

# PASSION WORTH SPREADING

# TED<sup>x</sup> RiceU

**x = independently organized TED event**

Saturday, April 2, 2011

McMurtry Auditorium, Duncan Hall

2:00 PM - 5:00 PM

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PRESENTED BY:



RICE UNDERGRADUATE SCIENCE & ENGINEERING REVIEW

## PROGRAM OF EVENTS

1:45 PM	Registration Opens
2:20 PM	Welcome Address
2:30 PM	Talk by Dr. Klineberg
2:50 PM	TED Video
3:00 PM	Talk by Dr. McDevitt
3:20 PM	Intermission
3:40 PM	Talk by Dr. Richards-Kortum & Dr. Oden
4:00 PM	TED Video
4:10 PM	Talk by Dr. Baraniuk
4:30 PM	Closing Remarks
4:40 PM	Reception & Discussion

## SPEAKERS

### Stephen Klineberg

Stephen L. Klineberg is a Professor of Sociology at Rice as well as founding the Co-director of the university's Kinder Institute for Urban Research. He received his doctoral degrees from the University of Paris and Harvard, and taught at Princeton before moving down South. In 1982, he and his students initiated the annual Houston Area Survey, now in its 29th year of tracking the changes in the demographic patterns, life experiences, attitudes, and beliefs of Harris County residents. No other city in America has been the focus of a long-term longitudinal research program of this scope.

Co-author of *The Present of Things Future: Explorations of Time in Human Experience*, Dr. Klineberg has written numerous journal articles and research reports, and appears frequently on radio and television. In addition, the recipient of ten major teaching awards, including the George R. Brown Lifetime Award for Excellence in Teaching, he is also a faculty associate and divisional advisor at Lovett College, where he twice served as Interim Master.

### John McDevitt

John T. McDevitt is the Brown-Wiess Professor of Chemistry and Bioengineering at Rice and a pioneer in the development of "programmable bio-nano-chip" technologies. Since joining the university in 2009, he has focused on developing inexpensive, battery-powered diagnostic devices that can replace high-cost, time-consuming diagnostic tests, research that has immense potential to impact clinical medicine, both in developing and developed countries. With support from the NIH and the Bill and Melinda Gates Foundation, he has more than 170 peer-reviewed scientific manuscripts over 150 patents and patent applications.

Dr. McDevitt currently serves as the Principal Investigator for 6 major clinical trials involving the programmable bio-nano-chip for major diseases in the areas of heart disease and cancer. Dr. McDevitt has recently established the "Texas Cancer Diagnostics Pipeline" and serves as the Director for the newly formed "Early Disease Detection Gulf Coast Consortium Cluster" thereby creating a network of over 100 clinical researchers devoted to next generation of affordable diagnostics.

### Rebecca Richards-Kortum

Rebecca Richards-Kortum is the Stanley C. Moore Professor of Bioengineering at Rice and the director of Rice 360°: Institute for Global Health Technologies, a joint effort with the Clinton Global Initiative to create a university-wide institute to develop and disseminate technologic and educational interventions to prevent disease in vulnerable populations. She is currently developing miniature imaging systems to enable better screening for oral, esophageal, and cervical cancer and, in collaboration with MD Anderson, has carried out clinical trials in the US, India, and China.

At Rice, Dr. Richards-Kortum founded the HHMI supported program Beyond Traditional Borders (BTB). The goal of this program is to encourage students from multiple backgrounds to think beyond geographic and disciplinary boundaries to solve challenges in global health, which led to the creation of the interdisciplinary undergraduate minor. She has received numerous awards for her teaching and research, including being named a Howard Hughes Medical Institute Professor in 2002 and 2006, and election to the US National Academy of Engineering (2008).

### Maria Oden

Maria Oden is a Professor in the Practice of Engineering Education in the Department of Bioengineering at Rice and the Director of the Oshman Engineering Design Kitchen (OEDK), where she offers students from various departments unique hands-on design experiences and opportunities to test and carry ideas to their intended point of application. Dr. Oden has more than 15 years of combined academic, research, clinical experience in biomedical engineering with an emphasis in orthopaedic biomechanics and computational modeling. She has helped develop capstone engineering design programs and core laboratory courses for undergraduates. Under her guidance, 15 students have left Rice with a patent application on their resume.

Since 2006, Oden has actively collaborated with Rice faculty to oversee the Rice/Texas Medical Center (TMC) Design Technology Forum - a quarterly series in which more than 20 surgeons from the TMC work with researchers/students at Rice to form technologic solutions to medical problems. She also collaborates with colleagues around the nation to foster growth in undergraduate design education.

### Richard Baraniuk

Richard Baraniuk is the Victor E. Cameron Professor of Electrical and Computer Engineering at Rice and the founder of Connexions. One of the most popular open education sites in the world, Connexions' more than 17,000 learning modules and over 1,000 collections in all disciplines – from math and science to history and English to psychology and sociology – are used electronically by over 2 million people of all ages every month, for free.

Dr. Baraniuk has received several prestigious awards both for his research in signal processing and his education projects. These range from the Rosenbaum Fellowship from the Isaac Newton Institute of Cambridge University and an MIT Technology Review TR10 Top 10 Emerging Technology award, to the Eta Kappa Nu C. Holmes MacDonald National Outstanding Teaching Award, and the World Technology Network Education Award, with many more in between. He has also been selected as one of Edutopia Magazine's Daring Dozen Education Innovators.