



## Caitlin Maikawa

- Ph.D. Student in Bioengineering, admitted Autumn 2016
- Masters Student in Bioengineering, admitted Summer 2018

### Publications

---

#### PUBLICATIONS

- **An ultrafast insulin formulation enabled by high-throughput screening of engineered polymeric excipients.** *Science translational medicine*  
Mann, J. L., Maikawa, C. L., Smith, A. A., Grosskopf, A. K., Baker, S. W., Roth, G. A., Meis, C. M., Gale, E. C., Liong, C. S., Correa, S., Chan, D., Stapleton, L. M., Yu, et al  
2020; 12 (550)
- **A co-formulation of supramolecularly stabilized insulin and pramlintide enhances mealtime glucagon suppression in diabetic pigs.** *Nature biomedical engineering*  
Maikawa, C. L., Smith, A. A., Zou, L. n., Roth, G. A., Gale, E. C., Stapleton, L. M., Baker, S. W., Mann, J. L., Yu, A. C., Correa, S. n., Grosskopf, A. K., Liong, C. S., Meis, et al  
2020
- **Controlling properties of thermogels by tuning critical solution behaviour of ternary copolymers dagger** *POLYMER CHEMISTRY*  
Smith, A. A., Maikawa, C. L., Lopez Hernandez, H., Appel, E. A.  
2021
- **Enhanced Humoral Immune Response by High Density TLR Agonist Presentation on Hyperbranched Polymers** *ADVANCED THERAPEUTICS*  
Liong, C. S., Smith, A. A., Mann, J. L., Roth, G. A., Gale, E. C., Maikawa, C. L., Ou, B. S., Appel, E. A.  
2021
- **Seasonal Impact of Phosphate-Based Fire Retardants on Soil Chemistry Following the Prophylactic Treatment of Vegetation.** *Environmental science & technology*  
Yu, A. C., Reinhart, M., Hunter, R., Lu, K., Maikawa, C. L., Rajakaruna, N., Acosta, J. D., Stubler, C., Appel, C., Appel, E. A.  
2021
- **Engineering biopharmaceutical formulations to improve diabetes management.** *Science translational medicine*  
Maikawa, C. L., d'Aquino, A. I., Lal, R. A., Buckingham, B. A., Appel, E. A.  
2021; 13 (578)
- **A fluorescence sandwich immunoassay for the real-time continuous detection of glucose and insulin in live animals.** *Nature biomedical engineering*  
Poudineh, M., Maikawa, C. L., Ma, E. Y., Pan, J., Mamerow, D., Hang, Y., Baker, S. W., Beirami, A., Yoshikawa, A., Eisenstein, M., Kim, S., Vuckovic, J., Appel, et al  
2020
- **Site-selective modification of proteins using cucurbit[7]uril as supramolecular protection for N-terminal aromatic amino acids.** *Organic & biomolecular chemistry*  
Smith, A. A., Maikawa, C. L., Roth, G. A., Appel, E. A.  
2020
- **Stable Monomeric Insulin Formulations Enabled by Supramolecular PEGylation of Insulin Analogues.** *Advanced therapeutics*  
Maikawa, C. L., Smith, A. A., Zou, L. n., Meis, C. M., Mann, J. L., Webber, M. J., Appel, E. A.  
2020; 3 (1)

- **Nanoparticles Presenting Potent TLR7/8 Agonists Enhance Anti-PD-L1 Immunotherapy in Cancer Treatment.** *Biomacromolecules*  
Smith, A. A., Gale, E. C., Roth, G. A., Maikawa, C. L., Correa, S. n., Yu, A. C., Appel, E. A.  
2020
- **Injectable Hydrogels for Sustained Codelivery of Subunit Vaccines Enhance Humoral Immunity.** *ACS central science*  
Roth, G. A., Gale, E. C., Alcántara-Hernández, M. n., Luo, W. n., Axpe, E. n., Verma, R. n., Yin, Q. n., Yu, A. C., Lopez Hernandez, H. n., Maikawa, C. L., Smith, A. A., Davis, M. M., Pulendran, et al  
2020; 6 (10): 1800–1812
- **Block copolymer composition drives function of self-assembled nanoparticles for delivery of small-molecule cargo** *JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY*  
Maikawa, C. L., Sevit, A., Lin, B., Wallstrom, R. J., Mann, J. L., Yu, A. C., Waymouth, R. M., Appel, E. A.  
2019; 57 (12): 1322–32
- **Comparison of Airway Responses Induced in a Mouse Model by the Gas and Particulate Fractions of Gasoline Direct Injection Engine Exhaust** *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH*  
Maikawa, C. L., Zimmerman, N., Ramos, M., Shah, M., Wallace, J. S., Pollitt, K.  
2018; 15 (3)