

Applying Homogenous Catalysis in the Wass Research Group

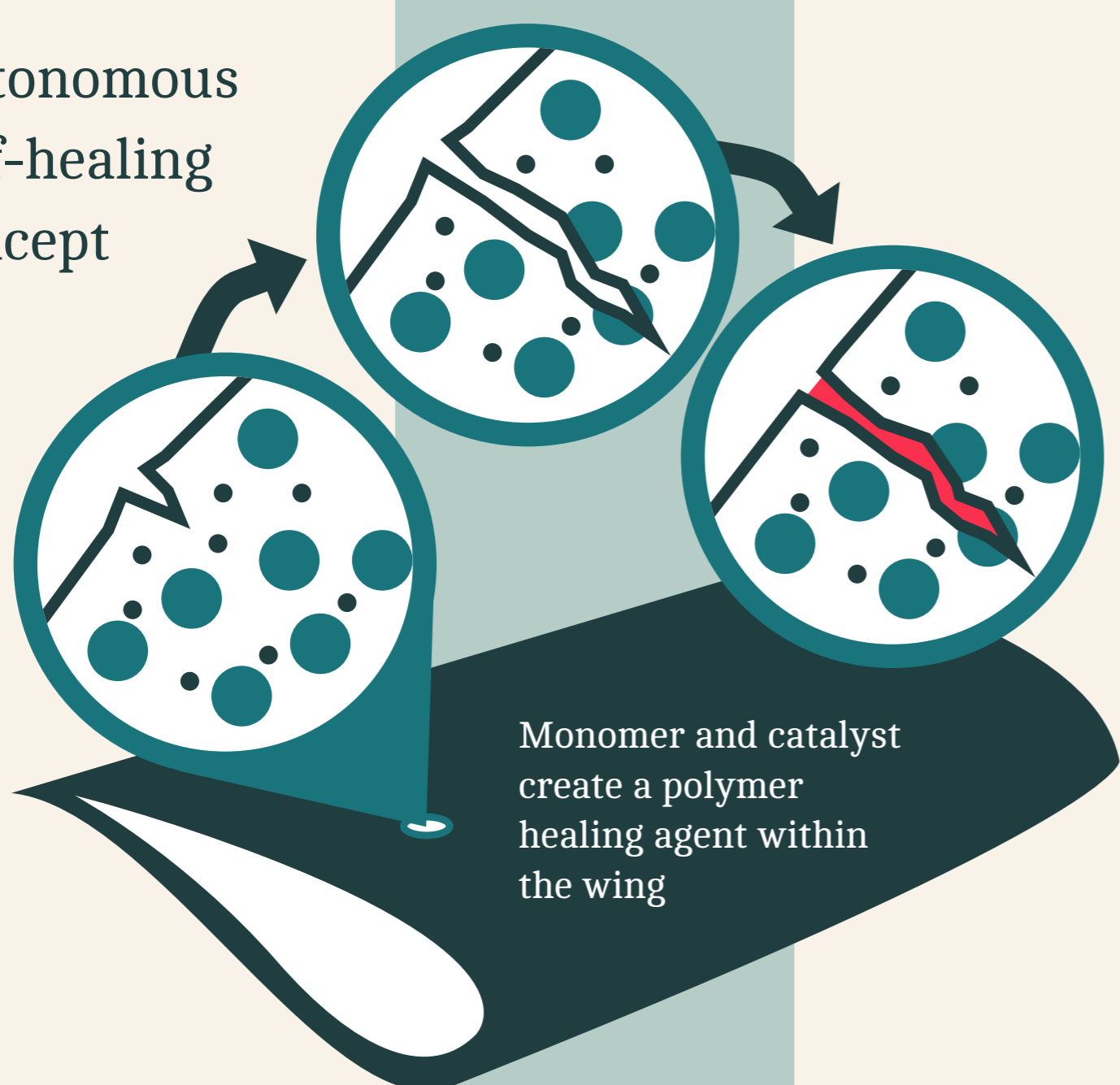
Self-Healing Composite Materials



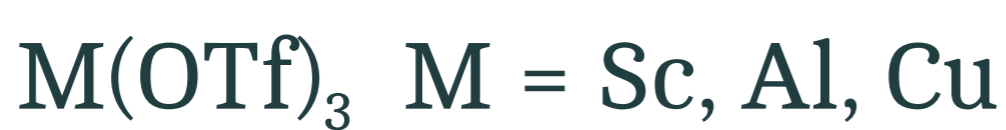
