

# William C. Beckerson, Ph.D. – Curriculum Vitae

## Contact Information:



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## Research:



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WCBeckerson/

## Socials:



@WCBeckerson



@WilliaMycete



@aBitofBiology

## Languages: (CEFR)



English - C2  
Native



Spanish - A2.1  
Elementary



Dutch - A1.1  
Elementary

[What is CEFR?](#)

## EDUCATION

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University of Louisville - Louisville, KY, USA	8/2015-8/2020
Doctor of Philosophy in Biology	
University of Louisville - Louisville, KY, USA	8/2015-5/2017
Master of Science in Biology	
Georgetown College - Georgetown, KY, USA	8/2009-12/2013
Bachelor of Science in Biology / Minor: Business Management	

## RESEARCH EXPERIENCE

### Postdoctoral Research:

#### **ERC: [Marie Skłodowska-Curie Action Postdoctoral Fellowship Awardee](#)**

Utrecht University, Utrecht, NL 8/2023-7/2025

PI: Sander van den Heuvel

Research project title: Characterizing the neuronal effects of *Ophiocordyceps* secreted proteins using *C. elegans*.

#### **NSF: [Postdoctoral Research Fellowship in Biology Awardee](#)**

University of Central Florida, FL, USA 8/2021-7/2023

PI: Charissa de Bekker

Research project title: Linking parasite genomes, environmental ques, and host phenomes in *Ophiocordyceps*.

### Dissertation Research:

Ruhr-Universität Bochum, Bochum, DE 8/2018-7/2019

Collaborator: Dominik Begerow

Research project title: Implementation of CRISPR Cas9 in *Microbotryum lychnidis-dioicae*.

#### **AdF: [Chateaubriand Fellowship Awardee](#)**

Université Paris-Sud, Orsay, FR 5/2016-8/2016

Collaborator: Tatiana Giraud

Research project title: Comparative genomics of species-specific effectors in the *Microbotryum* genus.

University of Louisville, KY, USA 8/2015-8/2020

PI: Michael Perlin

Research project title: Molecular analysis of secreted proteins in the *Microbotryum* genus.

### Pedagogical Research:

University of Louisville, KY, USA 9/2017-7/2021

PI: Deborah Yoder-Himes

Research project title: Analyzing the impact of active learning on different social personalities.

## PUBLICATIONS

### Peer Reviewed Research Articles:

- Beckerson WC, Anderson JO, Kulkarni S, Perpich JD, Yoder-Himes D. (2023). It's About Time: Exploring the dose-dependent effects of active learning on students of different social personalities in an upper-level biology course. *Journal of College Science Teaching*. <https://doi.org/10.1080/0047231X.2024.2316378>
- Will I, Beckerson WC, de Bekker C. (2023). Using machine learning to predict protein-protein interactions between a zombie ant fungus and its carpenter ant host. *Scientific Reports* 13, 13821. <https://doi.org/10.1038/s41598-023-40764-8>
- Beckerson WC, Krider C, Mohammad UA, de Bekker C. (2023). 28 Minutes Later: Investigating the role of aflatrem-like compounds in *Ophiocordyceps* parasite manipulation of zombie ants. *Animal Behaviour* 203, 225-240. <https://doi.org/10.1016/j.anbehav.2023.06.011>
- De Bekker C, Beckerson WC, Carolyn Elya. (2021). Mechanisms Behind the Madness: How do zombie-making fungal entomopathogens affect host behavior to increase transmission? *mBio* 12(5), e01872-21. <https://doi.org/10.1128/mBio.01872-21>
- Beckerson WC, Anderson JO, Perpich JD, Yoder-Himes D. (2020). An Introvert's Perspective: Analyzing the impact of active learning on social personalities in an upper-level biology course. *Journal of College Science Teaching* 49(3), 47-57. [https://doi.org/10.2505/4/jcst20\\_049\\_03\\_47](https://doi.org/10.2505/4/jcst20_049_03_47)
- Beckerson WC, de la Vega RCR, Hartmann FE, Duhamel M, Giraud T, Perlin MH. (2019). Cause and Effectors: Whole genome comparisons reveal shared but rapidly evolving effector sets among host-specific plant-castrating fungi. *mBio* 10:e02391-19. <https://doi.org/10.1128/mBio.02391-19>
- Kuppireddy VS, Uversky VN, Toh SS, Tsai M-C, Beckerson WC, Cahill CC, Carman B, Perlin MH. (2017). Identification and initial characterization of effectors of an anther smut fungus and the potential host target proteins. *International Journal of Molecular Science* 18, 2489. <https://doi.org/10.3390/ijms18112489>

