第 18 回 若手奨励賞招待講演　The 18th Early Career Award in Biophysics Candidate Presentations

1 日目（9 月 28 日（水））／Day 1（Sep. 28 Wed.）

09:00〜11:30
1YF　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

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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 18th year, we received 56 highly qualified applications. After the first round of competitive screening based on submitted documents, the following ten applicants were selected as candidates for Early Career Award in Biophysics. In this symposium, each speaker will give a 10-minute presentation followed by a 3-minute discussion as the second round of screening. Up to five awardees of the Early Career Award in Biophysics will be selected. The best presenter will also be awarded IUPAB award from International Union of Pure and Applied Biophysics. The Early Career Presentation Award will be given to the rest of the excellent invited speakers. We welcome all the BSJ members to attend this symposium to foresee the future of biophysics in Japan through the speakers and their research.

9:00　Chiba　Kyoko　3Pos134
1YF0900
KIF5A の ALS 関連遺伝子変異は KIF5A のオリゴマー化と凝集を促進し神経毒性を引き起こす
An ALS-associated KIF5A mutant forms oligomers and aggregates and induces neuronal toxicity
○千葉 杏子 [1], 中野 朱莉 [2], 丹羽 伸介 [1]（[1] 東北大・学際研, [2] 東北大・院生命）
Kyoko Chiba[1], Juri Nakano[2], Shinsuke Niwa[1] ([1]*FRIS, Tohoku Univ.*, [2]*Grad. Sch. of Life Sci., Tohoku Univ.*)

9:15　Furuike　Yoshihiko　2Pos013
1YF0915
原子分解能でみた概日時計の朝夕昼夜
Visualizing a Day of Circadian Clock at Atomic Resolution
○古池 美彦 [1,2], 向山 厚 [1,2], 山下 栄樹 [3], 近藤 孝男 [4], 秋山 修志 [1,2]（[1] 分子科学研究所　協奏分子システム研究センター, [2] 総合研究大学院大学, [3] 大阪大学 蛋白質研究所, [4] 名古屋大学大学院 理学研究科）
Yoshihiko Furuike[1,2], Atsushi Mukaiyama[1,2], Eiki Yamashita[3], Takao Kondo[4], Shuji Akiyama[1,2] ([1]*Research Center of Integrative Molecular Systems (CIMoS), Institute for Molecular Science (IMS)*, [2]*The Graduate University for Advanced Studies (SOKENDAI)*, [3]*Institute for Protein Research (IPR), Osaka University*, [4]*Graduate School of Science, Nagoya University*)

9:30　Hanazono　Yuya　1Pos024
1YF0930
高分解能中性子構造解析によるペプチド結合の平面性の再検討
Revisiting the peptide bond planarity by high-resolution neutron structure
○花園 祐矢 [1,2,3], 平野 優 [2,4], 竹田 一旗 [1], 日下 勝弘 [5], 玉田 太郎 [2], 三木 邦夫 [1]（[1] 京大・院理, [2]QST・量子生命, [3] 東京医科歯科大・難治疾患, [4]JST・さきがけ, [5] 茨城大・フロンティア）
Yuya Hanazono[1,2,3], Yu Hirano[2,4], Kazuki Takeda[1], Katsuhiro Kusaka[5], Taro Tamada[2], Kunio Miki[1] ([1]*Grad. Sch. Sci., Kyoto Univ.*, [2]*Inst. Quant. Lif. Sci., QST*, [3]*Med. Res. Inst., Tokyo Med. Dent. Univ.*, [4]*PRESTO, JST*, [5]*Front. Res. Cent. for Appl. Atom. Sci., Ibaraki Univ.*)

9:45 Jia Tony Z 1Pos238

1YF0945 Cationic Polyester Microdroplets as RNA-containing Protocells

Tony Z Jia[1,2], Niraja V. Bapat[1,3], Ajay Verma[3], Irena Mamajanov[1], H. James Cleaves II[1,2], Kuhan Chandru[4] ([1]*Earth-Life Science Institute, Tokyo Institute of Technology*, [2]*Blue Marble Space Institute of Science*, [3]*Department of Biology, Indian Institute of Science Education and Research*, [4]*Space Science Centre (ANGKASA), Institute of Climate Change, National University of Malaysia*)

10:00 Katoh Takanobu A 2Pos131

1YF1000 **マウスノード不動繊毛は変形の向きを感知して左右軸を決定する: 非対称性を生み出すメカニカルな機構**

Mouse nodal immotile cilia sense bending direction for left-right determination: Mechanical regulation in initiation of symmetry breaking

