Program at a Glance

Sep.3 (Wed)		Sep.4 (Thu)	
9:00	Registration	**9:00**	Short Oral Presentation SO-1 ~ SO-5
9:30	Opening Remarks	**10:15**	Break
9:35	Oral Presentation 1 O-1 Hironobu Fujiwara	**10:45**	Short Oral Presentation SO-6 ~ SO-10
10:05	Invited Lecture 1 IL-1 Jeffrey Miner	**12:00**	Photo Session
10:45	Break	**12:10**	Lunch
11:00	Invited Lecture 2 IL-2 Yanlan Mao	**13:30**	Invited Lecture 6 IL-6 Julien Gautrot
11:40	Invited Lecture 3 IL-3 Tyler Huycke	**14:10**	Break
12:20		**14:25**	Oral Presentation 3 O-3 Ayae Sugawara-Narutaki
12:30	Lunch	**14:55**	Oral Presentation 4 O-4 Shuji Ishihara
13:45	Poster Session I (Even Numbers)	**15:25**	
15:00	Poster Session II (Odd Numbers)	**15:30**	Closing Remarks
16:15	Invited Lecture 4 IL-4 Erina Kuranaga		
16:55	Oral Presentation 2 O-2 Mototsugu Eiraku		
17:25	Break		
17:40	Invited Lecture 5 IL-5 John Connelly		
18:20			
18:30	Banquet		
20:00	Networking		

Oral Session | Wednesday, 3rd September

9:30 – 9:35 Opening Remarks

9:35 – 10:05 Oral Presentation (Chair: Eisuke Itakura)

O-1 **Basement Membrane Dynamics in Mammalian Epithelial Morphogenesis**
Hironobu Fujiwara
RIKEN Center for Biosystems Dynamics Research, Japan

10:05 – 10:45 Invited Lecture (Chair: Eisuke Itakura)

IL-1 **Manipulation of the Glomerular Basement Membrane: Implications for Alport Syndrome**
Kohei Omachi,[1,2] Meei-Hua Lin,[1] Hironobu Fujiwara,[2] Jeffrey H. Miner[1]
[1]*Washington University School of Medicine, USA,* [2]*RIKEN Center for Biosystems Dynamics Research, Japan*

10:45 – 11:00 Break

11:00 – 12:20 Invited Lecture (Chair: Yoshiko Takahashi)

IL-2 **Basement Membrane Dynamics in Tissue Shape Control**
Yanlan Mao
University College London, UK

IL-3 **Dynamic Cell-ECM Interactions Force the Gut into Shape**
Tyler R. Huycke
University of Michigan, USA

12:30 – 13:45 Lunch

13:45 – 15:00 Poster Session I (Even Numbers)

15:00 – 16:15 Poster Session II (Odd Numbers)

16:15 – 16:55 Invited Lecture (Chair: Shinji Takada)

IL-4 **Sexually Dimorphic ECM Plasticity Coordinates Collective Cell Migration during Epithelial Morphogenesis**
Erina Kuranaga[1,2]
[1]*Kyoto University, Japan,* [2]*Tohoku University, Japan*

16:55 – 17:25 Oral Presentation (Chair: Shinji Takada)

O-2 **Organogenesis in Stem Cell Culture**
Mototsugu Eiraku
Kyoto University, Japan

17:25 – 17:40 Break

17:40 – 18:20 Invited Lecture (Chair: Hironobu Fujiwara)

IL-5 **Biomechanical Regulation of Nucleolar Structure and Function in Skin Homeostasis and Aging**
Alexandra Chrysanthou, Oscar J. Pundel, Yiyang Guo, Cleo L. Bishop, John T. Connelly
Queen Mary University of London, UK

18:30 – 20:00 Banquet

20:00 – Networking

Oral Session | Thursday, 4th September

9:00-10:15 Short Oral Presentation I (Chair: Yusuke Mii)