### Peer Reviewed Teaching Lessons:

- Beckerson WC. (2022). Small Organisms with Big Consequences: Understanding the microbial world around us. *CourseSource*. <https://doi.org/10.24918/cs.2022.27>

### Textbooks:

- Beckerson WC, Laraba I, Torres-Cruz TJ, Steinkraus D, Hajek A. (2024). *Mechanisms of Host Manipulation and Mimicry in Fungi*. In: Haelewaters D. (ed.) *Biodiversity and Evolution of Fungal Parasites and Pathogens*. Amsterdam, Netherlands: Elsevier. **In Preparation**  
ISBN: 978032885324
- Savchenko K, Beckerson WC, Aime C. (2024). *Economically Important Plant Parasites: Rusts and smuts*. In: Haelewaters D. (ed.) *Biodiversity and Evolution of Fungal Parasites and Pathogens*. Amsterdam, Netherlands: Elsevier. **In Preparation**  
ISBN: 978032885324
- Perlin MH, Beckerson WC, Gopinath A, Cobbs G. (2019). *Molecular and Cellular Genetics: Laboratory Studies*. San Diego, California United States: Cognella Academic Publishing. **2<sup>nd</sup> Edition**  
ISBN: 9781793514943
- Perlin MH, Beckerson WC, Gopinath A, Cobbs G. (2018). *Molecular and Cellular Genetics: Laboratory Studies*. San Diego, California United States: Cognella Academic Publishing. **1<sup>st</sup> Edition**  
ISBN: 9781516528288

## FUNDING

### Extramural Funding and Fellowships (\$147,605 & €203,464):

HORIZON Marie Skłodowska-Curie Actions Postdoctoral Fellowship: NL (€203,464)		8/2022
Grant agreement ID: 101108298 (DOI: 10.3030/101108298)		
NSF Postdoctoral Research Fellowship in Biology (PRFB): USA	(\$138,000)	6/2021
Award number (FAIN): 2109435		
GSA Fungal Genetics Conference Travel Award: USA	(\$250)	3/2019
DAAD Short Term Research Grant: DE	(\$4,075)	11/2018
Chateaubriand STEM Fellowship: FR	(\$5,280)	5/2016

### Intramural Funding: University of Central Florida, FL, USA (\$55,000):

Preeminent Postdoctoral Program	(\$55,000)	8/2020
Co-written with: Dr. Charissa de Bekker		

### Intramural Funding: University of Louisville, KY, USA (\$3,236):

Biology 1970's Cohort Fund Grant	(\$200)	6/2019
Graduate Student Council Travel Grant	(\$350)	1/2019
Graduate Network of Arts and Science Travel Grant	(\$250)	1/2019
Graduate Student Council Travel Grant	(\$350)	5/2018
Arts & Science Research & Creative Activities Grant	(\$500)	4/2018
Biology Graduate Student Association Travel Grant	(\$175)	2/2018
Joint Arts & Science Research & Creative Activities Grant	(\$1,311)	4/2016
Co-written with: Venkata S. Kuppireddy		
Graduate Network of Arts and Sciences Research Fund	(\$100)	1/2016

### Significant Contributions to Other Grants (\$296,889):

NSF Track I International Research Experience for Students	(\$296,889)	8/2018
Co-written with: (PI) Dr. Michael H. Perlin Award number: I824851		

## CONFERENCE PRESENTATIONS

### Conference Chair:

Gordon Research Seminar: Cellular Molecular Fungal Biology 2024 – NH, USA	7/2022-6/2024
Chair with Andrew Swafford (co-chair)	

