

Michelle Huang

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

Bio

INSTITUTE AFFILIATIONS

- Member, Cardiovascular Institute

Publications

PUBLICATIONS

- **Engineered matrices reveal stiffness-mediated chemoresistance in patient-derived pancreatic cancer organoids.** *Nature materials*
LeSavage, B. L., Zhang, D., Huerta-López, C., Gilchrist, A. E., Krajina, B. A., Karlsson, K., Smith, A. R., Karagyozova, K., Klett, K. C., Huang, M. S., Long, C., Kaber, G., Madl, et al
2024
- **Laminin-associated integrins mediate Diffuse Intrinsic Pontine Glioma infiltration and therapy response within a neural assembloid model.** *Acta neuropathologica communications*
Sinha, S., Huang, M. S., Mikos, G., Bedi, Y., Soto, L., Lensch, S., Ayushman, M., Bintu, L., Bhutani, N., Heilshorn, S. C., Yang, F.
2024; 12 (1): 71
- **A Library of Elastin-like Proteins with Tunable Matrix Ligands for In Vitro 3D Neural Cell Culture.** *Biomacromolecules*
Suhar, R. A., Huang, M. S., Navarro, R. S., Aviles Rodriguez, G., Heilshorn, S. C.
2023
- **Cell Microencapsulation Within Engineered Hyaluronan Elastin-Like Protein (HELP) Hydrogels.** *Current protocols*
Hefferon, M. E., Huang, M. S., Liu, Y., Navarro, R. S., de Paiva Narciso, N., Zhang, D., Aviles-Rodriguez, G., Heilshorn, S. C.
2023; 3 (11): e917
- **Tunable hydrogel viscoelasticity modulates human neural maturation.** *Science advances*
Roth, J. G., Huang, M. S., Navarro, R. S., Akram, J. T., LeSavage, B. L., Heilshorn, S. C.
2023; 9 (42): eadh8313
- **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
- **Elastin-like protein hydrogels with controllable stress relaxation rate and stiffness modulate endothelial cell function.** *Journal of biomedical materials research. Part A*
Shayan, M., Huang, M. S., Navarro, R., Chiang, G., Hu, C., Oropeza, B. P., Johansson, P. K., Suhar, R. A., Foster, A. A., LeSavage, B. L., Zamani, M., Enejder, A., Roth, et al
2023
- **Mobility mediates maturation: Synthetic substrates to enhance neural differentiation.** *Cell stem cell*
Roth, J. G., Huang, M. S., Heilshorn, S. C.
2023; 30 (2): 115-117
- **Tuning Polymer Hydrophilicity to Regulate Gel Mechanics and Encapsulated Cell Morphology.** *Advanced healthcare materials*
Navarro, R. S., Huang, M. S., Roth, J. G., Hubka, K. M., Long, C. M., Enejder, A., Heilshorn, S. C.
2022: e2200011

- **Advancing models of neural development with biomaterials.** *Nature reviews. Neuroscience*
Roth, J. G., Huang, M. S., Li, T. L., Feig, V. R., Jiang, Y., Cui, B., Greely, H. T., Bao, Z., Pasca, S. P., Heilshorn, S. C.
2021