

[1AS-01]

境界を越える細胞生物学研究

Cell Biology across Boundaries

2022/11/30 09:32 ~ 2022/11/30 09:57

**【Title】**

[1AS-01-1]

Organelle quality control pathways in neurons

**【Presenter and Affiliations】** Holzbaur Erika<sup>1</sup> (1. University of Pennsylvania Perelman School of Medicine)

2022/11/30 09:57 ~ 2022/11/30 10:20

**【Title】**

[1AS-01-2]

染色体分配装置は脊椎動物の特殊な初期胚分裂にどのように適応するのか？

How does universal chromosome segregation machinery adapt to specialized cleavage divisions in vertebrate embryos?

**【Presenter and Affiliations】** 清光 智美<sup>1</sup> (1. OIST) Tomomi Kiyomitsu<sup>1</sup> (1. OIST)

2022/11/30 10:20 ~ 2022/11/30 10:45

**【Title】**

[1AS-01-3]

線虫受精卵における細胞ダイナミクスの進化と多様性

Evolution and diversity of cellular dynamics in nematode zygotes

**【Presenter and Affiliations】** 杉本 亜砂子<sup>1</sup> (1. 東北大・生命科学) Asako Sugimoto<sup>1</sup> (1. Grad. Sch. of Life Sci., Tohoku Univ.)

2022/11/30 10:45 ~ 2022/11/30 11:10

**【Title】**

[1AS-01-4]

Regeneration in the uterus

**【Presenter and Affiliations】** Kara McKinley<sup>1,2</sup> (1. Department of Stem Cell and Regenerative Biology, Harvard University 2. Harvard Stem Cell Institute)

2022/11/30 11:10 ~ 2022/11/30 11:35

**【Title】**

[1AS-01-5]

典型的な細胞プロセスを典型的でない細胞モデルで研究する

Convention and novelty - studying typical cellular processes in atypical cell models

**【Presenter and Affiliations】**

- 五島 剛太<sup>1</sup> (1. 名大・理・菅島臨海実験所)
- Goshima Gohta<sup>1</sup> (1. Sugashima Marine Biological Laboratory, Nagoya Univ.)

2022/11/30 11:35 ~ 2022/11/30 11:58

**【Title】**

[1AS-01-6]  
The phenotypic landscape of essential human genes

**【Presenter and Affiliations】**

- Iain Cheeseman<sup>1,2</sup> (1. Whitehead Institute 2. Department of Biology, MIT)

**[1AS-02]**

「標識して、集めて、見る」生体分子ラベル技術の最前線

**"Tag, catch, and see" Frontiers of biomolecular labeling technology**

2022/11/30 09:35 ~ 2022/11/30 10:10

**【Title】**

[1AS-02-1]  
近依存性標識法が解読するシナプスの空間的分子プロファイリング  
Proximity labeling of specific cell-surface *in vivo*

**【Presenter and Affiliations】**

- 高野 哲也<sup>1,2</sup> (1. 慶應大・医学・生理学 2. 科学技術振興機構・さきがけ)
- Tetsuya Takano<sup>1,2</sup> (1. Dept. of Neurophysiol., Univ. of Keio 2. PRESTO, JST)

2022/11/30 10:10 ~ 2022/11/30 10:45

**【Title】**

[1AS-02-2]  
Optimizations and applications of PUP-IT proximity labeling

**【Presenter and Affiliations】**

- Suyu Yue<sup>1</sup> ○ Min Zhuang<sup>1</sup> (1. School of Life Science and Technology, ShanghaiTech University)

2022/11/30 10:45 ~ 2022/11/30 11:20

**【Title】**

[1AS-02-3]  
Transcriptional control by low-complexity domain interactions: a single-molecule perspective

**【Presenter and Affiliations】**

- Shasha Chong<sup>1</sup> (1. Division of Chemistry and Chemical Engineering, California Institute of Technology)

2022/11/30 11:20 ~ 2022/11/30 11:55

**【Title】**

[1AS-02-4]  
生きたマウス脳内での受容体ケミカルラベルの新手法  
Chemical labeling of neurotransmitter receptors in live mice brain

