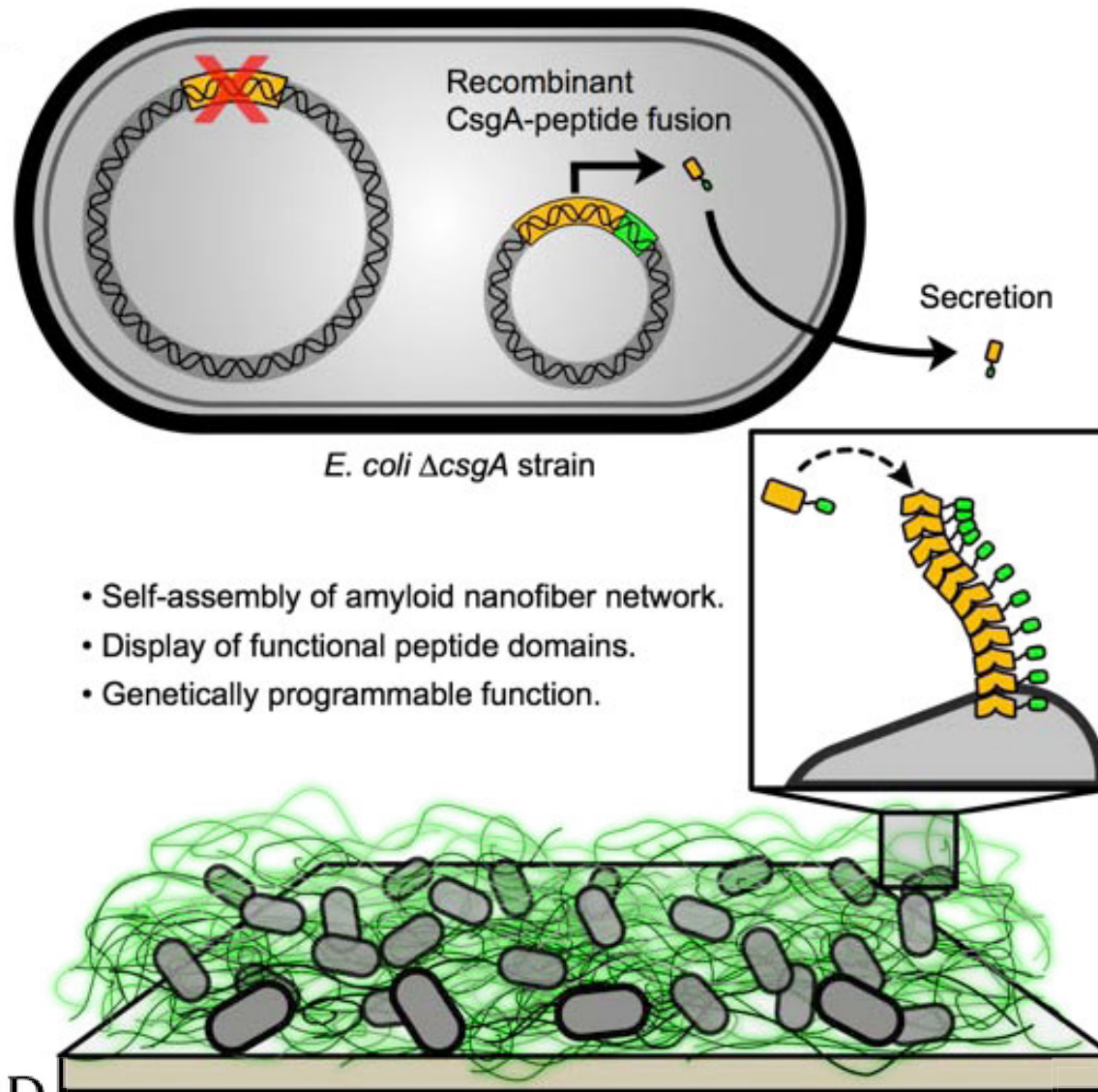


# Biofilm Integrated Nanofiber Display (BIND)



[neel.joshi@wyss.harvard.edu](mailto:neel.joshi@wyss.harvard.edu)

