POSTER PROGRAM

SESSION I - PROTEIN INTERACTION

P1 HYBRID GGTASE-I INHIBITORS TARGETING BOTH INTERIOR AND EXTERIOR PROTEIN SURFACES

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P2 DESIGN OF PEPTIDES CAPABLE OF FORMING AMYLOID-LIKE FIBRILS WITH AMYLOID-BETA PEPTIDE 1-42

<u>Hisakazu Mihara</u>*, Junichi Sato, Hideo Oshima, Sachiko Matsumura, and Tsuyoshi Takahashi Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, 4259-B40 Nagatsuta-cho, Midori-ku, Yokohama 226-8501, Japan

P3 DIRECTED EVOLUTION OF BINDING PEPTIDES FOR G-CSF RECEPTOR Ikuo Fujii *

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P4 COLORIMETRIC PROTEIN KINASE ASSAYS IN A DIRECT AND HOMOGENOUS MANNER

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P5 DETECTION OF PROTEIN INTERACTIONS BY ANOMALOUS REFLECTION (AR) OF GOLD

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P6 STABLE HELICAL STRUCTURES IN SHORT PEPTIDES BRIDGED BY CROSS-LINKING AGENTS WITH VARIOUS RIGIDIY AND LENGTH

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P7 OLIGO-ASP TAG/ZN(II)-COMPLEX PROBE AS A NEW PAIR FOR LABELING AND FLUORESCENCE IMAGING OF PROTEINS

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P8 CONSTRUCTION OF FLUORESCENT SACCHARIDE-BIOSENSORS TOWARD SACCHARIDE IMAGING

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P9 HYBRID MATERIAL OF BIOMIMETIC POLYMER GEL AND GOLD NANOPARTICLES FOR SENSING CATECHOL AMINES

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P10 CONTROLLING THERMAL STABILITY OF DNA DUPLEX IMMOBILIZED ON GOLD SUBSTRATE

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P11 ROLE OF CYS111 IN STRUCTURAL STABILITY OF HUMAN COPPER/ZINC-SUPEROXIDE DISMUTASE

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SESSION II -FUNCTIONAL DNA/RNA

P12 EVOLUTION OF FLEXIZYME FOR REPROGRAMMING THE GENETIC CODE <u>Hiroshi Murakami</u>¹, Atsushi Ohta^{1,2}, Hiroshi Ashigai^{1,2}, and Hiroaki Suga^{1,2}*

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P13 INFLUECE OF OF COSOLUTE STRUCTURE ON THE THERAL STABILITY OF HOOGSTEEN BASE PAIRS IN DNA TRIPLEX UNDER MOLECULAR CROWIDING CONDITIONS

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P14 SCREENING OF CATALYTIC MODIFIED DNA MOLECULES FROM HISTIDINE-MODIFIED DNA LIBRARY

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P15 PHOTOREACTION AT 5'-(G/C)AA^{BR}UT-3' SEQUENCE IN DUPLEX DNA: EFFICENT GENERATION OF 2'-DEOXYURIDIN-5-YL BY ELECTRON TRANSFER

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P16 PHOTOCHEMICAL LIGATION BETWEEN ANTHRACENE-DNA CONJUGATES

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P17 COLORIMETRIC ALLELE TYPING THROUGH COOPERATIVE COMPLEXATION BETWEEN DNA CONJUGATES AND LANTHANIDE IONS

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P18 IDENTIFICATION OF ANTISENSE RNA STEM-LOOPS THAT INHIBIT RNA-PROTEIN INTERACTIONS USING A BACTERIAL REPORTER SYSTEM

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P19 RECOGNITION OF A FLIPPED NUCLEOBASE BY SMALL PEPTIDES

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P20 NUCLEOTIDE DERIVATIVES FORMING WATSON-CRICK BASE PAIR AND BASE FLIPPING CONFORMATIONS

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P21 SYNTHESIS OF PEPTIDE RIBONUCLEIC ACID (PRNA)-DNA CHIMERA AND CONTROL OF RNASE H ACTIVITY BY EXTERNAL FACTOR

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P22 SYNTHESIS AND FLUORESCENCE PROPERTIES OF OLIGODEOXYRIBONUCLEOTIDE-FLUOROPHORE CONJUGATES FOR DETECTION OF SNPS

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P23 THE EFFECT OF COSOLUTES ON THE THERMODYNAMIC AND KINETIC PROPERTIES OF DNA DUPLEX FORMATION

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P24 LARGE ENHANCEMENT OF THE HAMMERHEAD RIBOZYME ACTIVITY BY MOLECULAR CROWDING

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P25 EVALUATION OF ALTERNATING DUPLEX-TRIPLEX CONVERSION EFFECT ON THE HOLE TRANSPORT THROUGH DNA IMMOBILIZED ON A GOLD ELECTRODE

