

ポスターセッション

討論時間 P2801 ~ P2847 奇数番号:7/28 17:00 ~ 18:00 偶数番号:7/28 18:00 ~ 19:00

P2801 Inventing *in silico* spot method (peptide tips for identify peptide epitope) by automatization of Autodock3.0

Taiki KOJIMA¹, Katsuyoshi SAKAGUCHI²

(Aichi Cancer Center, Department of Gastroenterological Surgery¹ KLIMERS, Laboratory of Bioinformatics²)

P2802 Drug-resistant Mechanism of Human Immunodeficiency Virus Type-1 Protease - Investigation by Molecular Dynamics Simulation -

Hiroataka OHDE¹, Masayuki HATA¹, Saburo NEYA¹, Wataru SUGIURA², Tyuji HOSHINO¹

(Graduate School of Pharmaceutical Sciences, Chiba University¹, AIDS Research Center, National Institute of Infectious Diseases²)

P2803 Modeling of Protein-Ligand Complexes Taking into Account the Induced Fit: Conformational and Positional Refinements Using Brownian Dynamics

Noriyuki YAMAOTSU¹, Ryuichi KAKURAI¹, Shuichi HIRONO¹

(School of Pharmaceutical Sciences, Kitasato University¹)

P2804 FCANAL: a structure based protein function prediction method. Application to enzyme active sites and metal binding sites.

Ayumi SUZUKI¹, Tadashi ANDO¹, Satoru MIYAZAKI², Ichiro YAMATO¹

(Department of Biological Science and Technology, Tokyo University of Science¹, Department of Pharmaceutical Sciences, Tokyo University of Science²)

P2805 SievGene: Protein-ligand flexible docking program based on grid potential and geometric hashing

Yoshifumi FUKUNISHI¹, Haruki NAKAMURA^{1,2}

(Japan Biological Information Research Center (JBIRC), National Institute of Advanced Industrial Science and Technology (AIST)¹, Institute for Protein Research, Osaka University³)

P2806 Computational Chemistry Analysis on the Interaction of Drugs and Water Molecules

Sumihiro HONJO¹, Hideyuki TSUBOI², Michihisa KOYAMA¹, Momoji KUBO^{1,3}, Kazumi NISHIJIMA^{2,4}, Tetsuya TERASAKI^{2,5}, and Akira MIYAMOTO^{1,2}

(Dept. Appl. Chem., Tohoku Univ.¹, NICHe, Tohoku Univ.², JST-PRESTO³, Mochida Pharmaceutical Co.⁴, Dept. Pharm., Tohoku Univ.⁵)

P2807 Computational Chemistry Approach for the Prediction of Pharmacokinetics

Michihisa KOYAMA¹, Mohamed ISMAEL¹, Kosei SUGAWARA¹, Sumihiro HONJYOU¹, PEI Qiang¹, Hideyuki TSUBOI², Momoji KUBO^{1,3}, Kazumi NISHIJIMA^{2,4}, Tetsuya TERASAKI^{2,5}, Akira MIYAMOTO^{2,1}

(Department of Applied Chemistry, Tohoku University¹, New Industry Creation Hatchery Center, Tohoku University², PRESTO, Japan Science and Technology Agency³, Research & Development Division, Mochida Pharmaceutical Co. Ltd.⁴, Graduate School of Pharmaceutical Sciences, Tohoku University⁵)

P2808 Computational Chemical Study on Interactions among Lipid Bilayers, Proteins and Organic Drug Molecules

PEI Qiang¹, Hideyuki TSUBOI², Michihisa KOYAMA¹, Momoji KUBO^{1,3}, Kazumi NISHIJIMA^{2,4}, Tetsuya TERASAKI^{2,5}, Akira MIYAMOTO^{1,5}

(Department of Applied Chemistry, Tohoku University¹, New Industry Creation Hatchery Center, Tohoku University², PRESTO, Japan Science and Technology Agency³, Research & Development Division, Mochida Pharmaceutical Co. Ltd.⁴, Graduate School of Pharmaceutical Sciences, Tohoku University⁵)

P2809 Conformational changes of the NADPH oxidase p47phox-p22phox complex: A Computational Chemical Study

