



5th ISFSI

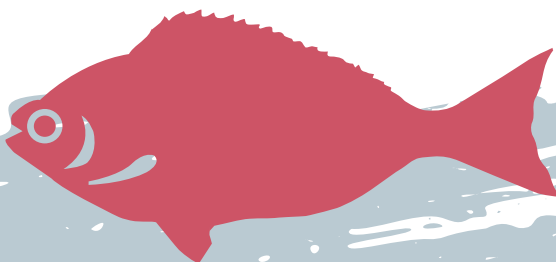
5th ISFSI

5th Conference of the International Society
of Fish & Shellfish Immunology 

Conference Program Booklet

Tainan, Taiwan

Nov 04 - Nov 08, 2025





**5th Conference of the International Society of
Fish and Shellfish Immunology**

Conference Program Booklet



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Organizers and Sponsors

International Society of Fish and Shellfish Immunology



Advisers



Organizer



前瞻蝦類養殖國際研發中心

International Center for the Scientific Development of Shrimp Aquaculture

Co-organizers



國立成功大學
National Cheng Kung University

Supporting Partners



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FSI Special Edition Sponsor

Fish & Shellfish Immunology

Welcome Message from the President of ISFSI

Welcome to the 5th Conference of the International Society of Fish & Shellfish Immunology (ISFSI)

As President of the International Society of Fish & Shellfish Immunology (ISFSI), it is my great honor to welcome you to the 5th ISFSI Conference. This gathering marks a historic milestone for our Society: after 15 years of existence and four successful editions across Europe and North America, we are thrilled to host this meeting in Asia for the very first time. We are especially delighted to convene in the vibrant city of Tainan, Taiwan, renowned for its rich history, cultural heritage, and warm hospitality, which provide an inspiring setting for scientific exchange and collaboration.



Held every three years, the ISFSI Conference has become the premier forum for presenting cutting-edge research, fostering collaboration, and shaping the future of wild, cultured, and comparative fish and shellfish immunology. This year's edition brings together an exceptional community of scientists, students, and industry leaders from across the globe to exchange knowledge and ideas that will advance both fundamental understanding and practical applications for sustainable aquaculture and aquatic animal health.

I extend my deepest gratitude to the local organizers, brilliantly led by Prof. Han-Ching Wang, as well as to the authorities, ISFSI board members, invited speakers, participants, and sponsors who made this gathering possible. Your dedication and enthusiasm continue to be the driving force behind the growth and success of our field and our Society.

On behalf of ISFSI, I wish you an inspiring and rewarding conference, and I warmly encourage you to also take the opportunity to enjoy the unique culture, flavors, and hospitality of Tainan during this landmark event.

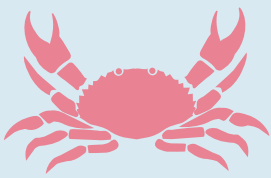
Prof. Jorge Galindo-Villegas
President,
the International Society of Fish & Shellfish Immunology

ISFSI website: <https://www.isfsim.org/>



ISFSI





Welcome Message from the 5th ISFSI LOC Chair

Welcome to the 5th Conference of the International Society of Fish & Shellfish Immunology (ISFSI)

Dear Colleagues and Friends,

On behalf of the Local Organizing Committee (LOC), it is my great honor to welcome you to the 5th Conference of the International Society of Fish & Shellfish Immunology (ISFSI) here in Tainan, Taiwan. This marks the first time the conference is held in Asia, and we are deeply grateful for the opportunity to host you in a city renowned for its rich history, culture, and hospitality.

Over the past two years, our committee has worked tirelessly to create not only a stimulating scientific program but also a memorable experience that reflects both the academic strength and cultural diversity of Taiwan. From keynote and invited lectures to oral, poster, and flash talk sessions, the program has been designed to highlight the breadth of our field while encouraging dialogue across disciplines and generations. We are especially proud of the strong participation of students and early-career researchers, whose enthusiasm and creativity will shape the next chapter of fish and shellfish immunology.

At the same time, we hope you will enjoy the warm welcome that Taiwan has to offer. Whether through the historic sites tour, cultural performances, or our Gala Dinner, we invite you to experience the unique spirit of Tainan - the cradle of Taiwan's history and a city where tradition and innovation coexist.

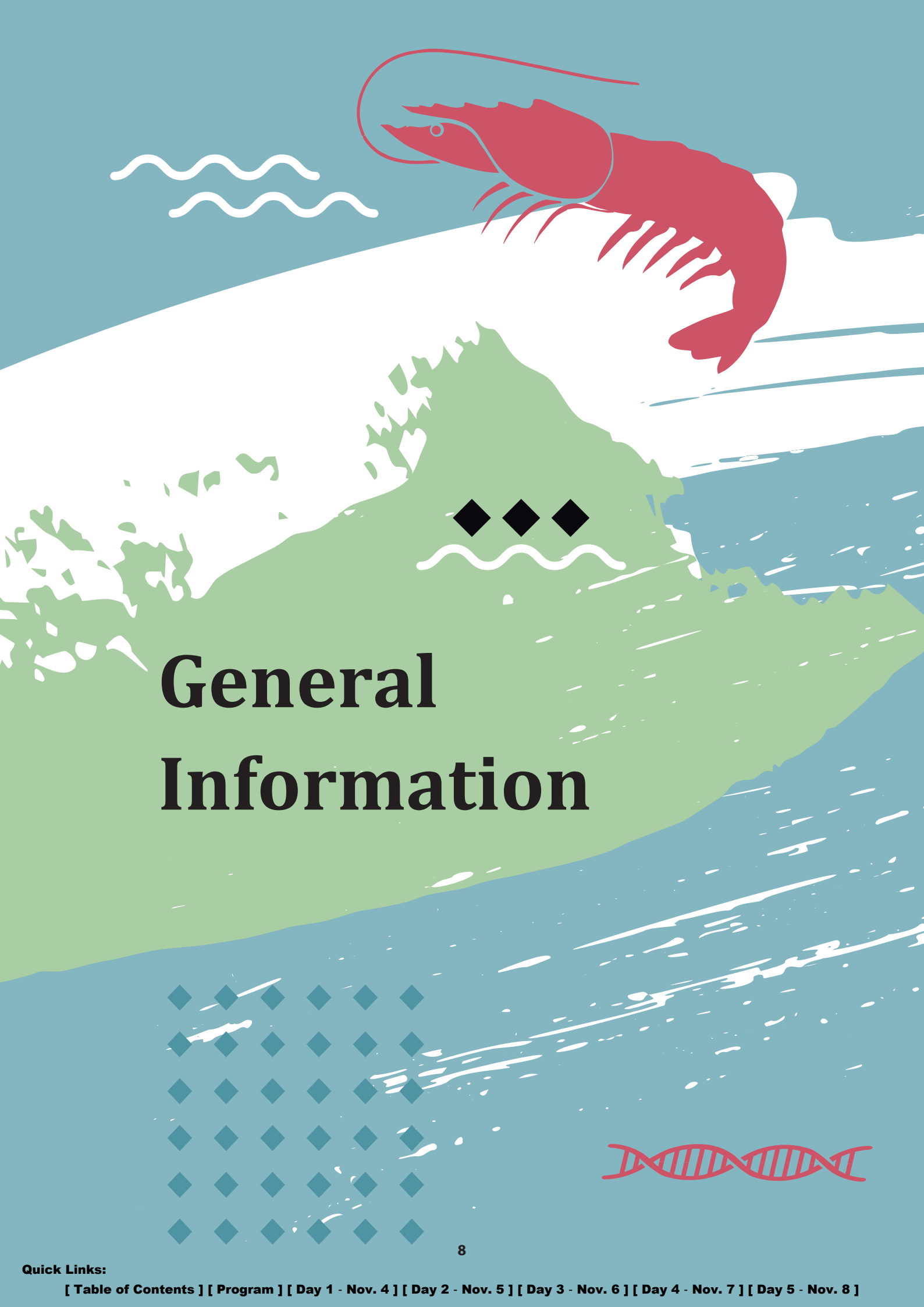
I would like to express my heartfelt gratitude to the ISFSI Board, the Local Organizing Committee, sponsors and all our partners, particularly the Taiwan Marine Biotechnology Society, for their invaluable support. Most of all, I wish to thank you - the 212 participants across 25 countries - for traveling from near and far to join us. Your presence makes this gathering truly meaningful.

May this conference be a week of inspiring science, new friendships, and unforgettable memories. Welcome to Tainan, welcome to the 5th ISFSI, and welcome to our shared journey of discovery and collaboration.

With my warmest regards,

Han-Ching Wang
Chair, Local Organizing Committee
5th ISFSI Conference





General Information



Travel Information

Air travel and transfer

Taoyuan international airport 桃園機場 (TPE) to Tainan 台南 : about 2.5 hours

◆ By Taiwan High Speed Rail 台灣高鐵 (THSR)

Terminal 1 or 2 (Taoyuan MRT 桃園機場捷運) → Taoyuan THSR 高鐵桃園站 → *Tainan THSR 高鐵台南站 → take the shuttle train (Taiwan Railway 台灣鐵路) at Shalun station 台鐵沙崙站 to Tainan station 台鐵台南站 → Conference Venue: Chung-Hwa Hall 崇華廳, The Magic School of Green Technology 綠色魔法學院, NCKU 成功大學

NOTE: From Tainan THSR Station, go to Shalun Station (2F corridor or 1F Exit 1) and take the shuttle train to Tainan Station.

Taipei Songshan Airport (TSA) 台北松山機場 to Tainan 台南 : about 3 hours

◆ By Taiwan High Speed Rail 台灣高鐵 (THSR)

Terminal 1 or 2 (by Taipei MRT 台北捷運 Wenhua Line 文湖線, transfer at Zhongxiao Fuxing 忠孝復興 to Bannan Line 板南線) → Taipei Main Station 台北車站 → Taipei THSR 高鐵台北站 → *Tainan THSR 高鐵台南站 → take the shuttle train (Taiwan Railway 台灣鐵路) at Shalun station 台鐵沙崙站 to Tainan station 台鐵台南站 → Conference Venue: Chung-Hwa Hall 崇華廳, The Magic School of Green Technology 綠色魔法學院, NCKU 成功大學

NOTE: From Tainan THSR Station, go to Shalun Station (2F corridor or 1F Exit 1) and take the shuttle train to Tainan Station.

Kaohsiung international airport (KHH) 高雄小港機場 to Tainan 台南 :

◆ Route 1: Taiwan High Speed Rail 台灣高鐵 (THSR): about 1.5 hours

Kaohsiung international airport (by Kaohsiung MRT 高雄捷運 red line 紅線 to Zuoying station 左營站) → Kaohsiung THSR 高鐵左營站 → *Tainan (THSR) 高鐵台南站 → take the shuttle train (Taiwan Railway 台灣鐵路) at Shalun station 台鐵沙崙站 to Tainan station 台鐵台南站 → Conference Venue: Chung-Hwa Hall 崇華廳, The Magic School of Green Technology 綠色魔法學院, NCKU 成功大學

NOTE: From Tainan THSR Station, go to Shalun Station (2F corridor or 1F Exit 1) and take the shuttle train to Tainan Station.

◆ Route 2: By Taiwan Railway (台灣鐵路): about 1 hour

Kaohsiung international airport (by Kaohsiung MRT 高雄捷運 red line 紅線 to Kaohsiung Main station 高雄車站) → Kaohsiung Station 台鐵高雄站 → Tainan station 台鐵台南站 → Conference Venue: Chung-Hwa Hall 崇華廳, The Magic School of Green Technology 綠色魔法學院, NCKU 成功大學

Information for transportation:



Taoyuan MRT



Taipei MRT



Kaohsiung MRT



Taiwan High Speed Rail



Taiwan Railway

Driving Directions

◆ Taoyuan international airport to Tainan: (about 4 hours)

Take National Freeway No.1 (Sun Yat-Sen Freeway) southbound to NCKU main campus through Dawan Interchange

◆ Kaohsiung international airport to Tainan: (about 1.5 hours)

Take National Freeway No.1 (Sun Yat-Sen Freeway) northbound to NCKU main campus through Rende Interchange

5th ISFSI Venue

The 5th ISFSI will be held at the Magic School of Green Technologies (MSGT; 綠色魔法學校), located on the Li-Hsing Campus (力行校區) of National Cheng Kung University (國立成功大學) in Tainan, Taiwan (R.O.C.).