**【Presenter and Affiliations】**

- 浜地 格<sup>1,2</sup> (1. 京大・院工・合成生物 2. 科学技術振興機構)

[1PS-03]

イメージング・シングルセル統合解析による細胞ダイナミクスの解析

Combinatorial single cell and imaging analyses dissecting immune cellular dynamics in vivo

2022/11/30 16:45 ~ 2022/11/30 17:15

**【Title】**

[1PS-03-1]

外的刺激に対する皮膚の免疫応答

Cutaneous immune responses to external stimuli

**【Presenter and Affiliations】**

○ 梶島 健治<sup>1</sup> (1. 京大・医・皮膚科学)

○ Kenji Kabashima<sup>1</sup> (1. Dept. of Dermatol., Grad. Sch. of Med., Kyoto Univ.)

2022/11/30 17:15 ~ 2022/11/30 17:45

**【Title】**

[1PS-03-2]

Neutrophil Heterogeneity in Tumor

**【Presenter and Affiliations】**

○ Lai Guan Ng<sup>1</sup> (1. Singapore Immunology Network)

2022/11/30 17:45 ~ 2022/11/30 18:15

**【Title】**

[1PS-03-3]

イメージングとシングルセルの統合的解析による肝臓の新規マクロファージサブセットの同定

Intravital imaging-based single cell transcriptomics identifies a novel macrophage subset in the liver

**【Presenter and Affiliations】**

○ 石井 優<sup>1</sup> (1. 阪大・生命/医・免疫細胞動態)

○ Masaru Ishii<sup>1</sup> (1. Dept. of Immunol. Cell Biol., Grad Sch. of Front. Biosci. / Medicine, Osaka Univ.)

2022/11/30 18:15 ~ 2022/11/30 18:45

**【Title】**

[1PS-03-4]

シングルセル・マルチオミクス解析手法を用いた組織老化の解析

Using single cell multi-omics to understand cellular ageing at the whole tissue level

**【Presenter and Affiliations】**

○ 蓑田 亜希子<sup>1</sup> (1. 理研・IMS・エピゲノム技術研究チーム)

○ Aki Minoda<sup>1</sup> (1. Laboratory for Cellular Epigenomics, IMS, RIKEN)

2022/11/30 18:45 ~ 2022/11/30 19:15

**【Title】**

[1PS-03-5]

シングルセル質量分析・イメージング統合解析技術の開発

Development of integrated analysis technology for single cell mass spectrometry and imaging

**【Presenter and Affiliations】**

○ 和泉 自泰<sup>1</sup> 秦 康祐<sup>1</sup> 中谷 航太<sup>1</sup> 高橋 政友<sup>1</sup> 平藤 衛<sup>2</sup> 山村 昌平<sup>3</sup> 松本 雅記<sup>4</sup> 馬場 健史<sup>1</sup> (1. 九大・生医研 2. ヨダ

力技研 3. 産総研・健康医工学 4. 新潟大院・医歯学総合)

○ Yoshihiro Izumi<sup>1</sup> Kosuke Hata<sup>1</sup> Kohta Nakatani<sup>1</sup> Masatomo Takahashi<sup>1</sup> Mamoru Hirafuji<sup>2</sup> Shohei Yamamura<sup>3</sup>  
Masaki Matsumoto<sup>4</sup> Takeshi Bamba<sup>1</sup> ( 1. Med. Inst. Bioreg. Kyushu Univ. 2. YODAKA Co., Ltd. 3. Health Med.  
Res. Inst. AIST 4. Grad. Sch. of Med. Dental Sci. Niigata Univ. )

[2AS-01]

How can physics contribute to biology?

How can physics contribute to biology?

