



*A Third Century Where Discovery Transforms  
Medicine*

## Translational Research and Personal Genome in Medicine

**Ninth Annual Symposium  
on  
Translational Research in Molecular Pathology**

Date: Monday, November 4, 2013

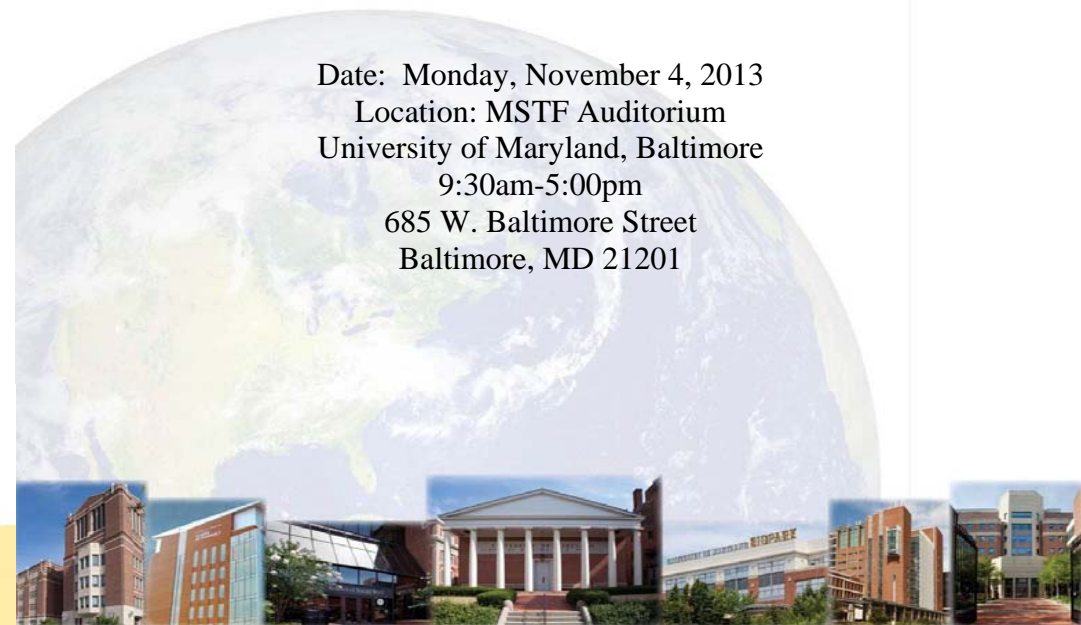
Location: MSTF Auditorium

University of Maryland, Baltimore

9:30am-5:00pm

685 W. Baltimore Street

Baltimore, MD 21201



## Organization Committee

**Richard Y. Zhao, PhD**, Chair  
Professor and Head  
Division of Molecular Pathology  
Director, Translational Genomics Laboratory  
Director, Molecular Diagnostics Laboratory  
University of Maryland School of Medicine (UMSOM)

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**Sanford A. Stass, MD**  
Professor and Chair,  
Department of Pathology,  
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Division of Molecular Pathology  
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Program in Personalized and Genomic Medicine  
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## Logistic Support by

The Chinese Students and Scholar Association (CSSA)  
University of Maryland Baltimore

## Biography of Speakers



**Chi Van Dang, MD, PhD** is a John H. Glick, M.D. Abramson Cancer Center Director's Professor, physician-researcher, renowned cancer biologist and hematologist-oncologist, who serves as director of the Abramson Cancer Center at the University of Pennsylvania. His laboratory has contributed to the understanding of the function of the *Myc* cancer gene, which has emerged as a central transcription factor, or gene switch, in many different human cancers. Dr. Dang received a BS in chemistry from the University of Michigan in 1975, followed by a PhD in chemistry at Georgetown University and MD degree from The Johns Hopkins University. Prior to joining the University of Pennsylvania, he was a professor at The Johns Hopkins University School of Medicine, Vice Dean for Research and Executive Director of The Johns Hopkins Institute for Cell Engineering. He is a member of the Institute of Medicine of the National Academies and a fellow of the American Academy of Arts & Sciences and is the author of more than 200 scientific publications.



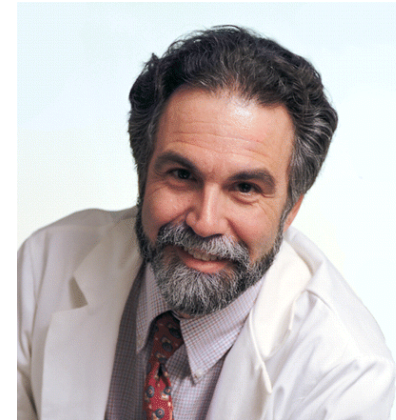
**Jennifer Shen, PhD, RAC** received her PhD in molecular biology from the University of California, San Francisco in 2003, followed by a postdoctoral fellowship at the National Cancer Institute in NIH. Dr. Shen has published a number of scientific research papers in journals such as *Cancer Research*, *Clinical Cancer Research*, *PLoS ONE*, and *Endocrine-related Cancer*. Following her postdoctoral fellowship, Dr. Shen's passion in oncology drug development led her to spend 2 years as a NCI-FDA fellow at the Center for Drug Evaluation and Research (CDER) in FDA. At CDER, she worked at different review disciplines (i.e., clinical pharmacology, pre-clinical pharmacology/toxicology, and CMC) to gain understanding on oncology drug regulatory process. Currently at CDRH/OIR, Dr. Shen is a scientific reviewer who is actively involved in companion diagnostics review.



