

Matthew Rhodes, PhD

Staff Scientist



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Practice Areas

Intellectual Property Protection

Education

University of Notre Dame
PhD (2021) Organic Chemistry

Loyola University Chicago
MS (2016) Chemistry

Loyola University Chicago
BS (2016) Biochemistry

University of Texas at Dallas
BS (2012) Biology

Dr. Matthew Rhodes assists Choate's life sciences clients by utilizing his background in chemistry and biochemistry to help with the preparation and prosecution of patent applications, as well as freedom-to-operate and patentability analyses.

Industry Experience

Prior to joining Choate, Dr. Matthew Rhodes was a scientist for Enanta Pharmaceuticals. During his tenure, Matthew played a key role in the synthesis of complex spirocyclic and macrocyclic compounds for antiviral applications. He also developed innovative synthetic methodologies and contributed to kinase inhibitor programs aimed at addressing immunological disease. Matthew's industry experience also includes interning for Agios Pharmaceuticals, where he developed practical synthetic routes for key compounds and expanded scope of interesting synthetic chemistry discovered during drug discovery.

Dr. Matthew Rhodes received his PhD from the University of Notre Dame. As a graduate student researcher, his thesis was focused on investigating in situ conformational analysis of polyketide natural products, such as GEX1A, and its connection to spliceosomal activity, providing insights into the potential biological mechanisms. During his research, Matthew designed and synthesized natural product analogues of the polyketides GEX1A and other natural products with implications for Niemann-Pick Type C Disease.

Published Patents

- "Spiropyrrolidine derived antiviral agents," co-inventor, US patent 11325916, 2021

Publications and Presentations

- "Elucidation of novel TRAP1-Selective inhibitors that regulate mitochondrial processes," co-author, *Euro J Med Chem*, October 2023
- "Efficient and metal Free synthesis of 2,3-disubstituted pyridopyrimidinones via ketenimine intermediates," co-author, *Tetrahedron*, March 2023
- "Molecular mechanisms by which splice modulator GEX1A inhibits leukaemia development and progression," co-author, *Cancer*, April 2022
- "Conformational Preferences and Conformational Manipulation of GEX1A," poster presenter, GRS+GRC Medicinal Chemistry, October 2021
- "Pharmacologic modulation of RNA splicing enhances anti-tumor immunity," co-author, *Cell*, June 2021
- "The Splicing Modulator GEX1A Exhibits Potent Anti-Leukemic Activity Both in Vitro and In Vivo through Inducing an MCL1 Splice-Switch in Pre-Clinical Models of Acute Myeloid Leukemia," co-author, *Blood*, November 2019