2022/12/01 09:05 ~ 2022/12/01 09:33

**【Title】**

[2AS-01-1]

Graphene based nanomechanical resonator for single molecule protein sequencing

**【Presenter and Affiliations】**

○ Sang Wook Lee<sup>1</sup> Chrilmin Joo<sup>2,3</sup> ( 1. Department of Physics, Ewha Womans University, Seoul 03760, Republic of Korea 2. Kavli Institute of Nanoscience, Delft University of Technology, Lorentzweg 1, 2628 CJ Delft, The Netherlands 3. Department of Bionanoscience, Delft University of Technology, 2629 HZ Delft, The Netherlands )

2022/12/01 09:33 ~ 2022/12/01 10:01

**【Title】**

[2AS-01-2]

Live-cell imaging illuminates the dynamic encoding of GPCR signaling

**【Presenter and Affiliations】**

○ 青木 一洋<sup>1</sup> ( 1. 自然科学研究機構・基生研/生命創成探究センター )

○ Kazuhiro Aoki<sup>1</sup> ( 1. NINS, NIBB/ExCELLS )

2022/12/01 10:01 ~ 2022/12/01 10:29

**【Title】**

[2AS-01-3]

Light-based recruitment of a solubility tag reversibly dissolves biomolecular condensates

**【Presenter and Affiliations】**

○ Ellen Brumbaugh-Reed<sup>1,2</sup> Jared Toettcher<sup>2</sup> Kazuhiro Aoki<sup>1</sup> ( 1. Q-Bio, NIBB 2. Mol. Bio., Princeton )

2022/12/01 10:29 ~ 2022/12/01 10:57

**【Title】**

[2AS-01-4]

Mechanical and energetic adaptations associated with eco-evolutionary transitions in yeast

**【Presenter and Affiliations】**

Charuhansini Kulkarni<sup>1</sup> Nishant Narayanasamy<sup>1</sup> ○ Shashi Thutupalli<sup>1,2</sup> ( 1. Simons Centre for the Study of Living Machines, National Centre for Biological Sciences, TIFR, Bangalore, India 2. International Centre for Theoretical Sciences, TIFR, Bangalore, India )

2022/12/01 10:57 ~ 2022/12/01 11:25

**【Title】**

[2AS-01-5]

多細胞ダイナミクスや細胞内相分離現象における相互作用法則の探索

Probing the rules of interactions in multicellular dynamics and biomolecular condensates

**【Presenter and Affiliations】**

- 川口 喬吾<sup>1</sup> (1. 理研・CPR/BDR)
- Kyogo Kawaguchi<sup>1</sup> (1. RIKEN CPR/BDR)

[2AS-02]

哺乳動物・細胞の合成生物学

Mammalian Synthetic Biology

2022/12/01 09:03 ~ 2022/12/01 09:27

**【Title】**

[2AS-02-1]  
HD Video Recorder of the Cell

**【Presenter and Affiliations】**

- 谷内江 望<sup>1</sup> (1. UBC/SBME)
- Nozomu Yachie<sup>1</sup> (1. UBC/SBME)

2022/12/01 09:27 ~ 2022/12/01 09:51

**【Title】**

[2AS-02-2]  
上皮力学の計測とモデリング  
Quantifying and modelling epithelial mechanics

**【Presenter and Affiliations】**

- 杉村 薫<sup>1</sup> 石原 秀至<sup>2</sup> (1. 東大・院理・生物科学 2. 東大・院総文・広域科学)
- Kaoru Sugimura<sup>1</sup> Shuji Ishihara<sup>2</sup> (1. Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo 2. Dept. of Integ. Sci., Grad. Sch. of Arts and Sci., Univ. of Tokyo)

2022/12/01 09:51 ~ 2022/12/01 10:15

**【Title】**

[2AS-02-3]  
RNPを基盤とする翻訳制御デバイスと人工遺伝子回路を哺乳類細胞内で構築する  
Synthetic RNP-based translational modulators and genetic circuits in mammalian cells

**【Presenter and Affiliations】**

- 齊藤 博英<sup>1</sup> (1. 京大・iPS細胞研究所・未来生命科学)
- Hirohide Saito<sup>1</sup> (1. Dept. of Life Science Frontiers, Center for iPS Cell Research and Application, Kyoto Univ.)

