10:00-10:05 Opening address
Dr. Masamitsu Ichihashi, President of Japanese Society for Photo-Aging Research

10:05-11:05 Educational Lecture
Sponsored by ICHIMARU PHARCOS Co., Ltd.
Chairperson: Masamitsu Ichihashi

**EL-1**
Elastic fibre remodelling in intrinsically and extrinsically aged skin
Michael J. Sherratt (Molecular Biochemistry, the University of Manchester)

**EL-2**
Molecular mechanism of elastic fiber assembly
Tomoyuki Nakamura (Department of Pharmacology, Kansai Medical University)

11:10-13:05 Symposium I 【Pathological mechanisms of wrinkle and sagging】
Chairpersons: Jin Ho Chung, Fukumi Furukawa

**SY I-1**
Activation of Peroxisome Proliferator-Activated Receptor alpha (PPARα) improves aged and UV-irradiated skin by catalase induction
Jin Ho Chung
(Department of Dermatology, Seoul National University College of Medicine, Seoul, Republic of Korea)

**SY I-2**
Role of Neprilysin in Ultraviolet-Induced Wrinkle Formation -Epithelium-Mesenchymal Paracrine Interaction during UVB-induced Up-regulation of Neprilysin
Genji Imokawa (Chubu University, Research Institute for Biological Functions)

**SY I-3**
Imaging Anatomic Analysis for the Superficial Musculoaponeurotic System (SMAS)
Itsuko Okuda¹, Keiichi Akita²
1) Department of Diagnostic Radiology, International University of Health and Welfare (IUHW), Mita Hospital
2) Department of Clinical Anatomy, Tokyo Medical and Dental University (TMDU)

**SY I-4**
Our latest findings on the mechanisms that underlie facial sagging
Tomonobu Ezure (Shiseido Co., LTD. Global innovation center)

13:15-14:15 Luncheon Seminar I
Sponsored by ROSETTE Co.,Ltd.
Chairperson: Osamu Ishikawa

**LS I-1**
Skin barrier dysfunction in various skin diseases
Makoto Sugaya
(Department of Dermatology, University of Tokyo Graduate School of Medicine, Tokyo, Japan)

**LS I-2**
The effect of topical use of natural ceramide cream rich in galactosylceramide on skin barrier function: the enhanced synthesis of ceramide in the stratum corneum
Tami Igarashi (Research and Development Department, Rosette Co.,Ltd., Tokyo, Japan)
14:25-16:55 Symposium II
【Photo-induced pigmented disorders: Pathological mechanisms and their treatment and prevention】
Chairpersons: Kyoung Chan Park
Yoko Funasaka
Chikako Nishigori

SY II-1 α-Melanocyte Stimulating Hormone and Endothelin-1 Modulate the DNA Damage Response of Melanocytes to UV Exposure
Zalfa Abdel-Malek (University of Cincinnati College of Medicine)

SY II-2 Regenerative trial to prevent and recover from senile pigmentation
Kyoung Chan Park (Seoul National University Bundang Hospital, Department of Dermatology)

SY II-3 Chemieexcitation of Melanin Induced by UV Exposure
Kazumasa Wakamatsu
(Department of Chemistry, Fujita Health University School of Health Sciences)

SY II-4 How Chinese herbs to prevent and rejuvenate photo-aged skin
Leihong Flora XIANG, Chunyun HUANG, Li CHEN, Ye LIU
(Huashan Hospital, Shanghai Medical College, Fudan University, Shanghai, China)

SY II-5 Acquired photo-aggravated facial pigmented disorders: Pathological mechanisms and their treatment and prevention in Asian skin
Goh Chee Leok (National Skin Centre, Singapore)

17:00-18:00 Oral session I
Chairpersons: Yorihiro Yamamoto
Hidekazu Yamada

O I-1 Influence of carbonylated proteins on skin cells and its blocking agents
Yumiko Yamawaki, Kousei Nishikawa, Yusuke Hasegawa, Taeko Mizutani, Yuri Okano, Hitoshi Masaki
Tokyo University of Technology Graduate School, Bionics program

O I-2 Pyridoxine prevents the accumulation of carbonylated proteins induced by oxidative stress
Taeko Mizutani1), Yumiko Yamawaki1), Mina Shimura2), Shin Uemori2), Satoru Yoshimura2), Atsushi Sawamura2), Yuri Okano1), Hitoshi Masaki1)
1) School of Bioscience and Biotechnology, Tokyo University of Technology
2) Development Medicine & Regulatory Affairs Div. SSP CO., LTD.