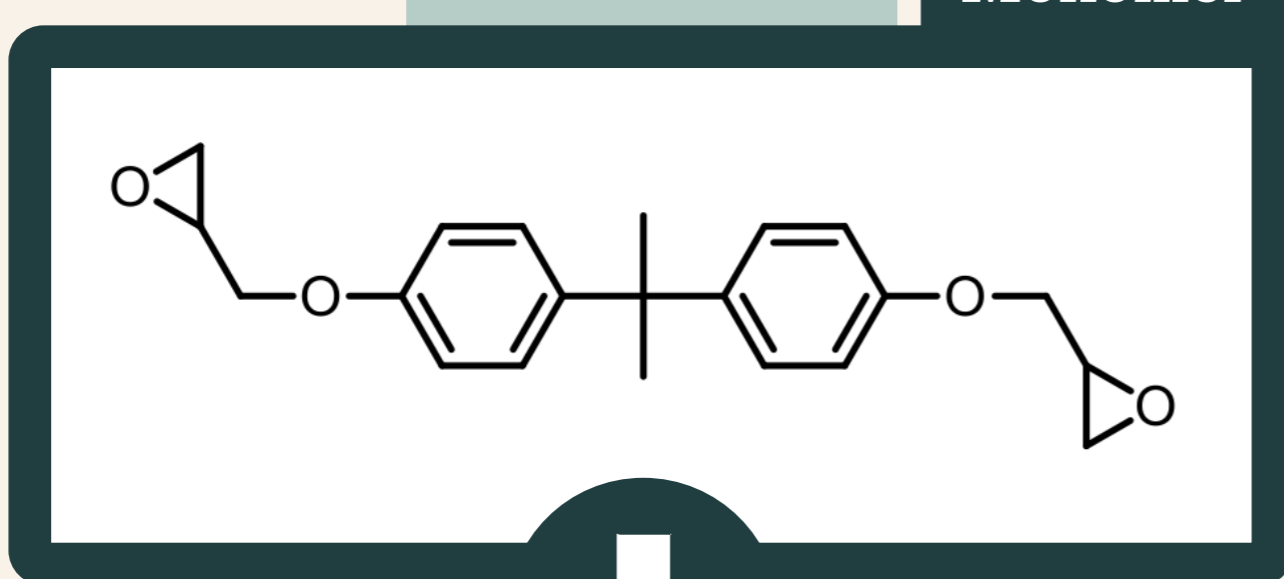
We take out inspiration from nature – if the human body gets damaged, it repairs itself. What about aeroplane wings that do the same?



