

Michael Joseph Robertson

Postdoctoral Scholar, Molecular and Cellular Physiology

Bio

PROFESSIONAL EDUCATION

- Doctor, Yale University (2018)

Publications

PUBLICATIONS

- **Development and Testing of the OPLS-AA/M Force Field for RNA.** *Journal of chemical theory and computation*
Robertson, M. J., Qian, Y., Robinson, M. C., Tirado-Rives, J., Jorgensen, W. L.
2019
- **Structural insights into the activation of metabotropic glutamate receptors.** *Nature*
Koehl, A., Hu, H., Feng, D., Sun, B., Zhang, Y., Robertson, M. J., Chu, M., Kobilka, T. S., Laermans, T., Steyaert, J., Tarrasch, J., Dutta, S., Fonseca, et al
2019
- **Structures of the M1 and M2 muscarinic acetylcholine receptor/G-protein complexes.** *Science (New York, N.Y.)*
Maeda, S. n., Qu, Q. n., Robertson, M. J., Skiniotis, G. n., Kobilka, B. K.
2019; 364 (6440): 552–57
- **Development and Validation of the Quantum Mechanical Bespoke Protein Force Field.** *ACS omega*
Allen, A. E., Robertson, M. J., Payne, M. C., Cole, D. J.
2019; 4 (11): 14537–50
- **Structure of a Signaling Cannabinoid Receptor 1-G Protein Complex.** *Cell*
Krishna Kumar, K., Shalev-Benami, M., Robertson, M. J., Hu, H., Banister, S. D., Hollingsworth, S. A., Latorraca, N. R., Kato, H. E., Hilger, D., Maeda, S., Weis, W. I., Farrens, D. L., Dror, et al
2018
- **Optimization of Pyrazoles as Phenol Surrogates to Yield Potent Inhibitors of Macrophage Migration Inhibitory Factor.** *ChemMedChem*
Trivedi-Parmar, V., Robertson, M. J., Cisneros, J. A., Krimmer, S. G., Jorgensen, W. L.
2018; 13 (11): 1092–97
- **Molecular Dynamics Simulations of a Conformationally Mobile Peptide-Based Catalyst for Atroposelective Bromination.** *ACS catalysis*
Yan, X. C., Metrano, A. J., Robertson, M. J., Abascal, N. C., Tirado-Rives, J. n., Miller, S. J., Jorgensen, W. L.
2018; 8 (11): 9968–79
- **Adding a Hydrogen Bond May Not Help: Naphthyridinone vs Quinoline Inhibitors of Macrophage Migration Inhibitory Factor** *ACS MEDICINAL CHEMISTRY LETTERS*
Dawson, T. K., Dziedzic, P., Robertson, M. J., Cisneros, J. A., Krimmer, S. G., Newton, A. S., Tirado-Rives, J., Jorgensen, W. L.
2017; 8 (12): 1287–91
- **Improved treatment of nucleosides and nucleotides in the OPLS-AA force field** *CHEMICAL PHYSICS LETTERS*
Robertson, M. J., Tirado-Rives, J., Jorgensen, W. L.
2017; 683: 276–80
- **Systematic Study of Effects of Structural Modifications on the Aqueous Solubility of Drug-like Molecules** *ACS MEDICINAL CHEMISTRY LETTERS*
Cisneros, J. A., Robertson, M. J., Mercado, B. Q., Jorgensen, W. L.

2017; 8 (1): 124-127

- **Improved Description of Sulfur Charge Anisotropy in OPLS Force Fields: Model Development and Parameterization.** *The journal of physical chemistry. B*
Yan, X. C., Robertson, M. J., Tirado-Rives, J. n., Jorgensen, W. L.
2017; 121 (27): 6626-36
- **Performance of Protein-Ligand Force Fields for the Flavodoxin-Flavin Mononucleotide System** *JOURNAL OF PHYSICAL CHEMISTRY LETTERS*
Robertson, M. J., Tirado-Rives, J., Jorgensen, W. L.
2016; 7 (15): 3032-3036
- **A Fluorescence Polarization Assay for Binding to Macrophage Migration Inhibitory Factor and Crystal Structures for Complexes of Two Potent Inhibitors** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Cisneros, J. A., Robertson, M. J., Valhondo, M., Jorgensen, W. L.
2016; 138 (27): 8630-8638
- **Irregularities in enzyme assays: The case of macrophage migration inhibitory factor** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*
Cisneros, J. A., Robertson, M. J., Valhondo, M., Jorgensen, W. L.
2016; 26 (12): 2764-2767
- **Illustrating Concepts in Physical Organic Chemistry with 3D Printed Orbitals** *JOURNAL OF CHEMICAL EDUCATION*
Robertson, M. J., Jorgensen, W. L.
2015; 92 (12): 2113-2116
- **Improved Peptide and Protein Torsional Energetics with the OPLS-AA Force Field** *JOURNAL OF CHEMICAL THEORY AND COMPUTATION*
Robertson, M. J., Tirado-Rives, J., Jorgensen, W. L.
2015; 11 (7): 3499-3509
- **Design, Synthesis, and Protein Crystallography of Biaryltriazoles as Potent Tautomerase Inhibitors of Macrophage Migration Inhibitory Factor** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Dziedzic, P., Cisneros, J. A., Robertson, M. J., Hare, A. A., Danford, N. E., Baxter, R. H., Jorgensen, W. L.
2015; 137 (8): 2996-3003