Taylor Becker

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Education:

B.S., Biochemistry, Miami University, Oxford, OH — May 2017
GPA: 3.97, Summa Cum Laude
Minor: Global Perspectives on Sustainability

M.S., Horticulture and Agronomy, University of California, Davis, CA — In Progress
GPA: 4.00

Professional Experience:

Research Lab Assistant, Miami University — August 2013-May 2017

- Worked with mushrooms to identify antibacterial properties and isolate effective compounds
- Used different bacterial strains to determine the activity of extracted mushroom and plant samples
- Used PCR and sequencing techniques to identify mushroom species
- Conducted experiments on pancreatic cancer cell lines with adenovirus delivery of an engineered DNA sequence to bind and suppress the cell growth protein HMGA

Laboratory Technician Intern, University of Vermont — June 2014-August 2014, May 2015-August 2015

- Worked with human blood samples to identify blood coagulation cascade and lysis product differences between trauma patients and healthy patients
- Compiled clinical data on patients with thrombotic complications
- Made buffers and enzyme solutions for protein concentration analyses

College Qualified Leader Army Educational Outreach Program — May 2015-August 2015

- Uploaded data from multiple laboratories into a single database with a coherent system
- Analyzed data and made graphs to show correlations between different clinical and empirical parameters concerning trauma patients

Agronomy Intern, Bourdeau Brothers — May 2016-August 2016, May 2017-August 2017

- Worked with a crop advisor team to develop nutrient and pest management plans for growers
- Used the Encirca Services modeling tool from DuPont Pioneer to help growers make nitrogen fertilizer recommendations for their fields
- Conducted field surveys for weed scouting
- Took soil samples for pre-sidedress nitrate test for corn
- Used Trimble Greenseeker remote sensor to assess relative crop health and nitrogen status to make nitrogen fertilizer recommendations for growers
- Used GIS mapping software to develop maps of soil type, waterways, and field outlines for growers

Conference Presentations

"Discovery of Novel Antibiotics from Local Plants and Mushrooms"
American Chemical Society National Meeting, San Diego, CA March 2016
"Adenovirus Mediated Delivery of an Engineered DNA Sequence for Pancreatic Cancer Treatment"
American Chemical Society National Meeting, San Francisco, CA April 2017
Undergraduate Research Forum, Miami University, Oxford, OH April 2017

Honors and Awards:

President's List Miami University	Fall 2013, Spring 2014, Spring 2015, Spring 2017
Dean's List Miami University	Fall 2014, Fall 2015, Spring 2016
Undergraduate Research Award Recipient	Fall 2014, Spring 2016
Culler Physics Award	May 2015
College Qualified Leadership Fellowship	Summer 2015
John H. Buckingham Scholarship	Fall 2016
Jack T. Pickett Agricultural Scholarship	Fall 2017
Miller Plant Sciences Award	Fall 2018