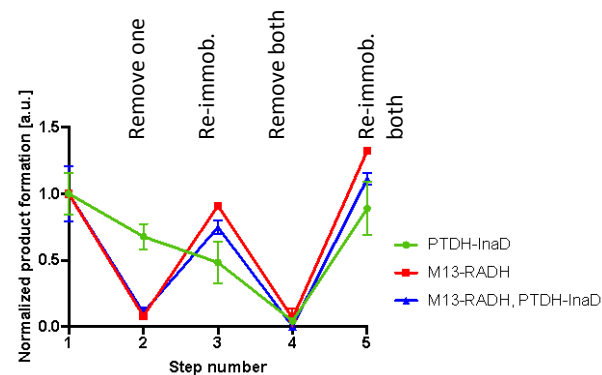
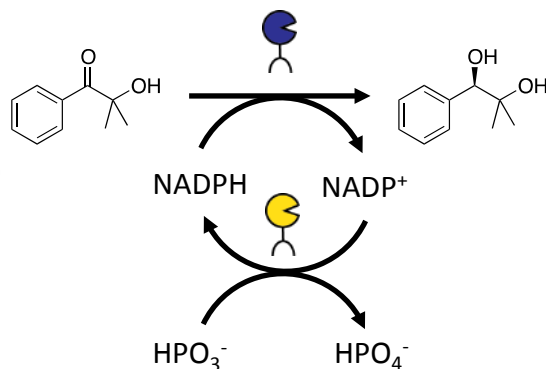
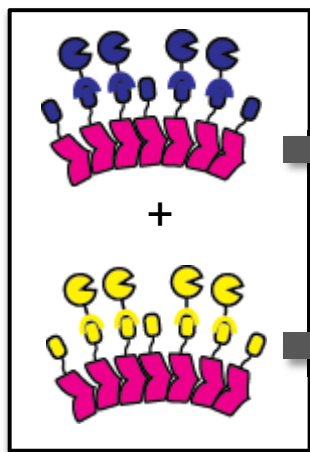
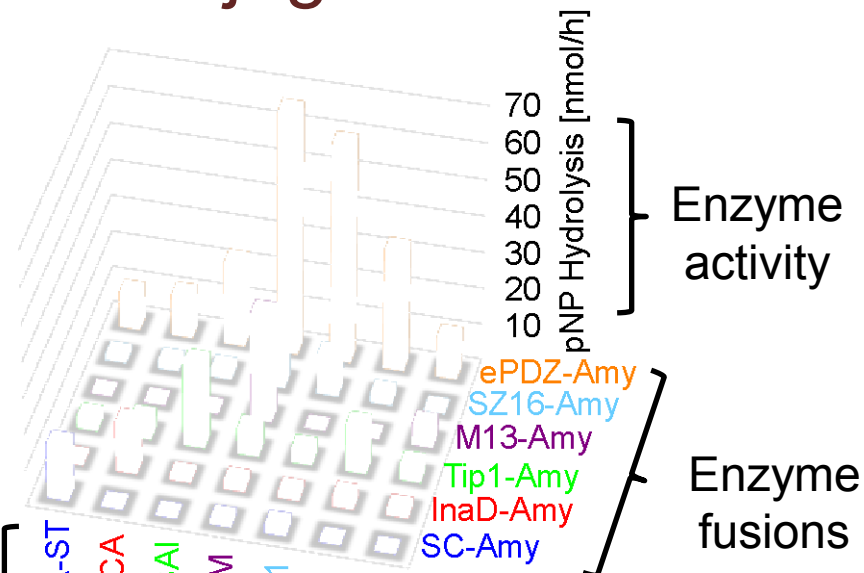
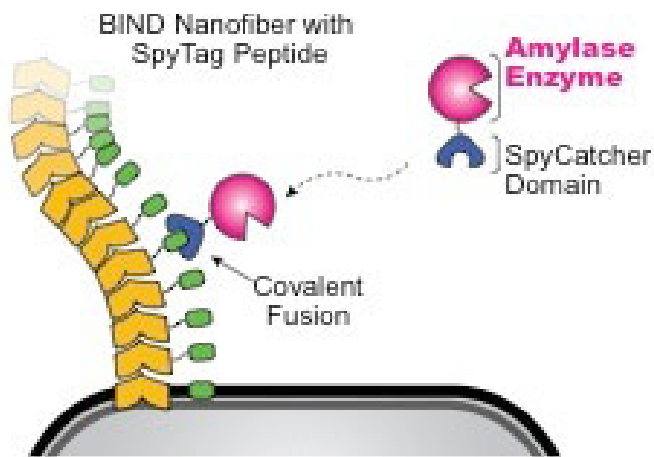


