KOBE JAPAN 2024

International Conference on the Biological Roles of Polyamines 2024
7th Yamada Symposium

Venue: Ariston Hotel Kobe & Shin-syo Convention Hall

Date: August 25th - 30th, 2024

Congress Secretariat:
polyamine2024@pcojapan.jp TEL. +81-76-461-7028

公益財団法人 山田科学振興財団
YAMADA SCIENCE FOUNDATION

This conference is organized by the Polyamine Society of Japan and supported by the Yamada Science Foundation.

International Conference on the Biological Roles of Polyamines 2024, 7th Yamada Symposium

Hotel Ariston and Kobe Chamber of Commerce Industry Hall,

Japan

August 25th to 30th, 2024

SCIENTIFIC PROGRAM

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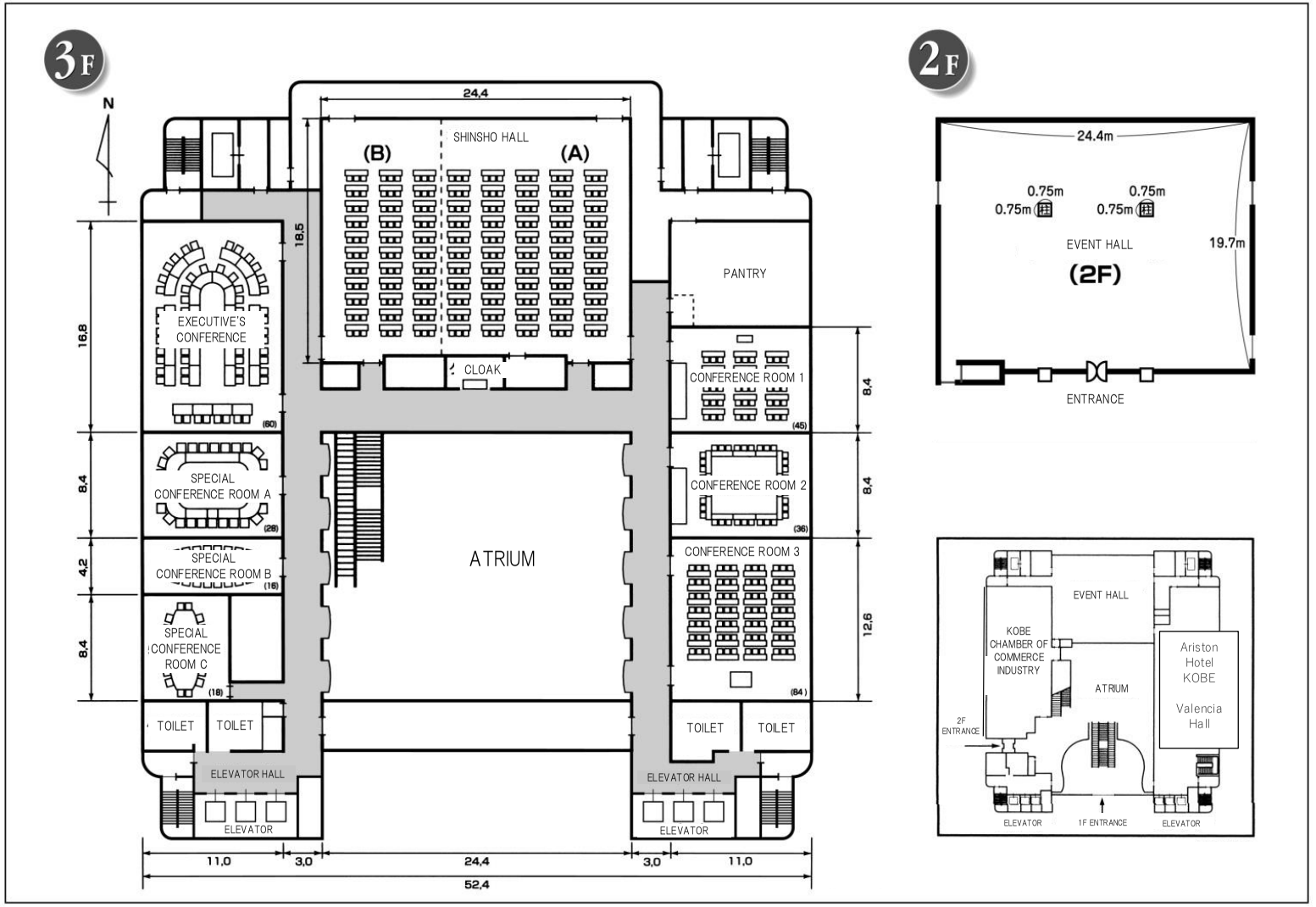
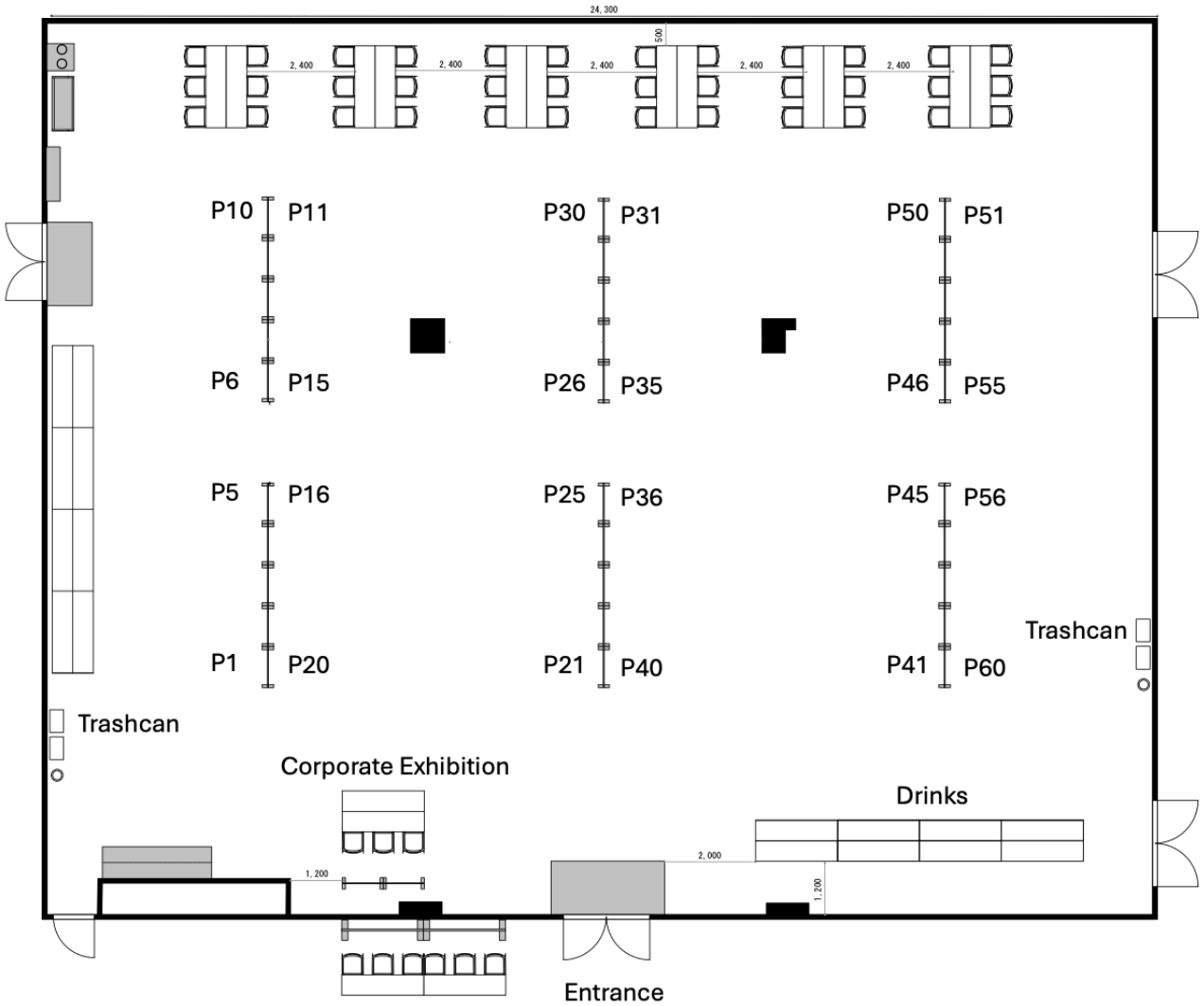
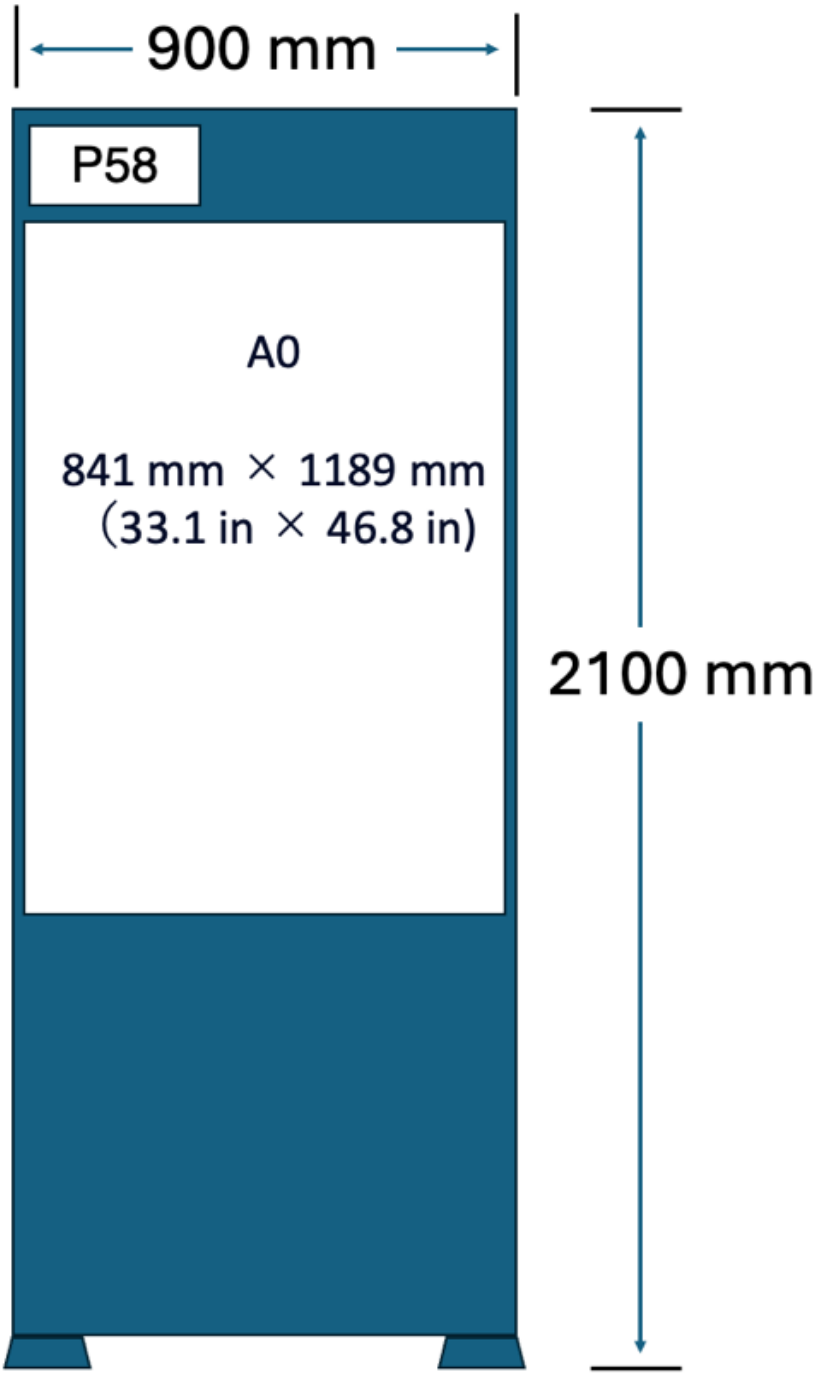