Address:

The Magic School of Green Technologies (NCKU)
No. 25, Xiaodong Rd, North District, Tainan City, 704
成功大學綠色魔法學院 704 台南市小東路 25 號 (力行校區)

Venue WIFI



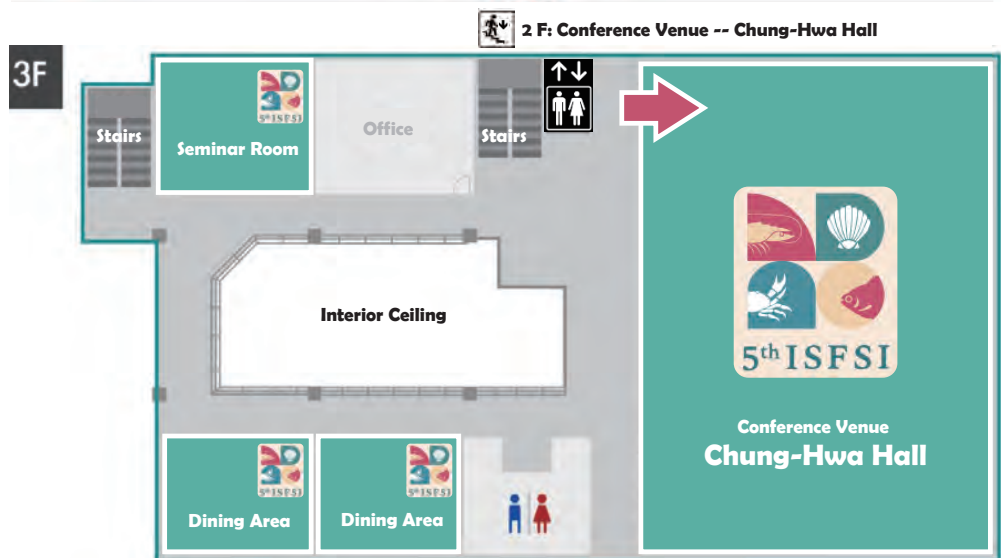
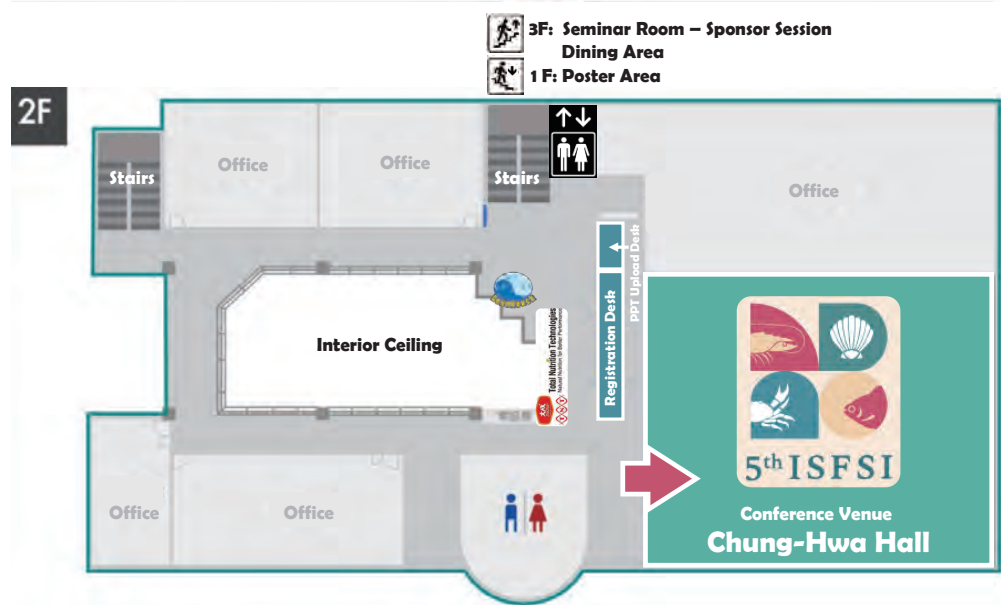
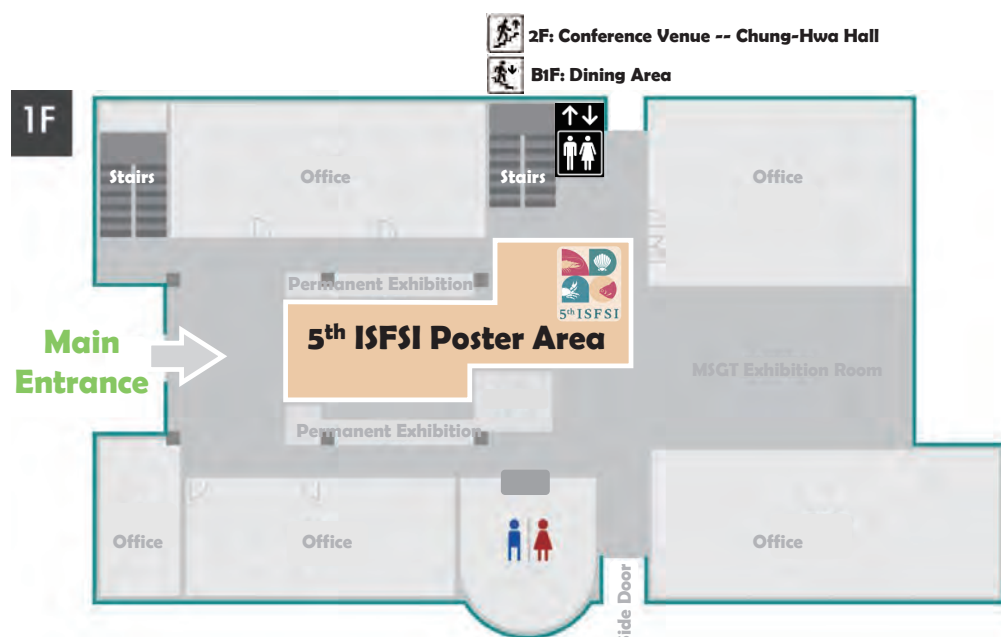
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Entrance of Li-Hsing Campus



MSGT





For Chairs and Co-chairs

- ◆ Please arrive at the venue 10 minutes before the session begins.
- ◆ Please manage the session time carefully to avoid any delays.
- ◆ Keynote Speeches: The Chair will briefly introduce the speaker (not exceeding 2 minutes) and conduct the Q&A session after the presentation. The total time must be strictly limited to 45 minutes.
- ◆ Invited Speeches: The Chair will briefly introduce the speaker (not exceeding 2 minutes) and conduct the Q&A session after the presentation. The total time must be strictly limited to 25 minutes.
- ◆ Regular Oral Presentations: The Chair and Co-chair will introduce the presenter and manage the Q&A session after the presentation. Each presenter is allotted 10 minutes for the talk and 2 minutes for Q&A. As the schedule is tight, strict time control is required.

For Judges for the student competition

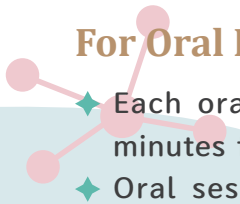
- ◆ A printed score sheet and a Google Sheet link will be provided. Please upload your scores to the Google Sheet before the designated deadline.
- ◆ Award recipients will be announced during the Closing Remarks & Award Ceremony.

For Student Oral Presentations

- ◆ Deadlines for score submission:
Topic 1: Nov. 5, 5:00 PM; Topic 2: Nov. 6, 5:00 PM;
Topic 3: Nov. 8, 12:00 PM; Topics 4 & 5: Nov. 8, 3:00 PM
Flash Talk: Nov. 6, 5:00 PM

For Student Poster Presentations

- ◆ Posters marked with the icon (Please refer to the figure on the right.) indicate candidates for the Student Poster Competition.
- ◆ The Student Poster Competition will take place across two poster sessions. Students who fail to attend these sessions will not be eligible for awards.
- ◆ Deadline for score submission: Nov. 7, before 10:00 AM.



For Oral Presenters

- ◆ Each oral presenter will have up to 10 minutes for the presentation, followed by 2 minutes for Q&A.
- ◆ Oral sessions will be moderated by a chairperson, who will manage both time and questions.



- ◆ To avoid unintended delays, personal laptops cannot be used for presentations.
- ◆ Each presenter is required to upload their presentation at the PPT Upload Desk (2F) at least 4 hours before the session begins.
- ◆ The confidentiality of your material will be ensured; all files will be deleted from the computer at the conclusion of each session.

PowerPoint preparation instructions

- ◆ Please use widescreen size PowerPoint slides with an aspect ratio of 16:9.
- ◆ If you include visuals or videos, please embed them directly in the PowerPoint file.
- ◆ Remember to bring an extra copy of your presentation (e.g., on a USB drive, Dropbox, etc.).
- ◆ Your Abstract No. serves as the reference number for your oral presentation.
- ◆ Please name your PowerPoint file as: [Abstract Reference Number] – [Your Surname].
For example: T1-O-XX-Wang.

For Poster Presenters

Please follow these instructions carefully when preparing your poster. Posters that do not meet the required format cannot be accommodated.

- ◆ Presenters are requested to use portrait / vertical orientation to prepare the poster.
- ◆ Poster size (Maximum): A0 (W841mm×H1189mm).
- ◆ Mounting materials will be provided in the poster area.
- ◆ Posters must be brought by the authors in person. Please do not mail your poster.
- ◆ The Abstract No. shown above is your Poster Reference No. Please ensure that your poster is placed on the corresponding board.
- ◆ Posters may be mounted between 14:00–17:00 on Nov 4 and will remain on display until the end of the Conference. All posters must be removed by the presenting author no later than 15:15 on Nov 8. Posters not removed will be discarded by the Conference Secretariat.
- ◆ Authors are encouraged to be present at their posters during the designated sessions for discussion and Q&A.

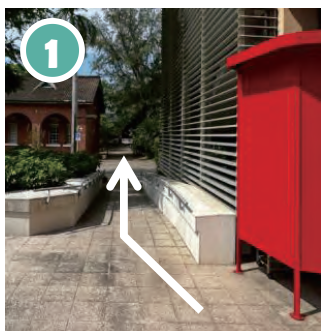
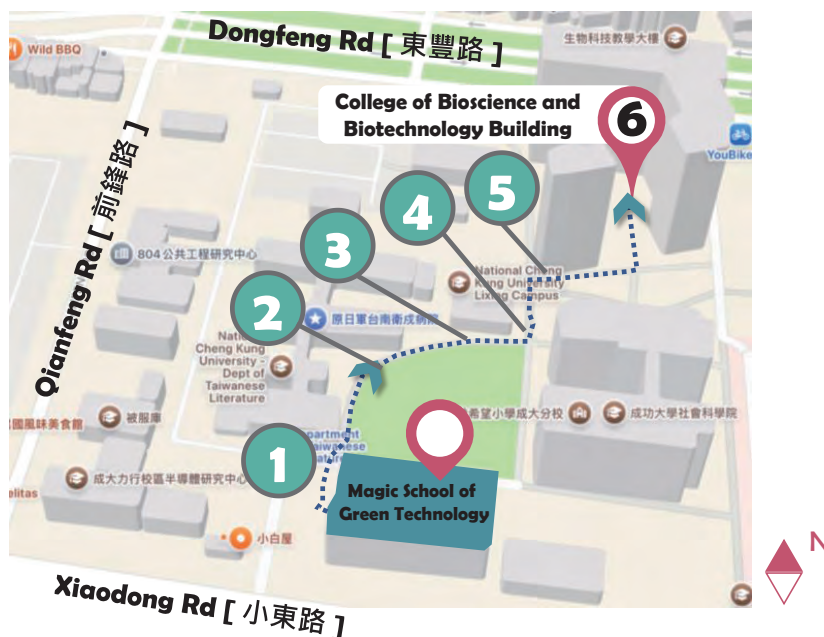
For Flash Talk Presenters

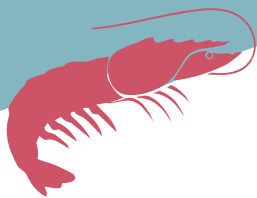
- ◆ Flash Talk presentations are limited to 3 minutes. Slides must not exceed 3 content slides (excluding the title and “Thank You” slide). Please refer to the PowerPoint preparation instructions in the For Oral Presenters section.
- ◆ Each presenter is required to upload their Flash Talk presentation at the PPT Upload Desk (2F) at least 4 hours before the session begins.
- ◆ The confidentiality of all materials will be ensured; all files will be deleted from the computer at the conclusion of each session.

Social Activity – Welcome Drink

- ◆ Date & Time: Nov. 4, 2025 (Tuesday), 16:00 ~ 18:00
- ◆ Venue: Atrium, College of Bioscience and Biotechnology Building, NCKU (About a 3-minute walk from MSGT)
- ◆ Details: Cultural activities will be featured, with complimentary drinks (both alcoholic and non-alcoholic) and light snacks provided. Attendance is open to all registered participants.

We warmly invite all registered participants (and accompanying persons who have paid the additional fee) to attend the Welcome Drink, an enjoyable occasion that officially marks the beginning of the conference. This informal gathering offers an excellent opportunity to meet fellow delegates, build new connections, and share light refreshments.



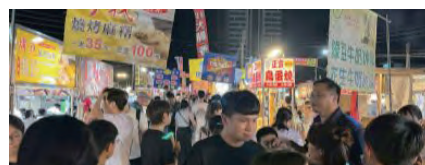
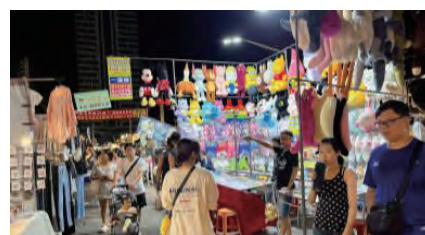


Social Activity – Garden Night Market

- ◆ **Date & Time:** Nov. 6, 2025 (Thursday), 17:15 ~ 20:00
- ◆ **Meeting Point:** The Magic School of Green Technologies, NCKU
- ◆ **Details:** Food, drinks, and shopping are at participants' own expense.

All participants of the 5th ISFSI (and accompanying persons who have paid the additional fee) are our honored guests for this social activity.

To enrich your cultural experience in Tainan, we are delighted to organize a visit to the famous Garden Night Market, the largest and most vibrant night market in the city. Participants will have the opportunity to explore a wide variety of local street food, snacks, beverages, and traditional games, while enjoying the lively atmosphere of Taiwanese night market culture.



Garden Night Market (花園夜市)

Address: No. 533, Sec. 3, Hai'an Rd., North Dist., Tainan City 704026, Taiwan (R.O.C.)
地址：臺南市北區海安路三段 533 號

Social Activity – Tainan Historic Sites Tour

- ◆ **Date & Time:** Nov. 7, 2025 (Friday), 13:30 ~ 18:00 Meeting
- ◆ **Point:** The Magic School of Green Technologies, NCKU Dress
- ◆ **code:** casual and comfortable.

All participants of the 5th ISFSI (and accompanying persons who have paid the additional fee) are our honored guests for this social activity.

Tainan is recognized as one of the earliest developed cities in Taiwan, serving as an important political, economic, and cultural center in the island's early history. As Taiwan's historic capital, it is home to numerous ancient temples, preserved landmarks, and fascinating stories that reflect the island's rich past. Through the Tainan Historic Sites Tour, we invite you to discover part of this remarkable city—strolling along centuries-old streets, exploring cultural monuments, and experiencing the unique charm that makes Tainan a living museum of history and tradition.

Social Activity – Gala Dinner

- ◆ **Date & Time:** Nov. 7, 2025 (Friday), 18:00 ~ 21:00
- ◆ **Dress code:** casual and comfortable.

All participants of the 5th ISFSI (and accompanying persons who have paid the additional fee) are our honored guests for the Gala Dinner. We have prepared a wonderful evening featuring not only delicious cuisine but also special performances, ensuring a memorable night for everyone.

For those joining the Tainan Historic Sites Tour, the group will proceed directly to the Gala Dinner venue. If you are not participating in the tour, please take a taxi to the venue on your own.

