Delegate E-Book

IUPB-MEPSA World Congress 2024

25 - 30 AUG • PERTH
WESTERN AUSTRALIA

Pan Pacific, Perth, Western Australia

18th International Congress on Photobiology

Jointly with the Molecular & Experimental Pathology Society of Australasia

MOLECULAR AND EXPERIMENTAL PATHOLOGY SOCIETY OF AUSTRALASIA
MEPSA

CONTENTS

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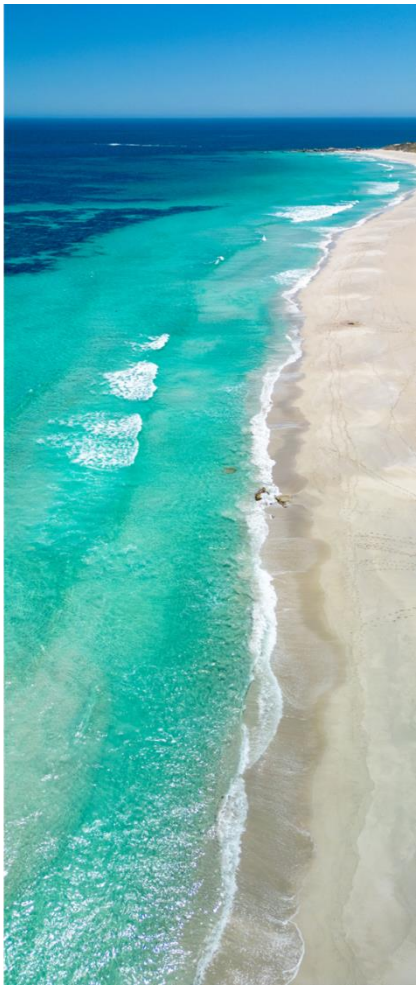
PERTH, AUSTRALIA

Experience the vibrant city of Perth | Boorloo, Australia's sunniest capital city, where business opportunities abound amidst its natural beauty. This dynamic urban centre, nestled alongside the Swan River | Derbal Yerrigan, offers a plethora of options for you to connect, collaborate, and learn. Framed by the Swan River, the city boasts 19 pristine beaches, each blessed with dreamy Indian Ocean sunsets, and is home to one of the world's largest inner-city parks. You can explore Perth's historic and bohemian port city of Fremantle | Walyalup, embark on dolphin-watching cruises in Rockingham, or arrange a visit to Rottnest Island | Wadjemup to capture a Quokka selfie of your own. Enhance your conference experience and immerse yourself in cultural tours, luxury hotels, shopping precincts, rooftop bars and waterfront dining at Elizabeth Quay | Goomup on the beautiful Swan River.

When you experience Perth it is easy to see why it is such a relaxed and naturally adventurous capital city.



WELCOME

On behalf of the Executive Board of the International Union of Photobiology (IUPB), the Molecular and Experimental Pathology Society of Australasia (MEPSA), and the Local Organising Committee, we welcome you to the 18th International Congress on Photobiology, held in Perth (Australia) from the 25th to the 30th of August 2024.

This joint congress in the City of Light will provide a comprehensive international forum for disseminating the most recent research and technological developments in the photobiological sciences and in photomedicine. It will offer a unique opportunity to present the latest breakthroughs, exchange new ideas, and establish global and far-reaching collaborations.

Symposia, keynote lectures, award lectures, and poster sessions, complemented by industry sessions, will achieve the broadest possible coverage of the photobiological sciences. We welcome a large number of invited symposia chairs and speakers from across the world, enabling delegates to disseminate and discuss their research, thereby increasing its impact. In addition, there will be the opportunity to contribute and participate in interactive poster sessions.

Perth is synonymous with everything attractive about Australia, blending urban cool with raw natural beauty. With its immersive experiences and proximity to a range of day trip destinations, Australia's sunniest capital city is a place where relaxation and adventure go hand in hand.

We look forward to joining you at the conference.

Janet Bornman and Scott Byrne
2024 Conference Co-Convenors

DELEGATE INFORMATION

VENUE

Pan Pacific Perth

207 Adelaide Terrace, Perth, WA 6000, Australia
Telephone +61 8 9224 7777.
The Plenary Sessions will be held in the Golden Room South. The breakout sessions will be held in the Golden Ballroom Centre, Golden Ballroom South, Hamersley North and South, Goldsworthy, and Boardroom. The exhibition, catering, and poster sessions will be held within Golden Ballroom North and the outside foyers.

REGISTRATION DESK

The registration desk is located in the Grand River Ballroom Foyer. Any enquiries regarding your participation in the IUPB-MEPSA Congress can be directed to the ASN staff onsite. The registration desk opening hours are as follows:

Sunday 25 August: 13:30 – 19:30
Monday 26 August: 8:00 – 18:00
Tuesday 27 August: 8:00 – 18:00
Wednesday, 28 August: 8:00 – 17:00
Thursday 29 August: 8:00 – 18:00

WIRELESS INTERNET

For the conference duration, complimentary Wi-Fi is available within the Pan Pacific for IUPB-MEPSA Congress delegates.

WIFI NETWORK: meet@panpacific

PASSWORD: PanPacific22

The complimentary Wi-Fi has speeds up to 2Mbps.

SOCIAL FUNCTIONS

Welcome Function inc Perth Councillor's Welcome
Date: Sunday, 25 August
Time: 17:15– 20:30
Room: Golden Ballroom North
Cost: Included in registration and $80 for accompanying person ticket.

Congress Dinner
Date: Wednesday, 29 August
Time: 19:30 – 23:00
Location: Fraser's, Kings Park.
Cost: All tickets are $130.
Transport: Buses have been organised to transport attendees to and from the dinner venue at 19:00 and 23:00, respectively. The pick-up point is the Pan Pacific entrance and transfers begin at 19:00.

SOCIAL ACTIVITY

For delegates booked on the Fremantle Lunch Cruise, it's just a 15-minute walk to Barrack Street Jetty, Perth. Please plan to arrive 30 minutes before departure. The cruise will set off at 11:15, offering breathtaking views of the Swan River during a 2-hour and 45-minute journey, with lunch included. You'll return to Barrack Street Jetty by 14:00.

CONGRESS WEB-APP

The App is displayed in a simple and easy-to-read format on your phone, iPad, or computer. To get the App, please open the link below in your internet browser.

https://iupb-mepsa-2024.m.asnevents.com.au/

You will be prompted to add an icon to your device's home screen. The 'App' will allow you to:

- View the full conference program.
- View all abstracts for the conference.
- Save our favourite sessions and plan your day.

You will be prompted to "log in" to use most of these functions daily. Enter the same email and password that you used to register.

MOBILE PHONES

Please ensure your mobile devices are switched to silent during any session you attend.

ACCESSIBILITY

If you require any special assistance, whether mobility, sensory accommodations, language interpretation, or any other specific needs you have not previously disclosed, please do not hesitate to inform us at the registration desk. Our team is here to support you by making the necessary accommodations to ensure your participation is smooth and fulfilling.

SPEAKER PREP ROOM

The Speaker Prep room is located in the **Murchison Room**. Please try to come and upload your presentation on Monday, 26 August, as there will be two technicians in the room that day. On the other days, there will be one technician. Allow at least two hours before the commencement of the session in which you are participating so your presentation can be loaded and tested. The technician will be on hand to assist with any transfer/loading issues and to help you check your presentation.

ORAL PRESENTATION GUIDELINES

Be sure that the PowerPoint slides have the same layout all the way through. Observe that the content of each slide is not too detailed. The possibilities of animations are numerous. Graphs and figures are often better than tables at an oral presentation. Flow charts are very appropriate for describing the material. If you wish to add films or other sorts of interactive materials, please include these in the presentation (do not access them through the Internet, as this may not work to your satisfaction) and inform the conference secretariat beforehand.

POSTER PRESENTATIONS

You can display your poster when registration opens on Sunday, 25 August, in the Golden Ballroom North (Exhibition). It can be displayed for the entirety of the conference; you must stand next to it during the allocated poster session (see details below). Your poster must be removed after lunch on Thursday. Any posters left on poster panels after this time will be taken down. Velcro will be supplied at your poster number to attach your poster.

Poster Session
Date: Tuesday, 27 August
Time: 13:30 – 15:30
Room: Golden Ballroom North

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KEYNOTE SPEAKERS

Keynote: Anthony Andrady

North Carolina State University, US

Researcher in environmental impacts of polymers with a specific interest in the marine environment.

Currently involved in several international panels studying the problem and engaged in funded academic research on the topic.

Extensive experience in managing funded research sponsored by US government agencies.

Keynote: Tayyaba Hasan

Harvard Medical School, US

Tayyaba Hasan, PhD, is a Professor of Dermatology at Harvard Medical School and of Health Sciences and Technology at Harvard-MIT. She's a pioneer in targeted photodynamic therapy, including nanotechnologies for cancer and infection treatment. Dr. Hasan's invention for treating Age-Related Macular Degeneration has helped millions globally. With nearly 300 publications and over 30 inventions, she was inducted into the National Academy of Inventors. She leads an NCI-funded project on image-guided cancer treatment and an international consortium for low-cost photodynamic therapy of oral cancer. Dr. Hasan's work has earned her the NIH Pioneer Award, 5 Lifetime Achievement awards, and recognition for her commitment to mentoring and diversity in science.

Keynote: María Gabriela Lagorio

Universidad de Buenos Aires, AR

María Gabriela Lagorio was born in Buenos Aires, Argentina. She obtained her B.S. (Chemical Sciences) in 1982 at UBA. She worked in the private industry from 1983 to 1987. Subsequently, she started her research activities, obtaining her PhD in Chemical Sciences (UBA) in 1991 under the supervision of Dr. Silvia Braslavsky and Dr. Enrique San Roman. She is presently Professor at UBA and scientist researcher of CONICET. She is the head of the Research Group in Photochemistry and Photobiology in INQUIMAE (FCEN, UBA). She also served as Head of the Department of Inorganic, Analytical and Physical Chemistry, from 1-8-2022 to 31-07 2024. Her research field involves the photophysical and photochemical study of plant material and hybrid systems and her work is focused on the modeling and analysis of the interaction of light with biological entities.

