



# WINTER 2007 SCHEDULE

Saturdays

10:30 a.m. – 11:30 a.m.

Monsanto Auditorium

Christopher S. Bond Life Sciences Center



**3 February**

**Biophysics and Biology  
on a Molecular Scale**

**Maikel Rheinstädter**

Molecular structure and molecular motion are at the heart of physiological and biological processes. How can we gain access to this mysterious nanometer world where microscopes are useless? Using membranes as a guide, I will show you the newest methods being used to catch nature in the act on the nanometer scale.



**10 February**

**Green Eggs and (Heart  
Healthy) Ham**

**Randy Prather**

Swine are increasingly being used as models to study human diseases as well as a potential source of organs for transplantation. This talk will examine swine genetics and how it is being used to study and improve human health.



**17 February**

**Clean Vehicles: From  
Agricultural Waste to  
High-Tech Storage Tanks**

**Peter Pfeifer**

Your next car might well run on clean natural gas and be ready for hydrogen when it comes along. This talk will look at the current challenges and research at MU that will help overcome them within the next five years.



**24 February**

**Advances in Nano-  
medicine: How Something  
Small Will Impact You**

**Kattesh Katti**

In nanomedicine, we use tiny particles to detect and to treat various diseases and disorders. This talk will share the latest developments in nanomedicine and how they impact you and society. (More details about this talk are available on the SMS Web site.)



**3 March**

**From Fins to Fingers: The  
Origins of Tetrapods**

**Bruce McClure (pictured  
with a feline tetrapod)**

Modern tetrapods (e.g., cats, humans) descended from fish-like animals that moved onto land about 350 million years ago. How was this amazing adaptation accomplished? Learn what new fossils from the arctic tell us about our aquatic ancestors.



**10 March**

**Why We Really Can't  
Eat Just One**

**Matt Will**

While our brain is very successful at letting us know when we are hungry, it seems to be failing at telling us when we are full. Learn how an evolutionarily adaptive feature of our brain may be contributing to the current obesity epidemic.



**17 March**

**Biological Studies on  
Microchips**

**Kevin Gillis**

Microchip technology borrowed from the electronics industry has found increasing use in probing microscale and nanoscale questions in the life sciences. This talk will share some current medical applications of this exciting and new technology.



**31 March**

**Clinical Trials of  
African Traditional  
Medicine**

**Bill Folk**

As the AIDS pandemic sweeps across Africa, most of those affected rely upon traditional medicine for their healthcare. Can these practices be clinically tested using scientific methods? If so, what are we missing out on?



**7 April**

**Microbial Diversity:  
Swimming in a Sea of  
Genes**

**Kim Wise**

We live in a milieu of microbes. Genomic research now reveals the vast, dynamic nature of this invisible world. Learn how microbial diversity affects our health, our survival, and our future sustainability.



**14 April**

**Shining a Light on  
Medicine: Applications  
of Laser Technology**

**John Viator**

Laser technology is offering new ways to diagnose and treat human diseases and injuries. In this talk, I'll show you how lasers are being used in oncology, dermatology, surgery, and other areas of medicine.



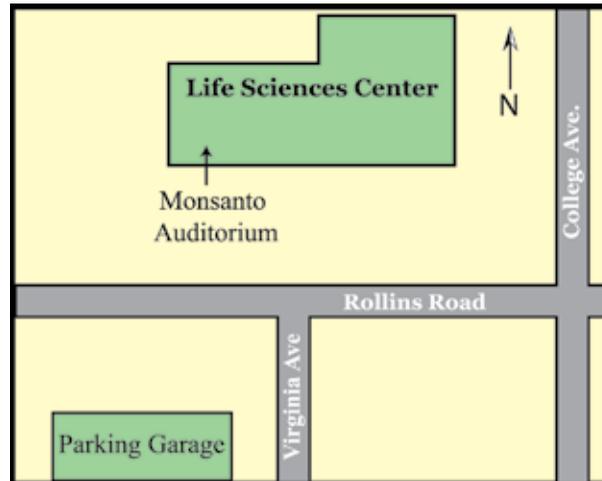
Grab a cup of coffee and a bagel and join MU scientists for ***Saturday Morning Science***—a series of one-hour science talks.

Don't worry, 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. 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. Doors open at 10:00, and talks start promptly at 10:30. Seating is limited to 250.

***Refreshments Sponsored By:***  
MU Office of Research

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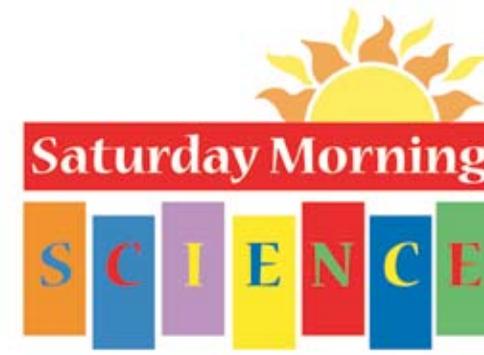
For additional directions, visit:  
<http://map.missouri.edu>

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)  
[www.physics.missouri.edu/satscience.html](http://www.physics.missouri.edu/satscience.html)

**Organizers**  
Bruce McClure  
Wouter Montfrooij  
Marc Johnson

*Brochure by: Melody Kroll, Pierpont Productions*



## Schedule At-A-Glance

- 3 Feb. Biophysics and Biology on a Molecular Scale
- 10 Feb. Green Eggs and (Heart Healthy) Ham
- 17 Feb. Clean Vehicles: From Agricultural Waste to High-Tech Storage Tanks
- 24 Feb. Advances in Nanomedicine: How Something Small Will Impact You
- 3 Mar. Fins to Fingers: The Origins of Tetrapods
- 10 Mar. Why We Really Can't Eat Just One
- 17 Mar. Biological Studies on Microchips
- 24 Mar. Break
- 31 Mar. Clinical Trials of African Traditional Medicine
- 7 Apr. Microbial Diversity: Swimming in a Sea of Genes
- 14 Apr. Shining a Light on Medicine: Applications of Laser Technology



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