Argo Yacht Club (亞果薈)

Address: No. 585, Sec. 2, Xingang Rd., Anping Dist., Tainan City 708013, Taiwan (R.O.C.)
地址：台南市安平區新港路二段 585 號

Social Activity – Meeting Point, Pick-up, and Drop-off Information

Meeting Point:

Outside the Main Entrance of The Magic School of Green Technologies, NCKU

- ◆ Garden Night Market: 17:15 (Nov. 6, 2025)
- ◆ Tainan Historic Sites Tour: 13:30 (Nov. 7, 2025)

Bus Pick-up Location:

Beside NCKU Banyan Park

Departure Time –

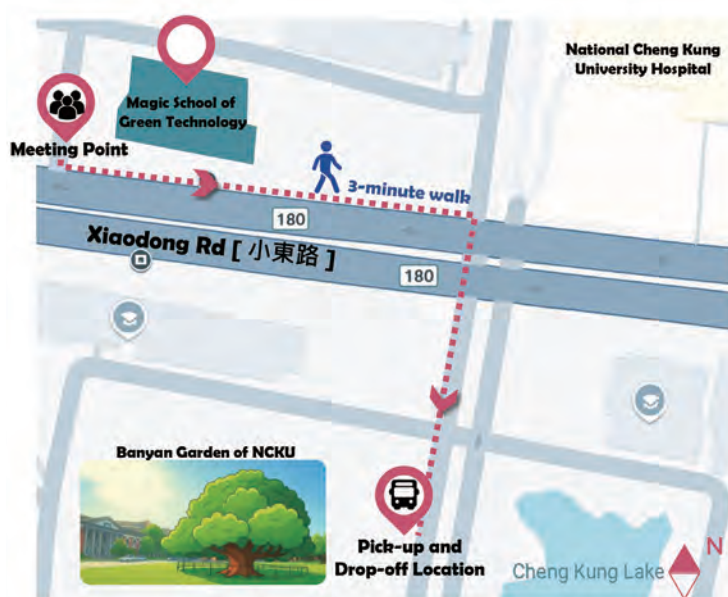
- ◆ Garden Night Market: 17:30 (Nov. 6, 2025)
- ◆ Tainan Historic Sites Tour: 13:45 (Nov. 7, 2025)

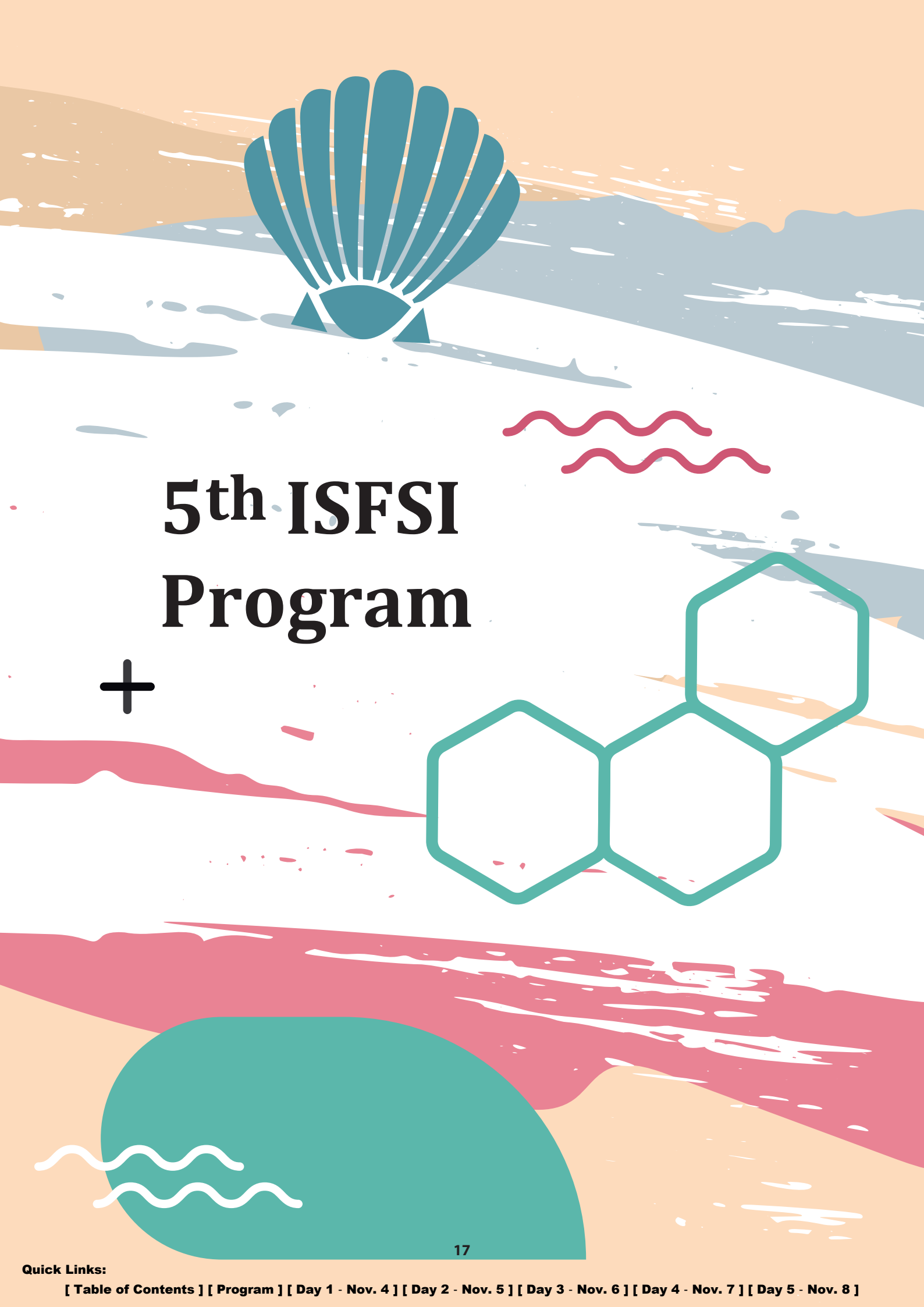
Drop-off Points (after return):

- ◆ Point 1: Academy Hotel
- ◆ Point 2: NCKU Banyan Park

Notes:

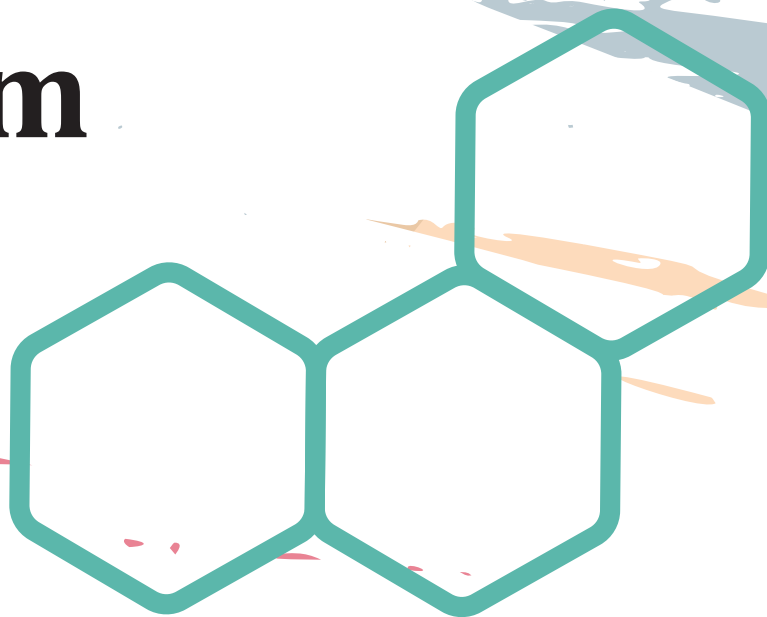
- ◆ Please wear your conference name badge
- ◆ The bus will depart on time.
- ◆ Participants may go directly to Banyan Park for boarding





5th ISFSI Program

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Day 1: TUESDAY, 04 Nov, 2025

13:00~	ISFSI Board Meeting [Seminar Room (3F)]
14:00~16:00	Registration Desk Open [Registration: Chung-Hwa Hall (2F); Poster Mounting: 1F]
16:00~18:00	Welcome Drink [Atrium, College of Bioscience and Biotechnology Building]

Day 2: WEDNESDAY, 05 Nov, 2025

08:20~08:30	Registration Desk Open [Registration: Chung-Hwa Hall (2F)]
08:30~09:00	Opening Ceremony Chung-Hwa Hall Welcoming Remarks Dr. Jorge Galindo-Villegas, President, the International Society of Fish and Shellfish Immunology (ISFSI) Dr. Wen-Jane Tu, Administrative Deputy Minister, Ministry of Agriculture Dr. Yung-Chun Lee, Executive Vice President, National Cheng Kung University Dr. Wei-Jung Chen, President, Taiwan Marine Biotechnology Society Dr. Han-Ching Wang, Chairperson, 5 th ISFSI Local Organizing Committee Group Photo
09:00~09:45	Keynote Session 1 Chung-Hwa Hall [Page 27] Chair: Dr. Jorge Galindo-Villegas Keynote Speech [K1-O-01] <i>Functional characterization reveals an ancestral and complex antiviral program in Cnidaria</i> Dr. Yehu Moran, The Hebrew University of Jerusalem, Israel
09:45~10:15	Coffee Break (Sponsored by ) [Page 55]
10:15~12:15	Scientific Session 1 Chung-Hwa Hall [Page 35] Topic 1. Fish and Shellfish: Immunity and Disease Chair: Dr. Saengchan Senapin Co-Chair: Dr. Goshi Kato Oral Presentations: T1-O-01 ~ T1-O-10

12:15~13:30	Lunch [Boxed meal: 3F (~100 seats) and B1F (~100 seats)]	
13:30~13:55	Invited Session 1 Chung-Hwa Hall [Page 30]	
	Chair: Dr. Wei-Jung Chen Invited Speech [I1-O-01] <i>Revisiting the poikilothermia: effect of seasonal temperature on the skin of Atlantic salmon infested with Caligus rogercresseyi</i> Dr. Felipe E. Reyes-López, Universidad de Santiago de Chile, Chile	
13:55~14:20	Invited Session 2 Chung-Hwa Hall [Page 30]	
	Chair: Dr. Sam Martin Invited Speech [I1-O-02] <i>The utilization of tiny droplets can accelerate research on fish diseases and immunity</i> Dr. Keiichiro Koiwai, Tokyo University of Marine Science and Technology, Japan	
14:20~14:50	Poster Session [1F] / Coffee Break [2F] [Student Poster Competition]	
14:50~15:50	Scientific Session 2 Chung-Hwa Hall [Page 36]	Sponsor Session 1 Seminar Room [3F] [Page 56]
	Topic 1. (Cont.) Fish and Shellfish: Immunity and Disease Chair: Dr. Jun-ichi Hikima Co-Chair: Dr. Po-Tsang Lee Oral Presentations: T1-O-11 ~ T1-O-15	Elite sponsor –  Total Nutrition Technologies Natural Nutrition for Better Performance Total Nutrition Technologies 14:50-16:35 <i>Fermented and hydrolyzed plant-based peptides and probiotics as feeding strategies toward sustainable and green aquaculture</i> Dr. Chung-Te Lee, Dachan Great Wall Group, Taiwan (R.O.C.)
15:50~17:10	Scientific Session 3 Chung-Hwa Hall [Page 39]	
	Topic 2. Crustacean and Molluscan: Immunity and Disease Chair: Dr. Hiroaki Suetake Co-Chair: Dr. Han-You Lin Oral Presentations: T2-O-01 ~ T2-O-06	
17:30~	Free Night	

Day 3: THURSDAY, 06 Nov, 2025

08:20~08:30

Registration Desk Open

08:30~09:15

Keynote Session 2 Chung-Hwa Hall [Page 27]

Chair: Dr. Giuseppe Scapigliati

Keynote Speech [K2-O-01]
Hemocyte diversity and differentiation in crustaceans
Dr. Irene Söderhäll, Uppsala University, Sweden

09:15~09:40

Invited Session 3 Chung-Hwa Hall [Page 31]

Chair: Dr. Han-Ching Wang

Invited Speech [I2-O-01]
AMP-Based Intervention as a Sustainable Strategy for Shrimp Disease Control
Dr. Kunlaya Somboonwiwat, Chulalongkorn University, Thailand

09:40~10:05

Invited Session 4 Chung-Hwa Hall [Page 31]

Chair: Dr. James Wynne

Invited Speech [I2-O-02]
Development of a marine probiotic bacterium producing nanobody and/or dsRNA against white spot syndrome virus (WSSV)
Dr. Mary Nia M. Santos, National Fisheries Research and Development Institute, Philippines

10:05~10:30

Coffee Break

10:30~12:15

Scientific Session 4 Chung-Hwa Hall [Page 39]

Topic 2. (Cont.) Crustacean and Molluscan: Immunity and Disease

Chair: Dr. Chin-Chyuan Chang
Co-Chair: Dr. Pakpoom Boonchuen

Oral Presentations:
T2-O-07 ~ T2-O-14

Sponsor Session 2 Seminar Room [3F] [Page 57]

Premier Sponsor -



GeneReach Biotechnology Corp.
10:30-12:15

Translate scientific research into industry solutions
GeneReach Biotechnology — Industry Application Overview
CEO Simon Chung, GeneReach Biotechnology Corporation

12:15~13:30	Lunch [Boxed meal: 3F (~100 seats) and B1F (~100 seats)]	
13:30~13:55	Invited Session 5 Chung-Hwa Hall [Page 32]	
	Chair: Dr. Li-Li Chen Invited Speech [I2-O-03] <i>Insights into Thai Stakeholders' Views on Fish Vaccination</i> Dr. Saengchan Senapin, National Science and Technology Development Agency, & Mahidol University, Thailand	
13:55~15:10	Scientific Session 5 Chung-Hwa Hall [Page 44]	Sponsor Session 3 Seminar Room [3F] [Page 58]
	Topic 3. Integrated Mechanisms of Immunity and Host-Pathogen Interactions Chair: Dr. Krzysztof Rakus Co-Chair: Dr. Tzong-Yueh Chen Oral Presentations: T3-O-01 ~ T3-O-06	Diamond Sponsor –  giant bio Giant Bio Technology 13:55-15:40
15:10~16:30	Poster Session [1F] Coffee Break [2F] [Student Poster Competition]	
16:30~17:00	Flash Talk Session Chung-Hwa Hall [Page 53]	
	Chair: Dr. Patricia Pereiro Co-Chair: Dr. Yu-Hung Lin Flash Talk (3 min) T1-P-06; T1-P-08; T1-P-10; T1-P-13; T1-P-14; T2-P-17; T2-P-22; T3-P-04; T5-P-04	
17:15~20:00	Social Activity [Free to attend]	
	Garden Night Market (花園夜市)	