2022/12/01 10:15 ~ 2022/12/01 10:39

**【Title】**

[2AS-02-4]  
Whole-body/organ Imaging with Single-cell Resolution for Mammalian Synthetic Biology

**【Presenter and Affiliations】**

- 上田 泰己<sup>1,2</sup> (1. 東大・院医・システムズ薬理学 2. 理研・BDR・合成生物学)
- R. Hiroki Ueda<sup>1,2</sup> (1. Systems Pharmacology, Graduate School of Medicine, University of Tokyo 2. Laboratory for Synthetic Biology, Center for Biosystems Dynamics Research, RIKEN)

2022/12/01 10:39 ~ 2022/12/01 11:03

**【Title】**

[2AS-02-5]

### 【Presenter and Affiliations】

山中 良裕<sup>1</sup> Hamidi Sofiane<sup>1</sup> 吉岡-小林 久美子<sup>1</sup> Munira Sirajam<sup>1</sup> Zhang Yi<sup>1</sup> 砂留 一範<sup>2</sup> 黒川 譲<sup>1</sup> 三枝 愛<sup>1</sup> Thomson Jamie L.<sup>3</sup> Moris Naomi<sup>3</sup> Martinez-Arias Alfonso<sup>4</sup> 山本 拓也<sup>1,2</sup> 辻村 太郎<sup>1</sup> ○ Alev Cantas<sup>1</sup> (1. 京都大学 ヒト生物学高等研究拠点 (ASHBi) 2. 京都大学 iPS細胞研究所 (CiRA) 3. The Francis Crick Institute, London, UK 4. Universidad Pompeu Fabra (UPF), Barcelona, Spain )

Yoshihiro Yamanaka<sup>1</sup> Hamidi Sofiane<sup>1</sup> Kumiko Yoshioka-kobayashi<sup>1</sup> Munira Sirajam<sup>1</sup> Zhang Yi<sup>1</sup> Kazunori Sunadome<sup>2</sup> Yuzuru Kurokawa<sup>1</sup> Ai Mieda<sup>1</sup> Thomson Jamie L.<sup>3</sup> Moris Naomi<sup>3</sup> Martinez-Arias Alfonso<sup>4</sup> Takuya Yamamoto<sup>1,2</sup> Taro Tsujimura<sup>1</sup> ○ Alev Cantas<sup>1</sup> (1. Inst. for the Advanced Study of Human Biology (ASHBi), Kyoto Univ., Kyoto, Japan 2. Center for iPS Cell Research and Application (CiRA), Kyoto Univ., Kyoto, Japan 3. The Francis Crick Institute, London, UK 4. Universidad Pompeu Fabra (UPF), Barcelona, Spain )

2022/12/01 11:03 ~ 2022/12/01 11:27

### 【Title】

[2AS-02-6]

The evolutionary basis of cell competition in embryonic development

### 【Presenter and Affiliations】

○ Nika Shakiba<sup>1</sup> (1. School of Biomedical Engineering, Univ. of British Columbia )

[2PS-01]

トランススケールイメージングが拓くシンギュラリティ生物学：生命科学研究の特異点

Singularity in bio-science research by Trans-Scale Imaging

2022/12/01 16:20 ~ 2022/12/01 16:48

### 【Title】

[2PS-01-1]

「外れ値」を科学する道具—100万以上の細胞をミクロンレベルの空間分解能でワンショット観察可能なトランススケールスコープAMATERAS—

A tool for the science of "outliers" - AMATERAS, a trans-scale scope capable of one-shot observation of more than one million cells with micro meter spatial resolution.