### Oral Presentations:

8 <sup>th</sup> Conference on Physiology of Yeasts and Filamentous Fungi – Cork, IR	6/2023
Using Yeast to heterologously study the behavior-modifying effects of recalcitrant zombie fungi biomolecules	
Gordon Research Seminar on Cellular and Molecular Fungal Biology – NH, USA	6/2022
28 Minutes Later: Analyzing the role of aflatrem-like effectors in the behavioral manipulation of Zombie Ants	
Animal Behavior Society Online Conference – online	8/2021
28 Minutes Later: The role of secreted effectors in the behavioral manipulation of zombie ants	
Ruhr-Universität Bochum <i>Microbotryum</i> Symposium – Bochum, DE	7/2019
An Unorthodox CRISPR Approach for an Unorthodox Fungus	
Asilomar Fungal Genetics Conference: Smut Convergence – CA, USA	3/2019
Cause and Effectors: Secretome comparison of members from the anther-smut pathogen species complex, <i>Microbotryum violaceum</i>	
Gordon Research Seminar on Cellular and Molecular Fungal Biology – NH, USA	6/2018
The First Cut is the Deepest: Implementing CRISPR Cas9 as a transformation system for site specific gene disruptions in the fungal pathogen species complex <i>Microbotryum violaceum</i>	

<b>Kentucky Academy of Science Conference – KY, USA</b>	11/2016
Identifying unique small-secreted proteins in divergent species of the fungal pathogen complex <i>Microbotryum violaceum</i>	
<b>Ruhr-Universität Bochum <i>Microbotryum</i> Symposium – Bochum, DE</b>	6/2016
Analyzing the role of protein-protein interactions in host/pathogen co-evolution	
<b>Poster Presentations:</b>	
<b>European Conference on Fungal Genetics – Innsbruck, AT</b>	3/2023
28 Minutes Later: A proof of concept for testing behavior-manipulating compounds from zombie-making fungi	
<b>Gordon Research Conference on Cellular and Molecular Fungal Biology – NH, USA</b>	6/2022
28 Minutes Later: Analyzing the role of aflatrem-like effectors in the behavioral manipulation of Zombie Ants	
<b>National Association of Biology Teachers: Professional Conference – GA, USA</b>	11/2021
It's About Time: Exploring the dose-dependent effects of active learning on student social personality in an upper-level biology course	
<b>National Association of Biology Teachers: Professional Conference – GA, USA</b>	11/2021
The Zombie Fungus Foray: Community science outreach using iNaturalist to discover Zombie Ants	
<b>National Association of Biology Teachers: Professional Conference – IL, USA</b>	11/2019
An Introvert's Perspective: Analyzing the impact of active learning on multiple levels of class social personalities in an upper-level biology course	
<b>Asilomar Fungal Genetics Conference – CA, USA</b>	3/2019
Cause and Effectors: Secretome comparison of members from the anther-smut pathogen species complex, <i>Microbotryum violaceum</i>	
<b>Gordon Research Conference on Cellular and Molecular Fungal Biology – NH, USA</b>	6/2018
The First Cut is the Deepest: Implementing CRISPR Cas9 as a transformation system for site specific gene disruptions in the fungal pathogen species complex <i>Microbotryum violaceum</i>	

## PROFESSIONAL PRESENTATIONS

<b>Utrecht University Faculty Pedagogical Journal Club – Utrecht, NL</b>	2/2023
The dose-dependent effect of group-based active learning on students with different social personalities.	
<b>Arkansas State University Queretaro STEM Week Invited Speaker – Queretaro, MX</b>	2/2023
Real-life Zombies and Where to Find Them: How fungi manipulate animal behavior!	
<b>Utrecht U. Molecular Life Sciences Honors Program Invited Speaker – Utrecht, NL</b>	10/2022
Observations from the Crypt: The science behind zombie ants and their fungal parasites	
<b>University of Oxford Invited Speaker – Oxford, UK</b>	9/2022
28 Minutes Later: The role of secreted effectors in the behavioral manipulation of zombie ants	
<b>University of Louisville Invited Speaker Series – KY, USA</b>	9/2020
Comparative secretomics and functional analysis of effectors utilized by the <i>Microbotryum</i> genus of anther-smut fungal pathogens, and their role in host-specificity	
<b>University of Central Florida Invited Speaker Series – FL, USA</b>	9/2020
Comparative secretomics and functional analysis of effectors utilized by the <i>Microbotryum</i> genus of anther-smut fungal pathogens, and their role in host-specificity	
<b>Georgetown College Invited Speaker Seminar – KY, USA</b>	11/2019
Cause and Effectors: How rapidly evolving effectors lead to host-specificity between <i>Microbotryum</i> and Caryophyllaceae	
<b>Belknap Academic Building Anniversary Event – KY, USA</b>	8/2019
An Introvert's Perspective: Analyzing the impact of active learning on multiple levels of class social personalities in an upper-level biology course	
<b>Ruhr-Universität Bochum Invited Speaker – Bochum, DE</b>	6/2019
The History and Future of CRISPR Cas9	
<b>Ruhr-Universität Bochum Invited Speaker – Bochum, DE</b>	6/2018
The First Cut is the Deepest: CRISPR Cas9 and how to get started	

