

# 2010 Conference on Communicating Science

November 3-4, 2010  
Hyatt Regency Hotel  
Greenville, South Carolina

## Speaker Biographies



### Neil deGrasse Tyson, PhD, Keynote

Neil deGrasse Tyson was born and raised in New York City where he was educated in the public schools clear through his graduation from the Bronx High School of Science. Tyson went on to earn his BA in Physics from Harvard and his PhD in Astrophysics from Columbia.

Tyson's professional research interests are broad, but include star formation, exploding stars, dwarf galaxies, and the structure of our Milky Way. Tyson obtains his data from the Hubble Space Telescope, as well as from telescopes in California, New Mexico, Arizona, and in the Andes Mountains of Chile.

In 2001, Tyson was appointed by President Bush to serve on a 12-member commission that studied the Future of the US Aerospace Industry. The final report was published in 2002 and contained recommendations (for Congress and for the major agencies of the government) that would promote a thriving future of transportation, space exploration, and national security.

In 2004, Tyson was once again appointed by President Bush to serve on a 9-member commission on the Implementation of the United States Space Exploration Policy, dubbed the "Moon, Mars, and Beyond" commission. This group navigated a path by which the new space vision can become a successful part of the American agenda. And in 2006, the head of NASA appointed Tyson to serve on its prestigious Advisory Council, which helps guide NASA through its perennial need to fit its ambitious vision into its restricted budget.

In addition to dozens of professional publications, Dr. Tyson has written, and continues to write for the public. He was a monthly essayist for *Natural History* magazine under the title "Universe." And among Tyson's nine books is his memoir *The Sky is Not the Limit: Adventures of an Urban Astrophysicist*; and *Origins: Fourteen Billion Years of Cosmic Evolution*, co-written with Donald Goldsmith. *Origins* is the companion book to the PBS-NOVA 4-part mini-series *Origins*, in which Tyson serves as on-camera host. The program premiered on September 28 and 29, 2004. And beginning in the fall of 2006, Tyson has appeared as the on-camera host of PBS-NOVA's spinoff program *NOVA ScienceNOW*, which is an accessible look at the frontier of all the science that shapes the understanding of our place in the universe.

Tyson's latest two books are the playful and informative *Death By Black Hole and Other Cosmic Quandaries*, which was a *New York Times* bestseller, and *The Pluto Files: The Rise and Fall of America's Favorite Planet*, chronicling his experience at the center of the controversy over Pluto's planetary status. The PBS/NOVA documentary "The Pluto Files", based on the book, premiered in March 2010.

During the summer of 2009 Tyson joined with co-host Lynn Koplitz, a professional standup comedienne, to bring science to commercial radio with the NSF-funded pilot program *StarTalk*. Combining celebrity guests with informative yet playful banter, *StarTalk's* target audience is all those people who never thought they would, or could, like science.

Tyson is the recipient of twelve honorary doctorates and the NASA Distinguished Public Service Medal. His contributions to the public appreciation of the cosmos have been recognized by the International Astronomical Union in their official naming of asteroid "13123 Tyson." On the lighter side, Tyson was voted "Sexiest Astrophysicist Alive" by *People Magazine* in 2000.

Tyson is the first occupant of the Frederick P. Rose Directorship of the Hayden Planetarium. Tyson lives in New York City with his wife and two children.



## Robert Krulwich, Opening Keynote

Co-host of NPR's Radio Lab, correspondent for NPR's Science Unit and ABC News Special Correspondent, Robert Krulwich has been called "the most inventive network reporter for television" by TV Guide. His specialty is explaining complex subjects — science, technology, economics — in a style that is clear, compelling and entertaining.

He has explored the structure of DNA with a banana; created his own Italian Opera, "Ratto Interessso," to explain how the Federal Reserve regulates interest rates; and pioneered the use of animation on ABC's Nightline, World News, and NPR's internet site to explore cellular biology and subprime lending.

Krulwich regularly appears on ABC's World News, NPR's Morning Edition and All Things Considered. His program, Radio Lab, is an NPR series that explores new developments in science for people who are curious but not usually drawn to science shows. "I like talking about ideas, and I especially like creating images that will keep those ideas in peoples' heads for hours, days, even months" he says. In 2007 The National Academy of Sciences, Engineering and Medicine gave Radio Lab its top honor for excellence in communicating science to the general public.

As host and executive editor of PBS' five-part documentary series, NOVAscienceNOW, Krulwich explored scientific breakthroughs and their applications, from fuel cells and hydrogen-powered cars to nanotechnology. For ABC's Brave New World series, he examined subjects ranging from artificial intelligence to human cloning.