○加藤 孝信 [1], 大森 俊宏 [2], 水野 克俊 [3], 板橋 岳志 [1], 岩根 敦子 [1], 石川 拓司 [2], 岡田 康志 [1,4], 西坂 崇之 [5], 濱田 博司 [1]（[1] 理研・BDR, [2] 東北大・院・工学, [3] 福井大・医, [4] 東大・院・医, 院・理, UBI, WPI-IRCN, [5] 学習院大・理）

Takanobu A Katoh[1], Toshihiro Omori[2], Katsutoshi Mizuno[3], Takeshi Itabashi[1], Atsuko H. Iwane[1], Takuji Ishikawa[2], Yasushi Okada[1,4], Takayuki Nishizaka[5], Hiroshi Hamada[1] ([1]*BDR, Riken*, [2]*Grad. Sch. Eng., Tohoku Univ.*, [3]*Fac. Med. Sci., Univ. of Fukui*, [4]*Grad. Sch. Med., Grad. Sch. Sci., UBI, WPI-IRCN, The Univ. of Tokyo*, [5]*Fac. Sci., Gakushuin Univ.*)

10:15 Kobayashi Hotaka 1Pos118

1YF1015 **microRNA の機能発現を 1 細胞 1 分子レベルで可視化する新規技術の開発**

In situ single-molecule imaging of microRNA function

○小林 穂高 [1,2]（[1]JST さきがけ, [2] 東京大学 定量生命科学研究所）

Hotaka Kobayashi[1,2] ([1]*JST PRESTO*, [2]*IQB, The University of Tokyo*)

10:30 Motomura Haruka 2Pos216

1YF1030 **全身を周回する神経回路が腸の脂質含量を調節する**

Whole-body neural circuit regulates intestinal fat storage

○本村 晴佳 [1,2], 五百藏 誠 [1,2], 村上 一寿 [1,2], 久原 篤 [1,2,3], 太田 茜 [1,2]（[1] 甲南大・院自然科学, [2] 甲南大学統合ニューロバイオロジー研究所, [3]PRIME, AMED）

Haruka Motomura[1,2], Makoto Ioroi[1,2], Kazutoshi Murakami[1,2], Atsushi Kuhara[1,2,3], Akane Ohta[1,2] ([1]*Grad. Sch of Nat. Sci., Konan Univ.*, [2]*Ins. integrative Neurobio., Konan Univ., Japan*, [3]*PRIME, AMED*)

10:45 Okimura Chika 3Pos146

1YF1045 **魚類ケラトサイトのストレスファイバ直動回転変換メカニズム**

Linear contraction of stress fibers kicks the substratum for their rotation

○沖村 千夏 [1], 秋山 珠祐 [1], 櫻井 建成 [2], 岩楯 好昭 [1]（[1] 山口大・理, [2] 武蔵野大・工）

Chika Okimura[1], Shu Akiyama[1], Tatsunari Sakurai[2], Yoshiaki Iwadate[1] ([1]*Dept.Biol., Yamaguchi Univ.*, [2]*Dept.Math.Eng., Musashino Univ.*)

11:00 Yamagishi Jumpei 2Pos280

1YF1100 **ミクロ経済学としての代謝制御の理解：ワールブルク効果とギッフェン財を例として**

Microeconomics of Metabolism: The Warburg effect as Giffen behavior

○山岸 純平, 畠山 哲央（東京大・院総合文化）

Jumpei Yamagishi, Tetsuhiro Hatakeyama (*Grad. Sch. of Arts and Sci., Univ. Tokyo*)

11:15　Yoneda　Yusuke　1Pos223

1YF1115　**励起子電荷分離混成が酸素発生型光合成を駆動する**

Exciton-charge transfer mixing drives oxygenic photosynthesis

○米田 勇祐[1,2,3], Arsenault Eric A.[1,2], Yang Shiun-Jr[1,2], Orcutt Kaydren[1,2], Iwai Masakazu[1,2], Fleming Graham R.[1,2]（[1] カリフォルニア大学バークレー校, [2] ローレンスバークレー国立研究所, [3] 分子科学研究所）

Yusuke Yoneda[1,2,3], Eric A. Arsenault[1,2], Shiun-Jr Yang[1,2], Kaydren Orcutt[1,2], Masakazu Iwai[1,2], Graham R. Fleming[1,2] ([1]*University of California, Berkeley*, [2]*Lawrence Berkeley National Laboratory*, [3]*Institute for Molecular Science*)