SO-1 Development of a Novel Fluorescent Probe to Detect Heparan Sulfate Chains and Quantitative Analysis of Cells
Kanna Kamikawa, Akira Matsuura, Eisuke Itakura
Chiba University, Japan

SO-2 A Mechanochemical Constitutive Model for the Duality of Stable and Oscillatory Dynamics in Cell–ECM Adhesion
Eiji Matsumoto, Shinji Deguchi
The University of Osaka, Japan

SO-3 Extracellular Interplay of Signalling Ligands, Secreted Inhibitors and ECM during Left-Right Asymmetry Formation in Zebrafish Embryos
Takafumi Ikeda, Hiroyuki Takeda
Kyoto Sangyo University, Japan

SO-4 Modeling Vascular Invasion of Tumor Cell Clusters Using a Tumor-Microvessel-on-a-Chip System
Makoto Kondo, Yukiko T Matsunaga
The University of Tokyo, Japan

SO-5 Basement Membrane Turnover Controls Cell Shape
Ricardo Barrientos[1,2,9], Billie Meadowcroft[1,2,3], Besaiz J. Sanchez-Sanchez[4], Brian M. Stramer[4], Ewa K. Paluch[5], Guillaume Charras[2,6,7], Shiladitya Banerjee[8], Andela Saric[3], Yanlan Mao[1,2]
[1,2,7]University College London, UK, [3]Institute of Science and Technology Austria, Austria, [4]King's College London, UK, [5]University of Cambridge, UK, [6]London Centre for Nanotechnology, UK, [8]Georgia Institute of Technology, USA

10:15-10:45 Break 30 min

10:45-12:00 Short Oral Presentation II (Chair: Mototsugu Eiraku)

SO-6 Brain Extracellular Matrix Promotes Neuronal Enlargement in the Mammalian Cerebral Cortex
Ayumu Mubuchi[1], Yoshifumi Ueta[2], Keiko Akasaka-Manya[3], Hiroshi Manya[3], Yuko Saito[3], Yohei Shinmyo[4], Hiroshi Kawasaki[5], Mariko Miyata[2], Shinji Miyata[1]
[1]Tokyo University of Agriculture and Technology, Japan, [2]Tokyo Women's Medical University, Japan, [3]Tokyo Metropolitan Institute for Geriatrics and Gerontology, Japan, [4]Hamamatsu University School of Medicine, Japan, [5]Kanazawa University, Japan

SO-7 Force Transmission Mechanisms as Revealed by Live-Cell Single-Molecule Imaging
Sawako Yamashiro, Ying Liu, Naoki Watanabe
Kyoto University, Japan

SO-8 Modulating Cell Fate between Aging and Rejuvenation
Shinji Deguchi
The University of Osaka, Japan

SO-9 Laminin-Functionalized Fibrin Gel for Three-Dimensional Culture of Stem Cells
Yukimasa Taniguchi, Mamoru Takizawa, Ayaka Hada, Ayano Ishimaru, Kiyotoshi Sekiguchi
The University of Osaka, Japan

SO-10 Fine-tuned ChemBERTa Generalized Model for Investigating the Interaction between Polymer Materials and Proteins
Shiwei Su, Nobuyuki Tanaka, Yoshitaka Ushiku, Koichi Takahashi
RIKEN, Japan

12:00-12:10 Photo Session

12:10-13:30 Lunch

13:30 – 14:10 Invited Lecture (Chair: Ayae Sugawara-Narutaki)

IL-6 Soft But Tough! Engineering of Protein Nanosheet-Stabilised Microdroplets: from Biomimetic Cell Microenvironments to Artificial Cells
Julien E. Gautrot, Alexandra Chrysanthou, Minerva Bosch-Fortea, Jordi Gonzalez Molina, Hassan Kanso
Queen Mary, University of London, UK

14:10 – 14:25 Break

14:25 – 15:25 Oral Presentation (Chair: Shinji Deguchi)

