Health Disparities in HIV/AIDS: Genetic and Therapeutic Implications
Dear Colleagues,

On behalf of the organizing committee, it is our pleasure to welcome you to the 2007 FASEB Experimental Biology symposium on the Genomics of Health Disparities. The focus of this year’s symposium, disparities in HIV and AIDS, Genetic and Therapeutic Implications, is of prime national and global concern, given the epidemiologic transition of HIV/AIDS as reflected by HIV infection as the leading cause of death for African American (AA) men ages 35-44. Although African Americans constitute an estimated 13% of the nation’s population in 2005, of 38,096 HIV/AIDS cases diagnosed, 18,667 (49%) were African Americans (AAs). The prevalence proportion of HIV/AIDS for AAs, Whites, and Hispanics were estimated at 72.8, 9.0 and 28.5 per 100,000 respectively during 2005. Survival rate after AIDS diagnoses is poorest among AAs, which may be explained by lack of private insurance and decreased access to quality care among other variables.

These staggering data are indicative of the disproportionate burden of HIV in the minority populations of the United States, albeit the improvement made in this field during the past 26 years attributed specifically to increase services to early HIV diagnosis, counseling and testing, education of HIV/AIDS physicians, early access to anti-retroviral drugs and proven behavioral prevention interventions. However, particularly troubling is the fact that, in spite of these accomplishments, some segments of our population remain at very high risk namely African American women, which now represent the fastest growing segment of incident AIDS cases. We are confronted with unanswered questions, some which are complex and multi-factorial. These questions demand answers if we are to eliminate disparities in HIV/AIDS epidemic. Is the racial variance in HIV/AIDS due to the differences in HIV progression, virulence, adherence to antiretroviral agents, biology, gene, immune responsiveness, and risk variables? This symposium brings us to an interaction with distinguished researchers in these fields, whose works continue to illuminate these unanswered questions in HIV prevention, HIV transmission and infectivity, treatment and prognosis. As we welcome you today, we hope to benefit from your presentations and posters throughout this symposium bearing in mind, the many miles to go and the promises to maintain in the fight against AIDS.

Warmest Regards,

Laurens Holmes, Jr., MD, DrPH
Research Assistant Professor,
University of Houston,
Institute of Community Health

Ekere James Essien, MD, DrPH
Associate Professor & Director,
University of Houston,
Institute of Community Health
Welcome and Introduction
Dr. Sunny E. Ohia
2:00-2:05pm

Keynote Presentations

HIV/AIDS: A Disease of Disparities
Dr. Anthony Fauci
2:05-2:45pm

Imaging NeuroAIDS
Dr. Gilberto Ramon Gonzalez
2:45-3:10pm

Patterns of Diversity among genes that influence HIV-1 infection and progression
Dr. Cheryl Winkler
3:10-3:35pm

Health Disparities in HIV/AIDS Morbidity in the United States
Dr. Ekere J. Essien
3:35-4:00pm

HIV in the US: Progress and Challenges
Dr. Patricia Flynn
4:00-4:25pm
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<td><strong>Interactive Discussion/Q&amp;A</strong></td>
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<td><strong>Closing Remarks</strong></td>
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<td><strong>Award Announcements</strong></td>
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**Dr. Sunny Ohia**

Dr. Sunny Ohia was appointed Dean, College of Pharmacy, University of Houston, Houston, Texas in October 2002. Dr. Ohia also holds the academic rank of professor of Pharmacology in the College. Dr. Ohia holds B.S. and M.S. degrees in pharmacology from the University of Ibadan, Nigeria and a Ph.D. in the same discipline from the University of Glasgow, Scotland, United Kingdom. He pursued postdoctoral research training in neuroscience from Memorial University of Newfoundland, Canada and an additional postdoctoral training in ophthalmology and visual sciences from University of Louisville Kentucky Lions Eye Center, Louisville. Prior to accepting the position at Houston, Dr. Ohia spent 11 years at Creighton University School of Pharmacy and Health Professions where he served as Chair, Department of Pharmacy Sciences for seven years and as an Associate Dean for Administration for four years. Dr. Ohia’s research and teaching interests include the pharmacology of receptors that regulate neurotransmitter release and their signal transduction pathways in the eye. He has received research funding from both the National Institutes of Health (NIH) and the pharmaceutical industry. Dr. Ohia has authored several papers and currently serves as a research consultant to some pharmaceutical companies and as a reviewer on NIH Study Sections. He also serves on scientific advisory boards for Windber Research Institute, Pennsylvania and the Lambo Eye Institute, Nigeria.
Anthony S. Fauci, M.D.
NIAID Director

