



UNITED Scientific
Group

International Conference on

Genomic Medicine

Genomics for Future Medicine and Health

GeneMed-2017

Venue

The DoubleTree
by Hilton Baltimore
-BWI Airport Hotel
Baltimore, MD, USA

February
22-24
2017

- 08:00 - 08:30 Registrations
 08:30 - 08:45 Introduction to GeneMed-2017

Keynote Presentations

Chesapeake Room

- 08:45-09:15 **Metabolomics Adds Function to Whole Genome Sequencing**
 C. Thomas Caskey, Baylor College of Medicine, TX, USA
- 09:15-09:45 **Translation of Genome Sequencing into the Clinic: Experiences and Case Studies from Rare Diseases and Cancer**
 Jenny Taylor, Wellcome Trust Centre for Human Genetics, OX, UK
- 09:45-10:15 **Integrating Cancer Diagnostics from the Disease Up**
 Jane Houldsworth, Icahn School of Medicine at Mount Sinai, NY, USA
- 10:15-10:35 **Coffee Break** *Main Hallway*
- 10:35-11:05 **High Mobility Group A1 (HMGA1): Remodeling Chromatin in Cancer and Stem Cells**
 Linda M. S. Resar, The Johns Hopkins University, MD, USA
- 11:05-11:35 **Crispr/cas9 Applications and Ethical Dilemmas Involved**
 Krishna Dronamraju, Foundation for Genetic Research, TX, USA
- 11:35-12:05 **Biomarker Development for Allergic Risk Assessment**
 Ying Mu, Food & Drug Administration, MD, USA
- 12:05-12:35 **Biology of Cell-Free Nucleic Acids and its Role in Cancer Initiation and Metastasis**
 Indraneel Mitra, Tata Memorial Centre, MH, India
- 12:35-13:25 **Lunch Break** *Pre Registration Area*

Featured Presentations

- Session** Jane Houldsworth, Icahn School of Medicine at Mount Sinai, NY, USA
Chairs Linda M. S. Resar, The Johns Hopkins University, MD, USA
- 13:25-13:45 **An Automated, Multipurpose Platform for Genetic Analysis**
 Richard A. Montagna, Rheonix, Inc., NY, USA
- 13:45-14:05 **The Promise of Single Cell Genomics for Revealing the Phenotypic Complexity of Human Tissue**
 Richard Scheuermann, J. Craig Venter Institute, MD, USA
- 14:05-14:25 **Routine Sanger Sequencing in Practicing Evidence-Based Precision Medicine**
 Sin Hang Lee, Milford Molecular Diagnostics Laboratory, CT, USA

- 14:25-14:45 **A Pan-HIV Strategy for Complete Genome Sequencing**
Michael G. Berg, Abbott Laboratories, IL, USA
- 14:45-15:05 **RNA-Seq to Identify Disease Progression Markers in ZSF1 fa/faCP Rats, a Model of Human Type 2 Diabetes**
Shanrong Zhao, Pfizer Worldwide Research and Development, MA, USA
- 15:05-15:25 **Combining *in silico* Modeling and Experimental Validation to Identify Molecular Mechanisms of Cancer**
Anna Panchenko, National Center for Biotechnology Information, National Institutes of Health, MD, USA
- 15:25-15:45 **Coffee Break** *Main Hallway*
- 15:45-16:05 **On the Neuronal Connectivity of our Thoughts into Actions**
Jack Kushner, Former Tulane University Board Member, LA, USA
- 16:05-16:25 **Translational Approach to Neurodegenerative Diseases: A Small, 24 Amino Acid Peptide Derived from Neuronal Cell Cycle Kinase (Cdk5) Activator Prevents Neurodegeneration**
Harish C. Pant, National Institutes of Health, MD, USA
- 16:25-16:55 **Catalyzing Biomedical Research through the NIH Commons Credit Cloud Computing Paradigm**
Lauren E. Quattrochi, CMS Alliance to Modernize Healthcare (CAMH), Operated by MITRE Corporation, MA, USA
- 16:55-17:40 **Integration of Molecular Genetics and Proteomics With Cell Metabolism and Metabolomics: How to Proceed; How not to Proceed!**
Leslie C. Costello, The University of Maryland Greenebaum Cancer Center, MD, USA