Poster presentation room (2F, Event Hall)



SIZE OF POSTER BOARD (A0 format is recommended)



SCIENTIFIC PROGRAM

Sessions

Session 1: Polyamine and Health 1
Session 2: Therapeutic Applications of Polyamines in Cancer and Other Diseases 1
Session 3: Polyamines in Plants and Microorganisms 1
Session 4: Polyamines in Plants and Microorganisms 2
Session 5: Polyamine and Health 2
Session 6: Polyamines in Plants and Microorganisms 3
Session 7: Therapeutic Applications of Polyamines in Cancer and Other Diseases 2
Session 8: Gene Regulation by Polyamines
Session 9: Polyamines in Plants and Microorganisms 4
Session 10: Therapeutic Applications of Polyamines in Cancer and Other Diseases 3
Session 11: Polyamine and Medicinal Chemistry

Sunday, August 25th

13:00 – 19:00 **Registration at the Shinsho Hall, connected to the Ariston Hotel**

16:30 – 16:45 **Opening Ceremony**

Opening remarks

***Shinsuke Fujiwara**, Kwansei-Gakuin University*

Congratulatory address

***Keiji Maruoka**, Director, Yamada Science Foundation*
Graduate School of Phamaceutical Science,
Kyoto University

Welcome message

***Yasutoshi Mori**, President, Kwansei Gakuin University*

16:50 – 18:20 **Keynote lecture**

Session leaders: ***S. Gilmour** (Lankenau Instit Medica Research,USA)*
***T. Oka** (Wakunaga Pharmaceutical Co. Ltd, Japan)*

16:50 – 17:35 [PL 01] Unusual Features of Antizyme and a Discussion on Its Role
***S. Matsufuji** (The Jikei University School of Medicine, Japan)*

17:35 – 18:20 [PL 02] Polyamine enzymatic oxidation products induce mitochondrial dysfunction mediated cytotoxicity in human cancer cells detected by electronic microscopy, flow cytometry and proteomic analyses
***E. Agostinelli** (Sapienza University of Rome, Italy)*

18:30 – 20:00 **Welcome party**
Barcelona Hall (16F) of the Ariston Hotel

Monday, August 26th

8:30 – 19:00 **Registration at the Shinsho Hall, connected to the Ariston Hotel**

8:40 – 10:20 **Session 1: Polyamine and Health 1**
Session leaders: ***S. Roberts*** *(Pacific University Oregon USA)*
M. Ohkido *(The Jikei University School of Medicine, Japan)*

