

# Michael Dieffenbach

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## Summary:

Biomedical Sciences student with three years of research experience. Performed two years of full-time humanitarian work in Brazil. Fluent in English, Portuguese, and Spanish, and proficient in Italian and Japanese.

## Education:

- Currently majoring in Biomedical Sciences at the University of Central Florida in Orlando (4.0 GPA, with five semesters complete).
- National Merit Scholar (scored a perfect 36 on the ACT).
- Member of the Burnett Honors College.
- Graduated from Wisconsin Virtual Learning as valedictorian in 2012.

## Experience:

Research assistant, 9/2015 to present. 20 hours per week.

University of Central Florida, Biology Department, Orlando, FL

- We use fruit flies as models to study the genes involved in the transport system for a class of chemicals known as polyamines that are essential for cell growth and division. We hope to use this research to develop more effective cancer medications.
- For my Honors Thesis, I am developing a more effective assay to screen these genes.
- I participated in a Summer Undergraduate Research Fellowship (SURF) at UCF and am currently funded through UCF's Research and Mentoring Program (RAMP).
- I have presented my work at the 2017 Florida Undergraduate Research Conference at Florida Atlantic University and at UCF as part of the SURF program. I also attended the 2016 Allied Genetics Conference, hosted by the Genetics Society of America.

Elders Quorum President, 11/2015 to 11/2016.

Church of Jesus Christ of Latter Day Saints.

- I was in charge of all of the roughly 50 men in my local church congregation. This was an unpaid position that involves organizing service projects, Sunday School lessons, and activities and seeing that the spiritual and temporal needs of the members are attended to. In addition, I was responsible for coordinating monthly visits to all members of the congregation (roughly 100) to see how they were doing and offer help if needed.

Volunteer for the Church of Jesus Christ of Latter Day Saints, July 2013 to June 2015. 112 hours per week.

Rio de Janeiro, Brazil

- Worked on and led an international team of volunteers to improve the lives of the people of Rio de Janeiro, Brazil, by means of free English classes, addiction recovery programs, marriage and family counseling, employment services, and other humanitarian programs.
- Conducted all work in Portuguese and at times Spanish.

Lab Aide, 10/2012 to 4/2013. 15 hours per week.

University of Central Florida, Burnett School of Biomedical Sciences, Orlando, FL

- Received a paid position to assist researchers in developing inexpensive vaccines and drug treatments using genetically modified plants.
- Prepared various buffers for plant sample growth and regeneration.
- Extracted DNA from modified plant samples for analysis.
- Performed Western blots and Bradford assays and analyzed the results.

Member of high school SMART Team (a program offered by the Milwaukee School of Engineering Center for BioMolecular Modeling), 2010-2012

- Shadowed researchers and learned details of their current research and lab techniques.
- Prepared research papers presenting key proteins involved in diseases or promising treatments
- Assisted researchers by using 3D printing technology to create a detailed model of the molecular structure of these proteins. The end results can be found here:  
<http://cbm.msoe.edu/stupro/smart/previous/pre2011-2012.html#wvl>  
<http://cbm.msoe.edu/includes/pdf/smart2012/SMARTTeamPosters/WVL.pdf>  
<http://cbm.msoe.edu/stupro/smart/previous/pre2010-2011.html#wvl>  
<http://cbm.msoe.edu/includes/pdf/smart2011/presentation/WVL.jpg>

## **Extracurricular Activities:**

- Current treasurer for the American Society for Microbiology at UCF, founder and president of the UCF Juggling Club, and member of Honors Congress and the UCF Kiteboarding Club.
- Volunteer Portuguese/Spanish translator at Shepherd's Hope, a free medical clinic (5 hours per week, June 2016 – present).
- Member of STEM Ambassadors, a volunteer program at UCF designed to help inspire local elementary and middle school students to pursue STEM careers (October 2016-present).
- Shadowed several pathologists, a family practice physician, a hematologist/oncologist, and a radiation oncologist (55 hours total).