O-3 Development and Application of Elastin-Inspired Designer Matrix
Ayae Sugawara-Narutaki
Institute of Science Tokyo, Japan

O-4 Theoretical Approach to Pattern Formation on Curved and Oscillating Substrates
Shuji Ishihara
The University of Tokyo, Japan

15:30 Closing Remarks

Poster Session | Wednesday, 3rd September

P-1 **Development of a Novel Fluorescent Probe to Detect Heparan Sulfate Chains and Quantitative Analysis of Cells**
Kanna Kamikawa, Akira Matsuura, Eisuke Itakura
Chiba University, Japan

P-2 **Formation of Perineuronal Net Driven by Activity-Induced Aggrecan Expression**
Kentaro Nakayama, Ayumu Mubuchi, Shinji Miyata
Tokyo University of Agriculture and Technology, Japan

P-3 **Elucidating the Formation of Dermal Collagen Structures in Axolotls for Complete Skin Regeneration**
Ayaka Ohashi, Akira Satoh
Okayama University, Japan

P-4 **Functional Analysis of Endocytosis-Mediated Degradation of Stress-Sensitive KKZ Protein Entrapping a Substrate Protein**
Sayana Bun, Akira Matsuura, Eisuke Itakura
Chiba University, Japan

P-5 **Microscopic Strain Field Analysis of Newt Digital Flexor Tendon during Regeneration Following Complete Transection**
Soki Aoshima,[1] Daisuke Suzuki,[2] Tomonori Hayashi,[3,4] Jeonghyun Kim,[1,5] Takeo Matsumoto,[1] Eijiro Maeda[1]
[1]*Nagoya University, Japan,* [2]*Hokkaido Chitose College of Rehabilitation, Japan,* [3,4]*Hiroshima University, Japan,* [5]*Kyushu University, Japan*

P-6 **Effect of Mechanical Loading on Newt Tendon Regeneration**
Tomoka Kamiya,[1] Daisuke Suzuki,[2] Toshinori Hayashi,[3] Jeonghyun Kim,[1,4] Takeo Matsumoto,[1] Eijiro Maeda[1]
[1]*Nagoya University, Japan,* [2]*Hokkaido Chitose College of Rehabilitation, Japan,* [3]*Hiroshima University, Japan,* [4]*Kyushu University, Japan*

P-7 **Multi-scale Observation of Tensional Homeostasis in Tendon Fascicles from Report Mouse Expressing Actinin FRET Tension Sensor**
Yuki Furunishi,[1] Junfeng Wang,[1] Jeonghyun Kim,[1,2] Takeo Matsumoto,[1] Eijiro Maeda[1]
[1]*Nagoya University, Japan,* [2]*Kyushu University, Japan*

P-8 **Arteriovenous 3D Network Formation via Spatially Localized Hydrogels as a Model for Pulmonary Arteriovenous Malformations in Univentricular Heart Disease**
Laura Yuriko Gonzalez-Teshima[1,2,3], Keisuke Hakamada[1], Kozue Murata[1,2], Tadashi Ikeda[1], Kenji Minatoya[1], Masaya Hagiwara[3], Hidetoshi Masumoto[1,2]
[1]*Kyoto University, Japan,* [2,3]*RIKEN Center for Biosystems Dynamics Research, Japan*

P-9 **A Mechanochemical Constitutive Model for the Duality of Stable and Oscillatory Dynamics in Cell–ECM Adhesion**
Eiji Matsumoto, Shinji Deguchi
The University of Osaka, Japan

P-10 **Analysis of Cell–Substrate Adhesion Structures by Combined Fluorescence Microscopy and Atomic Force Microscopy**
Shun Sato, Shinji Deguchi
The University of Osaka, Japan