18:30-19:30 **Welcome Reception**

Break Out I

Chesapeake Room

Genomics and Genetic Medicine

Human Genomics, Structural and Functional Genomics, Pharmacogenomics, Genetic Medicine, Epigenetics

Session	Ian James Martins, Edith Cowan University, Australia
Chairs	Gregory S. Yochum, The Pennsylvania State University College of Medicine, PA, USA
09:00-09:20	ClinGen Allele Registry, Pathogenicity Calculator, and the Emerging Computable Knowledge in Clinical Genomics Aleksandar Milosavljevic, Baylor College of Medicine, TX, USA
09:20-09:40	Affinity Altering SNPs (aaSNPs) in Nuclear Receptor DNA Binding Sites and Links to Disease Frances M. Sladek, University of California, CA, USA
09:40-10:00	Self-Similarity of Structure and Function from Protein Cities to the Only Large-Brain Mass-Societies: T-patterns in DNA and Neuronal and Human Interactions Magnus S. Magnusson, University of Iceland, Iceland
10:00-10:20	Specialized MicroRNP and Translation Mechanisms in Quiescent Cancer Cells Shobha Vasudevan, Harvard Medical School, MA, USA
10:20-10:40	Epigenetic Regulation to Restore Ikaros Tumor Suppression Activity in High-Risk Leukemia Chunhua Song, Pennsylvania State University Medical College, PA, USA
10:40-11:00	Coffee Break <i>Main Hallway</i>
11:00-11:20	Unhealthy Nutrigenomic Diets Accelerate NAFLD and Adiposity in Global Communities Ian James Martins, Edith Cowan University, Australia
11:20-11:40	DNA Methylation at Chromosome 8q24 and the Risk of Prostate Cancer Kathryn Hughes Barry, University of Maryland School of Medicine, MD, USA
11:40-12:00	Innovative Integrative Analyses of Multifactorial NGS-Based Genome-Wide Data: Understanding Chromosomal Translocations in Cancer Heinz Jacobs, The Netherlands Cancer Institute, Amsterdam, The Netherlands
12:00-12:20	Right Drug, Right Dose, Right Time – Using Genomic Data to Individualize Treatment Suzette J. Bielinski, Mayo Clinic, MN, USA
12:20-12:40	Genetic and Genomic Testing in the Clinic Joan M. Stoler, Boston Children's Hospital, MA, USA
12:40-13:25	Lunch Break <i>Pre Registration Area</i>

- 13:25-13:45 **A Less Aggressive Coronary Artery Disease in Mets in Puerto Rico Than in North America-Genetic Reasons**
Pablo I. Altieri, University of Puerto Rico, Puerto Rico
- 13:45-14:05 **Identifying DNA Regulatory Elements Involved in the Pathogenesis of Inflammatory Bowel Disease**
Gregory S. Yochum, The Pennsylvania State University College of Medicine, PA, USA
- 14:05-14:25 **Chromatin Transcription: Epigenetics, Cancer & Aging**
Vasily M. Studitsky, Fox Chase Cancer Center, PA, USA
- 14:25-14:45 **Improving the Diagnostic Yield of Clinical Whole Exome Sequencing: Ascertaining New Disease-Associated Genes**
Seema R. Lalani, Baylor College of Medicine, TX, USA
- 14:45-15:05 **Effects of Anticancer Drug on Chromosome Instability (CIN) and New Clinical Implications for Tumor-Suppressing Therapies**
Natalay Kouprina, National Cancer Institute, MD, USA
- 15:05-15:20 **Coffee Break** *Main Hallway*
- 15:20-15:40 **Next-Genethics in a Clinical Setting: Some Bioethics Considerations**
Natalia Oliva-Teles, Centro de Genética Médica Doutor Jacinto Magalhães/Centro Hospitalar do Porto, E.P.E., University of Porto, Porto, Portugal
- 15:40-16:00 **OncomiR-196a2: The Hidden Maestro in Cancer Pathways**
Eman Ali Toraih, Suez Canal University, Egypt
- 16:00-16:20 **Do We Expect Unique miRNAs Signatures from a Redundant miRNome?**
Alexandru G. Floares, SAIA Institute, Romania
- 16:20-16:40 **Beyond the Reductionism: Functionalize the Genome in Patient-Derived Complex Models**
Alessandro Carugo, MD Anderson Cancer Center, TX, USA
- 16:40-17:00 **PTEN and p16 Genes as Epigenetic Biomarkers in Oral Squamous Cell Carcinoma (OSCC)**
Sushma Pinninti, National Institute of Nutrition (ICMR), Hyderabad, India

