

## About

Grab a cup of coffee and a bagel and join us for **Saturday Morning Science** — a series of one-hour science talks.

These are not typical science lectures. Expect to be entertained, to see demonstrations, to learn a lot, and—best of all—to want to come back for more.

**Saturday Morning Science** is free and open to the public. No science background is required. All ages are welcome.

Breakfast refreshments are served before the talks, so come early. Talks start at 10:30 a.m. Doors open and refreshments are available a half-hour beforehand. Seating is limited to 250 occupants.

## Support

Saturday Morning Science is largely a volunteer effort. Our sponsors provide funding for refreshments, advertising and occasional external speakers. If you would like to make a tax-deductible contribution to Saturday Morning Science, please contact Patrick Smith, Senior Manager - Business Administration: 573-884-1788 or smithpatric@missouri.edu.

## Organizers

D Cornelison, David Nolin, Mary Shenk

**With help from**  
Marc Johnson, Abagael Cornelison, Cynthia Scheiner

**Committee members**  
Pamela Brown, Marc Johnson, James Schiffbauer, Angela Speck, Nancy West, Bing Zhang

## SMS on iTunes U

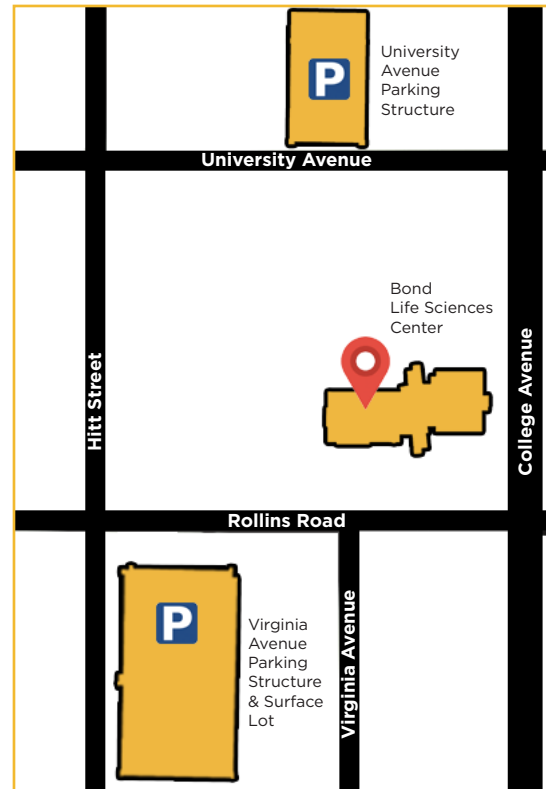
We are pleased to offer a collection of audio and video content from past Saturday Morning Science talks on the iTunes platform.

[bit.ly/SaturdayMorningScience](http://bit.ly/SaturdayMorningScience)

## Directions

Free weekend parking is available in University Avenue Parking Structure, Virginia Avenue Parking Structure and the Virginia Avenue Garage Surface Lot.

For directions to the Bond Life Sciences Center, visit: [bit.ly/LSCParking](http://bit.ly/LSCParking)



Follow us on Facebook and Twitter to stay up-to-date with the Life Sciences and Society Program

[bondlsc.missouri.edu/events](http://bondlsc.missouri.edu/events)

## Schedule

### September 10

Tissue Engineering with Multi-Drug Resistant Bacteria in the Way

### September 17

Historical Epidemics, Novel Techniques: Using Historical and Ethnographic Materials to Build Computer Simulation Models

### September 24

Documenting Linguistic Diversity: A View from the East African Great Lakes

### October 1

The 20 Greatest Hits in Science...in an Hour

### October 8

Are Lizards Smarter Than Those of Us Who Study Them?

### October 15

What Do We Look For When We Diagnose Autism?

### October 29

Fitness for the Ages: How to Lift Like a Neanderthal

### November 5

Living in a Viscous World: A Volcanologist's Perspective

### November 12

Networks in Biology and Beyond

### December 3

What's the Best Way to Divide Up the Pie: The Price of a Long Life

*For ADA accommodations, contact Mary Shenk, Director, Life Sciences and Society Program: 573-882-0562 or shenkm@missouri.edu.*

 **Bond Life Sciences Center**  
University of Missouri



# Saturday Morning



*Presented by the Life Sciences and Society Program*

# FALL 2016 SCHEDULE

**SATURDAYS AT 10:30 A.M.**

MONSANTO AUDITORIUM,  
MU BOND LIFE SCIENCES CENTER



Presented by the Life Sciences and Society Program



September 10  
**ELIZABETH LOBOA**  
 Dean, College of Engineering  
 Professor, Bio-engineering

*Tissue Engineering with  
 Multi-Drug Resistant Bacteria  
 in the Way*

Dean Loba will discuss approaches in her lab to elucidate and optimize biomimetic materials for wound healing, tissue engineering, and regenerative medicine applications. Focus will be placed on regeneration of skin and musculoskeletal tissues and approaches to wound care and tissue regeneration while combating multi-drug resistant bacteria.



