

## OS9 : Biomedical Flow Dynamics

### EX-3

November 9, 2018

10:40-11:10 OS9-1

*Invited*

On a Relation between Aorta Morphology and Blood Flow Characteristics

H. Suito, T. Ueda, H. Ota

11:10-11:30 OS9-2

*Invited*

Elucidation of Mechanism of Fiber Bragg Grating Vital Sensing by Ultrasonic-Measurement-Integrated Simulation: Flow Analysis in Ultrasound Flow Phantom

S. Miyauchi, T. Hayase, K. Inoue, T. Ogasawara, T. Tsuboi, A. Shirai, S. Chino, S. Koyama, H. Ishizawa

11:30-11:45 OS9-3

Efficient Mixing and Multidirectional Pumping on Centrifugal Microfluidic Platforms

A.K. Jahromi, M. Saadatmand, M. Eghbal, H. Shieh

11:45-12:00 OS9-4

An Eulerian-Lagrangian Approach for Blood Flow around an Obstacle

M. Hosaka, T. Nagata, S. Takahashi, K. Fukuda, S. Goto

13:10-13:40 OS9-5

*Invited*

Effect of Valve Height on the Opening and Closing Performance of Aortic Valve under the Growth State of Aortic Root

A. Qiao, G. Liu, K. Peng, M. Ohta

13:40-13:55 OS9-6

Fundamental Study of MR-Measurement-Integrated Simulation of Heart-Aorta-System:Analysis of Ascending Aorta

Y. Hori, T. Hayase, S. Miyauchi, K. Inoue, A. Lalande, C. Acquitter, J.-J. Christophe

13:55-14:10 OS9-7

Numerical Analysis of the Influence of Heart Disease on Blood Flow Field in the Left Ventricle: Influence of Aortic Stenosis

T. Takada, S. Miyauchi, T. Hayase

14:10-14:25 OS9-8

Hemodynamic Study on Coronary Artery Aneurysms with Bypass Surgery

H. Wang, H. Anzai, M. Ohta, Y. Liu

14:50-15:20 OS9-9

*Invited*

Cerebral Aneurysm Hemodynamics Based on a Quasi-Mechanistic Blood Flow Model

K.M. Saqr, M. Ohta

15:20-15:40 OS9-10

*Invited*

Modelling Flow-Diverting Stent as a Porous Medium in the Study of Post-Treatment Aneurysmal Haemodynamics

*Y. Li, M. Ohta, Y. Qian*

15:40-15:55 OS9-11

Study of Hemodynamic Parameters to Identify Thickening and Thinning Parts of Cerebral Aneurysm Wall: Evaluation of Confined Relative Residence Time based on Analysis of Transport Equation

*K. Aoki, S. Miyauchi, T. Hayase, S. Sugiyama, T. Tominaga*

15:55-16:10 OS9-12

Numerical Analysis of the Effect of the Inner Structure of a Left Ventricle on the Blood Flow Field: Effect of Papillary Muscles and Trabeculae Carneae

*K. Hosoi, S. Miyauchi, T. Hayase*

16:30-16:50 OS9-13

*Invited*

Perspective of Development for PVA-H Custom-made Blood Vessel Models

*Y. Shimizu, S. Tupin, K. Yu, R. Nagano, C. Kiyomitsu, H. Yoshida, T. Matsunaga, J. Kuzusako, N. Kihara, K. Takashima, Y. Haga, M. Ohta*

16:50-17:10 OS9-14

*Invited*

Haemodynamics Effects of Incomplete Stent Expansion on Flow-Diversion Treatment of Intracranial Aneurysms

*M. Zhang, Y. Qian, M. Ohta*

17:10-17:25 OS9-15

Research on Arterial Stiffness in Type 2 Diabetic Patients Based on Pulse Wave Analysis

*G. Li, X. Song, A. Qiao, M. Ohta*

17:25-17:40 OS9-16

Numerical Analysis on Biomechanics of Magnesium Alloy Stent with Different Length Ratio of Link and Strut

*H. Zhang, A. Qiao*

17:40-17:55 OS9-17

Finite Element Analysis for Flows in a Tumor Capillary Considering a Leakage to Interstitium

*T. Takeda, S. Miyauchi, T. Hayase*