

Microfluidic Technologies: From Systems Biology to Biological Systems

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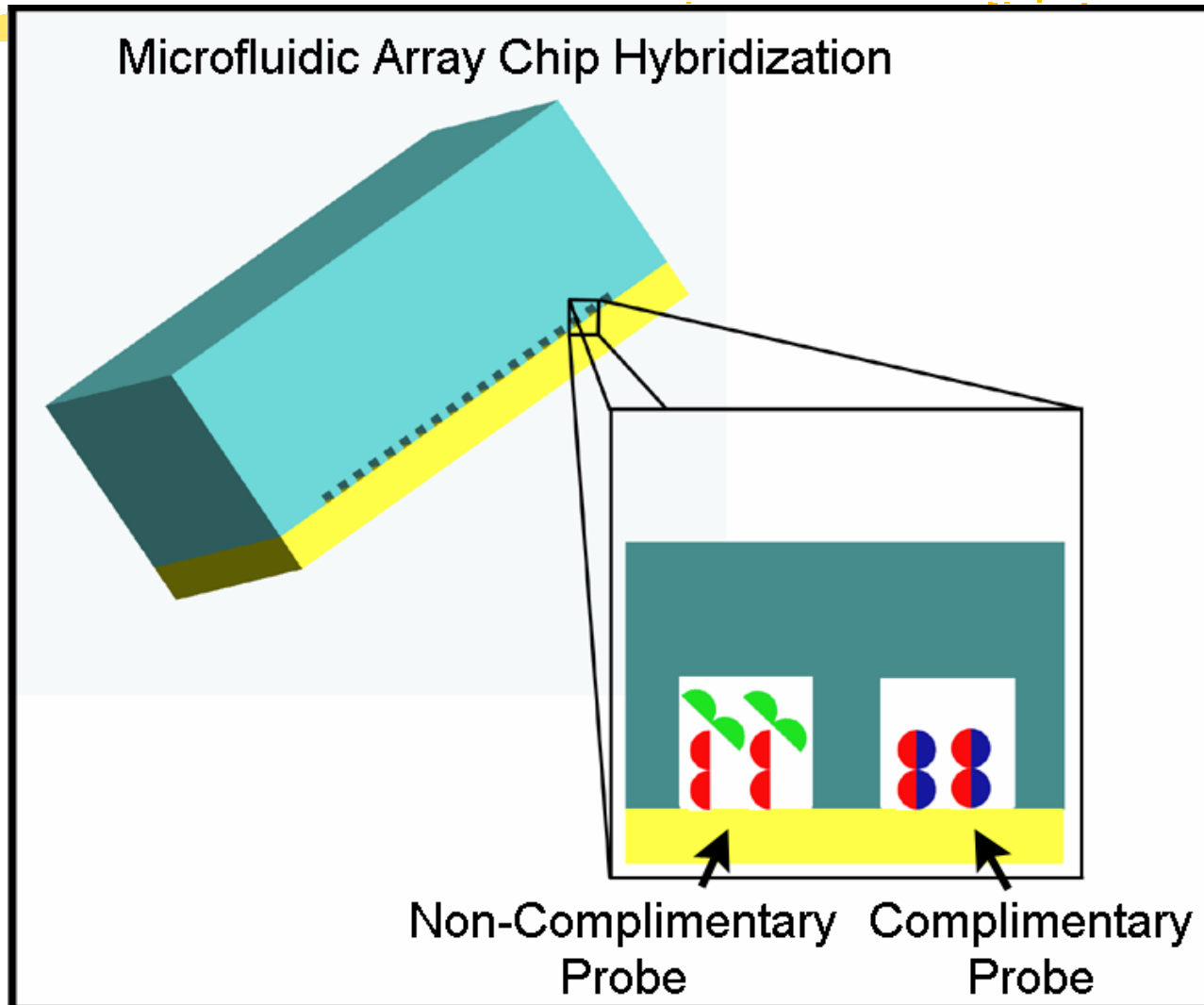


Cell-free Enzyme Engineering in Microdroplets

- ⌘ Dynamic *in vitro* protein synthesis in microdroplets the size of a human red blood cell
- ⌘ Applications in biotechnology and medicine



Microfluidic Hybridization Arrays for Biochemical Screening



Artificial Microfluidic Lungs

- ⌘ Alternating electrical and fluidic elements, potential for high stacking density
- ⌘ Energized metallic films produce oxygen required for tissues
- ⌘ Utilizes planar microfabrication techniques