8:40 – 9:05 [L 03] Spermidine recovers age-related immune suppression by direct activation of fatty acid oxidation
K. Chamoto *(Kyoto University, Japan)*

9:05 – 9:30 [L 04] Autophagy as a pathway to rejuvenate immune responses
G. Alsaleh *(Botnar Institute for Musculoskeletal Sciences, Oxford University, UK)*

9:30 – 9:55 [L 05] Polyamine Production by Fermentation and Gut Bacteria
S. Kurihara *(Kindai University, Japan)*

9:55–10:20 [L 06] Spermidine protects brain aging from the effects of high-protein-diet
S. Sigrist *(Free University of Berlin, Germany)*

Coffee break (Group photo at Conference Center Lobby)

10:50 – 12:30 **Session 2: Therapeutic Applications of Polyamines in Cancer and Other Diseases 1**
Session leaders: ***O. Phanstiel*** (*University of Central Florida, Orlando, USA)*
N. Murai *(The Jikei University School Medicine, Japan)*

10:50 – 11:15 [L 07] Polyamines and Electrophiles in Gastrointestinal Cancer
K. Wilson *(Vanderbilt University Medical Center, USA)*

11:15–11:35 [L 08] Polyamine deprivation enhances survival and chemotherapy resistance in prostate cancer cells
A. Zabala *(Center for Cooperative Research in Biosciences, Spain)*

11:35–11:55 [L 09] The role of the polyamine/hypusine pathway in homeostasis, inflammation, and carcinogenesis of the colon
A. Gobert *(Vanderbilt University School of Medicine, USA)*

11:55–12:15 [L 10] Dual targeting of polyamine biosynthesis and uptake limits progression of acute leukaemias
G. Weiman *(University of New South Wales, Australia)*

12:15 – 12:30 [L 11] The novel inhibitory effect of GC7 (N^1-Guanyl-1,7-diaminoheptane) on Bovine serum amine oxidase
T. Tahara *(Sapienza, University of Rome, Rome, Italy)*

12:30 – 13:45 **Lunch at Valencia Hall (2F) of Ariston Hotel**

13:45 – 15:10 **Session 3: Polyamines in Plants and Microorganisms 1**
Session leaders: ***H-J Lin*** *(National Taiwan Ocean University, Taiwan)*
T. Ikeda *(Hiroshima University, Japan)*

13:45–14:10 [L 12] Biosynthetic evolution of the polyamine pan-metabolome
A. J. Michael *(University of Texas Southwestern, USA)*

14:10–14:35 [L 13] Unique polyamines produced by an extremely thermophilic bacterium, *Thermus thermophilus*
T. Oshima *(Kyowa-Kako.Co, Japan)*

14:35–14:50[L14] Enzymatic Characteristics of Aminopropyltransferases in Hyperthermophilic Microorganisms: Comparative Analysis of Branched Chain Polyamine and Norspermine Synthesis
W. Fukuda *(National Institute of Technology and Evaluation, Japan)*

14:50–15:10 [L15] Biological Role of Branched-chain Polyamines in Survival of Hyperthermophiles under Extremal Conditions
S. Fujiwara *(Kwansei Gakuin University, Japan)*

15:10 – 16:45 **Session 4: Polyamines in Plants and Microorganisms 2**
Session leaders: ***F. Vianello*** *(University of Padua, Italy)*
Y. Ishii *(Kwansei-GakuinUniversity, Japan)*

15:10 –15:35 [L 16] Long-chain polyamines embedded in biogenic silica formed on the surface of bacterial spores and their biosynthetic pathway
T. Ikeda *(Hiroshima University, Japan)*

15:35 –16:00 [L17] Deciphering the Molecular Mechanism behind Diatom-Derived Polyamines in Multifaceted Physiological Functions
H-J Lin *(National Taiwan Ocean University, Taiwan)*

16:00 – 16:20 [L 18] TILLING population barley mutants in studies of modification of polyamine metabolism in the context of their stay-green potential
E. Sobieszczuk-Nowicka *(Adam Mickiewicz University in Poznań, Poland)*

16:20–16:45 [L 19] The hypusine pathway in the European tick *Ixodes rizinus*: Molecular Cloning and characterization of deoxyhypusine synthase as a novel target for drug discovery to treat and prevent vector borne diseases
A. Kaiser *(Universität Duisburg-Essen, Germany)*

16:45 - 19:00 **Poster exhibition (Odd numbers)**

19:00 – **Dinner at Barcelona Hall (16F) of the Ariston Hotel**

---------21:00 Happy hour with drinks at poster presentation room

Tuesday, August 27th

8:30 – 17:00 **Registration at the Shinsho Hall, connected to the Ariston Hotel**

8:40 – 11:30 **Session 5: Polyamine and Health 2**
Session leaders: ***L. Vardy*** *(A*STAR Skin Research Labs, Singapore)*
S. Sigrist *(Free University of Berlin, Germany)*