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P26 WATER MOLECULES REGULATE STRUCTURE AND THERMODYNAMICS OF DNA <u>Daisuke Miyoshi</u>¹, Hisae Karimata², Mamiko Inoue², Kaori Nakamura², and Naoki Sugimoto^{1,2}*

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P27 CROWDING CONDITIONS ENHANCE THE STABILITY OF G-QUADRUPLEX OF LONG TELOMERIC DNAS

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SESSION III - METALS IN CHEMICAL BIOLOGY

P28 ARTIFICIAL METALLOPROTEINS WITH RUTHENIUM TRIS(BIPYRIDYL) COMPLEX AS THE CORE

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SESSION IV - CELL FUNCTION OF MACROMOLECULES

P29 SUGAR-CONTROLLED INTRACELLULAR TRAFFICKING OF DISACCHARIDE-MODIFIED POLYPLEXES

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P30 CONSTRACTION OF AN OLIGOSACCHARIDE LIBRARY USING CELLS(35) BIOCOMBINATORIAL SYNTHESIS OF OLIGOSACCHARIDES, DEVELOPMENT OF GLYCAN ARRAY, AND GLYCOME ANALYSIS

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P31 DIRECT AND RAPID CYTOSOLIC DELIVERY USING ARGININE-RICH PEPTIDES IN THE PRESENCE OF COUNTERANIONS

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P32 IDENTIFICATION OF PEPTIDES THAT INHIBIT INFLUENZA VIRUS INFECTION Teruhiko Matsubara and Toshinori Sato*

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P33 IMMUNOSTIMULATING PEPTIDOGLYCAN FRAGMENTS RECOGNIZED BY CELLULAR RECEPTORS

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P34 SYNTETIC AND BIOLOGICAL STUDIES OF LIPOPOLYSACCHRIDE, A MAJOR STIMULATOR OF INNATE IMMUNITY

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P35 DISCOVERY OF A NOVEL ACTIVATOR FOR RYANODINE RECEPTOR

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SESSION V - NANOBIOTECHNOLOGY AND TECHNOLOGY INNOVATION IN CHEMISTRY

P36 ARTIFICIAL PEPTIDE-NANOSPHERES SELF-ASSEMBLED FROM TRIGONAL B-SHEET PEPTIDE CONJUGATES

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P37 NANOPORE SEQUENCING OF POLYNUCLEOTIDES ASSISTED BY A CIRCULAR ELECTRIC FIELD

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P38 ENZYMATIC PROTEIN IMMOBILIZATION DIRECTING TO A SPECIFIC PEPTIDE TAG FOR TRANSGLUTAMINASE CATALYSIS

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P39 DESIGHN OF CATIONIC NANOGEL AS A PROTEIN CARRIER

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P40 ELECTROCHEMICAL ASSAY OF NUCLEASE IN WATER BY USING FERROCEMYLOLIGONUCLEOTIDE IMMOBILIZED ON AN ELECTRODE

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P41 ELECTROCHEMICAL DETECTION OF METHYLATED GENE BY USING FERROCENYLNAPHTHALENE DIIMIDE

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P42 DEVELOPMENT OF A SUPRAMOLECULAR NANO-FIBER AS A DEVICE FOR MOLECULAR RECOGNITION

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P43 EXCITATION RATIOMETRIC CHEMOSENSOR FOR PHOSPHATE ANION DERIVATIVES BASED ON ANION-INDUCED REARRANGEMENT OF COORDINATION CHEMISTRY

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P44 SYNTHETIC RECEPTORS AS A DESIGNER CARRIER TO CATCH, TRANSPORT AND RELEASE PHOSPHATE DERIVATIVES INTO LIVING CELL

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P45 CONFORMATIONAL CHANGES DURING APOPLASTOCYANIN FOLDING OBSERVED BY PHOTOCLEAVABLE MODIFICATION AND TRANSIENT GRATING

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P46 RATIONAL DEVELOPMENT OF NOVEL FLUORESCENCE PROBES BASED ON PHOTOINDUCED ELECTRON TRANSFER

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P47 EXPANSION OF UNNATURAL SUBSTRATES ACCEPTABLE BY THE E.COLI RIBOSOME

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P48 ARTIFICIAL PEPTIDE-NANOSPERES SELF-ASSEMBLED FROM TRIGONA \$\beta\$-SHEET PEPTIDE CONJUGATES

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P49 FUNCTIONAL DESIGN OF AMPHIPHILIC DENDRIMER-BASED 2D-ARRAY Takaaki Fukui¹, Yoshiharu Otsuka¹, <u>Keigo Aoi</u>^{1*}, Yohei Tateishi², Keiji Tanaka², Toshihiko Nagamura²

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