

若手招待講演 Early Research in Biophysics Award

第1日目 (9月25日(木)) / Day 1 (Sep. 25 Thu.)

9:45~12:15 A会場 / Room A : Mid-sized Hall 1/2

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: The Committee of Promoting Gender Equality and Young Scientists

In 2005, the Biophysical Society of Japan has established Early Research in Biophysics Award to recognize distinguished research work by young members of the BSJ. In this tenth year, we received 32 highly qualified applications. After extremely competitive first round of screening based on written application forms, the following ten applicants were selected as the "young guest speakers." For the second round of the nomination, each young speaker will be asked to make a 10-minute presentation followed by 3-minute Q&A discussion. At the end of these rounds, up to five award winners will be selected. The award winners will be announced at the banquet in the evening of Friday 26th September, and the winners will deliver a short talk. We welcome all the BSJ members to attend the oral presentations on Thursday 25th September at the Early Research in Biophysics Award Candidate Presentations and would like the members to foresee the future of biophysics in Japan through these speakers and their researches.

09:45 戎家 美紀 1P135

1YA0945 細胞間に非対称性を生み出すしくみの再構成

Reconstitution of an intercellular symmetry breaking mechanism

松田 充弘¹, 古賀 牧土¹, Woltjen Knut², 西田 栄介³, ○戎家 美紀¹ (¹理研CDB, ²京都大学 CiRA, ³京都大学 生命科学研究科)

Mitsuhiro Matsuda¹, Makito Koga¹, Knut Woltjen², Eisuke Nishida³, **Miki Ebisuya**¹ (¹RIKEN CDB, ²CiRA, Kyoto Univ, ³Grad Sch of Biostudies, Kyoto Univ)

10:00 小井川 浩之 3P056

1YA1000 タンパク質の高速折り畳みダイナミクスの一分子追跡を目指したライン共焦点顕微鏡の開発

Development of the line confocal system for the single molecule tracking of fast folding dynamics of proteins

○小井川 浩之¹, 鎌形 清人¹, 新井 宗仁², 深澤 宏仁^{3,4}, 横田 浩章⁴, 井出 徹⁵, 高橋 聡¹ (¹東北大 多元研, ²東大・院 総合文化, ³浜松ホトニクス, ⁴光産業創成大学院大, ⁵岡山大・院自然科学)

Hiroyuki Oikawa¹, Kiyoto Kamagata¹, Munehito Arai², Atsuhito Fukasawa^{3,4}, Hiroaki Yokota⁴, Toru Ide⁵, Satoshi Takahashi¹ (¹IMRAM, Tohoku Univ., ²Grad. Sch. Arts. Sci., Univ. Tokyo, ³Hamamatsu Photonics, ⁴GPI, ⁵Grad. Sch. Nat. Sci. and Tech., Okayama Univ)

10:15 岡崎 圭一 1P147

1YA1015 **Multiscale analysis of functional motions in F1-ATPase: From Pi release to elasticity and friction of γ -subunit rotation**

Kei-ichi Okazaki, Gerhard Hummer (*Max Planck Institute of Biophysics*)

10:30 岡本 章玄 2P107

1YA1030 プロトン駆動力を細胞外へと捨てる微生物外膜タンパク質

Proton discarded to cell exterior via outer-membrane bound enzyme

○岡本 章玄, Kalathil Shafeer, 徳納 吉秀, 橋本 和仁 (東大院工)

Akihiro Okamoto, Shafeer Kalathil, Yoshihide Tokunou, Kazuhito Hashimoto (*Grad. Sch. Eng., Univ. of Tokyo*)

10:45 近藤 徹 1P252

1YA1045 光合成反応中心タンパク質の極低温単一分子分光

Single-molecule spectroscopic study of photosynthetic reaction center at 6 K

○近藤 徹¹, 武藤 梨沙², 栗栖 源嗣², 大岡 宏造³, 藤芳 暁¹, 松下 道雄¹ (¹東工大・理工, ²阪大・蛋白研, ³阪大・理)

Toru Kondo¹, Risa Mutoh², Genji Kurisu², Hirozo Oh-oka³, Satoru Fujiyoshi¹, Michio Matsushita¹ (¹Grad. Sch. Sci. and Eng., Tokyo Tech., ²Institute for Protein Research, Osaka Univ., ³Grad. Sch. Sci., Osaka Univ.)