Autonomous self-healing concept

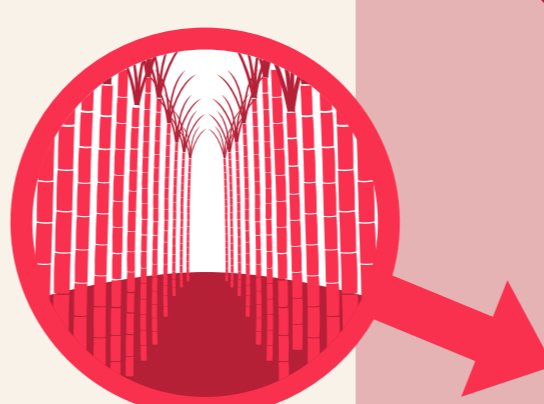


Monomer



Catalyst

Upgrading Ethanol to Advanced Biofuels



Fermentation

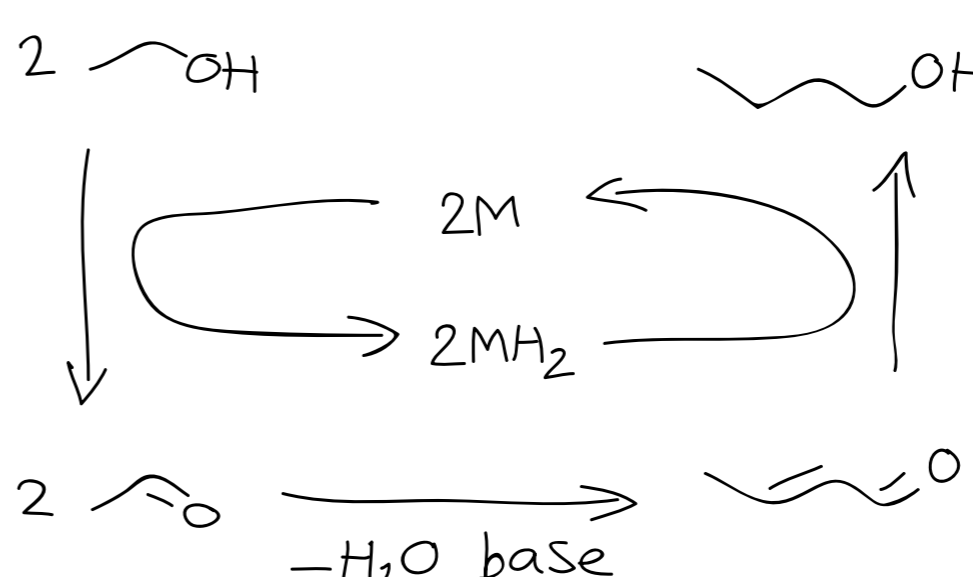
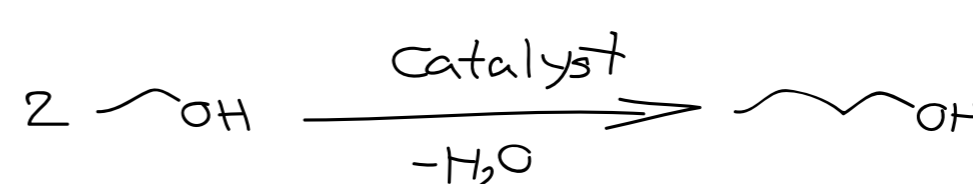
Distillation

Bioethanol

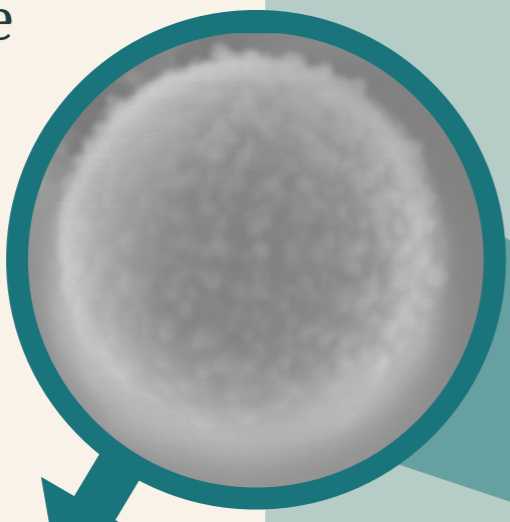
Ethanol can be used as a fuel but Butanol is a much better petrol replacement

