

# Nanomedicine and Nanoscale Delivery II

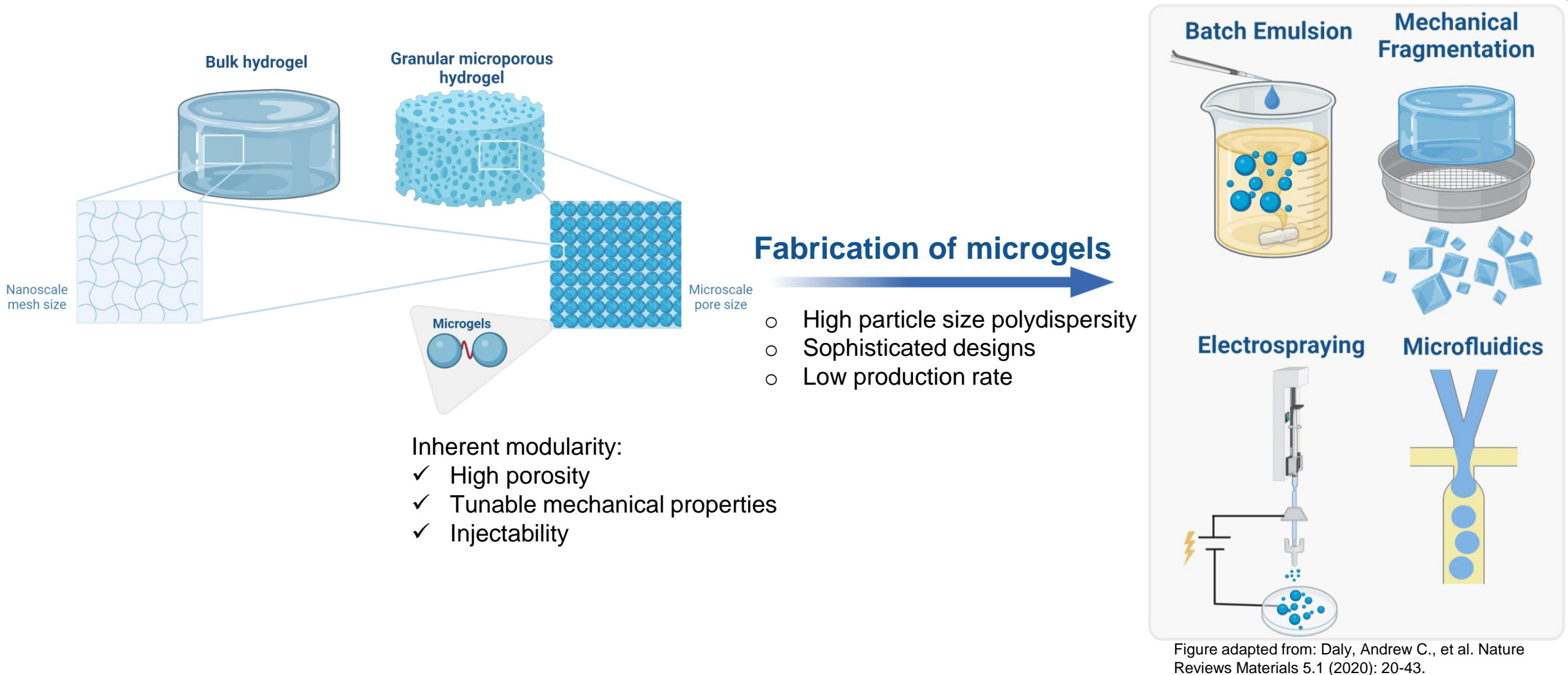
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Poster #496

