### Nothing can prepare you...



**Conference Program** 

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# Live streaming

Live streaming will be available for events in the Cochise Room, Ventana A, and the Student Pavilion. https://asunow.asu.edu/asulive

# **Important Locations**

#### Arizona State University (ASU) interactive map

www.asu.edu/map/interactive/

Memorial Union (MU) building map https://eoss.asu.edu/sites/default/files/MU-buildingMap.pdf

# Conference Agenda

### Thursday, October 18 | Memorial Union Building

#### 8:30-9am | Light breakfast

Cochise Room 228

#### 9-9:15am | Welcome (all chairs)

Cochise Room 228

#### Wilderness Medicine Workshop

Escape to the Grand Canyon: Disaster & bug out medicine *Cochise Room 228* 

9:15-9:45am | Clint Kalan Treating wounds & bites

9:45-10:15am | Joe Alcock Surviving heat & dehydration in the Grand Canyon

10:15-10:30am | Coffee/Tea break

10:30-11am | Drew Harrell Zombie ballistics & gunshot wounds

11-11:30am | Jake Jensen Zombie disaster medical kit

11:30-11:45am | Panel Q & A with presenters

#### 11:45am-12:45pm | Lunch on your own

### 12:45-1pm | Welcome (all chairs)

Cochise Room 228

#### 1-1:45pm | Plenary, Shabam!

Fact & fiction in the zombie apocalypse Cochise Room 228



#### Thursday, October 18 | Memorial Union Building (continued)

#### Session 1: Does culture have a mind of its own?

Chairs: Lee Cronk, Cristine Legare | Cochise Room 228

1:45-2pm | Lee Cronk My culture made me do it: Cultural zombification as an adaptive strategy

2-2:15pm | Thomas Morgan It's too late, a skeleton is inside you

2:15-2:30pm | Aiyana Willard Controlling the Dead with magic: Witchcraft & distrust in Mauritius

2:30-2:45pm | Christina Moya Strategies of a successful pilgrimage site & its skeptics

2:45-3pm | Sherry Towers Modelling the apocalypse: How to stop a zombie attack

3-3:15pm | Charles Nuckolls The zombie apocalypse as conservative cultural critique

#### 3:15-3:30pm | Coffee/Tea break

Cochise Room 228

#### Panel 1: Moral survivorship after the zombie apocalypse

Lincoln Center for Applied Ethics Chairs: Stephanie Birdsall, Jason Robert Panelists: Catherine O'Donnell, Jason Bruner, Douglas L. Kelley *Cochise Room 228* 

3:30-4:15pm

You've survived so far with your brains intact, but at what moral cost? Are you morally whole? Can you afford to be? Can you afford not to be? Learn what you need to know to ethically survive the apocalypse from an interdisciplinary panel of Faculty affiliated with ASU's Lincoln Center for Applied Ethics.

#### 4:15-4:30pm | Transition-walk to Student Pavilion

**4:30-6pm | Public lecture, Max Brooks** Creativity: The most important survival skill for the zombie apocalypse *Student Pavilion, Senita A* 



Max Brooks | Author of the Zombie Survival Guide & World War Z

#### 6-7pm | Welcome reception

Lincoln Center for Applied Ethics Engrained Cafe

#### 7-8pm | Public performance, Baba Brinkman

Rap Guide to Consciousness (and Zombies) Cochise Room 228 Baba Brinkman | Rap artist and playwright

### Friday, October 19 | Memorial Union Building

#### 8:30-9am | Light breakfast

Ventana C

#### 9-9:15am | Peter Schlosser

Overview of the Global Futures Initiative Ventana A

#### 9:15-10am | Plenary, Diana Fleischman

They all want your brainz: Zombification & manipulation *Ventana A* Diana Fleischman, Ph.D. | Senior Lecturer University of Portsmouth, UK

