Australian & New Zealand College of Veterinary Scientists

Chapter of Aquatic Animal Health

ABN 50 000 894 208

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Garden City Office Park
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On behalf of the **Aquatic Animal Health Chapter** of the **Australian and New Zealand College of Veterinary Scientists**, we would like to invite you to visit **Science Week's**

Aquatic Animal Health Program

'Engaging the waves of change in fish diseases'

Science Week will be held at the QT Gold Coast, Surfers Paradise on the

7-9 July 2016.

To register, visit https://www.anzcvs.org.au/science-week-registration/

For more information, contact :

- Roger Chong (qvlab77@yahoo.com)
- Richmond Loh (thefishvet@gmail.com)

COLLEGE SCIENCE WEEK
SCIENTIFIC CONFERENCE
7, 8 and 9 JULY 2016
AQUATIC ANIMAL HEALTH - FINAL PROGRAM

QT GOLD COAST, SURFERS PARADISE
Cnr Gold Coast Highway & Staghorn Avenue, Surfers Paradise

PROGRAM

The College Science Week conference will encourage excellence in veterinary science. College Members and Fellows and invited guests who are at the forefront in their fields will present the latest information in a number of disciplines.

REGISTRATION

A registration form is included with this program. All registrations can be made either through the College web site www.anzcvs.org.au or through the College office and are payable before **1 July 2016**. The conference runs for 3 days: Thursday, Friday and Saturday. Please note we have been advised by the venue management that registration numbers are limited to 500.

ACCOMMODATION

Accommodation is available at QT Gold Coast Hotel. **All accommodation bookings should be made directly with the hotel or on the accommodation form provided with this program.**

ANNUAL GENERAL MEETING

The College Annual General Meeting will be held at 5.30 p.m. on Friday 8 July in the Sunset Room, First Floor, QT Gold Coast. AGM documents will be circulated to members in advance of the meeting.

DINNER

The College Awards Dinner will be held in the Ballroom, QT Hotel, Surfers Paradise on Saturday 9 July at 7.00 pm. Partners are welcome. The cost of $160.00 per person includes dinner, wine, beer and soft drinks. **Entry is strictly by ticket only** available from the College office.

ENQUIRIES

All enquiries should be made to the College Office, Building 3, Garden City Office Park, 2404 Logan Road, Eight Mile Plains, Qld. 4113, Telephone: +61(0) 7 3423 2016, Fax: +61(0) 7 3423 2977, Email: admin@anzcvs.org.au

WIFI

Complimentary WiFi is available throughout the hotel during the conference.

HAPPY HOUR

ALL WELCOME

STINGRAY LOUNGE, GROUND FLOOR
QT HOTEL, GOLD COAST
THURSDAY 7TH JULY 2016 AT 6.00 P.M.

ANNUAL GENERAL MEETING

SUNSET ROOM, FIRST FLOOR
QT HOTEL, GOLD COAST
FRIDAY 8TH JULY 2016 AT 5.30 P.M.

AWARDS DINNER

BALLROOM, GROUND FLOOR
QT HOTEL, GOLD COAST
SATURDAY 9TH JULY 2016 AT 7.00 P.M.

Aquatic Animal Health Chapter – Science Week Final Program
'Engaging the waves of change in fish diseases'.

Time	Thursday 7 July 2016	Friday 8 July 2016	Saturday 9 July 2016
Venue	*CALIFORNIA ROOM*: **AQUATIC ANIMAL HEALTH**	*CALIFORNIA ROOM*: **AQUATIC ANIMAL HEALTH** & **ZOO AND WILDLIFE**	*LONGBOARD ROOM*: **AQUATIC ANIMAL HEALTH**
9.00		Toxoplasmosis: An emerging disease in Australasian marine mammals. **David Blyde**	Applied fish immunology with a focus on comparative immunology, mucosal immunity in protozoan parasite disease management and vaccine developments. **Professor Jung Tae Sung**
9.20		Treatment of squamous cell carcinoma in a captive bottlenose dolphin. **Duane March**	
9.40		Measurement of hormones in faecal hormones: potential versus pitfalls. **Tamara Keeley**	
10.00	Morning Tea		
10.30		*Streptococcus agalactiae* outbreak in captive stingrays. **David Blyde**	Trypanosomiasis in cultured *Epinephelus areolatus*. **Roger Chong**
10.45			Opportunities in ornamental fish research. **Stephen Pyecroft**
11.00		Toxicology of marine animals: The collection of samples and their interpretation. **Liesbeth Weijs**	Vetting Axolotls. **Richmond Loh**
11.15			Effects of Endocrine disrupting chemicals (EDCs) I. **Matt Landos**
11.30		Resolution of misadventure of Grey Nurse Sharks in the wild. **Robert Jones**	
11.45			
12.00			
12.15			General Questions and Answers.
12.30	Lunch		
1.30	Recent advancements in diagnostic multiplex quantitative PCRs and MALDI-TOF bacteriological identification systems for fish pathogens. **Professor Jung Tae Sung**	Elasmobranch medicine and surgery 101. **Robert Jones**	Study on pathophysiology of Sertoli cell due to aquatic pollution in Indian river, Godvara. **Professor Y. Khillare**
1.45		Assisted reproduction techniques in Elasmobranchs. **Robert Jones**	Effects of Endocrine disrupting chemicals (EDCs) II. **Matt Landos**
2.00		Surgery to implant transponders to track the movements of catfish in rivers. **Jo Bannister**	
2.15			
2.30	Investigating the effects of infection with *Photobacterium damselae* on finfish during aquaculture. **Fran Stephens**	General Questions and Answers.	
2.45	Investigating fish kills in Western Australia. **Jo Bannister**		
3.00	Afternoon Tea		