He has won two Emmys, a George Polk Award, a Dupont Award, and the National Cancer Institute's Extraordinary Communicator's Award.

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## Sonya Duhé, PhD, Science Journalism Panel

Sonya Forte Duhé, PhD, joined the faculty of the Loyola University New Orleans School of Mass Communication in August 2009 as director and professor. Before 2009, Dr. Duhé was a faculty member at the University of South Carolina in Columbia in the School of Journalism and Mass Communications and an affiliated faculty member in the university's School of the Environment.

Duhé, whose tenure at USC began in 1993, served as the associate vice president for research and health sciences as well as special assistant to the provost for strategic directions and initiatives there. She directed an interdisciplinary campus-wide science and health communications initiative. Her teaching and research interests include advanced reporting and researching skills, science journalism, crisis and risk communications and the applications of broadcast news research. Duhé earned a bachelor's degree in broadcast journalism at Louisiana State University in Baton Rouge, La., and master's and doctorate degrees in journalism from the Medill School of Journalism at Northwestern University in Evanston, Ill., and the University of Missouri at Columbia, respectively. She also is a former television and radio news reporter and anchor.

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## Philip J. Hilts, Science Journalism Panel

Philip J. Hilts, the author of six books and a prize-winning health and science reporter for both *The New York Times* and *The Washington Post*, is the third director of the Knight Science Journalism Fellowships. Hilts, whose journalism career began in 1968, was the *Times* reporter who broke the story of the tobacco industry's 40-year cover-up of its own research showing that tobacco was harmful and addictive. His most recent book, *Rx for Survival: Why We Must Rise to the Global Health Challenge*, was a *New York Times* Notable Book of the Year.

Hilts is also the author of *Protecting America's Health: The FDA, Business, and One Hundred Years of Regulation*. The only history of the Food and Drug Administration, this book tells the story of the fight over using science as the basis of public policy. It won the *Los Angeles Times* Book Prize for Science and Technology and was named a *New York Times* Notable Book of the Year.

Hilts has been a Nieman Fellow at Harvard University and twice a fellow at the Harvard School of Public Health. He is also a commentator on health and science issues for National Public Radio.

## **Doron Weber, *New Tools for Communication***

Doron Weber, Vice President, Programs, runs the programs for the Public Understanding of Science and Technology for the Alfred P. Sloan Foundation. He also directs the program in Digital Information Technology and the Dissemination of Knowledge, which seeks to study emerging developments in information technology and utilize those developments to make the benefits of human knowledge and human culture accessible to people everywhere. Mr. Weber has primary responsibility for the Foundation's efforts to educate and engage the public through books, radio, public and commercial television and film, theater, the Internet, and new media. He also supports selected scientific events of national concern and targeted public policy initiatives.

In 2004, the Foundation received the National Science Board's Public Service Award, citing Mr. Weber's program "for its innovative use of traditional media--books, radio, public television--and its pioneering efforts in theater and commercial television and films to advance public understanding of science and technology." Mr. Weber's work at Sloan has been profiled in *The Boston Globe*, *Fortune*, and *The American Way*.

Prior to joining Sloan in 1995, Mr. Weber served as Director of Communications at The Rockefeller University (1991-1995), and Director of Communications for the Society for the Right to Die (1989-91). Earlier, he worked as a senior editor for *The Reader's Catalog*, a speechwriter for the United Jewish Appeal, and a screenwriter for both television and film. He has also been a teacher, tutor, taxi driver, romance novelist, busboy and boxer. Mr. Weber has coauthored three nonfiction trade books: *Safe Blood: Purifying the Nation's Blood Supply in the Age of AIDS* (Free Press, 1990), *The Complete Guide to Living Wills* (Bantam Books, 1991), and *Final Passages: Positive Choices for the Dying and their Loved One* (Simon & Schuster, 1992, Fireside, 1993). His articles and reviews have appeared in, among other places, *The New York Times*, *USA Today*, *Barron's*, *The Baltimore Sun*, *The Village Voice Literary Supplement*, and *the Boston Review*. His first novel, *The Deserters*, was excerpted in the fall 2003 issue of *Kinder-Link*.

Mr. Weber was educated at Brown University (BA, 1977), the Sorbonne, and Oxford University (MA, 1981), where he was a Rhodes Scholar. He also received a Fulbright. He served for ten years (1995-2005) as secretary of the New York State Committee for the Rhodes Scholarships and currently serves as vice president of The Writers Room. He is a member of the Council on Foreign Relations, the American Association for the Advancement of Science, the Mayor's Committee on Public Understanding of Science, the U.S.A. Triathlon and the Century Club.

