

Session 3*Chair: Seung Jin Lee*

- 14:00 - 14:20 **A3 Researcher's Lecture:**
Getting to the Site of Neuroinflammation: a Leukocyte-Mediated Brain Targeting System for Cerebral Ischemia
J. Qin and J. Wang
- 14:20 - 14:40 **Invited Speaker's Lecture:**
Thermoresponsive Core-Corona Type Nanoparticles
A. Kikuchi, T. Matsuyama, A. Kimura, T. Suzuki, T. Yamada, R. Ishihara, and T. Asoh

Session 4*Chair: Jianxin Wang*

- 14:40 - 15:00 **Invited Speaker's Lecture:**
Cationic Comb-type Copolymers to Engineer DNA, Peptides and Lipids
A. Maruyama
- 15:00 - 15:20 **Invited Speaker's Lecture:**
Oral Nanotherapeutics for Colitis Associated Colon Cancer
Y. Nagasaki

15:20 - 15:40 *Coffee Brake*

Session 5*Chair: You Han Bae*

- 15:40 - 16:00 **Invited Speaker's Lecture:**
Tissue Engineering Technology to Realize Regenerative Therapy
Y. Tabata
- 16:00 - 16:20 **Invited Speaker's Lecture:**
Self-assembled Nanogel Tectonics for DDS and Tissue Engineering
K. Akiyoshi
- 16:20 - 16:40 **A3 Researcher's Lecture:**
Tissue Regeneration and Drug Delivery using in situ Forming Hydrogels
K. D. Park
- 16:40 - 17:20 **Special Lecture:** *Chair: Allan Hoffman*
Design of Intelligent Polymer Surface and Creation of Cell Sheet Tissue Engineering
T. Okano

Session 8 *Chair: Takehisa Matsuda*

- 13:30 - 13:50 **Invited Speaker's Lecture:**
Lost in Translation: Why in Vitro and in Vivo Antimicrobial Medical Device
Technologies Don't Correlate
D.W. Grainger
- 13:50 - 14:10 **A3 Researcher's Lecture:**
Protease-responsive Probes for Tumor Imaging
Y.F. Jiang and Y.Z. Huang
- 14:10 - 14:30 **Invited Speaker's Lecture:**
Design of Novel Biomimetic Polymer Gels:
"Self-Oscillating" Gels Beating Like a Heart Muscle
R. Yoshida

Session 9 *Chair: Akihiko Kikuchi*

- 14:30 - 14:50 **A3 Researcher's Lecture:**
Polymeric Biomaterials for Gene, Drug and Nitric Oxide Delivery
J.H. Kim, B.H. Lee, A.S. Hoffman, and W.J. Kim
- 14:50 - 15:10 **A3 Researcher's Lecture:**
Excellent Patency of Small-Diameter Tissue Engineered Long Vascular Grafts
T. Yamaoka, S. Somekawa, M. Kobayashi, Y. Ohya, and A. Mahara
- 15:10 - 15:30 **A3 Researcher's Lecture:**
Small Molecule That Exerts a Similar Activity to Antibody Drug
D. Funamoto, A. Kishimura, T. Mori, and Y. Katayama
- 15:30 - 15:50 **Coffee Break**

Session 10 *Chair: Mizuo Maeda*

- 15:50 - 16:10 **Invited Speaker's Lecture:**
Oral Nanoparticle Absorption by Riding Enterohepatic Circulation
M. Nurunnabi, D.Y. Lee, Y.K. Lee, and Y.H. Bae
- 16:10 - 16:30 **Invited Speaker's Lecture:**
Temperature-Responsive Chromatography for the Separation of Biomolecules
H. Kanazawa, E. Ayano, and T. Okano

Session 11

Chair: David Grainger

- 16:30 - 16:50 **A3 Researcher's Lecture:**
Cell Sheet-Based Myocardial Tissue Engineering
T. Shimizu
- 16:50 - 17:10 **A3 Researcher's Lecture:**
Cardiac Stem Cell Delivery for Regenerative Therapy of
Myocardial Infarction
Y. Yang, Y. Jang, and S. Lee
- 17:10 - 17:30 **A3 Researcher's Lecture:**
A Nano-Based Theranostic System for Brain Tumor
Therapy and MR Imaging
V.C. Yang
- 17:30 - 17:40 **Closing remarks**

Poster Presentation

October 8th Wed.	Poster Presentation at Lunch Break	12:10-13:30
October 9th Thu.	Poster Presentation at Lunch Break	12:00-13:30