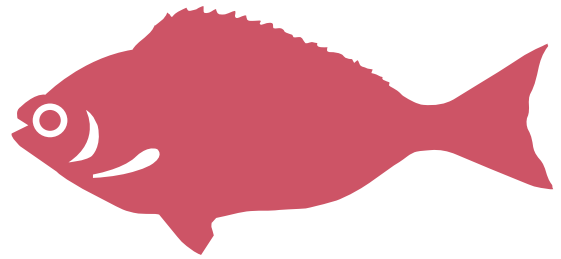
Day 4: FRIDAY, 07 Nov, 2025		
08:20~08:30	Registration Desk Open	
08:30~09:15	Keynote Session 3 Chung-Hwa Hall [Page 28]	
	Chair: Dr. Brian Dixon Keynote Speech [K3-O-01] <i>Current knowledge on the differentiation of fish IgM B cells to plasma cells</i> Dr. Carolina Tafalla, National Institute for Agricultural and Food Research and Technology (INIA), Spanish Research Council (CSIC), Spain	
09:15~09:40	Invited Session 6 Chung-Hwa Hall [Page 32]	
	Chair: Dr. Oriol Sunyer Invited Speech [I3-O-01] <i>Biotechnological applications in marine science: how to understand the language of physiology</i> Dr. Andrea C. Alfaro, Auckland University of Technology, New Zealand	
09:40~10:05	Invited Session 7 Chung-Hwa Hall [Page 33]	
	Chair: Dr. Louise von Gersdorff Jørgensen Invited Speech [I3-O-02] <i>Reframing the understanding of WSSV pathogenesis via multi-omics dissection of host control</i> Dr. Han-Ching Wang, National Cheng Kung University, Taiwan	
10:05~10:25	Coffee Break	
10:25~11:15	Scientific Session 6 Chung-Hwa Hall [Page 45]	Sponsor Session 4 Seminar Room [3F] [Page 59]
	Topic 3. (Cont.) Integrated Mechanisms of Immunity and Host-Pathogen Interactions Chair: Dr. Marco Gerdol Co-Chair: Dr. Hao-Ching Wang Oral Presentations: T3-O-07 ~ T3-O-10	FSI Special Edition Sponsor Fish & Shellfish Immunology Elsevier, Fish and Shellfish Immunology 10:25-11:25
11:15~11:30	Break	Author Workshop Chair: Dr. Carolina Tafalla Co-Chair: Dr. Steve Bird

11:30~12:30	Beyond Numbers: Advancing Research Quality Chung-Hwa Hall
	Chair: Dr. Jorge Galindo-Villegas A dynamic panel bringing together editors and researchers to explore how to move beyond quantitative metrics, emphasizing best practices, critical insights, and strategies for strengthening the quality and impact of scientific research.
12:30~13:30	Lunch [Boxed meal: 3F (~100 seats) and B1F (~100 seats)]
13:30~18:00	Social Activity [Free to attend]
	Tainan Historic Sites Tour Shuttle Bus Pickup: next to The Magic School of Green Technologies, NCKU
18:00~21:00	Gala Dinner [Free to attend]
	Argo Yacht Club (亞果薈) Address: No. 585, Sec. 2, Xingang Rd., Anping Dist., Tainan City 708013, Taiwan (R.O.C.) If you are not joining the Tainan Historic Sites Tour, please take a taxi directly to the venue. Estimated travel time: 20–30 minutes from National Cheng Kung University. Estimated fare: ~NTD 350~400.

Day 5: SATURDAY, 08 Nov, 2025	
08:20~08:30	Registration Desk Open
08:30~09:15	Keynote Session 4 Chung-Hwa Hall [Page 28]
	Chair: Dr. Irene Salinas Remiro Keynote Speech [K4-O-01] <i>Epigenetic plasticity enables copepods to cope with ocean acidification</i> Prof. Jae-Seong Lee, Sungkyunkwan University, Republic of Korea



09:15~10:10	Scientific Session 7 Chung-Hwa Hall [Page 45]
	Topic 3. (Cont.) Integrated Mechanisms of Immunity and Host-Pathogen Interactions Chair: Dr. Tomáš Korytář Co-Chair: Dr. Garner Algo Alolod Oral Presentations: T3-O-11 ~ T3-O-14
10:10~10:40	Coffee Break
10:40~12:30	Scientific Session 8 Chung-Hwa Hall [Page 48]
	Topic 4. Innovations in Nutrition, Technology, and Microbiome-Immune Interactions Chair: Dr. Shih-Chu Chen Co-Chair: Dr. Magalí Rey Campos Oral Presentations: T4-O-01 ~ T4-O-09
12:30~13:30	Lunch [Boxed meal: 3F (~100 seats) and B1F (~100 seats)]
13:30~14:45	Scientific Session 9 Chung-Hwa Hall [Page 51]
	Topic 5. Innovative Immunoprophylactic Strategies Chair: Dr. Mikolaj Adamek Co-Chair: Dr. Eva Vallejos-Vidal Oral Presentations: T5-O-01 ~ T5-O-06
14:45~15:15	Coffee Break
15:15~16:00	The ISFSI General Assembly Chung-Hwa Hall
	Chair: Dr. Jorge Galindo-Villegas, President, the International Society of Fish and Shellfish Immunology (ISFSI) The General Assembly is open to all members and will include the Society's activity and financial reports, future plans, and other related matters. Time will also be reserved for open discussion and suggestions from members.
16:00~16:30	Closing Remarks & Award Ceremony Chung-Hwa Hall

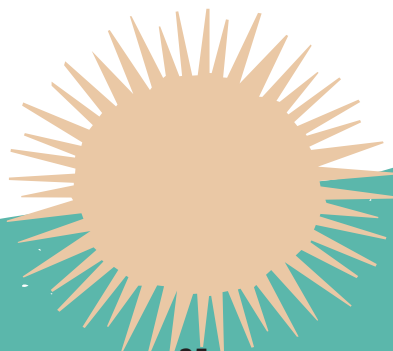


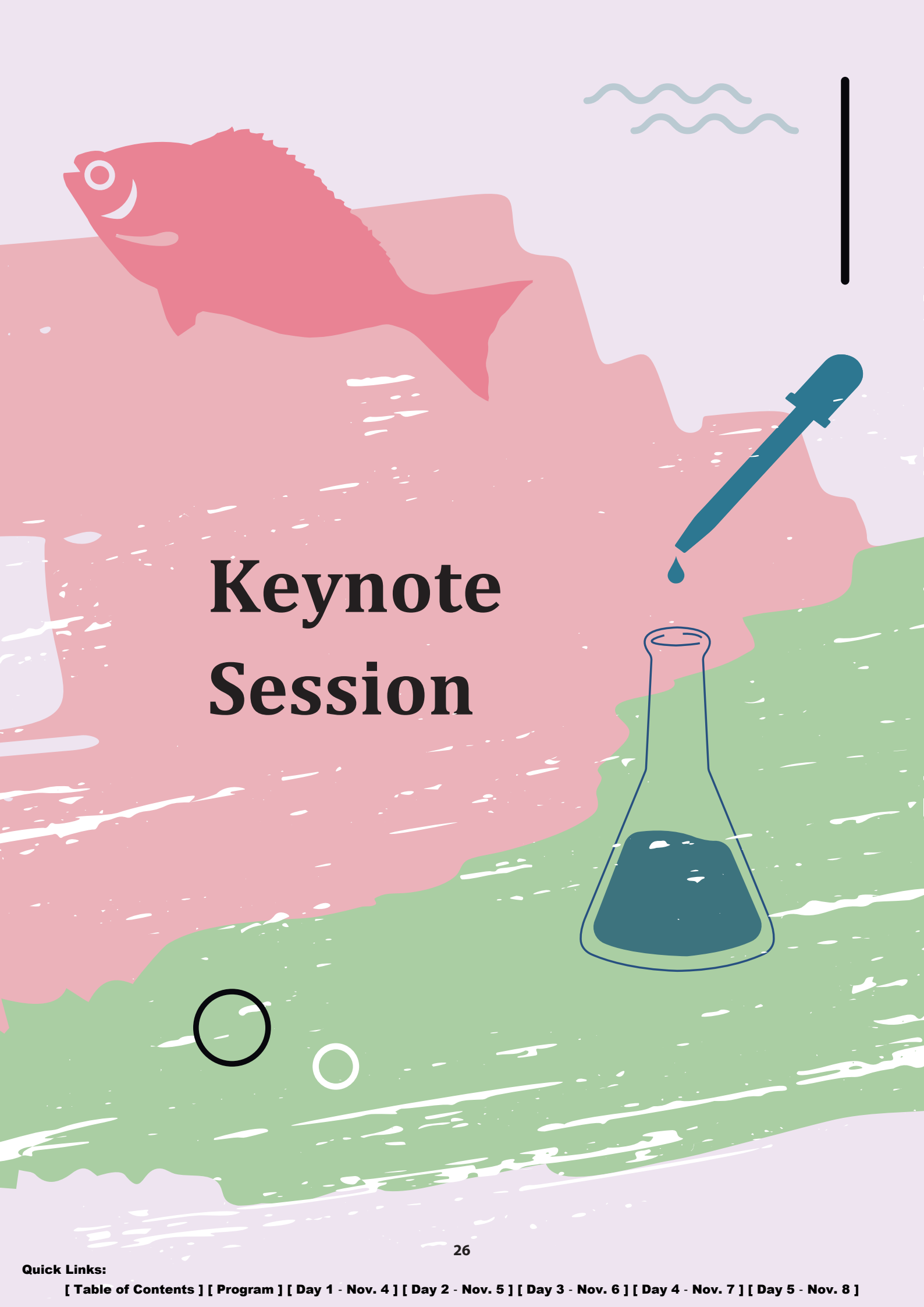
Abstracts QR Code for the 5th ISFSI (Special Issue, Fish and Shellfish Immunology)

Fish & Shellfish Immunology



All abstracts





Keynote Session



TIME: 09:00 ~ 09:45, 05 NOV, 2025

Abstract: [K1-O-01]

Dr. Yehu Moran

**Department of Ecology, Evolution and Behavior,
The Hebrew University of Jerusalem, Israel**

Professor Yehu Moran is a leading scholar at the Department of Ecology, Evolution and Behavior at The Hebrew University of Jerusalem, where he currently serves as Head of the Department. He obtained his B.Sc. in Biology, M.Sc. in Biochemistry, and Ph.D. in Molecular Evolution from Tel Aviv University, followed by a postdoctoral fellowship at the University of Vienna. Since joining The Hebrew University of Jerusalem in 2014, he has established his own lab, which investigates the evolution of complex systems using cnidarians, including sea anemones, corals, hydroids, and jellyfish, as model organisms. His research places a particular emphasis on the innate immune system and its molecular evolution in animals, providing key insights into the evolutionary roots of immunity.



TIME: 08:30 ~ 09:15, 06 NOV, 2025

Abstract: [K2-O-01]

Dr. Irene Söderhäll

**Department of Organismal Biology, Uppsala
University, Sweden**

Professor Irene Söderhäll is a distinguished researcher in the Department of Organismal Biology at Uppsala University, renowned for her pioneering contributions to the study of crustacean hematopoiesis and immunity. Beginning her career in plant physiology, she earned her Ph.D. from Uppsala University in 1987 and later transitioned to invertebrate biology, where she made the groundbreaking discovery of the cytokine-like molecule Astakine, a key regulator of hemocyte differentiation. Her research has further characterized hemocyte functions, revealed their surprising ability to migrate to the brain and form neurons, and applied single-cell RNA sequencing to uncover the remarkable complexity of hemocyte populations. Over the course of her career, Professor Söderhäll has supervised numerous Ph.D. students and postdoctoral researchers from around the world, held leadership roles including nine years as Head of Department, and served on the editorial boards of leading journals such as Developmental & Comparative Immunology and Journal of Invertebrate Pathology. Her work continues to shed light on fundamental mechanisms of hematopoiesis and immune function in invertebrates.



TIME: 08:30 ~ 09:15, 07 NOV, 2025

Abstract: [K3-O-01]

Dr. Carolina Tafalla

Biotechnology Department. National Institute for Agricultural and Food Research and Technology (INIA), Spanish Research Council (CSIC), Madrid, Spain



Dr. Carolina Tafalla has over 25 years of expertise in fish virology and immunology, with research interests spanning B cell responses, immunoglobulins, mucosal immunity, chemokines, viral infections of fish, as well as the optimization of novel fish vaccines including the search for adjuvants and optimization of oral vaccination strategies. She obtained her Ph.D. in Biology in 2000 from the *Universidad de Santiago de Compostela* and was awarded a Marie Curie Individual Fellowship in 2002 to work at the *Centre de Recherche de Jouy-en-Josas* (INRA, France). In 2003, she returned to Spain with a Ramón y Cajal contract and established the “Fish Immunology and Pathology” group at CISA-INIA-CSIC, which has recently moved to the Biotechnology Department of INIA-CSIC. Dr. Tafalla has published more than 140 scientific papers and 10 book chapters, directed six doctoral theses and holds four patents. She has led numerous national and European projects, including an ERC Starting Grant and an ERC Consolidator Grant to phenotypically and functionally characterize B cell populations in fish. Currently, she serves as a member of the Agricultural Sciences Committee at CSIC and is Editor-in-Chief of *Fish & Shellfish Immunology* since December 2023, in addition to serving on the editorial boards of several other leading international journals.

TIME: 08:30 ~ 09:15, 08 NOV, 2025

Abstract: [K4-O-01]

Dr. Jae-Seong Lee

Department of Biological Sciences, College of Science, Sungkyunkwan University, Suwon, Republic of Korea



Professor Jae-Seong Lee specializes in host-microbiota interactions, environmental epigenetics, hypoxia, ocean and freshwater acidification, elevated temperature, and the effects of microplastics. He was born in 1963 and received his BSc, MSc, and PhD from Hanyang University, South Korea, in 1994, and later obtained a second PhD from Nagasaki University, Japan, in 2011. Over the course of his career, he has published more than 520 SCIE papers and has served as an editor or editorial board member for several leading journals, including *Aquatic Toxicology*, *Comparative Biochemistry and Physiology*, *Marine Environmental Research*, *Journal of Environmental Sciences*, *Science of the Total Environment*, and *Marine Life Science & Technology*. In recognition of his scientific contributions, Professor Jae-Seong Lee received the Humboldt Research Award in 2025. Actively engaged in advancing knowledge across his fields of expertise, he is enthusiastic about collaborating with researchers who share his passion for environmental and aquatic sciences.



