

Posters

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Observation of Shape and Structure

P01

The size and pulsation of actomyosin foci are regulated by colocalized RhoGAP in *C. elegans* embryos

Masashi Fujita (RIKEN Quantitative Biology Center, Japan)

P02

Cell-mediated dynamic transport and iteration of sequential mechanical cell reactions construct skeleton of demosponges

Noriko Funayama (Kyoto University, Japan)

P03

Cell boundary elongation by non-autonomous contractility in non-ratchet-like cell oscillation

Yusuke Hara (National University of Singapore, Singapore)

P04

Constructing stable 3-d cellular assembly with optical manipulation

Shu Hashimoto (Doshisha University, Japan)

P05

Analysis of cellular dynamics in left-right asymmetric rotation of *Drosophila* hindgut

Mikiko Inaki (Osaka University, Japan)

P06

Myosin IIA-dependent cortical contraction restores the apical junctional complex in adhesion-defective carcinoma cells

Shoko Ito (RIKEN Center for Developmental Biology, Japan)

P07

GEF-H1 functions in apical constriction and cell intercalations during vertebrate neural tube closure

Keiji Itoh (Icahn School of Medicine at Mount Sinai, USA)

P08

Synergistic action of nectins and cadherins establish the mosaic cellular pattern of the olfactory epithelium

Sayaka Katsunuma (Kobe University, Japan)

P09

Stepwise enlargement of mouse trachea

Keishi Kishimoto (RIKEN Center for Developmental Biology, Japan)

P10

Cellular mechanisms of epithelial invagination: morphogenetic forces and architectural preference

Takefumi Kondo (RIKEN Center for Developmental Biology, Japan)

P11

Roles of IRSp53 in shaping the kidney brush border membrane

Shusaku Kurisu (Kobe University, Japan)

P12

The cytoplasmic volume controls the spindle size and checkpoint in oocytes

Hirohisa Kyogoku (RIKEN Center for Developmental Biology, Japan)

P13

The sexually dimorphic regulation of extracellular matrix contributes to looping morphogenesis in *Drosophila*

Emi Maekawa (RIKEN Center for Developmental Biology, Japan)

P14

Four-dimensional imaging of lung epithelial stem cell in mouse development

Masafumi Noguchi (RIKEN Center for Developmental Biology, Japan)

P15

Mechanosensory genes *Pkd1* and *Pkd2* contribute to the planar polarization of brain ventricular epithelium

Shinya Ohata (The University of Tokyo, Japan)

P16

Cell Adhesion Minimization Mechanically Triggers Trophoblast Differentiation of hiPS Cells by a Self-Assembly Mediated Process

Kennedy Omondi Okeyo (The University of Tokyo, Japan)

P17

Control of apical constriction during neural tube closure by dynamic intracellular Ca²⁺ signaling

Makoto Suzuki (National Institute for Basic Biology, Japan)

P18

Blood flow and vascular remodeling: *in vivo* live-imaging analyses of individual endothelial cells

Yuta Takase (Kyoto University, Japan)

P19

Tissue repair through tension-induced cellular hypertrophy

Yoichiro Tamori (National Institute of Genetics, Japan)

P20

Regulation of cell adhesion and tissue tension during apoptosis in epithelium

Yusuke Toyama (National University of Singapore, Singapore)

P21

Tissue proliferation control by mechanical stresses

Daiki Umetsu (RIKEN Center for Developmental Biology, Japan)

Measurement of Property and State

P22

Converting spherical cell shape into torus: Role of microtubule-dependent balanced cell contraction and luminal-matrix modification

Shigeo Hayashi (RIKEN Center for Developmental Biology, Japan)

P23

Quantification of calcium ion response of single animal cells revealed by femtosecond laser-induced impulsive force

Yoichiro Hosokawa (Nara Institute of Science and Technology, Japan)

P24

Active topological defects in the collective motion of neural stem cells

Kyogo Kawaguchi (Harvard Medical School, USA)

P25

AFM Detection of Vibration of Cellular Tissue induced by Femtosecond Laser Impulse