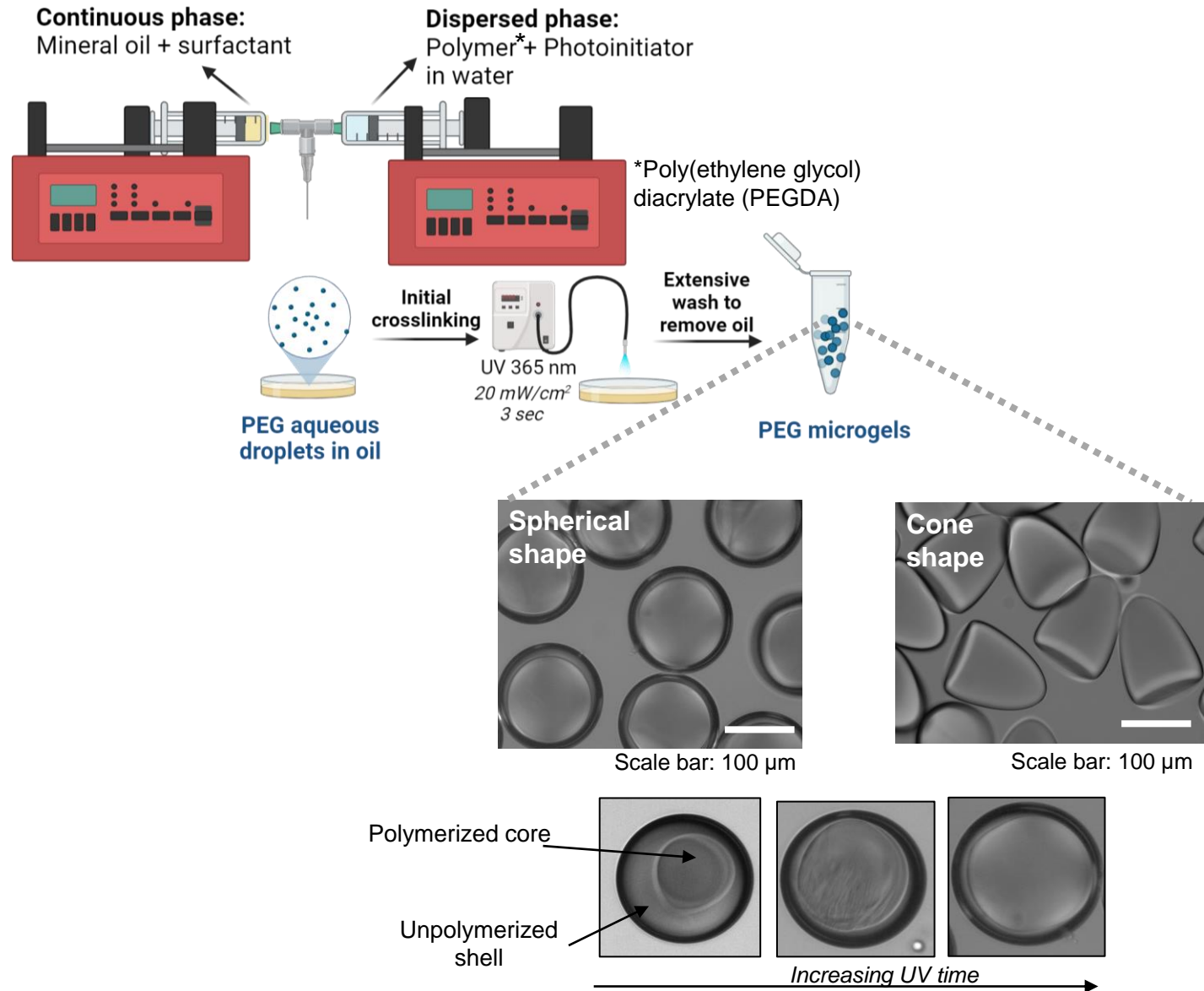


# Streamlining granular hydrogel fabrication for drug delivery

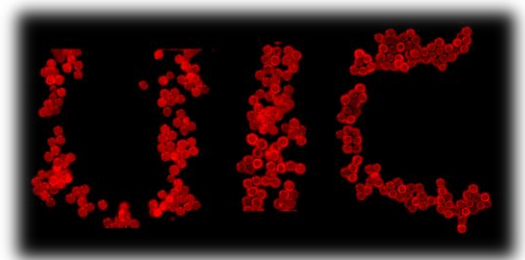
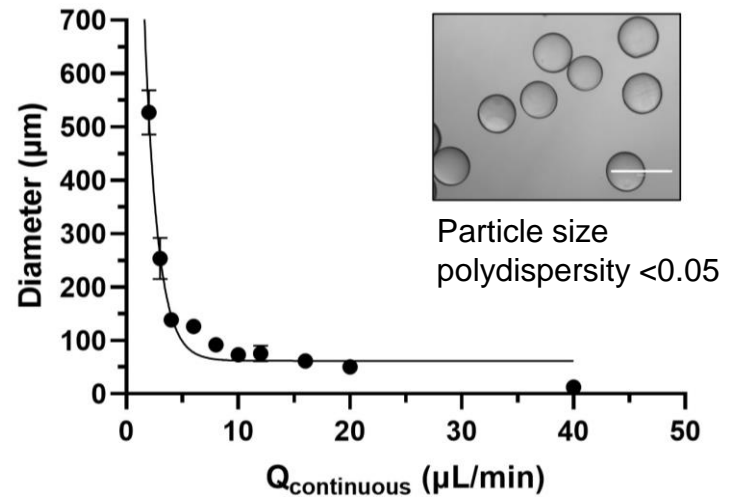