Invited Session

TIME: 13:30 ~ 13:55, 05 NOV, 2025

Abstract: [I1-O-01]

Dr. Felipe E. Reyes-Lopez

Fish Health and Integrative Physiogenomics research team, Centro de Biotecnología Acuicola, Facultad de Química y Biología, Universidad de Santiago de Chile, Chile

Professor Dr. Felipe E. Reyes-Lopez is a biochemist and Doctor in Biotechnology, currently serving as Assistant Professor at the University of Santiago de Chile and Director of the Fish Health and Integrative Physiogenomics Research Team at the Center of Biotechnology and Aquaculture (USACH). His research focuses on fish health, with key interests in stress responses and their impact on immunity, host-pathogen interactions in aquaculture, integrative physiogenomics linking functional genomics to health phenotypes, and the crosstalk between mucosa-associated lymphoid tissues and mucus. With over 80 scientific publications, several book chapters, and extensive participation in international research projects across Europe and Latin America, he has made significant contributions to aquatic sciences, immunology, and microbiology. Beyond his research, he has 12 years of teaching experience, has served as evaluator for research agencies worldwide, and holds active memberships in leading scientific societies, including serving on the board of the International Society of Fish and Shellfish Immunology.



TIME: 13:55 ~ 14:20, 05 NOV, 2025

Abstract: [I1-O-02]

Dr. Keiichiro Koiwai

Laboratory of Genome Science, Institute for Aquaculture Biotechnology, Faculty, Tokyo University of Marine Science and Technology, Japan

Associate Professor Keiichiro Koiwai is a faculty member at the Laboratory of Genome Science, Institute for Aquaculture Biotechnology, Tokyo University of Marine Science and Technology (TUMSAT), where his research focuses on shrimp immunology, fish diseases, and beneficial bacteria for aquaculture. He earned his doctorate in Marine Science from TUMSAT in 2019 and subsequently held positions as a JSPS Postdoctoral Fellow at Chuo University, a specially appointed assistant professor at Tokyo University of Agriculture and Technology, and an assistant professor at TUMSAT. His contributions to aquatic biosciences have been recognized with multiple honors, including the Encouragement Award from the Japanese Society of Fisheries Science (2019) and the Marine Biotechnology Society (2024). By integrating cutting-edge technologies such as MEMS and RNA-seq, Dr. Koiwai aims to uncover how microorganisms influence the health and immune responses of marine organisms, with the long-term goal of advancing sustainable aquaculture and marine biodiversity preservation.



TIME: 09:15 ~ 09:40, 06 NOV, 2025

Abstract: [I2-O-01]

Dr. Kunlaya Somboonwiwat

Center of Excellence for Molecular Biology and Genomics of Shrimp, Department of Biochemistry, Faculty of Science, Chulalongkorn University, Thailand

Associate Professor Kunlaya Somboonwiwat is a faculty member in the Department of Biochemistry at Chulalongkorn University, Thailand, and the director of the Center of Excellence for Molecular Biology and Genomics of Shrimp. She received both her B.Sc. and Ph.D. in Biochemistry from Chulalongkorn University and has since established herself as an authority in shrimp immunology, molecular biology, and OMICs-based approaches for therapeutics and biomarker development. Her pioneering research explores the role of antimicrobial peptides, other immune proteins, and small non-coding RNAs, including microRNAs and circular RNAs, in shrimp immune responses, to develop novel strategies to control shrimp diseases. Recognized with prestigious honors such as the M.R. Jisnuson Svasti Young Protein Scientist of Thailand Award and the Outstanding Royal Golden Jubilee Alumni Award, Dr. Somboonwiwat continues to contribute significantly to advancing shrimp health management and promoting sustainable aquaculture practices.



TIME: 09:40 ~ 10:05, 06 NOV, 2025

Abstract: [I2-O-02]

Dr. Mary Nia M. Santos

Aquaculture Research and Development Division and Fisheries Biotechnology Center Department of Agriculture – National Fisheries Research and Development Institute (DA-NFRDI), Philippines

Dr. Mary Nia M. Santos is the Senior Science Research Specialist and Head of the Aquatic Animal Health Section at the Department of Agriculture – National Fisheries Research and Development Institute (DA-NFRDI), Philippines. She holds a BS in Fisheries and an MS in Biology from the University of the Philippines Visayas, and earned her Ph.D. in Biotechnology with postdoctoral training at Academia Sinica, Taiwan. With extensive expertise in molecular biology, microbiology, biotechnology, and aquaculture, her research focuses on shrimp bacterial and viral diseases, including AHPND and WSSV. Through comparative genomics, functional characterization, and bacterial challenge assays, her team investigates the Type VI Secretion System in *Vibrio*-induced infections, while her collaborative Taiwan–Philippines project develops probiotic bacteria expressing nanobodies and dsRNAs to block WSSV entry. A Fulbright–Philippine Agriculture Scholarship Program and Balik (Filipino word for return) Scientist awardee, Dr. Santos is committed to advancing fisheries biotechnology and strengthening aquaculture disease management for sustainable aquaculture in the Philippines.



TIME: 13:30 ~ 13:55, 06 NOV, 2025

Abstract: [I2-O-03]

Dr. Saengchan Senapin

National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA), Pratum Thani, Thailand

Fish Health Platform, Center of Excellence for Shrimp Molecular Biology and Biotechnology (Centex Shrimp), Mahidol University, Bangkok, Thailand



Dr. Senapin is a molecular biologist with over 20 years of expertise in aquatic animal health, specializing in the study of infectious pathogens in fish and shrimp with a focus on their identification, molecular characterization, diagnosis, and host-pathogen interactions. Her research encompasses major fish pathogens such as TiLV, TiPV, SDDV, LcHV, ISKNV, NNV, *Aeromonas*, *Streptococcus*, and *Vibrio* in tilapia and Asian seabass, as well as IMNV, MrNV, YHV, WSSV, and atypical *Vibrio* AHPND in shrimp. More recently, her work has expanded to fish vaccination and immunity, as well as investigating stakeholder perspectives on vaccination practices in aquaculture. She received her Ph.D. in Biochemistry and Molecular Biology from The Australian National University in 2003 and is currently a principal researcher at the National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA), Thailand. In addition, she serves as an adjunct professor at James Cook University, Singapore, and as Associate Editor for the *Journal of Fish Diseases*. With an H-index of 33 and over 190 international publications, she was recognized among the top 2% of scientists in the fisheries field in 2024.

TIME: 09:15 ~ 09:40, 07 NOV, 2025

Abstract: [I3-O-01]

Dr. Andrea C. Alfaro

Director of the Aquaculture Biotechnology Research Group, Auckland University of Technology, Auckland, New Zealand



Professor Alfaro is a leading marine scientist whose research integrates shellfish and fish ecology with aquaculture, focusing on how marine organisms respond to both endogenous and exogenous perturbations. Her work applies multi-omics approaches to investigate organism–environment interactions and supports biomarker discovery for the early diagnosis of health, nutrition, growth, and production states in fisheries and aquaculture. She leads the Aquaculture Biotechnology Research Group at Auckland University of Technology (AUT), which utilizes innovative tools such as metabolomics and integrated omics to address complex questions related to host-pathogen–environment interactions, eco-physiological trade-offs, and resilience of marine populations under climate change. With an interdisciplinary perspective spanning field ecology and controlled aquaculture systems, her research ultimately aims to future-proof wild and cultivated marine populations in changing environments.

TIME: 09:40 ~ 10:05, 07 NOV, 2025

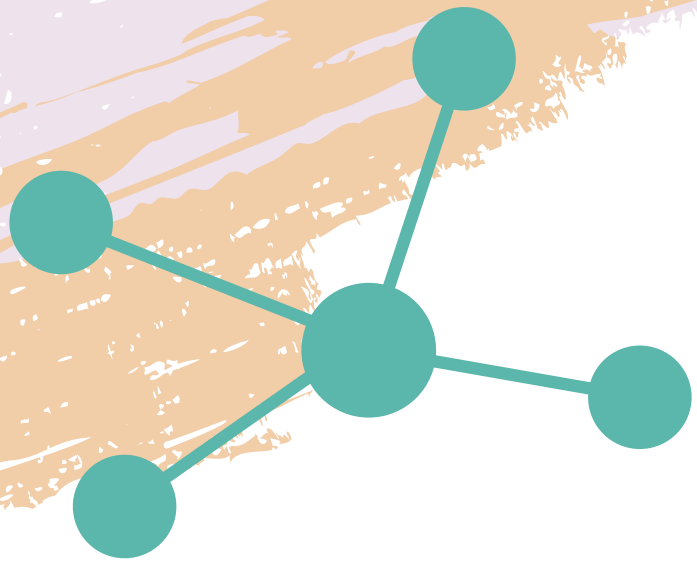
Abstract: [I3-O-02]

Dr. Han-Ching Wang

**Department of Biotechnology and Bioindustry
Sciences, National Cheng Kung University,
Taiwan**



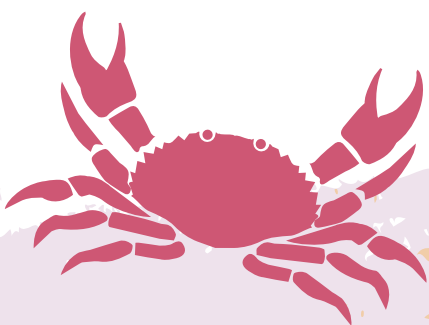
Professor Wang is a recognized expert in crustacean immunology, virology, systems biology, and multi-omics analysis. For over two decades, her research has focused on shrimp diseases, particularly white spot disease (WSD) and acute hepatopancreatic necrosis disease (AHPND), both listed by the World Organization for Animal Health (WOAH). Her team employs integrated systems-biology and omics approaches—including metabolomics and lipidomics—to unravel the pathogenesis of these major diseases. Their discoveries have not only advanced scientific understanding but also translated into eco-friendly biosecurity strategies that benefit shrimp aquaculture world wide. Professor Wang earned her Ph.D. from National Taiwan University in 2007, pursued postdoctoral training in Japan, and joined National Cheng Kung University in 2008, where she is now a Distinguished Professor. She leads the WOAH Reference Laboratories for WSD and AHPND and serves in multiple international leadership roles, including board member of the International Society of Fish & Shellfish Immunology, chair of the ICTV Nimaviridae Study Group, and member of the Executive Committee of the Fish Health Section. Recognized among the World's Top 2% Scientists (2023), she has published over 80 SCI-indexed articles and received several prestigious awards, including the CH Biotech Innovation Award. Her contributions continue to shape global shrimp health research and strengthen international collaboration in aquaculture biosecurity.



Scientific Session

Topic 1.

Fish and Shellfish: Immunity and Disease



Topic 1.

Fish and Shellfish: Immunity and Disease

Oral Presentation (* : student competition)

Scientific Session 1

05 Nov, 10:15 ~ 12:15

Chair: Dr. Saengchan Senapin

Co-Chair: Dr. Goshi Kato

- | | |
|-------------|--|
| 10:15-10:27 | T1-O-01 * Ginbuna T cells express cytokines in an antigen-specific manner via antigen presentation by phagocytes
Presenting author: Shinji Takeda , Nihon University, Japan |
| 10:27-10:39 | T1-O-02 The NLRP3 inflammasome activated pyroptosis to clear the invaded <i>Nocardia seriolae</i> in <i>Micropterus salmoides</i>
Presenting author: Qingchao Wang , Huazhong Agricultural University, China |
| 10:39-10:51 | T1-O-03 Where do ellipsoid macrophages come from in teleost?
Presenting author: Hiroaki Suetake , Fukui Prefectural University, Japan |
| 10:51-11:03 | T1-O-04 Understanding complex gill disease in Atlantic salmon: evidence from marine open sea-cage systems
Presenting author: Mabel Vidal , Universidad de Concepción, Chile |
| 11:03-11:15 | T1-O-05 Preparation and functional analysis of peripheral blood leukocytes in hybrid grouper (<i>Epinephelus fuscoguttatus</i> × <i>E. lanceolatus</i>)
Presenting author: Yeh-Fang Hu , National Taiwan Ocean University, Taiwan (R.O.C.) |
| 11:15-11:27 | T1-O-06 Asymptomatic PRV-1 infection in Atlantic salmon triggers spleen-specific Th1 immune response
Presenting author: Eva Vallejos-Vidal , Universidad De Las Americas, Chile |
| 11:27-11:39 | T1-O-07 Taurine as a resistance-associated metabolite against <i>Aeromonas salmonicida</i> in turbot (<i>Scophthalmus maximus</i>)
Presenting author: Patricia Pereiro , National Research Council (CSIC), Spain |
| 11:39-11:51 | T1-O-08 Microbiota shifts in <i>Meretrix taiwanica</i> associated with mass mortality triggered by <i>Vibrio coralliilyticus</i> CB1
Presenting author: Ying-Ning Ho , Institute of Marine Biology, National Taiwan Ocean University, Taiwan (R.O.C.) |
| 11:51-12:03 | T1-O-09 Adverse impacts of polystyrene nanoplastics on teleosts: insights from <i>in vitro</i> and <i>ex vivo</i> studies
Presenting author: Simona Picchietti , University of Tuscia, Viterbo, Italy |
| 12:03-12:15 | T1-O-10 Characterization of CD4 T lymphocyte subsets in systemic and mucosal lymphoid organs of Atlantic Salmon
Presenting author: Ryuichiro Miyazawa , University of Pennsylvania, USA |

