Short Course on
Integrative Models of Respiration
June 10-11, 2001
Organized by
Michael C.K. Khoo, Ph. D.
supported by
USC
National Center for Research Resources
Marina Beach Marriott
4100 Admiralty Way
Marina Del Rey, CA 90292
June 10-11, 2001
Short Course Schedule

Sunday - June 10, 2001

8:00–8:30  Registration
8:30–8:45  Introduction and Overview (M.C.K. Khoo)

MORNING SESSION

_MODELS OF VENTILATORY CONTROL -PAST, PRESENT AND FUTURE_

8:45-9:35  Modeling Chemoreflex Responses: Cerebral Blood Flow Effects
           (Z. Topor)
9:35-10:25 Modeling State & Behavioral Effects on Respiration
            (G. Longobardo & N. Cherniack)
10:25-10:45 Coffee Break
10:45-11:35 Modeling Complex Systems: The Upper Airway
            (J. E. Remmers)
11:35-12:00 Discussion
12:00–1:30  Lunch

AFTERNOON SESSION

_MODELS OF BREATH PATTERN GENERATION_

1:30-2:20  Hypercapnia, Hypoxia, and the Respiratory Pattern
           (P. Robbins)
2:20-3:10  Models of the Respiratory Rhythm Generating Kernel
           (R. Butera)
3:10-3:30  Coffee Break
3:30-4:20  The Hybrid Pacemaker-Network Model for Respiratory Rhythm and Pattern
           Generation in Mammals
           (J.C. Smith)
4:20-5:10  Modeling Plasticity in Respiratory Control
           (C.-S. Poon)
5:10-5:35  Discussion
6:00-7:30  Reception
Short Course Schedule

Monday- June 11, 2001

MORNING SESSION

Simulation Issues

8:30-9:20  *PNEUMA: A Simulink-Based Toolbox Approach*
           (M.C.K. Khoo & H. Fan)
9:20-10:10  *Simulation of Respiratory Control Using LabVIEW*
           (J. Duffin)
10:10-10:30  Coffee Break
10:30-11:30  *Large Scale Simulation: The Cardiome and Proposed Lung Physiome*
           (P. Hunter & M. Tawhai)

11:30-1:00  Lunch

AFTERNOON SESSION

1:00-4:00   *Simulation Demos & Hands-On Computer Modeling Session*

4:00-5:00   *General Discussion: Where do we go from here?* (M.C.K. Khoo)
Biomedical Simulations Resource (BMSR)
University of Southern California

Annual Short Course

Integrative Models of Respiration

June 10-11, 2001
Marina Beach Marriott
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