- P1 Hollow Nanocapsules Exhibiting Cytosol Specific Drug Release in Response to Microenvironmental Change in Cellular Uptake
A. Harada, E. Yuba, and K. Kono
- P2 Polyrotaxanes Ameliorate Impaired Autophagy Flux in Lysosomal Storage Disorders
A. Tamura and N. Yui
- P3 Self-assembled DNA Nanostructures using Rolling Circle Amplification for Delivery of siRNA Conjugates
B. Jang, C.A. Hong, and H. Lee
- P4 Novel Insights into the Mineralization Process during Secondary Ossification of the Cartilage
E.S. Hara, M. Okada, T. Hattori, T. Kubota, T. Kuboki, and T. Matsumoto
- P5 Evaluation of Temperature-controllable Drug Release and Intracellular Uptake using Temperature-Responsive Nanoparticles
E. Ayano, T. Ishihara, H. Kanazawa, and T. Okano
- P6 Delivery of Transgene Expressions into Tonsil-derived Mesenchymal Stem Cells using Biodegradable Polymeric Nanoparticles
E.-S. Lee, H.S. Jeong, J. Hong, H. Lee, N.S. and Hwang
- P7 The Bioreducible Poly(Amido Amine) Polymers for *in vitro* Reprogramming of MEF Cells
H. Jeong and H. Lee
- P8 The Effect of Bone Morphogenetic Protein-7 on the Regenerative Therapy of Stem Cells for Articular Cartilage Repair
H.J. Kim, S.H. Do, Y.I. Yang, and S.J. Lee
- P9 Sustained Delivery of Plasmid IGF-1 into Cardiac Stem Cells via Cell-Penetrating Peptide for Myocardial Regeneration
H. Kyung, D. Kim, H. Chung, and S. Lee
- P10 Characterization of Temperature-responsive Liposome
H. Kato, J. Wang, E. Ayano, Y. Maitani, H. Kanazawa, and T. Okano
- P11 Cell Sheet-based 3D Oriented Tissue Construction using Anisotropic Cell Sheets
H. Takahashi, T. Shimizu, M. Nakayama, M. Yamato, and T. Okano
- P12 Stem Cell Surface Modification with Biomacromolecules
H.-B. Kim, P. Park, H. Kim, A. Lee, and N.S. Hwang

- P13 Inhibition of Bone-loss via Gold-nanoparticles Conjugated Alendronate
I.K. Kwon
- P14 An Efficient Cellular Uptake with Thermo-sensitive Liposome
J. Wang, E. Ayano, H. Kanazawa, Y. Maitani, and T. Okano
- P15 Reactive Oxygen Species-modulating Strategy to Induce Endothelial Cell Proliferation via Photodynamic Action
M.A. Koo, B.J. Kwon, M.S. Kim, M.H. Lee, and J.-C. Park
- P16 Fabrication of Orthotopic Tumor-bearing Model Mice by Cancer Cell Sheet Transplantation
J. Akimoto, M. Nakayama, A. Arauchi, S. Takagi, and T. Okano
- P17 Heparin-functionalized Temperature-responsive Cell Culture Surfaces for Maintaining Hepatic Functions and Harvesting Cultured Hepatocyte Sheets
J. Kobayashi, Y. Arisaka, K. Ohashi, K. Tatsumi, K. Kim, Y. Akiyama, M. Yamato, and T. Okano
- P18 Whitlockite Composite Scaffold for Osteogenic Differentiation
J. Park, H. Ro, J. Kim, and N.S. Hwang
- P19 Thermoresponsive Cationic Copolymer Brush having Quaternary Amine Group for Effective Thermoresponsive Ion-exchange Chromatography
K. Nagase, M. Geven, S. Kimura, J. Kobayashi, A. Kikuchi, Y. Akiyama, D.W. Grijpma, H. Kanazawa, and T. Okano
- P20 Surface Modification of Autonomous Self-oscillating Polymer onto Porous Substrate via SI-ATRP and Characterization
K. Homma, T. Masuda, A.M. Akimoto, K. Nagase, T. Okano, and R. Yoshida
- P21 Fluidity of Substrate Impacts on Cell Morphology and Functions
K. Uto, M. Ebara, and T. Aoyagi
- P22 Preparation of Redox-responsive Micro-gels Composed of Three-armed Oligo(Ethylene Glycol)
K. Yamawaki, T. Asoh, R. Ishihara, and A. Kikuchi
- P23 Surface Coating of Poly(*N*-isopropylacrylamide) Derivatives for Control of Temperature-responsive Cell Adhesion/Detachment
M. Nakayama, M. Yamato, and T. Okano
- P24 Application of Temperature-responsive Solid-phase Extraction Column to Therapeutic Drug Monitoring
M. Akimaru, K. Okubo, Y. Hiruta, and H. Kanazawa
- P25 Nanoarchitectonic Smart Nanofibers for Cancer Therapy
M. Ebara, Y.-J. Kim, E. Niyyama, K. Uto, C.-M. Lee, and T. Aoyagi