### **10-11am | Zombie mock trial** *Ventana B*

### 11-11:15am | Coffee/Tea break

Ventana C



	Session 2: Zombie apocalypse risk management and disaster response Chair: Esma Gel		
Room	Ventana A		
11:15 -11:30am	Risk management in the zombie apocalypse Lee Cronk		
11:30-11:45am	Can cooperation save our souls? Need-based transfers and kombucha in the zombie apocalypse   Athena Aktipis		
11:45am-12pm	Humanitarian aid in the zombie apocalypse: How to avoid pitfalls and inefficiencies Mahyar Eftekhar		
12-12:15pm	Healthcare access in the zombie apocalypse: Should zombies get priority?   Esma Gel		
12:15-12:30pm	Surviving the apocalypse: Community resilience for the end-times disaster   Lars Powell		

#### 12:30-1:30pm | Lunch on your own

#### 1:30-2:15pm | Plenary, Amy Boddy

Is your mom a zombie? The evolutionary implications of fetal microchimerism *Ventana A* 

	Session 3: Leaders and followers in the zombie apocalypse   Chair: Mark Flinn		
Room	Ventana A		
2:15-2:30pm	How to fight back against witches, voodoo & other cortisol zombies: Lessons from the field   Mark Flinn		
2:30-2:45pm	Asshole leaders suck your soul, but you like it apparently   Pat Hawley		
2:45-3pm	The zombie between us: Losing the individual to the collective   Ted Pavlic		
3-3:15pm	Alien rule in the zombie apocalypse   Michael Hechter		

<b>Panel 2</b> Chair: Emily Zarka		Zombie ar	ts festival
Ventana B	Venta	ına C	Apache Room
Fifty years of the undead in film and popular culturePanelists: 		n of g and g films zombie e. ection gram for ils. HABAM! MABAM!	
Panel 3 Chair: Ed Finr	n	Zom	bie arts festival
Ventana B			Ventana C
<b>Haunted science</b> Frankenstein, zombies obsession with the mo Panelists: Ed Finn Ben Hurlburt Peter Nagy Emily Zarka Ruth Wylie		fascinatin zombie a See Arts s	on of frightening & g films about the oocalypse. ection of the for more details.

#### 3:15-3:45pm | Coffee/Tea break | Ventana C

	Session 4: Proper care and feeding in the zombie apocalypse   Chair: Corrie Whisner	
Room	Ventana A	
3:45-4pm	Comparative analysis of vampire vs. zombie nutritional needs   Corrie Whisner	
4-4:15pm	Zombie fitness: What you need to know to cheat death   Siddhartha Angadi	
4:15-4:30pm	Brains, breasts, and bottles: Infant feeding after Z-Day   Angela Bond	
4:30-4:45pm	Food taboo and disgust reversal in the recently deceased  Peter Todd	
4:45-5pm	Getting medieval on the zombie apocalypse Danièle Cybulskie	
5-5:15pm	Synthetic cathinones (bath salts) – The zombie drug of choice   Foster Olive	

#### 5:15-6pm | Surprise celebrity plenary

Ventana A

### 6-9pm | Banquet & zombie dance party

Engrained Cafe

### Saturday, October 20 | Memorial Union Building

#### 8:30-9am | Light breakfast

Ventana C

#### 9-9:15am | Welcome

Ventana A

<b>SimZombie game</b> Chair: John Carter McKnight	Zombie arts festival
Ventana B	Ventana C
<b>Can you survive the Zombie</b> <b>Apocalypse?</b> Sign up for a session of SimZombie, an interactive roleplaying scenario, to test your survival skills and learn about using interactive activities like SimZombie in the classroom.	<b>Zombie films</b> A collection of frightening and fascinating films about the zombie apocalypse. See Arts section of the program for more details. Listen to SHABAM!



