

Science Pioneers Presents the
2011-12 Saturday Science Seminars
9am-10am in the Extreme Screen at Union Station

October 8, 2011---“Forensic Science and DNA Analysis: Bringing the Scientific Method to the Courtroom”, Kelly McGill Carroll, MSFS

Forensic Science has been around for hundreds of years. TV shows like “CSI” have turned into a household name. The application of DNA testing is getting more sensitive every day. Come explore a day in the life of a real forensic scientist and follow the evidence from the crime scene, through the laboratory, to the courtroom.

October 22, 2011---“What Are Model Organisms and Why Are They Part of the Human Genome Project?”, Matthew Buechner, PhD, Associate Professor University of Kansas

The Human Genome Project is finding out the location of thousands of mutations that either cause a genetic disease or allow you to get diseases such as cancer, diabetes, muscular dystrophy, or the most prevalent lethal genetic disease, polycystic kidney disease. We don't know what these “disease genes” do until we compare them to similar genes in other animals such as mice, fruit flies, and the tiny roundworm *C.elegans*.

November 12, 2011---“Technology in Today’s Medical World”, Michael Ash, MD, RPh, Cerner. Learn about exciting new developments in healthcare technology.

December 3, 2011---“Cell Wars: Fighting Cancer with Smart Weapons”, Lynn Marzinski, RN, University of Kansas Cancer Center

The latest anti-cancer therapies involve working inside cells to block signals, to make antibodies that target cells for destruction, or engage the immune system so that only cancer cells are being attacked. Come see electron microscopic pictures of the Newest Therapies in our fight against cancer and hear about the research involved in developing these drugs.

January 21, 2012---“No Longer a Black and White Moon!”, Cassandra Runyon, PhD, College of Charleston

Recent advances in technology and planetary science have advanced our understanding of the Moon – and led to new questions. From the Chandrayaan-1/Moon Mineralogy Mapper (M3), Cassini, Deep Impact, and LRO/LCROSS missions, we now know that water is present on the Moon! Additionally, closer inspection of the apparent black or gray surface materials indicates the presence of a variety of minerals. What processes formed them? Might we compare them to similar events on earth? How does the Moon compare to Earth? Could we live there?

February 4, 2012---“Traumatic Brain Injury: Are You at Risk?” R. Scooter Plowman, MS, University of Kansas Medical Center

The number one cause of death and coma among young people in the US is Traumatic Brain Injury (TBI). We have cutting edge MRI techniques to diagnose and quantify the brain injury, as well as, to use in prevention and treatment for TBI. Come learn how exciting it is to be a graduate student who directly works on research in this area.

February 25, 2012---“Spring Brings Severe Weather – Why?”, Jim Keeney, Deputy Chief of Weather Services /Warning Coordination Meteorologist

The National Weather Service protects the public. We'll talk about our tools of the trade, job opportunities, and our function. View detailed information and video pertaining to tornadoes, severe storms, and flooding from 2011. Come see what Mother Nature can do!

March 10, 2012---“Terrorism or Flu: Planning for the Next Big Disaster in KC”, Alisha Griswold, Medical Reserve Corps of Greater Kansas City

Using decades of research and collective experience, we battle daily to keep Americans safe and protected from harms known and unknown. We have the latest tools to keep the community engaged and prepared. Let's identify some of the most common hazards to the KCMO regions and discuss methods of preparing for and reducing the impact of harm to individuals and families.

Thank you to our sponsors the R. A. Long Foundation & Johnson County Community College.