Keynote: Henry Lim

Henry Ford Health, US

María Gabriela Lagorio was born in Buenos Aires, Argentina. She obtained her B.S. (Chemical Sciences) in 1982 at UBA. She worked in the private industry from 1983 to 1987. Subsequently, she started her research activities, obtaining her PhD in Chemical Sciences (UBA) in 1991 under the supervision of Dr. Silvia Braslavsky and Dr. Enrique San Roman. She is presently Professor at UBA and scientist researcher of CONICET. She is the head of the Research Group in Photochemistry and Photobiology in INQUIMAE (FCEN, UBA). She also served as Head of the Department of Inorganic, Analytical and Physical Chemistry, from 1-8-2022 to 31-07 2024. Her research field involves the photophysical and photochemical study of plant material and hybrid systems and her work is focused on the modeling and analysis of the interaction of light with biological entities.

Keynote: Chikako Nishigori

Kobe University, JP

Dr. Chikako Nishigori is a Professor Emeritus/ visiting professor of Department of Dermatology at Kobe University. She was trained at Kyoto University and received her Ph.D. there. She joined Prof. Kripke's laboratory at MD Anderson Cancer Center in 1995. Her research topics are photodermatology, genodermatoses, skin cancers, and pigment cell disorders. She served as president of Japanese Society for Photomedicine and Photobiology (2013-2018) and board of Japanese Dermatological Association (2016-2022) and officer of International Federation of Pigment Cell Society.

Keynote: Serge Picaud

Institute de la Vision, FR

Serge PICAUD is the Director of the Paris Vision Institute (France), a leading centre in vision research and ophthalmology. The Institute has generated different pharmacological treatments, gene therapies, cell therapy and prosthetic devices for preserving and restoring vision. These clinical developments were implemented through the creation of more than 10 start-ups. Serge Picaud has defined toxic wavelengths reaching the retinal tissue for the solar spectrum. In the recent years, Serge Picaud contributed to the strategies for restoring vision at the retinal level by prostheses (e.g. photovoltaic) and optogenetic therapy, which represented the world premiere for this later strategy. Optogenetic therapy relies on the expression of a microbial opsin via gene therapy to sensitize human retinal neurons to light. Recently, he provided the preclinical proof of concept for restoring vision directly at the cortical level by sonogenetic therapy.

Keynote: Robert Ramsay

Peter MacCallum Cancer Centre, AU

Until recently, Rob was co-head of the gastroenterology cancer program and led the Differentiation and Transcription Laboratory at Peter MacCallum Cancer Centre. Rob, a trained molecular biologist specializing in transcriptional regulation, has focused his career on the oncoprotein MYB, beginning in New York and progressing to clinical trials. He is recognized as a leading expert on MYB's role in tumorigenesis. Over the past 15 years, he has shifted his lab's focus to tumor immunology, immune gene dysregulation, and inflammation-mediated events that contribute to carcinogenesis.

Rob is a member of the lower GI MDM and continues to supervise surgeon-PhD students, particularly with Surgical Oncology Head Sandy Heriot. He has led the translational aspects of several clinical trials, including the Phase II Thalidomide and Celecoxib trial in 2005 and other trials such as CIGAR4, PERIPROTECT, and TARGOVAX-TGO-02. He is also a Board Director and Company Secretary of the Australasian Gastrointestinal Trials Group.

Keynote: Francesca Toma

Lawrence Berkeley National Laboratory, US

Prof. Toma is the Director of the Institute of Functional Materials for Sustainability at Helmholtz Zentrum Hereon and a Distinguished Helmholtz Professor at Helmut Schmidt University. Her research focuses on synthesizing and characterizing sustainable materials for renewable energy and biological applications. She also serves as a Visiting Professor at Lawrence Berkeley National Laboratory.

She earned her PhD in Biophysics from the International School of Advanced Studies in Italy in 2009. She gained postdoctoral experience at the University of Trieste before moving to the University of California, Santa Barbara, as a Marie Curie Researcher in 2011 and later to UC Berkeley in 2013. Prof. Toma spent nearly a decade as a Staff Scientist at Lawrence Berkeley National Lab, leading critical programs in renewable energy. She has co-authored 120 publications, earned numerous awards, and was named an Oppenheimer Fellow by the US National Laboratory Directors' Council in 2022, highlighting her leadership in scientific research.

2024 AWARDEES

IUPB Awardees

Finsen Medallists

Finsen Medals are awarded to distinguished photobiologists for their outstanding contributions to the photo sciences. These medals recognise scientists who have worked in the photo sciences for many years.

Kristian Berg
Institute of Cancer Research, Oslo University Hospital, Norway

Yoshitaka Fukada
Graduate School of Science, University of Tokyo, Japan

Jean Krutmann
IUF – Leibniz Research Institute for Environmental Medicine, Germany

Finsen Lecturer

Finsen Lecturers are promising photo scientists who have achieved breakthroughs or similar accomplishments in the photo sciences.

Keiichi Inoue
The Institute for Solid State Physics, The University of Tokyo, Japan

Edna Roe Lecturer

Edna Roe Lecturers are promising photo scientists who have achieved breakthroughs or similar accomplishments in the photo sciences.

Angela Falciatore
CNRS/Sorbonne University, Paris, France

MEPSA Awardee

Vivienne Reeve Lecturer

Prue Hart
Telethon Institute, Perth, Western Australia

Understanding and preventing the risks of the sun's rays

Sun exposure is a real public health issue. Skin cancers are the most common groups of cancers diagnosed worldwide, with more than 1.5 million new cases estimated in 2022.

And yet, 77% of people do not protect themselves all year round, but only on hot days, during holidays, or even never for 15% of them. Nevertheless, 57% of those surveyed said they regretted not having protected themselves better from the sun in the past, and the majority admitted that they did not clearly understand the difference between UVB and UVA rays.

In addition to the public health issue, it is estimated that 80% of visible facial aging signs (wrinkles, hyperpigmentation ...), are caused by exposure to the sun. Today, 50% of consumers report skin pigmentation issues, knowing that the more melanin pigments the skin has, the more prone it is to hyperpigmentory disorders.

Sun protection must therefore become a daily routine.

A deleterious long-term impact

The amount of UV rays that reaches us depends on the time of day, the season, the altitude, or the weather. According to their wavelengths, we distinguish between UVB (rays between 280 and 320 nm*), short UVA (between 320 and 340 nm) and long UVA (between 340 and 400 nm). These long UVA rays, which penetrate deeply into the skin, are more insidious and can lead to deep skin damages and clinical consequences:

Short-term: persistent darkening of the skin, immune disorders such as herpes.

Medium-long term: premature photoageing, with the appearance of wrinkles and hyperpigmentation disorders.

Long-term: increased risk of skin cancer.

One of the major challenges of cosmetics industry is therefore to broaden the spectrum of sun protection to prevent all UV-induced skin damages. Recently, a major scientific breakthrough made it possible to increase solar filtration in the long UVA range between 380 and 400 nm and offer products with maximum coverage of the solar UV spectrum.

A broader spectrum of sun protection

Technology has been developed to enlarge the profile of absorption in sunscreen products for long UVA rays, protecting the skin from the 30% of the sun's rays that were not filtered and therefore, protecting the skin from the deep cellular damage caused by these most insidious UV rays.

Recent understanding of the role of visible light

While the harmful of UV radiation are well known, scientific research is revealing the impact of visible light on pigmentation. Recent studies have shown the contribution of visible light, and blue wavelengths in particular, to the development, aggravation, or recurrence of hyperpigmentation disorders inducing dyschromia such as age spot (actinic lentigines), melasma or post-inflammatory hyperpigmentation.

DISCOVER MORE DURING THE SYMPOSIUM "HYPERPIGMENTATION. THE ROLE OF VISIBLE LIGHT", ON:

WEDNESDAY 28 AUGUST 10:15 TO 12:45

Sources:
- WHO, 2022.
- LA ROCHE-POSAY l'spot- 1st International Epidemiological Survey assessing social stigmatization in pigmentary disorders. (48,000 participants, 34 countries from all continents. December 2022 to February 2023).
- Attitudes and behaviors regarding sun exposure in Japan compared to Europe and North America, JDA, March 2024.
- Do regrets of parents about sun overexposure impact preventive measures applied on their children?, JEADV, September 2023.
- Outdoor workers and sun exposure: Results of an international survey on sun exposure behaviours and knowledge among 17 countries, the HELIOS project, JEADV, March 2024.
- The Damaging Effects of Long UVA (UVA1) Rays: A Major Challenge to Preserve Skin Health and Integrity, MDPI, 2022.
- Effect of the sun on visible clinical signs of aging in Caucasian skin, 2013.
- New insights in visible light-induced pigmentation and means of protection, Abstract, Françoise Bernard, ICP, 2024.

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SCAN FOR INFO

CAN AID IN THE PREVENTION OF PREMATURE AGEING, MAY REDUCE THE RISK OF SOME SKIN CANCERS

*IQVIA Sell out service. Sun protection, Australian Pharmacy and Grocery. Total Value Sales & Units, 52 wks ending 06/07/2024.
ALWAYS READ THE LABEL AND FOLLOW DIRECTIONS FOR USE. Apply 20 minutes before sun exposure. Sunscreen is only one part of sun protection, so wear protective clothing and seek shade. Avoid prolonged sun exposure. Re-apply in accordance with directions.