8:40 – 9:05 [L 20] Potential of gut microbiome-derived polyamine as a source of polyamines
M. Matsumoto *(Kyodo Milk, Japan)*

9:05 – 9:30 [L 21] A conserved role for polyamines during fasting
S. Hofer *(Max-Delbrück-Center for Molecular Medicine, University of Graz, Austria)*

9:30 – 9:55 [L 22] Polyamine-dependent metabolic shielding regulates alternative splicing
A. Carracedo *(Center for Cooperative Research in Biosciences, Spain)*

9:55 – 10:20 [L 23] Aging associated changes in polyamine metabolism is a potential target for novel anti-aging technology
T. Uemura *(Josai University, Japan)*

Coffee break

10:50 – 11:10 [L 24] NF-E2-related factor 1 suppresses the expression of a spermine oxidase and the production of highly reactive acrolein
T. Hirakawa *(Saga University, Japan)*

11:10–11:30 [L 25] Metabolic crosstalk of nitric oxide and polyamines in regulating inflammatory responses by activated macrophages in mouse
T. Osaki *(Yamagata University, Japan)*

11:30 – 12:55 **Session 6: Polyamines in Plants and Microorganisms 3**

Session leaders: ***A. J. Michael*** *(University of Texas Southwestern, USA)*

A. Szepesi *(University of Szeged, Hungary)*

11:30–11:55 [L 26] Elucidating the Vital Role of Putrescine: Insights into *Leishmania* Biology and Therapeutic Potential

S. Roberts *(Pacific University Oregon, USA)*

11:55–12:20 [L 27] Getting High on Putrescine: Metabolic Engineering of the Polyamine Pathway in plants

S. Minocha *(University of New Hampshire, USA)*

12:20–12:55 [L 28] Exploring the action of thermospermine on the mRNA translation of bHLH proteins in *Arabidopsis thaliana*

T. Takahashi *(Okayama University, Japan)*

12:55 – 14:30 **Lunch at Valencia Hall (2F) of Ariston Hotel**

12:55 - 14:30 **Lunch-meeting** International Polyamines Foundation - ONLUS

All the members, Board of Governor and Scientific Committee are invited to be present

14:30 – 16:45 **Session 7: Therapeutic Applications of Polyamines in Cancer and Other Diseases 2**

Session leaders: ***E. Agostinelli*** *(Sapienza University of Rome, Italy)*

T. Uemura *(Josai University, Japan)*

14:30–14:55 [L 29] Use of polyamine blocking therapy to treat therapy-resistant cancer

S. Gilmour *(Lankenau Institute for Medical Research, USA)*

14:55–15:15 [L 30] Unveiling the molecular and biological effects of GC7 in prostate cancer

M. Pujana Vaquerizo *(Center for Cooperative Research in Biosciences, Spain)*

15:15–15:40 [L 31] Targeting Aberrant Polyamine Homeostasis to Treat Snyder-Robinson Syndrome
T. Murray Stewart *(Johns Hopkins School of Medicine, USA)*

15:40 –16:00 [L 32] Polyamine pathway inhibitor DENSPM suppresses lipid metabolism in pheochromocytoma cell line
S. Tevosian *(University of Florida, USA)*

16:00–16:20[L 33] Bachmann-Bupp Syndrome: Clinical and Metabolomic Manifestations of DFMO Treatment
E. VanSickle *(Helen DeVos Children's Hospital, USA)*

16:20–16:45[L 34] Novel Disease Mechanisms Linked to Impaired Polyamine Transport
P. Vangheluwe *(Laboratory of Cellular Transport Systems, KU Leuven, Belgium)*

16:45 - 19:00 **Poster exhibition (Even numbers)**

19:00 – **Dinner at Barcelona Hall (16F) of the Ariston Hotel**

---------21:00 Happy hour with drinks at poster presentation room
(Vote for Poster Awards)

Wednesday, August 28th

9:00 – 20:30 **Excursion**

Thursday, August 29th

9:00 – 11:45 **Session 8: Gene Regulation by Polyamines**

Session leaders: ***K.T. Wilson*** (*Vanderbilt University Medical Center, USA*)

K. Nishimura *(International University of Health and Welfare, Japan)*

9:00–9:20 [L 35] Halfway to Hypusine: Structural Insights into eIF5A Deoxyhypusination

P. Grudnik *(Jagiellonian University, Poland)*

9:20–9:40 [L 36] Chemical genomics reveals a novel link between eIF5A hypusination and mitochondrial integrity

K. Matsumoto *(Chemical Genomics Research Group, RIKEN CSRS, Japan)*

9:40–10:00 [L 37] Roles of the polyamine-hypusine circuit in the development and malignant transformation of B-cells

S. Nakanishi *(Moffitt Cancer Center and the Research Institute, USA)*

10:00–10:25 [L 38] Polyamine-modulated expression of eIF5A2 plays a critical role in proliferation of human cancer cell lines