Georgetown College Invited Speaker Seminar – KY, USA Here and Back Again: A GCPALS tale	10/2016
Université du Paris Sud Chateaubriand Fellowship Invited Speaker – Orsay, FR Identification of Small-Secreted Proteins in the <i>Microbotryum</i> genus	5/2016

## PROFESSIONAL DEVELOPMENT & SERVICES

### Training/Workshops/Conferences: ...

Teaching and Learning Inspiration Days Conference – Utrecht University, NL Jan 29 <sup>th</sup> Education with societal partners in practice Jan 30 <sup>th</sup> AR/VR: Experience the future of learning Evidence-informed educational change Feb 1 <sup>st</sup> Using open educational resources	1/2024-2/2024
Parametric Modeling for 3D Printing w/ Fusion – Basics Workshop – UU, NL	01/2024
Fused Deposition Modeling for 3D Printing – Basics Workshop – UU, NL	12/2023
2023 Royal Dutch Association for Microbiology Mycology Conference – Utrecht, NL “Fungal anarchy – do fungi obey the rules of the game?”	11/2023
Public Engagement Academy for Postdocs – Utrecht University, NL Founding member of an academy to teach and facilitate outreach by postdoctoral scholars including the following modules: Jan 9 <sup>th</sup> Impact measurements 2024 Public communication skills 2024 Engaging children 2024 Media training Popular science writing, 2024 Dialogue training	11/2023-7/2024
Wetenschnapps 10: Public Engagement - recognition and rewards in practice – UU, NL	11/2023
Utrecht University Professional Media Communication Training – UU, NL	11/2023
2022 Royal Dutch Association for Microbiology Mycology Conference – Utrecht, NL “We Will Meet Again: Fungi and the world around them”	11/2022
NSF Improving Undergraduate STEM Education Program – UCF, USA 2022 The Inclusive STEM Teaching Project	3/2022-5/2022
Collaborative Institutional Training Initiative – University of Central Florida, USA 2021 Human Subjects Research – Group 2 Social/Behavioral Research Investigators and Key Personnel 2021 Communicating Research Findings 2021 Conflict of Interest	1/2021-3/2021
NIH Grant Writing Virtual Conference – University of Central Florida, USA	5/2020
Training with Remote Teaching Options for COVID-19 – University of Louisville, USA	2/2020
Research Academy RUHR: Open Access Science Workshop – Universität Bochum, DE	8/2019
Faculty Search Committee: Diversity Training – University of Louisville, USA	2/2019
<b>Professional Societies/Organizations:</b>	
Animal Behavior Society	8/2021-2023
National Association of Biology Teachers 2021-2022 Justices, Equity, Diversity, and Inclusion Committee 2019-2020 Community Science Committee	11/2019-2023
Genetics Society of America 2022 Science Communication Virtual Networking Moderator for the 3I <sup>st</sup> FGC	3/2018-current
Kentucky Academy of Science	11/2014-7/2020
<b>University Services:</b>	
Utrecht Selective Life Sciences Extra Curricular Track selection committee – UU, NL	11/2023-1/2024
2022 UofL Biology Alumni Advice Panel – University of Louisville, USA	11/2022
2021 UofL Biology Alumni Advice Panel – University of Louisville, USA	8/2021
Committee member for the UCF Invited Speaker Series – UCF, USA	8/2021-4/2022

Diversity, Equity, and Inclusion: Classroom Isolation Subcommittee – UCF, USA	2/2021
Biology Undergraduate Student Association: Graduate Student Panel – UofL, USA	10/2019
Biology Faculty Search Committee: Graduate Student Representative – UofL, USA	2/2019
Student Grievance & Discipline Committee – University of Louisville USA	8/2016-4/2017
2016-2017 Natural Science Division Representative	
Graduate Network of Arts & Sciences – University of Louisville, USA	8/2016-4/2018
2017-2018 Vice President	
2017 Natural Science Rep. for Grant Review Committee	
2016-2018 Department of Biology Representative	
Biology Graduate Student Association – University of Louisville, USA	8/2015-7/2020
2019-2020 President	
2018-2019 Graduate Student Rep.	
2016-2017 Social Chair	
2016 & 2020 Webmaster	
2016-2020 Member	