P-11 **Designing Smart Extracellular Matrix through Polymer Self-Assembly**
Hibiki Sakata,[1] Yuki Tanaka[2], Wey Yih Heah[2], Hikaru Takaya[3], Yohei Yamamoto[2], Ryosuke Mizuta[1], Yoshihiro Sasaki[1], Kazunari Akiyoshi[4]
[1,4]*Kyoto University, Japan,* [2]*University of Tsukuba, Japan,* [3]*Teikyo University of Science, Japan*

P-12 **Involvement of Integrin in Small Intestinal Permeable Monoclonal Antibodies Fused with the DNP Peptide**
Shoma Chikamatsu, Sumio Ohtsuki, Shingo Ito
Kumamoto University, Japan

P-13 **An eGFP-Col4a1 Mouse Model Allows for Live Visualization of Mammalian Basement Membrane Dynamics**
Shuyu Dong[1,2], Duligengaowa Wuergezhen[1,2], Takaya Abe[3], Kohei Omachi[1], Hiroshi Kiyonari[3], Hironobu Fujiwara[1,2]
[1,3]*RIKEN Center for Biosystems Dynamics Research, Japan,* [2]*Osaka University, Japan*

P-14 **Visualizing Laminin Dynamics during Epithelial Tissue Development**
Kohei Omachi, Hiroko Sasaki, Takaya Abe, Hiroshi Kiyonari, Hironobu Fujiwara
RIKEN Center for Biosystems Dynamics Research, Japan

P-15 **Live Imaging of Heparan Sulfate Chains Uncovers Their Dynamic Interaction with Wnt11 and Core PCP Components in the Regulation of Planar Cell Polarity**
Minako Suzuki[1, 2], Ritsuko Takada[2], Tomoe Kobayashi[3], Makoto Matsuyama[3], Shinji Takada[2], Yusuke Mii[1, 2]
[1]*Kyoto University, Japan,* [2]*National Institutes of Natural Sciences, Japan,* [3]*Shigei Medical Research Institutes, Japan*

P-16 **Extracellular Interplay of Signalling Ligands, Secreted Inhibitors and ECM during Left-Right Asymmetry Formation in Zebrafish Embryos**
Takafumi Ikeda, Hiroyuki Takeda
Kyoto Sangyo University, Japan

P-17 **Partial Reduction of Type IV Collagen α5 Leads to Non-Uniform Melanosome Overaccumulation through Enhanced Endocytic Pathway in Epidermis**
Aska Sonoki, Yuzo Yoshida
Shiseido Co., Ltd. MIRAI Technology Institute, Japan

P-18 ***In Vitro* Reconstitution of Planar Cell Polarity (PCP) with MDCK Cells and Requirement of Core PCP Components for The Homeostasis of Epithelial Sheet Formation**
Soichi Matsuo[1], Minako Suzuki[1], Tetsuhisa Otani[2], Yusuke Mii[1]
[1]*Kyoto University, Japan,* [2]*Tokyo Metropolitan University, Japan*

P-19 **Emergent Tissue Morphogenesis in Limb Development: A Synergy of 2.5D, 3D Cultures and Mathematical Modeling**
Rio Tsutsumi[1,2], Steffen Plunder[1], Antoine Diez[1], Ryuichi Kimura[3], Shinya Oki[3], Yusuke Mii[2], Ritsuko Takada[4], Shinji Takada[4], Mototsugu Eiraku[2]
[1,2]*Kyoto University, Japan,* [3]*Kumamoto University, Japan,* [4]*National Institute for Basic Biology, Japan*

P-20 **Spatiotemporal Tunable Artificial Microenvironment for Next-Generation Organoids: Recapitulating Primitive Streak Formation and Notogenesis**
Zhe Wang[1], Ruolin Hao[1], Junyao Zhang[2], Masatoshi Ohgushi[1], Koichiro Maki[1], Taiji Adachi[1], Mototsugu Eiraku[1], Galym Ismagulov[3], Guojun Sheng[3], Kiyotoshi Sekiguchi[4]
[1]*Kyoto University, Japan*, [2]*Riken, Japan*, [3]*Kumamoto University, Japan*, [4]*Osaka University, Japan*