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## **Bora Zivkovic, *New Tools for Communication***

Bora Zivkovic, better known online as 'Coturnix', writes on "A Blog Around The Clock" which is a fusion of his three old blogs: Science And Politics (a mix of science, politics, personal, blogging-about-blogging and miscellaneous stuff), Circadiana (chronobiology and medicine of sleep), and The Magic School Bus (academia and science education). This blog was a part of the Scienceblogs.com collective from June 2006 till July 2010 at <http://scienceblogs.com/clock>.

Zivkovic was born in Belgrade, in (what used to be) Yugoslavia (now Serbia), where he trained horses, got his black belt in karate, and studied veterinary medicine. In 1991, just one week before the (first of many) wars broke out in the region, Bora emigrated to the USA. He got a MS degree in the Department of Zoology at North Carolina State University studying the physiology of circadian and photoperiodic timing in Japanese quail (*Coturnix japonica*, hence the online handle), while taking a number of graduate classes in history and philosophy of biology as well. In the same year – 1998 – he became a US citizen.

Zivkovic is the series editor of *The Open Laboratory* - a series of annual anthologies of best writing from science, nature and medical blogs. He is also serving as an external advisor to the World Science radio+Web science program, is a member of BlogTogether and sometimes helps with the ScienceInTheTriangle and Research Triangle Park.

He worked as the Online Community Manager at Public Library of Science, focusing mainly on PLoS ONE until August 2010. After moving the blog away from Scienceblogs.com, Zivkovic accepted the position of Chief Editor and Community Manager of the Scientific American blog network, starting in September 2010. He has organized four globally renowned ScienceOnline conferences and is now in the midst of organizing the fifth one, ScienceOnline2011.

## **Larry Boyd, PhD, *Interacting with the Private Sector***

Dr. Boyd is the associate director of Duke's Center for Entrepreneurship and Research Commercialization (CERC). The position was created with funding support from several departments and programs across the university in an effort to boost student entrepreneurship at Duke.

When Boyd completed his master's degree in bioengineering in 1989, he took a job as a product development group leader and engineer at Dow Corning Wright in Arlington, Tenn. During three years there, he worked on the development of a variety of implants for use in various parts of the body, including the hands, feet and knees. He then moved on to work for a company in Memphis that at the time was called Danek Medical (later Sofamor Danek). The small startup company's focus was in an emerging arena for medical implants— those aimed at fusing the spine. Boyd worked in the area of interbody fusion and artificial disc replacement. He started on his Ph.D. at Duke's Pratt School of Engineering and Duke Medical Center in 2000, working in the laboratory of biomedical engineering professor Lori Setton. In the Setton lab, he collaborated with Duke orthopedic and neurosurgical spinal surgeons in an effort to elucidate the process of spinal degeneration. He also conducted his dissertation studies in mice lacking a key form of collagen to better understand the mechanisms of disc degeneration and the changes that occur in the adjacent bone as the spinal disc gets worn down.

He has guided 11 undergraduate and master's students at Duke, many of whom have now gone on to graduate school or to start careers of their own, and maintains regular contact with many of them to this day. For his effort, the Duke Graduate School last year awarded Boyd one of the first Dean's Awards for Mentoring. Boyd holds a bachelor's degree in mechanical engineering and a master's in bioengineering from Clemson University. He also has a master's degree in engineering management from Christian Brothers University and a doctorate in biomedical engineering from Duke. In addition to his CERC position, Boyd is also an adjunct professor for the biomedical engineering department and the masters of engineering management program.

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## **John Warner, *Interacting with the Private Sector***

John Warner is Founder and Principal of Innoventure, LLC and founder of the Swamp Fox Community. He is a recognized leader in the southeastern innovation and entrepreneurial community.

He has twenty-seven years of experience in leadership positions as senior manager of KPMG, a global professional services firm; President and co-founder of Capital Insights, a successful SC venture capital firm; Chairman of Earth Fare, a highly successful entrepreneurial company, and VP of KEMET, a global NYSE manufacturer.

He has held numerous community leadership positions and has won several awards for his work.

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## **Susan Fitzpatrick, PhD, *The Role of the Scientist in Policy Making and Science, Society and Ethics***

Susan Fitzpatrick, Ph.D. is Vice President of the James S. McDonnell Foundation. The McDonnell Foundation is one of a limited number of international grantmakers supporting university-based research in the biological and behavioral sciences through foundation-initiated programs via competitive, peer-review proposal processes.