SYMPOSIA CHAIRS

A-Z

Yagut Allahverdiyeva-Rinne
University of Turku, FI

Anthony Andrady
North Carolina State University, US

Luis Arnaut
University of Coimbra, PT

Mauricio Baptista
University of São Paulo, BR

Françoise Bernerd
L'Oréal, FR

Devaki Bhaya
Department of Plant Biology, US

Kristian Berg
Department of Radiation Biology, NO

Silvia Braslavsky
Max Planck Institute for Chemical Energy Conversion, DE

Scott Byrne
University of Sydney, AU

Giltsu Choi
KAIST, KR

Nick Cox
Australian National University, AU

Roberta Croce
Vrije Universiteit Amsterdam, NL

Fabienne Dumoulin
Acibadem University, TK

Arthur Grossman
The Carnegie Institution for Science, US

Nikolas Haass
University of Queensland, AU

Tayyaba Hasan
Harvard Medical School, US

Huang-Chiao Huang
University of Maryland, US

Sally Ibbotson
University of Dundee, UK

Tomoko Inose
Kyoto University, JP

Indermeet Kohli
Henry Ford Health, US

Henry Lim
Henry Ford Health, US

Gareth Lingham
Lions Eye Institute, AU

Maria Jose Marin Altaba
University of East Anglia, UK

Tatsuru Masuda
The University of Tokyo, JP

Carlos F M Menck
University of São Paulo, BR

Jun Minagawa
National Institute for Basic Biology, JP

Giorgia Miolo
University of Padova, IT

Pavel Müller
University of Paris-Saclay, FR

Santi Nonell
IQS-Universitat Ramon Llull, ES

Qian Peng
Oslo University Hospital, NO

Peter Philipsen
Copenhagen University Hospital, DK

Daniel Roca-Sanjuán
University of Valencia, ES

Patrick Rochette
Université Laval, CHU Quebec, CA

Tadeusz Sarna
Jagiellonian University, PL

Salvatore Sortino
University of Catania, IT

Pål K. Selbo
Oslo University Hospital, NO

Xiaojing Yang
University of Illinois Chicago, US

Michel Sliwa
Université De Lille, FR

Akihisa Terakita
Osaka City University, JP

Franz Trautinger
Karl Landsteiner University of Health Sciences, AT

Patricia Vicendo
Université Paul Sabatier, FR

Melinda Waterman
University of Wollongong, AU

Ruohe Yin
Shanghai Jiao Tong University, CN

Antony Young
King's College London, UK

Gang Zheng
University of Toronto, CA

Matias Zurbirggen
University of Duesseldorf, DE

INVITED SPEAKERS

A-Z

Alireza Ariafard
Australian National University, AU

Carla Arnau del Valle
University Of Maryland,US

Karin Aubrey
Kolling Institute & University of Sydney, AU

Francesco Baldini
Institute of Applied Physics, IT

Antonio Benayas Hernandez
Universidad Autónoma de Madrid (UAM) & IRYCIS, SP

Tony Bergen
CIE (International Commission on Illumination), AU

Juliette Bertrand
Skinosive, FR

Ardemis Boghossian
Ecole Polytechnique Federale de Lausanne, CH

Roger Bresolí Obach
Universitat Ramon Llull, ES

Piergiacomo Calzavara-Pinton
University of Brescia, IT

Adriana Gabriela Casas
Research Center of Porphyrins and Porphyrias, AR

Pascale Changenet-Barret
CNRS, FR

Meng Chen
University of California, USA

Vivienne Chua
Edith Cowan University, AU

Graeme Clark
University of Queensland Diamantina Institute, AU

Margaret Clark
ALIS: Adolescent Latitude Immune Study, AU

Louisa Collins
QIMR Berghofer Medical Research Institute, AU

Carlos Crespo-Hernández
Case Western Reserve University, US

Janusz Dabrowski
Jagiellonian University, PL

Sarah D'Adamo
Wageningen University, NL

Sourav Datta
Indian Institute of Science Education and Research (IISER), IN

Wei Deng
University of Technology Sydney, AU

Katie Dixon
University of Sydney, AU

Maria Agustina Dominguez-Martin
University of Cordoba, SP

Kate Drummond
Royal Melbourne Hospital/University of Melbourne, AU

Elise Dumont
Universite de Cote d'Azur, FR

Raymond Najjar
National University of Singapore, Yong Loo Lin School of Medicine, SG

Rachel Neale
QIMR Berghofer Medical Research Institute, AU

Peter Nixon
Imperial College London, GB

Dennis Nürnberg
Freie Universität Berlin, DE

Girgis Obaid
University of Texas, US

Takashi Ohtsuki
Okayama University, JP

Massimo Olivucci
University of Siena, IT

Ravindra Pandey
US

Sumiao Pang
UMD College Park, US

Dimitrios Pantazis
Max-Planck-Institut für Kohlenforschung, DE

Alicia Victoria Perera Castro
University of La Laguna, ES

Gerd Pfeifer
Van Andel Institute, US

Charareh Pourzand
University of Bath, GB

Kanyi Pu
Nanyang Technological University, SG

Fabiana Quaglia
University of Napoli Federico II, IT

Jose Quilez
Harvard Medical School, US

Halim Hamid Redhwi
University of Petroleum & Minerals (KFUPM), SA

Phyllis Robinson
University of Maryland, SG

Bruno Rojas
KTH Royal Institute of Technology, SW

Xu Wang
Peking University Institute of Advanced Agricultural Sciences, CN

Michelle Rodrigues
St Vincent's Hospital, AU

Loren Rose
Macquarie University Australia, AU

Roberto Santana da Silva
University of Sao Paulo, BR

Igor Schapiro
The Hebrew University of Jerusalem, IS

Gebhard Franz Xaver Schertler
Paul Scherrer Institut, CH

Amadea Seabra
Federal University of ABC (UFABC), BR

Vincent Sol
Université de Limoges, FR

Young Kyoung Song
Chonnam National University, SK

Mitchell Stark
University of Queensland, AU

Michi Suga
Okayama University, JP

Sridevi Sureshkumar
Monash University, AU

Rolf-Markus Szeimies
Klinikum Vest Academic Teaching Hospital Ruhr-University Bochum, DE

Lijin Tian
Institute of Botany, CN

Angeli Torress
Makati Medical Center, PH

Lay Khoon Too
The University of Sydney, AU

Yusuke Tsukatani
Japan Agency for Marine-Earth Science and Technology (JAMSTEC), JP

Hiroshi Uji-i
Hokkadio University, JP

Herbert van Amerongen
Wageningen University & Research, NL

AIgnacio Vayá
Universitat Politècnica de València, ES

Georges Wagnières
Swiss Federal Institute of Technology (EPFL), CH

Brian Wilson
Washington State University, US

Shiyong Wu
Ohio University, US

Shu-Hsing Wu
Academia Sinica, TW

John Wyrick
Washington State University, US

Iftach Yacoby
Tel Aviv University, IL

Junpei Yamamoto
Osaka University, JP

Juyoung Yoon
Ewha Womans University, KR

Jindong Zhao
Peking University, CN

Dongping Zhong
The Ohio State University/Shanghai Jiao Tong University, US

Liping Zhu
Donghua University, CN

Bo Zhuang
Peking University, CN

Yongli Zhou
Central South University, CN

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CONGRESS PROGRAM

ABSTRACTS AND PROFILES CAN BE FOUND ON THE ONLINE PROGRAM

PROGRAM SUBJECT TO CHANGE

Sunday, 25th August 2025

Registration Open

1:30PM – 7:30PM..... Golden Ballroom Foyer 1 & 2

IUPB Presidential Lecture

Janet Bornman

4:00PM - 4:35PM.....Golden Ballroom – South

MEPSA Presidential Lecture

Scott Byrne

4:35PM - 5:10PM..... Golden Ballroom - South

Welcome Reception

Welcome Address by the City of Perth Councillor

Nibbles and Drinks provided as part of your congress registration.

5:15PM - 8:15PM..... Golden Ballroom North + Foyer 1 & 2

Monday, 26th August 2025

Congress Opening

Janet Bornman – IUPB

8:15AM - 8:30AM.....Golden Ballroom - South

IUPB FINSEN MEDAL LECTURE

Yoshitaka Fukada

Light signalling by vertebrate photoreceptor opsin and G-protein *abs# 1*

8:30AM - 9:15AM..... Golden Ballroom - South

IUPB EDNA ROE LECTURE

Angela Falciatore

Light in the life of marine phytoplankton *abs# 2*

9:15AM - 9:45AM..... Golden Ballroom – South

MORNING TEA – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

Concurrent Session 1 - Structure, function and application of animal “non-conventional” opsins.

PAJ symposium

Chair: Akihisa Terakita

10:15AM - 12:45PM..... Golden Ballroom - South

Akihisa Terakita -IL

Molecular properties and optogenetic potentials of diverse animal opsins *abs# 3*

Sonja Kleinlogel -IL

An ultrafast opsin from the dreaded box jellyfish *abs# 4*

Gebhard Franz Xaver Schertler -IL

Structure of an active bistable invertebrate rhodopsin: Implications for the mechanistic understanding of bistability *abs# 5*

Mitsumasa Koyanagi -IL

Evolution of the jumping spider rhodopsin and its optogenetic potentials *abs# 6*

Phyllis R ROBINSON -IL

Melanopsin, from molecule to behavior *abs# 7*

Daisuke KOJIMA -OC

Differential roles of multiple photoreceptors in regulating background adaptation of zebrafish *abs# 8*

Concurrent Session 2 - Targeted photosensitizer delivery strategies

Chair: Huang Chiao Huang

10:15AM - 12:15PM …….. Golden Ballroom - Centre

Carla Arnau del Valle -IL

Novel verteporfin-based nanoparticles for targeted photodynamic therapy of ovarian cancer *abs# 9*

Dennis Ng-IL

Polydopamine-Based Nanophotosensitizing Systems for Targeted Phototherapy *abs# 10*

Sumiao Pang-IL

Targeted photo-activable multi-agent liposome for fluorescence-guided photoimmunotherapy enhances survival outcomes *abs# 11*

Huang Chiao Huang-OC

Light-Activatable, Sustained-exposure Ethanol Injection Technology (LASEIT) for treatment of locally advanced tumors *abs# 12*

Concurrent Session 3 - Advances in optogenetics and molecular aspects

Chair: Matias Zurbriggen

10:15AM - 11:45AM …….. Goldsworthy

Matias Zurbirggen - IL

Engineering photoreceptors into optogenetic tools for the control and understanding of cellular processes in microbial, animal and plant systems *abs# 53*

Karin Aubrey - IL

Optogenetic stimulation of projection neurons – sublime but not physiological *abs# 54*

Lay Khoon Too - IL

Optogenetic approaches for restoring vision: Where are we now? *abs# 218*

Concurrent Session 4 - UV radiation in the skin and vitamin D

Chair: Peter Philipsen

10:15AM - 12:15PM …….. Boardroom

Louisa Collins- IL

Making the sunshine vitamin – how much sun exposure is needed to maintain 25 hydroxy vitamin D concentration? *abs# 17*