P-21 **Spatiotemporal ECM Dynamics Driven by Cell Contraction Regulate Collective Cell Behavior**
Yen Xuan Ngo[1,2], Kasinan Suthiwanich[1,3], Masaya Hagiwara[1,2]
[1]*Clustering of Pioneering Research, RIKEN, Japan*, [2]*Center for Biosystems Dynamics Research, RIKEN*, *Japan*, [3]*Toronto General Hospital Research Institute University Health Network, Canada*

P-22 **Modeling Vascular Invasion of Tumor Cell Clusters Using a Tumor-Microvessel-on-a-Chip System**
Makoto Kondo, Yukiko T Matsunaga
The University of Tokyo, Japan

P-23 Exploring Developmental Mechanism of Immobilization-Induced Muscle Fibrosis －Focus on Myonuclear Apoptosis via Mitochondrial Dysfunction－
Yuichiro Honda, Minoru Okita
Nagasaki University, Japan

P-24 RSK/GSK3-mediated Phosphorylation of FilGAP Regulates Chemotactic Cancer Invasion
Koji Tsutsumi, Yasutaka Ohta
Kitasato University, Japan

P-25 A Highly Sensitive Bioluminescence Nanothermometer to Capture the Plant Temperature at the Organelle Level
Shun-ichi Fukushima,[1,2] Tetsuichi Wazawa,[1] Matsuda Tomoki,[2] Takeharu Nagai[1,3,4]
[1,3]*The University of Osaka, Japan,* [2]*Kitasato University, Japan,* [4]*Hokkaido University, Japan*

P-26 Proton Conduction in Self-Assembled Elastin-Like Polypeptide Nanofiber Films and Gels: Toward Bioelectronic Scaffold Applications
Md. Zahidul Islam,[1] Rei Shibata,[2] Rintaro Takahashi,[3] Masato Nakaya,[2] Jun Onoe,[2] Ayae Sugawara-Narutaki[1]
[1]*Institute of Science Tokyo, Japan,* [2]*Nagoya University, Japan,* [3]*The University of Osaka, Japan*

P-27 Proinflammatory Detection of Various dECMs Using a Genetically-Modified THP-1 Cell
Mika Suzuki[1], Wataru Nomura[2], Sumio Ohtsuki[3], Akio Kishida[1,4], Tsuyoshi Kimura[1,4]
[1]*Toyo University Japan,* [2]*Hiroshima University, Japan,* [3]*Kumamoto University, Japan,* [4]*Institute of Science Tokyo, Japan*

P-28 Mathematical Model of Hair Follicle Morphogenesis and Its Potential Application to Other Skin Appendages
Keiichiro Kagawa,[1] Makoto Okumura,[2] Yasuaki Kobayashi,[3] Duligengaowa Wuergezhen, Ritsuko Morita,[4] Hironobu Fujiwara,[5] Masaharu Nagayama[1]
[1]*Hokkaido University Japan,* [2] *Konan University, Japan,* [3] *Josai University, Japan,* [4]*Osaka University, Japan,* [5]*RIKEN Center for Biosystems Dynamics Research, Japan*

P-29 Basement Membrane Turnover Controls Cell Shape
Ricardo Barrientos,[1,2,9] Billie Meadowcroft[1,2,3], Besaiz J. Sanchez-Sanchez[4], Brian M. Stramer[4], Ewa K. Paluch[5], Guillaume Charras[2,6,7], Shiladitya Banerjee[8], Andela Saric[3], Yanlan Mao[1,2]
[1,2,7]*University College London, UK,* [3]*Institute of Science and Technology Austria, Austria,* [4]*King's College London, UK,* [5]*University of Cambridge, UK,* [6]*London Centre for Nanotechnology, UK,* [8]*Georgia Institute of Technology, USA*