**Goal:** Develop a simple and versatile method for granular hydrogel fabrication.

# Droplet-based emulsion hydrogel formation method

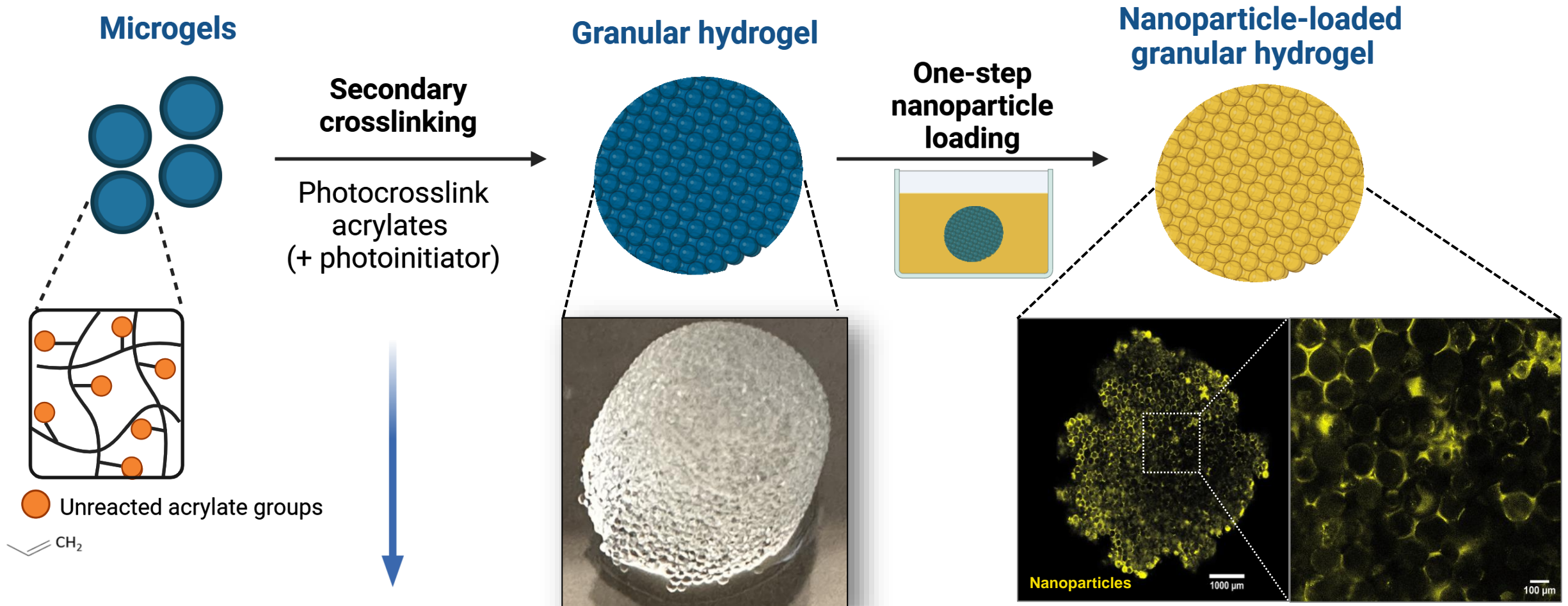


Tunable sizes ranging from 10 µm to 500 µm by adjusting the flow rate ratio





# Granular hydrogel formation by secondary crosslinking of microgels

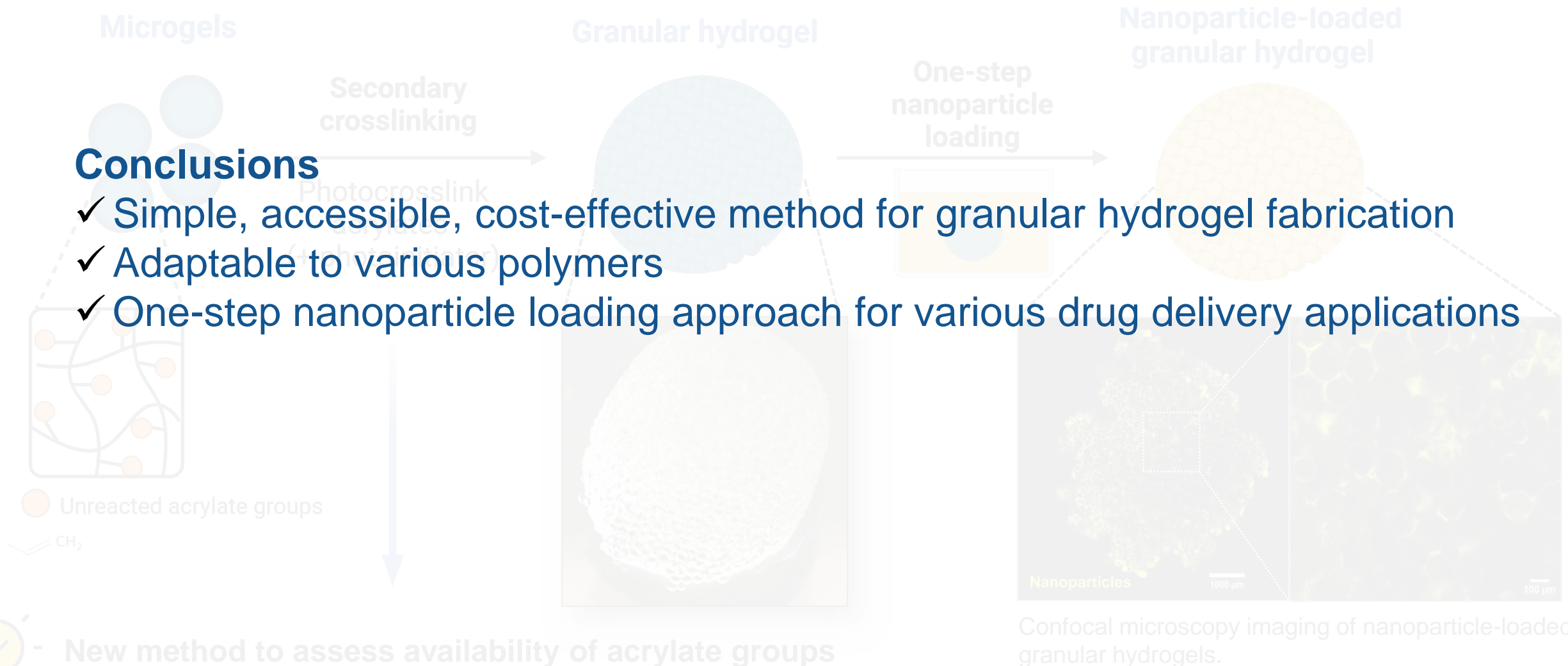


**New method to assess availability of acrylate groups for secondary crosslinking**

Thiol-ene click chemistry reaction and fluorescamine assay.

Confocal microscopy imaging of nanoparticle-loaded granular hydrogels.

# Granular hydrogel formation by secondary crosslinking of microgels



Thiol-ene click chemistry reaction and fluorescamine assay.



UNIVERSITY OF  
**ILLINOIS CHICAGO**

## Gemeinhart Lab

Sonia Alavi

Jay Teamer

Elizabeth Gutierrez

Dr. Richard A. Gemeinhart

## Lee Lab

Confocal Microscope and technical assistance

## Zhao Lab

EVOS m5000 imaging system

# Thank you!

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