Yoko WATANABE¹, Hideyuki TSUBOI², Michihisa KOYAMA¹, Momoji KUBO^{1,3}, Eiichiro ICHIISHI², Masahiro KOHNO², Akira MIYAMOTO^{1,2}

(Dept. Appl. Chem., Tohoku Univ.¹, NICHe, Tohoku Univ.³, JST-PRESTO²)

P2810 A Consensus Approach for Identifying the Stabilizing Residues in (a/b)8 Barrel Proteins

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P2811 Development of A Cell-based Assay System for Screening Drug Candidates and Analyzing Gene Functions

Takako SAKAMOTO¹, Arinobu TOJO², Jun NAKAYA¹, Akira SASAKI¹, Hideki TANUMA¹, Shigetaka ASANO², Tetsuo SHIMIZU¹

(Division of Medical Data Processing Network System¹ and Division of Molecular therapy², Advanced Clinical Research Center, The Institute of Medical Science, The University of Tokyo)

P2812 High-throughput estimation of the initial DNA concentration using real-time PCR

Osamu GOTO¹, Takashi NAKAJIMA², Akira SUYAMA¹

(University of Tokyo¹, NovusGene Inc.²)

P2813 Development of the Total System ToMoCo for Molecular Design

Masamoto ARAKAWA¹, Soichiro MIZOBUCHI², Kimito FUNATSU¹

(The University of Tokyo¹, Toyohashi University of Technology²)

P2814 “BioSerendip” A Support System for Bio Researches

Akira IIDA, Hideya UEHARA, Kouichi OHKUBO, Junji FUKUMOTO

(SGI japan Ltd.)

P2815 An auto-modeling program of carbohydrate chains: its development and application to molecular dynamics simulations

Kenichi MORI, Masayuki HATA, Saburo NEYA, Tyuji HOSHINO

(Graduate School of Pharmaceutical Sciences, Chiba University, Department of Physical Chemistry)

P2816 Novel Mechanism of Site-specific Asparaginyl Racemization in Mouse Lysozyme

Keisuke UENO¹, Hideki TAKEHARA², Masahiro OKAMOTO¹

(Kyushu Univ., Grad. Sch. Biores. Bioenv. Sci.¹, Fukuoka Int. Univ., Fac. Int. Commun.²)

P2817 De novo peptide sequencing used by amino acid binding affinity for tandem mass spectrometry

Mitsuhiro KANAZAWA¹, Atsushi OGIWARA², Unpei NAGASHIMA¹

(Department of Chemistry, Graduate School of Pure and Applied Sciences, University of Tsukuba¹, Medical ProteoScope, Co. Ltd.²)

P2818 Stochastic Simulation method for reaction-diffusion systems and its application to mitogen-activated protein kinase cascade pathway

Ryuzo AZUMA¹, Yoshiki YAMAGUCHI¹, Tomoyuki YAMAMOTO², Akihiko KONAGAYA¹
(Genomic Sciences Center, RIKEN¹, School of Knowledge Science, JAIST²)

P2819 A Data-mining system for discovering drug-target proteins

Motoi TOBITA, Masashi NEMOTO, Ken HORIUCHI, Hiroyasu SHIMADA, and Tetsuo NISHIKAWA
(Informatics department, Reverse Proteomics Research Institute Co. Ltd.)

P2820 Theoretical study of PPAR gamma mutations in type 2 diabetes mellitus

Narutoshi KAMIYA¹, Takuma SHIRAKI², Takashi S. KODAMA³, Hisato JINGAMI²
(Department of Computational Biology¹, Molecular Biology², Structural Biology³, Biomolecular Engineering Research Institute (BERI))

P2821 Assessment of somaclonal variation in *Arabidopsis thaliana* callus caused during subculture

Yoshinori MURATA, Takahito WATANABE^{a)}, Yuji FUKUDA, and Hitoshi IWAHASHI
(International Patent Organism Depository, AIST, ^{a)}Research Institute for Sustainable Humanosphere (RISH), Kyoto University)

P2822 Sampling Methods on Microorganism Mutagenicity Prediction by Pattern Recognition