September 17  
**CAROLYN ORBANN**  
 Assistant Teaching Professor,  
 Department of Health Sciences

*Historical Epidemics, Novel  
 Techniques: Using Historical  
 and Ethnographic Materials  
 to Build Computer Simulation  
 Models*

Computer simulation models are powerful tools for understanding complex systems used in many academic disciplines. This talk explores the development of models for examining historical epidemics in anthropological populations. Relying on underutilized data sources, like archival materials, archaeological records, diaries, paintings, and photographs, these models are culturally and historically situated and contribute to our understanding of disease in human history.



September 24  
**MICHAEL MARLO**  
 Associate Professor, English

*Documenting Linguistic  
 Diversity: A View from the East  
 African Great Lakes*

More than half of the world's languages are projected to go extinct this century, representing a major loss for both science and humanity. In this presentation, we will look at an MU-based project to document the linguistic diversity and history of a group of languages spoken near Lake Victoria in western Kenya and eastern Uganda.



October 1  
**STEVE KELLER**  
 Associate Professor, Chemistry

*The 20 Greatest Hits in  
 Science...in an Hour*

This talk will be a 60-minute (non-musical) journey through the biggest ideas in science. Delving (briefly) into topics from biology, chemistry, physics, astronomy, and geology, we will also explore ways in which many of these concepts are intertwined. It is the interconnectedness that lies at the heart of the beauty and utility of science in today's world.



October 8  
**MANUEL LEAL**  
 Associate Professor, Biological  
 Sciences

*Are Lizards Smarter Than  
 Those of Us Who Study Them?*

Studies of the cognitive abilities of vertebrates have mostly focused on mammals and birds, due to the historical view that organisms more distantly related to humans have more "primitive" brains. I will present the results of a series of experiments on cognition in lizards which challenge the traditional view and discuss the pitfalls of excluding reptiles when discussing the evolution of cognitive abilities.



October 15  
**STEPHAN KANNE**  
 Executive Director & Associate  
 Professor, Thompson Center for  
 Autism & Neurodevelopmental  
 Disorders

*What Do We Look For When  
 We Diagnose Autism?*

More and more people are being diagnosed with autism. Many people have questions about how we diagnose autism, what we look for, and what procedures we use. I will discuss the common tests that we use, and how these tests allow us to observe the signs and symptoms of autism so that we can make an accurate diagnosis.



October 29  
**LIBBY COWGILL**  
 Assistant Professor,  
 Anthropology

*Fitness for the Ages: How to  
 Lift Like a Neanderthal*

What can the skeletal anatomy of an extinct hominin teach us about modern human fitness? Dr. Cowgill discusses the comparative biomechanics of weightlifting and its implications for modern human health, fitness, and longevity, concluding with a live demonstration!



November 5  
**ARIANNA SOLDATI**  
 Ph.D. Candidate, Department of  
 Geological Sciences

*Living in a Viscous World: A  
 Volcanologist's Perspective*

Emptying a ketchup bottle, braking your car, and sampling a lava flow: it has all got to do with viscosity. We'll explore how this curious material property affects our everyday life, and why volcanologists care about it.



November 12  
**FRANK SCHMIDT**  
 Professor, Biochemistry

&



**GAVIN CONANT**  
 Associate Professor,  
 Bioinformatics, Department of  
 Animal Sciences

*Networks in Biology and Beyond*

Bill Gates walks into a room and suddenly everyone is a billionaire. When he leaves, everyone is worth as much as before. Wealth is a long-tail phenomenon: most people have relatively little and a very few have a lot. Interestingly, the web, biology, and the origin of life all show similar behavior, deriving from the nature of connections. We'll illustrate the phenomenon with ordinary examples, and show how the same principles operate in wide areas of science.



December 3  
**ELIZABETH KING**  
 Assistant Professor, Division of  
 Biological Sciences

*What's the Best Way to Divide  
 Up the Pie: The Price of a Long  
 Life*

Greenland sharks recently claimed the title of the oldest vertebrate at 400 years old, while the turquoise killifish lives only a few months. Why do different species vary so widely in traits tied to their survival and reproduction? This seminar will explore this question and discuss how human evolutionary history might help explain both aging and obesity.



To learn more about the Life Sciences and Society Program or its outreach programs, visit [lssp.missouri.edu](http://lssp.missouri.edu).