



# Society for Psychophysiological Research

## Pre-Conference Workshops

44th Annual Meeting ♦ October 20-24, 2004 ♦ Santa Fe, New Mexico

### **Pre-Conference Workshop I**

**Wednesday, October 20, 2004**

**9:00 a.m.-4:30 p.m.**

LaFonda on the Plaza Hotel  
(available for an additional fee)

#### **Genetic Research in the Psychophysiological Laboratory**

*Yanbin Dong, M.D., M.Sc., Ph.D.,  
Eco de Geus, Ph.D., Janine Flory,  
Ph.D., Jeanne McCaffery, Ph.D., and  
Harold Snieder, Ph.D.*

This workshop introduces participants to the main approaches in current molecular and behavioral genetic research and helps them introduce molecular genetic studies in their own psychophysiological research. The morning session reviews the basic theoretical issues (molecular genetics, quantitative genetics, linkage and association). The afternoon session covers recent findings on genes for psychophysiological traits as well as practical pointers on how to bring genetic research into your own psychophysiological laboratory (specific demands to study design, seeking collaboration, selecting optimal candidate genes and finding optimal polymorphisms within these candidates, how to collect, store and process DNA, specific ethical issues). As the course aims reach a broad audience there is plenty of room throughout for "everything you always wanted to know about genetics but were afraid to ask."

#### **Morning Program: Introduction to Genetic Research**

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

##### **Welcome & Introduction**

*Eco de Geus, Ph.D., Vrije Universiteit,  
The Netherlands*

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

##### **Introduction to Molecular Genetics**

*Yanbin Dong, M.D., M.Sc., Ph.D.,  
Medical College of Georgia*

**9:45 a.m.-10:20 a.m.**

##### **Introduction to Quantitative Genetics and Twin Studies**

*Eco de Geus, Ph.D.*

**10:20 a.m.-10:50 a.m.**

**Break**

**10:50 a.m.-11:25 a.m.**

##### **Introduction to Linkage and Family Designs**

*Harold Snieder, Ph.D., Medical College  
of Georgia*

**11:25 a.m.-12:00 noon**

##### **Introduction to Genetic Association Studies**

*Janine Flory, Ph.D., Mount Sinai  
School of Medicine*

**12:00 noon-1:30 p.m.**

**Lunch** (on your own)

#### **Afternoon Program: Applying Genetic Methods to Psychophysiological Research**

**1:30 p.m.-2:15 p.m.**

##### **Association Studies with Psychophysiological Traits**

*Jeanne McCaffery, Ph.D., Brown  
Medical School*

**2:15 p.m.-2:30 p.m.**

##### **Ask All You Always Wanted to Know (But Were Afraid to Ask)!**

Participants are invited to write down perceived barriers or specific deficits in expertise/knowledge to start introducing genetic research into their own psychophysiological studies. New questions can be added during the rest of the afternoon session.

**2:30 p.m.-2:45 p.m.**

##### **Getting Started I: Study Design**

*Jeanne McCaffery, Ph.D.*

**2:45 p.m.-3:00 p.m.**

##### **Getting Started II: Selecting Candidate Genes**

*Harold Snieder, Ph.D.*

**3:00 p.m.-3:30 p.m.**

**Break**

**3:30 p.m.-3:45 p.m.**

##### **Getting Started III: DNA Collection, Storage and Processing**

*Yanbin Dong, M.D., M.Sc., Ph.D.*

**3:45 p.m.-4:00 p.m.**

##### **Getting Started IV: Ethical Issues**

*Janine Flory, Ph.D.*

**4:00 p.m.-4:30 p.m.**

##### **Answering All You Always Wanted to Know**

*Yanbin Dong, M.D., M.Sc., Ph.D.,  
Janine Flory, Ph.D., Eco de Geus,  
Ph.D., Jeanne McCaffery, Ph.D., and  
Harold Snieder, Ph.D.*

Participants are invited to submit to the panel their (remaining) questions on how to introduce molecular genetic studies in their own psychophysiological research. Participants are requested to submit their question sheets. A summary of the most frequent questions and issues and the panel's response will be posted on the website.

### **Pre-Conference Workshop II**

**Wednesday, October 20, 2004**

**9:00 a.m.-3:00 p.m.**

LaFonda on the Plaza Hotel  
(available free of charge  
email [mcampbell@reesgroupinc.com](mailto:mcampbell@reesgroupinc.com)  
to secure your seat)

#### **Source Analysis of MEG and EEG Data with Brainstorm**

*Session Chairs: John Mosher, Los  
Alamos National Laboratory  
Don Tucker, Electrical Geodesics, Inc.  
Colin Davey, Electrical Geodesics, Inc.*

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

##### **Concepts of Brain Localization in Psychophysiological Research**

*Don Tucker, Electrical Geodesics, Inc.*

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

##### **Principles of Electromagnetic Source Localization**

*John Mosher, Los Alamos National  
Laboratory*

**11:00 a.m.-12:00 noon**

##### **How to Use Brainstorm**

*John Mosher, Los Alamos National  
Laboratory  
Colin Davey, Electrical Geodesics, Inc.*

**12:00 noon-1:00 p.m.**

**Lunch** (on your own)

**1:00 p.m.-3:00 p.m.**

##### **Hands On with Brainstorm**

*Bring your own laptop with MATLAB and  
collaborate on practice in data analysis.*