Dr. Anthony S. Fauci, a native of Brooklyn, New York, received his M.D. degree from Cornell University Medical College in 1966. He then completed an internship and residency at The New York Hospital-Cornell Medical Center. In 1968, Dr. Fauci came to the National Institutes of Health (NIH) as a clinical associate in the Laboratory of Clinical Investigation (LCI) at the National Institute of Allergy and Infectious Diseases (NIAID). In 1974, he became Head of the Clinical Physiology Section, LCI, and in 1980 was appointed Chief of the Laboratory of Immunoregulation, a position he still holds. In 1984, Dr. Fauci became Director of NIAID, where he oversees an extensive research portfolio of basic and applied research to prevent, diagnose, and treat infectious diseases such as HIV/AIDS and other sexually transmitted infections, influenza, tuberculosis, malaria and illness from potential agents of bioterrorism. NIAID also supports research on transplantation and immune-related illnesses, including autoimmune disorders, asthma and allergies. The NIAID budget for fiscal year 2006 is approximately $4.4 billion. Dr. Fauci serves as one of the key advisors to the White House and Department of Health and Human Services on global AIDS issues, and on initiatives to bolster medical and public health preparedness against emerging infectious disease threats such as pandemic influenza.

Dr. Fauci has made many contributions to basic and clinical research on the pathogenesis and treatment of immune-mediated diseases. He has pioneered the field of human immunoregulation by making a number of basic scientific observations that serve as the basis for current understanding of the regulation of the human immune response. In addition, Dr. Fauci is widely recognized for delineating the precise mechanisms
whereby immunosuppressive agents modulate the human immune response. He has developed effective therapies for formerly fatal diseases such as polyarteritis nodosa, Wegener’s granulomatosis, and lymphomatoid granulomatosis. A 1985 Stanford University Arthritis Center Survey of the American Rheumatism Association membership ranked the work of Dr. Fauci on the treatment of polyarteritis nodosa and Wegener’s granulomatosis as one of the most important advances in patient management in rheumatology over the previous 20 years.

Dr. Fauci has made seminal contributions to the understanding of how the AIDS virus destroys the body’s defenses leading to its susceptibility to deadly infections. He also has delineated the mechanisms of induction of HIV expression by endogenous cytokines. Furthermore, he has been instrumental in developing strategies for the therapy and immune reconstitution of patients with this serious disease, as well as for a vaccine to prevent HIV infection. He continues to devote much of his research time to identifying the nature of the immunopathogenic mechanisms of HIV infection and the scope of the body’s immune responses to the AIDS retrovirus.

In 2003, an Institute for Scientific Information study indicated that in the twenty year period from 1983 to 2002, Dr. Fauci was the 13th most-cited scientist among the 2.5 to 3 million authors in all disciplines throughout the world who published articles in scientific journals during that time frame. Dr. Fauci was the world’s 10th most-cited HIV/AIDS researcher in the period 1996-2006.

Through the years, Dr. Fauci has served as Visiting Professor at major medical centers throughout the country. He has delivered many major lectureships all over the world and is the recipient of numerous prestigious awards for his scientific accomplishments, including 31 honorary doctorate degrees from universities in the United States and abroad.
Dr. Fauci is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, the Institute of Medicine (Council Member), the American Philosophical Society, and the Royal Danish Academy of Science and Letters, as well as a number of other professional societies including the American College of Physicians, the American Society for Clinical Investigation, the Association of American Physicians, the Infectious Diseases Society of America, the American Association of Immunologists, and the American Academy of Allergy Asthma and Immunology. He serves on the editorial boards of many scientific journals; as an editor of Harrison's Principles of Internal Medicine; and as author, coauthor, or editor of more than 1,100 scientific publications, including several textbooks.
Dr. Gilberto Ramon Gonzalez