P-30 Cadherin-6 Controls Neuronal Migration in the Developing Neocortex via an Integrin-mediated Pathway
Yuki Hirota,[1] Rikaho Saito,[1] Takao Honda,[1,2] Hitomi Sano,[1,3] Kazunori Nakajima[1]
[1]*Keio University, Japan,* [2]*Gifu Pharmaceutical University, Japan,* [3]*Tokyo Online University, Japan*

P-31 ECM as a Driver and Responder of Tissue Aging
Eleanor Sheekey, Yuichiro Hirano, Ko Tsutui, Hironobu Fujiwara
RIKEN Biosystems Dynamics Research, Japan

P-32 CDP-Ribitol Prodrug Treatment Ameliorates ISPD-Deficient Muscular Dystrophy
Motoi Kanagawa[1], Hideki Tokuoka[2,3], Rieko Imae[4], Hiroshi Manya[4], Shunsuke Hoshino[4], Kazuhiro Kobayashi[2], Takashi Okada[5], Tamao Endo[4], and Tatsushi Toda[6]
[1]*Ehime University, Japan,* [2,3]*Kobe University, Japan,* [4]*Tokyo Metropolitan Geriatric Hospital and Institute of Gerontology, Japan,* [5,6]*The University of Tokyo, Japan*

P-33 Emergence of Cell Polarity by Reciprocal Interactions between Wnt and Core PCP Components
Yusuke Mii[1,2], Minako Suzuki[1,2], Hiroshi Koyama[2], Ritsuko Takada[2], Tomoe Kobayashi[3], Motosuke Tsutsumi[4], Tomomi Nemoto[4], Makoto Matsuyama[3], Toshihiko Fujimori[2], and Shinji Takada[2]
[1]Kyoto University, Japan, [2,4]National Institutes of Natural Sciences, Japan, [3]Shigei Medical Research Institutes, Japan

P-34 Injured Kidney Glomeruli are Fibrotic Hotspots in Alport Syndrome
Ko Tsutsui,[1,4] Shaun Wright,[2] Rebecca Preston,[1] Leo Zeef,[3] Andrew Greenhalg,[2] Rachel Lennon[1]
[1,2,3]University of Manchester, UK, [4]Nippi Research Institute of Biomatrix, Japan

P-35 Visualization of Basement Membrane Dynamics using Tagged-Nidogen1 Probes
Sugiko Futaki
Osaka Medical and Pharmaceutical University, Japan

P-36 Brain Extracellular Matrix Promotes Neuronal Enlargement in the Mammalian Cerebral Cortex
Ayumu Mubuchi[1], Yoshifumi Ueta[2], Keiko Akasaka-Manya[3], Hiroshi Manya[3], Yuko Saito[3], Yohei Shinmyo[4], Hiroshi Kawasaki[5], Mariko Miyata[2], Shinji Miyata[1]
[1]Tokyo University of Agriculture and Technology, Japan, [2]Tokyo Women's Medical University, Japan, [3]Tokyo Metropolitan Institute for Geriatrics and Gerontology, Japan, [4]Hamamatsu University School of Medicine, Japan, [5]Kanazawa University, Japan

P-37 Multimodal ECM Profiling Reveals Specific Skin Aging Strategies in Naked Mole Rat
Aurelien Kerever[1], Kazuto Tsuji[2], Justine Flipo[3], Melanie Viltard[4], Kyohei Higashi[2], Eri Arikawa-Hirasawa[1], Romain Fontaine[3]
[1]Juntendo University, Japan, [2]Tokyo University of Science, Japan, [3]Universite Paris Cite, France, [4]Fondation pour la Recherche en Physiologie, Belgium