O I-3 Availability and Safety of Fullerene for Skin Photoaging
Hisae Aoshima, Masayuki Ito
Vitamin C60 BioResearch Corporation

O I-4 The accumulation of carbonylated proteins causes darkness around skin pores
Akane Sasaki1), Naomi Ogawa2), Hiroshi Suzuki3), Taeko Mizutani1), Yuri Okano1), Kayoko Matsunaga3), Hirotaka Akita3), Hitoshi Masaki1)
1) Tokyo University of Technology Graduate School, Bionics program
2) Integral Corporation
3) Department of Integrative Medical Science for Allergic Disease, Fujita Health University School of Medicine
4) Department of Dermatology, Fujita Health University Banbuntane Hotokukai Hospital
O 1-5 An alternative test to estimate the potentials for phototoxic and photoallergic reactions
Yuhma Yoshida¹, Atsushi Oda², Tatsuya Honda¹, Yuri Okano¹, Hitoshi Masaki²
1) DRC CO, LTD.
2) Tokyo University of Technology, School of Bioscience and Biotechnology

18:10-19:20 Sponsored Seminar I
【Epigenetic changes, ROS and AhR relevant to photo-aging】
Sponsored by P&G Innovation Godo Kaisya
Chairpersons: Cheng-Che E. Lan
Yorihiro Yamamoto

SS I-1 Effects and interactions of solar radiation and environmental heat on the skin:
Implications on photoaging and photocarcinogenesis
Cheng-Che E. Lan
(Department of Dermatology, Kaohsiung Medical University)

SS I-2 Skin dryness initiated by ROS accelerates photoaged skin
Hitoshi Masaki (Tokyo University of Technology)

SS I-3 HDAC6 inhibition prevents FICZ-induced AhR activation in normal human keratinocytes; treatment possibility of skin damage associated with photo-aging
Gaku Tsuji¹,², Akiko Hachiya², Masaki Takemura¹, Takeshi Nakahara³,
Hiroshi Uchi³, Masutaka Furue¹,²
1) Research and Clinical Center for Yusho and Dioxin, Kyushu University
2) Department of Dermatology, Kyushu University
3) Division of Skin Surface Sensing, Kyushu University

19:30-20:50 Welcome dinner
9:00-11:30  Symposium III  

Chairpersons: Leihong Flora Xiang  
Hiroyuki Ohjimi  
Akira Hachiya

**SY III-1**  
Visible Lights in Regenerative Medicine: a translational Research in the skin  
Hsin-Su Yu (National Health Research Institutes)

**SY III-2**  
Covalent modification of proteins by lipid peroxidation-derived volatile aldehydes  
Koji Uchida (Nagoya University)

**SY III-3**  
Microfocused Ultrasound in the Management of Photoaging  
Boon Kee GOH (Skin Physicians Private Limited)

**SY III-4**  
Latent TGF-β binding protein 4 plays an important role in elastogenesis  
Kyoko Takagi[1], Tomoyuki Nakamura[1]  
1) Rohto Pharmaceutical Company, Limited  
2) Department of Pharmacology, Kansai Medical University

**SY III-5**  
Prevention of ultraviolet B radiation-induced epidermal damage, wrinkle formation  
and hyperpigmentation by expression of HSP70  
Tohru Mizushima (LTT Bio-Pharma Co., Ltd.)

**SY III-6**  
Anti-aging effects of nanocapsule α-lipoic acid for skin  
Yoshihi Kubota[1], Teruaki Nagasawa[1], Yoko Yamaguchi[1,2]  
1) NANOEGG Research Laboratories, Inc., Division of research and development for medical  
2) Institute of Medical Science St. Marianna University

**SY III-7**  
Why do the cheeks sag?  
Yukio Shirakabe (Sapho-Clinic)

**SY III-8**  
Prevention and treatments of facial sagging by using various energy based devices  
Nariaki Miyata (Miyata Plastic Surgery & Skin Clinic)

11:40-12:40  Special Lecture  
Chairperson: Akimichi Morita

**SL (Photo)aging of skin: New insights into underlying mechanisms**  
Jean Krutmann  
(IUF - Leibniz-Research Institute for Environmental Medicine at the Heinrich-Heine-University Düsseldorf)

12:50-13:50  Luncheon Seminar II  
Sponsored by Japan Bio Products Co., Ltd.  
Chairperson: Masamitsu Ichihashi

**LS II**  
JBP485 decreases the amount of keratinocyte-secreted inflammatory cytokines and increases collagen synthesis by fibroblasts  
Sawako Hibino  
(Saisei Mirai medical corporation, R Science Clinic HIRO-O,  
Department of Clinical Gene Therapy, Graduate School of Medicine, Osaka University)
Sponsored Seminar II
【Sunscreens at present and in the future】
Sponsored by Meiji Co. Ltd.

Chairpersons: Akira Kawada
               Shinichi Moriwaki

SS II-1 Photoprotection by prevention of the UV-induced energy crisis
Gary Halliday
(Discipline of Dermatology, Bosch Institute, Royal Prince Alfred Hospital,
the University of Sydney, Australia)

SS II-2 Potential of natural UV absorbing compound, Shinorine, as a novel anti-photoaging agent
Shogo Yamamoto1), Yosuke Matsumoto2), Jun Matsumoto3), Masahiro Sota1),
Hitoshi Masaki3), Xiaoli Liu1)  
1) NAGASE & Co., LTD. NAGASE R&D CENTER
2) HAYASHIBARA CO., LTD. R&D Center
3) School of Bioscience and Biotechnology, Tokyo University of Technology

SS II-3 The beneficial role of functional foods in ultraviolet-induced skin damage
Masashi Morifuji (Meiji Co. Ltd., Food Science Research Lab.)