3.30	Health issues associated with sea cage aquaculture in Western Australia. **Fran Stephens**		Hollow sperm in Tiger Shrimp. **Roger Chong**
3.45	The development of formal industry-government emergency aquatic animal disease response arrangements. **Jane Frances**		
4.00	Pacific oyster health surveillance, how and why. **Stephen Pyecroft**		Emerging issues in aquatic animal health practice. **Roger Chong**
4.15	Practical tips for field diagnostics and lab submissions. **Richmond Loh**		
4.30	General Questions and Answers.	*MALIBU ROOM*: **ANIMAL WELFARE**	General Questions and Answers.
4.45		Swimming in a Lion's Den! Ornamental fish welfare. **Richmond Loh**	
5.00		So you think your Chapter is the best for animals' welfare. **All speakers**	
5:30	End		End

About our Keynote Speaker – Prof. Jung

Prof. Jung Tae Sung from Gyeongsang National University, South Korea, is the keynote speaker for the Aquatic Animal Health sessions for 2016 ANZCVS Science Week. He graduated as a veterinarian in 1992 and has since completed a Masters on fish viral diseases at Hokkaido University, and a PhD on aquatic immunology and bacterial diseases at Stirling University. Prof. Jung established the Fish and Shellfish Diseases Laboratory at Gyeongsang National University. Some of the species his team commonly work with include the olive flounder, rockfish, Pacific sea bream and sea bass. The lab works on aspects of fish immunity as protection against diseases, early detection methods, explores mechanisms for antibiotic resistance in bacteria (e.g. OMVs) to develop alternative ways for treatment. Such work is crucial to minimise and prevent losses due to fish diseases.

Read more about our Keynote Speaker – Professor Jung

After graduating from Veterinary School in 1992, I started doing research in the Department of Virology of the Animal and Plant Quarantine Agency (previously known as National Veterinary Research and Quarantine Service). To further my studies, I went to Japan to obtain my Master's degree at Hokkaido University and my area of study focused on fish viral diseases. In 1999, I accomplished my PhD degree at Stirling University where I studied about aquatic immunology and bacterial diseases.

With my credentials, I was able to get a position as a Lecturer in the Veterinary School of Gyeongsang National University. On September in 2000, a half year after I was employed in the university, I established the Fish and Shellfish Diseases Laboratory. The Lab is located in the southern part of the Korean peninsula, which is surrounded by large bodies of water, so getting access to marine fish farms is easy. Several researches being done in the Lab are focused on how to alleviate the ailing aquaculture industry brought by emerging viral and bacterial diseases in farmed fishes.

South Korea is presently growing a variety of marine fish species, such as olive flounder (Paralichthys olivaceus), rockfish (Sebastes sp.), Pacific sea bream (Acanthopagrus pacificus) and sea bass (Dicentrarchus labrax), to name a few. Among them the main species, olive flounder, which occupies over 50% of the total production, has been estimated to be produced at approximately 50,000 tons every year. Olive flounder, a flatfish known to be a bottom-dweller, is grown for its high quality taste as a sashimi. Moreover, it can easily survive in a flow-through system on land-based tanks and this kind of system makes it easier to control fish diseases compared with the use of net cages wherein other species are also culturing. However, this fish species (similar to other fishes) is prone to be infected with a variety of diseases brought by viruses, bacteria, and parasites.

