

# LIGHTING AND HEALTH SYMPOSIUM MAKING CONNECTIONS

San Francisco, March 13-14, 2008



To quote Dr. George Brainard of Jefferson Medical College, "Light is a potent physiological stimulus!" Therefore, how we choose to light our homes, hospitals, schools and workplaces has direct implications for public health.

Recent research has further defined how our daily exposure to light and darkness modifies the human circadian response. We now know that the human retina sends signals not only to the visual system, but also to the suprachiasmatic nucleus, the seat of the brain's circadian clock. The signal is determined by the intensity, spectral content, timing, and duration of light received at the human retina.

With ever increasing goals for reducing energy use and climate change impacts in the state, the use of lighting in homes and workplaces is becoming an important focus of policy initiatives in California. Likewise, medical researchers need insight on the relationship of their work to public policy. California is uniquely positioned to make a difference in how our buildings are designed to promote both greater public health and reduced environmental impacts.

Our goal is to initiate an information exchange across these many disciplines, and to facilitate conversation among California policy makers and researchers to better understand each other's needs and concerns relative to the use of light in the built environment.





## Agenda: DAY ONE      Thursday, March 13

TIME	TOPIC	SPEAKER
9:30 AM	REGISTRATION AND COFFEE	
10:00 AM	Welcome and Symposium Goals	Lisa Heschong, Principal Heschong Mahone Group, Inc.
10:30 AM	Photoreception for Non-optical Systems	George Brainard, Ph.D. Professor of Neurology, Jefferson Medical College
11:30 AM	Photo-biology and Eye Structures	Dave Sliney, Ph.D. President-elect, American Photobiology Society
12:00 PM	Circadian Biochemistry	Joan Roberts, Ph.D. Professor of Chemistry, Fordham University
12:30 PM	LUNCH	
1:30 PM	Circadian Rhythms in Health and Disease	Charles Fuller, Ph.D. Professor of Physiology and Neurobiology, UC Davis
2:00 PM	The Biological Functions of Sleep	Dr. Jamie Zeitzer, Ph.D. Assistant Professor, Center for Narcolepsy, Stanford University
2:30 PM	BREAK	
3:00 PM	Lighting Effects on Mood and Sleep	Dan Kripke, M.D. Professor of Psychiatry, UC San Diego
3:20 PM	Circadian Implications for Gerontology	Glenna Dowling, Ph.D.* Professor & Chair, Department of Physiological Nursing, UC San Francisco
3:40 PM	Circadian Implications for Pediatrics	University of California Representative UC Davis
4:00 PM	Ecological Impacts of Circadian Disruption	University of California Representative UCLA
4:30 PM	Implications for My Profession	Group Discussion Roundtable
5:30-6:45 PM	EVENING RECEPTION at PEC	

\* Speaker subject to change

# Agenda: DAY TWO      Friday, March 14

TIME	TOPIC	SPEAKER
8:00 AM	COFFEE AND PASTRIES	
8:30 AM	Lessons from Day One	George Brainard, Ph.D.
9:00 AM	PANEL: Design Issues	Panel Leader: Jaime Zeitzer, Ph.D.
	Implications for Building Design	Lisa Heschong
	Implications for Lighting Practice	Sam Berman, Ph.D. Sr Scientist, Emeritus, LBNL
	Balancing Visual Needs and Circadian Health	Naomi Miller, FIESNA Principal, Naomi Miller Lighting Design
10:30 AM	BREAK	
11:00 AM	PANEL: Behavioral Issues	Panel Leader: Charles Fuller, Ph.D.
	Evidence-based Design in Hospitals	John Kouletsis, AIA* Director of Strategic Planning, Kaiser Permanente
	Lighting as a Public Health Issue	Rajiv Bhatia, M.D., MPH* San Francisco Department of Public Health
	Understanding Human Needs in Buildings	Eve Edelstien, Ph.D. Academy for Neuroscience in Architecture
	Energy Impacts of Behavioral Choices	Carrie Armel, Ph.D. Precourt Institute, Stanford University
12:00 PM	LUNCH	
1:00 PM	PANEL: Lighting Research Issues	Panel Leader: Dave Sliney, Ph.D.
	Implications for Lighting Industry Research	Michael Siminovitch, Ph.D. Director, California Lighting Technology Center
	The IESNA Research Agenda	Francis Rubinstein, FIESNA Chair, IESNA Research Committee
	Lighting for Human Needs	Naomi Miller, FIESNA Tech Advisory Board, Lighting Research Program
2:00 PM	BREAK	
2:30 PM	PANEL: State Policy Issues	Panel Leader: Joan Roberts, Ph.D.
	Implications for State Energy Policy	Tim Tutt, California Energy Commission*
	Implications for State Buildings	Dan Burgoyne, AIA DGS
	Implications for Energy Codes	Steve Blanc, PE, PG&E*
	Implications for Utility Programs	Diane McLean, AIA, SCE
3:00 PM	Planning Next Steps	Group Discussion, Dan Kripke, M.D.
4:00 PM	Concluding Remarks	Lisa Heschong