Scientific Session 2

05 Nov, 14:50 ~ 15:50

Chair: Dr. Jun-ichi Hikima

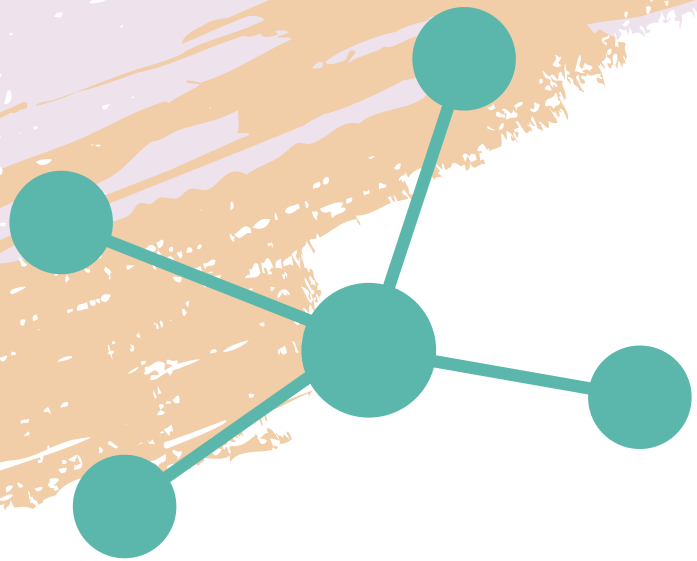
Co-Chair: Dr. Po-Tsang Lee

- 14:50-15:02 T1-O-11 * Comparative functional analysis of four type I interferon isoforms in Japanese flounder using recombinant approaches**
Presenting author: Loku Naidelage Lakmali Prasadika Jayasinghe, Tokyo University of Marine Science and Technology, Japan
- 15:02-15:14 T1-O-12 * Development of an antigen presentation assay using rainbow trout (*Oncorhynchus mykiss*) dorsal fin cells stimulated with heat-inactivated viral hemorrhagic septicemia virus (VHSV) IVb**
Presenting author: Valentina Wong-Benito, University of Waterloo, Canada
- 15:14-15:26 T1-O-13 * Massive recruitment of CD45⁺ and T cells drives central nervous system responses in RGNNV-infected European seabass**
Presenting author: Valeria Pianese, University of Tuscia, Italy
- 15:26-15:38 T1-O-14 Immune cell-resolved transcriptomics provides insights into the basis for variations of fish genetic resistance to viral disease**
Presenting author: Thomas C. Clark, University of Edinburgh, UK
- 15:38-15:50 T1-O-15 * Molecular cloning of zymosan-binding lectin in the Banded Houndshark (*Triakis scyllium*)**
Presenting author: Jianing Zhu, Kyushu University, Japan

Poster Presentation (* : student competition)

- T1-P-01 * Fermented *Broussonetia papyrifera* leaves on growth performance, immune responses, and resistance to *Vibrio* of shrimp**
Presenting author: Guan-Lin Lai, National Taiwan Ocean University, Taiwan (R.O.C.)
- T1-P-02 CD8 loci in rainbow trout (*Oncorhynchus mykiss*): Association of single CD8 α with dual CD8 β isoforms**
Presenting author: Ehdad Abdelsalam, Fukui Prefectural University, Japan
- T1-P-03 * Mitochondrial pyruvate carrier proteins mediate host-pathogen interactions during WSSV infection in shrimp**
Presenting author: Yu-Chen Lin, National Cheng Kung University, Taiwan (R.O.C.)
- T1-P-04 * Tracking monocyte/macrophage cells following immersion vaccination in rainbow trout**
Presenting author: Tsugumi Masunaga, Tokyo University of Marine Science and Technology, Japan
- T1-P-05 * Deciphering the mechanism behind shrimp body color regulation**
Presenting author: Yun Chen, National Cheng Kung University, Taiwan (R.O.C.)
- T1-P-06 * Effects of FTY720 administration on lymphocyte dynamics in rainbow trout**
Presenting author: Ryosuke Fujihara, Nihon University, Japan

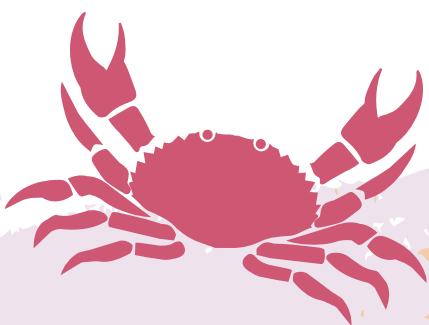
- T1-P-07**
* **Molecular analysis of IgT in orange-spotted grouper (*Epinephelus coioides*) upon Nodavirus infection and different temperatures**
Presenting author: **Sheng-Tsung Chang**, National Cheng Kung University, Taiwan (R.O.C.)
- T1-P-08**
* **Functional characterization of rainbow trout perforin-1**
Presenting author: **Kana Hagiwara**, Nihon University, Japan
- T1-P-09**
* **Characterization of interferon regulatory factor 9 in giant grouper (*Epinephelus lanceolatus*) antiviral immune response**
Presenting author: **Yuan-Kuei Hsieh**, National Cheng Kung University, Taiwan (R.O.C.)
- T1-P-10**
* **Transportation of bacterial antigens in the rainbow trout intestine**
Presenting author: **Aika Tharindie Guruge**, Tokyo University of Marine Science and Technology, Japan
- T1-P-11**
Transcriptomic insights into neuroendocrine dysregulation in *Macrobrachium rosenbergii* infected by infectious precocity virus
Presenting author: **Yun-Ru Chiang**, Ming Chuan University, Taiwan (R.O.C.)
- T1-P-12**
The vertebrate lysozyme inhibitor Ivy from *Edwardsiella piscicida* inhibits C-type lysozyme activity in Japanese flounder *Paralichthys olivaceus*
Presenting author: **Jun-ichi Hikima**, University of Miyazaki, Japan
- T1-P-13**
Divergent roles of interferon gamma and interferon gamma-related-like molecules in grouper antiviral immunity
Presenting author: **Yueh-chiang Han**, National Cheng Kung University, Taiwan (R.O.C.)
- T1-P-14**
* **Trout Granulomatous Virus (TGV) infection in rainbow trout gills reveals immune evasion and endothelial dysfunction**
Presenting author: **Sara Ximena Amortegui Umana**, University of New Mexico, USA
- T1-P-15**
* **Feasibility study on the application of antimicrobial peptides for the treatment of coral ciliate infections**
Presenting author: **You-Ren Lai**, National Kaohsiung University of Science and Technology, Taiwan (R.O.C.)
- T1-P-16**
* **Characterization of CD4-1⁺ myeloid cells localized in tissues of rainbow trout (*Oncorhynchus mykiss*)**
Presenting author: **Eiji Miyawaki**, Fukui Prefectural University, Japan
- T1-P-17**
* **Impact of NNV infection on antioxidant and oxidative stress in giant grouper (*Epinephelus lanceolatus*)**
Presenting author: **Chen-Yu Kuo**, National Cheng Kung University, Taiwan (R.O.C.)
- T1-P-18**
Myostatin b gene-edited mutation on *Streptococcus* resistance, innate immunity and lipid metabolism in Nile tilapia
Presenting author: **Hong-Yi Gong**, National Taiwan Ocean University, Taiwan (R.O.C.)
- T1-P-19**
* **Identification of immunoglobulins from *Triaenodon obesus* through *de novo* transcriptome analysis**
Presenting author: **Claudio Gargano**, University of Palermo, Italy
- T1-P-20**
* **Colony-stimulating factors on cellular activation and development of Japanese flounder immune cells**
Presenting author: **Rungnapa Sakulworakan**, Tokyo University of Marine Science and Technology, Japan



Scientific Session

Topic 2.

Crustacean and Molluscan: Immunity and Disease



Topic 2.

Crustacean and Molluscan: Immunity and Disease

Oral Presentation (* : student competition)

Scientific Session 3

05 Nov, 15:50 ~ 17:10

Chair: Dr. Hiroaki Suetake

Co-Chair: Dr. Han-You Lin

15:50-16:02 **T2-O-01 * The impact of splenectomy on antibody responses in teleost fish**

Presenting author: **Shota Watanabe**, Nihon University, Japan

16:02-16:14 **T2-O-02 Metagenomic insights into the progression of White Muscle Disease in Kuruma shrimp (*Penaeus japonicus*)**

Presenting author: **Garner Algo Langote Alolod**, University of Antique-Tario Lim Memorial Campus, Philippines

16:14-16:26 **T2-O-03 * Evaluation of a leukocyte transplantation model using GFP-expressing transgenic clonal ginbuna**

Presenting author: **Ren Uehara**, Nihon University, Japan

16:26-16:38 **T2-O-04 * Transcriptome analysis revealed immune protection of formalin killed cell – *Vibrio parahaemolyticus* bath vaccination in whiteleg shrimp (*Penaeus vannamei*) against AHPND**

Presenting author: **Ma. Ramela Angela Bermeo-Capunong**, Tokyo University of Marine Science and Technology, Japan

16:38-16:50 **T2-O-05 * Immunomodulatory and antibacterial effects of PACAP in Pacific white shrimp *Litopenaeus vannamei***

Presenting author: **Jesús Luis Betancourt**, University of Waterloo, Canada

16:50-17:02 **T2-O-06 * Investigation of the presence and role of Virus-derived DNA in *Penaeus vannamei* infected with an RNA virus**

Presenting author: **Shana Fresnido Genavia**, Technical University of Denmark, Denmark

Scientific Session 4

06 Nov, 10:30 ~ 12:15

Chair: Dr. Chin-Chyuan Chang

Co-Chair: Dr. Pakpoom Boonchuen

10:30-10:42 **T2-O-07 Genomic and transcriptomic features of mussels: the molecular insights into their adaptive success**

Presenting author: **Beatriz Novoa**, Institute of Marine Research (IIM-CSIC), Vigo, Spain

- 10:42-10:54 T2-O-08 * Injection administration of passion fruit peel, *Passiflora edulis*, extract enhances immune responses of *Macrobrachium rosenbergii***
Presenting author: Yi-Chun Yeh, National Pingtung University of Science and Technology, Taiwan (R.O.C.)
- 10:54-11:06 T2-O-09 A midkine/pleiotrophin-like cytokine is a key player in the transcriptional reprogramming of mussel hemocytes**
Presenting author: Marco Gerdol, University of Trieste, Italy
- 11:06-11:18 T2-O-10 Uncovering the gene regulation of PirA^{vp} and PirB^{vp} toxins in AHPND causing *Vibrio parahaemolyticus***
Presenting author: Hao-Ching Wang, Taipei Medical University, Taiwan (R.O.C.)
- 11:18-11:30 T2-O-11 * Light-activated dialdehyde cellulose nanocrystals (DACNC)-erythrosine generates ROS for *Vibrio* inactivation in whiteleg shrimp**
Presenting author: Dewi Nur'aeni Setyowati, National Cheng Kung University, Taiwan (R.O.C.)
- 11:30-11:42 T2-O-12 Circular RNAs: key players in shrimp antiviral immunity against WSSV**
Presenting author: Pakpoom Boonchuen, Suranaree University of Technology, Thailand
- 11:42-11:54 T2-O-13 * Integrated metabolomics reveals immunomodulatory compounds in giant African snail (*Achatina fulica*) extracts for the giant river prawn (*Macrobrachium rosenbergii*)**
Presenting author: Youshang Lin, National Sun Yat-sen University, Taiwan (R.O.C.)
- 11:54-12:06 T2-O-14 WSSV regulates malate-aspartate shuttle during infection**
Presenting author: Yen Siong Ng, National Cheng Kung University, Taiwan (R.O.C.)

Poster Presentation (* : student competition)

- T2-P-01 Genome characterization and pathogenesis of translucent post-larvae disease in white shrimp**
Presenting author: Ramya Kumar, National Cheng Kung University, Taiwan (R.O.C.)
- T2-P-02 * In vitro model for IMNV using shrimp muscle blocks from *Penaeus vannamei* and *Penaeus japonicus***
Presenting author: Inori Goda, Tokyo University of Marine Science and Technology, Japan
- T2-P-03 * Uncovering AphB^{vp}-mediated regulation of PirA^{vp}/PirB^{vp} toxins and biofilm formation in AHPND causing *Vibrio parahaemolyticus***
Presenting author: Michael Eniola Ayenero, Taipei Medical University, Taiwan (R.O.C.)
- T2-P-04 * *Cinnamomum osmophloeum* leaf hot-water extract in *Penaeus vannamei*: Autophagy- and apoptosis-related gene expression**
Presenting author: Muhammad Ar Rozzaq Nugraha, National Taiwan Ocean University, Taiwan (R.O.C.)
- T2-P-05 * Characterization of a novel hemocyte subpopulation in white shrimp (*Penaeus vannamei*) and its involvement in the early immune response to *Vibrio parahaemolyticus***
Presenting author: Novi Rosmala Dewi, National Taiwan Ocean University, Taiwan (R.O.C.)

T2-P-06 Effect of parasite infection on mud shrimp (*Austinopecten edulis*) in the coast of Taiwan

Presenting author: **Yen-Cheng Liang**, Freshwater Aquaculture Research Center, Fisheries Research Institute Ministry of Agriculture, Taiwan (R.O.C.)

T2-P-07 scRNA-seq-based systematization of Pacific abalone hemocyte classification

*

Presenting author: **Hiroki Kusaka**, Tokyo University of Marine Science and Technology, Japan

T2-P-08 White spot syndrome virus facilitates and relies on shrimp *de novo* nucleotide synthesis to support viral pathogenesis

*

Presenting author: **Cong-Yan Chen**, National Cheng Kung University, Taiwan (R.O.C.)

T2-P-09 Putative functional role of circular RNA-mediated miRNA sponging in shrimp antiviral response

*

Presenting author: **Tannatorn Phiwthong**, Suranaree University of Technology, Thailand

T2-P-10 Host acetyl-CoA pathways support WSSV replication

*

Presenting author: **Shu-Wen Cheng**, National Cheng Kung University, Taiwan (R.O.C.)

T2-P-11 Effects of thermal stress on apoptosis in *Litopenaeus vannamei* hemocytes

*

Presenting author: **Cheng-Jen Su**, National Pingtung University of Science and Technology, Taiwan (R.O.C.)

T2-P-12 Uncovering the role of a gill ficolin: regulatory mechanisms on the immunity of *Penaeus vannamei*

*

Presenting author: **John Paul Matthew D. Guzman**, Tokyo University of Marine Science and Technology, Japan

T2-P-13 External immune sentinels in the seawater ecosystem: the specialization of bivalve hemocytes

Presenting author: **Magalí Rey Campos**, Institute of Marine Research (IIM), National Research Council (CSIC), Spain

T2-P-14 Detection of *Marteilioides chungmuensis* in cultured Portuguese oyster (*Crassostrea angulata*) in southern Taiwan

Presenting author: **I-wen Chen**, Veterinary Research Institute, Ministry of Agriculture, Taiwan (R.O.C.)