P-38 Loss of S1PR3 Inhibits Development of Laser-induced Choroidal Neovascularization and Subretinal Fibrosis in Association with Suppression of Inflammation in Mice
Hiroki Iwanishi, Takayoshi Sumioka, Kosuke Nishi, Ai Matsushita, Shingo Yasuda, Masayasu Miyajima, Shizuya Saika
Wakayama Medical University, Japan

P-39 Mechano-chemical Crosstalk Induced by Microtubules in Directed Cell Migration
Yukako Nishimura[1], Tatsuki Kondo[1], Ryota Orii[2], Taketoshi Kambara[3], Kaori Kuribayashi-Shigetomi[4], Yasushi Okada[3,5,6], Hirokazu Tanimoto[2], Fumio Motegi[1]
[1,4]Hokkaido University, Japan, [2]Yokohama City University, Japan, [3]RIKEN BDR, Japan, [5,6]The University of Tokyo, Japan

P-40 The Gut Contractile Organoid: a Novel Model for Studying Contractile Rhythm and Rhythm Coordination
Yoshiko Takahash[1], Rei Yagasaki[1,2]
[1]Kyoto University, Japan, [2]University of Michigan, USA

P-41 Force Transmission Mechanisms as Revealed by Live-Cell Single-Molecule Imaging
Sawako Yamashiro, Ying Liu, Naoki Watanabe
Kyoto University, Japan

P-42 Modulating Cell Fate between Aging and Rejuvenation
Shinji Deguchi
The University of Osaka, Japan

P-43 Qualitative Analysis of Collagen Fibril Structure in Fibrosis Based on Fibril Imaging New Technique *in vitro* and *in vivo*
Yoshihiro Miwa, Junko Kijima, Syunichi Sasanuma, Tetsushi Iida, Shingo Nozaki
RIKEN BioResource Research Center, Japan

P-44 **Maintenance of ECM Resource in RIKEN DNA Bank- Collagen Full-length cDNA Resources -**
Junko Kijima, Syunichi Sasanuma, Tetsushi Iida, Shingo Nozaki, Yoshihiro Miwa
RIKEN BioResource Research Center, Japan

P-45 **Laminin-Functionalized Fibrin Gel for Three-Dimensional Culture of Stem Cells**
Yukimasa Taniguchi, Mamoru Takizawa, Ayaka Hada, Ayano Ishimaru, Kiyotoshi Sekiguchi
The University of Osaka, Japan

P-46 **Fine-tuned ChemBERTa Generalized Model for Investigating the Interaction between Polymer Materials and Proteins**
Shiwei Su, Nobuyuki Tanaka, Yoshitaka Ushiku, Koichi Takahashi
RIKEN, Japan

P-47 **Engineering Bioadaptive Nanogel-based Hydrogels for Designer Matrices**
Asako Shimoda,[1,3] Yoshihiro Sasaki,[2] Kazunari Akiyoshi[3]
[1,2,3]*Kyoto University, Japan*

P-48 **Production of Full-Length Recombinant Laminins with spERt Technology**
Tomonori Ueno, Hiromi Nagatsuka, Haruka Takahashi, Kazunori Mizuno
Nippi Research Institute of Biomatrix, Japan

P-49 **Production of Human Recombinant Triple-Helical Collagen I in CHO Cells**
Kazunori Mizuno, Tomonori Ueno, Yuki Taga, Haruki Yokoyama
Nippi Research Institute of Biomatrix, Japan

P-50 **Spatial Proteomics using AI-Assisted Laser Microdissection to Comprehensively Quantify the Absolute Abundance of ECM Proteins in Region of Interest in Tissues**
Yasuo Uchida
Hiroshima University, Japan

P-51 **Induction of Osteoid Cell Differentiation by Topological Interfaces for Regenerative Medicine**
Katsuko S Furukawa[1,2,3,4], H Jeong[3], D Kim[4], K Montagne[4], T Ushida[3,4]
[1,2]*Institute of Science Tokyo, Japan,* [3,4]*The University of Tokyo, Japan*