17:00-17:45 **Poster Presentations (See Annexure)**

Harriet Tubman Room

Sequencing and Techniques

Next Generation Sequencing, Sequencing Technologies and Techniques,
Genome and Proteome Technologies, Diagnostic and Therapeutic Issues

Session Subrata Chakrabarti, Western University, ON, Canada

Chairs Da Zhi Liu, University of California at Davis Medical Center, CA, USA

09:00-09:20 **Noncoding RNAs, Potential Novel Therapeutic Approach in Diabetic Retinopathy**
Subrata Chakrabarti, Western University, ON, Canada

09:20-09:40 **Genomically Informed Diagnostics of Lung Cancer: Experiences from the Network of Genomic Medicine (NGM)**
Reinhard Buettner, Institute of Pathology and Center for Integrated Oncology Cologne, Cologne, Germany

09:40-10:00 **Clinical Impacts of a Multi-Omics Undiagnosed Diseases Program**
Ching-Wan Lam, The University of Hong Kong, Hong Kong, China

10:00-10:20 **Elevating MicroRNA-122 in Blood Improves Outcome via Modulating Nos2 after Ischemic Stroke**
Da Zhi Liu, University of California at Davis, CA, USA

10:20-10:40 **Standardizing Low-Input RNA-Seq Analysis**
Ellen Tsai, Biogen, MA, USA

10:40-11:00 **Coffee Break** *Main Hallway*

11:00-11:20 **miRNA Based Cancer Medicine in Colorectal Cancer**
Jingfang Ju, Stony Brook University, NY, USA

11:20-11:40 **Tracking Antibiotic Resistance in Foodborne Bacteria: The Use of NGS Within a One Health Paradigm**
Shaohua Zhao, U.S. Food & Drug Administration, MD, USA

11:40-12:00 **The Role of Next Generation Sequencing in Preimplantation Genetics**
William G. Kearns, AdvaGenix, MD, USA

12:00-12:20 **The Cancer Related MicroRNAs Finding in Serum and their Possible Clinical Significance**
Yaping Tian, Chinese PLA General Hospital, China

12:20-12:40 **Facilitating Molecular Profiling of Core Needle Biopsies via the Inclusion of a Preforatory Step to Traditional Tissue Processing: The Value of a Simple Wash**
Wilfrido D. Mojica, University of Buffalo, NY, USA

