

Submission of one page, 200-300 word briefs are encouraged, along with other relevant materials such as publications, patents etc. In submitting to this campaign, you confirm that your submission contains only non-confidential information.

## 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](https://discover.in-part.com)

Deadline: **9th August 2021 - 10:59 pm GMT**

### Have any questions?

Contact our team at [discover@in-part.co.uk](mailto:discover@in-part.co.uk)