Antony R Young- IL

How does natural sun protection and sunscreen use influence vitamin D synthesis? *abs# 18*

Katie Dixon- IL

Protection of vitamin D compounds against UV-induced skin carcinogenesis *abs# 19*

Peter A Philipsen- IL

New action spectrum for vitamin d production in human skin – Does this alter the risk-benefit balance? *abs# 20*

Sebastian SL Lorenz- IL

Increasing Solar UV Radiation in Dortmund, Germany, and Uccle, Belgium – Results of Long-Term UV Monitoring *abs# 320*

Concurrent Session 5 - Light sensing in plants, algae and cyanobacteria: photosynthesis and photoperception

Chair: Xiaojing Yang

10:15AM - 12:25PM …….. Hamersley - North

Jindong Zhao- IL

Phycobilisome assembly and attachment to photosystem II for energy conversion in cyanobacteria *abs# 21*

Igor Schapiro- IL

Photoisomerization Mechanism of Retinal in Different Rhodopsins - Insight from Multiscale Simulations *abs# 22*

Dongping Zhong- IL
Ultrafast primary dynamics and isomerization mechanism of a far-red sensing cyanobacteriochrome *abs# 23*
Xiaojing Yang- IL
Light Signaling and Allostery Mechanisms of Bacteriophytochromes *abs# 24*
Michel Sliwa- OC
Light Intensity-Dependent Photo-Activation Quantum Yield of Orange Carotenoid Protein *abs# 25*

Concurrent Session 6 - Phototoxicity - Photostability of drugs

SIFB symposium

Chair: Giorgia Miolo

10:15AM - 12:25PM .....Hamersley - South

Carlos E. Crespo-Hernández- IL
Development of organic photo-drugs for the treatment of cancers *abs# 26*
Virginie Lhiaubet-Vallet- IL
Phototoxicity of retinoid drugs: from photophysics to photobiology *abs# 27*
Giorgia Miolo- IL
Photostability of anticancer monoclonal antibodies *abs# 28*
Donata Favretto- IL
Photo(un)stability of drugs and biomarkers *abs# 29*
Zoe A. Arnaut- OC
What makes the strength of very phototoxic photosensitizers *abs# 30*

LUNCH – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

KEYNOTE LECTURE

Serge PICAUD
From photoreceptor light damage to optogenetic and sonogenetic visual restauration *abs# 31*
2:00PM - 2:30PM ..... Golden Ballroom – South

KEYNOTE LECTURE

Chikako NISHIGORI
UV carcinogenesis-update- *abs# 32*
2:30PM - 3:00PM ..... Golden Ballroom - South

AFTERNOON TEA – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

Concurrent Session 1 - Photobiology and photoprotection in skin of color

Chairs: Antony Young & Indermeet Kohli
3:30PM - 5:30PM..... Golden Ballroom - South

Tasneem Mohammad- IL
Impact of solar ultraviolet radiation and visible light on human skin *abs# 33*
Angeli Eloise Torres- IL
Photodermatoses in Skin of Color *abs# 34*
Antony R Young- IL
Impact of melanin on DNA photodamage and vitamin D synthesis *abs# 35*
Tasneem Mohammad- IL
Photoprotection: Addressing challenges for skin of color *abs# 36*

Concurrent Session 2 - Design of photosensitizing systems with improved efficiency

Chair: Fabienne Dumoulin
3:30PM - 6:00PM..... Golden Ballroom – Centre

Patricia P Vicendo- IL
Synergistic Strategies for Photodynamic Therapy: Harnessing Block Copolymer Nanosytems for Enhanced both Drug Delivery and Photosensitizers Activity *abs# 37*
Janusz M. Dabrowski- IL
Can phthalocyanines be successful photosensitizers in vascular-targeted photodynamic therapy? Evidence from photochemical studies and biological evaluation on hiPSC-derived organoids and rodent models *abs# 38*
Pui Chi Gigi Lo- IL
Inducing Immunogenic Cancer Cell Death through Oxygen-Economized Photodynamic Therapy with Nitric Oxide-Releasing Photosensitizers *abs# 39*
Girgis Obaid- IL
Stroma- and immune-modulating photosensitizing systems: antibody conjugates, lipid nanoparticles, and everything in between *abs# 40*
Fabienne Dumoulin- IL
Formulating and delivering phthalocyanines to cancer cells and tissues *abs# 41*

Concurrent Session 3 - Biomolecular condensates in plant light signaling

Chair: Giltsu Choi
3:30PM - 5:40PM…….. Goldsworthy

Giltsu Choi- IL
What is the phyB photobody made of? *abs# 42*
Meng Chen- IL
Function of photobodies in phytochrome signaling in plants *abs# 43*
Xu Wang- IL
Role of CRY2 condensates in controlling light-responsive gene expression in *Arabidopsis abs# 44*
Shu-Hsing Wu- IL
Translation control by the cytosolic biomolecular condensate P-bodies optimizes early seedling developments in Arabidopsis *abs# 45*
Kuo-Chen Yeh- OC
Circadian Rhythm Regulation by Iron Deficiency and Chloroplast Signaling in *Arabidopsis thaliana abs# 46*

Concurrent Session 4 - Quantum efficiency of photobiological processes: an experimental and theoretical view from femtosecond to millisecond time-scale

SFPb symposium

Chair: Michel Sliwa
3:30PM - 6:00PM…….. Boardroom

Massimo Olivucci- IL
From color-tuning to optogenetics: relationship between red-light absorption and fluorescence intensity in an archaerhodopsin model. *abs# 47*
Pascale Changenet- IL
Multiscale conformational dynamics in proteins and DNA probed by time-resolved circular dichroism from femtoseconds to milliseconds *abs# 48*
Miroslav Kloz- OC
Light activation mechanism of Orange Carotenoid Protein resolved by femtosecond stimulated Raman Spectroscopy *abs# 49*
Keiichi Inoue- IL
Spectroscopic study on the photoreaction dynamics of ion-transporting microbial rhodopsins *abs# 50*
Nanna Holmgaard List- IL
To twist or not to twist: photoisomerization bottlenecks in negative reversibly photo switchable fluorescent proteins *abs# 51*
Michel SLIWA- IL
How the protein cage controls the photoswitching mechanism of reversibly photoswitchable fluorescent proteins. *abs# 52*

Concurrent Session 5 - Designed Photoenzymes

Chairs: Silvia Braslavsky & Pavel Müller
3:30PM - 6:00PM ……..Hamersley - North

Silvia E Braslavsky- IL
Natural photoenzymes *abs# 13*
Pavel Müller- IL
Fatty Acid Photodecarboxylase (FAP): a gateway to non-fossil hydrocarbon fuels and beyond... *abs# 14*
Junpei Yamamoto- IL
Enhanced light-driven DNA repair by a photolyase bearing an artificial light-harvesting chromophore *abs# 15*
Bo Zhuang- IL
Photoswitching of Flavin–Inhibitor Complexes in Flavoenzymes *abs# 16*

IUPB Board Meeting
6:00PM - 7:30PM..... Pilbara

Tuesday, 27th August 2025

IUPB FINSEN MEDAL LECTURE
Kristian BERG
Photochemical internalization (PCI). From microscopy to clinic. *abs# 55* 8:30AM - 9:15AM.....Golden Ballroom - South

IUPB FINSEN LECTURE
Keiichi INOUE
Where do microbial rhodopsins come from? What are they? Where are they going? *abs# 56*
9:15AM - 9:45AM .....Golden Ballroom - South

MORNING TEA – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

Concurrent Session 1 - What's new and controversial on sunscreens and photoprotection
Chair: Henry Lim
10:15AM - 12:25PM ..... Golden Ballroom - South

Session sponsored by: BIODERMA LABORATOIRE DERMATOLOGIQUE

Yolanda Gilaberte - IL
Usefulness of the SmartPDT® digital medical device to optimise the effectiveness and safety of natural daylight PDT (NDL-PDT): a clinical study in Spain abs# 57
Juliette Bertrand- IL
Long-lasting and safe photoprotection using a skin-bioadhesive technology: a proof of concept with a novel M10 skin-bioadhesive UVA filter - SPONSORED BY: SKINOSIVE abs# 58
Henry W Lim- IL
Personalized photoprotection abs# 59
Marie-Dominique Galibert- IL
UV-exposure shapes melanoma biology & response to treatment abs# 60
Antony R Young- OC
Innovative medical app that uses real-time satellite data and AI to optimise sun exposure behaviour abs# 61

Concurrent Session 2 - Cell death mechanisms involved in photodynamic activation
Chair: Tayyaba Hasan
10:15AM - 12:25PM..... Golden Ballroom - Centre

Huang Chiao Huang- IL
Photoimmunoconjugate nanoconstructs and their multi-tiered cancer targeting mechanisms abs# 62
Chae Gyu Lee- IL
Targeted oxidation of HSP90 paralogs induces endoplasmic reticulum stress-mediated immunogenic cell death abs# 63
Lígia C. Gomes-da-Silva- IL
Mechanisms of cell death induced by photo-activated bacteriochlorins that accumulate at the endoplasmic reticulum and Golgi compartments abs# 64
Tae-Hyuk Kwon- IL
Photodynamic Therapy-Induced Cell Death Based on Targeted Organelles abs# 65

Saptaswa Dey- OC
Enhanced phototherapeutic efficacy through microbial modulation in cutaneous T-cell lymphoma delays tumour growth and increases survival in the murine EL4 model abs# 66

Concurrent Session 3 - Photobiology in aquatic phototrophs

Chairs: Devaki Bhaya & Arthur Grossman
10:15AM - 12:15PM…….. Goldsworthy

Xiaobo Li- IL
Biogenesis and regulation of light-harvesting systems in diatoms abs# 67
Marianne Jaubert- IL
Phytochromes mediate depth sensing and photoacclimation in marine diatoms abs# 68
Maria Agustina Dominguez Martin- IL
Study of the biodiversity in photosynthetic light harvesting and regulation in cyanobacteria abs# 69
Devaki Bhaya- IL
Phototaxis and motility in natural and synthetic communities abs# 70
Emina A Stojković- OC
Photoreception and signaling in bacterial phytochrome revealed by single particle cryo-EM abs# 318