### 【Presenter and Affiliations】

○ 永井 健治<sup>1,2</sup> (1. 阪大・産研 2. 阪大・先導機構)

○ Takeharu Nagai<sup>1,2</sup> (1. SANKEN, Osaka Univ. 2. OTRI, Osaka Univ. )

2022/12/01 16:48 ~ 2022/12/01 17:16

### 【Title】

[2PS-01-2]

強化学習による精度保証付き迅速診断を実現するOn-the-flyラマン計測

On-the-fly Raman microscopy to accelerate the detection of singularity with guaranteeing the accuracy by reinforcement learning

### 【Presenter and Affiliations】

○ 民樹 小松崎<sup>1</sup> (1. 北大・電子研/WPI-ICReDD)

○ Komatsuzaki Tamiki<sup>1</sup> (1. Res. Inst. Electronic Sci., Hokkaido Univ./WPI-ICReDD)

2022/12/01 17:16 ~ 2022/12/01 17:44

### 【Title】

[2PS-01-3]

バイオイメージングデータの解析、管理、公開に関する情報科学技術の現状と将来展望

Current status and prospects of information science technologies for the analysis, management, and publication of bioimaging data

**【Presenter and Affiliations】**

- 大浪 修一<sup>1,2</sup> (1. 理研・BDR 2. 理研・R-IH)
- Shuichi Onami<sup>1,2</sup> (1. RIKEN BDR 2. RIKEN R-IH)

2022/12/01 17:44 ~ 2022/12/01 18:12

**【Title】**

[2PS-01-4]  
腎病変のトランススケールイメージング — 個体レベルからオルガネラレベルまで  
Trans-scale imaging of kidney injury – from whole-body scale to organelle scale

**【Presenter and Affiliations】**

- 松井 功<sup>1</sup> 松本 あゆみ<sup>1</sup> 井上 和則<sup>1</sup> 猪阪 善隆<sup>1</sup> (1. 阪大・院医・腎臓内科学)
- Isao Matsui<sup>1</sup> Ayumi Matsumoto<sup>1</sup> Kazunori Inoue<sup>1</sup> Yoshitaka Isaka<sup>1</sup> (1. Dept. of Nephrol., Grad. Sch. of Med., Osaka Univ.)

2022/12/01 18:12 ~ 2022/12/01 18:40

**【Title】**

[2PS-01-5]  
10万細胞の集団に生じる細胞間信号波の形成機構  
The onset mechanism of communication waves in a population of 100,000 cells

**【Presenter and Affiliations】**

- 堀川 一樹<sup>1</sup> (1. 徳大・先端研究セ)
- Kazuki Horikawa<sup>1</sup> (1. Adv.Res.Centr. Tokushima Univ.)

[2PS-02]

新しいRNAワールドの探究

Exploration of the new RNA world

2022/12/01 16:18 ~ 2022/12/01 16:38

**【Title】**

[2PS-02-1]  
生殖系体細胞におけるPiwi-piRISC生合成機構  
RNA helicase Vasa in piRISC biogenesis in germ cells

**【Presenter and Affiliations】**

- 塩見 美喜子<sup>1</sup> (1. 東大・院理・生物科学)
- Mikiko SIOMI<sup>1</sup> (1. Dept of Biol Sci, Grad Sch of Sci, U Tokyo)

2022/12/01 16:38 ~ 2022/12/01 17:08

**【Title】**

[2PS-02-2]  
The lncRNA SLERT regulation in the human nucleolus

**【Presenter and Affiliations】**

- Ling-Ling Chen Chen<sup>1</sup> (1. Shanghai Institute of Biochemistry and Cell Biology, Chinese Academy of Sciences)

2022/12/01 17:08 ~ 2022/12/01 17:38

**【Title】**

[2PS-02-3]  
Diversity and functional implications of long non-coding RNA structures

**【Presenter and Affiliations】**

○ Marco Marcia<sup>1</sup> (1. EMBL Grenoble, France)

2022/12/01 17:38 ~ 2022/12/01 17:58

**【Title】**

[2PS-02-4]

ノンコーディングRNAによる細胞内アーキテクチャと遺伝子制御  
Intracellular architecture and gene regulation by noncoding RNAs

**【Presenter and Affiliations】**

○ 廣瀬 哲郎<sup>1,2</sup> 二宮 賢介<sup>1</sup> 山崎 智弘<sup>1</sup> (1. 大阪大学大学院生命機能研究科 2. 大阪大学先導的学際研究機構)  
○ Tetsuro Hirose<sup>1,2</sup> Kensuke Ninomiya<sup>1</sup> Tomohiro Yamazaki<sup>1</sup> (1. Graduate School of Frontier Biosciences, Osaka University 2. Institute for Open and Transdisciplinary Research Initiatives, Osaka University)

