

Kansas Sesquicentennial 2011



Photo courtesy of KU Cancer Center

CAROL FABIAN

MEDICINE

University of Kansas
Medical Center



Carol Fabian current

- Grew up in the Kansas City area.
- Earned bachelor's degree from KU, medical degree from University of Kansas School of Medicine.
- As a world-renowned breast cancer researcher, she looks for ways to prevent cancer altogether or to block it in the earliest stages.
- Pioneered a method for prevention where women who may be at high risk have a tiny tissue sample drawn out by a fine needle. This sampling method demonstrated that women with abnormal cells were at very high short-term risk of developing breast cancer. They could then be encouraged to take special medicines to reduce that risk.
- Also conducting other trials to understand different methods of cancer prevention, including diet and exercise trials.

EXTRA COOL: Selected as one of the top cancer specialists for women in America by *Good Housekeeping Magazine* in 1999.

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Photo courtesy of the University of Kansas

BURTON McCOLLUM

GEOPHYSICS

U. S. Bureau of Standards



Burton McCollum historical

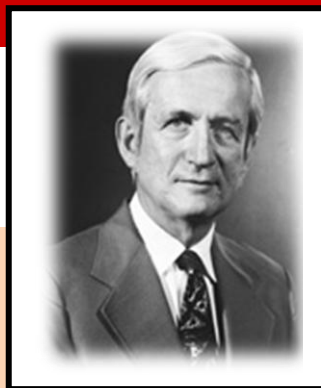
- Born and raised near Fort Scott.
- Awarded his first of 11 electrical patents while a student at the University of Kansas, selling it for \$250.
- During WWI, McCollum worked on sound ranging to locate artillery, which led to discoveries in sound-wave exploration and geophysics.
- Was responsible for the first producing oil well drilled on a location selected by use of seismology.
- Held a total of 15 geophysical patents. His last was in 1956, at age 75, for the Thumper, a tool still used to search for oil via seismic reflections.
- Considered one of the top four people in the early history of geophysical exploration. His reflection techniques launched a new industry: seismic exploration for oil.

EXTRA COOL: McCollum Laboratories at KU is named for him. McCollum Residence Hall is named for Burton and his brother Elmer, also a scientist.



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Credit: Fermilab

NORMAN RAMSEY, Jr.

PHYSICS

Harvard University



Norman Ramsey, Jr. 1915-

- Born in Washington, D.C. in 1915. His mother had been a math instructor at KU. His father was in the military so the family moved a lot. They moved from D.C. to Topeka, Kan., to Paris, France, to Dover, New Jersey, and to Ft. Leavenworth, Kan.
- Very smart, he skipped two grades and graduated from Leavenworth Senior High School at age 15. He was senior class president.
- He was set to enter KU on a scholarship, but his family was transferred to New York. He earned physics degrees at Columbia University.
- Known for his work about the energy level of atoms. His most famous work in physics has to do with the construction of the atomic clock. The atomic clock is the basis of Global Positioning Systems (GPS) and many other important technologies.

EXTRA COOL: Co-winner of the 1989 Nobel Prize in Physics.

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Courtesy of Mary Rezac

MARY REZAC

CHEMICAL ENGINEERING

Kansas State University



Mary Rezac current

- Attended grade school in Emmett in northeastern Kansas. Graduated from St. Mary's High School. Has degrees from KSU and the University of Texas.
- Her current projects are in the bio-energy area. KSU researchers are studying all stages of ethanol fuel production from biomass (any biologically grown grains, grasses or stalks, etc).
- The team is developing cheaper and more energy efficient ways to distill raw ethanol (which has water in it) down to pure ethanol.
- Ethanol, a renewable fuel made from grains (mostly corn), is often used as a motor fuel by adding it to gasoline. Rezac is also researching the use of native grasses and energy crops like milo as bioenergy feedstocks.
- So far the team has reduced energy usage and cost by about 30 percent. They are working with industrial designers to put these techniques into future facilities. Kansas has 11 ethanol plants.

EXTRA COOL: Has been director of the K-State Center for Sustainable Energy since its founding in 2007.

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