Oral session II

Chairpersons: Hitoshi Masaki
               Takahito Nishikata

O II-1 Efficiency of singlet oxygen production from oxidized platinum nanoparticle and hydrogen peroxide
Yorihiro Yamamoto, Sachiko Aoki, Satsuki Motomiya, Yuske Karato
School of Bioscience and Biotechnology, Tokyo University of Technology

O II-2 A New finding of the sensitive skin development -the contribution of oxidative stress-
Yushi Katsumiya1), Tatsuya Tsuboi1), Sayaka Nakamura1), Norihisa Taira1),
Masato Yoshioka1), Hitoshi Masaki2)  
1) SEIWA KASEI CO., LTD.
2) School of Bioscience and Biotechnology, Tokyo University of Technology

O II-3 Gp91phox-derived Reactive Oxygen Species/Urocortin 2/Corticotropin-releasing
Hormone Receptor Type 2 Play an Important Role in Long-term Ultraviolet A Eye
Irradiation-induced Photoaging
Keiichi Hiramoto, Yurika Yamate
Department of Pharmaceutical Science, Suzuka University of Medical Science

O II-4 Morphological change of skin fibroblasts induced by UV Irradiation is involved in
photoaging
Hiroyuki Yamaba, Mayumi Kunita, Tsutomu Sakaida, Hiroshi Tanaka,
Youichi Yashiro, Satoru Nakata
Research Laboratories, Nippon Menard Cosmetic Co., Ltd.

O II-5 Quantification of the engulfment activity in human dermal fibroblast and the analysis
on the impact of UVA irradiation
Takahito Nishikata1),2), Haruka kohda2), Mika Fukuda1), Yuma Arata1),
Hideya Ando3), Masamitsu Ichihashif)  
1) Frontiers of Innovative Research in Science and Technology (FIRST), Konan University
2) Graduate School of Frontiers of Innovative Research in Science and Technology (FIRST),
Konan University
3) Department of Applied Chemistry and Biotechnology, Faculty of Engineering, Okayama
University of Science
4) SAISEI MIRAI Clinic Kobe
O II-6  Effects of *Petroselinum crispum* on collagen synthesis in dermal fibroblasts through exerting on adipocytes

Ai Nishizawa 1),2), Yoshihide Kimura 1), Hitoshi Masaki 2)
1) Research & Development, IVY COSMETICS CO., LTD
2) Advanced Cosmetics Course, School of Bioscience and Biotechnology, Tokyo University of Technology

16:40-17:55 Oral session III  
Chairpersons: Hideya Ando  
Yoko Funasaka

O III-1  Xeroderma pigmentosum as the model of photoaging -  
The present features of XP in Japan

Eiji Nakano 1), Ryusuke Ono 1), Fumio Kanda 2), Seiji Takeuchi 1),  
Shinichiro Moriwaki 1), Chikako Nishigori 1)  
1) Department of Dermatology, Graduate school of Medicine, Kobe University  
2) Division of Neurology, Graduate school of Medicine, Kobe University  
3) Department of Dermatology, Osaka Medical College

O III-2  A new anti-photoaging strategy based on DNA polymerase activity

Sawako Ikeoka, Tatsuo Nakahara  
MARUZEN PHARMACEUTICALS CO., LTD.

O III-3  A 3-year clinical study on sunscreen use in the Japanese elderly

Makoto Mizuno 1),2), Kayo Kunimoto 1), Mikiko Seigan 2), Takashi Teramura 1),  
Eiji Naru 1), Fukumi Furukawa 2), Yuki Yamamoto 2), 3)  
1) Fundamental Research Laboratories, KOSÉ Corporation  
2) Department of Dermatology, Wakayama Medical University  
3) Department of Cosmetic Dermatology and Photomedicine, Wakayama Medical University

O III-4  Ethnic Variations in the Expression of an Essential Factor for Photo-protection

Daiki Murase 1), Akira Hachiya 1), Rachel Fullenkamp 2), Anita Stepp 2)  
Shigeru Moriwaki 1), Tadashi Hase 1), Yoshinori Takemura 1),  
Prashiela Manga 4)  
1) Biological Science Laboratories, Kao Corporation  
2) Biological Science Americas Laboratory, Kao USA Inc.  
3) Research and Development Global, Kao Corporation  
4) The Ronald O. Perelman Department of Dermatology, New York University School of Medicine

O III-5  Facial site distribution of cutaneous malignant tumor in Japanese

Hiroshi Kato, Takao Oda, Shoichi Watanabe, Akimichi Morita  
Department of Geriatric and Environmental Dermatology  
Nagoya City University Graduate School of Medical Sciences

O III-6  Effect of infrared A on photoaging

Yoko Funasaka, Shizuka Okazaki, Hidehisa Saeki  
Department of Dermatology, Nippon Medical School

17:55-18:00 Closing Remarks