

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 your 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. No science background is required. All ages are welcome.

Saturday Morning Science is free and open to the public. Bagels, donuts, coffee, and juice are served before the talks, so come early. Talks start at 10:30. Doors open and refreshments are available at about 10:00. Seating is limited to 250.

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University Bookstore

MU Office of Research Johnson Management & Consulting, LLC Saturdays 10:30 a.m. – 11:30 a.m. Monsanto Auditorium Christopher S. Bond Life Sciences Center



For additional directions, visit: http://map.missouri.edu

Free visitor parking is allowed in the Virginia Avenue Parking Garage (Levels 1, 2, and 3) on the weekends. Entrance to the parking garage is off Virginia Avenue, south of the Bond Life Sciences Center.

Questions, Comments, Suggestions satscience@missouri.edu http://satscience.missouri.edu

> Organizers Bruce McClure Wouter Montfrooij Marc Johnson



Schedule At-A-Glance

- 2 Feb. Pluto's Demise and Resurrection
- 9 Feb. Talking Trees and Groaning Grasses: How Plants Communicate with Each Other
- 16 Feb. Darwin in a Test Tube: Combinatorial Biotechnology
- 23 Feb. Lake Water Quality: The Conflict Between Fish and Transparency
- 1 Mar. Pushing the Limits: Life at Deep-Sea Hydrothermal Vents
- 8 Mar. How Do We Repair a Damaged Spinal Cord?
- 15 Mar. New Perspective on the Origin and Evolution of Life
- 5 Apr. What the Bugs in Your Yard Talk About
- 12 Apr. Viruses Through the Ages
- 19 Apr. Winners and Losers in Climate Change
- 26 Apr. What Happens in the Life of a Tree?



Winter2008 Schedule

Saturdays 10:30 a.m. – 11:30 a.m. Monsanto Auditorium Christopher S. Bond Life Sciences Center





2 February Pluto's Demise and Resurrection

Angela Speck

Recently astronomers have re-evaluated the definition of a planet and demoted Pluto from the planetary pantheon. In this talk, the rationale behind Pluto's demise from "planethood" and its reclassification will be explained.



9 February Talking Trees and Groaning Grasses: How Plants Communicate with Each Other Jack Schultz

Did you know that trees talk? Plants are not just part of the furniture; they actually communicate actively with friends and foes and among themselves. Come find out how they do it and what they are saying!



16 February Darwin in a Test Tube: Combinatorial Biotechnology

Frank Schmidt

There are two ways to develop new molecules such as drugs to treat diseases: design them or find them. Combinatorial biotechnology is a new way of finding molecules by mimicking natural evolution. These molecules can act as biosensors or as new bioactive agents.



23 February Lake Water Quality: The Conflict Between Fish and Transparency

Jack Jones

Do you want to fish and swim in the same lake? Not always. The best lakes for water sports are not usually the best fishing holes. Let's look at how lakes are regulated by plant nutrients and fish.



1 March Pushing the Limits: Life at Deep-Sea Hydrothermal Vents Julie Huber Woods Hole MBL

We will explore the extreme life-forms thriving at deep-sea hydrothermal vents around the world and the challenges we face in understanding this complex ecosystem on Earth and beyond.



How Do We Repair a Damaged Spinal Cord?

Andy McClellen

Following severe spinal cord injury, humans are often permanently paralyzed below the site of injury. There are 200,000 Americans with spinal cord injuries. Biomedical research is starting to find effective treatments.



15 March New Perspective on the Origin and Evolution of Life

Norman Pace University of Colorado

Recent molecular studies of microbial life in natural environments have revolutionized our understanding of early evolution and the diversification of life.



5 April What the Bugs in Your Yard Talk About

Rex Cocroft

A typical backyard contains an alien, vibrating soundscape that is not audible to humans but does carry important messages between communicating insects—some of which may be talking about you! Come learn what they are saying.



Viruses Through the Ages

📶 Marc Johnson

Viruses have had profound effects on human history. This discussion will reveal some of the unexpected ways viruses have affected our lives and some of the extraordinary ways people have combated them.



19 April Winners and Losers in Climate Change

Tom Whitham Northern Arizona Universitu

What does climate change mean for biodiversity, preservation in national parks, a rapidly growing human population, and an economy based on cheap water? The American Southwest, a "hot spot" of climate change, may hold the answers.



26 April What Happens in the Life of a Tree?

Rose-Marie Muzika

An individual tree can be hundreds of years old. How do we know what a tree might have experienced over the centuries? Trees keep a record of fires, droughts, temperature extremes, insect outbreaks, and more. We will explore and interpret growth rings to unravel the mysteries of a tree's life.

