AGENDA/SPEAKERS* (Meeting on July 11-12, 2011)

Scientific Advisory Committee:

Krishnarao Appasani, PhD., MBA. GeneExpression Systems, Inc. Laurie Jackson-Grusby, Ph.D. Children's Hospital, Harvard Medical School Shuji Ogino, MD, PhD. Brigham and Women's Hospital, Harvard Medical School Alex Meissner, PhD. Harvard University & Broad Institute

Day 1: Monday, July 11

8.00 AM Registration Open (Coffee and breakfast)

9.00 AM – 12.30 PM Session I: Chromatin Biology & Epigenetic re-programming

Chair: Laurie Jackson-Grusby

9.00 – 9.15 AM Welcoming Note

Krishnarao Appasani, PhD., MBA. CEO, GeneExpression Systems, Inc. Announcement & Presentation of Epigenomics Innovator Award to

Robert Kingston

9.15 – 9.55 AM **Keynote Lecture** By **Robert E. Kingston, PhD.**

Professor of Genetics at the Harvard Medical School &

Chief of Department of Molecular Biology at the Massachusetts General Hospital

Boston, Massachusetts, USA

Title: Nucleosome occupancy and epigenetic regulation of HOX genes

9.55 – 10.20 AM Laurie Jackson-Grusby, PhD.

Assistant Professor of Pathology at the Children's Hospital &

Harvard Medical School, Boston, MA, USA

Title: To Be Announced

10.20 – 10.45 AM **Alex Meissner, PhD.**

Assistant Professor of Stem Cell and Regenerative Biology, Harvard University

Principal Faculty at Harvard Stem Cell Institute &

Associate Member of the Broad Institute, Cambridge, MA, USA

Title: Epigenetic dynamics in pluripotent cells

10.45 – 11.15 AM Refreshment Break (30 min) Visit of Exhibits

11.15 – 11.40 AM **Suneet Agarwal, MD, PhD.**

Instructor in Pediatrics at the Children's Hospital Boston

Harvard Medical School, Boston, MA, USA

Title: Hydroxymethylcytosine, stem cells and cancer

11.40 – 12.05 PM **Jian Tajbakhsh, Ph.D.**

Assistant Professor & Program Leader of Translational Cytomics

Cedars-Sinai Medical Center, Los Angeles, CA, USA

Title: 3-D nuclear DNA methylation patterns in cell-based assays for epigenetic drug screening

12.05 – 12.30 PM **Gavin R. Schnitzler, PhD.**

Assistant Professor of Medicine at The Tufts University School of Medicine

Molecular Cardiology Research Institute

Tufts University Medical Center, Boston, MA, USA

Title: UGT1A1 regulatory polymorphisms may function by altering nucleosome positions

12.30 – 1.30 PM Lunch Break (1 hour) Lunch will be provided

1.30 – 5.50 PM Session II: Epigenomics in Disease Biology & Epidemiology

Chair: Shuji Ogino

1.30 – 1.55 PM **Dawn L. DeMeo, MD, MPH.**

Assistant Professor of Medicine at the Harvard Medical School Associate Physician at the Brigham and Women's Hospital

Boston, MA, USA

Title: Complex trait epigenetics: Impact of cigarette smoking on the epigenome and implications for lung disease

1.55 – 2.20 PM **Shuji Ogino, MD., PhD.**

Associate Pathologist at the Brigham and Women's Hospital &

Associate Professor of Pathology, Harvard Medical School, Boston, MA, USA

Title: Epigenomics and Epigenetics of Colorectal Cancer: Deciphering complex multifactorial diseases

2.20 – 2.45 PM **James E. Bradner, MD.**

Assistant Professor of Medicine at the Dana-Farber Cancer Institute

Harvard Medical School, Boston, MA, USA

Title: Targeting Epigenetic Reader Proteins

2.45 – 3.10 PM **Huawei Zeng, PhD.**

Research Molecular Biologist

USDA ARS Grand Forks Human Nutrition Research Center

Grand Forks, ND, USA

Title: Dietary selenium intake increases exon-specific DNA methylation of p53 gene in rat liver and colon mucosa

3.10 – 3.45 PM Refreshment Break (35 min) Visit of Exhibits

3.45 – 4.10 PM **Manon van Engeland, PhD.**

Professor of Pathology at the GROW-School for Oncology & Developmental Biology

Maastricht University Medical Center, Maastricht, The Netherlands

Title: Promoter CpG island methylation in colorectal cancer: biology and clinical applications

4.10 – 4.35 PM **Aditi Hazra, PhD, MPH.**

Assistant Professor of Medicine at the Harvard School of Public Health &

Member of the Program in Molecular and Genetic Epidemiology Channing Lab, Brigham and Women's Hospital, Boston, MA, USA

Title: One-carbon metabolism, epigenetics and colorectal cancer

4.35 – 5.00 PM **Rafal M. Iwasiow, PhD.**

Product Development Manager DNA Genotek, Ottawa, Canada

Title: Saliva: a window into the body?

5.00 – 5.25 PM Housheng Hansen He, PhD.