Dr. Gonzalez is Chief of Neuroradiology at the Massachusetts General Hospital and Professor of Radiology at Harvard Medical School. He received his MD from Harvard and a PhD in chemistry from the University of California at Santa Cruz. He did post doctoral work in Molecular Biophysics at MIT, internship and residency at the Brigham and Women’s Hospital and a neuroradiology fellowship at MGH. His primary research interests involve the development and application of advanced neuroimaging methods including MR spectroscopy and functional MRI and CT. Areas of active investigation include acute stroke diagnosis and its treatment, and the pathogenesis of neuroAIDS. He has published over 125 peer-reviewed manuscripts, over 75 chapters and reviews, and 2 books. He is the recipient of several NIH and DOD grants in the areas of neuroAIDS, Alzheimers Disease, brain tumors, and stroke. He lives in Cambridge with his wife Michele, an atmospheric chemist, and their 2 daughters Susan and Ana.
**Dr. Cheryl Winkler**

Dr. Cheryl Winkler is a principal investigator at the Laboratory of Genomic Diversity at the National Cancer Institute where she investigates the role of the host genetics in complex and infectious diseases. For her dissertation she studied the immunogenetics of the domestic cat at the National Cancer Institute and received a Ph.D. degree in 1986 from the University of Maryland. She returned to the NIH to investigate the role of host genetics in HIV infection and pathogenesis in 1987 and is now the Head of the Genetic Molecular Epidemiology Section.

**Dr. Cheryl Winkler**

Patterns of Diversity among genes that influence HIV-1 infection and progression

3:10-3:35pm
Ekere James Essien, M.D., Dr.P.H.

Ekere James Essien, M.D., Dr.P.H., is an Associate Professor of Public Health Sciences at the University of Houston College of Pharmacy. He received his M.D. degree from the University of Calabar College of Medicine in 1985, and his Dr.P.H. degree from the University of Texas School of Public Health in 1994. He was accorded Fellowships in the Royal Society of Health in 1995, the Royal Institute of Public Health in 1996, and the Baylor College of Medicine Center for AIDS Research in 2003. He is a member of the Behavioral and Social Science Approaches to Preventing HIV Study Section at the National Institutes of Health. Essien has spent most of his post-graduate years exploring the dynamics of HIV transmission among minority populations in the United States. This activity has resulted in the publication of more than 50 scientific papers. His current interests include developing HIV prevention programs for the Nigerian Uniformed Services and examining the sociocultural issues that affect HIV transmission among Mexican Americans in the Rio Grande Valley of South Texas.

Dr. Ekere J. Essien
Health Disparities in HIV/AIDS
Morbidity in the United States
3:35-4:00pm
Dr. Patricia Flynn

Pat Flynn, M.D., earned her B.S. at Rhodes College in Memphis and her M.D. at Louisiana State University Medical Center. She did her pediatric residency at the University of Tennessee Health Science Center/LeBonheur Children's Medical Center and her fellowship in pediatric infectious diseases at St. Jude Children’s Research Hospital, LeBonheur Children’s Medical Center and the University of Tennessee Health Science Center.

She earned a Master of Science in Epidemiology from the University of Tennessee Health Science Center. She is a Member in the Department of Infectious Diseases at SJCRH and Professor of Pediatrics and Preventive Medicine at the University of Tennessee Health Science Center. Dr. Flynn began working in the HIV/AIDS program at St. Jude Children’s Research Hospital in 1988. Over the past 18 years, she has had the opportunity to watch the dramatic reductions in the rate of mother to child HIV transmission and the introduction of active medications that extend the life of HIV-infected persons. She has also witnessed the rising infection rates in the South and the tragic impact on adolescents.

The St. Jude HIV clinic provides comprehensive care for over 200 HIV-infected infants, children, and adolescents and is the site of several clinical trials networks making new interventions and treatments available to their patients.

Dr. Patricia Flynn

HIV in the US: Progress and Challenges
4:00-4:25pm
We wish to express our sincere appreciation to the following for their time, effort, support and commitment to making this symposium possible.

**Organizer & Moderator**
Dr. Sunny Ohia

**Keynote Speakers**
Dr. Anthony Fauci
Dr. Gilberto Ramon Gonzalez
Dr. Cheryl Winkler
Dr. Ekere J. Essien
Dr. Patricia Flynn

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