9:15-10am | Plenary, David Buss The evolutionary psychology of zombies: Better off dead or undead? Ventana A

	Session 5: Zombie robots and autonomous vehicles: Who's responsible? Chair: Azim Shariff		
Room	Ventana A		
10-10:30am	When robots take the wheel: Moral quandaries of self-driving cars   Azim Shariff		
10:30-10:45am	Who is legally and ethically responsible for autonomous vehicles?   Gary Marchant		
10:45-11am	Scalable Zombification: Control strategies for robot swarms   Spring Berman		

#### 11am-11:15am | Coffee/Tea Break

Ventana C

	Session 6: The psychology of zombies Chair: Vaughn Becker		
Room	Ventana A		
11:15-1:45am	Cognitive and emotional responses to zombies: Dysphoria, dehumanization, and why 'People for the Ethical Treatment of Zombies' will never be a thing   Vaughn Becker		
11:45am-12pm	How (beliefs about) zombies spread by manipulating your brain   Michael Barlev		
12-12:15pm	Motive Zombification: How your evolved motivational systems get parasitized by other humans and your iDevices   Doug Kenrick		
12:15-12:30pm	Do parents zombify their kids?   Keith Crnic		

David Buss, Ph.D Professor, Department of Psychology University of Texas Austin



Create your own zombie apocalypse medical kit	Zombie arts festival
Ventana B	Ventana C
<b>Learn how to make your own zombie apocalypse medical kit</b> Joe Alcock	<b>Zombie films</b> A collection of frightening and fascinating films about the zombie apocalypse. See Arts section of the program for more details. Listen to SHABAM!

<b>Panel 4</b> Chair: Gretchen Gano	Zombie ar	ts festival
Ventana B	Ventana C	Apache Room
Zombie education for the apocalypse & other disasters Panelists: Gretchen Gano John Carter McNight Sarah Brownell Carlo Maley Pat Hawley	<b>Zombie films</b> A collection of frightening and fascinating films about the zombie apocalypse. See Arts section of the program for more details. Listen to SHABAM!	<b>Clay monsters</b> Make your own monster. Sign up at the registration desk. See Arts section of program for more details.

#### 12:30-1:30pm | Complimentary Lunch

Ventana C

#### 1:30-2:15pm | Plenary, Mark Mannucci

Making microbes into movies: Science communication for the zombie apocalypse *Ventana A* 

	Session 7: Cellular agents of zombification Chair: Carlo Maley	
Room	Ventana A	
2:15-2:30pm	Cancer zombies   Carlo Maley	
2:30-2:45pm	Are tasmanian devils zombies? Transmissible cancer as cellular cheating   Athena Aktipis	
2:45-3pm	Our immune systems, ourselves?   Joseph Blattman	
3-3:15pm	Do microbes rule our minds?   Joe Alcock	
3:15-3:30pm	Q&A Discussion lead by Carlo Maley	

#### 3:30-5pm | Poster session & reception

Ventana B

#### 5-6pm | Keynote, Barbara Natterson-Horowitz

Issues in adolescent zombie medicine: Managing risk taking, substance use and pregnancy prevention in the teenaged undead *Ventana A* 

#### 7:30pm | Optional Frankenstein! Concert

The ASU Chamber Orchestra will present a musical exploration of HK Gruber's Frankenstein!! Featuring David Schildkret, Chansonnier and perfom live a new modern film score to the 1931 Frankenstein motion picture. Tickets and more info at frankenstein.asu.edu ASU Gammage

#### 7:30-9:30pm | Plenary speaker and session/panel chairs dinner House of Tricks

#### Mark Mannucci Peabody & Emmy Award winning Producer & Director



<b>SimZombie game</b> Chair: John Carter McKnight	Zombie arts festival
Ventana B	Ventana C
<b>Can you survive the zombie</b> <b>apocalypse?</b> Sign up for a session of SimZombie, an interactive roleplaying scenario, to test your survival skills and learn about using interactive activities like SimZombie in the classroom.	<b>Zombie films</b> A collection of frightening and fascinating films about the zombie apocalypse. See Arts section of the program for more details. Listen to SHABAM!