Kohtaro YUTA¹, Katsuhiko SAWATARI², Yoshifumi NAKANISHI², Taijiro MATSUSHIMA³
(Fujitsu Ltd.¹, National Institute of Industrial Health², Japan Bioassay Research Center³)

P2823 The mathematical analysis of yeast Complex Complex Interactions

So NAKAGAWA, Yasuhiro SUZUKI, Soichi OGISHIMA, Takeshi HASE, Hiroshi TANAKA
(Graduate School of Tokyo Medical and Dental University)

P2824 Latest Developments in ProNIT (Thermodynamic Database for Protein-Nucleic Acid Interactions)

M. D. Shaji KUMAR¹, Ponraj PRABAKARAN², Hatsuho UEDAIRA¹, M. Michael GROMIHA³,
Kouji KITAJIMA¹ and Akinori SARAI¹
(KIT, 680-4 Kawazu, Iizuka-shi, Fukuoka 820-8502¹, NIH, USA², CBRC, AIST, 2-41-6 Aomi, Koto-ku, Tokyo 135-0064³)

P2825 Development and application of a molecular dynamics simulation system : prestoX

Yoshiaki MIKAMI¹, Yoshifumi FUKUNISHI², Ikuo FUKUDA¹, Jae Gil KIM¹, Yukihiisa S WATANABE¹, Rie TATSUMI¹, Masaru HORIE¹, Haruki NAKAMURA³
(Japan Biological Information Research Center (JBIRC), Japan Biological Informatics Consortium (JBIC)¹, Biological Information Research Center (BIRC), National Institute of Advanced Industrial Science and Technology (AIST)², Institute for Protein Research, Osaka University³)

P2826 Outcome prediction from gene expression based Support Vector Machine

Chihoko TAGO, Taizo HANAI, Masahiro OKAMOTO
(Laboratory for Bioinformatics, Graduate School of Systems Life Sciences, Kyushu University)

P2827 Identification of novel p53 target genes by the in-silico analysis

Reo MARUYAMA^{1,4}, Minoru TOYOTA^{1,2}, Hirofumi AKASHI^{1,3}, Fumio AOKI³, Yasushi SASAKI^{1,2}, Hiroaki MITA^{1,2}, Hideki KAKIUCHI⁴, Takashi TOKINO², Kohzoh IMAI¹
(First Department of Internal Medicine¹, Department of Molecular Biology², Information Center of Computer Communication Sapporo Medical University³, Jikeikai Hospital⁴)

P2828 The structure–activity relationship of P-glycoprotein

Hiroyuki HIRANO¹, Yuko ONISHI^{1,2}, Toshihisa ISHIKAWA²
(GS platZ Co. Ltd.¹, Tokyo Institute of Technology²)

P2829 The Unmasking of Putative Susceptibility Genes in Prostate Cancer Using Gene Expression Analysis

Uyen T. NGUYEN¹, Ilya KUPERSHMIDT², Barrett P. EYNON³, Anoop GREWAL⁴, Akio TANABE⁵
(Silicon Genetics¹)

P2830 Global gene expression profiles of pretreatment on freeze-thaw stress of yeast

Yuko MOMOSE¹, Hitoshi IWAHASHI¹
(National Institute of Advanced Industrial Science and Technology (AIST)¹)

P2831 Screening of CRP-binding DNA sequence using mutation matrices derived from systematic single base-pair substitution experiments

Katsumi OMAGARI¹, Hidehisa YOSHIMURA², Mitunori TAKANO³, Masayuki OHMORI^{2,4}, Akinori SARAI⁵, Akira SUYMA¹
(Univ. of Tokyo¹, Toho Univ.², Waseda Univ.³, Saitama Univ.⁴, Kyushu Inst. Tech.⁵)

P2832 Molecular Docking of the Compounds Activate Like Ecdysis Hormone with its Receptor

Tadayoshi FUKUDA, Shinji TANIMORI, Mitsunori KIRIHATA
(Department of Applied Biochemistry, Osaka Prefecture University)

P2833 Reconstructing Longitudinal Phylogenetic Tree of HIV-1 Protease Gene by inking Within-patient Orthologous Viral Population under HAART

