

Program

November 30th(Sun.), 2008

18:00-20:00 Reception (Hospitality Room)

December 1st(Mon.), 2008

07:00-08:20 Breakfast, (Room Bayview B)

08:30-08:45 Opening Remark; Yoshihisa Kurachi (Osaka University) , (Room Bayview B)

08:45-09:00 Greeting from Osaka University San Francisco; Chikaosa Tanimoto (Osaka University San Francisco Center)

Session 1. 09:00-10:40 (Chair: Taishin Nomura), (Room Bayview B) Platforms for Physiome and Systems Biology I

09:00-09:30 James B. Bassingthwaighte (University of Washington), The UW Physiome Project:

Tools, tutorials, techniques and tactics in integrative multiscale modeling of physiology (30 min)

09:30-10:00 Poul Nielsen (University of Auckland), Physiome modelling languages: concepts and meaning (30 min)

10:00-10:40 Michael Hucka (California Institute of Technology), SBML, SBGN, and more:

An overview of several standardization efforts for computational systems biology (40 min)

Coffee Break (20 min), (Room Marina)

Session 2. 11:00-12:20 (Chair: James B. Bassingthwaighte), (Room Bayview B) Platforms for Physiome and Systems Biology II

11:00-11:40 Yoshiyuki Asai (Osaka University), Multiscale modeling with insilicoML1.0 and insilicoIDE (40 min)

11:40-12:00 Justin Marsh (University of Auckland), Towards the CellML IDE (20 min)

12:00-12:20 Erik A. Butterworth (University of Washington), JSim: A Software Tool for Physiome Modeling (20 min)

Lunch (12:20 -13:30), (Room Marina)

Session 3. 13:30-14:40 (Chair: Shigeo Wada), (Room Bayview B) Platforms for Physiome and Systems Biology III

13:30-14:10 Huaiyu Mi (SRI International),

PANTHER Pathway, an evolutionary view of genes, proteins, and pathways (40 min)

14:10-14:40 Gary Raymond (University of Washington),

Reusable Modular Code for Multi-scale Physiological Systems Modeling (30 min)

Coffee Break (20 min), (Room Marina)

Session 4. 15:00-16:40 (Chair: Andrew D. McCulloch), (Room Bayview B) Drug-Protein Interaction & Cell Signaling

15:00-15:30 Narutoshi Kamiya (Osaka University), Flexible docking and Brownian dynamics simulation of hERG channel and development of an accurate molecular docking method for protein and ligand (30 min)

15:30-16:00 Shingo Murakami (Osaka University), Modeling of L-type Ca²⁺ channel inactivation in the heart (30 min)

16:00-16:40 Andrew D. McCulloch (University of California San Diego),

Multi-Scale Modeling and Systems Biology of Cardiac Regulatory Mechanisms (40 min)

Session 5. 16:40-17:40 (Chair: Masao Tanaka), (Room Bayview B) Discussion

16:40-17:00 Taishin Nomura (Osaka University), Toward Concerted Efforts (20 min)

[followed by Round Discussion for 40 min]

December 2nd(Tue.), 2008

07:00-08:20 Breakfast, (Room Marina)

Session 6. 08:30-11:10 (Chair: Kenji Takada and Carroll-Ann Trotman), (Room Bayview B) Modeling and Prediction in Dentistry I

08:30-09:20 Elizabeth Dianne Rekow (New York University),

Modeling and Prediction in Dentistry: Opportunities and Challenges (50 min)

09:20-09:50 Kataro Yashiro (Osaka University), Modeling of Dynamics for the Human Jaw: A Critical Review (30 min)

09:50-10:40 Julian Faraway (University of Bath),

Statistical analysis of data from facial motion capture with application to cleft lip and palate (50 min)

10:40-11:10 Chihiro Tanikawa (Osaka University, The University of Maryland)

Mathematical modeling of mouth and face (30 min)

Coffee Break (15 min), (Room Bayview B)

Session 7. 11:25-13:15 (Chair: Kenji Takada and Carroll-Ann Trotman), (Room Bayview B) Modeling and Prediction in Dentistry II

11:25-12:15 Dan Grauer (University of North Carolina),

Part I. Airway Volume and Shape from Cone-Beam CT: Relationship to Facial Morphology.

PartII. Commercial Software Applications for Clinical Management of Craniofacial DICOM images (50 min)

12:15-12:45 Masakazu Yagi (Osaka University), In silico prediction models of faces (30 min)

12:45-13:15 Satoshi Yamaguchi (Osaka University), Dental Haptic Simulator to Train Hand Skill of Student (30 min)

Lunch (13:15-14:20), (Room Bayview B)

Session 8. 14:20-15:20 (Chair: Masakazu Yagi and Yoshiyuki Asai), (Room Marina) Poster Session

Coffee Break (10 min), (Room Marina)

Session 9. 15:30-16:30 (Chair: Masao Tanaka), (Room Bayview B) Biomechanical Modeling

15:30-16:00 Shigeo Wada (Osaka University),

Biomechanical Modeling in Physiome: Integration of Multiscale Mechanics from Cell to Organ (30 min)

16:00-16:30 Masanori Nakamura (Osaka University), Multi-scale Modeling of Blood Flow for the Establishment of

Hemolysis Simulator on the basis of the Deformation Analysis of an Individual Red Blood Cell(30 min)

16:30-16:45 Closing Remark; Kenji Takada (Osaka University)

19:00-21:00 Banquet, (Hospitality Room)

Organizing Committee

Chair: Yoshihisa Kurachi (Osaka University)

Members

James B. Bassingthwaighte (University of Washington) Hiroaki Kitano (Systems Biology Institute)

Andrew D. McCulloch (University of California San Diego) Poul Nielsen (University of Auckland) Kenji Takada (Osaka University)

Masao Tanaka (Osaka University) Carroll-Ann Trotman (The University of Maryland) Shingo Wada (Osaka University)

Program Committee

Chair: Taishin Nomura (Osaka University)

Members

Yoshiyuki Asai (Osaka University) Rachid Ait-Haddou (Osaka University) Yoshiyuki Kagiya (Osaka University)

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Secretary General: Masakazu Yagi (Osaka University)