

Melissa Gray

Postdoctoral Scholar, Chemistry

Publications

PUBLICATIONS

- **Upregulation of GALNT7 in prostate cancer modifies O-glycosylation and promotes tumour growth.** *Oncogene*
Scott, E., Hodgson, K., Calle, B., Turner, H., Cheung, K., Bermudez, A., Marques, F. J., Pye, H., Yo, E. C., Islam, K., Oo, H. Z., McClurg, U. L., Wilson, et al
2023
- **Targeting cancer glycosylation repolarizes tumor-associated macrophages allowing effective immune checkpoint blockade.** *Science translational medicine*
Stanczak, M. A., Rodrigues Mantuano, N., Kirchhammer, N., Sanin, D. E., Jacob, F., Coelho, R., Everest-Dass, A. V., Wang, J., Trefny, M. P., Monaco, G., Bärenwaldt, A., Gray, M. A., Petrone, et al
2022; 14 (669): eabj1270
- **Genome-Wide CRISPR screens reveal specific ligands for glycan-binding immune checkpoint receptors**
Wisnovsky, S., Mockl, L., Malaker, S. A., Pedram, K., Hess, G. T., Riley, N. M., Gray, M. A., Smith, B. A. H., Bassik, M. C., Moerner, W. E., Bertozzi, C. R.
OXFORD UNIV PRESS INC.2021: 1682-1683
- **Genome-wide CRISPR screens reveal a specific ligand for the glycan-binding immune checkpoint receptor Siglec-7.** *Proceedings of the National Academy of Sciences of the United States of America*
Wisnovsky, S., Mockl, L., Malaker, S. A., Pedram, K., Hess, G. T., Riley, N. M., Gray, M. A., Smith, B. A., Bassik, M. C., Moerner, W. E., Bertozzi, C. R.
2021; 118 (5)
- **Targeted glycan degradation potentiates the anticancer immune response in vivo.** *Nature chemical biology*
Gray, M. A., Stanczak, M. A., Mantuano, N. R., Xiao, H., Pijnenborg, J. F., Malaker, S. A., Miller, C. L., Weidenbacher, P. A., Tanzo, J. T., Ahn, G., Woods, E. C., Laubli, H., Bertozzi, et al
2020
- **DNA origami protection and molecular interfacing through engineered sequence-defined peptoids.** *Proceedings of the National Academy of Sciences of the United States of America*
Wang, S., Gray, M. A., Xuan, S., Lin, Y., Byrnes, J., Nguyen, A. I., Todorova, N., Stevens, M. M., Bertozzi, C. R., Zuckermann, R. N., Gang, O.
2020
- **Bump-and-Hole Engineering Identifies Specific Substrates of Glycosyltransferases in Living Cells.** *Molecular cell*
Schumann, B. n., Malaker, S. A., Wisnovsky, S. P., Debets, M. F., Agbay, A. J., Fernandez, D. n., Wagner, L. J., Lin, L. n., Li, Z. n., Choi, J. n., Fox, D. M., Peh, J. n., Gray, et al
2020
- **Engineering Orthogonal Polypeptide GalNAc-Transferase and UDP-Sugar Pairs** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Choi, J., Wagner, L. J. S., Timmermans, S. E., Malaker, S. A., Schumann, B., Gray, M. A., Debets, M. F., Takashima, M., Gehring, J., Bertozzi, C. R.
2019; 141 (34): 13442–53
- **CRISPR-Cas9 screens identify regulators of antibody-drug conjugate toxicity.** *Nature chemical biology*
Tsui, C. K., Barfield, R. M., Fischer, C. R., Morgens, D. W., Li, A., Smith, B. A., Gray, M. A., Bertozzi, C. R., Rabuka, D., Bassik, M. C.
2019
- **Inverting family GH156 sialidases define an unusual catalytic motif for glycosidase action.** *Nature communications*
Bule, P. n., Chuzel, L. n., Blagova, E. n., Wu, L. n., Gray, M. A., Henrissat, B. n., Rapp, E. n., Bertozzi, C. R., Taron, C. H., Davies, G. J.

2019; 10 (1): 4816

- **Glycosyltransferase bump-hole engineering to dissect mucin-type O-glycosylation in the living cell**

Schumann, B., Debets, M., Wisnovsky, S., Agbay, A., Wagner, L., Choi, J., Gray, M., Bertozzi, C.

AMER CHEMICAL SOC.2018

- **Isotype-specific agglutination-PCR (ISAP): A sensitive and multiplex method for measuring allergen-specific IgE.** *The Journal of allergy and clinical immunology*

Tsai, C., Mukai, K., Robinson, P. V., Gray, M. A., Waschmann, M. B., Lyu, S., Tsai, M., Chinthrajah, R. S., Nadeau, K. C., Bertozzi, C. R., Galli, S. J.

2018; 141 (5): 1901