Naoki HASEGAWA¹, Wataru SUGIURA², Fengrong REN¹, Zene MATSUDA², Hiroshi TANAKA¹

(¹Department of Bioinformatics, Biomedical Science PhD Program, Tokyo Medical and Dental University, Tokyo, Japan. ²AIDS Research Center, National Institute of Infectious Diseases, Tokyo, Japan)

P2834 Multiple Docking with Target Protein: A Novel Drug Design Strategy with Xsi

Kazuto YAMAZAKI¹, Masaharu KANAOKA¹, Yuichiro INAGAKI²
(Sumitomo Pharmaceuticals Co. Ltd.¹, Fuji Research Institute Corporation²)

P2835 Structural analyses of metabolic networks using GNU Octave

Jun OHTA¹
(Okayama University Graduate School of Medicine and Dentistry¹)

P2836 High-Speed Screening and Structure-Activity Relationship Analysis for the Evaluation of Drug-Drug Interactions of Human ABCG2 (BCRP)

Toshihisa ISHIKAWA¹, Hikaru SAITO¹, Yuko ONISHI¹, Keisuke OOSUMI², Takaaki FUKAMI², Makoto NAGAKURA², Shigeru TARUI³, and Hiroyuki HIRANO³
(Tokyo Institute of Technology¹, BioTec Co. Ltd.², GS PlatZ Co. Ltd.³)

P2837 In silico Discovery of the Peroxisomal Proteome

Igor V. KUROCHKIN¹, Takeshi NAGASHIMA¹, Akihiko KONAGAYA² and Christian SCHÖNBACH¹

(¹Immunoinformatics Team, ²Bioinformatics Group, RIKEN Genomic Sciences Center, Yokohama, Japan)

P2838 SPR assays for lead optimization in drug discovery

Robert KARLSSON¹, Helena WIDEGREN¹, Helena NORDIN¹, Annie NASLUND¹ and Asa Frostell KARLSSON¹, Issey OKAZAKI², Setsuko HASHIMOTO²
(Biacore AB¹(Sweden), Biacore K.K.²)

P2839 Gene network analysis of mRNA expression pattern with interferon efficacy to hepatitis C patient.

Akito DAIBA^{1,3}, Kazuhiro HAYASHIDA², Takako FURUYA¹, Satoru ITOU¹, Masafumi YOYODA³
(Japan Genome Solutions¹, Sasebo Kyosai Hospital², Tokyo University of Agriculture and Technology³)

P2840 Validation and Improvement of Charge Equilibration Methods with Empirical Two-Center Coulombic Terms

Akifumi ODA¹, Shuichi HIRONO²
(Toyama chemical Co. Ltd.¹, School of Pharmaceutical Sciences, Kitasato University²)

P2841 Conformation Estimation of Collagen Derived Oligopeptides by Tsallis Entropy adopted Simulated Annealing

Hisaki NAKABAYASHI, Yuuichi TOKUDA, Koichi TAKAHASHI
(Graduate School of Science and Technology, Kinki University)

P2842 Genome wide annotation of Thermus thermophilus HB8

Akinobu FUKUZAKI^{1,2}, Takeshi NAGASHIMA¹, Kaori IDE^{1,2}, Fumikazu KONISHI^{1,2}, Mariko HATAKEYAMA^{1,2}, Shigeyuki YOKOYAMA^{2,3,4}, Seiki KURAMITSU^{2,5} and Akihiko KONAGAYA^{1,2}
(¹Bioinformatics G., RIKEN, GSC, ²RIKEN Harima Inst., ³Protein Res. G., RIKEN GSC, ⁴Grad. Sch. Of Sci., Univ. of Tokyo. ⁵Grad. Sch. Of Sci., Osaka Univ.)