### Community Services:

Florida Undergraduate Research Conference (FURC) Abstract Reviewer – FL, USA	6/2021
UCF Student Scholar Symposium for Undergraduate Research (SURE) Judge – FL, USA	3/2021
DuPont Manual Regional Science Fair Judge –KY, USA	6/2019
DuPont Manual Regional Science Fair Judge –KY, USA	6/2018
Louisville Regional Science & Engineering Fair Judge – KY, USA	3/2018

### Peer Review Services:

Molecular Ecology	2 primary research articles	2022-2023
CourseSource	3 primary research articles	2020-2024
	1 conference publication	
Society for Molecular Plant-Microbe Interactions	1 primary research article	2020

## TEACHING EXPERIENCE

### Teaching Qualifications:

In addition to my hands on experience as an instructor, I have also received formal training in the United States of America and the European Union:

Utrecht University Teaching Qualification Program (UTQ) – Utrecht University, NL 2/2024-  
Official certification can be found at: <https://www.WilliamCBeckersonPhD.com>

Formal certification to teach at the university level in the Netherlands with the following modules:

2024	Formulating Learning Objectives
2024	Formulating Learning Objectives
2024	Reflective Teaching Practices
2024	Peer-review strategies

Preparing Tomorrow's Faculty Program – University of Central Florida, USA 8/2021-12/2021

Official certification can be found at: <https://www.WilliamCBeckersonPhD.com>

A course on teaching at the college level for UCF Graduate Students and postdocs including the following modules:

2021	Student learning and motivation
2021	Integrated course design
2021	Teaching pedagogies
2021	Assessment and feedback
2021	Course climate
2021	Career development

### Teaching Experience:

MSCA Postdoctoral Research Fellow – Utrecht University, NL 8/2023-7/2025

MBLS-107: Functional Biology

2 sections	120 min/class	5 & 5 students	Once/month	Spring 2024
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B-MEBIFB19: Fungal Biology  
 I section 105 min/class 13 students Twice/week Autumn 2023

**NSF Postdoctoral Research Fellow – University of Central Florida, USA**

8/2021-7/2023

Concurrent teaching for the duration of a PRFB fellowship is prohibited as outlined on pg. 15 of the administrative guide for the Postdoctoral Research Fellowships in Biology program:

<https://www.nsf.gov/pubs/2021/nsf21081/nsf21081.pdf>

**Adjunct Faculty of Record – Georgetown College, USA**

8/2019-4/2020

BIO 100: Introductory Biology for Non-Majors (100% Remote Learning)

