

Dr. Mario R. Capecchi – GS Retreat 2008 Keynote Speaker

MARIO R. CAPECCHI was born in Verona, Italy in 1937. He received his B.S. in chemistry and physics from Antioch College in 1961 and his Ph.D. in biophysics from Harvard University in 1967. He completed his thesis work under the guidance of Dr. James D. Watson. From 1967-69 he was a Junior Fellow of the Society of Fellows at Harvard University. In 1969 he became an Assistant Professor in the Department of Biochemistry, Harvard School of Medicine and was promoted to Associate Professor in 1971. In 1973 he joined the faculty at the University of Utah as a Professor of Biology. Since 1988 Dr. Capecchi has been an investigator of the Howard Hughes Medical Institute; since 1989, a Professor of Human Genetics at the University of Utah School of Medicine; and since 1993, Distinguished Professor of Human Genetics and Biology. He is also co-chairman of the Department of Human Genetics.

Dr. Capecchi is best known for pioneering the technology of gene targeting in mouse embryo-derived stem (ES) cells that allows scientists to create mice with mutations in any desired gene by choosing which gene to mutate and how to mutate it. This gives the investigator virtually complete freedom in manipulating the DNA sequences in the genome of living mice, and allows detailed evaluation of any gene's function during its development or post-developmental phase. Research interests include the molecular genetic analysis of early mouse development, neural development in mammals, production of murine models of human genetic diseases, cancer and factors affecting life expectancy, homologous recombination and programmed genomic rearrangements in the mouse.

Dr. Capecchi is a member of the National Academy of Sciences (1991) and the European Academy of Sciences (2002). His prestigious awards include the Bristol-Myers Squibb Award (1992), Gairdner Foundation International Award (1993), General Motors Corporation's Alfred P. Sloan Jr. Prize (1994), German Molecular Bioanalytics Prize, (1996), Kyoto Prize in Basic Sciences (1996), Baxter Award for Distinguished Research in the Biomedical Sciences (1998), Colby Presidential Endowed Chair (1999), Italian Premio Phoenix-Anni Verdi Award (2000), Spanish Jiménez-Díaz Prize (2001), Albert Lasker Award (2001), National Medal of Science (2001), John Scott Medal Award (2002), Massry Prize (2002), Pezcoller Foundation-AACR International Award for Cancer Research (2003), Wolf Prize in Medicine (2002/03), March of Dimes Prize in Developmental Biology (2005), and the Nobel Prize in Physiology and Medicine (2007) with Oliver Smithies and Martin Evans.