12:40-13:25 **Lunch Break** *Pre Registration Area*

- 13:25-13:45 **Whole-Genome Sequencing for Clinical Applications**
Janine Meienberg, Center for Cardiovascular Genetics and Gene Diagnostics, Foundation for People with Rare Diseases, Switzerland
- 13:45-14:05 **Launch of New Bladder Cancer Detection Test**
Chulso Moon, Johns Hopkins University, BCD Innovations Incorporation, MD, USA
- 14:05-14:25 **BP1 is an Important Biomarker in Breast Cancer**
Patricia Berg, George Washington University Medical Center, Washington, DC, USA
- 14:25-14:45 **Spatial Genomic Heterogeneity in Multiple Myeloma: Implications for Risk Stratification and Targeted Treatment**
Niels Weinhold, University of Arkansas for Medical Sciences, AR, USA
- 14:45-15:00 **Coffee Break** *Main Hallway*
- 15:00-15:20 **YAP1 and COX2 Converge to Regulate SOX2 and Cancer Stem Cells in Bladder Urothelial Carcinoma**
Mohammad Obaidul Hoque, Johns Hopkins University School of Medicine, MD, USA
- 15:20-15:40 **Curation Efforts and Knowledge Integration from the Somatic Working Group of the Clinical Genome Resource (ClinGen)**
Subha Madhavan, Georgetown University, Washington, DC, USA
- 15:40-16:00 **Whole Exome Sequencing Reveals Response Signature in Atrial Fibrillation Patients Undergoing Initiation of Dofetilide Therapy, a Pilot Study**
Nicholas Kinney, Edward Via College of Osteopathic Medicine, VA, USA
- 16:00-16:20 **Data Integration in Large Scales to Identify Pathways Through Different Biological Levels in a Silico Systems Biology Framework**
Azam (Mandana) Yazdani, University of Texas School of Public Health, TX, USA

17:00-17:45 **Poster Presentations (See Annexure)**

Harriet Tubman Room

**Biomarkers, Bioinformatics, Precision, Personalized & Translational
Medicine and Molecular Pathology**
Chesapeake Room

Session	Patricia Berg, George Washington University Medical Center, Washington, DC, USA
Chairs	Edward V. Prochownik, Children's Hospital of Pittsburgh of UPMC, PA, USA
09:00-09:20	Detection and Validation of Signatures of Liver Transplantation Rejection Diagnoses and Successful Minimization of Immunosuppression from Serum miRNA Profiles Brendan J. Keating, University of Pennsylvania, PA, USA
09:20-09:40	Translational Studies on Telomere Abnormalities in Cancer Alan K. Meeker, The Johns Hopkins University School of Medicine, MD, USA
09:40-10:00	Ribosomopathy-Like Properties of Murine and Human Cancers Edward V. Prochownik, Children's Hospital of Pittsburgh of UPMC, PA, USA
10:00-10:20	Integrating High Dimensional Genomic Data to Identify Candidate Drug Resistance Biomarkers in Cancer Sheida Nabavi, University of Connecticut, CT, USA
10:20-10:40	Multi "Omics" Approaches to Biomarker Development in Rare Cancers Dimitrios Spentzos, Massachusetts General Hospital and Beth Israel Deaconess Medical Center, Harvard Medical School, MA, USA
10:40-11:00	Coffee Break <i>Main Hallway</i>
11:00-11:20	The Identification of Novel Mutations in GUCY2D Causing Leber's Congenital Amaurosis in Two Unrelated Pakistani Families using TOPO TA Cloning Method Musallam Al-Araimi, National Genetic Centre, Royal Hospital, Ministry of Health, Oman
11:20-11:40	Genetic Variation in Catechol-O-Methyltransferase rs4680 and CYP2D6*10 rs1065852 and Opioid Use Among Cancer Pain Patients Michael O. Baclig, St. Luke's Medical Center, Philippines
11:40-12:00	Effects of Rett Syndrome Mutations on MeCP2 Stability and Binding to DNA Tugba Kucukkal, Gallaudet University, Washington DC, USA
12:00-12:20	Epigenetics: The Future for Diagnosing and Treating Reproductive Disorder Nishat Fatima, All India Institute of Medical Sciences, New Delhi, India
12:20-12:40	Method for Dimensionality Reduction Based on Framework in Gene Expression Cancer Domain Dayana Carla de Macedo, State University of Centro-Oeste, Parana, Brazil
12:40-13:00	Biological Relevance of Network Architecture Ioannis Gkigkitzis, East Carolina University, NC, USA
13:00-	Lunch & Departures