I section 75 min/class 24 students Four/week Summer 2020

BIO 111: Introductory Biology for Majors

I section 75 min/class 24 students Twice/week Autumn 2019

BIOL 111: Introductory Biology Lab

I section 110 min/class 24 students Once/week Autumn 2019

**Invited Group Lecturer for Biotechnology Methods – University of Louisville, USA**

8/2018-12/2018

BIOL 416: Biotechnology Methods

2 sections 240 min/class 4 & 5 students Twice/week Autumn 2018

**Teaching Innovation Learning Lab in Microbiology – University of Louisville, USA**

8/2017-12/2019

BIO 357: General Microbiology

I section 75 min/class 64 students Eight/Semester Autumn 2019

BIO 357: General Microbiology

I section 75 min/class 49 students Four/Semester Autumn 2018

BIO 357: General Microbiology

I section 75 min/class 43 students Four/Semester Spring 2018

BIO 357: General Microbiology

I section 75 min/class 65 students Four/Semester Autumn 2017

**Graduate Teaching Assistant – University of Louisville, USA**

8/2015-4/2020

BIOL 331: Genetics and Molecular Biology

2 sections 110 min/class 20 & 20 students Twice/week Spring 2020

BIOL 331: Genetics and Molecular Biology

2 sections 110 min/class 20 & 22 students Twice/week Autumn 2019

BIOL 331: Genetics and Molecular Biology

2 sections 110 min/class 20 & 22 students Twice/week Spring 2019

BIOL 331: Genetics and Molecular Biology

I section 110 min/class 19 students Twice/week Autumn 2018

BIOL 104: introduction to Biological Systems

2 sections 110 min/class 14 students Three/week Summer 2018

BIOL 331: Genetics and Molecular Biology

2 sections 110 min/class 20 & 21 students Twice/week Spring 2018

BIOL 331: Genetics and Molecular Biology

I section 110 min/class 8 students Twice/week Autumn 2017

BIOL 258: Microbiology

2 sections 90 min/class 15 & 6 students Four Days/week Summer 2017

BIOL 331: Genetics and Molecular Biology

2 sections 110 min/class 17 & 21 students Twice/week Spring 2017

BIOL 331: Genetics and Molecular Biology

I section 110 min/class 16 students Twice/week Autumn 2016

BIOL 244: Principles of Biology

2 sections 110 min/class 27 & 28 students Twice/week Spring 2016

BIOL 104: Introduction to Biological Systems

3 sections 110 min/class 33, 33, & 33 students Once/week Autumn 2015

## HONORS & AWARDS

UU News: MSCA Fellowships for five Utrecht University researchers – Utrecht University, NL	3/2023
<a href="https://www.uu.nl/en/news/marie-skłodowska-curie-actions-fellowships-for-five-utrecht-university-researchers">https://www.uu.nl/en/news/marie-skłodowska-curie-actions-fellowships-for-five-utrecht-university-researchers</a>	
UCF Today: Stories of Impact + Innovation Spotlight – University of Central Florida, USA	2/2021
<a href="https://www.ucf.edu/news/ucf-doctoral-scholar-named-national-science-foundation-biology-fellow/">https://www.ucf.edu/news/ucf-doctoral-scholar-named-national-science-foundation-biology-fellow/</a>	
Graduate Dean’s Citation – University of Louisville, USA	12/2020
Graduate Student Publication Award – University of Louisville, USA	4/2020
Graduate School of Arts and Sciences Student Spotlight – University of Louisville, USA	3/2020
<a href="https://louisville.edu/graduate/student-spotlight/student-spotlight-february-2020">https://louisville.edu/graduate/student-spotlight/student-spotlight-february-2020</a>	
Introductory Biology Lab Development Award – University of Louisville, USA	7/2019
Graduate Student Research Presentation Award – University of Louisville, USA	4/2019
Biology Department Service Award – University of Louisville, USA	4/2019
College of Arts and Science Student Profile – University of Louisville, USA	2/2016
<a href="https://louisville.edu/artsandsciences/academics/graduate-education/student-profiles/beckerson">https://louisville.edu/artsandsciences/academics/graduate-education/student-profiles/beckerson</a>	

## OUTREACH

### Community Science Initiative: the Zombie Fungus Foray, Orlando US

#### -Creator-

\*hyperlinks imbedded in the logos\*

Website: <https://wcbeckerson.wixsite.com/thezombiefungusforay>

iNaturalist: <https://www.inaturalist.org/projects/the-zombie-fungus-foray>



#### K-12 Classroom Outreach:

10/2022	Amsterdam International Community School – Amsterdam, NL
10/2021	Wharton High School: National Honor Society – Tampa, FL, USA
10/2021	Freedom High School: Environmental Science Periods I-7 – Tampa, FL, USA
10/2021	Wharton High School: SPLASH Club, and Biology Sections I-6 – Tampa, FL, USA
2/2021	Mica Mountain High School: Sections III & VI – Tucson, AR, USA
10/2020	Jackson Heights Middle School: Ecology – Oviedo, FL, USA
10/2020	Oviedo High School: Sophomore Biology Sections 2, 3, 6, & 7 – Oviedo, FL, USA
10/2020	Oviedo High School: AP Biology Sections I & II – Oviedo, FL, USA



#### iNaturalist Curator:

8/2020-current	Website curator for the <i>Ophiocordyceps unilateralis</i> species complex
8/2020	The Zombie Fungus Foray Project Creator



#### Seminole County Parks Partnership:

10/2021	Chuluota Wilderness Area Guided Hike for Zombie Ants – Geneva, FL, USA
7/2021	Eco Camp: Grossology Week Guide to Zombie Ants – Geneva, FL, USA
6/2021	Eco Camp: Biology Bootcamp Guide to Zombie Ants – Geneva, FL, USA



#### Orlando Science Center Partnership:

2/2022	Otronicon: 3-day Alpha testing of ZombieAntVR with kids – Orlando, FL, USA
10/2021	Pumpkins and Protons Halloween Party Exhibit – Orlando, FL, USA
10/2019	Spooky Science Week Exhibit: Real-life Zombie Ants! – Orlando, FL, USA