Barbara Natterson-Horowitz, Ph.D. Visiting Professor, Department of Human Evolutionary Biology Harvard University



### Sunday, October 21 | Memorial Union Building

#### 8:30-9am | Light breakfast

Ventana C

# 9-10am | Welcome & The First Church of the Microbiome, a one-act hypothetical play

Ventana B

#### 10-10:45am | Plenary, Cameron Carlson

Emergency management and response for the zombie apocalypse *Ventana A* 

	Session 8: Zombification strategies & countermeasures   Chair: Marco Del Giudice
Room	Ventana A
10:45-11am	Psychopaths are fucking zombies: In pathogen prevalent environments   Laura Dane
11-11:15am	Brains bite back: Neuroendocrine countermeasures to parasite manipulation Marco Del Giudice
11:15-11:30am	Microbes alter host behavior via hijacking the immune system   Jeff Gassen
11:30-11:45am	28 Shrieks Later: The sonic component of fear Kristopher Patten

#### 11:45am-12pm | Coffee/Tea break

Ventana C

#### 12-1pm | Public lecture, Kelly Weinersmith

Welcome to zombieland: Real tales of parasites manipulating host behavior Ventana A

#### 1-1:30pm | Book signing, Kelly Weinersmith Ventana A



Cameron Carlson Director, Homeland Security & Emergency Management Program Advisory Board, The Zombie Research Society

<b>Panel 5</b> Chair: Emily Zarka	Zombie arts festival	
Ventana B	Ventana C	Apache Room
Zombie soldiers, brain injury and PTSD in the armed services Panelists: Emily Zarka Karen Gallagher	<b>Zombie films</b> A collection of frightening and fascinating films about the zombie apocalypse. See Arts section of the program for more details. Listen to SHABAM!	<b>Clay monsters</b> Make your own monster. Sign up at the registration desk. See Arts section of program for more details.

Kelly Weinersmith, Ph.D. Adjunct Assistant Professor, BioSciences Department Rice University





## Posters

- 1. Jessica Daphne Ayers, Athena Aktipis, Corrie Whisner Zombification in the womb: Do fetal interests drive maternal food choices, pregnancy sickness, and microbiome changes?
- 2. Indra Gesink | *The Will and lessons of the dead and the construction and defense of one's interest*
- 3. Peter Nagy | "I will break you and harvest your fear": How chronic disease stigma overtake our body and mind
- 4. Mario Rui Dias Abrantes, Athena Aktipis | *Future super humans by microbiome manipulation*
- 5. Valerie Harris, Amy Boddy, Marc Tollis, Pamela Winfrey | *When is it better to be a lemur? A life history strategy card game*
- 6. Shrinath Narayanan, Alexander May, Athena Aktipis Resisting the zombie invasion: Can kombucha microbes prevent contamination by human-associated microbes?
- 7. Emily A. Higgins Keppler, Alex May, Shrinath Narayanan, Athena Aktipis, Ghazal Ebadzadsahrai, Scott Soby, Heather D. Bean | *Microbial metabolism as a window into synergism and antagonism in microbial communities*



- 8. Mahad Alam, Shrinath Narayanan, Athena Aktipis | *Plastic apocalypse: A SCOBY solution*
- 9. Angelo Fortunato, Arathi Kulkarni, Avalon Yi, Athena Aktipis, Carlo C. Maley | *Extrusion and gene expression analysis after X-ray exposure in trichoplax adhaerens*
- 10. Mark Namba, Shrinath Narayanan, Athena Aktipis, Cassandra Gipson-Reichardt | This is your brain on prevotella: Nicotine selfadministration is associated with changes in gut microbiota and accumbens pro-inflammatory signaling
- 11. Nicole Hudson, Jessica D. Ayers, Athena Aktipis | *Zombification* of the competition: How the presence of others controls competitive strategies
- 12. Andres Munoz, Athena Aktipis | *Cheater Detection During the Zombie Apocalypse*
- 13. Diego Guevara Beltran, Cecile A. Perret | Social Anxiety in a Postapocalyptic World: How the anti-zombie vaccine selected against altruism-inducing gut-microbiome and the breakdown of cooperation.
- 14. Maya Schatzki-Lumpkin, Athena Aktipis | Morbid Curiosity: An Evolutionary Perspective of Morose Fascination

### Artwork

#### Make me a monster

Featuring works by Mario Munguia Jr. Friday, October 19-Sunday, October 21

Workshops: From scary diseases like cancer and schizophrenia, to perceived technological demons such as cell phones and the internet, to mythologies mined from our imagination like zombies, werewolves, and vampires, we are besieged with monsters. What (or who) do you consider a monster? Here's your chance to make and take home your very own monster.