Currently the Lab is working on the aspects of immunity as well as protection from diseases of fishes being reared in fish farms, especially flatfishes. In the fish immune system, maternal

immunity is nonexistent. Unlike chickens in which they received IgY in the yolk, the fry only gets to form its immune system at a certain stage as it starts to respond to foreign substances. But the problem is, several viruses such as viral haemorrhagic septicaemia (VHS) virus, viral nervous necrosis (VNN) virus, and fish iridovirus (megalocytivirus) infect the fishes during their early stage which then makes it difficult for an immediate prevention scheme. Therefore, there is a need for prompt diagnostic methods that can be used in the field for an early detection of the presence of certain pathogens, so the lateral flow assay kit (a.k.a Rapid Kit) was developed. At the same time, DNA vaccines against VHSV which can be employed in the field were also developed. In the meantime, several other viral diseases were also being studied such as those caused by frog iridovirus and koi herpes virus.

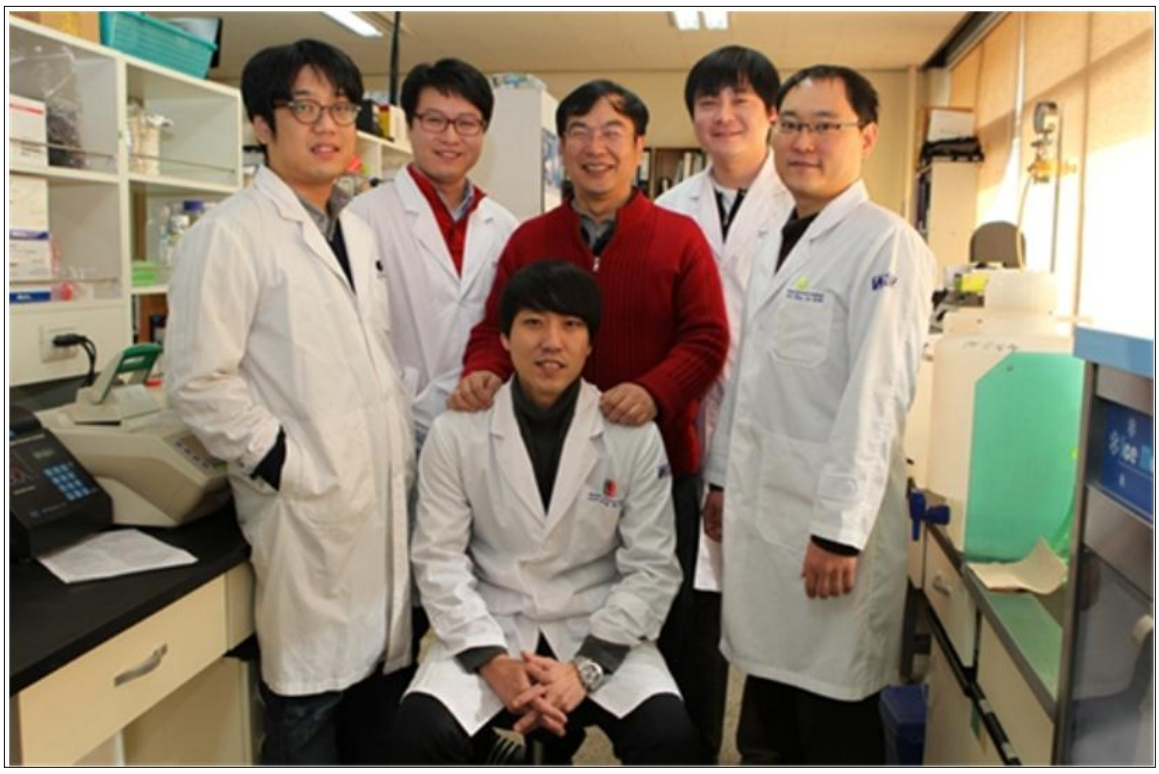
In the aspect of economic losses, bacterial diseases caused higher negative impact in the industry than those caused by viral diseases. Diseases caused by bacteria almost always affect big-sized fishes, oftentimes those fishes that are already marketable. The problem on the evolving antibiotic-resistant bacteria had made it impossible to treat bacterial diseases with antibiotics. Thus, bacterial vaccines based on proteomics, especially on streptococcus, were developed and were being used in the field now. One of the ways to promptly diagnose specific bacterial infection is through MALDI-TOF MS, which can identify bacterial species within a couple of minutes as long as a bacterial colony as well as a database/standard strain is available. In exploring the antibiotic resistance of some bacteria, it was found out that outer membrane vesicles (OMVs) is capable of reducing the effect of antibiotics that's why we are trying to resolve the mechanisms behind this ability. These OMVs might be utilized in developing an alternative way in treating antibiotic-resistant bacteria.