Concurrent Session 4 - Photoreactivity of biomolecules: diversity in the mechanisms

SFPb symposium

Chair: Patricia Vicendo
10:15AM - 12:25PM…….. Boardroom

Virginie Lhiaubet-Vallet- IL
Photochemistry of DNA: The role of lesions abs# 71
Pascale Changenet- IL
Reversible photoregulation of G-quadruplex DNA structures by non-covalent azobenzene derivatives abs# 72
Ignacio Vayá- IL
Photobehavior of gefitinib and its photoactive metabolites in solution and in protein media abs# 73
Patricia P Vicendo- IL
Shedding Light on Photoreactivity of Photosensitizer-Loaded Copolymer Micelles with Lipid Membrane Models abs# 74
Ana Borrego-Sánchez- OC
BINDING/UNBINDING PROPERTIES OF INDOLE-BASED DIOXETANES IN DNA abs# 75

Concurrent Session 5 - Photosystem II and water oxidation

Chair: Nick Cox
10:15AM - 12:15PM…… Hamersley - North

Nick Cox- IL
Activation of the Mn4CaO5 cofactor of Photosystem II as studied by High Field EPR and MCD spectroscopy abs# 76
Michi Suga- IL
Real-Time Structural Changes during the S1-S2-S3 state transitions of the Kok cycle of Photosystem II Caught by Time-Resolved Crystallography abs# 77
Dimitrios A. Pantazis- IL
Of spins and electrons: deciphering biological water oxidation abs# 78
Alireza Ariafard- IL
Elucidating the Mechanisms of Oxyl Species Formation in Photosystem II: Insights from Computational Studies abs# 79

Concurrent Session 6 – Nanobioplasmonics

Chair: Tomoko Inose
10:15AM - 11:45AM…….. Hamersley - South

Hiroshi Uji-i- IL
Visualization of intercellular communication upon photo-thermal therapy in 3D tumor model abs# 80
Tomoko Inose- IL
Plasmonic nanowire single live-cell endoscopy toward intracellular material delivery abs# 81
Alison M Funston- IL
Precision Assembly of Nanoparticle Superstructures using DNA abs# 82

(GROUP PHOTO ON POOL DECK BEFORE LUNCH – 12:25PM)

LUNCH – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

POSTER SESSION

1:30PM - 3:30PM……Golden Ballroom North + Foyer 1 & 2

AFTERNOON TEA – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

Concurrent Session 1 - PDT combinations and drug delivery

Chair: Kristian Berg
3:30PM - 6:00PM…… Golden Ballroom - South

Alf Kristian - IL
Light-enhanced VEGF121/rGel induce immunogenic cell death and increase the antitumor activity of αCTLA4 treatment abs# 83
Girgis Obaid - IL
Targeting and blocking the PD-L1 immune checkpoint in pancreatic cancer using self-penetrating, light-responsive liposomes. abs# 84
Lígia C. Gomes-da-Silva - IL
The Crucial Role of Atropisomerism in Enhancing Amphiphilicity and Cellular Internalization of Photosensitizers abs# 85
Takashi Ohtsuki - IL
Cell-penetrating peptide/photosensitizer conjugates for photo-triggered cytosolic delivery of RNAs and peptides abs# 86
Brian C. Wilson - IL
Photochemical immune stimulation of melanoma abs# 87

Concurrent Session 2 - Biodiversity in photosynthetic light harvesting and regulation

ISPR symposium

Chair: Roberta Croce
3:30PM - 5:50PM…… Golden Ballroom - Centre

Roberta Croce- IL
Balancing Photon Harvesting Between Photosystems abs# 88
Lijin Tian- IL
Biodiversity of Nonphotochemical Quenching abs# 89
Herbert van Amerongen- IL
Biophysical Insights into Light Harvesting Acclimation and Regulation in Oxygenic Photosynthesis abs# 90
Dennis Nürnberg- IL
Diversity and evolution of far-red light photoacclimation in cyanobacteria abs# 91
Sheona N Innes- OC
Using blue light to control transpiration: improving growth in low VPD abs# 92
Andrei Herdean- OC
Assessing temperature and light interactions on non-photochemical quenching in microalgae abs# 93

Concurrent Session 3 - Melanin pigments: how photochemistry affects their biological role

Chair: Tadeusz Sarna
3:30PM - 5:30PM…… Goldsworthy

Shosuke Ito- IL
Photo-modification of Eumelanin and Pheomelanin and Its Biological Implications abs# 94
Antony R Young- IL
Modification of DNA photodamage by melanin in human skin in vivo abs# 95
Mauricio Baptista- IL
Photosensitization of melanin in skin cells and in hair fibers abs# 96
Tadeusz Sarna- IL
Photooxidaton of eumelanin affects its efficiency to photogenerate and quench singlet oxygen abs# 97

Concurrent Session 4 - Nanobiophotonics - nanoscience to address biological challenges

Chair: Maria Jose Marin Altaba
3:30PM - 5:30PM…… Boardroom

Francesco Baldini- IL
Molecular beacons as optical switching probes for intracellular theranostics and optical biosensing abs# 98
Francisco Galindo- IL
Applications of minimalistic delocalized lipophilic cations: from nanocarriers to mitochondrial markers abs# 99
Antonio Benayas- IL
Luminescence nanoparticles as "our spies inside" for manometry or thermometry at the biomedical arena abs# 100
Maria Jose Marin Altaba- IL
Exploring the potential of fluorescent nanoprobes for the versatile detection and quantification of nitric oxide in live cells abs# 101

Concurrent Session 5 - Melanoma heterogeneity and therapeutic approaches

Chair: Nikolas Haass
3:30PM - 5:30PM..... Hamersley - North

Mitchell S Stark- IL
The genomic landscape of melanoma-prone skin abs# 102
Vivian Chua- IL
Dissecting the roles of BAP1 in uveal melanoma abs# 103
Peter Lau- IL
BackTIL the Future: Cell Therapy for Immunotherapy Resistant Metastatic Melanoma abs# 104
Nikolas Haass- IL
Targeting Melanoma Heterogeneity to Improve both Targeted and Immune Therapy abs# 105

Concurrent Session 6 - Photosensitivity diseases and photodiagnostics

Chair: Sally Ibbotson
3:30PM - 5:30PM..... Hamersley - South

Piergiacomo Calzavara-Pinton- IL
Immunological photodermatoses and photoaggravated diseases abs# 106
Henry W Lim- IL
What's New in Drug, Genetic and Metabolic Photodermatoses? abs# 107
Sally H Ibbotson- IL
Shedding Light on Photodiagnostics abs# 108
Yolanda Gilaberte- IL
Photoprotection and management of the photosensitivity diseases abs# 109

IUPB General Assembly

Appointment of President and Vice Presidents
6:00PM - 7:00PM..... Golden Ballroom - South

Wednesday, 28th August 2025

IUPB FINSEN MEDAL LECTURE

Jean KRUTMANN
Beyond DNA repair: Novel functions of Cockayne syndrome B (CSB) and Xeroderma pigmentosum A (XPA) proteins *abs# 110*
8:30AM - 9:15AM..... Golden Ballroom - South

KEYNOTE LECTURE

Francesca TOMA
Advancements in Solar Fuel Generation: Exploring the Frontier of Artificial Photosynthesis *abs# 111*
9:15AM - 9:45AM..... Golden Ballroom - South

MORNING TEA – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

Concurrent Session 1 - Hyperpigmentation. The role of visible light

Chair: Francoise Bernerd
10:15AM - 12:15PM..... Golden Ballroom - South

Session sponsored by: modulight

Michelle Rodrigues- IL
Hyperpigmented disorders, role of sunlight and photoprotection needs *abs# 122*
Henry Lim- IL
Impact of visible light on human skin *abs# 217*
Francoise Bernerd- IL
New insights in visible light-induced pigmentation and means of protection *abs# 124*
Antony R Young- IL
A new sunscreen filter protects against pigmentation, and molecular damage *in vivo* and *in vitro* at the UVA/visible boundary region *abs# 125*

Concurrent Session 2 - Endogenous photosensitizers and the skin redoxome

Chair: Mauricio Baptista
10:15AM - 12:45PM…….. Golden Ballroom - Centre

Rachel Neale- IL
Balancing the harms and benefits of sun exposure *abs# 116*
Chararеh Pourzand- IL
Ironing out skin photoaging with multifunctional natural-based products with potent iron chelating and antioxidant properties *abs# 117*
Shiyong Wu- IL
cNOS: A Key Regulator of Redox Homeostasis and DNA-damage Repair in Skin Cells Post-UV Exposure *abs# 118*
Tadeusz Sarna- IL
Oxidative modifications of melanin pigments increase their photosensitizing ability *abs# 119*
Mauricio Baptista- IL
Visible light excites lipofuscin and induces photoaging in skin cells abs# 120
Lohanna F Lopes- OC
Photosensitization of FICZ and ICZ in mimetic models of membranes *abs# 121*

Concurrent Session 3 - Photodynamic therapy resistance mechanisms in cancer

NOFFOF symposium
Chair: Pål Kristian Selbo
10:15AM 12:15PM…….. Boardroom

Session sponsored by: L'ORÉAL RESEARCH & INNOVATION

Tayyaba Hasan- IL
Photosensitization as a Tool for addressing Drug Resistance *abs# 126*
Adriana G. Casas- IL
Can cancer cells escape photodynamic therapy? *abs# 127*
Yolanda Gilaberte- IL
Resistance in non-melanoma skin cancer: how to overcome it *abs# 128*
Pål Kristian Selbo- IL
Using PCI to overcome PDT resistance mechanisms in cancer *abs# 129*

Concurrent Session 4 - Photoimmunology: effect of solar radiation on the immune system

MEPSA symposium
Chair: Scott Byrne
10:15AM - 12:35PM…….. Hamersley - North

Dmitri Krysko- IL
Advancing Glioma Immunotherapy: Photodynamic Therapy-Induced Immunogenic Cell Death and Dendritic Cell Vaccines *abs# 130*

Kurt Q Lu- IL
Repairing a sunburn: flipping the skin-immune switch *abs# 131*
Rachael A Ireland- IL
More than skin-deep: exploring the immunomodulatory effects of ultraviolet radiation *abs# 132*
Margaret Clark- IL
Seasonal sunlight exposure (daylength and UV) is associated with regulatory T-cell and Th17 levels in adolescent and adult females, a potential risk factor for MS *abs# 133*
Shoaib Anwaar- OC
The role of UV-induced regulatory T cells in the establishment of Cutaneous Squamous Cell Carcinoma *abs# 134*

Concurrent Session 5 - Acclimation of photosynthetic machineries

Chair: Jun Minagawa
10:15AM - 12:15PM..... Hamersley - South

Jun Minagawa- IL
State Transition in Green Algae : Structural Dynamics and Evolutionary Perspectives *abs# 136*
Michael Hippler- IL
A dynamic pair: Photosystem I and the cytochrome b_6f complex in focus *abs# 137*
Matt Johnson- IL
Rewiring photosynthetic electron transfer using CRISPR-Cas9 gene editing *abs# 138*
Toru Kondo
Photosynthetic light-harvesting regulation utilizing protein dynamics *abs# 139*

LUNCH – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

KEYNOTE LUNCH LECTURE - Henry LIM - Beyond sunscreens: Oral and systemic photoprotection

Beyond sunscreens: Oral and systemic photoprotetion *abs# 123*
12:45PM - 1:45PM..... Golden Ballroom - South

Join us for a keynote lecture during lunchtime in the Golden Ballroom (South). Please feel free to grab your lunch and bring it with you to enjoy while listening to this important presentation.