Signup sheet at the registration desk, consult program for hours When you are finished, take a snapshot of your creation and post it on our Instagram site: **#ZAMM18** 

#### The life cycle of toxoplasma gondii

Installation by Rachel Mayeri Friday, October 19-Sunday, October 21

A 29-screen video installation presents the life cycle of the toxoplasma gondii parasite, spread oral-fecally by cats, causing a "fatal attraction" in mice and entrepreneurial behavior in humans. The artwork explores the proliferation of cat videos on the internet in tandem with the mind-controlling disease.

Make me a monster. Photo by Mario Munguia Jr.





The life cycle of *toxoplasma gondii*. Photo by Rachel Mayeri

#### Patient zero

By artist Jillian McDonald Friday, October 19-Sunday, October 21

He stops in his tracks, forgetting his way to the office. In line for coffee, she stops and stares at the sun as the line moves on without her. A ringtone sounds and they twitch to the tune, talking to themselves and plants and digging in the dirt. Is something controlling their minds? Are they lost in the desert? Is this The Rapture? Or the beginning of the Zombie Apocalypse we've all been waiting for?

#### Zombie mock trial

Friday, October 19, 10 am

Featuring psychologists Dr. Praveen R. Kambam, Dr. Vasilis K. Pozios, and Dr. Eric Bender, this trial explores the concept of free will during the outbreak of a zombie apocalypse.

Broadcast Thought is a group of three physicians, specializing in forensic, child and adolescent, and adult psychiatry, who provide expert consultation to the media and entertainment industries. At Broadcast Thought, we are both medical professionals and fans of film, television, comic books, and other popular media. We are creative consultants, subject matter experts, and co-producers of mental health related content. Through *"Accuracy in Entertainment and Entertainment in Accuracy,"* Broadcast Thought adds new dimensions to portrayals of mental illness, evolves perceptions of mental health matters, and advances popular media in innovative directions.

# Zombie Films

### Frightening & fascinating films for the zombie apocalypse

These films explore the concept of zombies through a variety of lenses. They are dark, funny, gross, sad, beautiful, and elegant and present zombies as cultural, social, medical, and technological phenomena.

#### Less than human

6:10 minutes | An award winning 3D animated short film made by 8 students at The Animation Workshop in Denmark

In the aftermath of a zombie outbreak, the zombies have been cured and exiled to secluded camps. There has been talk about rehabilitating post-zombies back into society. Steve, the journalist reporting on the case, thinks the zombies still pose a threat to society. He ventures in to one of these camps to prove to the world that rehabilitation is out of the question.

#### **Five minutes**

11:03 minutes | By Felix Faisst

After being injured during a fight with a zombie, John (Kieran Bew) isn't sure whether he is infected or not. Only five minutes remain for John to figure out his fate and protect the life of his daughter Mia (Hannah Chinn) who is with him in the apartment.

*Five Minutes* is also a live-action zombie game and can be played here: www.fiveminutes.gs

#### We together

7:08 minutes | By Henry Kaplan | Music by Kerron Hurd

In this powerful video, music, dance, and memory take center stage as potential transformative human behaviors that could be contagious and save us from the zombie apocalypse.

#### Zombie horse

0:16 minutes | Izabela Poznańska

Horses can be zombies too.

#### **Zombie flowers**

1:01 minutes | By Francisco Sánchez de Cañete

A personal project inspired by Charles Darwin's first impressions when he first saw a carnivorous plant in 1875.

