

David A. Galambos

PERSONAL DATA

CURRENT ADDRESS: 300 N College St, Northfield, MN, USA
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EDUCATION

Expected JUNE 2020 Bachelor of Arts in BIOLOGY, **Carleton College**, Northfield, MN

RESEARCH EXPERIENCE

MAR. 2018- OCT. 2018	CALDERONE LAB , Carleton College, Northfield, MN <i>Research Assistant</i> The Calderone Lab investigates the biosynthetic mechanism of the nonribosomal peptide AMB. We expressed and purified a mutated construct of the nonribosomal peptide synthetase AmbE, which is one of the proteins in the <i>amb</i> gene cluster for AMB synthesis. We tested several different enzyme/reagent combinations that included other enzymes from the cluster and analyzed the products using HPLC.
<i>Current</i> SEPT. 2017	ANDERSON LAB , Carleton College, Northfield, MN <i>Research Assistant</i> The Anderson Lab studies microbial ecology at deep-sea hydrothermal vents. Based on existing metagenomic and metatranscriptomic data from the Mid-Cayman Rise, we conducted a study of metabolic capabilities in bacteria and archaea. We combined data describing whole vent sites with data for individual genomes recovered at those sites to provide a more complete picture of both community and genome-level metabolic dynamics.
NOV. 2016- MAR. 2017	IMPACT at MAYO CLINIC , Rochester, MN <i>Student Researcher</i> Together with a group of 3 other students from Carleton College, we entered a research competition to present a hypothesis about the impacts of obesity and Type 2 diabetes on pancreatic cancer. We performed a survey of primary literature and submitted a report to competition organizers at the Mayo Clinic. The competition culminated in a poster presentation in Rochester, MN with evaluation from Mayo Clinic medical students and faculty.

WORK EXPERIENCE

SEPT. 2018	DEPARTMENT OF COMPUTER SCIENCE, Carleton College <i>Computational Biology Workshop Assistant</i> Beta-tested hands-on modules for the Undergraduate Computational Biology Workshop at Carleton College. Assisted in workshop set-up and logistical operation.
MARCH 2018- JUNE 2018	DEPARTMENT OF CHEMISTRY, Carleton College <i>Organic Chemistry Tutor</i> Facilitated problem set help sessions (2x/week). Guided students in developing effective exam study strategies. Assessed patterns in student questions to report common conceptual misunderstandings to faculty.
JAN. 2018- MARCH 2018	DEPARTMENT OF BIOLOGY, Carleton College <i>BIO125 Lab Teaching Assistant</i> Assisted with setup and maintenance of lab materials and equipment. Answered student questions about lab procedures and associated biological concepts. Graded and provided feedback for notebooks, quizzes and post-laboratory assignments.
<i>Current</i> SEPT. 2017	WRITING CENTER, Carleton College <i>Writing Assistant</i> Provide individualized one-on-one writing consultations for a first-year seminar of 14 students. Prepare consultation material and advice consistent with professor's expectations and teaching style. Offer weekly appointments to general student population.

LAB TECHNIQUES

WET LAB: Miniprep; Heterologous over-expression in *E. coli*; protein purification; SDS-PAGE and DNA gels; Southern Blot; PCR; optical and fluorescence microscopy; ^1H -NMR, UV-vis, IR spectroscopy; GC-MS, LC-MS; HPLC, FPLC

COMPUTATIONAL: Comprehensive metagenomic pipeline (genome assembly, mapping, coverage analysis, annotation, binning), metatranscriptome analysis, sequence alignment, phylogenetic trees

COMPUTER SKILLS

SOFTWARE: [anvi'o](#); RStudio; Word, Excel, PowerPoint; Prezi; Adobe Illustrator; MNova; Endnote, Mendeley, Zotero

TOOLS: Git, BLAST, MUSCLE, KEGG, Pfam, RAxML

LANGUAGES/PACKAGES: Python (incl. matplotlib, [seaborn](#)), R (incl. [tidyverse](#)), C, Java, \LaTeX

PRESENTATIONS

Galambos DA, Calderone CC. "Biosynthetic mechanism of the nonribosomal peptide AMB in *Pseudomonas aeruginosa*." CELEBRATION OF EXCELLENCE IN SCIENCE SYMPOSIUM, CARLETON COLLEGE, October 27, 2018; Northfield, MN.

Galambos DA, Reveillaud J, Anderson RE, Huber JA. "Archaeal Metabolic Profiles at Deep-sea Hydrothermal Vents in the Mid-Cayman Rise." 2017 AMERICAN GEOPHYSICAL UNION (AGU) FALL MEETING, December 11-15, 2017; New Orleans, LA.

Galambos DA, Reveillaud J, Anderson RE, Huber JA. "Archaeal Metabolic Profiles at Deep-sea Hydrothermal Vents in the Mid-Cayman Rise." 2017 CARLETON COLLEGE SUMMER RESEARCH SYMPOSIUM, October 20, 2017; Northfield, MN.

Lauriello AF, **Galambos DA**, Greengo SD, Kennicott HR. "Obesity-Induced T-cell Polarization in Pancreatic Cancer Leads to Immunosuppression and Reduces the Efficacy of Immunotherapy." 2017 MAYO CLINIC IMPACT SYMPOSIUM, March 18, 2017; Rochester, MN.

AWARDS

Carleton College DEAN'S LIST (2017)
NATIONAL MERIT SCHOLAR (2016)

LANGUAGES

FRENCH (proficient), RUSSIAN (fluent), HUNGARIAN (fluent)

REFERENCES

DR. RIKA ANDERSON, Assistant Professor of Biology, Carleton College
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DR. CHRIS CALDERONE, Assistant Professor of Chemistry, Carleton College
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