P2843 Development of a novel bioinformatics approach to selecting mucin-like proteins

Chikako NISHI-TAKAOKA^{1,2}, Takahiro SHIMAMURA¹, Shogo YAMAMOTO¹, Yoshitaka HIPPO¹, Tatsunari NISHI¹, and Hiroyuki ABURATANI¹
(RCAST, The Univ. of Tokyo¹, Ochanomizu Univ.²)

P2844 A Theoretical Study on Octanal Recognition of the Olfactory Receptor Protein ORI7

Junko TAGUCHI^{1,2}, Sachiko AIDA-HYUGAJI³, Kaori UENO-NOTO¹, Fumiko YOSHII¹, Keiko TAKANO¹

(Ochanomizu University¹, TAIHO Pharmaceutical Co. Ltd.², Tokai University³)

P2845 A system evaluation of site scalability and throughput performance of homology search tool on grid

Fumikazu KONISHI¹, Akihiko KONAGAYA¹

(Bioinformatics Group, RIKEN Genomic Sciences Center¹)

P2846 Analysis of the interaction of mannotriose with anti-HIV protein, Actinohivin

Masahide KUROSAKI¹, Noriyuki YAMAOTSU¹, Atsushi TAKAHASHI¹, Junji INOKOSHI¹, Haruo TANAKA¹, Satoshi OMURA², Shuichi HIRONO¹

(School of Pharmaceutical Sciences, Kitasato University¹, Kitasato Institute for Life Sciences, Kitasato University²)

P2847 Construction of Knowledge Library for analysis of microarray data in Arabidopsis thaliana

Yoshikazu HASEGAWA¹, Motoaki SEKI², Masakazu SATOU¹, Tetsuya SAKURAI¹, Kenji AKIYAMA¹, Kei IIDA³, Naoki OKAMOTO⁴, Katsura HIROSAWA¹, Tetsuro TOYODA¹, Kazuo SHINOZAKI², and Akihiko KONAGAYA⁵

(Genomic Knowledge Base Research Team, GSC, RIKEN¹, Plant Mutation Exploration Team, GSC, RIKEN², Faculty of Bio-Science, Nagahama Institute of Bio-Science and Technology³, NEC Infomatec Systems Ltd.⁴, Bioinformatics Group, GSC, RIKEN⁵)

討論時間 P2901 ~ P2948 奇数番号:7/29 17:00 ~ 18:00 偶数番号:7/29 18:00 ~ 19:00

P2901 Classification of kinases using neural networks and physicochemical parameters of amino acids

Tomoko NIWA

(Discovery Research Laboratories, Nippon Shinyaku Co. Ltd., t.niwa@po.nippon-shinyaku.co.jp)

P2902 Infrastructure Model for Protocol Management Support in Translational Research

Akira SASAKI, Jun NAKAYA, Tetsuo SHIMIZU

(Institute of Medical Science, University of Tokyo)

P2903 STUDY ON A BINDING AFFINITY DIFFERENCE BETWEEN CHITINASE-ARGADIN AND CHITINASE-ARGIFIN COMPLEXES USING MOLECULAR DYNAMICS SIMULATION

Yuichi YANAI¹, Hiroaki GOUDA¹, Shuichi HIRONO¹
(School of Pharmaceutical Sciences, Kitasato University¹)

P2904 The ionic status of TPI in the active thymidine phosphorylase state

Yukio TADA¹, Makoto NOMURA¹, Shingo YANO¹, Hideki KAZUNO¹, Tutomu SATO¹,
Masakazu FUKUSHIMA¹, Tetsuji ASAO¹
(Hanno Research Center, Taiho Pharmaceutical Co. Ltd.¹)

P2905 Relations between self interaction proteins and evolutionary conservation of densely connected topologies in the protein-protein interaction network.

Takeshi HASE¹, Soichi OGISHIMA¹, Yasuhiro SUZUKI^{1,2}, So NAKAGAWA², Hiroshi TANAKA^{1,2}
(Dept. of Bioinformatics Tokyo Medical and Dental University¹, Dept. of Computational Biology Graduate School of Tokyo Medical and Dental University²)

P2906 Molecular Dynamics Simulations of liganded and unliganded proteins

Noriaki OKIMOTO¹, Takashi NAKAMURA², Atsushi SUENAGA¹, Noriyuki FUTATSUGI¹,
Yoshinori HIRANO³, Makoto TAIJI¹, Akihiko KONAGAYA¹, Isamu YAMAGUCHI², and
Toshikazu EBISUZAKI³
(RIKEN, GSC¹, RIKEN Plant Science Center², RIKEN Wako³)