Another big loss in the aquaculture industry is due to parasitic agents that cause scutiocilliatosis. Infection happens when fingerlings are being moved from hatcheries to rearing farms. The causative agents of this disease are several ciliates and are natural organism around muddy areas which feeds on some bacteria and organic substances. In South Korea, there are many flounder farms that feed trash fishes by feeding moisture pellets based on live feeds, so the wall of tanks are covered by bacterial biofilms which could serve as feedstuff for the ciliates. These ciliates could survive in the tank, it can easily infect weak and stressed fishes since these ciliates are also lured to fish mucus for food. In this case, to treat parasitic infections, we adapted a double treatment method. Firstly, chemical is used to wash out the mucus on the surface of the fish's body since ciliates are able to survive in the mucus when chemicals are employed, and then another chemical which is safe for the fish but is toxic to the parasitic ciliate is used.

There are limitless factors that are involved in the interplay of pathogens and hosts which could lead to severe diseases to farmed fishes; thus, it is imperative for the scientific community to deal on prevention (rather on cure) schemes in order to minimize and prevent profit losses due to fish mortality.

Prof. Jung Tae Sung

Professor Jung's Research Team at the Fish and Shellfish Diseases Laboratory at Gyeongsang National University



ACCOMMODATION

Accommodation at the **QT Gold Coast**, Surfers Paradise must be booked directly with the Hotel http://www.qtgoldcoast.com.au or on the accommodation booking form included in this program.

It is your responsibility to organise accommodation during your stay. To follow are a few alternative suggestions that may be of some assistance to you.

Crown Towers Apartments Resort

(Situated next door to the QT Gold Coast) Resort offers one, two and three bedroom apartments
Telephone (07) 5555 9999, Fax (07) 5555 9998, Toll Free Reservations 1800 039 187,
www.mantra.com.au/crowntowers

Mantra Sun City

(Situated in close proximity to the QT Hotel). Resort offers one, two and three bedroom apartments.
Telephone (07) 5584 6000, www.mantra.com.au/suncity

Useful tourism web site: www.visitgoldcoast.com

AIRPORT COACH AND TRAIN TRANSFERS

Return transfers from either Brisbane or Coolangatta Airports to Gold Coast accommodation operate daily. Further details on costs involved can be obtained by contacting one of the following operators.

Airport Con-X-Ion Tel. +61 7 5556 9888 Email bookings@con-x-ion.com www.con-x-ion.com
Airtrain Connect Tel. +61 7 3216 3308 Email reservations@airtrain.com.au www.airtrain.com.au

Surfers Paradise is located 75 kms south of Brisbane Airport (approximately 1 hour by road) and 20 kms from Coolangatta Airport (approximately 45 minutes by road).

PROGRAM

All speakers and sessions were confirmed and correct at the time of printing. The Australian and New Zealand College of Veterinary Scientists reserves the right to amend the program details if necessary.

NOTICE BOARD

A College Science Week Communications Board will be situated near the registration desk. Check this board daily for messages from College Science Week registrants.

CANCELLATION OF REGISTRATION

A 40% cancellation fee will apply if cancellation is received less than 14 days prior to the event. Written request for refund must be made to the College Manager within thirty days.

AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY SCIENTISTS

Building 3, Garden City Office Park, 2404 Logan Road, Eight Mile Plains, Qld. 4113
Telephone: (07) 3423 2016; Fax: (07) 3423 2977; Email: admin@anzcvs.org.au

REGISTRATION FORM
COLLEGE SCIENCE WEEK
7TH JULY, 8TH JULY AND 9TH JULY 2016

Name …….....**.....**

Address

.....…….....**.....**

.....

Preferred name for tag

..…….....**.....**

Mobile Telephone No. .....……..... College Member
YES ☐ NO ☐

For planning purposes only, please indicate major interest:

☐ Small Animal Medicine ☐ Equine ☐ Animal Welfare ☐ Vet. Emer. & Critical Care ☐ Surgery
☐ Cattle ☐ Epidemiology ☐ Ophthalmology ☐ Dentistry ☐ Feline ☐ Radiology ☐ Pharmacology
☐ Avian ☐ Zoo and Wildlife ☐ Aquatic Animals ☐ Veterinary Anaesthesia and Analgesia

Indicate days of attendance ☐ Thursday 7th ☐ Friday 8th ☐ Saturday 9th

REGISTRATION FEES (include morning and afternoon tea and lunch and unrestricted access to all sessions on the day.)