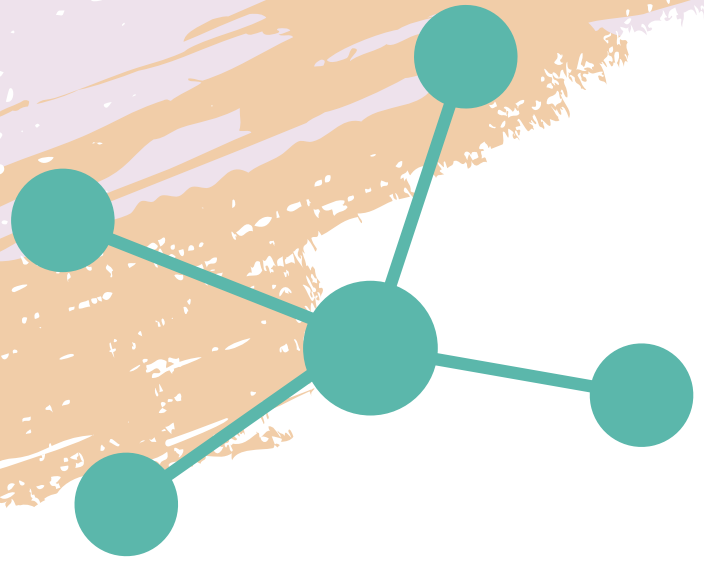
T2-P-15 Shrimp aquaculture biosecurity in Saudi Arabia: historical developments and future directions

Presenting author: **Benjamin C. Young**, Taiwan International Cooperation and Development Fund; Ministry of Environment, Water & Agriculture, Saudi Arabia

T2-P-16 Investigation of immunostimulatory potential of secondary metabolites from marine fungi for shrimp aquaculture

Presenting author: **Li-Li Chen**, National Taiwan Ocean University, Taiwan (R.O.C.)

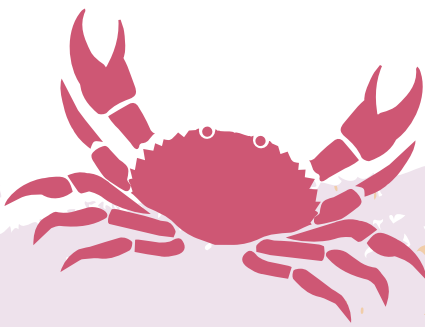
- 
- T2-P-17**
* **The functional role of Vago1 in acute hepatopancreatic necrosis disease (AHPND) in *Litopenaeus vannamei***
Presenting author: **Tuangrak Seabkongseng**, Suranaree University of Technology, Thailand
- T2-P-18**
* **Study on the anaesthesia and immunomodulatory effects of *Chaetomorpha aerea* extract on *Litopenaeus vannamei***
Presenting author: **Wen-Jie Ko**, National Taiwan Ocean University, Taiwan (R.O.C.)
- T2-P-19**
* **Effects of hypoxia and elevated temperature on hemocyte metabolism and immunity in Pacific oyster (*Crassostrea gigas*): insights from metabolomics and flow cytometry**
Presenting author: **Hyun-Ki Hong**, Gyeongsang National University, Republic of Korea
- T2-P-20**
* **ALF expression as an indicator of health and immunity in cultured slipper lobster**
Presenting author: **You-Qi Wang**, National Taitung University, Taiwan (R.O.C.)
- T2-P-21**
* **Perilla leaf extract as a functional feed additive enhances immunity and AHPND resilience in shrimp**
Presenting author: **Athiya Azzahidah**, National Cheng Kung University, Taiwan (R.O.C.)
- T2-P-22**
* **Mucosal vaccination routes and their combination impact the efficacy of prime-boost IHNV vaccines in rainbow trout (*Oncorhynchus mykiss*)**
Presenting author: **Ali Abouismail**, University of New Mexico, USA



Scientific Session

Topic 3.

Integrated Mechanisms of Immunity and Host-Pathogen Interactions



Topic 3.

Integrated Mechanisms of Immunity and Host-Pathogen Interactions

Oral Presentation (* : student competition)

Scientific Session 5

06 Nov, 13:55 ~ 15:10

Chair: Dr. Krzysztof Rakus

Co-Chair: Dr. Tzong-Yueh Chen

13:55-14:07 T3-O-01 * Temperature-dependent modulation of PKR-mediated antiviral responses to NNV infection in giant grouper (*Epinephelus lanceolatus*)

Presenting author: **Sih-Shien Lee**, National Cheng Kung University, Taiwan (R.O.C.)

14:07-14:19 T3-O-02 * Functionality of duplicated cd9 paralogous antiviral genes in salmonids

Presenting author: **Max Charles Vallarino**, University of Aberdeen, UK

14:19-14:31 T3-O-03 Teleost FcR-like genes: ancient players in the evolution of antibody effector functions

Presenting author: **Tomáš Korytář**, Biology Centre Czech Academy of Science, Czech Republic

14:31-14:43 T3-O-04 Epigenomic insights into the proinflammatory immune response of Atlantic salmon

Presenting author: **Shahmir Naseer**, University of Aberdeen, UK

14:43-14:55 T3-O-05 Great balls of fire? Are the testes of common carp not immune-privileged during viral infections?

Presenting author: **Mikolaj Adamek**, University of Veterinary Medicine Hannover, Germany

14:55-15:07 T3-O-06 * Sex-based differences in rainbow trout innate immunity: *in vivo* and *in vitro* gene expression

Presenting author: **Yubing Chen**, University of Waterloo, Canada

Scientific Session 6

07 Nov, 10:25 ~ 11:15

Chair: Dr. Marco Gerdol

Co-Chair: Dr. Hao-Ching Wang

10:25-10:37 **T3-O-07 The role of cholesterol 25-hydroxylase in viral infections in zebrafish**

Presenting author: **Krzysztof Rakus**, Jagiellonian University, Poland

10:37-10:49 **T3-O-08 * High temperature - induced activation of inflammatory responses in ayu *Plecoglossus altivelis***

Presenting author: **Rowena Cadiz**, Tokyo University of Marine Science and Technology, Japan

10:49-11:01 **T3-O-09 * Organ-specific repertoires of immunoglobulin genes in a cartilaginous fish**

Presenting author: **Soichiro Yoshizawa**, Tokyo University of Marine Science and Technology, Japan

11:01-11:13 **T3-O-10 Chemokine specifically expressed in the ovarian cavity leukocytes in pregnant female of viviparous surfperch**

Presenting author: **Osamu Nakamura**, Kitasato University, Japan

Scientific Session 7

08 Nov, 09:15 ~ 10:10

Chair: Dr. Tomáš Korytář

Co-Chair: Dr. Garner Algo Alolod

09:15-09:27 **T3-O-11 *In vitro* and *in vivo* assessments of hypothermal condition on *Vibrio alginolyticus* virulence factor and immunity of *Litopenaeus vannamei***

Presenting author: **Zhong-Wen Chang**, National Pingtung University of Science and Technology, Taiwan (R.O.C.)

09:27-09:39 **T3-O-12 Uncovering a host gene conferring innate protection against a protozoan parasite in zebrafish**

Presenting author: **Louise von Gersdorff Jørgensen**, University of Copenhagen, Denmark

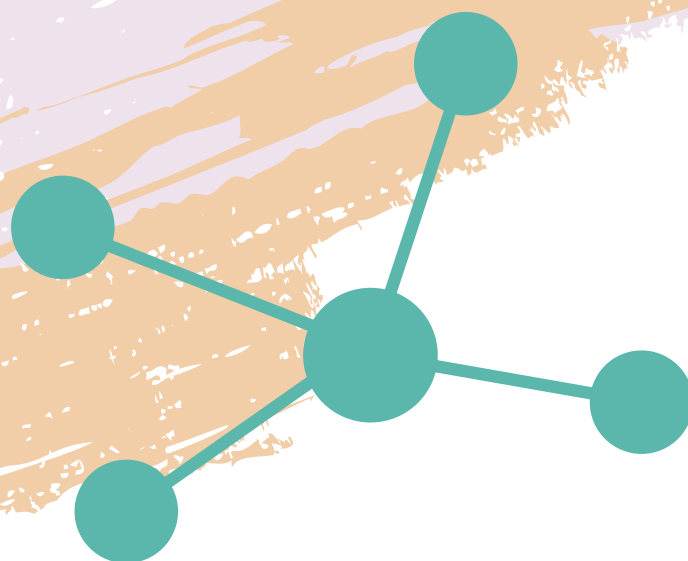
09:39-09:51 **T3-O-13 Characterization of IgM antibodies and IgM-expressing cells in genetically modified zebrafish**

Presenting author: **Fumio Takizawa**, Fukui Prefectural University, Japan

09:51-10:03 **T3-O-14 Evolutionarily conserved PAMP recognition in leukocytes of the cloudy catshark, induced by TLR ligands**
Presenting author: **Takahiro Nagasawa**, Kyushu University, Japan

Poster Presentation (* : student competition)

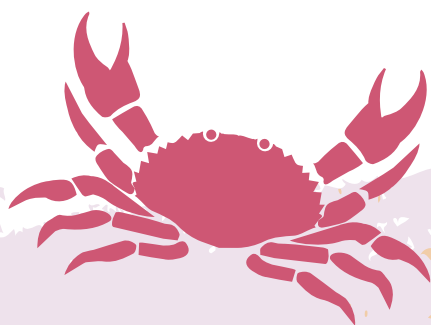
- T3-P-01**
* **Acute skin responses to ammonia in striped catfish (*Pangasianodon hypophthalmus*) unveil a potential damage-buffering mechanism**
Presenting author: **Wei-Hsuan Hsiao**, National Sun Yat-sen University, Taiwan (R.O.C.)
- T3-P-02**
Haematological indicators of stress and immune function in red finfold barb *Hypsibarbus vernayi* spawning aggregation
Presenting author: **Khattapan Jantawongsri**, Chulalongkorn University, Thailand
- T3-P-03**
* **Ethyl caffeate enhances immune response and metabolite pathway post challenging *Vibrio alginolyticus* in hybrid grouper (*Epinephelus fuscoguttatus* ♀ × *Epinephelus lanceolatus* ♂)**
Presenting author: **Ari Widodo**, National Taiwan Ocean University, Taiwan (R.O.C.)
- T3-P-04**
* ***In vivo* dynamics of antigen-specific B cells following adoptive transfer in GFP-transgenic gibel carp**
Presenting author: **Daichi Oku**, Nihon University, Japan
- T3-P-05**
* **Multifunctional roles of WSSV079 and WSSV164 in RNA regulatory networks during WSSV replication in *Litopenaeus vannamei***
Presenting author: **Brandon Rafael de Jesús Castillo-Corea**, National Cheng Kung University, Taiwan (R.O.C.)
- T3-P-06**
* **Antigen uptake, retention, and processing in the nasal cavity of rainbow trout (*Oncorhynchus mykiss*)**
Presenting author: **Benjamin J Garcia**, University of New Mexico, USA
- T3-P-07**
* **Characterization of modulatory effects of temperature stresses and response to NNV infection in grouper *Mx***
Presenting author: **Ying-Xiu Huang**, National Cheng Kung University, Taiwan (R.O.C.)
- T3-P-08**
Functional roles of TLR18 and its adaptor protein in the immune responses of striped catfish (*Pangasianodon hypophthalmus*)
Presenting author: **Po-Tsang Lee**, National Taiwan Ocean University, Taiwan (R.O.C.)
- T3-P-09**
* **Cloning and expression of PTX3 gene in giant grouper (*Epinephelus lanceolatus*) under stress conditions**
Presenting author: **Chen-Yu Tsai**, National Cheng Kung University, Taiwan (R.O.C.)
- T3-P-10**
Immunometabolic responses of *Larimichthys crocea* to *Metanophrys* sp. infection
Presenting author: **Jorge Galindo-Villegas**, Nord University, Norway
- T3-P-11**
Immune stress suppresses androgen-driven nuptial coloration in male rosy bitterlings (*Rhodeus ocellatus ocellatus*)
Presenting author: **Tsukasa Ryu**, Kyushu University, Japan



Scientific Session

Topic 4.

**Innovations in Nutrition, Technology,
and Microbiome-Immune Interactions**



Topic 4.

Innovations in Nutrition, Technology, and Microbiome-Immune Interactions

Oral Presentation (* : student competition)

Scientific Session 8

08 Nov, 10:40 ~ 12:30

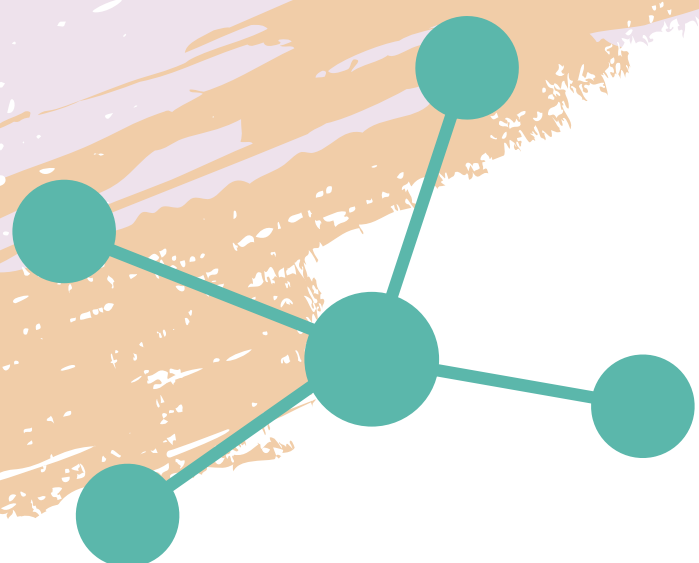
Chair: Dr. Shih-Chu Chen

Co-Chair: Dr. Magalí Rey Campos

- | | |
|-------------|---|
| 10:40-10:52 | T4-O-01 * Establishment of a cobia (<i>Rachycentron canadum</i>) gill cell line: a valuable tool for immune response studies
Presenting author: Thi Hang Ho, National Taiwan Ocean University, Taiwan (R.O.C.) |
| 10:52-11:04 | T4-O-02 GM-Camelina sativa derived omega-3s in Atlantic salmon (<i>Salmo salar</i>) diet reduce inflammatory response
Presenting author: Samuel AM Martin, University of Aberdeen, UK |
| 11:04-11:16 | T4-O-03 Protein-optimized diets modulate hepatic immunometabolic signatures in juvenile spotted wolffish (<i>Anarhichas minor</i>)
Presenting author: Joshua Superio, National Fisheries Research and Development Institute – Fisheries Biotechnology Center, Philippines |
| 11:16-11:28 | T4-O-04 Establishment and characterization of a new cell line (GSP) from the spleen of <i>Epinephelus coioides</i>
Presenting author: Jiann-Horng Leu, National Taiwan Ocean University, Taiwan (R.O.C.) |
| 11:28-11:40 | T4-O-05 Secretory IgM regulates gut microbiota homeostasis and metabolism
Presenting author: J. Oriol Sunyer, University of Pennsylvania, USA |
| 11:40-11:52 | T4-O-06 Development and evaluation of yeast-based natural astaxanthin as a feed additive for shrimp aquaculture
Presenting author: Cheeranan Sriphuttha, Suranaree University of Technology, Thailand |
| 11:52-12:04 | T4-O-07 Mechanisms of growth and health promotion in <i>Penaeus vannamei</i> mediated by a phytobiotic-based health additive
Presenting author: I-Tung Chen, Adisseo SAS, France |
| 12:04-12:16 | T4-O-08 Evaluation of <i>Shewanella putrefaciens</i> (S5) and <i>Rhodovulum sulfidophilum</i> (FA120) as potential probiotics for four-finger threadfin (<i>Eleutheronema tetradactylum</i>)
Presenting author: Omkar Vijay Byadgi, National Pingtung University of Science and Technology, Taiwan (R.O.C.) |
| 12:16-12:28 | T4-O-09 Chromosome-level genome assembly reveals divergent immune mechanisms in the genus <i>Meretrix</i>
Presenting author: Che-Chun Chen, Academia Sinica, Taipei, Taiwan (R.O.C.) |