Session sponsored by:

CLINUVEL

Concurrent Session 1 – Phototherapy

Chair: Franz Trautinger
2:00PM - 3:00PM..... Golden Ballroom - South

Monisha Gupta-IL
Phototherapy of inflammatory skin diseases in 2024 *abs# 140*
Giovanni Leone-IL
Phototherapy of vitiligo *abs# 141*
Ni Zeng-OC
Research progress and trends in laser treatment of acne scars:a bibliometric analysis of related research over the period of 2014-2023 *abs# 142*

Concurrent Session 2 - Role of nanoparticles in PDT and beyond

Chair: Gang Zheng
2:00PM - 3:00PM..... Golden Ballroom - Centre

Juyoung Yoon-IL
Recent Progress on Phototherapy and Fluorescent Imaging Probes *abs# 143*
Wei Deng-IL
New treatment option for rectal cancer: X-ray activated photodynamic therapy *abs# 144*

Concurrent Session 3 - Plant responses to UV-B mediated by the UVR8 photoreceptor

Chair: Ruohe Yin
2:00PM - 3:00PM..... Goldsworthy

Dongping Zhong-IL
Dynamics and mechanism of UVR8 dimer dissociation *abs# 146*
Sourav Datta-IL
Role of BBX proteins in UV-B signaling *abs# 147*

Concurrent Session 4 - Role of UV radiation in the breakdown of plastic waste

Chair: Anthony Andrady
2:00PM - 3:00PM ..... Boardroom

Young Kyoung Song-IL
Photooxidation-Induced Weathering and Fragmentation of Thermoplastics under Simulated Sunlight Exposure *abs# 148*
Saad Khan-IL
Harnessing, protecting from, and evaluating effects of UV radiation: Case studies of cellulose nanocrystals, nanodiamond-laden gels and biodegradable polymers *abs# 149*

Concurrent Session 5 - Ocular photobiology : non-visual interaction of light with eye

Chair: Patrick Rochette
2:00PM - 3:00PM ..... Hamersley - North

Tony Bergen-IL
Flicker and other effects of Temporal Light Modulation (TLM) *abs# 150*
Shosuke Ito-IL
How is the RPE melanin modified during the life-long exposure to sunlight? *abs# 151*

Concurrent Session 6 - Keratinocyte cancer – prediction, prevention, diagnosis – skin photoaging.

Oral Communications Symposium

Chair: James Wells
2:00PM - 3:00PM..... Hamersley - South

Julianne C Nayar-OC
Cyclic AMP-regulatory element-binding protein: A novel early marker that could predict the efficacy of sun protective agents in reducing skin carcinogenesis. *abs# 152*
Celina Pihl-OC
Efficacy of oral nicotinamide monotherapy versus combinational treatments in the prevention of ultraviolet radiation-induced skin cancer *abs# 153*
Maria Parra Reyes-OC
Reversing the carcinogenesis-enhancing effects of tacrolimus following exposure to UVB light *abs# 219*
Xiupin Wu-OC
Mueller matrix-based label-free measurement of structures of skin *abs# 154*

AFTERNOON TEA – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

Concurrent Session 1 - Phototherapy (Continued)

Chair: Franz Trautinger
3:30PM - 5:00PM..... Golden Ballroom - South

Franz Trautinger -IL
Phototherapy of cutaneous T-cell lymphomas *abs# 156*
Rolf-Markus Szeimies-IL
Photodynamic Therapy of Non-Oncologic Skin Conditions *abs# 157*
Sally H Ibbotson-IL
Human exposure to Far-UVC: balancing risk and benefit *abs# 158*

Concurrent Session 2 - Role of nanoparticles in PDT and beyond (Continued)

Chair: Gang Zheng
3:30PM - 4:30PM…….. Golden Ballroom - Centre

Vincent SOL-IL
Natural Nanoparticle-Photosensitizer complexes: From design to photodynamic therapy (PDT) application. *abs# 159*
Gang Zheng-IL
Porphysome Nanotechnology: Beyond Lab, Beyond Light and Beyond Cancer *abs# 160*
Huang Chiao Huang-IL
A new nanoformulation of verteporfin for photodynamic therapy of glioblastoma *abs# 145*

Concurrent Session 3 - Plant responses to UV-B mediated by the UVR8 photoreceptor (Continued)

Chair: Ruohe Yin
3:30PM - 4:30PM…….. Goldsworthy

Sridevi Sureshkumar-IL
Plants to humans: Arabidopsis for translational research *abs# 161*
Ruohe YIN-IL
Functional characterization of tomato COP1, COP1h and SPA3 in UVR8-mediated UV-B signaling *abs# 162*

Concurrent Session 4 - Role of UV radiation in the breakdown of plastic waste (Continued)

Chair: Anthony Andrady
3:30PM - 4:30PM…….. Boardroom

Liping Zhu-IL
The design of nanomaterials for degradation of plastics and toxic compounds by UV-radiation *abs# 163*
Halim Redhwi-IL
Photodegradation of Plastics and Wood-Plastic Composites under Desert Natural Weathering Conditions *abs# 164*

Concurrent Session 5 - Ocular photobiology : non-visual interaction of light with eye (Continued)

Chair: Patrick Rochette
3:30PM - 4:40PM…….. Hamersley - North

Patrick J Rochette-IL
Toxic synergistic toxicity between blue light and atmospheric pollutants for the retina *abs# 165*
Yujie Dr Wu-OC
Melanopic equivalent daylight illuminance regulated by smart shading in office buildings *abs# 166*
Tony Bergen-IL
The right light at the right time in the right place: Optimising lighting to promote well-being *abs# 167*
Annette Hoskin-OC
A new light-adaptive lens improves vision in challenging and varying light situations *abs# 220*

Concurrent Session 6 - Keratinocyte cancer – prediction, prevention, diagnosis – skin photoaging. (Continued)

Oral Communications Symposium

Chair: James Wells
3:30PM - 3:50PM…….. Hamersley - South

Ni Zeng-OC
N6-Methyladenosine Modification in UVB-induced Cellular Senescence of Skin Photoaging *abs# 155*

Congress Dinner - 7:00PM - 11:00PM

Frasers at Kings Park
Buses will begin transporting guests from Pan Pacific reception at 7.00pm
You must have pre-purchased dinner tickets.

Thursday, 29th August 2025

MEPSA AWARD Vivienne Reeve Lecture

Prue H HART

Photobiological mechanisms in the development and treatment of multiple sclerosis *abs# 168*

8:30AM - 9:15AM..... Golden Ballroom - South

KEYNOTE LECTURE

Tayyaba HASAN

A perspective on photodynamic activation *abs# 216*

9:15AM - 9:45AM..... Golden Ballroom - South

MORNING TEA – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

Concurrent Session 1 - Novel approaches to photochemical mechanisms in PDT

Chair: Santi Nonell

10:15AM - 12:15PM..... Golden Ballroom - South

Roger Bresolí Obach - IL

Lighting the way: Cluster-triggered emission materials as an upstart for the development of biophotonic applications *abs# 170*

Alexander Greer- IL

Using photochemistry to help solve problems in photomedicine and photobiology: Mechanistic details *abs# 171*

Buhong Li- IL

Enhanced singlet oxygen generation for Hemoporfin-mediated photodynamic therapy *abs# 172*

Santi Nonell- IL

Photochemical strategies to overcome hypoxia in photodynamic therapy *abs# 173*

Concurrent Session 2 - Biomolecular and biohybrid systems for solar energy conversion

Chair: Roberta Croce

10:15AM - 11:45AM..... Golden Ballroom - Centre

Ardemis Boghossian- IL

Bringing living photovoltaics to life with nanobioengineering *abs# 112*

Joanna Kargul- IL

Solar-driven biocatalysis for unlocking a sustainable future *abs# 113*

Margot Jacquet- IL

Molecular engineering of the abiotic/biotic interface for efficient solar-converting biophotovoltaics *abs# 114*

Concurrent Session 3 - Light dosimetry and delivery in tissue in PDT

Chair: Luis Arnaut

10:15AM - 12:15PM..... Goldsworthy

Brian C. Wilson- IL

PhotoDynamic Therapy Dosimetry: Where from? Where to? *abs# 174*

Georges Wagnieres- IL

Optimal positioning of cylindrical light distributors used for interstitial PDT *abs# 175*

Lothar Lilge- IL

Interstitial PDT treatment planning: Managing dosimetry with heterogeneities and uncertainties. *abs# 176*

Luis G Arnaut- IL

Flash Photodynamic Therapy (Flash-PDT) *abs# 177*

Concurrent Session 4 - Photosynthetic pigments: Tetrapyrroles & carotenoids

Chair: Tatsuru Masuda

10:15AM - 12:25PM..... Boardroom

Koichi Kobayashi- IL

Membrane lipids play crucial roles in chlorophyll biosynthesis during chloroplast biogenesis *abs# 178*

