



## Lucia Brunel

Ph.D. Student in Chemical Engineering, admitted Autumn 2019

### Publications

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#### PUBLICATIONS

- **Gelation of Uniform Interfacial Diffusant in Embedded 3D Printing** *ADVANCED FUNCTIONAL MATERIALS*  
Shin, S., Brunel, L. G., Cai, B., Kilian, D., Roth, J. G., Seymour, A. J., Heilshorn, S. C.  
2023
- **Spatially controlled construction of assembloids using bioprinting.** *Nature communications*  
Roth, J. G., Brunel, L. G., Huang, M. S., Liu, Y., Cai, B., Sinha, S., Yang, F., Pa#ca, S. P., Shin, S., Heilshorn, S. C.  
2023; 14 (1): 4346
- **Collagen Gels Crosslinked by Photoactivation of Riboflavin for the Repair and Regeneration of Corneal Defects.** *ACS applied bio materials*  
Fernandes-Cunha, G. M., Brunel, L. G., Arboleda, A., Manche, A., Seo, Y. A., Logan, C., Chen, F., Heilshorn, S. C., Myung, D.  
2023
- **Gelation of Uniform Interfacial Diffusant in Embedded 3D Printing.** *bioRxiv : the preprint server for biology*  
Shin, S., Brunel, L. G., Cai, B., Kilian, D., Roth, J. G., Seymour, A. J., Heilshorn, S. C.  
2023
- **3D bioprinting of dynamic hydrogel bioinks enabled by small molecule modulators.** *Science advances*  
Hull, S. M., Lou, J., Lindsay, C. D., Navarro, R. S., Cai, B., Brunel, L. G., Westerfield, A. D., Xia, Y., Heilshorn, S. C.  
2023; 9 (13): eade7880
- **Collagen hydrogels covalently crosslinked by bioorthogonal click chemistry resist cell-induced contraction while preserving encapsulated corneal stromal cell phenotype**  
Brunel, L. G., Hull, S. M., Johansson, P. K., Myung, D., Heilshorn, S. C.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
- **Engineered assistive materials for 3D bioprinting: support baths and sacrificial inks.** *Biofabrication*  
Brunel, L. G., Hull, S. M., Heilshorn, S.  
2022
- **3D Bioprinting of Cell-Laden Hydrogels for Improved Biological Functionality.** *Advanced materials (Deerfield Beach, Fla.)*  
Hull, S. M., Brunel, L. G., Heilshorn, S. C.  
2021: e2103691
- **Conducting polymer-based granular hydrogels for injectable 3D cell scaffolds.** *Advanced materials technologies*  
Feig, V. R., Santhanam, S., McConnell, K. W., Liu, K., Azadian, M., Brunel, L. G., Huang, Z., Tran, H., George, P. M., Bao, Z.  
2021; 6 (6)
- **3D Bioprinting using UNiversal Orthogonal Network (UNION) Bioinks.** *Advanced functional materials*  
Hull, S. M., Lindsay, C. D., Brunel, L. G., Shiwerski, D. J., Tashman, J. W., Roth, J. G., Myung, D., Feinberg, A. W., Heilshorn, S. C.  
2021; 31 (7)

- **Generation of a three-dimensional collagen scaffold-based model of the human endometrium** *INTERFACE FOCUS*  
Abbas, Y., Brunel, L. G., Hollinshead, M. S., Fernando, R. C., Gardner, L., Duncan, I., Moffett, A., Best, S., Turco, M. Y., Burton, G. J., Cameron, R. E.  
2020; 10 (2): 20190079
- **Self-Assembling Amphiphilic Block Copolymer from Renewable delta-Decalactone and delta-Dodecalactone** *JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY*  
Ferrari, R., Agostini, A., Brunel, L., Morosi, L., Moscatelli, D.  
2017; 55 (22): 3788-3797
- **RAFT Macro-Surfmers and Their Use in the ab Initio RAFT Emulsion Polymerization To Decouple Nanoparticle Size and Polymer Molecular Weight** *MACROMOLECULES*  
Palmiero, U., Agostini, A., Gatti, S., Sponchioni, M., Valenti, V., Brunel, L., Moscatelli, D.  
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