P2907 Computational Chemistry Study on Theophylline Metabolism with Different Tissues Components

Mohamed ISMAEL¹, Hideyuki TSUBOI², Michihisa KOYAMA¹, Momoji KUBO^{1,3}, Kazumi NISHIJIMA^{2,4}, Tetsuya TERASAKI^{2,5}, Akira MIYAMOTO^{1,2}
(Department of Applied Chemistry, Tohoku University¹, New Industry Creation Hatchery Center, Tohoku University², JST-PRESTO³, Research & Development Division, Mochida Pharmaceutical Co. Ltd.⁴, Graduate school of Pharmaceutical Sciences, Tohoku University⁵)

P2908 Development of a simulation and analysis support system for molecule science

Takashi IKEDA¹, Susumu HANDA¹, Atsushi SENGOKU¹, Eiju KANAZAWA², Toshihiro SAKUMA¹, Toshikazu TAKADA³
(NEC Infomatec system Ltd.¹, Navie², NEC Corporation³)

P2909 BioStation Dock: Application of protein-ligand docking to screen compounds (2)

Toshiyuki SATO¹, Kaori FUKUZAWA¹, Kozo AOKI³, Katsuki AMEMIYA², Kazuo KOYANO², Shinji AMARI³, Souichirou TANIMORI², and Tatsuya NAKANO⁴
(Fuji Research Institute Corporation¹, AdvanceSoft Corporation², University of Tokyo³, and National Institute of Health Sciences⁴)

P2910 *In Silico* screening for Nuclear Receptor Target Genes

Yoshitomo TANAKA¹, Tsuguchika KAMINUMA², Kotoko NAKATA³, Hiroshi TANAKA⁴
(Graduate school of Tokyo Medical and Dental University¹, Biodynamics Inc.², National Institute of Health Sciences³, Medical Research Institute, Tokyo Medical and Dental University⁴)

P2911 Generation of novel equations for logP, solubility, pKa using a neural network

Kenji YAMAGISHI¹, Sumie TAJIMA², Toru YAGI², Makoto HARAGUCHI², Hiroaki TOKIWA¹, Umpei NAGASHIMA³
(Rikkyo University¹, Bestsystems INC.², National Institute of Advanced Industrial Science and Technology³)

P2913 E-pathfinder

Sayaka KAGEKAWA¹, Jun NAKAYA², Tetsuo SHIMIZU²
(Fujitsu Advanced Solutions LTD.¹, Institute of Medical Science of the University of Tokyo²)

P2914 Structural Analysis of the Binding Sites in the Protein-Protein Interaction

Tsuyoshi HAMADA, Kaori FUKUZAWA, Toshiyuki SATO
(Fuji Research Institute Corporation)

P2915 Molecular dynamics simulation of reaction mechanism of Estrogen Receptor

Yoshiro NAKATA and Yoko KANAZAWA
(Department of Biophysics, Faculty of Engineering, Gunma University)

P2916 Investigation of species specificity in ligand-dependent PPAR α activation using molecular modeling approach

Hideharu UCHIKI
(Discovery Research Laboratories, Kyorin Pharmaceutical Co. Ltd.)

P2917 Development of Pharmacokinetic Simulator based on Three-Dimensional Graphics

Kotaro OKUSHI¹, Hideyuki TSUBOI¹, Michihisa KOYAMA¹, Momoji KUBO^{1,3}, Kazumi NISHIJIMA^{2,4}, Tetsuya TERASAKI^{2,5}, Akira MIYAMOTO^{1,4}

(Department of Applied Chemistry, Tohoku University¹, New Industry Creation Hatchery Center, Tohoku University², PRESTO, Japan Science and Technology Agency³, Research & Development Division, Mochida Pharmaceutical Co. Ltd.⁴, Graduate School of Pharmaceutical Sciences, Tohoku University⁵)

P2918 In silico screening for endogenous surrogate compounds interacting with a GPCR

Takeshi HIRAMOTO¹, Yosuke NONAKA¹, Kazuko INOUE¹, Mariko OMATSU-KANBE², Hiroshi MATSUURA², Keigo GOHDA³, and Norihisa FUJITA¹