#### stemCONNECT Partnership:

10/2021	Spooky Themed Month Virtual Presentation – Orlando, FL, USA Real-life Zombies and Where to Find Them
4/2021	EARTH DAY Virtual Presentation – Orlando, FL, USA Real-life Zombies and Where to Find Them



#### TikTok:

6/2021-2022	@TheZombieFungusForay <a href="https://www.tiktok.com/@thezombiefungusforay?lang=en">https://www.tiktok.com/@thezombiefungusforay?lang=en</a>
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**ZombieAntVR:**

- 6/2022 UCF Gains in the Education of Math and Science Summer Camp – Orlando, FL, USA  
VR project demo for Weeks 1-2, 4-5: grades 5<sup>th</sup> – 8<sup>th</sup>
- 8/2020-2022 A virtual reality video game about the *Ophiocordyceps* life cycle.  
Project coordinator, story designer, voice director.
- \* Now available for download on STEAM: [https://store.steampowered.com/app/2+16150/Zombie\\_Ants\\_VR/](https://store.steampowered.com/app/2+16150/Zombie_Ants_VR/)

**Other Outreach:**

- Pint of Science Festival – Utrecht, NL 05/2024  
A Fungus and its Zombie Ant: A very real example of zombie-making parasites
- Adaptation of our published research for Science Journal for Kids and Teens – TX, USA 11/2023  
<https://www.sciencejournalforkids.org/articles/how-do-some-fungi-turn-insects-into-zombies/>
- Museum of Natural Sciences in Brussels: International Microorganism Day – BE 10/2023  
In collaboration with the Young Belgian Society for Microbiology
- Guest on Val 202’s Frekvenca X show about “The Last of Us” – SI 3/2023  
<https://val202.rtvslo.si/podcast/frekvenca-x/31057643/1749+1558>
- Guest on NPR’s The Colin McEnroe Show about “The Last of Us” – CT, USA 2/2023  
<https://www.ctpublic.org/show/the-colin-mcenroe-show/2023-02-06/the-fungus-among-us>
- Correspondent for Inverse on the science behind “The Last of Us” – NY, USA 1/2023  
<https://www.inverse.com/science/last-of-us-hbo-zombie-science>
- Correspondent for Newsweek on the science behind “The Last of Us” – NY, USA 1/2023  
<https://www.newsweek.com/cordyceps-fungus-zombie-last-us-real-hbo-1774684>
- Orlando MegaCon Presenter – FL, USA 5/2022  
Examining the Science Behind Zombie Movies
- Orlando Taste of Science - Science Festival, Scientists Inc. – FL, USA 4/2022  
Real-life Zombies and Where to Find Them
-  TikTok: 12/2021-2022  
@aBitofBiology <https://www.tiktok.com/@abitofbiology>
- Orlando MegaCon Panelist – FL, USA 8/2021  
The Last Damn Zombie Science Panel You’ll Ever Need!
- Interview a Biologist – VT, USA 10/2021  
with Stacey Grimaldo Garcia of Middlebury College
- Skype a Scientist Live: Orlando – FL, USA 2/2021  
Spooky Science: Real Life Zombies and Where to Find Them  
<https://www.youtube.com/watch?v=7WGjZG4DjjQ>
- Beer with a Scientist: Monnik Beer Company – KY, USA 3/2020  
Our Friends the Fungi: The many types of fungi and the history of how we’ve used them
- Skype a Scientist 4/2019-10/2021
- 10/2020 Creekside Middle School: Sixth Grade Class – Bentonville, AR, USA
- 5/2019 Marie Curie Institute: Fourth and Fifth Grade Class – Amsterdam, NY, USA
- 5/2019 Corry Area High School: Ninth Grade Class – Corry, PA, USA
- 4/2019 Newark Central: Second Grade Class – Newark, NY, USA
- 4/2019 E.K. Powe Elementary School: First Grade Class (AKA the Sea Crew) – Durham, NC, USA
- 4/2019 Annunciation Catholic School: Seventh Grade Class – Denver, CO, USA
- Guest Speaker at University of Louisville: Meet the Professor – KY, USA 4/2019  
Science Information Literacy & Oral Communication
- Guest Speaker at Lexington Christian Academy High School – KY, USA 12/2018  
The history of genetic modification of our food
- Guest Speaker at Lexington Christian Academy High School – KY, USA 2/2016  
What is a GMO?
- ExBEERiment: Socialize with Science at the Louisville Science Center – KY, USA 9/2016  
The science of brewing beer

## REFERENCES

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