

## Olivia Saouaf

Ph.D. Student in Materials Science and Engineering, admitted Autumn 2019

### Publications

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#### PUBLICATIONS

- **Nanoparticle-Conjugated Toll-Like Receptor 9 Agonists Improve the Potency, Durability, and Breadth of COVID-19 Vaccines.** *ACS nano*  
Ou, B. S., Baillet, J., Picece, V. C., Gale, E. C., Powell, A. E., Saouaf, O. M., Yan, J., Nejatfard, A., Lopez Hernandez, H., Appel, E. A.  
2024
- **Soft Viscoelastic Magnetic Hydrogels from the In Situ Mineralization of Iron Oxide in Metal-Coordinate Polymer Networks** *ACS APPLIED MATERIALS & INTERFACES*  
Song, J., Kim, S., Saouaf, O., Owens, C., McKinley, G. H., Holten-Andersen, N.  
2023; 15 (45): 52874-52882
- **A Regimen Compression Strategy for Commercial Vaccines Leveraging an Injectable Hydrogel Depot Technology for Sustained Vaccine Exposure** *ADVANCED THERAPEUTICS*  
Yan, J., Ou, B. S., Saouaf, O. M., Meany, E. L., Eckman, N., Appel, E. A.  
2023
- **Broad and Durable Humoral Responses Following Single Hydrogel Immunization of SARS-CoV-2 Subunit Vaccine.** *Advanced healthcare materials*  
Ou, B. S., Saouaf, O. M., Yan, J., Bruun, T. U., Baillet, J., Zhou, X., King, N. P., Appel, E. A.  
2023: e2301495
- **Injectable Nanoparticle-Based Hydrogels Enable the Safe and Effective Deployment of Immunostimulatory CD40 Agonist Antibodies.** *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*  
Correa, S., Meany, E. L., Gale, E. C., Klich, J. H., Saouaf, O. M., Mayer, A. T., Xiao, Z., Liang, C. S., Brown, R. A., Maikawa, C. L., Grosskopf, A. K., Mann, J. L., Idoyaga, et al  
2022: e2103677
- **Yield-Stress and Creep Control Depot Formation and Persistence of Injectable Hydrogels Following Subcutaneous Administration** *ADVANCED FUNCTIONAL MATERIALS*  
Jons, C. K., Grosskopf, A. K., Baillet, J., Yan, J., Klich, J. H., Saouaf, O. M., Appel, E. A.  
2022
- **Sustained delivery approaches to improving adaptive immune responses.** *Advanced drug delivery reviews*  
Ou, B. S., Saouaf, O. M., Baillet, J., Appel, E. A.  
2022: 114401
- **Gelation and yielding behavior of polymer-nanoparticle hydrogels.** *Journal of polymer science (2020)*  
Grosskopf, A. K., Saouaf, O. A., Lopez Hernandez, H., Appel, E. A.  
2021; 59 (22): 2854-2866
- **Gelation and yielding behavior of polymer-nanoparticle hydrogels** *JOURNAL OF POLYMER SCIENCE*  
Grosskopf, A. K., Saouaf, O. A., Lopez Hernandez, H., Appel, E. A.  
2021
- **Modulation of injectable hydrogel properties for slow co-delivery of influenza subunit vaccine components enhance the potency of humoral immunity.** *Journal of biomedical materials research. Part A*  
Saouaf, O. M., Roth, G. A., Ou, B. S., Smith, A. A., Yu, A. C., Gale, E. C., Grosskopf, A. K., Picece, V. C., Appel, E. A.  
2021

- **Prolonged Codelivery of Hemagglutinin and a TLR7/8 Agonist in a Supramolecular Polymer-Nanoparticle Hydrogel Enhances Potency and Breadth of Influenza Vaccination.** *ACS biomaterials science & engineering*

Roth, G. A., Saouaf, O. M., Smith, A. A., Gale, E. C., Hernandez, M. A., Idoyaga, J., Appel, E. A.  
2021

- **Quantifying residue-specific conformational dynamics of a highly reactive 29-mer peptide.** *Scientific reports*

Lindemann, W. R., Evans, E. D., Mijalis, A. J., Saouaf, O. M., Pentelute, B. L., Ortony, J. H.  
2020; 10 (1): 2597