Peter J. NIXON- IL

Involvement of a 'super-rogue' photosystem II complex in chlorophyll *f* biosynthesis *abs# 179*
Yusuke Tsukatani- IL
Biosynthetic pathways for chlorophyll pigments branched by chlorophyllide oxidoreductase and their evolution *abs# 180*
Tatsuru Masuda- IL
Alternative localization of HEME OXYGENASE 1 in plant cells regulates cytosolic heme catabolism *abs# 181*
Volha Chukhutsina- OC
The role of the carotenoid β2-ring and the N-terminal domain in the OCP photocycle: new insights *abs# 182*

Concurrent Session 5 - Light in the onset, prevention and treatment of myopia

Chair: Gareth Lingham
10:15AM - 12:15PM..... Hamersley - North

Loren (Loreto) Rose- IL
Current Treatment Interventions for Myopia Progression in Children *abs# 183*
Raymond P. Najjar- IL
Light-based interventions for myopia prevention and control: from bench to classrooms *abs# 184*
David A Mackey- IL
Biomarkers of sun exposure and eye diseases: Pterygium and Myopia (opposite sides of the coin) *abs# 185*
Yongli Zhou- IL
Investigating the Effects of Short-term, Supra-threshold Red Laser Light Irradiation on Retinal Structure and Function in Pigmented Rabbits *abs# 186*

Concurrent Session 6 - Computational chemistry and photochemistry of biological and nanotechnological systems

Chair: Daniel Roca-Sanjuán
10:15AM - 12:15PM..... Hamersley - South

Daniel Roca-Sanjuán- IL
Multiconfigurational quantum chemistry to study macromolecular systems in photobiology *abs# 187*
Elise Dumont- IL
Multiscale simulations insights into triplet thymine formation and reactivity. *abs# 188*
Antonio Francés-Monerris- IL
Light-induced anticancer therapies: A computational perspective *abs# 189*
Cheol Ho Choi- IL
MRSF-TDDFT: A New Quantum Mechanical Workhorse for Photobiology *abs# 190*

LUNCH – GOLDEN BALLROOM NORTH + FOYERS 1 & 2

KEYNOTE LUNCH LECTURE – Robert RAMSAY

PHOTOCHECK - Photodynamic Therapy with Checkpoint Inhibition for Elimination of Anal SCC *abs# 191*
12:45PM - 1:45PM..... Golden Ballroom - South

Join us for a keynote lecture during lunchtime in the Golden Ballroom (South). Please feel free to grab your lunch and bring it with you to enjoy while listening to this important presentation.

Session sponsored by:

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RMWCHO GROUP

KEYNOTE LECTURE

Maria Gabriela LAGORIO

Integrating plant fluorescence, photosynthesis dynamics and the surveillance of chemical risk in the environment *abs# 192*

2:00PM - 2:30PM…….. Golden Ballroom - South

KEYNOTE LECTURE

Anthony ANDRADY

Microplastics and solar UV radiation *abs# 193*

2:30PM - 3:00PM…….. Golden Ballroom - South

Concurrent Session 1 - Photosynthetic organisms as biofactories

Chair: Yagut Allahverdiyeva-Rinne

3:30PM - 5:30PM…….. Golden Ballroom - South

Yagut Allahverdiyeva-Rinne

Biocatalytic production of solar chemicals by photosynthetic microbes *abs# 194*

Bruno E Rojas

SynBio strategies in photoautotrophs for improved carbon fixation, growth, and yield *abs# 195*

SARAH D'ADAMO

Engineering solar lipid production in oleaginous microalgae: a focus on the prospects and challenges on the path to optimization and industrialization. *abs# 196*

Iftach Yacoby

Exploring the Marvels of Anoxic Photosynthesis for Revolutionary Agri-Energy Production *abs# 197*

Concurrent Session 2 - Photodiagnosis and photodynamic therapy

Chair: Qian Peng

3:30PM - 5:30PM…….. Golden Ballroom - Centre

Colin Hopper

Current status and future opportunities in PDT *abs# 198*

Kate Drummond

Fluorescence-guided resection of brain tumours with ALA *abs# 199*

Ravindra Pandey

Photoacoustic imaging and photodynamic therapy efficacy of polyacrylamide and gold nanoparticles containing near infrared photosensitizers *abs# 200*

Qian Peng

Modification of extracorporeal photopheresis with 5-aminolevulinic acid (Gliolan) *abs# 201*

Concurrent Session 3 - Mechanisms of defense against sunlight induced DNA damage

Chair: Carlos F M Menck

3:30PM - 6:00PM…….. Goldsworthy

Carlos F M Menck

Sunlight oxidative impact in xeroderma pigmentosum variant mutagenesis and tumors *abs# 202*

Glaucia Martinez

Novel insights about melanoma response after melanogenesis stimulation and phototherapy *abs# 203*

Gerd P Pfeifer

The role of UVA and UVB induced DNA damage and mutations in melanoma *abs# 204*

John J Wyrick

Genome-wide studies of nucleotide excision and photolyase repair mechanisms for UV damage in yeast *abs# 205*

Hannah E. Wilson

Genome-wide impact of cytosine methylation on UV-induced damage formation *abs# 206*

Masaoki Kawasumi

The effect of UV-induced *Cdkn2a/p16* promoter mutations on the binding of ETS transcription factors *abs# 207*

Catharina M Lerche

Effect of dose-delivery and exposed area on thymidine dimer excretion in urine. -A study in healthy volunteers *abs# 208*

Concurrent Session 4 - ROS & nitric oxide in PDT

Chair: Salvatore Sortino
3:30PM - 5:30PM…….. Boardroom

Amedea B Seabra
State-of-the-Art and Perspectives for Nanomaterials Combined with Nitric Oxide Donors for Biomedical Applications *abs# 209*
Salvatore Sortino
Molecular and supramolecular constructs for combined PDT and NO-PDT *abs# 210*
Roberto Santana da Silva
Nitric oxide derivative ruthenium compounds as prototypes for Photodynamic Therapy and X-ray Photodynamic Therapy with low radiation doses *abs# 211*
Fabiana Quaglia
Tailoring nanocarriers to empower the therapeutic potential of photosensitizers *abs# 212*

Concurrent Session 5 - Photobiology and Antarctic organisms

Chair: Melinda Waterman
3:30PM - 5:40PM…….. Hamersley - North

Melinda Waterman
Ultraviolet photoprotection in Antarctic mosses and liverworts *abs# 215*
Alicia Victoria Perera Castro
Sunheat, water content and temperature as the main drivers of carbon uptake capacity of mosses *abs# 214*

Friday, 30th August 2025

Activities Day

Captain Cook Cruise: Fremantle Lunch Cruise (2 hrs 45 mins)

Date: Friday 30th August
Departing Fremantle: 11:15am
Returning: 2:00pm
Bus Transfers back to Pan Pacific Perth: Approx 2:45pm

Includes scenic Swan River cruise with captain's commentary, buffet lunch, dessert, and two complimentary glasses of house wine, beer, or soft drink.

BOOKED OUT

POSTERS

Pavithra Ramachandran
Characterization of the possible acclimation strategies and remodeling in photosystems under short-term and long-term hypersaline conditions in *Dunaliella salina*; a halophilic microalgae *abs# 300*
Umit Isci
Functionalized phthalocyanines: synthetic challenges for improved PDT outcomes *abs# 301*
Cesar Bernardo
HUMAN WAVELENGTH DISCRIMINATION THRESHOLD AND SPAN ON THE VISIBLE SPECTRUM. *abs# 302*
Kyujin Kim
Imbalanced Expression of Chlorophyll Biosynthetic Genes Causes Photobleaching in *Arabidopsis abs# 303*
Keiichi Hiramoto
Induction of skin cancer by long-term blue light irradiation *abs# 304*
Sally Ibbotson
Persistent phytophotodermatitis masquerading as pyoderma gangrenosum *abs# 305*
Sally H Ibbotson
Photosensitivity Diseases in a Paediatric Population: Lessons Learned from the Scottish Photodiagnostic Service *abs# 306*
Sangwon Cho
Phytochromes inhibit the longitudinal expansion of cotyledon pavement cells *abs# 307*
Mizuki KITAMATSU
Pyrene-modified cyclic peptides for detecting ions in water *abs# 308*
Shota Kawato
Recovery of the absorption band of B800 bacteriochlorophyll *a* in B800-free LH2 under neutral pH conditions *abs# 309*
Rika Tsukame
Simultaneous Detection of Glutathione and Iron Ions in the Frozen Tissues Using Thin-layer Chromatography and Raman Spectroscopy *abs# 310*
Sae Harada
Synthesis of DNA oligomers with Ru complex and regulation of photochemical $^1O_2$ generation by conformational change *abs# 311*
Shosuke Ito
Unraveling UVA1-induced Photo Modifications of Eumelanin and Pheomelanin: Insights into Pigment Darkening in Human Skin *abs# 312*
Yolanda Gilaberte
ANALYSIS OF THE MODIFICATION OF SKIN AND GUT MICROBIOTA IN PSORIASIS PATIENTS TREATED WITH PHOTOTHERAPY *abs# 313*
Daniel Garama
Identification and characterisation of phyllochlorin sodium, a novel chlorin-derived photosensitiser *abs# 314*
Vincent SOL
Synthesis of new derivatives of purpurine imide for potential phototherapy dynamic applications *abs# 315*
Vincent SOL
Antibacterial activity of photoactivatable CO-releasing molecules (photoCORMs) and corresponding materials based on rhenium(I) complexes and cellulose nanocrystals *abs# 316*
Seb. Marcuccio
Chlorin e6 is not a U.S. FDA Approved Photosensitiser *abs# 317*
Ying Liu
Photoimmunotherapy â how light collaborates with interferon to induce anti-tumor immune responses *abs# 324*

Oral and Poster Abstracts (this selection of abstracts are being presented as both a poster and oral presentation)
To access full abstracts please find them within their allocated session.

