

Conference Program

Sunday, November 11

- 1:30 p.m.-3:00 p.m.** **Educational Session 1:**
Digging Deeper: New Approaches to Assaying Biospecimens in Epidemiology
Great Hall 1
Chairperson: David G. Cox, Cancer Research Center of Lyon, INSERM U1052, Lyon, France
- New assays, old specimens: Multiplexing for plasma and urine**
Patrick M. Sluss, Massachusetts General Hospital, Boston, MA
- New specimens: Buccal cells, nasal swabs, fecal samples**
David G. Cox
- New assays, old specimens: Telomere length and activity**
Jennifer A. Doherty, Dartmouth Medical School, Lebanon, NH
- 3:00 p.m.-3:30 p.m.** **Break**
Great Hall Foyer/Outdoor Terrace
- 3:30 p.m.-5:00 p.m.** **Educational Session 2:**
Computational Horizons in High-Dimensional Data
Great Hall 1
Chairperson: David V. Conti, University of Southern California, Los Angeles, CA
- Searching for GxE interactions in genome-wide association studies**
David V. Conti
- Integrative approaches for understanding the functional relevance of cancer susceptibility loci**
Brooke L. Fridley, University of Kansas Medical Center, Kansas City, KS
- Identification of tumor-associated cassette exons in human cancer through exon-array and RNA-Seq data analysis**
Graziano Pesole, CNR-IBBE, University of Bari, Bari, Italy
- 5:00 p.m.-7:30 p.m.** **Free Time/Dinner on Own**

*Short talks from proffered papers

Program

7:30 p.m.-9:00 p.m.

Keynote Session:

Two Sides of the Same Coin: Genes and Exposures

Great Hall 1

Co-Chairpersons: Cornelia M. Ulrich, German Cancer Research Center, Heidelberg, Germany, and Shelley S. Tworoger, Brigham and Women's Hospital/Harvard Medical School, Boston, MA

The state of GWAS: What have we learned and where can we go?

Stephen J. Chanock, National Cancer Institute, Bethesda, MD

The phenome and pleiotropy: Dissecting the architecture of complex traits

Marylyn D. Ritchie, Pennsylvania State University, University Park, PA

Characterizing the exposome

Martyn T. Smith, University of California, Berkeley, CA

9:00 p.m.-10:00 p.m.

Opening Reception

South Palm Court

Monday, November 12

7:30 a.m.-8:30 a.m.

Continental Breakfast

Great Hall Foyer

8:30 a.m.-10:30 a.m.

Session 1:

Novel Post-GWAS Tools and Molecular Technologies

Great Hall 1

Chairperson: David J. Hunter, Harvard School of Public Health, Boston, MA

Association and function in the post-GWAS era

David J. Hunter

Towards epigenetic epidemiology of cancer

Jean-Pierre J. Issa, Temple University, Philadelphia, PA

microRNAs: From cancer susceptibility, detection, to progression

Hua Zhao, The University of Texas MD Anderson Cancer Center, Houston, TX

LINE-1 %5-methyl cytosine levels in prediagnostic leukocyte DNA and future bladder cancer risk among PLCO and ATBC cohort subjects*

Gabriella Andreotti, National Cancer Institute, Bethesda, MD

Pathway-based gene-environment interactions in ovarian cancer*

Marieke G.M. Braem, Julius Center, University Medical Center Utrecht, Utrecht, The Netherlands

*Short talks from proffered papers

Program

10:30 a.m.-11:00 a.m. **Break**
Great Hall Foyer

11:00 a.m.-1:00 p.m. **Session 2:**
Challenges in Post-GWAS Studies
Great Hall 1
*Chairperson: Joellen M. Schildkraut, Duke University
Comprehensive Cancer Center, Durham, NC*

Tumor heterogeneity: Making the most of diversity
Fergus J. Couch, Mayo Clinic College of Medicine, Rochester, MN

Deciphering the signals from the GWAS hits: From function to epidemiology and back again
Simon A. Gayther, University of Southern California, Los Angeles, CA

Extracting predictive networks from high-dimensional data
John Quackenbush, Dana-Farber Cancer Institute, Boston, MA

Framework for post-GWAS functional annotation of regulatory regions associated with susceptibility loci for colorectal cancer*
Stephanie A. Rosse, Fred Hutchinson Cancer Research Center, Seattle, WA

Prioritizing SNPs for gene-environment interaction studies*
Matty P. Weijnenberg, Maastricht Molecular Epidemiology Expertise group (M2E2),
Maastricht University, Maastricht, The Netherlands

1:00 p.m.-3:00 p.m. **Free Time/Lunch on Own**

*Short talks from proffered papers

Program

3:00 p.m.-5:00 p.m.

Session 3:

The Exposome: Using Technology to Define Exposures

Great Hall 1

Chairperson: Martyn T. Smith, University of California, Berkeley, CA

Technology to assess physical activity and sedentary behavior

Patty S. Freedson, University of Massachusetts, Amherst, MA

Chemicals in the environment: BPA and other worries

Gail S. Prins, University of Illinois, Chicago, IL

Adipose tissue as a rich information source

Kristin L. Campbell, University of British Columbia, Vancouver, BC, Canada

Differential gene expression in adipose tissue of colorectal cancer patients dependent on disease stage*

Dominique Scherer, German Cancer Research Center, Heidelberg, Germany

Genetically determined differences in arsenic metabolism efficiency influence risk for premalignant skin lesions in Bangladesh: Mendelian randomization and gene-environment interaction*

Brandon L. Pierce, University of Chicago, Chicago, IL

5:00 p.m.-7:30 p.m.