Fitzpatrick received her Ph.D. in Biochemistry and Neurology from Cornell University Medical College (1984). After 5 years pursuing in vivo NMR spectroscopic studies of brain metabolism in the Department of Molecular Biochemistry and Biophysics at Yale University, Fitzpatrick shifted her career to non-profit administration.

Fitzpatrick was the Associate Executive Director of the Miami Project to Cure Paralysis (1989-1992), a comprehensive basic science and applied science research center focused on restoring neurological function to persons with spinal cord injury. Her responsibilities included all public outreach and educational efforts and she served as the scientific liaison to the development, fundraising, and public relations staff. As Executive Director of the Brain Trauma Foundation (1992-1993), Fitzpatrick guided the Foundation through a re-organization. BTF is now a leader in advancing the acute care of patients with traumatic brain injury. Fitzpatrick joined the James S. McDonnell Foundation in 1993 as the Foundation's first Program Officer. She was promoted to Program Director in 1997 and to Vice President in 2000. Fitzpatrick is an adjunct associate professor of Neurobiology and Anatomy at Washington University School of Medicine (St. Louis), teaching neuroscience. Fitzpatrick lectures and writes on issues concerning the role of private philanthropy in the support of scientific research and on issues related to the public understanding of science.

## **Esin Gulari, PhD, *The Role of the Scientist in Policy Making and Science, Society and Ethics***

In her capacity as Dean of the College of Engineering and Science at Clemson University, Dr. Gulari oversees 15 academic departments, which have an enrollment of about 5,000 students, 23 undergraduate and 45 graduate degree programs, and 11 research centers. Since becoming Dean in 2006, Gulari has created two new units within the college. The first is the School of Computing, which has the mission to prepare students for all aspects of computing as part of a university-wide emphasis on information technology and high-performance computing. The aim is to allow for rapid development of emerging, interdisciplinary research and academic programs. The department of engineering and science education is the second unit established and is designed to improve the educational methods and pedagogy of teaching science and engineering at the university level and to reach out to K-12 education with innovative strategies in math, science and engineering. Before coming to Clemson University, Gulari was a member of the chemical engineering and materials science (CHEMS) department faculty in the College of Engineering at Wayne State University. She was chair of the department from 1993 to 2000. While at Wayne State, she was also the chief technology officer of nanoSEC, a startup company for manufacturing composites using supercritical fluid processing.

Gulari is a fellow of the American Institute of Chemical Engineers, the 2003 chair for the Council of Chemical Research, and a member of the executive board of the Committee of the Advancement of Women Chemists and Chemical Engineers (COACH). From 2000 to 2004, Gulari served at the National Science Foundation (NSF) where she was the director of the Chemical and Transport Systems Division in the Engineering Directorate. She also served as acting assistant director for the Engineering Directorate at NSF from September 2001 to April 2003.

Dr. Gulari's research interests include thermodynamics and transport properties of polymer solutions and melts, materials processing with supercritical fluids, nano-scale fillers for composites and light scattering and optical methods for probing microstructure of complex fluids.

Dr. Gulari was appointed to the National Science Board in 2008 and elected Vice Chairman in 2010.

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## **John Besley, PhD, *The Role of the Scientist in Policy Making and Science, Society and Ethics***

Dr. Besley's work focuses on understanding the role of the media in how people view public officials charged with managing science, health, and environmental risks. He studies public meetings and other forms of public engagement, as well as associated media coverage. Dr. Besley's research appears in both communication and interdisciplinary social science journals. He also works with a number of organizations to help design and evaluate communication strategy.

At present, Dr. Besley is interested in whether views about the fairness of risk decision-makers and decision-making processes affect views about scientific risk and the legitimacy of risk management decisions.

Dr. Besley completed his doctoral work at Cornell University in Ithaca, NY. Both his masters (public administration) and bachelors degrees (journalism) were completed at Carleton University in Ottawa, ON. He previously worked in the Policy and Communications Division of Environment Canada.

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## **David Lemberg, MS, DC, *The Role of the Scientist in Policy Making and Science, Society and Ethics***

Dr. David Lemberg is a bioethicist and Executive Producer and Host of *Science and Society*, the lead-the-field Internet radio program. Since 2003 Dr. Lemberg has interviewed more than 700 world leaders in the fields of cancer research, genetics and genomics, nanotechnology, environmental conservation and renewable resources, and science education.

Dr. Lemberg directs the Center for Dynamic Brain Therapy at the Institute for Specialized Medicine in Del Mar, CA. His policy paper "On the Moral Significance of the Distinction Between Spare and Created Embryos" won Third Prize in the American College of Legal Medicine's 2010 Hoffman Bioethics Writing Competition.