

October 12, 2013 – “If Electricity Could Talk: The Smart Grid Project,” Gail Allen, Project Manager, Smart Grid, KCP&L

Imagine your house communicating its energy needs to a power company. What if you could control the electronics in your home from a computer or iPhone from half way around the world? Smart Grid technology is making this all possible and is now available in the Kansas City area. Thermostats, hot water heaters, and TV's can now be controlled remotely and are part of a two-way communication system with the electric company, helping to control just how much power they need at any time. Come hear how KCP&L's Smart Grid technology is making Kansas City homes more energy efficient.

October 26, 2013 – “What Mummies Tell Us About Health and Disease,” Randy Thompson, MD, Saint Luke’s Mid-America Heart Institute, and UMKC—Kansas City School of Medicine

High fat foods, smoking, and inactivity can all lead to heart disease. Heart disease is the number one killer of today’s Americans. But has it always been this way? Is heart disease a by-product of modern lifestyles? Hi-tech CT scans of mummies from four different ancient cultures are shedding new light on a modern killer. Learn how ancient mummies are teaching us new lessons in modern cardiology.

November 9, 2013 – “Pump Up Your Bones,” Linda Bonewald, Ph.D., Director of the Bone Biology Research Program in the UMKC School of Dentistry, Department of Oral Biology

We all know that exercise builds stronger muscles, but did you know it’s also good for your bones? Bone is far from being blocks of mineral. It is made up of dynamic cells, growing and remodeling the bone to adjust to the stresses of everyday use and workouts. Bone mass is lost as people experience microgravity in space or become bed-ridden with illness. Hear how the latest research in molecular biology and bone regeneration is changing the care of the elderly and bone fracture repair.

December 7, 2013 – “One Health-One Medicine - Can Snoopy Help Us Cure Arthritis?” James Cook, DVM, Ph.D., Director of the Comparative Orthopedic Laboratory, College of Veterinary Medicine, University of Missouri

What can animals teach us about our own anatomy and how can they help us fight joint disease? Hear the story of comparative and translational orthopedic research at the University of Missouri. Learn how veterinarians who work on dogs and horses are leading to cutting edge breakthroughs in early diagnosis of human arthritis, computer modeling of movement, and biologic joint replacement.

Saturday Science Seminars (continued)

January 25, 2014 – “So You Want to be a Cancer Researcher?” Roy Jensen, MD, Director, University of Kansas Cancer Center

Will there ever be a “cure” for cancer? How much cancer is caused by our own genes? The sequencing of the human genome has transformed cancer research like no other achievement in the history of biomedical research! Experiments that just a few short years ago could only be dreamed of are now routine, and the knowledge we have gained has rapidly expanded our understanding of cancer. Yet, at the same time, enormous challenges remain if we are to cure cancer in our lifetime. Hear how the latest research in molecular and cellular biology is being combined with pharmacology to develop new cancer therapies.

February 8, 2014 – “Building the Car of the Future,” Chris Depcik, Ph.D., Assistant Professor of Mechanical Engineering, University of Kansas

Is there an economical and environmentally-friendly option to gas-powered cars? The future of automobiles will include more hybrid and electric cars. But are there limitations to these “cars of the future?” Learn the basic concepts behind how these vehicles operate. Explore their limits and discover how engineering researchers are working to improve their practicability.

February 22, 2014 – “It’s not WHAT you do, it’s HOW you do it,” Rick Shipley, Release Manager in Engineering Project Management, Perceptive Software

What do a tomato, a highway, and a Japanese garden all have in common? They all help us understand better ways to fashion how we work. Like them, writing software is also a creative process. How can we deliver software that meets our clients’ ever changing needs in less time with higher quality? Discover the science of “How we work” as we explore the application of Agile principles in writing software for the 21st Century.

March 8, 2014 – “Stranger than Fiction: The Story of the REAL CSI,” Linda Netzel, MS, Director of the Kansas City Missouri Police Crime Laboratory

The popular CSI television shows are enticingly dramatic, full of fancy “work” attire for the stars, sweet rides, and out of this world crime solving technology. Do you want to know the truth? Have these shows made you want to do this type of work? Come explore what a real forensic scientist does and the scientific methods they use in the field of crime scene investigation. Learn about the actual technology used in the forensic laboratory and how science can help solve crime. Bring your math and science skills, but leave the drama at home.