**Allen E. Bale, MD** is Professor of Genetics and Director, DNA Diagnostic Lab at the Yale School of Medicine. Bale laboratory's focus is hereditary cancer predisposition. One project in the laboratory arose from studies of the nevoid basal cell carcinoma syndrome (NBCCS), a human genetic disease characterized by skin cancer and brain tumors as well as a variety of birth defects. They isolated the NBCCS gene and showed that it is homologous to *Drosophila* "patched," a key gene in *Drosophila* embryonic development. Dr. Bale received his BS from MIT, MD from University of Massachusetts.



**Kevin A. Strauss, MD** is a Medical Director at the Clinic for Special Children (CSC) in Strasburg, Pennsylvania. Dr. Strauss oversees all clinical services and associated research at the CSC. Dr. Strauss received his BA degree from the Colgate University and received his MD from Harvard University. He has received the New England Pediatric Society Prize in 1998 and the Bock Prize for Innovation in Development Disabilities Research in 2013.



## Keynote Lecture Role of Hypoxia-Inducible Factor 1 in Cancer and Cardiovascular Disease

**Gregg L. Semenza, MD, PhD**  
C. Michael Armstrong Professor of Pediatrics, Medicine,  
Oncology, Radiation Oncology, Biological Chemistry,  
and Genetic Medicine  
Johns Hopkins University School of Medicine

Dr. Semenza received an AB degree in Biology magna cum laude from Harvard College; MD and PhD (in Genetics) degrees from the University of Pennsylvania; pediatrics residency training at Duke University Medical Center; and postdoctoral training in Medical Genetics at Johns Hopkins University School of Medicine, where he has spent his entire career. Dr. Semenza's laboratory identified hypoxia-inducible factor 1 (HIF-1), a transcriptional activator that allows metazoan cells to respond to changes in oxygen availability. The purification of HIF-1 in 1995 opened the field of oxygen biology to molecular analysis and has revealed major roles for HIF-1 in many evolutionary, developmental, physiological, and pathological processes. He has over 300 publications, which have been cited more than 48,000 times (h factor = 110). Dr. Semenza is a recipient of the 2010 Canada Gairdner International Award, the 2012 Stanley J. Korsmeyer Award from the American Society for Clinical Investigation, and the 2012 Lefoulon-Delalande Grand Prix Scientifique from the Institut de France. He has been elected to the Society for Pediatric Research, American Society for Clinical Investigation, Association of American Physicians, Institute of Medicine, and the National Academy of Sciences.

# Program

## Morning Session

11:00 – 11:05am:



Welcome

**Richard Y. Zhao, PhD**  
Chair, Symposium Organizing Committee  
Professor and Head  
Division of Molecular Pathology  
Departments of Pathology, Microbiology-Immunology  
Institute of Human Virology  
University of Maryland School of Medicine

11:05 – 11:15am:



Opening Remarks

**Sanford A. Stass, MD**  
Professor and Chair  
Department of Pathology  
Department of Medical and Research Technology  
University of Maryland School of Medicine  
*Introduction by Richard Y. Zhao, PhD*

11:15 – 11:30am:



Opening Remarks

**Curt I. Civin, MD**  
Associate Dean for Research  
Director, Center for Stem Cell Biology & Regenerative Medicine  
University of Maryland School of Medicine  
*Introduction by Sanford A. Stass, MD*

11:30 – 12:15pm:



**Keynote Lecture**

*Role of Hypoxia-Inducible Factor 1 in Cancer and Cardiovascular Disease*

**Gregg L. Semenza, MD, PhD**  
C. Michael Armstrong Professor of Pediatrics, Medicine, Oncology,  
Radiation Oncology, Biological Chemistry, and Genetic Medicine  
*Introduction by Curt Civin, MD*

12:15 – 1:00pm:

**Box Lunch – MSTF Atrium**

## Afternoon Session

1:00 – 1:45pm:



**Targeting Cancer Metabolism**

**Chi Van Dang, MD, PhD**  
John H. Glick, M.D. Abramson Cancer Center  
Director's Professor  
Director, Abramson Cancer Center  
University of Pennsylvania  
*Introduction by Anne Hamburger, PhD*

1:45 – 2:30pm:



**Regulatory Perspectives for Molecular Diagnostics**

**Jennifer Shen, PhD, RAC**  
Scientific Reviewer, Office of In Vitro Diagnostics and  
Radiological Health (OIR)  
Center for Devices and Radiological Health (CDRH)  
Food and Drug Administration (FDA)  
*Introduced by Zeba Singh, MD*

2:30 – 2:45pm:

**Coffee Break**

2:45 – 3:30pm:



**What's on the Horizon in Genetic Testing and Personal Genomics?**

**Allen E. Bale, MD**  
Professor of Genetics  
Yale University School of Medicine  
*Introduced by J. Kristie Johnson, PhD, D(ABMM)*

3:30 – 4:15pm:



**One Community's Effort to Control Genetic Disease**

**Kevin A. Strauss, MD**  
Medical Director, Clinic for Special Children  
*Introduced by Patrick McArdle, PhD*

4:15 – 5:30pm:

**Cocktail Reception at the MSTF Atrium**