\* Speaker subject to change

## REGISTRATION

Symposium Registration Fee: \$230

The registration fee covers morning coffee and pastries and lunch for both days, plus an evening reception on Thursday, March 13.

### Registration Deadline: Friday, March 7th, 2008

Note: Space is limited to speakers, plus 50 attendees. Restrictions on the number of attendees per organization may apply.

Attendee Name: \_\_\_\_\_

Title: \_\_\_\_\_

Business/Organization: \_\_\_\_\_

Email Address: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Meal Preference (meat or vegetarian): \_\_\_\_\_

## Payment Information

Checks and major credit cards are accepted. Please include attendee registration information, make checks payable to Heschong Mahone Group, Inc. and send to:

**Heschong Mahone Group, Inc.**

Attn: Lighting and Health Symposium

11626 Fair Oaks Blvd. #302 Fair Oaks, CA 95628

To pay by credit card, please fax or call with information, including account number and expiration date. Fax 916.962.0101, and note attention: Lighting and Health Symposium or call 916.962.7001. For more information, contact Laura Krugh at [krugh@h-m-g.com](mailto:krugh@h-m-g.com) or 916.962.7001.

## DIRECTIONS AND ACCOMODATIONS

The Lighting and Health Symposium will be held at

### The Pacific Energy Center (PEC)

851 Howard Street

San Francisco, CA 94103

415.973.2277

### Directions from BART to the PEC

Take BART or MUNI to the Powell Street Station. From 4th or 5th Street, travel two blocks South to Howard Street. Cross Howard Street. The Pacific Energy Center is located at 851 Howard Street, between 4th and 5th.

(Parking is available at the 5th and Mission St. Parking Garage, \$30/day).

### Hotels within walking distance of the PEC

#### The Mosser Hotel

Symposium group rate of \$129/night available on a limited number of rooms\*  
54 4th St.

San Francisco, CA 94103

415.986.4400

#### San Francisco Marriott

55 4th St.

San Francisco, CA 94103

415.896.1600

#### The Pickwick, San Francisco

85 5th Street

San Francisco, CA 94103

415.421.7500

\*Twelve rooms have been held at The Mosser Hotel for Wednesday, March 13 and Thursday, March 14. Four rooms have been held for Friday, March 15. If you wish to stay with the group at The Mosser Hotel, please call the hotel to reserve these rooms. Tell The Mosser Hotel you are with the "Lighting and Health Symposium." The Symposium group room rate is \$129/night.

### Symposium Organizer

"Daylighting Plus" Public Interest Energy Research (PIER) Program, for the California Energy Commission

### Symposium Host

Pacific Gas and Electric Company, Pacific Energy Center

### Additional Sponsors

The Illuminating Engineering Society of North America (IESNA), Southern California Edison (SCE), The California Lighting Technology Center (CLTC)

### Photography

McLean Village Dining Hall, Naomi Miller for LRC Delta program, all others, Lisa Heschong

### Brochure Design

Laura Krugh, Gigi Klaiber and Melissa Blevins