K. Higashi *(Tokyo University of Science, Japan)*

Coffee break

10:55–11:20 [L 39] Polyamines Stabilizing Effect on Hybrid RNA:DNA Triplexes

F. Vianello *(University of Padua, Italy)*

11:20–11:45 [L 40] Lipid-dependence of polyamine transport

K. P. K. Lee *(The Pennsylvania State University, USA)*

11:45 – 12:30 **Session 9: Polyamines in Plants and Microorganisms 4**

Session leaders: ***S. Minocha*** *(University of New Hampshire, USA)*

T. Takahashi *(Okayama University, Japan)*

11:45–12:10 [L 41] Exploring the relationship between polyamine catabolism and hypusination in plants

A. Szepesi *(University of Szeged, Hungary)*

12:10–12:30 [L 42] The signaling triad 'nitric oxide-polyamine cycle-hydrogen peroxide' regulates barley leaf senescence

M. Arasimowicz-Jelonek *(Adam Mickiewicz University in Poznań, Poland)*

12:30 – 13:45 **Lunch at Valencia Hall (2F) of Ariston Hotel**

13:45 – 14:50 **Session 10: Therapeutic Applications of Polyamines in Cancer and Other Diseases 3**

Session leaders: ***T. Murray Stewart*** *(Johns Hopkins School of Medicine, USA)*

K. Higashi *(Tokyo University of Science, Japan)*

13:45 – 14:10 [L 43] Polyamines: Novel regulators of human epidermal pigmentation

L. Vardy *(A*STAR Skin Research Labs, Singapore)*

14:10 – 14:30 [L 44] SARS-CoV-2 helicase (NSP13) interacts with mammalian polyamine and HSPs partners in promoting viral replication

H. Makhoba *(University of South Africa)*

14:30–14:50 [L 45] ATP citrate lyase suppresses the cell death of ornithine decarboxylase-overproducing cells

A. Tajima *(The Jikei University School of Medicine, Japan)*

Coffee break

15:20 – 16:25 **Session 11: Polyamine and Medicinal Chemistry**

Session leaders: ***S. Hofer*** *(Max Delbrueck Center for Molecular Medicine, Germany & University of Graz, Austria)*

M. Minamisawa *(Chiba Institute of Technology, Japan)*

15:20–15:45 [L 46] Development of LAT1 Efflux Agonists as a Polyamine Depletion Strategy

O. Phanstiel *(University of Central Florida, USA)*

15:45–16:05 [L 47] Interrogate the polyamine metabolic network with protein design and inhibitors

S. Liu *(Hubei University of Technology, China)*

16:05–16:25 [L 48]Biologically active analogues of methionine and *S*-adenosylmethionine

Alex Khomutov *(Engelhardt Institute of Molecular Biology, Russia)*

16:25–16:45 **Concluding Remarks**

K. Igarashi *(Amine Pharma Research Institute, Japan)*

Poster removal

17:15 **Transfer to the Sorakuen by chartered bus**

18:30 – 20:30 **Gala Dinner: Awards for poster presentation/exhibition will be conferred.**

21:00 **Back to Ariston Hotel by chartered bus**

Friday, August 30th

Departure to Kansai International Airport (KIX) and Osaka International Airport (ITAMI)

Poster Session

[P01] Expression and function of vesicular polyamine transporter in lung alveolar epithelial cells
M. Hiasa *(Department of Pharmaceutical Sciences, Okayama University, Japan)*

[P02] Involvement of polyamine on surfactant release from Type II alveolar epithelial cells
K. Hayakata *(Department of Pharmaceutical Sciences, Okayama University, Japan)*

[P03] Polyamine release and vesicular polyamine transporter expression in megakaryoblastic cells and platelets
H. Omote *(Department of Pharmaceutical Sciences, Okayama University, Japan)*

[P04] Polyamine secretion and vesicular polyamine transporter in cerebellar Purkinje neurons
M. Kamitani *(Department of Pharmaceutical Sciences, Okayama University, Japan)*

[P05] Effect of polyamine depletion on the function of glycocalyx in human endothelial cells
R. Suzuki *(Sch. Pharm., Tokyo Univ. Pharm. Life Sci., Japan)*

[P06] ATP13A3 variants promote pulmonary arterial hypertension by disrupting polyamine transport
M. Azfar *(Department of Cellular and Molecular Medicine, KU Leuven, Belgium)*

[P07] Effect of acrolein exposure of scission activity of mouse heparanase
M. Moroshita *(Grad. Sch. Pharm. Sci., Tokyo Univ. Sci., Japan)*

[P08] ERK1/2 dependent regulation of eIF5A deoxyhypusination: structural characterization of the DHS-ERK2 complex
P. Kochanowski *(Malopolska Centre of Biotechnology, Jagiellonian University, Poland)*

[P09] Potential of gut microbiome-derived polyamine as a source of polyamines
N. Ono *(Kyodo Milk Industry Co., Ltd., Japan)*

[P10] Administration of L-arginine and limonoids activates the poly-amine pathway and restores mitochondrial function in the liver and brain of human Alzheimer's disease mouse model

M. Minamisawa *(Chiba Institute of Technology, Japan)*

[P11] Spermidine promotes regeneration after skeletal muscle chemical injury

T. Iwata *(University of Tsukuba, Japan)*

[P12] Investigating gut immunity-mediated suppression of pathology in a mouse model of Alzheimer's disease

S. Sudo *(Chiba Institute of Technology, Japan)*

[P13] Biorthogonal probes for studying polyamine-protein interactions, polyamine transport and processing in live cells.