Post doctoral Fellow in the Lab of Dr. Shirley Liu

Dana-Farber Cancer Institute & Harvard School of Public Health, Boston, MA, USA

Title: Chromatin Dynamics Define Transcriptional Enhancers in Prostate and breast cancer

5.25 – 5.50 PM **To Be A**nnounced

5.50 PM End of the First Day

Day 2: Tuesday, July 12

8:00 A.M: Registration Open (Coffee and breakfast)

9.00 – 12.15 AM: Session III: Sequencing, Imaging & Epigenomics-based Drugs

Chair: Gerald Schock

9.00 – 9.05 AM Introduction of Industry Keynote speaker

9.05 – 9.45 AM Industry Keynote Lecture by

Gerald Schock, PhD.

Associate Director of Epigenetics Technologies

Qiagen, GmbH Hilden, Germany

Title: Innovations in epigenetics — advanced bisulfite conversion, pre-designed Pyrosequencing assays, and PCR arrays for cloning-free quantitation of variations in DNA methylation

9.45 – 10.10 AM **Tomoji Kawai, PhD.**

Professor & Presidential Aide

The Institute of Scientific and Industrial Research

Osaka University, Ibaraki, Osaka, Japan

Title: Gating Nanopores for Single-Molecule DNA Electrical Sequencing

10.10 – 10.35 AM **John F. Thompson, PhD.**

Senior Director of Genomic Research

Helicos BioScience Corporation, Cambridge, MA, USA

Title: Quantitative Epigenomics: Why skipping amplification using single-molecule sequencing is important

10.35 -11.00 AM Refreshment Break (25 min) Visit of Exhibits

11.00 – 11.25 AM **Mark Roskey, PhD.**

Vice President of Biology & R&D

Caliper Life Sciences, Inc., Hopkinton, MA, USA

Title: Optimizing Automated Sample Preparation Workflow for Improved Quality New Generation Sequencing

11.25 – 11.50 AM **Robert A. Copeland, PhD.**

Executive Vice President & Chief Scientific Officer

Epizyme, Inc.

Cambridge, MA, USA

Title: Protein Methyltransferase Inhibitors as Personalized Cancer Therapeutics

11.50 – 12.15 PM **James McNally, Ph.D.**

Staff Scientist in the Laboratory of Receptor Biology and Gene Expression & Head of Fluorescence Imaging Group at the National Cancer Institute

National Institutes of Health, Bethesda, MD, USA

Title: The live cell kinetics of transcription

12.15 – 1.30 PM Lunch Break (1 hour 15 min. ON YOUR OWN)

1.30 – 5.30 PM Session IV: SNiPomics: Single Nucleotide Polymorphisms (SNPs) &

Copy Number Variations (CNVs)

Chair: Robert Plenge

1.30 – 1.55 PM Robert M. Plenge, MD, PhD.

Assistant Professor of Medicine at the Harvard Medical School

Director, Genetics and Genomics at the Brigham and Women's Hospital

Research Scientist at the Broad Institute of MIT and Harvard, Boston, MA, USA

Title: Genetic architecture of rheumatoid arthritis risk

1.55 – 2.20 PM **Karuna Kar Singh, PhD.**

Post doctoral Fellow in the Lab of Dr. Tsai's Lab

Picower Inst. of Learning & Memory

Massachusetts Inst. of Technology, Cambridge, MA, USA

Title: Understanding the Function of Human DISC1 Variants in Neural Progenitor Cell Development

2.20 – 2.45 PM Hakon Hakonarson, MD, PhD.

Associate Professor of Pediatrics at the Univ. of Pennsylvania School of Medicine Director of the Center for Applied Genomics, The Children's Hospital of Philadelphia

Philadelphia, PA, USA

Title: TBA

2.45 – 3.10 PM Rahul Bharadwaj Iyer

PhD Student in the Lab of Dr. Schahram Akbarian Brudnick Neuropsychiatric Research Institute

University of Massachusetts Medical School, Worcester, MA, USA

Title: Higher order chromatin structure is conserved at the N-Methyl D-aspartate receptor gene Grin2B

3.10 – 3.45 PM Refreshment Break (35 Min) Visit of Exhibit Booths (Removal at 3.50 PM)

3.45 – 4.10 PM Benoit Labonte

PhD Student Dr. Gustavo Turecki's Lab

Douglas Mental Health Institute, McGill University

Montreal, Quebec, Canada

Title: Epigenetics of suicide: A genome-wide DNA methylation study

4.10 – 4.35 PM **Deepti Dileep Deobagkar, PhD.**

Professor of Molecular Genetics at the Center of Advanced Studies & Director of Bioinformatics Center, University of Pune, Pune, India

Title: Methylomic analysis of X chromosome inactivation and correlation with evolutionary strata and microRNAs

4.35 – 5.00 PM Alan Cantor, MD, PhD.

Assistant Professor of Pediatrics at the Harvard Medical School

Assistant in Medicine (Hematology/Oncology) at the Children's Hospital Boston

Boston MA, USA

Title: TBA

5.00 – 5.25 PM **To Be Announced**

5. 25 – 5.30 PM CLOSING REMARKS BY THE CHAIRMAN

Font sizes of some of the presentations might be changed during the production of this proceeding. GES is not responsible for such changes.

Materials presented in this book/website should not be reproduced without the permission of GeneExpression Systems, Inc. © GeneExpression Systems, Inc. 2011

^{*} Speaker names, titles and order may subject to change.