Poster Session/Reception

Great Hall 2

7:30 p.m.-

Evening Off/Dinner on Own

*Short talks from proffered papers

Program

Tuesday, November 13

7:30 a.m.-8:30 a.m. **Continental Breakfast**
Great Hall Foyer

8:30 a.m.-10:30 a.m. **Session 4:**
It's a Small World: Microbiome, Viruses, and Bacteria
Great Hall 1
*Chairperson: Wei Zheng, Vanderbilt University Medical Center,
Nashville, TN*

The microbiome and its association with human metabolism and adiposity
Meredith A. Hullar, Fred Hutchinson Cancer Research Center, Seattle, WA

Susceptibility to neoplasia following HPV infection
Mark W. Schiffman, National Cancer Institute, Rockville, MD

The bacterial world and the genome
Nina R. Salama, Fred Hutchinson Cancer Research Center, Seattle, WA

Lifestyle and dietary factors and antibody levels to oral bacteria in healthy individuals*
Dominique S. Michaud, Brown University, Providence, RI

Beta-diversity metrics of the upper digestive tract microbiome are associated with body mass index*
Shih-Wen Lin, National Cancer Institute, Bethesda, MD

10:30 a.m.-11:00 a.m. **Break**
Great Hall Foyer

*Short talks from proffered papers

Program

11:00 a.m.-1:00 p.m. **Session 5:**
Resources for Molecular Epidemiology: Potential and Successes
Great Hall 1
Chairperson: James Cerhan, Mayo Clinic College of Medicine, Rochester, MN

Large-scale familial whole genome sequencing to evaluate genetic risk
Joseph G. Vockley, Inova Translational Medicine Institute, Falls Church, VA

The GAME-ON (Genetic Associations and Mechanisms in Oncology) Consortium: Assessing the functional relevance of gene variation
Alvaro Monteiro, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL

The NCI Cohort Consortium: Increasing power, enhancing collaborations, advancing science
Deborah Winn, National Cancer Institute, Bethesda, MD

Using mouse models to identify breast cancer metastasis susceptibility genes
Kent W. Hunter, National Cancer Institute, Bethesda, MD

1:00 p.m.-3:00 p.m. **Free Time/Lunch on Own**

3:00 p.m.-5:00 p.m. **Panel Discussion:**
Gene-Environment: Where Do We Go From Here?
Great Hall 1
Co-Chairpersons: Cornelia M. Ulrich, German Cancer Research Center, Heidelberg, Germany, and Wei Zheng, Vanderbilt University Medical Center, Nashville, TN

Panelists:

James R. Cerhan, Mayo Clinic College of Medicine, Rochester, MN

Hannelore Daniel, University of Munich, Munich, Germany

David J. Hunter, Harvard School of Public Health, Boston, MA

Joellen M. Schildkraut, Duke University Comprehensive Cancer Center, Durham, NC

Martyn T. Smith, University of California, Berkeley, CA

Deborah Winn, National Cancer Institute, Bethesda, MD

5:00 p.m.-7:30 p.m. **Free Time/Dinner on Own**

7:30 p.m.-10:00 p.m. **Reception/Dance**
Palm Court

Program

Wednesday, November 14

7:30 a.m.-8:30 a.m.

Continental Breakfast

Great Hall Foyer

8:30 a.m.-9:45 a.m.

**Professional Advancement Session:
Meet-the-Speaker Roundtables**

Diplomat 3

*Chairperson: Shelley S. Tworoger, Brigham and Women's
Hospital/Harvard Medical School, Boston, MA*

Discussants:

Conducting International Studies

Wei Zheng, Vanderbilt University Medical Center, Nashville, TN

Functional Epidemiology

Simon A. Gayther, University of Southern California, Los Angeles, CA

Funding Through the NCI

Deborah Winn, National Cancer Institute, Bethesda, MD

International Career Options

Cornelia M. Ulrich, German Cancer Research Center, Heidelberg, Germany

Mentoring Networks

Shelley S. Tworoger

Microbiome

Meredith A. Hullar, Fred Hutchinson Cancer Research Center, Seattle, WA

More About MEG

James R. Cerhan, Mayo Clinic College of Medicine, Rochester, MN

Risk Prediction Modeling

Joellen M. Schildkraut, Duke University Comprehensive Cancer Center, Durham, NC

Telomeres

Jennifer A. Doherty, Dartmouth Medical School, Lebanon, NH

9:45 a.m.-10:00 a.m.

Break

Great Hall Foyer

Program

10:00 a.m.-11:30 a.m.

**Session 6:
The 'Omics of Exposure**

Great Hall 1

Chairperson: Hannelore Daniel, University of Munich, Munich, Germany

From the genome to the metabolome: The promises and limits of metabolomics

Hannelore Daniel

Using metabolomics in epidemiologic studies: An example for pancreatic cancer

Brian M. Wolpin, Dana-Farber Cancer Institute, Boston, MA

Biomarkers of diet predict disease risk

Bruce S. Kristal, Brigham and Women's Hospital, Boston, MA

11:30 a.m.-11:45 a.m.

Closing Remarks/Departure

Great Hall 1