

Linking Haplotypes and Genetic Variation with Cancer Risk Assessment, Prevention, Detection, and Treatment Workshop

Agenda

Thursday, December 4, 2003

- 7:00 a.m. Registration and Continental Breakfast
- 8:30 a.m. Welcome Remarks *Peter Greenwald
Edward Trapido*
- 8:40 a.m. Charge to Participants *Wendy Wang*
- 8:50 a.m. Keynote Address: How To Use Haplotypes To Find Disease Genes and Predict Individual Risk *Francis Collins*
- 9:50 a.m. Break

10:00 a.m. - 12:00 noon

Session 1: The Human HapMap and Other Haplotype Studies: Definition, Background, and Current Status

Chair: *Francis Collins*

10:00 - 11:30 a.m.

- Patterns of Human Variation *Lynn Jorde*
- The International HapMap Project *Stacey Gabriel*
- Haplotypes and Linkage Disequilibrium: Disease Gene Discovery *Cheryl Winkler
Stephen O'Brien*
- Strategies To Select Haplotypes: Link to Disease and Cancer *Stephen Chanock*

11:30 a.m. Discussion

Discussion Moderator: *Joel Hirschhorn*

Discussion Panel: *Lisa Brooks, Stephen Chanock, Francis Collins, Nancy Cox, Matt Freedman, Stacey Gabriel, Lynn Jorde, and Cheryl Winkler*

Discussion topics for Session 1 include these questions:

- What are the status and plans for the human haplotype map (HapMap)?
- What is the relationship between haplotypes and SNPs (Single Nucleotide Polymorphisms) and their advantages and disadvantages as genetic markers for cancer prevention studies?
- What are definitions of haplotype blocks?
- What is the vision for the use of the HapMap?
- How can cancer prevention researchers use the HapMap information?

12:00 noon

Lunch

1:00 - 2:30 p.m.

Session 2: Studies of Haplotypes and Cancer in Populations: Genetic and Molecular Epidemiology and Risk Assessment

Chair: *Timothy Rebbeck*

1:00 - 2:30 p.m.

Haplotype Association and Haplotype-Sharing Methods: Study Design, and Analysis Consideration

Duncan Thomas

Family-Based Designs for Haplotype Studies of Cancer Risk

Daniel Schaid

Haplotype Studies of Breast and Prostate Cancer in the Cohort Consortium

David Hunter

Current Status and Needs of Haplotype-Based Cancer Research in Human Populations

Timothy Rebbeck

2:30 p.m.

Discussion

Discussion Moderator: *Christopher Amos*

Discussion Panel: *Steve Chanuck, Dan Cramer, David Hunter, Timothy Rebbeck, Nathaniel Rothman, Daniel Schaid, Daniela Seminara, Peter Shields, Duncan Thomas, Wendy Wang, Qingyi Wei, Debbie Winn, and Xifeng Wu*

Discussion topics for Session 2 include these questions:

- Use of haplotypes and SNPs in studies of cancer gene identification, characterization and GxG and GxE interactions: What do we know and what do we need to learn?
- What are the most appropriate study designs and analytic approaches?

- What are the haplotype-related informatics needs?
- What studies are needed to determine the functional relevance of haplotypes?
- What are currently available high throughput genotyping platforms? How can these technologies be incorporated most efficiently in genetic and molecular epidemiology studies using SNPs and haplotypes?
- What infrastructures are needed to support haplotype-based studies of cancer in human populations?

3:00 p.m.

Break

3:15 - 5:30 p.m.

Session 3: New Directions for the Applications of Haplotypes in Cancer Prevention and Treatment

Chair: *Peter Greenwald*

3:15 - 4:30 p.m.

Haplotypes and Colon Cancer

*Steve Gruber
Gad Rennert*

Trials for Prostate Cancer Prevention

Ian Thompson

Estrogen Sulfation: Intragene Haplotypes and Risk

Richard Weinshilboum

SNPs, Haplotypes, and Functions

Juergen Reichardt

4:30 p.m.

Discussion

Discussion Moderator: *Charis Eng*

Discussion Panel: *Dean Brenner, Dan Cramer, Steve Gruber, Gad Rennert, David Hunter, Juergen Reichardt, Sudhir Srivastava, Ian Thompson, Wendy Wang, Qingyi Wei, Richard Weinshilboum and Xifeng Wu*

Discussion topics for Session 3 include these questions:

- What are examples of the use of haplotypes and genetic variation in prevention and treatment?
- Why and how can SNPs and haplotypes be used in clinical trials?
- Which currently available prevention trial cohorts/populations could be used for haplotype-relevant studies?
- How could haplotypes be used to design therapies?

5:30 p.m.

Adjourn

Friday, December 5, 2003

Chairs: *David Sidransky and Charis Eng*

8:30 a.m.	Keynote Address: Biomarker-based Lung Cancer Prevention Trial in Former Smokers: Evidence of Interactions between Retinoid Nuclear Receptor and DNA Repair Pathways	<i>Waun Ki Hong Jonathan Kurie Qingyi Wei</i>
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9:10 a.m.	Haplotypes and Rare Cancer	<i>Charis Eng</i>
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9:30 a.m.	Genetic Association Studies of Breast and Prostate Cancer	<i>Matt Freedman</i>
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9:50 - 10:00 a.m.	Coffee Break	
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10:00 a.m.	Report from session 1: Summary and next steps	
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10:30 a.m.	Report from session 2: Summary and next steps	
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11:00 a.m.	Report from session 3: Summary and next steps	
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11:30 a.m.	Discussions: Future Directions for Using Haplotypes for Prevention, Detection, and Treatment	
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Discussion Moderators: *David Sidransky and Charis Eng*

Discussion Panel: *Dean Brenner, Matt Freedman, Li Jin, Jonathan Kurie,
Timothy Rebbeck, Cheryl Winkler, Daniela Seminara, and Mukesh Verma*

12:30 p.m.	Adjourn	
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