TAX INVOICE

ABN 50 000 894 208

	MEMBER	NON MEMBER	FELLOWSHIP CANDIDATE	TOTAL $A inc. GST
Three days	**$840**	**$895**	**$630**	**$A**
Two and Half Days	**$760**	**$790**	**$570**	**$A**
Two Days	**$685**	**$710**	**$515**	**$A**
One and Half Days	**$605**	**$655**	**$455**	**$A**
One Day	**$475**	**$525**	**$360**	**$A**
Half Day (inc. lunch)	**$340**	**$420**	**$255**	**$A**
*Student Day Rate	**$290**	**$290**	**$215**	**$A**
Examiners	**NIL**	**NIL**	**NIL**	**NIL**
Dentistry Workshop**	**$550**	**$550**	**$550**	**$550**
Awards Dinner 9 July **Entry by Ticket only**	**$A160**	**$A160**	**$A160**	**$A**
Total inc. GST				**$A**

Please forward payment to ANZCVS at the above address or register online at www.anzcvs.org.au

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Cheque ☐ Mastercard ☐ Visa ☐

Card No. ..... Date of Expiry ..... CVV ……..

Name on Card ..... Signature .....

NB: Payment by Mastercard or Visa will incur a 2% administration charge.

Speakers must register (No charge on day of presentation only)
***Student rates are available for undergraduate or post graduate students <u>not in full time paid employment</u> and on receipt of <u>documentary evidence</u>.**
**** Dentistry Workshop Registrants must also register for the conference day registration in additional to registering for the workshop. Attendance numbers are restricted to 4 participants by workshop.**

A 40% cancellation fee will apply if cancellation is received less than 14 days prior to the event. Written request for refund must be made to the College Manager within thirty days.

GOLD COAST

ACCOMMODATION BOOKING

Australian & New Zealand College of Veterinary Scientists
Exams & Science Week
Saturday 2 July – Sunday 10 July 2016

Adults _____ **Children** _____ **Infants** _____

Name _____ **Address** _____

Phone _____

Email _____ **State** _____ **P/code** _____

ACCOMMODATION INFORMATION

Rooms

☐	**Accommodation Room** $199.00 per room per night (Including breakfast for 1 person)	☐	**Accommodation Room** $224.00 per room per night (including breakfast for 2 persons)
☐	**QT King Suite** $299.00 per room per night (including breakfast for 1 person)	☐	**QT King Suite** $324.00 per room per night (including breakfast for 2 persons)

Bedding

☐	King Bed (1 x king bed)	☐	Twin (2 x beds)	☐	Additional Person on a rollaway bed ($55.00 per night)

Booking Comments / Requests:

TRAVEL INFORMATION

Arrival Date _____ **Arrival Time** _____

Departure Date _____ **Departure Time** _____

PAYMENT DETAILS

Credit Card **Amex** ☐ **Diners** ☐ **Visa** ☐ **Master Card** ☐

Number _____ **Expiry Date** _____

Name on card _____ **Signature** _____

TERMS AND CONDITIONS:

- Above rates are offered exclusively for the conference. Guests are welcome to extend their stay outside the conference; however rooms are subject to availability at time of booking.
- If the guest staying at the hotel is not the cardholder and charges are to be debited against the above card, please contact the hotel for a credit card authorisation form. If this is not received prior to check in, the guest will be charged upon check out.
- Please note, if you are settling your final account with a credit card, a credit card transaction fee of 1.5% for Visa & MasterCard, and 3.5% for Diners, American Express and JCB applies.
- A credit card number, a deposit of one nights' accommodation by cheque or money order is required to confirm your booking.
- All bookings are confirmed subject to availability at the time of booking request, confirmed in writing by the hotel.
- Due to the size and nature of the Group, all rooms will be allocated on a Run of House basis at the discretion of the Hotel. As such specific room and feature type allocations will be at the discretion of the Hotel

CANCELLATION POLICY: Your reservation may be cancelled without penalty, if cancelled more than 7 Days prior to booking arrival date. If cancelled within 30 days of arrival, the nominated credit card will be charged the equivalent to one (1) night's accommodation.

GUARANTEED CHECKIN AND CHECK OUT TIMES: Check in is at 2.00pm and check out is 11.00am

OFFICE USE ONLY

Reservation # Confirmed by

Please Return to:
Reservations - P: 07 5584 1200 F: 07 5584 1190 E: reservations_goldcoast@qthotels.com.au