- 11:00 齊藤 圭亮 1P254
1YA1100 光合成光化学系IIにおけるMnCaクラスターの歪んだ椅子型構造の起源
Origin of the distorted-chair structure of the MnCa cluster in photosystem II
○齊藤 圭亮^{1,2}, 石北 央¹ (1東大・院工・応化, 2JSTさきがけ)
Keisuke Saito^{1,2}, Hiroshi Ishikita¹ (1*Dep. App. Chem., Grad. Schol. Eng., Univ. Tokyo*, 2*JST PRESTO*)
- 11:15 藤井 聡志 2P089
1YA1115 膜たんぱく質の進化学的手法、リボソームディスプレイ法による α -ヘモリシンのin vitro分子進化
Directed evolution of membrane protein, alpha hemolysin, by development of liposome display method
○藤井 聡志¹, 松浦 友亮^{1,2}, 角南 武志^{1,3}, 数田 恭章¹, 四方 哲也^{1,3,4} (1科学技術振興機構, 2大阪大・院・工学, 3大阪大・院・情報科学, 4大阪大・院・生命)
Satoshi Fujii¹, Tomoaki Matsuura^{1,2}, Takeshi Sunami^{1,3}, Yasuaki Kazuta¹, Tetsuya Yomo^{1,3,4} (1*JST*, 2*Grad. Eng. Univ. Osaka*, 3*Grad. Bioinfo. Univ. Osaka*, 4*Grad. Fron. BioSci. Univ. Osaka*)
- 11:30 谷中 冴子 2P064
1YA1130 NMRを用いた動的構造解析により明らかとなったヒト主要組織適合複合体のペプチド認識、及び構造維持機構
The Dynamic stabilization and peptide recognition mechanism of Human Leukocyte Antigen revealed by NMR relaxation dispersion analysis
○谷中 冴子^{1,2}, 菅瀬 謙治¹, 上野 貴将⁴, 津本 浩平^{2,3} (1(公財)サントリー生命科学財団, 2東大・新領域, 3東大院・工学系研究科, 4熊大・エイズ研)
Saeko Yanaka^{1,2}, Kenji Sugase¹, Takamasa Ueno⁴, Kouhei Tsumoto^{2,3} (1*Sunbor*, 2*Grad. School of Frontier Sciences, Univ. of Tokyo*, 3*Grad. School of Engineering, Univ. of Tokyo*, 4*Center for AIDS Research*)
- 11:45 山元 淳平 2P249
1YA1145 (6-4)光回復酵素による2光子DNA修復の分子メカニズム
Molecular mechanism of the two photon DNA repair by the (6-4) photolyase
○山元 淳平¹, 清水 幸平¹, 藤原 智子², 藤堂 剛², Plaza Pascal³, Brettel Klaus⁴, 岩井 成憲¹ (1阪大院基礎工, 2阪大院医, 3ENS Paris, France, 4CEA Saclay, France)
Junpei Yamamoto¹, Kohei Shimizu¹, Tomoko Fujiwara², Takeshi Todo², Pascal Plaza³, Klaus Brettel⁴, Shigenori Iwai¹ (1*Grad. Sch. Eng. Sci., Osaka Univ.*, 2*Grad. Sch. Med., Osaka Univ.*, 3*ENS Paris, France*, 4*CEA Saclay, France*)
- 12:00 杉村 薫 1P134
1YA1200 組織応力の異方性が細胞の六角格子化を促進する
Anisotropic tissue stress promotes ordering in hexagonal cell packing
○杉村 薫¹, 井川 敬介¹, 石原 秀至³ (1京大, 2JST・さきがけ, 3明治大)
Kaoru Sugimura¹, Keisuke Ikawa¹, Shuji Ishihara³ (1*Kyoto Univ.*, 2*JST PRESTO*, 3*Meiji Univ.*)