



## SCIENTIFIC SYMPOSIUM SPEAKERS BIOGRAPHICAL INFORMATION

### **Rita R. Colwell, Ph.D., D.Sc.**



Distinguished University Professor, Center for Bioinformatics and Computational Biology,  
University of Maryland  
Adjunct Professor, Johns Hopkins University Bloomberg School of Public Health  
Stockholm Water Prize (2010)  
Member, USP Board of Trustees

Rita R. Colwell, Ph.D., D.Sc., is a member of the National Academy of Sciences and many national and foreign professional societies. Dr. Colwell was the 11th Director of the National Science Foundation (1998–2004) and Co-chair of the Committee on Science of the National Science and Technology Council. She also served as President of the American Association for the Advancement of Science. Dr. Colwell has also been awarded 54 honorary degrees from institutions of higher education and is the recipient of the Order of the Rising Sun bestowed by the Emperor of Japan, the 2006 National Medal of Science awarded by the President of the United States, and the 2010 Stockholm Water Prize to be awarded September 9, 2010 by the King of Sweden. Dr. Colwell has been recognized for her work in Antarctica with a mountain named the “Colwell Massif.” She has authored/co-authored 17 books and more than 750 scientific publications, and she produced the award-winning film, “Invisible Seas.” Dr. Colwell’s Purdue University degrees include a B.S. in Bacteriology and an M.S. in Genetics; her Ph.D. in Oceanography is from the University of Washington.

### **Peter C. Agre, M.D.**



President, American Association for the Advancement of Science  
University Professor and Director, Johns Hopkins Malaria Research Institute and  
Bloomberg School of Public Health  
Nobel Prize, Chemistry (2003)

A native Minnesotan, Peter C. Agre, M.D., studied chemistry at Augsburg College (B.A. 1970) and medicine at Johns Hopkins (M.D. 1974). He completed his residency at Case Western Reserve University in Cleveland, Ohio, and an Oncology Fellowship at the University of North Carolina at Chapel Hill.

Dr. Agre joined the Johns Hopkins School of Medicine faculty in 1984 and rose to the rank of Professor of Biological Chemistry and Professor of Medicine. In 2005, he moved to the Duke University School of Medicine where he served as Vice Chancellor for Science and Technology and James B. Duke Professor of Cell Biology. Dr. Agre returned to Johns Hopkins in January 2008, where he is University Professor and Director of the Malaria Research Institute at the Bloomberg School of Public Health.

In 2003, Dr. Agre shared the Nobel Prize in Chemistry for discovering aquaporins, a family of water channel proteins that is found throughout nature, responsible for numerous physiological processes in humans and implicated in multiple clinical disorders. Dr. Agre has received other honors, including 15 honorary doctorates, Commandership in the Royal Norwegian Order of Merit from King Harald V, and the Distinguished Eagle Scout Award from the Boy Scouts of America. Dr. Agre is a member of the National Academy of Sciences and the Institute of Medicine, for which he chaired and serves on the Committee on Human Rights. In February 2009, Dr. Agre became President of the American Association for the Advancement of Sciences.

### **Francis S. Collins, M.D., Ph.D.**



#### **Director, National Institutes of Health**

Francis S. Collins, M.D., Ph.D., is the 16th director of the National Institutes of Health (NIH). Dr. Collins, a physician-geneticist noted for his landmark discoveries of disease genes and his leadership of the Human Genome Project, served as director of the National Human Genome Research Institute (NHGRI) at the NIH from 1993 to 2008. This remarkable international project culminated in April 2003 with the completion of a finished sequence of the human DNA instruction book. On March 10, 2010, Dr. Collins was named a co-recipient of the Albany Medical Center Prize in Medicine and Biomedical Research for his leading role in this effort. While accepting the honor, Dr. Collins declined his portion of the \$500,000 prize in order to comply with government ethics rules. In addition to his achievements as the NHGRI director, Dr. Collins' own research laboratory has discovered a number of important genes, including those responsible for cystic fibrosis, neurofibromatosis, Huntington's disease, a familial endocrine cancer syndrome, and most recently, genes for type 2 diabetes and the gene that causes Hutchinson-Gilford progeria syndrome.

Dr. Collins has a longstanding interest in the interface between science and faith, and has written about this in *The Language of God: A Scientist Presents Evidence for Belief* (Free Press, 2006), which spent many weeks on The New York Times bestseller list. He is the author of a new book on personalized medicine, *The Language of Life: DNA and the Revolution in Personalized Medicine* (HarperCollins, 2010).

Dr. Collins received a B.S. in chemistry from the University of Virginia, a Ph.D. in physical chemistry from Yale University, and an M.D. with honors from the University of North Carolina at Chapel Hill. Prior to coming to the NIH in 1993, he spent nine years on the faculty of the University of Michigan, where he was a Howard Hughes Medical Institute investigator. He is an elected member of the Institute of Medicine and the National Academy of Sciences. Dr. Collins was awarded the Presidential Medal of Freedom (2007) and the National Medal of Science (2009), the highest honor bestowed on scientists by the United States government.



**Alan Guttmacher, M.D.**



**National Institute of Child Health and Human Development  
Acting Director  
National Institutes of Health**

Dr. Guttmacher is acting director of the National Institute of Child Health and Human Development, where he has established a dialogue with health professionals and the public about the health and societal implications of the Human Genome Project (HGP). Among his areas of expertise is the development of new approaches for translating the findings of the HGP into better ways of diagnosing, treating, and preventing disease. Dr. Guttmacher also oversees the National Institute of Health's (NIH) involvement in the U.S. Surgeon General's Family History Initiative. He will be speaking at the Scientific Symposium on Thursday, April 22, 2010 in place of Francis Collins, M.D., who is Dr. Guttmacher's colleague, collaborator, and head of the NIH.

**Note: Dr. Francis Collins, Director of the National Institutes of Health, was unable to speak at the Scientific Symposium, Thursday, April 22, 2010. Dr. Alan Guttmacher kindly agreed to present.**