R. Serwa *(IMol, Polish Academy of Sciences, Warsaw, Poland , Poland)*

[P14] A study on the significance of polyamine analysis as a biomarker in a mouse model of Alzheimer's disease.

S. Akagi *(Chiba Institute of Technology, japan)*

[P15] Degradation of chondroitin sulfate and hyaluronan by HYAL1 in brain tissue at the onset of depression

M. Shimekake *(Grad. Sch. Pharm. Sci., Tokyo Univ. Sci., Japan)*

[P16] Effects of orally ingested polyamines on growth stage and physical activity of Drosophila melanogaster

T. Fujita *(Kindai University, Japan)*

[P17] Bacteria-derived putrescine regulates intestinal permeability by enhancing cell junction protein translation

A. Nakamura *(Kyodo Milk Industry Co., Ltd., Japan)*

[P18] Spermidine administration alleviates the inflammation triggered by cerebral infarction

M. Matsunaga *(Grad. Sch. Fac. Pharm. Sci., Tokyo Univ. Sci., Japan)*

[P19] Functional characterization of ATP13A2 variants associated with distinct neurodegenerative disorders
S. Vrijsen *(Laboratory of Cellular Transport Systems, KU Leuven, Belgium, Belgium)*

[P20] Spermine oxidase promotes *Helicobacter pylori*-mediated gastric carcinogenesis through acrolein production
K. McNamara *(Program in Cancer Biology, Vanderbilt University, United States)*

[P21] Hyp'Assay: Development of a new non-radioactive assay for the discovery of inhibitors of the polyamine-hypusine axis
O. Benaceur *(Inserm U1065, France)*

[P22] The polyamine transporter ATP13A3 mediates DFMO-induced polyamine uptake in neuroblastoma
W. Gao *(Children's Cancer Institute, University of New South Wales, Australia)*

[P23] A role for polyamine catabolism in epidermal wound healing
M. Shi *(A*STAR Skin Research Labs, Singapore)*

[P24] Dietary polyamines facilitate intestinal adaptation in an experimental model of short bowel syndrome
N. Kasahara *(Department of Surgery, Jichi Medical University, Japan)*

[P25] Effect of co-administration of *N*-acetylcysteine and low-molecular-weight heparin on the inflammation of stroke onset
A. Sekiguchi *(Graduate school of Pharmaceutica Science, Tokyo Univ. of Science, Japan)*

[P26] Combined drug approach to enhance the anticancer effects of statins
K. Mizoguchi *(Kwansei Gakuin University, Japan)*

[P27] Polyamine improves the surface activity of the diluted lung surfactant and inflates the collapsed lungs of a rat model of acute respiratory distress syndrome.
M. Ohkido *(Dept of Mol Biol, The Jikei University School of Medicine, Japan)*

[P28] Photoreceptor dysfunction induced by a polyamine analogue attenuates retinal neovascularization in oxygen-induced retinopathy mouse model
J-H. Kim *(Seoul National University Hospital, Republic of Korea)*

[P29] C-Methylated analogues of spermine: synthesis and biological application
M. Khomutov *(Engelhardt Institute of Molecular Biology, RAS, Moscow, Russia, Russian Federation)*

[P30] Crystallographic fragment screening in search for specific inhibitors of hypusination.
P. Wilk *(MAX IV laboratory, Lund University, Poland)*

[P31] Antizyme 2 accelerates ubiquitin independent MYCN degradation and contributes to suppression of neuroblastoma tumorigenesis
N. Murai *(The Jikei University School of Medicine , Japan)*

[P32] Role of branched-chain polyamines in survival of hyperthermophiles under stressed conditions
R. Satake *(Department of Biosciences, Kwansei Gakuin University, Japan)*

[P33] Effect of polyamines on RAN translation from CCUG repeats
A. Oguro *(The Jikei University School of Medicine, Japan)*

[P34] Human eIF5A2 regulated by polyamines at translational level participates in mRNA decoding distinct from eIF5A1.
M. Suzuki *(Fac. Pharm. Sci., Tokyo Univ. Sci., Japan)*

[P35] Polyamine-mediated regulation of de novo biosynthesis of purine
K. Nishimura *(School of Pharmacy, International University of Health and Welfare, Japan)*

[P36] Effect of polyamine depletion on the hyaluronan synthesis in human pancreatic ductal adenocarcinoma
K. Tsuji *(Graduate school of Pharmaceutica Science, Tokyo Univ. of Science, Japan)*