2022/12/01 17:58 ~ 2022/12/01 18:18

**【Title】**

[2PS-02-5]

RNA修飾と神経機能を繋ぐRNA顆粒と微小管  
m6A signal and its readers on neuronal microtubule RNA granules and neurodevelopment

**【Presenter and Affiliations】**

○ 王 丹<sup>1,2</sup> Broix Loic<sup>1</sup> Roy Rohini<sup>2</sup> (1. 理研 2. 京大・生命)  
○ Dan Ohtan Wang<sup>1,2</sup> Broix Loic<sup>1</sup> Roy Rohini<sup>2</sup> (1. RIKEN BDR 2. Kyoto U, Biostudies)

2022/12/01 18:18 ~ 2022/12/01 18:38

**【Title】**

[2PS-02-6]

RNA修飾によるエピトランスクリプトミクス制御と生理機能  
Epitranscriptomic regulation by RNA modification and physiological relevance

**【Presenter and Affiliations】**

○ 鈴木 勉<sup>1</sup> (1. 東大・院工・化生)  
○ Tsutomu Suzuki<sup>1</sup> (1. Dept. of Chem. & Biotech., Grad. Sch. of Eng., Univ. of Tokyo)

**[3AS-01]****分子モーターの物理生物学****Physicobiology of motor proteins**

2022/12/02 09:00 ~ 2022/12/02 09:30

**【Title】**

[3AS-01-1]

分子モーターによる神経細胞軸索輸送の極値統計解析  
Extreme-value analysis of intracellular cargo transport by motor proteins

**【Presenter and Affiliations】**

○ 林 久美子<sup>1</sup> (1. 東北大・院工・応物)  
○ Kumiko Hayashi<sup>1</sup> (1. Dept. of Appl. Phys., Grad. Sch. of Eng., Tohoku Univ.)

2022/12/02 09:30 ~ 2022/12/02 10:00

**【Title】**

[3AS-01-2]

Learning the Chemo-Mechanical Model from Single Motor Freely Rotary Assay



**【Presenter and Affiliations】**

Chun-Biu Li<sup>1</sup> (1. Dept. of Math., Stockholm Univ.)

2022/12/02 10:00 ~ 2022/12/02 10:30

**【Title】**

[3AS-01-3]

心臓シミュレータUT-Heartが解き明かす心拍動における分子モータ協調性の役割

UT-Heart simulator reveals the roles of coordinated molecular motor dynamics in heart pumping

**【Presenter and Affiliations】**

鷲尾 巧<sup>1</sup> (1. (株)UT-Heart)

Takumi Washio<sup>1</sup> (1. UT-Heart Inc.)

2022/12/02 10:30 ~ 2022/12/02 11:00

**【Title】**

[3AS-01-4]

情報理論と熱力学で解き明かす二足歩行型分子モーターの普遍的メカニズム

Universal mechanism of dimeric motors: Information theory and thermodynamics

**【Presenter and Affiliations】**

高木 涼太<sup>1</sup> (1. Max Planck Institute for the Physics of Complex Systems)

Ryota Takaki<sup>1</sup> (1. Max Planck Institute for the Physics of Complex Systems)

2022/12/02 11:00 ~ 2022/12/02 11:30

**【Title】**

[3AS-01-5]

ベイズ推定によるモータータンパク質の化学力学共役メカニズム

Bayesian inference approach to chemo-mechanical coupling mechanism of motor proteins

**【Presenter and Affiliations】**

岡崎 圭一<sup>1</sup> (1. 分子研)

Kei-ichi Okazaki<sup>1</sup> (1. IMS)

[3AS-02]

WPI学際生命科学合同シンポジウム

WPI joint symposium for interdisciplinary life sciences

2022/12/02 09:05 ~ 2022/12/02 09:33

**【Title】**

[3AS-02-1]

Establishment of a novel platform of Raman microscope for diagnosis of hydrogel-generated cancer stem cells.