Poster Presentation (* : student competition)

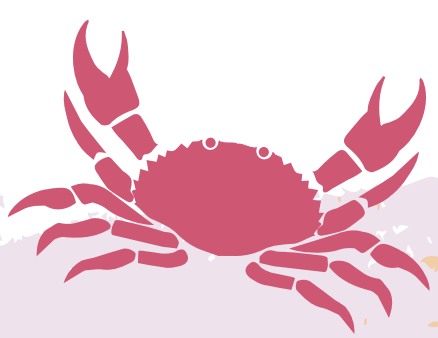
- T4-P-01**
* **Effects of dietary yeast cell wall supplementation on gut microbiota composition in *Penaeus vannamei***
Presenting author: **Mukdamas Khemkham**, Tokyo University of Marine Science and Technology, Japan
- T4-P-02**
Characterization of physiological response transcriptomics through leptin inhibition in grouper
Presenting author: **Tzong-Yueh Chen**, National Cheng Kung University, Taiwan (R.O.C.)
- T4-P-03**
CRISPR/cas9 knockout of TLR5 genes in rainbow trout cells
Presenting author: **James W. Wynne**, CSIRO Agriculture and Food, Hobart, Tasmania, Australia
- T4-P-04**
* **The oral inhibitor regulates hepatic lipid metabolism in grouper through the leptin pathway**
Presenting author: **Yu-Yi Chou**, Department of Biotechnology and Bioindustry Sciences, National Cheng Kung University, Tainan, Taiwan (R.O.C.)
- T4-P-05**
* **Biocontrol potential and cryopreservation of marine ciliates for sustainable management of bacterial pathogens in aquaculture**
Presenting author: **Xin-Long Liu**, National Taiwan Ocean University, Taiwan (R.O.C.)
- T4-P-06**
* **Microdroplet-based high-throughput screening of antagonistic bacteria for biological control of Vibriosis in penaeid shrimp**
Presenting author: **Hajime Yuasa**, Tokyo University of Marine Science and Technology, Japan
- T4-P-07**
* **Mechanistic insights into anti-*Vibrio* activity of a synthetic microbial consortium: role of bacterial contact and algal support**
Presenting author: **Yu-Ting Hsiao**, National Cheng Kung University, Taiwan (R.O.C.)
- T4-P-08**
* **Evaluation of striped catfish skin responses to *Aeromonas hydrophila* using established skin epithelial cell line**
Presenting author: **Ying-Hsien Wu**, National Sun Yat-sen University, Taiwan (R.O.C.)



Scientific Session

Topic 5.

Innovative Immunoprophylactic Strategies



Topic 5.

Innovative Immunoprophylactic Strategies

Oral Presentation (* : student competition)

Scientific Session 9

08 Nov, 13:30 ~ 14:45

Chair: Dr. Mikolaj Adamek

Co-Chair: Dr. Eva Vallejos-Vidal

- | | |
|-------------|--|
| 13:30-13:42 | T5-O-01 Enhancing barramundi production: safety, efficacy and compatibility assessment of a new scale drop vaccine in aquaculture
Presenting author: Kimberly A. Veenstra , MSD Animal Health, Singapore |
| 13:42-13:54 | T5-O-02 Development of ccombodies identify WSSV VP28 protein
Presenting author: Tae Sung Jung , Gyeongsang National University, Republic of Korea |
| 13:54-14:06 | T5-O-03 Optimization of prime-boost intervals enhances IHN virus vaccine efficacy in rainbow trout (<i>Oncorhynchus mykiss</i>)
Presenting author: Irene Salinas , University of New Mexico, USA |
| 14:06-14:12 | T5-O-04 * Assessment of fish protein hydrolysate as a substitute for fish meal in white shrimp diets: Impact on growth, immune response, and resistance against <i>Vibrio parahaemolyticus</i> infection
Presenting author: Hoang Trieu Quan Tran , National Taiwan Ocean University, Taiwan (R.O.C.) |
| 14:12-14:24 | T5-O-05 * Optimizing linker configurations in chimeric NNV virus-like particles for enhanced antigen presentation and immune response
Presenting author: Supawich Thanapattanapongs , Tokyo University of Marine Science and Technology, Japan |
| 14:24-14:36 | T5-O-06 * Development of a live attenuated <i>Edwardsiella piscicida</i> vaccine for olive flounder aquaculture
Presenting author: D.M.K.P Sirisena , Jeju National University, Republic of Korea |

Poster Presentation (* : student competition)

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|---------------------|--|
| T5-P-01
* | Development and evaluation of a multivalent killed vaccine against bacterial infections in <i>Platichthys stellatus</i> aquaculture
Presenting author: Jeganathan Tharshan Jeyakanesh , Jeju National University, Republic of Korea |
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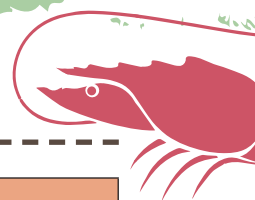
- T5-P-02** **An oral vaccine against red seabream iridovirus (RSIV) induces protective immunity in barramundi (*Lates calcarifer*)**
*
Presenting author: **Chun-Kuei Chang**, Institute of Fisheries Science, National Taiwan University, Taiwan (R.O.C.)
- T5-P-03** **Feasibility analysis of using bacteriophage to treat acute hepatopancreatic necrosis disease in shrimp aquaculture**
Presenting author: **Hui-Yu Shih**, National Taiwan Ocean University, Taiwan (R.O.C.)
- T5-P-04** **Hybrid DEAE-chitosan/liposome system for efficient DNA vaccine delivery**
Presenting author: **Anastasia Zubareva**, Branch of Petersburg Nuclear Physics Institute named by B.P. Konstantinov of National Research Centre “Kurchatov Institute” – Institute of Macromolecular Compounds, Russia
- T5-P-05** **Extracellular vesicles from *Pediococcus pentosaceus* exhibited antiviral effects against megalocytivirus**
*
Presenting author: **Yi-Ting Guo**, National Taiwan University, Taiwan (R.O.C.)
- T5-P-06** **IgD and IgM regulation in channel catfish mucosal immunity: implications for disease resistance and vaccination**
Presenting author: **Steve Bird**, EpitogenX Ltd., UK
- T5-P-07** **Antiviral activity of silymarin extract against red sea bream iridovirus**
*
Presenting author: **Huan-Ting Tsai**, National Taiwan University, Taiwan (R.O.C.)
- T5-P-08** ***Torenia concolor* exhibits antiviral activity against fish nodavirus and iridovirus**
*
Presenting author: **Zhe-Li Lin**, National Taiwan University, Taiwan (R.O.C.)
- T5-P-09** **Exploring the potential antimicrobial ability of *Lactiplantibacillus plantarum* against common fish pathogens**
*
Presenting author: **Ting-Chang Lin**, National Taiwan University, Taiwan (R.O.C.)
- T5-P-10** **Protective efficacy of immersion vaccine against red seabream iridovirus in Barramundi**
*
Presenting author: **Zi-Liang Liu**, National Taiwan University, Taiwan (R.O.C.)
- T5-P-11** **Developing an effective vaccine against *Streptococcus iniae* in hybrid grouper (*Epinephelus lanceolatus* ♀ × *Epinephelus fuscoguttatus* ♂)**
*
Presenting author: **Sudarshan Pandey**, National Pingtung University of Science and Technology, Taiwan (R.O.C.)
- T5-P-12** **Functional spermidine-derivative carbon quantum dots (spd-cqd) for disease control in shrimp**
Presenting author: **Han-You Lin**, National Taiwan University, Taiwan (R.O.C.)



Flash Talk Session



Flash talk Session

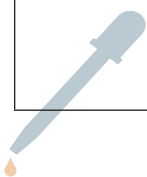


Flash talk Session 06 Nov, 16:30 ~ 17:00

Chair: Dr. Patricia Pereiro

Co-Chair: Dr. Yu-Hung Lin

- 16:30~16:33 **T1-P-06 * Effects of FTY720 administration on lymphocyte dynamics in rainbow trout**
Presenting author: **Ryosuke Fujihara**, Nihon University, Japan
- 16:33~16:36 **T1-P-08 * Functional characterization of rainbow trout perforin-1**
Presenting author: **Kana Hagiwara**, Nihon University, Japan
- 16:36~16:39 **T1-P-10 * Transportation of bacterial antigens in the rainbow trout intestine**
Presenting author: **Aika Tharindie Guruge**, Tokyo University of Marine Science and Technology, Japan
- 16:39~16:42 **T1-P-13 Divergent roles of interferon gamma and interferon gamma-related-like molecules in grouper antiviral immunity**
Presenting author: **Yueh-chiang Han**, National Cheng Kung University, Taiwan (R.O.C.)
- 16:42~16:45 **T1-P-14 * Trout Granulomatous Virus (TGV) infection in rainbow trout gills reveals immune evasion and endothelial dysfunction**
Presenting author: **Sara Ximena Amortegui Umana**, University of New Mexico, USA
- 16:45~16:48 **T2-P-17 * The functional role of Vago1 in acute hepatopancreatic necrosis disease (AHPND) in *Litopenaeus vannamei***
Presenting author: **Tuangrak Seabkongseng**, Institute of Agricultural Technology, Suranaree University of Technology, Thailand
- 16:48~16:51 **T2-P-22 * Mucosal vaccination routes and their combination impact the efficacy of prime-boost IHN vaccines in rainbow trout (*Oncorhynchus mykiss*)**
Presenting author: **Ali Abouismail**, University of New Mexico, USA
- 16:51~16:54 **T3-P-04 * *In vivo* dynamics of antigen-specific B cells following adoptive transfer in GFP-transgenic gibel carp**
Presenting author: **Daichi Oku**, Nihon University, Japan
- 16:54~16:57 **T5-P-04 Hybrid DEAE-chitosan/liposome system for efficient DNA vaccine delivery**
Presenting author: **Anastasia Zubareva**, Branch of Petersburg Nuclear Physics Institute named by B.P. Konstantinov of National Research Centre "Kurchatov Institute" – Institute of Macromolecular Compounds, Russia

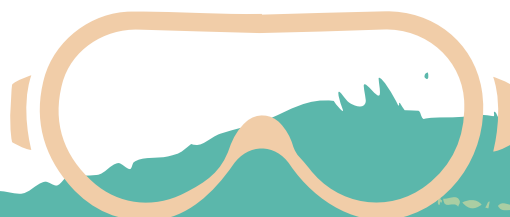


Coffee Break Sponsor

Diamond Sponsor



TIME: 09:45~10:15; 05 Nov, 2025



Sponsor Session 1

Elite Sponsor



Total Nutrition Technologies
Natural Nutrition for Better Performance

TIME: 14:50~16:35; 05 Nov, 2025
Seminar Room (3F)

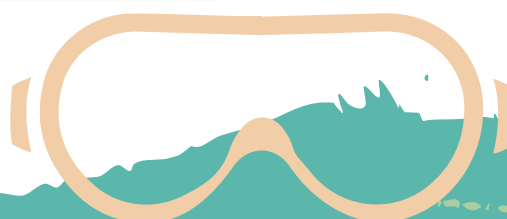


Sponsor Session 2

Premier Sponsor



TIME: 10:30~12:15; 06 Nov, 2025
Seminar Room (3F)



Sponsor Session 3

Diamond Sponsor



giant bio

TIME: 13:55~15:40; 06 Nov, 2025
Seminar Room (3F)



Sponsor Session 4

FSI Special Edition Sponsor

Fish & Shellfish Immunology

TIME: 10:25-11:25; 07 Nov, 2025
Seminar Room (3F)





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[Topic 1] Fish and Shellfish: Immunity and Disease

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[Topic 2] Crustacean and Molluscan: Immunity and Disease

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[Topic 3] Integrated Mechanisms of Immunity and Host-Pathogen Interactions

Chair: Dr. Louise von Gersdorff Jørgensen

Member: Dr. Hao-Ching Wang, Dr. Tomáš Korytář, Dr. Krzysztof Rakus

[Topic 4. + Topic 5] Innovations in Nutrition, Technology, and Microbiome-Immune Interactions + Innovative Immunoprophylactic Strategies

Chair: Dr. Felipe Reyes-López

Member: Dr. Fernand Fagutao, Dr. Eva Vallejos-Vidal, Dr. Chin-Chyuan Chang

Flash Talk

Chair: Dr. Patricia Pereiro

Member: Dr. Yu-Hung Lin

Creation Teams

**Lab of Translational Aquabiology (TLAB),
Department of Biotechnology and
Bioindustry Sciences, NCKU.**

**International Center for the Scientific
Development of Shrimp Aquaculture
(ICSDSA), NCKU.**

Ms. Mei Hsiu Hung

Ms. Pei-Ju Hsieh

Ms. Yi-Hua Chen

Dr. Fernand F. Fagutao

Dr. Ramya Kumar

Dr. Yen Siong Ng (Kevin)

Mr. Cong-Yan Chen (Eric)

Ms. Shu-Wen Cheng (Wallis)

Ms. Athiya Azzahidah

Mr. Castillo Corea BRJ (Rafael)

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Mr. Leonilo Endoma (Nilo)

Mr. Yu-Chen Lin (Jason)

Mr. You-Yu Chen (Alan)

Ms. Ying-Xuan Lu (Melody)

Ms. Thenmoli Govindasamy

Ms. Cherlyn M. Geronda

Mr. Jelmar P. Vasquez





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