Christopher M. Hadad Current Research Funding (November 9, 2020)

Current Research Support

Vaccine-Based Prophylaxis for Protection Against Organophosphorus Nerve Agent (OPNA) Exposure Defense Threat Reduction Agency (RPP-19-06), in contract negotiation with MRIGlobal C. Croutch (PhD, MRIGlobal, PI) and C. A. McElroy (PhD, OSU lead PI), <u>C. M. Hadad</u> (PhD, OSU co-PI), C. S. Callam (PhD, OSU co-I) \$6,071,789 (OSU total costs) 7/1/2020 – 6/30/2025

Chemical Libraries for Enhanced Recovery of Activity from Organophosphorus Inhibited and Aged Cholinesterases in the Peripheral and Central Nervous Systems Defense Threat Reduction Agency (RPP-19-05), subcontract from MRIGlobal C. Croutch (PhD, MRIGlobal, PI) and <u>C. M. Hadad</u> (PhD, OSU lead PI), C. A. McElroy (PhD, OSU co-I), C. S. Callam (PhD, OSU co-I) \$5,321,558 (OSU total costs) 12/27/2019 – 10/30/2024

Improved Therapeutics for the Resurrection of the Aged Form of Acetylcholinesterase National Institutes of Health (CounterACT, 1U01-NS112101) <u>C. M. Hadad</u> (PhD, lead PI), C. A. McElroy (PhD, co-I), C. S. Callam (PhD, co-I), C. L. Cadieux (PhD, co-I, USAMRICD) \$1,217,297 (total costs) 07/15/2019 – 06/30/2022

Development of BPA-free coatings for extended shelf life of canned foods National Institute of Food and Agriculture (20176701726469) M. A. Pascall (PhD, lead PI), G. S. Frankel (PhD, co-PI), <u>C. M. Hadad</u> (PhD, co-PI) \$454,964 (total costs) 6/1/2017 – 5/31/2021

Pending Grant Submissions

Porcinated Human Organophosphate-Eliminating Next-GeneratIon Catalytic Scavengers (PHOENICS)
Defense Threat Reduction Agency, in review (Battelle as lead organization)
R. Moyer (PhD, Battelle PI), D. Wood (PhD, OSU co-PI) and <u>C. M. Hadad</u> (PhD, OSU co-PI) \$1,472,884 (OSU total costs)
10/1/2020 – 9/31/2023

Recently Ended Grant Support

SusChEM: Tunable molecular mimics of MoS₂ edge sites for electrocatalytic hydrogen production National Science Foundation (CHE-1566106) Y. Wu (PhD, lead PI) and <u>C. M. Hadad</u> (PhD, co-lead PI) \$427,000 (total costs) 9/1/2016 – 8/31/2020

Collaborative Research: The chemistry of lignin's photochemical transformation in the environment: implications for global carbon cycling National Science Foundation (CHE-1609889) P. G. Hatcher (PhD, Old Dominion, lead PI), S. Myneni (PhD, Princeton, co-PI), <u>C. M. Hadad</u> (PhD, co-PI) \$180,000 (total costs for OSU) 8/1/2016 – 7/31/2020

Preparation of Aza-Peptide Ketones as Protease Inhibitors Technology Commercialization Office, Ohio State University O. Dogan Ekici (PhD, lead PI) and <u>C. M. Hadad</u> (PhD, co-PI) \$100,000 (total costs) 12/1/2018 – 1/31/2020

Development of a novel treatment for organophosphorus chemical nerve agent poisoning Ralph and Marian Falk Medical Research Trust Catalyst Awards Program (20012328) <u>C. M. Hadad</u> (PhD, lead PI), C. A. McElroy (PhD, co-I), C. S. Callam (PhD, co-I) \$300,000 (total costs) 11/30/2018 – 11/29/2019

Reactivation of Aged Acetylcholinesterase: Design and Development of Novel Therapeutics against Exposure to Organophosphorus Chemical Nerve Agents National Institutes of Health (CounterACT, 1U01–NS087983) <u>C. M. Hadad</u> (PhD, lead PI), O. Dogan Ekici (PhD, co-PI), R. J. Yoder (PhD, co-PI), C. A. McElroy (PhD, co-PI) \$1,129,636 (total costs) 8/15/2014 – 7/31/2017

Gated molecular baskets as new dynamic hosts for investigating the recognition and hydrolysis of toxic organophosphorus compounds Defense Threat Reduction Agency (HDTRA1-11-1-0042) J. D. Badjic (PhD, lead PI) and <u>C. M. Hadad</u> (PhD, co-PI) \$2,407,303 (total costs) 8/22/2011 – 8/21/2017

Rational engineering and modification of PON1 and OPH for altered substrate specificity and improved drug-like properties (Subcontract from Center for Catalytic Bioscavenger Medical Defense Research II: Discovery, Formulation and Preclinical Evaluation) National Institutes of Health, Center of Excellence Proposal (U54-NS058183) D. M. Cerasoli (USAMRICD) and T. J. Magliery (OSU), lead PIs T. J. Magliery (lead PI for Project 2 of CoE), <u>C. M. Hadad</u>, and P. G. Wang (Georgia State) \$2,914,666 (total costs for OSU) 10/01/2012 – 9/30/2015

Catalytic Antibody Vaccine Development for Nerve Agent Hydrolysis Defense Threat Reduction Agency (HDTRA1-13-C-0062) \$171,575 (total costs for OSU as sub-contract from MRIGlobal) 8/19/2013 – 8/18/2014 D. Read (PhD, MRIGlobal, lead PI), C. M. Hadad (PhD, PI at OSU), C. A. McElroy (PhD, co-I)

Reactivation of Aged Nerve Agent-AChE Adducts Defense Threat Reduction Agency, sub-contract from USAMRICD (Sean Palmer, lead PI) <u>C. M. Hadad</u> \$471,834 (total costs for sub-contract) 5/14/2010 - 5/13/2013

Biodistribution of Biological Agents by Electron Paramagnetic Resonance Imaging Defense Threat Reduction Agency <u>C. M. Hadad</u> \$589,328 (total costs) 6/14/2010 – 5/13/2013

Ultrafast Time-Resolved Studies of Reactive Intermediates National Science Foundation (DMR-1212842) <u>C. M. Hadad</u> (PhD, lead PI) with M. S. Platz (PhD) \$634,000 (total costs) 9/1/2012 – 8/31/2016

Ultrafast Time-Resolved Studies of Reactive Intermediates National Science Foundation (CHE-0743258) <u>C. M. Hadad</u> with M. S. Platz \$820,000 (total costs) 2/1/2008 – 1/31/2013