**【Presenter and Affiliations】**

Jean-Emmanuel Clement<sup>1</sup> Zannatul Ferdous<sup>1</sup> Koji Tabata<sup>2</sup> Shinya Tanaka<sup>1</sup> Jian Ping Gong<sup>1</sup> Katsumasa Fujita<sup>3</sup>

Tamiki Komatsuzaki<sup>1</sup> (1. ICRoDD, Hokkaido University 2. Research Institute for Electronic Science, Hokkaido University 3. Laboratory for Scientific Instrumentation and Engineering, Osaka University)

2022/12/02 09:33 ~ 2022/12/02 10:01

**【Title】**

[3AS-02-2]

SWEET transporter: physiological functions and its agricultural use

### 【Presenter and Affiliations】

- 中村 匡良<sup>1</sup> (1. 名古屋大学・ITbM)
- Masayoshi Nakamura<sup>1</sup> (1. ITbM, Nagoya Univ.)

2022/12/02 10:01 ~ 2022/12/02 10:29

### 【Title】

[3AS-02-3]  
Assembly of proteins into oligomeric structures on lipid membranes, leading to cell death or survival

### 【Presenter and Affiliations】

- Neval Yilmaz<sup>1</sup> (1. NanoLSI, Kanazawa Univ.)

2022/12/02 10:29 ~ 2022/12/02 10:57

### 【Title】

[3AS-02-4]  
Geo-electrocatalysis drove organic conversions for chemical evolution on Earth and icy planetesimals

### 【Presenter and Affiliations】

○ Yamei Li<sup>1</sup> Norio Kitadai<sup>1 2</sup> Yasuhito Sekine<sup>1 3</sup> Hiroyuki Kurokawa<sup>1</sup> Yuko Nakano<sup>1</sup> Kristin Johnson-Finn<sup>1</sup> (1. Earth-Life Science Institute, Tokyo Institute of Technology 2. Institute for Extra-cutting-edge Science and Technology Avant-garde Research, JAMSTEC 3. Institute of Nature and Environmental Technology, Kanazawa Univ.)

2022/12/02 10:57 ~ 2022/12/02 11:25

### 【Title】

[3AS-02-5]  
次世代DNAシーケンシングと分子動力学計算の融合によるゲノムの3次元分子構造解析  
3D molecular structure analysis of the genome by coupling next-generation DNA sequencing and molecular dynamics simulation

### 【Presenter and Affiliations】

- 谷口 雄一<sup>1</sup> (1. 京大・高等研究院・iCeMS)
- Yuichi Taniguchi<sup>1</sup> (1. iCeMS, Kyoto University)

[3PS-01]

健康・疾患におけるエピゲノムの役割

Role of epigenetic regulation in mammalian health and disease

2022/12/02 16:18 ~ 2022/12/02 16:47

### 【Title】

[3PS-01-1]  
Reprogramming epigenetic crosstalk and genome modification in disease

### 【Presenter and Affiliations】

- Ji Min Lee<sup>1</sup> (1. Grad. Sch. of Medical Sci. and Eng., KAIST)

2022/12/02 16:47 ~ 2022/12/02 17:16

### 【Title】

[3PS-01-2]  
精子幹細胞の増殖・未分化性維持制御におけるエピゲノム調節

**【Presenter and Affiliations】**

福田 裕子<sup>1</sup> 井上 絵里奈<sup>1</sup> 古賀 千津子<sup>1</sup> 牧野 吉倫<sup>1</sup> 小川 泰弘<sup>2</sup> 後藤 由季子<sup>3</sup> ○岡田 由紀<sup>1</sup> (1. 東京大学定量生命科学研究所 2. 明治薬科大学 3. 東京大学薬学系研究科)

Yuko Fukuda<sup>1</sup> Erina Inoue<sup>1</sup> Chizuko Koga<sup>1</sup> Yoshinori Makino<sup>1</sup> Yasuhiro Ogawa<sup>2</sup> Yukiko Gotoh<sup>3</sup> ○Yuki Okada<sup>1</sup>  
(1. Institute for Quantitative Biosciences, The University of Tokyo 2. Meiji Pharmaceutical University 3. Graduate School of Pharmaceutical Sciences, The University of Tokyo)

2022/12/02 17:16 ~ 2022/12/02 17:45

**【Title】**

[3PS-01-3]

マウス性決定における鉄代謝経路の役割  
Role of iron metabolism in mouse sex determination

**【Presenter and Affiliations】**

○立花 誠<sup>1</sup> (1. 阪大・院生命)  
○Makoto Tachibana<sup>1</sup> (1. FBS, Osaka Univ.)

