

第 1 日目 (9 月 16 日 (水)) / Day 1 (Sep. 16 Wed.)

13:30~16:00

1YA 日本生物物理学会若手奨励賞選考会

Early Research in Biophysics Award Candidate Presentations

オーガナイザー：男女共同参画・若手支援委員会

Organizer: Promotion of Gender Equality and Young Researchers Committee

Biophysical Society of Japan (BSJ) grants “Early Career Award in Biophysics” and “Early Career Presentation Award” to young BSJ members for their excellent presentations that show great potential to contribute to the progress of biophysics. In this 16th year, we received 25 highly qualified applications. After the first round of competitive screening based on submitted documents, the applicants were selected as the young invited speakers. In this symposium, each speaker will make 10-minute presentation followed by 3-minute discussion as the second round of screening. Up to five awardees of the Early Career Award in Biophysics will be selected. The Early Career Presentation Award will be given to the rest of the excellent invited speakers.

13:30 Jakia Jannat Keya [20227G](#)

1YA1330 Autonomous molecular swarm robots realized by sequential transfer of DNA signal

Jakia Jannat Keya¹, Yuta Yamasaki², Kazuki Sada¹, Akinori Kuzuya², Akira Kakugo¹ (¹*Hokkaido University*, ²*Kansai University*)

13:45 村上 光 [20250H](#)

1YA1345 1 細胞自律的な細胞内温度制御の分子機構

A cell-autonomous control of intracellular temperature by mitochondrial thermogenesis

○村上 光^{1,2}, 長尾 耕治郎¹, 坂口 怜子¹, 岡部 弘基², 原田 慶恵³, 梅田 眞郷¹ (¹京大・院工・合成・生物化学, ²東大・院薬, ³阪大・蛋白研)

Akira Murakami^{1,2}, Kohjiro Nagao¹, Reiko Sakaguchi¹, Kohki Okabe², Harada Yoshie³, Masato Umeda¹ (¹*Dept. of Synth. Chem. And. Biol. Chem., Grad. Sch. of Eng., Kyoto Univ.*, ²*Grad. Sch. of Pharm. Sci., Univ. of Tokyo*, ³*Inst. for Protein Res., Osaka Univ.*)

14:00 大貫 隼 [20121A](#)

1YA1400 非リボソーム分子機械によるペプチド合成の静電的ラチェット機構

Electrostatic ratcheting mechanism of peptide synthesis by non-ribosomal molecular machine

○大貫 隼, 高野 光則 (早大・物理応物)

Jun Ohnuki, Mitsunori Takano (*Dept. of Pure & Appl. Phys., Waseda Univ.*)

14:15 岡畑 美咲 [20343K](#)

1YA1415 線虫 *C. elegans* を用いた異なる感覚情報の統合に関わる神経回路モデル

The model of neural circuit integrating different sensory information in *C. elegans*

○岡畑 美咲¹, Wei Aguan D.², 太田 茜¹, 久原 篤^{1,3} (¹甲南大統合ニューロバイオロジー研究所, ²SEA Children's Research Inst., ³日本医療研究開発機構)

Misaki Okahata¹, Aguan D. Wei², Akane Ohta¹, Atsushi Kuhata^{1,3} (¹*Inst. for Integrative Neurobio., Konan Univ.*, ²*SEA Children's Research Inst.*, ³*AMED-PRIME*)

- 14:30 佐藤 航 [20086A](#)
 1YA1430 シトクロム *c* が仲介する多段階電子伝達反応における呼吸鎖超複合体形成の機能的意義
 Functional significance of formation of respiratory supercomplex for multiple electron transfer reaction mediated by cytochrome *c*
 ○佐藤 航, Brzezinski Peter (ストックホルム大 院理)
 Wataru Sato, Peter Brzezinski (*Stockholm Univ. Fac. of Nat. Sci.*)
- 14:45 志甫谷 渉 [20042A](#)
 1YA1445 ヘリオロドプシンおよびシゾロドプシンの構造から明らかになった微生物型ロドプシンの多様性
 Structures of heliorhodopsin and schizorhodopsin elucidate the structural diversity of microbial rhodopsins
 ○志甫谷 渉¹, 井上 圭一², マニッシュ シン³, 樋口 昌光¹, 今野 雅恵², 吉住 玲³, 内橋 貴之⁴, 神取 秀樹³, 濡木 理¹ (¹東大院理生物, ²東大物性研, ³名工大院工生命, ⁴名大院理物理)
 Wataru Shihoya¹, Keiichi Inoue², Singh Manish³, Akimitsu Higuchi¹, Masae Konno², Rei Yoshizumi³, Takayuki Uchihashi⁴, Hideki Kandori³, Osamu Nureki¹ (¹*Dept. of Biol., Grad. Sch. Sci, Univ. of Tokyo*, ²*ISSP, Univ. of Tokyo*, ³*Life Sci. Appl. Chem., Grad. Sch. Eng., NIT*, ⁴*Dept. of Phys., Grad. Sch. Sci, Nagoya Univ.*)
- 15:00 下林 俊典 [20248H](#)
 1YA1500 細胞内脂肪滴の普遍的相挙動
 Liquid-liquid crystal phase transitions in intracellular lipid droplets
 ○下林 俊典¹, 大崎 雄樹² (¹プリンストン大・化学生物工学, ²名大・院医学)
 Shunsuke F. Shimobayashi¹, Yuki Ohsaki² (¹*Chemical Biological Engineering, Princeton Univ.*, ²*Grad. Sch. Med., Nagoya Univ.*)
- 15:15 田村 康一 [20025A](#)
 1YA1515 Theoretical Study on the Transport Cycle of the Heme ABC Transporter BhuUV-T
 Koichi Tamura¹, Yuji Sugita^{1,2,3} (¹*RIKEN R-CCS*, ²*RIKEN BDR*, ³*RIKEN CPR*)
- 15:30 植木 紘史 [20530S](#)
 1YA1530 2光子生体イメージングでみるインフルエンザウイルス感染肺
 In vivo imaging of the cellular pathophysiology in influenza virus-infected mouse lung
 ○植木 紘史¹, 河岡 義裕^{1,2,3} (¹東大医科研 ウイルス感染分野, ²東大医科研 感染症国際研究センター 高病原性感染症系, ³Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin-Madison.)
 Hiroshi Ueki¹, Yoshihiro Kawaoka^{1,2,3} (¹*Division of Virology, Department of Microbiology and Immunology, Institute of Medical Science, University of Tokyo*, ²*Department of Special Pathogens, International Research Center for Infectious Diseases, Institute of Medical Science, University of Tokyo*, ³*Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin-Madison*)
- 15:45 山本 詠士 [20326I](#)
 1YA1545 Effect of lipid quality on the association of membrane bound proteins with phosphoinositide-containing membranes
 Eiji Yamamoto¹, Junko Sasaki², Takehiko Sasaki², Mark S. P. Sansom³ (¹*Department of System Design Engineering, Keio University*, ²*Medical Research Institute and Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University*, ³*Department of Biochemistry, University of Oxford*)