**HARVARD**  
John A. Paulson  
School of Engineering  
and Applied Sciences

WYSS  INSTITUTE

Nguyen, et al. *Nat Comm* 2014 5:4945

# Mutually orthogonal enzyme conjugation domains

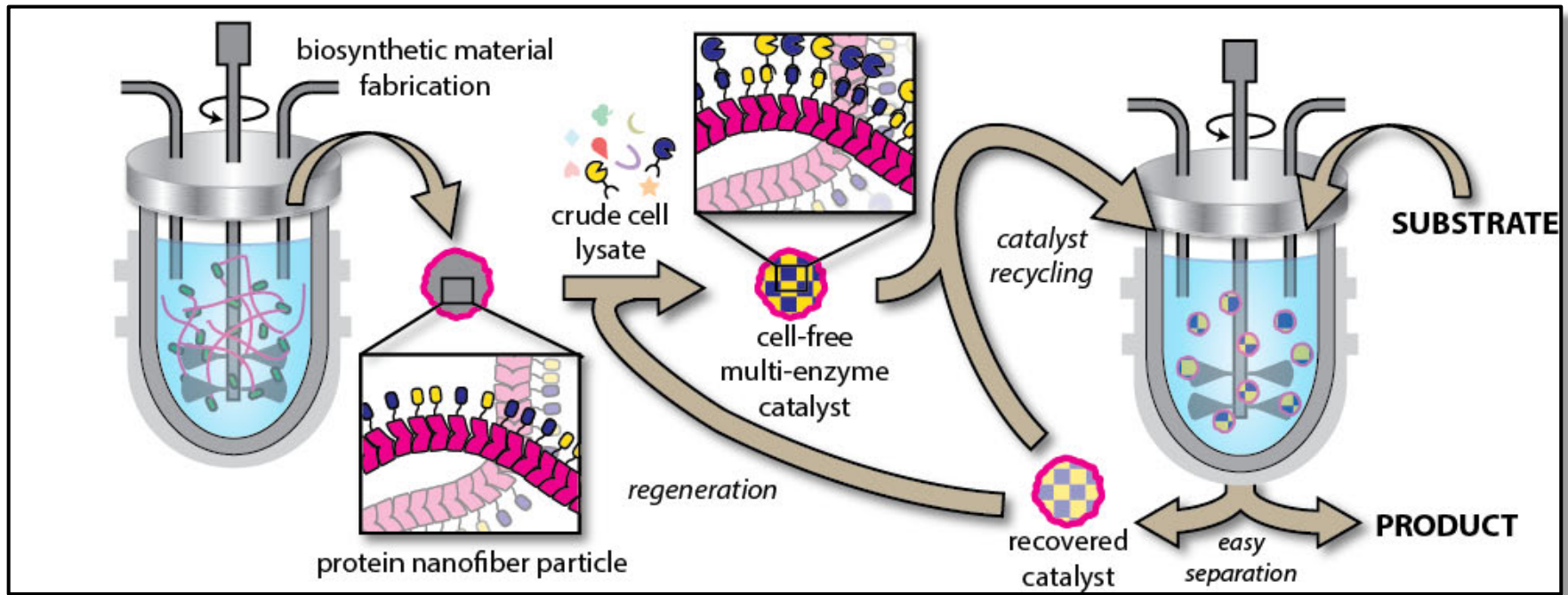


Scaffold fusions

- CsgA-ST
- CsgA-EFCA
- CsgA-WRESA
- CsgA-CaM
- CsgA-SZ21
- CsgA-Ctag
- CsgA wt

[neel.joshi@wyss.harvard.edu](mailto:neel.joshi@wyss.harvard.edu)

# Boot-strapped biocatalysis



## Capabilities:

- Site-selective immobilization without purification
- Material produced by scalable fermentation
- Selective removal and reimmobilization of enzymes

## Interests:

- Specialty chemical synthesis
- Water decontamination
- Custom materials manufacturing
- Resource extraction