[P37] Exploration of an novel fused polyamine synthase in marine diatoms *Phaeodactylum tricornutum* influencing silica content variation in frustule.
M-H. Hsu *(Institute of Biotechnology, National Taiwan Ocean University , Taiwan)*

[P38] Revealing the Growth-Promoting Role of Spermidine Synthase-Based Polyamine Biosynthetic Pathway in Marine Diatom *Phaeodactylum tricornutum*
C-Y. Hsuan *(Institute of Biotechnology, National Taiwan Ocean University, Taiwan)*

[P39] Characterization of Polyamine Accumulation in Mold-Fermented Cheese Using Mass Spectrometry Imaging
N. Ogawa *(Department of Biosciences, Kwansei Gakuin University, Japan)*

[P40] Polyamines modulate the capsule biosynthesis in *Neisseria meningitidis* by altering the central metabolic pathway
T. Haldar *(Symbiosis School of Biological Sciences, India)*

[P41] Extracellular spermidine modulates virulence of *S. pyogenes*
A. Bhagwat *(Symbiosis School of Biological Sciences, India)*

[P42] Thermpspermine synthase-mediated polyamine biosynthesis pathway in marine diatoms featuring diverse uncommon polyamines and high-salt adaptation
S-W. Lin *(Institute of Biotechnology, National Taiwan Ocean University, Taiwan)*

[P43] Exploring Novel Thermospermine Oxidase in Thermophilic Archaeon *Pyrobaculum calidifontis*
K. Maekawa *(Department of Biosciences, Kwansei Gakuin University, Japan)*

[P44] DNA recognition mechanism of transcriptional regulator PuuR in Putrescine utilization pathway
N. Nemoto *(Faculty of Advanced Engineering, Chiba Institute of Technology, Japan)*

[P45] Suppression of the dwarf phenotype of an Arabidopsis mutant defective in thermospermine biosynthesis by a mutant of tRNA sulfur modification
Y. Nishii *(Graduate School of Natural Science, Okayama University, Japan)*

[P46] Structural characterization of the (deoxy)hypusination in *Trichomonas vaginalis* questions the deoxyhypusine synthase bifunctionality
E. Wator *(Malopolska Centre of Biotechnology, Jagiellonian University, Poland)*

[P47] Conversion of Soy-Bean Derived Indigestible Peptides to Putrescine by Gut Microbes
Y. Ami *(Kindai University, Japan)*

[P48] Phylogenetic and Functional Analyses of Arginine Decarboxylase in *Aspergillus oryzae*: Insights into Agmatine Production during Sake Fermentation
Y. Murakami *(Grad. Sch. Sci. Technol., Kwansei Gakuin Univ. , Japan)*

[P49] Knowledge Inventory for Polyamine Biosynthesis Pathway of *Thermus thermophilus* in ThermusQ
T. Moriya *(Inst. Environ. Microbiol., Kyowa Kako Co., Ltd., , Japan)*

[P50] Elucidating the Role of Polyamines in Cellular Proliferation and Metabolic Activity in the Protozoan Parasite *Leishmania donovani*
J. Johnston *(School of Pharmacy, Pacific University, United States)*

[P51] Mechanism of pH-responsive Structural Maintenance of the Transcriptional Regulator Lrp Governing Polyamine Homeostasis
Y. Ishii *(Kwansei Gakuin University, Japan)*

[P52] Producing New Methyl Polyamines by *N*-Methyltransferase-Coupled Predicted Data Mining Approach
T-S. Chang *(National University of Tainan, Taiwan)*

[P53] Metabolic engineering *Escherichia coli* with marine diatom thermospermine synthase-based pathway for longer uncommon polyamine homocaldopentamine production: An anti-stress molecule
H-Y. Lin *(Institute of Biotechnology, National Taiwan Ocean University, Taiwan)*

[P54] Unveiling the Reaction Mechanism of Arginine Decarboxylase in *Aspergillus oryzae*: Insights from Crystal Structure Analysis
Y. Odagaki *(Graduate School of Agriculture, Kyoto University, Japan)*

[P55] Studies on the synthesis of novel polyamine-based biopolymers using branched-chain polyamine synthase and long-chain polyamine synthase
N. Murakami *(Graduate School of Integrated Science for Life, Hiroshima Univ., Japan)*

[P56] ROS-mediated reduction of Caco-2 cell viability upon internalization of a spermine oxidase nano-catalyst
G. Rilievo *(Dpt. of Comparative Biomedicine and Food Science, Univ. of Padua, Italy)*

[P57] Role of polyamines in virulence and pathogenesis of *Streptococcus pyogenes*
H. Rathod *(Symbiosis School of Biological Sciences, Deemed University, India)*

[P58] The polyamine-hypusine axis regulates tissue resident memory T cell fate and functions
A. G. Elmarsafawi *(H. Lee Moffitt Cancer Center & Research Institute , USA)*

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