- P - 01 **Molecular Epidemiology and Evolution of Human Cytomegalovirus**
Mirabeau Mbong Ngwese, REGA Institute for Medical Research, Leuven, Belgium
- P - 02 **Spacer Position Within a CRISPR Array Affects dCas9-Mediated Transcriptional Repression**
Krystyna K. Farrell, Rensselaer Polytechnic Institute, NY, USA
- P - 03 **Next-Generation Sequencing-Based Molecular Diagnosis of Neonatal Hypotonia in Chinese Population**
Yan Wang, Beijing Military General Hospital, P.R. China
- P - 04 **Human Papillomavirus (HPV)-Induced Oncogenesis Gene Signature Identification through Gene Expression Data**
Catherine Huang, De Anza College, CA, USA
- P - 05 **Genetic Divergence of Human Pathogens *Nanophyetus* spp. (Trematoda: Troglotrematidae)**
Anastasia Voronova, Institute of Biology and Soil Science, Far Eastern Branch, Russian Academy of Sciences, Vladivostok, Russia
- P - 06 **Multiplexed Labeling System for a High Throughput Cell Sorting**
Seung Won Shin, Sungkyunkwan University, Suwon, South Korea
- P - 07 **Mutations in Cancer Cause Net Gains of Cysteine, Histidine and Tryptophan at Expense of a Net Loss of Arginine on The Proteome Level**
Viktoriiia Tsuber, Karolinska University, Solna, Sweden
- P - 08 **The Role of Glutamate in Dopaminergic Neuronal Cell Death**
Jin Ho Lee, Chonnam National University, Buk-gu, South Korea
- P - 09 **The Role of Myeloid Gene in Alzheimer's Disease**
Bo-Ram Mun, Chonnam National University, Buk-gu, South Korea
- P - 10 **Genetic Regulation of Mitochondrial Complex I Activity and Amyloid Regulation**
Semi Hong, Chonnam National University, Buk-gu, South Korea
- P - 11 **Microtubule Stabilizer Prevents Rotenone-Induced Dopaminergic Neuron Death**
Hyung Joon Park, Chonnam National University, Buk-gu, South Korea
- P - 12 **Genetic Reduction of Mitochondrial Complex I Activity to Study the Molecular Mechanisms of Pesticide-Induced Neuronal Death**
Won-Seok Choi, Chonnam National University, Buk-gu, South Korea
- P - 13 **Optical Control of Protein Function in Mammalian Cells and Zebrafish Embryos**
Jihe Liu, University of Pittsburgh, PA, USA

- P - 14 **Key Gene Pathways Shared by Multiple Cancers: Functional Genomics Analysis Using Machine Learning**
Katie Gao, Centennial High School, MD, USA
Yi Huang, University of Maryland, MD, USA
- P - 15 **Linking Transcriptomic Fingerprints Associated to Genetic Mutations to Survival in Lung Cancer**
Lorinc S. Pongor, Semmelweis University, Budapest, Hungary
- P - 16 **Multicore Iron Oxide Nano Particle to Increasing Magnetic Force**
Sang Hoon Chun, Sungkyunkwan University, Seoul, South Korea
- P - 17 **Proteomic Analysis between Promastigote and Axenic Amastigote forms of Sichuan Human Strain of Chinese Leishmania Isolate**
Jiao Li, Sichuan University, China
- P - 18 **MicroRNA-Targets Cross-Talks: Key Players in Glioblastoma Multiforme**
Eman Ali Toraih, Suez Canal University, Egypt
- P - 19 **Toxic Effects of Electronic Cigarette Aerosol Exposure – Revealing Mechanism by Systems Biology Approach**
Tarang Khare, Metisox, UK
- P - 20 **Inexpensive Mobile Diagnosis of Diabetic Retinopathy using Deep Learning**
Kavya Kopparapu, Thomas Jefferson High School, VA, USA

Notes



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