(¹Ritsumeikan University, ²Shiga University of Medical Science, ³CAMM-Kansai)

P2920 Biomarker detection and disease classification algorithm using SELDI-TOF-MS

Kaoru MOGUSHI¹, Fumio NOMURA², Hiroshi TANAKA¹

(Department of Bioinformatics, Tokyo Medical and Dental University¹, Department of Molecular Diagnosis, Chiba University²)

P2921 Feature extraction of gene expression onset time for cluster analysis

Kazumi HAKAMADA¹, Taizo HANAI¹, Masahiro OKAMOTO¹

(Laboratory for Bioinformatics, Graduate School of Systems Life Science, Kyushu University¹)

P2923 Microarray Data Analysis Using Fuzzy K-means Clustering

Chinatsu ARIMA, Taizo HANAI, Masahiro OKAMOTO

(Laboratory for Bioinformatics, Graduate School of Systems Life Sciences, Kyushu University)

P2924 Structural analysis by molecular dynamics simulations: Protein-protein interactions of Ras-Raf and Ras-RalGDS complexes

Noriyuki FUTATSUGI¹, Mikako SHIROUZU², Atsushi SUENAGA¹, Noriaki OKIMOTO¹, Tetsu NARUMI¹, Toshikazu EBISUZAKI³, Shigeyuki YOKOYAMA², Makoto TAJI¹, Akihiko KONAGAYA¹

(Bioinformatics Group, RIKEN Genomic Sciences Center¹, Protein Research Group, RIKEN Genomic Sciences Center², Ebisuzaki Computational Astrophysics Laboratory, RIKEN³)

P2925 Profiling of Genome-wide expression under hydrostatic pressure stress in the yeast *Saccharomyces cerevisiae*

Hisayo SHIMIZU, Hitoshi IWAHASHI

(National Institute of Advanced Industrial Science and Technology International Patent Organism Depository)

P2926 QSAR Analysis of Human Placental Drug Transport

Yuki HIBINO, Takashi FUJIWARA, Shinichi KOBAYASHI, Kumiko SAKAMOTO, Masaru KIHARA, Aiko YAMAUCHI, Hiroshi CHUMAN

(Graduate School of Pharmaceutical Sciences, The University of Tokushima)

P2927 Microarray cluster analysis of *Saccharomyces cerevisiae* gene expression under different chemicals stress conditions

Yoshiteru SUZUKI, KIM Hyun-Ju, Yuko MOMOSE, Hitoshi IWAHASHI

(National Institute of Advanced Industrial Science and Technology (AIST))

P2928 Janus-type Go model: toward a theory for the kinetic control of protein functions

Hironori K. NAKAMURA^{1,2}, Mitsunori TAKANO¹

(Dept. of Phys., Sch. of Sci. & Eng., Waseda Univ.¹, ACT-JST, JST²)

P2929 Construction of the XML Database of the Pharmaceutical Reference

Masaki HAMADA, Shinya TAKIGUCHI, Mamoru HIROTA, Kaori KURATA, Akira DOBASHI
(Tokyo University of Pharmacy and Life Science)

P2930 Xsi – An integrated system for drug discovery

Yuichiro INAGAKI¹, Michiaki HAMADA¹, Kazuto YAMAZAKI², Masaharu KANAOKA²,
Hiroshi CHUMAN³

(Fuji Research Institute Corporation¹, Sumitomo Pharmaceuticals Co. Ltd.², Tokushima

P2931 Reaction mechanism of biodegradable plastics degrading enzyme

Yoshitake SAKAE¹, Misako AIDA¹, Hidemasa KONDOU², Kazuo MASAKI³, Haruyuki IEFUJI³

(Hiroshima University-Center for Quantum Life Sciences¹, National Institute of Advanced Industrial Science and Technology², National Research Institute of Brewing³)

P2932 A New Approach to Drug Molecular Design based on Neural Network Analysis and Molecular Orbital Calculation : Molecular Modeling to Circumvent Cancer Drug Resistance Associated with ABCG2