Daisuke Kojima
Differential roles of multiple photoreceptors in regulating background adaptation of zebrafish *abs# 8*
Kuo-Chen Yeh
Circadian Rhythm Regulation by Iron Deficiency and Chloroplast Signaling in Arabidopsis thaliana *abs# 46*
Miroslav Kloz
Light activation mechanism of Orange Carotenoid Protein resolved by femtosecond stimulated Raman Spectroscopy *abs# 49*
Sheona N. Innes
Using blue light to control transpiration: improving growth in low VPD *abs# 92*
Lohanna Lopes
Photosensitization of FICZ and ICZ in mimetic models of membranes *abs# 121*
Shoaib Anwaar

The role of UV-induced regulatory T cells in the establishment of Cutaneous Squamous Cell Carcinoma *abs# 134*

Yuan Cai
Research progress and trends in laser treatment of acne scars:a bibliometric analysis of related research over the period of 2014-2023 *abs# 142*
Julianne Nayar
Cyclic AMP-regulatory element-binding protein:Â A novel early marker that could predict the efficacy of sun protective agents in reducing skin carcinogenesis. *abs# 152*
Celina Pihl
Efficacy of oral nicotinamide monotherapy versus combinational treatments in the prevention of ultraviolet radiation-induced skin cancer *abs# 153*
Xiupin Wu
Mueller matrix-based label-free measurement of structures of skin *abs# 154*
Ni Zeng
N6-Methyladenosine Modification in UVB-induced Cellular Senescence of Skin Photoaging *abs# 155*
Yujie Wu
Melanopic equivalent daylight illuminance regulated by smart shading in office buildings *abs# 166*
Volha Chukhutsina
The role of the carotenoid Î²2-ring and the N-terminal domain in the OCP photocycle: new insights
Hannah Wilson
Genome-wide impact of cytosine methylation on UV-induced damage formation *abs# 206*
Masaoki Kawasumi
The effect of UV-induced Cdkn2a/p16 promoter mutations on the binding of ETS transcription factors *abs# 182*
Sebastian Lorenz
Increasing Solar UV Radiation in Dortmund, Germany and Uccle, Belgium â Results of long-term UV-Monitoring *abs# 320*

VENUE FLOORPLAN

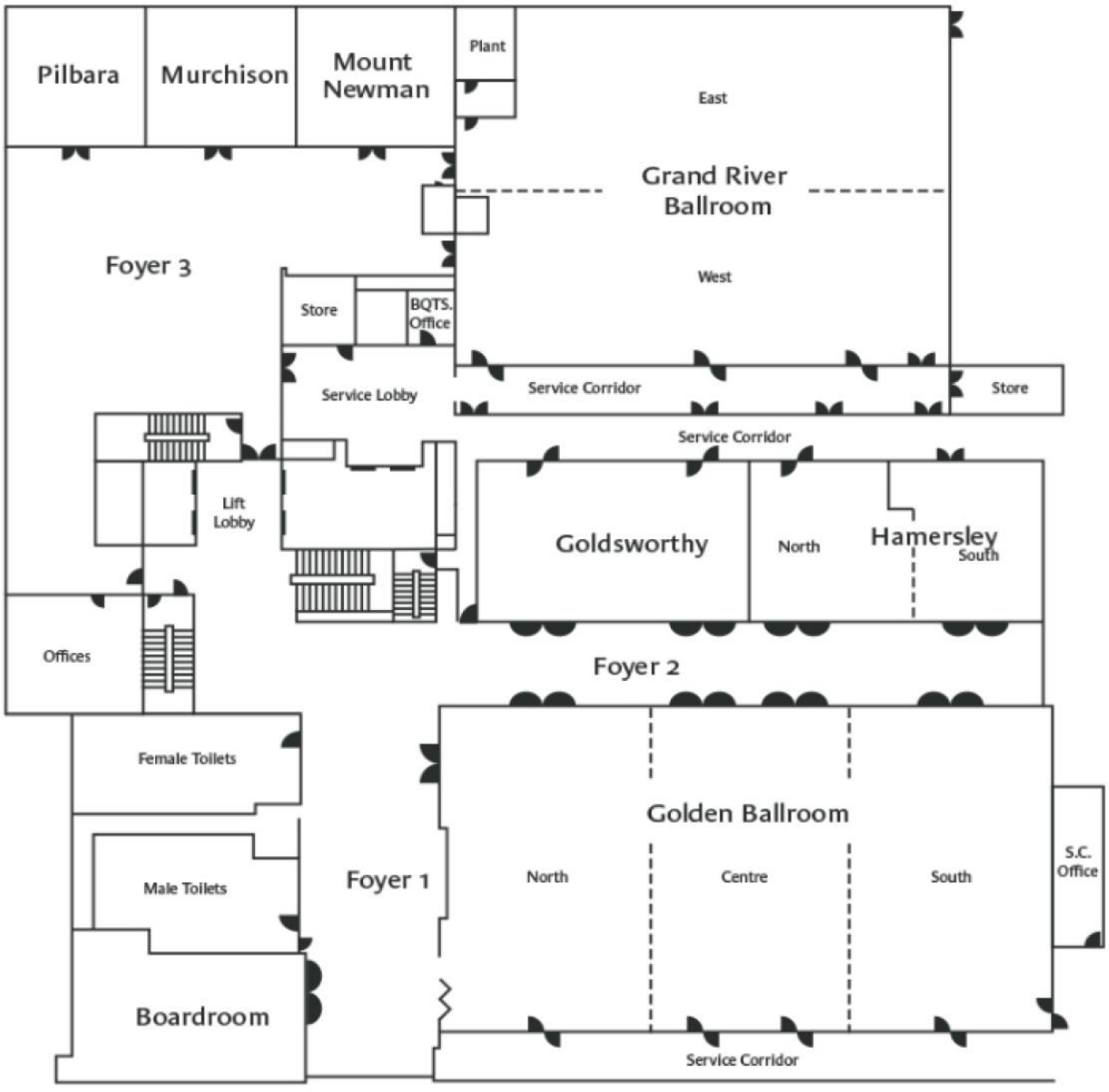
Registration: Grand River Ballroom Foyer

Plenary: Golden Ballroom South

Breakout Rooms: Golden Ballroom Centre, Golden Ballroom South, Hamersley North and South, Goldsworthy, and Boardroom**.**

Speaker Prep: Murchison Room

Exhibition Hall/Catering and Posters: Golden Ballroom North and Foyer 1 & 1



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Omicron-Laser is a manufacturer of customized as well as CE-certified laser systems for medical and laboratory applications, such as laser systems for the activation of photosensitizers intended for the treatment of cancer within photodynamic therapy applications. For more than 30 years, Omicron-Laser has been known for their high level of customization as well as OEM business, always guaranteeing the highest and most reliable quality.

Omicron's medical business unit combines both industrial and medical backgrounds to provide excellent technologies and services. Key benefits offered to customers are the company's inherent knowledge and experience in laser applications as well as the strong support in assisting customers in their projects and developments.

The laser systems for PDT applications are CE-certified and designed and manufactured according to ISO 13485:2016. They also have technical approval according to EN (IEC) 60601-1 (Edition 3.1), as well as the Japanese PMDA, and are also part of the certified treatment process in Japan. The design complies with the FDA/CDRH 21 CFR 1040.10 standard.

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NAOS
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Since 1977, BIODERMA, NAOS's dermatological laboratory has been placing skin ecobiology expertise at the service of dermatology. Aside from the symptoms, BIODERMA acts on the biological causes of skin disorders to help skin regain its natural balance. This is one of the founding principles of ecobiology, the unique approach that was inspired by NAOS over 40 years ago. This approach is at the heart of all BIODERMA's products to act :

- as prevention to protect the skin against daily aggressions
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- right from cleansing, the first step to taking care of skin

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L'Oréal was born from science, from a vision, created from the idea of a chemist. Since then, science has remained at the heart of our model **with our Research & Innovation.** It is without a doubt, the performance, safety and superior quality of our products that have been the foundation of our success for over 115 years. Every day, 4,000 scientists in 20 research centers around the world have a single obsession: innovating to provide our brands and consumers with the best of science and create unequalled beauty experiences that meet their infinitely diverse needs and aspirations.

Invion is a clinical stage life-science company listed on the Australian Securities Exchange (ASX: IVX) that is leading the global research and development of the Photosoft™ Technology for the treatment of a range of cancers, atherosclerosis and infectious diseases. The Company is close to commencing clinical trials in cancer indications and is working with preeminent Australian research partners like the Peter MacCallum Cancer Centre and Hudson Institute of Medical Research, and leading South Korean pharma group, Hanlim Pharma Co., Ltd.

Results to date show Photosoft has the potential to regress multiple cancer types, impede metastatic cancers and stimulate the body's immune response. Photosoft has also demonstrated effectiveness against bacteria, fungi and viruses, including MRSA, COVID-19 and dengue in vitro.

Invion, which is on track to achieve multiple key development milestones over the next year or two, holds the exclusive rights to Photosoft for most of Asia Pacific (APAC) for cancers, atherosclerosis and infectious diseases, plus the US and Canadian rights for Infectious diseases indications.

RMW Cho Group is the licensor and owner of the Photosoft™ Technology, which was developed by the Company's founder Michael Cho. Michael invested over 20 years developing Photosoft as the Next Generation Photodynamic Therapy, and preclinical studies have shown the technology to be a promising new treatment modality for a range of cancers and other diseases. Photosoft is covered by a number of patent families including major markets and Australia. RMW is currently working closely with Invion to undertake first-in-human clinical trials on cancers in Australia. With strong safety and efficacy results, Photosoft has the potential to change the revolutionise the way insidious diseases are treated globally.

Skinosive is a science-driven dermo-cosmetics biotechnology company, created by Truffle Capital (Paris, France), and developing a proprietary bioadhesion technology platform with a first application in skin photoprotection. Skinosive's unique bioadhesion technology enables Long-Lasting sun protection and prevents UV filters from being absorbed through the skin and the bloodstream

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CLINUVEL is a global leader in photomedicine and has commercialised the first systemic photoprotective drug. The Group develops treatments for patients with genetic, metabolic, systemic, and life-threatening, acute disorders, as well as PhotoCosmetics for specialised populations. Headquartered in Melbourne, Australia, CLINUVEL has operations in Europe, Singapore, and the USA.

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