2022/12/02 17:45 ~ 2022/12/02 18:14

**【Title】**

[3PS-01-4]

Deciphering Epigenetic Code in Autophagy

**【Presenter and Affiliations】**

○Sung Hee Baek<sup>1</sup> (1. Dept. of Biol. Sci., Seoul Natl. Univ.)

2022/12/02 18:14 ~ 2022/12/02 18:43

**【Title】**

[3PS-01-5]

妊娠期における母体腸内細菌は子のメタボリックシンドローム感受性に影響を与える  
Maternal gut microbiota in pregnancy influences susceptibility to metabolic syndrome in offspring

**【Presenter and Affiliations】**

○長谷 耕二<sup>1,2</sup> (1. 慶大・薬 2. 福大・発酵醸造研)  
○Koji Hase<sup>1,2</sup> (1. Fac. of Pham., Univ. of Tokyo 2. IFeS, Univ. of Fukushima)

[3PS-02]

多細胞システムの発生メカニクス

Cell and Tissue Mechanics in Development

2022/12/02 16:17 ~ 2022/12/02 16:40

**【Title】**

[3PS-02-1]

Mechano-chemical feedbacks in embryonic patterning

**【Presenter and Affiliations】**

○茂木 文夫<sup>1</sup> (1. 北海道大学・遺制研)  
○Fumio MOTEGI<sup>1</sup> (1. Inst. for Gen. Med., Hokkaido Univ.)

2022/12/02 16:40 ~ 2022/12/02 17:05

**【Title】**

[3PS-02-2]

ERK-mediated Curvature Feedback Regulates Branching Morphogenesis in Lung Epithelial Tissue

**【Presenter and Affiliations】**

○ Tsuyoshi Hirashima<sup>1,2</sup> ( 1. Mechanobiology Institute, National University of Singapore 2. JST PRESTO )

2022/12/02 17:05 ~ 2022/12/02 17:30

**【Title】**

[3PS-02-3]

Mechanics of vascular tube formation and diameter regulation

**【Presenter and Affiliations】**

○ Li-Kun Phng<sup>1</sup> ( 1. RIKEN Center for Biosystems Dynamics Research )

2022/12/02 17:30 ~ 2022/12/02 17:55

**【Title】**

[3PS-02-4]

脳発生におけるニューロン3D遊走は複数の動力で制御される  
3D neuronal migration driven by multiple engines

**【Presenter and Affiliations】**

○ 見學 美根子<sup>1</sup> 中澤 直高<sup>1</sup> ( 1. 京大・高等研究院・アイセムス )

○ Mineko Kengaku<sup>1</sup> Naotaka Nakazawa<sup>1</sup> ( 1. iCeMS, Kyoto Univ. Inst. Adv. Study )

2022/12/02 17:55 ~ 2022/12/02 18:20

**【Title】**

[3PS-02-5]

多細胞システムの時空間調整機構  
Multicellular coordination in context

**【Presenter and Affiliations】**

○ 柗 卓志<sup>1</sup> ( 1. Institute for the Advanced Study of Human Biology, Kyoto University )

○ Takashi Hiiragi<sup>1</sup> ( 1. Hubrecht Institute, Utrecht, Netherlands )

2022/12/02 18:20 ~ 2022/12/02 18:45

**【Title】**

[3PS-02-6]

The impact of chronic osmotic stress on mammalian cell growth and genome stability

**【Presenter and Affiliations】**

○ Li Rong<sup>1</sup> ( 1. Mechanobiology Institute, National University of Singapore )