



Saturday Morning



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 about a half-hour beforehand. Seating is limited to 250.

satscience.missouri.edu

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MONSANTO

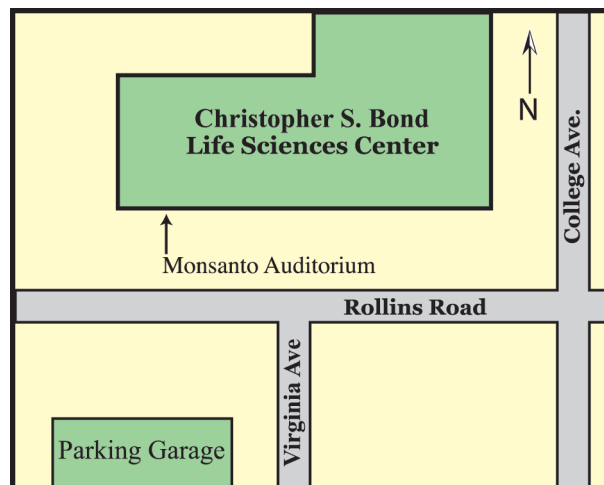


MU Office of Research **livesciences**

Saturdays
10:30 a.m. – 11:30 a.m.
Monsanto Auditorium
Corner of Rollins Rd. & College Ave.

For 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.



SMS 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 us at satscience@missouri.edu.

2011 Organizing Committee

Marc Johnson, Bruce McClure,
Wouter Montfrooij, Martin Appold, D. Cornelison
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Mark Milanick, Doug Randall, Mike Roberts,
David Robertson, Marjorie Skubic,
Cynthia Scheiner, Margaret Tollerton



Saturday Morning



Schedule At-A-Glance

- 3 Sep. What is the Zodiac, really?
- 10 Sep. The New Madrid seismic zone: what can it teach us about earthquakes?
- 17 Sep. The Neandertal enigma: where did they go and how do we know what we know?
- 24 Sep. Why aren't stem cells created equal?
- 1 Oct. The power of the abstract
- 8 Oct. Transgenes in our food, viruses in our food
- 15 Oct. The stem cell therapy race: roadblocks to the finish line
- 22 Oct. Space bugs, vaccines, and microbiology research in space flight
- 29 Oct. Tidal waves of revolution from 1848 to 2011
- 5 Nov. The birth of oxygen
- 12 Nov. From there to here, from here to there, funny microbes are everywhere
- 19 Nov. Thanksgiving Break - No SMS
- 26 Nov. Thanksgiving Break - No SMS
- 3 Dec. Actually, it IS rocket science: space flight explained



Saturday Morning



FALL 2011 SCHEDULE

Saturdays
10:30 a.m. – 11:30 a.m.

Monsanto Auditorium
Bond Life Sciences Center
Corner of Rollins Rd. & College Ave.



3 September
What is the Zodiac, really?

Angela Speck

Changes in the zodiac made big news earlier this year. The only problem is, this isn't news or even very new. This talk will discuss the origin of the Zodiac, common misconceptions, and the recent controversy of changing astrological signs.



24 September
Why aren't stem cells created equal?

Mark Kirk

Scientific advances are changing the way we think about stem cells, including the best sources of stem cells to develop cures for human diseases. Are the new sources safe? How do they compare to embryonic stem cells? We'll talk about the different types of stem cells, their sources, and their potential uses.



15 October
The stem cell therapy race: roadblocks to the finish line

Marie Csete
U. California-San Diego

Moving stem cells into the clinic is a complex process involving scientific, regulatory, political, and cultural challenges. This talk will use case studies of successful and not-so-successful clinical trials to describe various kinds of stem cells and the differences among them.



5 November
The birth of oxygen

John Abelson
U. California-San Francisco

What was the cause of the biggest mass extinction in Earth's history? It wasn't a comet or a meteor - it was a drastic change in the earth's atmosphere caused by microbial life. But we mammals wouldn't be here without it - come find out why.



10 September
The New Madrid seismic zone: what can it teach us about earthquakes?

Eric Sandvol

Some of North America's largest earthquakes occurred in the New Madrid seismic zone. Yet, a great deal is still unknown about this Missouri seismic zone.



1 October
The power of the abstract

Giovanni Vignale

Come learn how theoretical physicists, like novelists, create a fictional world to understand the real one.



22 October
Space bugs, vaccines, and microbiology research in space flight

Cheryl Nickerson
Arizona State University

Space flight is known to impact human physiology, but what effect does zero gravity have on infectious microbes? Turns out, they become even more infectious. Come learn how "space bugs" are being used to improve vaccines here on Earth.



12 November
From there to here, from here to there, funny microbes are everywhere

Anna-Louise Reysenbach
Portland State University

Hydrothermal vents at mid-ocean ridges are extremely hostile environments, yet support a rich array of life. This is made possible by diverse microbial organisms that harness the chemical energy of the vents and initiate a food web.



17 September
The Neandertal enigma: where did they go, and how do we know what we know?

Libby Cowgill

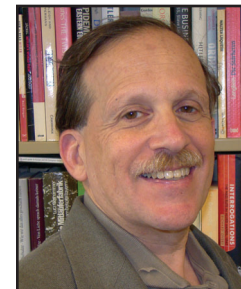
The disappearance of humanity's closest evolutionary relatives has fascinated scientists and the public for many years. But who were the Neandertals, and are they really entirely gone?



8 October
Transgenes in our food, viruses in our food

Jim Schoelz

A plant pathologist looks at what we are really getting when we go to the grocery store.



29 October
Tidal waves of revolution from 1848 to 2011

Jonathan Sperber

Revolutions are said to occur in "waves" because they can sometimes spread rapidly from country to country. We will look at four waves of revolution that have occurred since the middle of the 19th century and discuss how they're similar and different.



3 December
Actually, it IS rocket science: space flight explained

Craig Kluever

Ever wonder how space missions are planned, executed, and operated? Learn about the basic physics of space flight, including launching spacecraft to orbit, space navigation, and interplanetary mission design.