Sachiko AIDA-HYUGAJI¹, Jumma NOMURA², Minoru SAKURAI², Daisuke TOKUSHIMA³, Toshikazu TAKADA³, Umpei NAGASHIMA⁴ and Toshihisa ISHIKAWA²
(Tokai University¹, Tokyo Institute of Technology², NEC Corporation³, National Institute of Advanced Industrial Science and Technology⁴)

P2933 Implementation of MP2-correlation engine into ABINIT-MP/FMO program and demonstrative applications

Yuji MOCHIZUKI^{1,2}, Tatsuya NAKANO³, Shigeru KOIKEGAMI², Shinji AMARI¹, Kazuo KITAURA⁴

(Institute for Industrial Science, The University of Tokyo¹, Advancesoft², National Institute of Health Science³, National Institute for Advanced Industrial Science and Technology⁴)

P2934 Computer-aided rational molecular design of a new chitinase inhibitor

Hiroaki GOUDA¹, Yusuke SAKOH¹, Shuichi HIRONO¹
(School of Pharmaceutical Sciences, Kitasato University)

P2935 FREP: a system for inferring of functional repeats

Takeshi NAGASHIMA¹, Christian SCHÖNBACH¹, Igor V. KUROCHKIN¹, Akihiko KONAGAYA²

(¹Immunoinformatics Team, ²Bioinformatics Group, RIKEN Genomic Sciences Center, Yokohama, Japan)

P2936 SOLUTION STRUCTURE OF HUMAN SERUM ALBUMIN OBTAINED FROM MOLECULAR DYNAMICS SIMULATION

Taku FUJIMOTO, Yasuo MATSUSHITA, Hiroaki GOUDA, Shuichi HIRONO
(School of Pharmaceutical Sciences, Kitasato University)

P2937 Development of a portal for drug discovery

Tsuguchika KAMINUMA¹, Masumi YUKAWA², Naomi KOMIYAMA²
(Center for Quantum Life Sciences, Hiroshima University¹, Chem-Bio Informatics Society²)

P2938 MOLDA QuLiS: Development of Molecular Modeling Program for Structure-based Drug Design

Hiroshi YOSHIDA¹, Toshimitsu FURUCHI^{1,2}, Fumiyuki SHIRAI³
(Hiroshima University¹, MAXNET Co. Ltd.², Fujisawa Pharmaceutical Co. Ltd.³)

P2939 Catalytic Roles of Active-Site Amino Acid Residues of Coenzyme B₁₂-Dependent Diol Dehydratase: A Quantum Mechanical/Molecular Mechanical (QM/MM) Study

Takashi KAMACHI¹, Tetsuo TORAYA², Kazunari YOSHIZAWA¹

(Institute for Materials Chemistry and Engineering, Kyushu University¹, Department of Bioscience and Biotechnology, Okayama University²)

P2940 Theoretical study of methane hydroxylation by methane monooxygenase

Kazunari YOSHIZAWA, Takashi YUMURA

(Institute for Materials Chemistry and Engineering, Kyushu University)

P2941 QM/MM Study of the Mononuclear Non-heme Iron Active Site of Phenylalanine Hydroxylase

Yoshihito SHIOTA, Kazunari YOSHIZAWA

(Institute for Materials Chemistry and Engineering, Kyushu University)

P2942 Novel screening method for functional nucleotide and its motif extraction

Ryoichi ASAI¹, Taishin KIN¹, Shin I. NISHIMURA², Katsutoshi TAKAHASHI¹

(Computational Biology Research Center, AIST¹, Graduate School of Information Science, Nagoya Univ.²)

P2943 Analysis of Ternary Structures Constructed by Protein Modeling Tool, PDFAMS Pro+

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P2944 Molecular Recognition System in Pheromone-Pheromone Binding Protein Complex Analyzed by FMO method: Structure Optimization of Ligand and Its Binding Pocket.

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P2945 Drug Target Database based on Therapeutic Classification

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P2947 HIGH-THROUGHPUT SCREENING SYSTEM OF PROTEIN CRYSTALLIZATION CONDITIONS USING MICROFLUIDIC REACTOR ARRAY

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P2948 Toward an Automatic Extraction of the Drug Interaction-related Expressions

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