

Chemist to advise 'How to be successful'



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LEWISBURG, Pa. — Richard Zare, professor of chemistry at Stanford University, will give the talk, "How To Be Successful," Monday, Oct. 22, at 7:30 p.m. in Trout Auditorium of the Vaughan Literature Building at Bucknell University.

The talk, which is free and open to the public, is made possible by a Jean Dreyfus Boissevain Lectureship for Undergraduate Institutions grant from the Camille and Henry Dreyfus Foundation.

During his visit to Bucknell, Zare will give formal presentations, speak in chemistry classes, and meet informally with student/faculty research groups.

In his public talk, Zare will build on the advice of American industrialist Andrew Carnegie, who recommended, "Do not drink, do not smoke, do not endorse, do not speculate. Concentrate, perform more than your prescribed duties; be strictly honest in word and deed. And may all who read these words be just as happy and prosperous and long lived as I wish them all to be. And let this great fact always cheer them: It is impossible for anyone to be cheated out of an honorable career unless he cheats himself."

Zare says, "This may be fine advice for the business world, but it seems to offer little guidance in today's world how to live a truly fulfilling life. There is no question that life is full of problems and problematic situations.

"In this talk, I will concentrate on tips for problem solving, suggesting that these same tips, when vigorously pursued, lead to happy outcomes, whether or not a particular problem gets solved. They lay the basis for a wonderful life of the mind."

"We are very excited to welcome Dr. Zare to the University," said Tim Strein, professor of chemistry at Bucknell. "Zare has an impeccable reputation in both fundamental and applied research. Moreover, he is a gifted speaker who has a knack for communicating complex ideas in terms that all can understand — and he does so with a great sense of humor.

"It is fitting that his visit coincides with Mole Day, which commemorates Avogadro's Number (6.02×10^{23}), a basic measuring unit in chemistry. Mole Day was created as a way to foster interest in chemistry, and I can't think of a better exemplar of having fun by doing great chemistry than Dick Zare," he said.

Winner of numerous awards including the 2010 Priestley Medal (the highest award given by the American Chemical Society) and the 2009 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, Zare is renowned for his research in the area of laser chemistry.

His development of laser induced fluorescence as a method for studying reaction dynamics has been widely adopted in other laboratories. Ongoing projects in the Zare research lab make use of lasers to understand chemical reaction dynamics and to advance the science of chemical measurement, and apply those new approaches to help solve real world problems.

Zare also was a member of a research team that concluded a Martian meteorite found on Earth contained fossilized remains of microbial life, "though that evidence does not prove that life existed on Mars in the distant past," he said.

Zare was elected to the National Academy of the Sciences in 1976. Formerly chair of the President's National Medal of Science Selection Committee, and current adviser to the Camille and Henry Dreyfus Foundation, Zare was appointed chair of the Committee on Science, Engineering and Public Policy (COSEPUP) of the three academies, the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, earlier this year.

A graduate of Harvard University, Zare taught at the Massachusetts Institute of Technology, the University of Colorado, and Columbia University, before joining the faculty at Stanford in 1977, where he serves as the Maguerite Blake Wilbur Professor in Natural Science.

He has authored and co-authored more than 800 publications and more than 50 patents, and has published four books including *Angular Momentum: Understanding Spatial Aspects in Chemistry and Physics* (1988) and *Laser Experiments for Beginners* (1995).