Thomas J. O'Connor, Ph.D.



Patent Agent

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Services

Asset Creation - Prosecution & Counseling

Intellectual Property

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Industries

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Thomas J. O'Connor is a registered patent agent who focuses his practice on patent prosecution and counseling in technologies relating to chemistry and life sciences.

Prior to joining the firm, Thomas was a Regulatory Writer in Emerging Technologies API MSAT company in Copenhagen, Denmark where he ensured the accuracy, quality, and regulatory compliance of drug substance documentation for regulatory submissions. Previously, Thomas worked at an international full-service law firm as a junior patent agent and then an intermediate patent agent where he gained experience in U.S. and foreign patent preparation and prosecution, portfolio and docket management, and intellectual property due diligence, as well as freedom-to-operate, patentability, and landscape analyses in the small molecule pharmaceutical space.

Before launching his legal career, Thomas established a robust scientific foundation through both his Ph.D. research at the University of California, Berkeley in the Lab of Professor F. Dean Toste and his postdoctoral fellowship at UCLA in the Lab of Professor Abigail Doyle, where he developed expertise in organometallic/organic synthesis, reaction design, catalysis and process development.

During his graduate studies, Thomas developed organometallic methodologies to generate fluorinated motifs in stereocontrolled fashions. His gold-catalyzed hydrofluorination reaction highlighted that traditional approaches to incorporate fluorine into compounds (i.e. approaches that utilize either a nucleophilic or an electrophilic fluoride source with non-fluorinated starting material) may provide straightforward access to certain motifs (i.e. β-fluoro Michael Acceptors). For his second project, Thomas showcased that other fluorinated motifs necessitate alternative approaches (i.e. selective cleavage of a single C–F bond of polyfluorinated starting material) and demonstrated for the first time that enantioselective β-fluoride elimination can be achieved to generate axially chiral, tetrasubstituted monofluoroallenes. In the Doyle Lab, Thomas focused on the development of metallaphotoredox catalyzed enantioconvergent C(sp3)–H, C(sp3)–X cross-coupling. During these efforts, he uncovered a variety of acridinium photocatalysts that had extended excited-state lifetimes, which were later shown to improve the reactivities of an oxidative radical-polar crossover (ORPC) reaction.

Thomas' research has led him to co-author several peer-reviewed journal articles and present at professional conferences.

Education

Northwest Missouri State University A.S., Science and Mathematics (2012)

University of California, Berkeley Ph.D., Organic Chemistry (2021) *Outstanding Graduate Student Instructor*

Vassar College B.A., Chemistry (2016) *with honors*

Court Admissions

U.S. Patent and Trademark Office (2023)

Insights

APRIL 30, 2025 PUBLICATION

Diversification of Acridinium Photocatalysts: Property Tuning and Reactivity in Model Reactions

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AUGUST 16, 2021 PUBLICATION

Generation of Axially Chiral Allenes through a Copper-Catalyzed, Asymmetric β-Fluoride Elimination

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NOVEMBER 8, 2019 EVENTS

Generation of Chiral Allenes through a Cu-Catalyzed, Asymmetric β-Fluoride Elimination

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JUNE 4, 2018 PUBLICATION

Gold-Catalyzed Hydrofluorination of Electron-Deficient Alkynes: Stereoselective Synthesis of β-Fluoro Michael Acceptors

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JANUARY 1, 2017 PUBLICATION

Homologation of β-Amino Acids through Quinone-Catalyzed Oxidative Decarboxylation/Mukaiyama-Mannich Addition

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