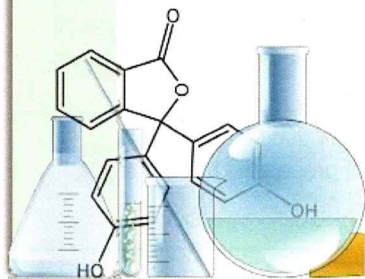


THE COLLEGE OF
WOOSTER

Department of Chemistry

The
Helen Murray Free
Endowed Lecture
Series



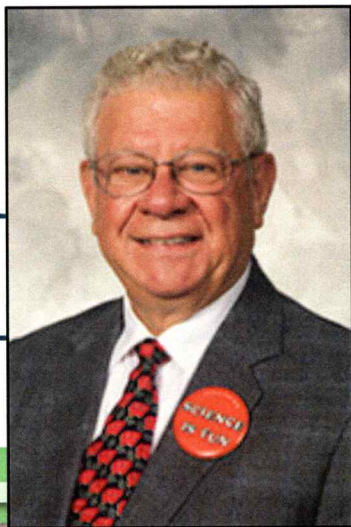
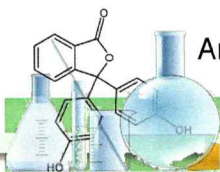
October 26, 2017

Bassam Shakhashiri

The William T. Evjue Distinguished
Chair for the Wisconsin Idea
Department of Chemistry

Director, Wisconsin Initiative for
Science Literacy
University of Wisconsin-Madison

2012 President
American Chemical Society



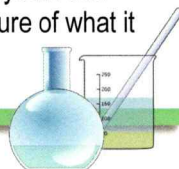
Bassam Z. Shakhashiri is well known internationally for his effective leadership in promoting excellence in science education at all levels. He is an advocate for policies to advance knowledge and to use science and technology to serve society. He promotes the exploration and establishment of links between science, arts and the humanities, and the elevation of discourse on significant societal issues related to science, religion, politics, the economy, and ethics. From 1984-1990 Dr. Shakhashiri served as Assistant Director of the National Science Foundation (NSF) for Science and Engineering Education. As NSF chief education officer, he presided over the rebuilding of all NSF efforts in science education after they had been essentially eliminated in the early 1980s. His leadership and effectiveness in developing and implementing national programs in science education have helped set the annual NSF education budget at its current level of about \$900 million. As the 2012 president of the American Chemical Society, he formed the ACS Presidential Commission on Graduate Education in the Chemical Sciences, the ACS Climate Science Working Group, and the ACS Global Water Initiative Working Group. Dr. Shakhashiri is the recipient of over 35 awards, including the 2002 American Association for the Advancement of Science (AAAS) Award for Public Understanding of Science and Technology, "for his tireless efforts to communicate science to the general public, and especially children." He is best known to the public at large for his annual program, "Once Upon a Christmas Cheery, In the Lab of Shakhashiri," seen on PBS stations around the country. The science-oriented entertainment show has played to packed houses around the country. In 2016 he marked the 47th anniversary of presenting this engaging show that promotes science literacy to the general public.

Technical Lecture – 11:00 AM

Gault Recital Hall
Scheide Music Center

Science and Society: Our Opportunities and Responsibilities

We live in the most advanced scientific and technological society in history. New discoveries have led to personal and societal enlightenment, to improvements and benefits in our daily lives, but also to new societal problems. Education is the key to societal progress. In one part of his talk, Professor Shakhashiri will discuss the rationale for enhancing the learning experiences of students and will offer specific suggestions for consideration as we all contemplate ways to improve both our technical skills and judgment. We must showcase science at its best in addressing human needs locally and worldwide. We must aim to promote science literacy. Science literacy is necessary for the democratic process to work. By science literacy Dr. Shakhashiri means an appreciation of science, an understanding of the benefits of technology and the potential rewards and risks associated with advances in both, as well as a recognition of what science is capable of achieving and what it cannot accomplish. Science literacy enlightens and enables people to make informed choices; to be skeptical; to reject shams, quackery, and unproven conjecture; and to avoid being bamboozled into making foolish decisions where matters of science and technology are concerned. Science literacy is for everyone--chemists, artists, humanists, all professionals, the general public, youth and adults alike. The level of science literacy in any society is a measure of what it values and its resolve to put these values into practice.



Public Lecture – 7:30 PM

Gault Recital Hall
Scheide Music Center

Science Is Fun and The Joy of Learning

This public talk will include demonstrations to show how science can be communicated to all segments of our society. Come learn about combustion, liquids that glow in the dark, polymers, and other spectacular scientific phenomena. You will sit at the edge of your seat and will see science in action.

*A reception immediately following the evening lecture is provided
by the
Wooster Section of the American Chemical Society*

Helen Murray Free graduated with a B.A. in chemistry from The College of Wooster in 1945. Her research in clinical chemistry revolutionized diagnostic testing, particularly the "dip-and-read" glucose tests for diabetics, and she was awarded seven patents for her clinical diagnostic test inventions. From 1987 to 1992, she chaired the American Chemical Society's (ACS) National Chemistry Week Task Force, and in 1993 she served as president of the ACS. She and her husband, Alfred, were inducted into the National Inventor's Hall of Fame in 2000. In 2010, the ACS designated the development of diagnostic test strips as a National Historic Chemical Landmark. That same year, she was awarded the National Medal of Technology and Innovation by President Obama. In 2011, Helen was inducted into the National Women's Hall of Fame in Seneca Falls, NY.



The Helen Murray

Free Endowed Lecture Series was established by Helen's children and endowed through the Al and Helen Free Foundation. Each year, this endowed fund will bring to campus a renowned chemical scientist, who will interact with chemistry students at a technical level and present an all-college convocation on the contributions of science to the quality of life.

Past Presenters

- 2007 **Mary Lowe Good**
University of Arkansas
- 2008 **Richard N. Zare**
Stanford University
- 2009 **Jacqueline K. Barton**
California Institute of Technology
- 2010 **Harry B. Gray**
California Institute of Technology
- 2011 **Sara Risch**
Science By Design
- 2012 **Catherine T. Hunt**
The Dow Chemical Company
- 2012 **Sam Niedbala**
Lehigh University
- 2013 **Susan Solomon**
Massachusetts Institute of Technology
- 2014 **Paul S. Anderson**
Retired medicinal chemist
- 2015 **Ned Heindel**
Lehigh University
- 2016 **Madeleine Jacobs**
President & CEO, Council of Scientific Society Presidents