



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.

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

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.

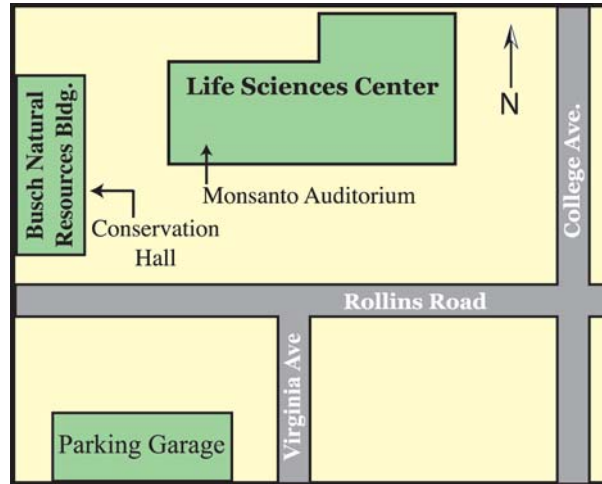
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MU Office of Research

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

*\*Special Presentation: March 7 in Conservation Hall in Busch Natural Resources Bldg*



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

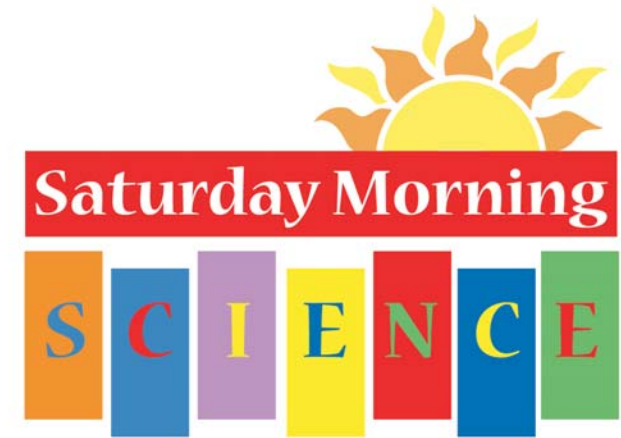
[satscience@missouri.edu](mailto:satscience@missouri.edu)  
<http://satscience.missouri.edu>

### Organizers

Bruce McClure  
 Wouter Montfrooij  
 Marc Johnson



- 31 Jan. 3D Computer Imaging in Science and Medicine
- 7 Feb. One World, One Health, One Medicine
- 14 Feb. How to Make Stem Cells Without Using Embryos
- 21 Feb. How Home Sensors Can Help Keep People Functionally Active
- 28 Feb. The Reality of Space Flight
- 7 Mar. Exploring Mars for Habitable Environments and Life: The Mars Rover and Beyond. **NOTE: This talk will be in Conservation Hall in the Busch Natural Resources Bldg.**
- 14 Mar. Evolution for Everyone: How Darwin's Theory Can Change the Way We Think About Our Lives
- 4 Apr. What Can Modern Genomics Tell Us About Cattle Domestication?
- 11 Apr. What Do We Know After the 30-Year "War on Cancer"?
- 18 Apr. How Chimpanzees Use Flowering Plants When They Are Sick
- 25 Apr. Assembling Artificial Plant Chromosomes to Benefit Agriculture and Biotechnology
- 2 May Got Insects? Environmentally Helpful Night Patrollers



# WINTER 2009 SCHEDULE

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





31 January

## 3D Computer Imaging in Science & Medicine

*Ye Duan*

Movies and games are fun, but 3D graphics are also essential in modern science and medicine. Learn about how computer scientists develop 3D models to solve scientific problems and contribute to understanding human conditions like autism.



21 February

## How Home Sensors Can Help Keep People Functionally Active

*Marge Skubic*

Americans desire to live as independently as possible. Come hear how engineers are developing “smart home” technologies to enhance residents’ safety and monitor health conditions using sensors and intelligent processing of sensor data.



14 March

## Evolution for Everyone

*David Sloan Wilson  
Binghamton University*

What is the biological reason for gossip? For laughter? For the creation of art? Why do dogs have curly tails? Evolution is not just about dinosaurs and human origin, but about why species behave as they do.



18 April

## How Chimpanzees Use Flowering Plants When They Are Sick

*Eloy Rodriguez, Cornell University*

Learn about the incredible discovery of “zoopharmacognosy,” the behavior by animals of taking medicines in the wild. Illustrations include chimps swallowing medicinal plants and monkeys rubbing their fur with plants to kill parasites.



7 February

## One World, One Health, One Medicine

*Gary Simpson, New Mexico Department of Health,  
Al Zelicoff, Center for National Security and Arms Control*

Is our health care system prepared for a major disease outbreak? What is the threat from bioterrorism? Experts in human and veterinary medicine and public health will discuss the issues and answer questions.



28 February

## The Reality of Space Flight

*Craig Kluever*

What goes into planning a space flight? Is there a better way than placing a small payload on top of a huge pile of high explosive? Come learn about how spacecraft reach their destinations and what might be possible in the future.



4 April

## What Can Modern Genomics Tell Us About Cattle Domestication?

*Jerry Taylor*

Ancient peoples in India and the mid-east domesticated cattle about 5000 BC. This talk will explain how genomic resources developed for modern cattle improvement provide new insight into the domestication process.



25 April

## Assembling Artificial Plant Chromosomes to Benefit Agriculture and Biotechnology

*Jim Birchler*

Chromosomes have been studied for over a century. MU plant scientists have now begun building them from scratch. Come learn about how artificial chromosomes are made and how they might be used in agriculture and biotechnology.



14 February

## How To Make Stem Cells Without Using Embryos

*R. Michael Roberts*

Embryonic stem cells have huge medical potential, but obtaining them from early embryos raises ethical questions. A new method allows pluripotent cells with similar potential to be obtained from sources like skin cells. Come learn about this method and its likely value to biomedical research.



7 March

## Exploring Mars for Habitable Environments & Life

*Dave DeMarias  
NASA Ames Research Center*

Habitable environments probably existed on Mars more than 3 billion years ago. The rover Opportunity found evidence of saline lakes and groundwater. Spirit discovered pure silica formed by hydrothermal activity. Orbiters discovered additional mineralogical evidence elsewhere. **This talk will be in Conservation Hall in Busch Nat. Resources Bldg.**



11 April

## What Do We Know After the 30-Year “War on Cancer”?

*Steve Alexander*

Cancer continues to be a major disease, despite a 30-year “war” on it. Come learn about what we know about cancer, why there is no cure, and new approaches that promise to improve diagnosis and therapy.



2 May

## Got Insects? Environmentally Helpful Night Patrollers

*Sybill Amelon*

Bats play a critical role in maintaining a healthy environment. They are primary predators of night-flying insects and valuable seed dispensers. The little brown, for example, can consume several hundred insects in an hour. A colony of bats can protect crops and trees from destructive insects, thus reducing the need for pesticides.