#### Hyperreality

6:15 minutes | By Keiichi Matsuda

Hyper-Reality presents a provocative and kaleidoscopic new vision of the future, where physical and virtual realities have merged, and the city is saturated in media.

Our physical and virtual realities are becoming increasingly intertwined. Technologies such as VR, augmented reality, wearables, and the internet of things are pointing to a world where technology will envelop every aspect of our lives. It will be the glue between every interaction and experience, offering amazing possibilities, while also controlling the way we understand the world.

#### Merger

4 minutes | By Keiichi Matsuda

With automation disrupting centuries-old industries, the professional must reshape and expand their service to add value. Failure is a mindset. It is those who empower themselves with technology who will thrive.

*Merger* is a new film about the future of work. Set against the backdrop of Al-run corporations, a young woman finds herself caught between virtual and physical reality, human and machine. As she fights for her economic survival, she finds herself immersed in the cult of productivity, in search of the ultimate interface. This short film documents her last 4 minutes on earth.

#### l contain multitudes

4 videos by Mark Mannucci

- World without microbes | 7:02 minutes
- Superbugs | 9:15 minutes
- Can a fungus save plants from global warming? | 8:02 minutes
- Solving crime with the necrobiome | 7:10minutes

Based on a book of the same name, by Ed Yong, *I contain multitudes*, is a series of videos that offers a new lens on life. With an eye on microbes—microscopic single-celled organisms—larger creatures such as ourselves suddenly look very different. Each of us is more of a society than an individual. Only about half the cells on our bodies are human. The rest make up a menagerie of microbes. Microbes produce chemicals and vitamins that we can't produce on our own, they help digest food, shape development, and influence behavior. These films ask, "Who is running who?"



Support for ZAMM has been provided by:

Arizona State University

Interdisciplinary Cooperation Initiative













### Arizona Cancer Evolution Center

# ASU Parking

#### **Getting Around**

Walking is the quickest and most efficient way of getting around campus and to and from the meeting locations.

#### **Campus Parking**

The nearest parking garage to the Memorial Union and the Student Pavilion is the Apache Boulevard Parking Garage located at 401 E. Lemon Street, Tempe, AZ 85287. Rural Road and Tyler Street parking structures are also located nearby.

#### For more information: https://cfo.asu.edu/parking

Automated pay machines accept MasterCard, Visa and \$1, \$5, \$10 and \$20 bills and give change. Pay machines in exit lanes accept MasterCard and Visa only. Accessible spaces available in every lot.

- 1 hr or less: \$3
- 1-2 hrs: \$6
- 2-3 hrs: \$9
- 3-4 hrs: \$12
- 4+ hrs: \$15 (Also the charge for a lost ticket)
- Maximum Per Day | Lost Ticket \$15

#### **No Visitor Motorcycle Parking**

Visitor motorcyclists may park in any available metered space or vehicle stall on visitor lots, but must pay the posted rate.

# Notes





### Thursday, October 18-Sunday, October 21 Arizona State University | Tempe, Arizona, USA

The Zombie Apocalypse Medicine Meeting (ZAMM) is a radically interdisciplinary meeting that bridges science and the arts to grapple with the most pressing challenges of the present and the future. We define a zombie as an entity that is fully or partially under the control of another entity. This includes host-parasite interactions, autonomous technology, and coercion/control in human interactions. These dynamics-where one entity controls another-can lead to unanticipated biological, technological and social consequences. ZAMM brings together scientists, artists, doctors, lawyers, ethicists and futurists to engage with the challenges of zombification and the apocalyptic conditions that may be generated by or contribute to zombification. We use the zombie apocalypse as a lens through which we can engage about potentially frightening aspects of our present and future without fear and anxiety, but instead with imagination and creativity. The goal of ZAMM is to reduce the global burden of zombification and contribute to apocalypse prevention and preparedness through interdisciplinary engagement.



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www.facebook.com/zombieapocalypsemedicine



www.instagram.com/zombiemedasu

The official hashtag for theZombie Apocalypse Medicine Meeting is #ZAMM18



www.zombiemed.org