

THEODORE J. CARRIGAN-BRODA

264 Belmont St. Apt. 3, Worcester, MA 01604 · MOBILE +1 (843) 212-6688
theodore.carrigan-broda@umassmed.edu · www.linkedin.com/in/theodorebroda

EDUCATION

UMass Chan Medical School, Worcester, MA Jul. 2019–
M.D./Ph.D. in Biomedical Science

ACTIVITIES & DISTINCTIONS:

MSTP Student Council · Industry Exploration Club · ScienceLIVE · Worcester Free Care Collab. ·
Vaccine Corps · American Physician Scientists Association

Honors College at the College of Charleston, Charleston, SC
B.S. in Chemistry and Biochemistry (ACS-certified)

Aug. 2014–Aug. 2017
summa cum laude (GPA 3.986)

ACTIVITIES & DISTINCTIONS:

Departmental Honors, 2017 · Outstanding Student in Chemistry Award, 2017 · Hypercube Scholar Award,
2017 · New Student Leadership Award, 2015 · Honors Student Assoc. · Student Gov. Assoc.

RESEARCH EXPERIENCE

A. Khvorova's Research Group, RNA Therapeutics Institute, UMass Chan Medical School
Graduate Student Researcher Jul. 2020–

Synthesize siRNA guide strands and derivatize them with novel 5'-end modifications;
design novel nucleoside derivatives for incorporation into siRNA; screen modified
siRNAs and anti-miRs *ex vivo* for efficacy, potency, and metabolic stability; prepare
modified siRNA guide strands for RISC crystallography and pulldowns; conduct murine
studies of siRNA activity in extrahepatic organs and central nervous system

M. T. Hamann's Research Group, Dept. of Drug Discovery & Biomedical Science, Medical
University of South Carolina
Research Assistant Mar.–Dec. 2018

Prepared custom boronate reagents; derivatized natural product (manzamine A) scaffold
for bioactivity screens

G. A. Guirgis' Research Group, Dept. of Chemistry & Biochemistry, College of Charleston
Research Assistant Jan. 2016–Aug. 2017

Synthesized novel organometalloid compounds; characterized compounds via NMR, gas-
phase FT-IR; computationally predicted physicochemical properties of molecules *ab initio*

F. J. Heldrich's Organic Synthesis Research Group, Dept. of Chemistry and Biochemistry, College of Charleston

Research Assistant

May–Dec. 2015

Synthesized α,ω -bis(*p*-anisyl)alkanes and synthetic intermediates using organometallic synthetic methods

WORK EXPERIENCE

MEDUCARE, Lifeguard Ambulance Service/MUSC Health, Charleston, SC

Emergency Medical Technician (EMT)

Aug. 2018–Jun. 2019

Assessed and transported patients; initiated BLS interventions; documented transports; inventoried ambulance equipment; assisted aeromedical and pediatric critical-care personnel

Kelly Educational Staffing, Charleston County School District, Charleston, SC

Substitute Teacher

Dec. 2017–Jun. 2018

Instructed public, charter school students in grades K–12 towards learning outcomes; adapted lesson content to students' abilities; nurtured proper student conduct