

Short Biographical Sketch for R. Michael Roberts

R. Michael Roberts, Ph.D.

University of Missouri - Columbia
Chancellor's Professor of Animal Science and Biochemistry
D.Phil., Oxford University, England
Lab website: <http://robertslab.missouri.edu>

Honors and Awards (selected)

Fellow World Health Organization (1977)
NATO Senior Fellowship (1977)
Sigma Xi Distinguished Professor Award, University of Florida (1983)
F. McKenzie Distinguished Professor of Reproductive Biology, University of Missouri (1988-1996)
Merit Award, National Institutes of Health (NICHD) (1990-2000)
Research Award, Society for Study of Reproduction (1990)
United States Department of Agriculture Distinguished Scientist (1992)
Researcher of the Year, College of Agriculture, University of Missouri (1995)
Milstein Award, International Society for Interferon and Cytokine Research (1995)
Member, National Academy of Sciences (elected 1996)
Alexander von Humboldt Award for Agriculture (1996)
Presidential Award (University of Missouri) for Research and Creativity (1997)
Docteur *Honoris Causa* (Honorary Doctorate) from the University of Liege, Belgium, (1998)
Wolf Prize for Agriculture (2003)
University of Missouri Faculty/Alumni Award (2005)
2004/2005 Scientific American "Top 50" list for accomplishments in research and technological leadership.
2006 Carl G. Hartman Award- Society's highest award and is given in recognition of a research career and scholarly activities in the field of reproductive biology.
Senior Investigator Award, International Federation of Placenta Associations, 2007.
AddGene Innovation Award (2010) <http://www.addgene.org/awards/> to fund innovative ideas and projects in the life sciences.
Honorary Bingzhi Forum Professorship, Institute of Zoology, China Academy of Sciences, 2011.
Trainee-Mentoring Award, Society for the Study of Reproduction (SSR), 2012.
Sadler Lecture, NICHD, 2013.
Founding Member of the Mizzou Chapter of the National Academy of Inventors (NAI), 2015. Fellow, American Association for the Advancement of Science (AAAS), 2015.
Billie A. Field Memorial Lectureship, University of Illinois, 2016.
Senior Member, National Academy of Inventors (NAI), 2019.

Brief Biography

R Michael Roberts is a Chancellor's Professor at the University of Missouri, with appointments in Animal Sciences and Biochemistry. He is currently an investigator in the University of Missouri, Christopher S Bond Life Sciences Center. He gained his B.A. and D.Phil. in Plant Sciences from Oxford University, England, but since the mid 1970s has worked primarily as a reproductive biologist. Roberts' is best known for his work on uterine secretions, and particularly the iron-binding acid phosphatase, uteroferrin, in the pig, and on how the early embryo signals its presence to the mother in ruminant species through the production of small proteins called interferons. More recently, Roberts has been studying the role of other unique trophoblast proteins in pregnancy and has (with colleague Jon Green) developed a pregnancy test for cattle that is in the process of being commercialized. He is currently studying specification of trophoblast as it emerges from pluripotent stem cells, generating induced pluripotent stem cells from swine for testing the efficacy and safety of grafts in a large animal model, and creating trophoblast stem cells by reprogramming differentiated somatic cells. Another project pertains to the role of maternal diet in regulating the sex of her offspring. His work is supported primarily through Federal Agencies such as the National Institutes of Health (NIH) and the United States Department of Agriculture (USDA), and also through Missouri State funds in support of agriculture.

Dr. Roberts has published over 340 papers in refereed scientific journals and over 70 reviews and chapters in books. He was elected to the [National Academy of Sciences](#) in 1996, and has received several international awards, including the [Milstein Prize for Research](#) on Interferons and the [Wolf Prize for Agriculture](#) (2003). Dr. Roberts also received the [Carl G. Hartman Award](#) (2006) from the Society for the Study of Reproduction. Roberts was Chief Scientist with the USDA's Competitive Grants Program (the National Research Initiative) from 1998-2000. He also served on the National Research Council's Committee that published recommendations to the Federal Drug Agency on concerns regarding the use of genetically modified animals for food (*Animal Biotechnology: Science Based Concerns*, National Academy of Sciences, Washington, D.C.) and chaired the NRC committee that investigated Animal Care & Management at the National Zoo.