Our approach

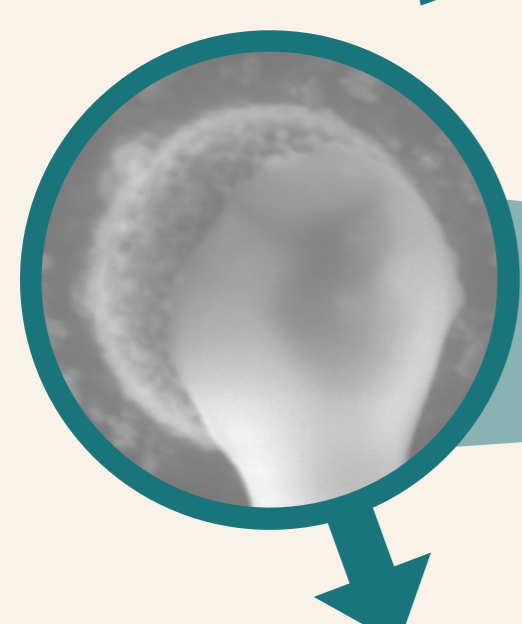
Upgrade Ethanol to Butanol



Monomer-filled microcapsule



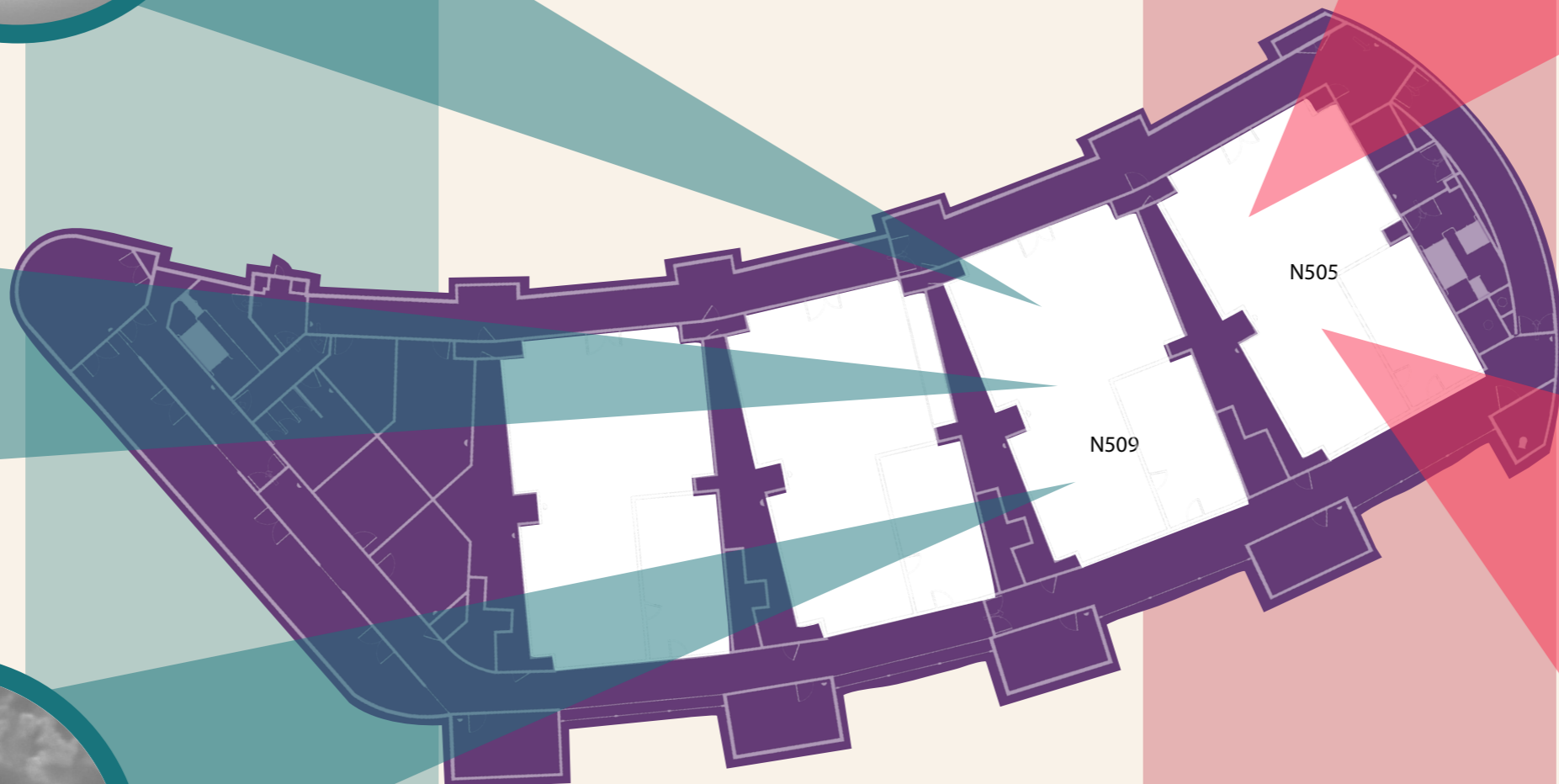
Bursting microcapsule



Empty microcapsule



Bristol Synthetic Chemistry Labs



A new family of extremely selective catalysts