Toshio Miyamoto (Nara Institute of Science and Technology, Japan)

P26

Beating properties of 3D layered tissue constructed from iPS cardiomyocyte

Kaoru Uesugi (Osaka University, Japan)

P27

Application of stretch-sensitive FRET sensors into *Xenopus* Embryos

Satoshi Yamashita (The University of Tokyo, Japan)

Reconstitution and Control

P28

Spatio-temporal analysis of lung branching morphogenesis by controlling two-dimensional cell positions

Masaya Hagiwara (Osaka Prefecture University, Japan)

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Origin of order in bionanostructures with implications to planar cell polarity

Vladimir L. Katanaev (University of Lausanne, Switzerland)

P30

Cell-type diversification through reconstituted lateral inhibition

Mitsuhiro Matsuda (RIKEN Quantitative Biology Center, Japan)

P31

Spatial distribution of adhesion proteins determines cell migration characteristics in microgrooved structure

Hiromi Miyoshi (RIKEN Center for Advanced Photonics, Japan)

P32

Turing pattern formation by a synthetic Nodal-Lefty signaling system in cultured cells

Ryoji Sekine (RIKEN Quantitative Biology Center, Japan)

Theory and Computational Simulation

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EpiLog: A computational framework for the logical modelling of epithelial patterning

Adrien Fauré (Yamaguchi University, Japan)

P34

Oriented cell division shapes carnivorous pitcher leaves of *Sarracenia purpurea*

Hironori Fujita (National Institute for Basic Biology, Japan)

P35

Collective cell movement driven by left-right asymmetric cell intercalation during *Drosophila* organogenesis

Tetsuya Hiraiwa (The University of Tokyo, Japan)

P36

Finite element simulation of the convex deformation of growing soft biological tissue with material anisotropy

Naoki Kida (RIKEN Quantitative Biology Center, Japan)

P37

Cell extrusion induced by geometrical and mechanical heterogeneity in growing epithelial tissues

Sang-Woo Lee (RIKEN Quantitative Biology Center, Japan)

P38

Simulating the Self-Organized Homeostasis in a Receptor-Regulated Cell-Based Model: The Non-Genetic Origin of Cancer

Yuting Lou (The University of Tokyo, Japan)

P39

Relative coordinate representation reveals biphasic nature of tissue deformation dynamics during chick limb development

Yoshihiro Morishita (RIKEN Quantitative Biology Center, Japan)

P40

Homeostatic cell shaping against heterogeneous proliferation in epithelium

Alice Tsuboi (Osaka University, Japan)

P41

Quantification and mathematical modeling of the effect of cellular movement on oscillator synchronization in vertebrate somitogenesis

Koichiro Uriu (Kanazawa University, Japan)

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Bistability of Cell Rearrangement during Tracheal Tube Elongation

Fu-Lai Wen (RIKEN Quantitative Biology Center, Japan)

P43

Emergence of collective dynamics in active biological systems

Ryoichi Yamamoto (Kyoto University, Japan)

Other

P44

Enhancers lead waves of coordinated transcription in transitioning mammalian cells

Erik Arner (RIKEN Center for Life Science Technologies, Japan)

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Light-induced protein oligomerization system for the manipulation of axonal outgrowth

Mizuki Endo (The University of Tokyo, Japan)

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Alterations of Cell Surface Mechanics upon Physical Damage

Seyed Mohammad Ali Haghparast (Osaka University, Japan)

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A mechanical model for diversified wing margin shapes among insects

Yukitaka Ishimoto (Akita Prefectural University, Japan)

P48

Comparative analysis of genome-wide chromatin interaction data and replication timing

Hisashi Miura (RIKEN Center for Developmental Biology, Japan)

P49

A draft network of ligand-receptor mediated multicellular signaling in human

Jordan A. Ramilowski (RIKEN Center for Life Science Technologies, Japan)

P50

Feedback between plasma membrane tension and membrane-bending proteins in cell migration

Kazuya Tsujita (Kobe University, Japan)