- P26 Terminal-functionality of Thermoresponsive Polymer Brushes for Controlling Thermally Induced Cell Adhesion-initiating Temperature
N. Matsuzaka, M. Nakayama, H. Takahashi, A. Kikuchi, and T. Okano
- P27 Co-axial Double Layered Gel Fibers as Culture Scaffolds Prepared by Three-dimensional Sheath Flow Microfluidic Device toward Fabricating Engineered Capillary Vessel
N. Takeda, H. Nansai, T. Goto, T. Chikazawa, Y. Nakamura, H. Oku, R. Sekine, J. Ito, D. Yoon, Y. Arisaka, T. Sekiguchi, and S. Shoji
- P28 Analysis for Gene Expression of Extracellular Matrices in Keratinocyte Cultured in Serum-free Condition
R. Takagi, M. Yamato, and T. Okano
- P29 Development of Hierarchical Cellular Organization from Ultra Thin Macroporous Poly(lactic acid) Films
S. Suzuki, T. Fujie, and S. Takeoka
- P30 Curcumin-loaded Redox Polymer Nanoparticles Protect Curcumin from Oxidative Degradation and Enhance Therapeutic Effect on Prostate Cancer
S. Thangavel, T. Yoshitomi, M.K. Sakharkar, and Y. Nagasaki
- P31 Paper Origami-based 3D Scaffold for Tissue Engineering
S.-H. Kim, S.J. Yu, M.E. Han, H.R. Lee, S.G. Im, and N.S. Hwang
- P32 Remodeling of Epithelium and Type IV Collagen on Corneal Epithelial Deficiency Model
S. Kameishi, H. Sugiyama, M. Yamato, Y. Sado, H. Namiki, T. Kato, and T. Okano
- P33 Control of Hydrophobic Instruction for Separating of Biomolecules on Thermoresponsive Polymer Modified Polystyrene Monolithic Capillary
T. Koriyama, T. Asoh, R. Ishihara, and A. Kikuchi
- P34 Development of Automated Cell Sheet Stacking Apparatus
T. Kikuchi, T. Shimizu, M. Wada, M. Yamato, and T. Okano
- P35 Fabrication of Micropatterned Polymeric Nanosheets for Local Delivery of an Engineered Epithelial Monolayer
T. Fujie, Y. Mori, M. Nishizawa, N. Nagai, T. Abe, A. Khademhosseini, and H. Kaji
- P36 Analysis of Psychoactive Drugs using Temperature-responsive Chromatography
T. Mikuma, D. Ueno, Y. Hiruta, Y. Nagata, T. Okano, and H. Kanazawa
- P37 Self-oscillating Polymer Brushes: Evaluation of the Dynamic Properties
T. Masuda, K. Homma, A.M. Akimoto, K. Nagase, T. Okano, and R. Yoshida
- P38 Design of Multi-functional Polymeric Nanoparticles Consisting of Minimum Kinds of Monomers
Y. Kotsuchibashi, M. Ebara, R. Narain, and T. Aoyagi
- P39 Preparation and Characterization of (17-AAG)-loaded Biodegradable Electrospun Nanofiber
J. Chung, H. Lee, Q. Ain, Y. Song, and Y. Kim

- P40 Characterization of a New Stretchable Temperature-responsive Cell Culture Surface
Y. Akiyama, M. Matsuyama, N. Takeda, M. Yamato, and T. Okano
- P41 Preparation of Photo Cross-linkable Polymer Brush Surface toward Dynamically Regulating hbmMSCs Behaviors
Y. Arisaka, Y. Nishijima, and N. Takeda
- P42 *In Vitro* Studies on the Mechanistic Details of Adhesion and Wound Healing of Epithelial Cell Sheet Therapy
Y. Kasai, M. Yamato, R. Takagi, N. Takeda, and T. Okano
- P43 Injectable PLGA Microspheres Encapsulating WKYMVm Peptides for Neovascularization in the Hind Limb Ischemia Model
Y.-H. Choi, S.C. Heo, J.-H. Kim, and N.S. Hwang