

# GlycoCoat

## Carbohydrate Coatings for Antifouling Applications



### Basic overview

*This technology enables the coating of a range of materials, including carbon, metals, alloys and plastics with synthetic carbohydrates. The carbohydrate coating can modulate biological response and promote non-biocidal antifouling.*



### Technology and Patent Status

The process involves a one step solution phase modification of surfaces that allows efficient and robust immobilisation of a wide range of carbohydrates. The core technology involves the preparation of suitable carbohydrate reagents and the methodology for the coating step.

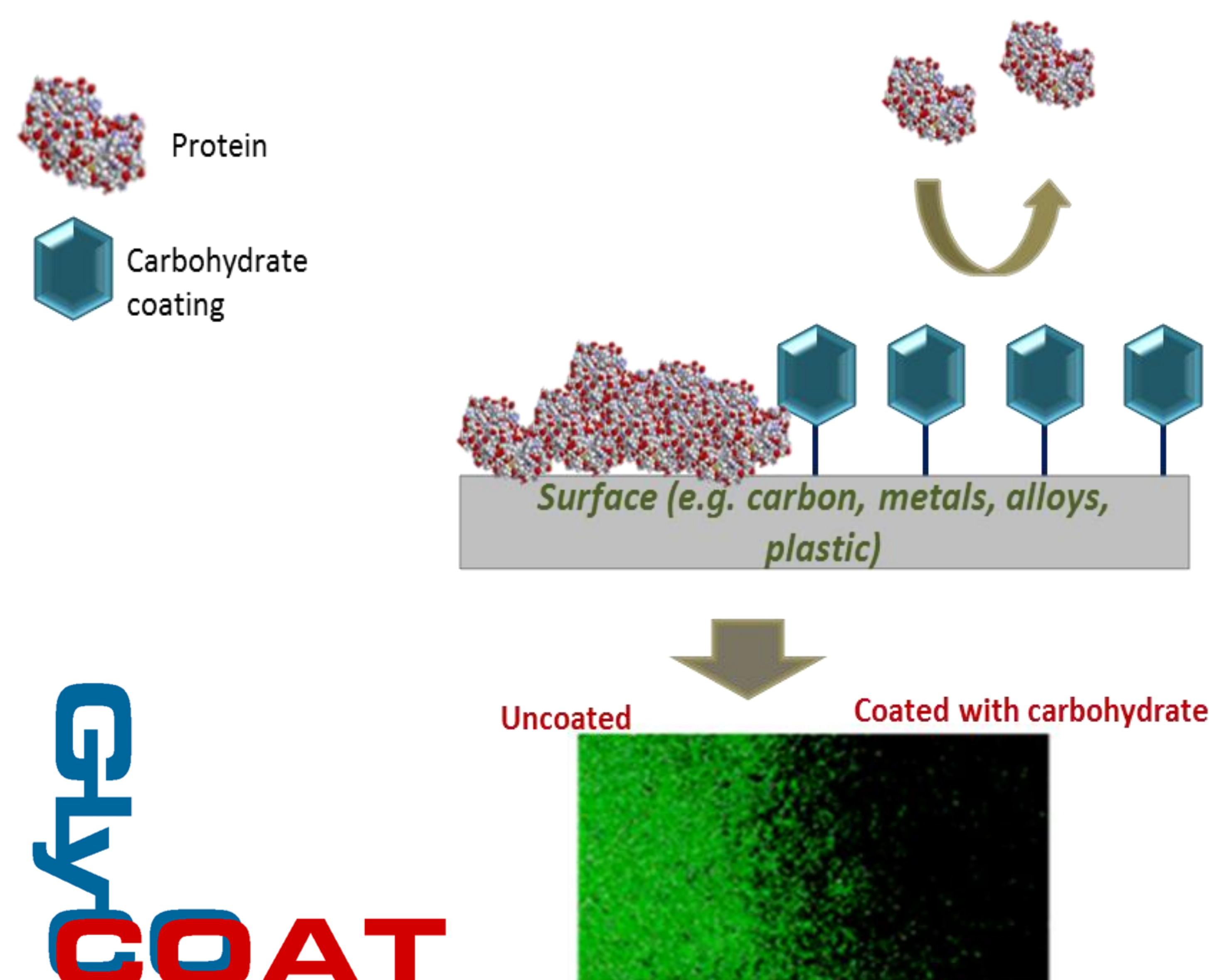
European preliminary patent application filed October 2012.

### What Problem does it Solve/Advantages

- GlycoCoat technology is designed to prevent biofilm formation at the very early stages by inhibiting the initial microbial binding interactions with the surface.
- GlycoCoat can be applied in a single step to any surface during manufacture, e.g., via spray, spin, dip-coating.
- The technology is suitable for surfaces that are not readily accessible for mechanical cleaning or materials that are deployed remotely for long periods of time.
- The technology is passive and will not result in damage to the coated surface or material.
- The methodology can be applied to a wide range of materials including carbon, alloys, stainless steels and some polymers.
- Reagents used in the coating process are chemically bound to the surface and do not 'leach' into the environment.
- Compounds used in GlycoCoat are non-biocidal, therefore environmentally friendly.

### Possible Applications

- Control and prevention of biofouling is important for a wide range of end-users.
- Bioactive, non-toxic, anti-fouling coatings for sensors, medical devices, food processing apparatus, marine devices.
- Antimicrobial and antifungal coatings for food packaging, textiles and agricultural applications.
- Protection of any surface where biofouling can compromise the quality of the device, product or process.



### The opportunity

This technology is currently in development stage and is available for license to a company who is interested in antifouling surfaces for marine devices, medical devices, implants, sensors or food processing. Our technology can be used to integrate the bioactive antifouling properties of carbohydrate coatings into any of these products.

Please contact us if you would like to support research in this area. We are looking for industrial partners; there are various support mechanisms and grants suitable for furthering the development of this technology.