

2019 AMMRA & AMPC Meeting

February 20-21, Melbourne, Australia



AUSTRALIANPHENOMICS.ORG.AU

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#AMMRA2019

PROGRAM - DAY 1

WEDNESDAY FEBRUARY 20TH

1130-1220 REGISTRATIONS & LUNCH

1220-1230 MEETING WELCOME

SESSION 1: TECHNOLOGICAL ADVANCES

1230-1300 THE IMPC: TOWARDS DECIPHERING THE FUNCTION OF HUMAN GENETIC VARIATION
Steve Brown (MRC Harwell, UK; IMPC)



1300-1330 WALKING BEFORE RUNNING: INBRED MOUSE DATA FOR LEARNING TO ANALYSE HUMAN GENOMIC VARIATION
Dan Andrews (Australian National University, Canberra)

1330-1400 INTRODUCING *IN VIVO* MOLECULAR IMAGING FOR MOUSE PHENOTYPE
Ho-Young Lee (Seoul National University, South Korea)

1400-1430 MOUSE BRAIN PHENOTYPING USING ULTRA-HIGH FIELD MRI AND SIMULTANEOUS MR/PET IMAGING
Nyoman Kurniawan (University of Queensland, Brisbane)

1430-1500 DECIPHERING NOVEL NONCODING RNA GENES IN MOUSE GENOME
Yong Tian (Institute of Biophysics, Chinese Academy of Sciences, China)

AFTERNOON TEA

1530-1600 GENERATION OF MOUSE MODELS AT THE AUSTRALIAN PHENOMICS NETWORK FROM INTERNATIONAL ES CELL RESOURCES AND BY THE APPLICATION OF CRISPR-BASED APPROACHES
Ian Smyth (Monash University, Melbourne)

1600-1630 FINDING CRITICAL CANCER DRIVING GENES USING FUNCTIONAL GENOMICS SCREENING IN VIVO
Marco Herold (WEHI, Melbourne)

1630-1700 SINGLE CELL GENOMICS AND SYSTEMS BIOLOGY: DEFINING THE IDENTITY AND DYNAMICS OF ADULT GASTRIC ISTHMUS STEM CELLS
Jong Kyoung Kim (DGIST, South Korea)

1700-1730 GENE-ENVIRONMENT INTERACTIONS: EFFECTS OF HIGH FRUCTOSE CONSUMPTION ON BODY WEIGHT GAIN IN MICE WITH DIFFERENT LEVELS OF STRESS: ASSOCIATION WITH CHANGES IN PRO-INFLAMMATORY CYTOKINES AND GUT MICROBIOTA
Chao-Kuen Lai (Taiwan Mouse Clinic, Taiwan)

1730-1800 AMMRA DIRECTORS' BUSINESS MEETING
(attendance by invitation)

1730-1830 POSTER SESSION

1900 CONFERENCE DINNER, UNIVERSITY HOUSE, THE UNIVERSITY OF MELBOURNE



PROGRAM - DAY 2

THURSDAY FEBRUARY 21ST

SESSION 2: ANNUAL MEMBER PROGRESS REPORTS AND STATUS UPDATES

- 0900-0920 AMMRA HOMEPAGE AND DATA INTEGRATION IN RIKEN BIORESOURCE RESEARCH CENTER
Hiroshi Masuya (RIKEN, Japan)
- PROGRESS REPORT OF MOUSE RESOURCES AT RIKEN BIORESOURCE RESEARCH CENTER
Atsushi Yoshiki (RIKEN, Japan)
- UPDATES ON MUTANT MOUSE CREATION IN RIKEN BRC
Shinya Ayabe (RIKEN, Japan)
- THE CURRENT STATUS OF PHENOTYPING PIPELINE IN RIKEN BRC
Masaru Tamura (RIKEN, Japan)
- 0920-0930 OPERATIONAL STATUS OF THE AUSTRALIAN PHENOMICS NETWORK
Michael Dobbie (Australian Phenomics Network, Canberra)
- 0930-0940 NLAC, NARLABS, A MULTIDISCIPLINARY BIOMEDICAL PLATFORM FOR ACADEMIC AND INDUSTRIAL NEEDS
Meng-Chun Monica Shih (National Laboratory Animal Center, Taiwan)
- 0940-0950 PROGRESS REPORT OF CARD, JAPAN
Toru Takeo, (Center for Animal Resources and Development, Japan)
- 0950-1000 THE KOREA MOUSE PHENOTYPING CENTER (KPMC)
Je Kyung Seong (Seoul National University/KPMC, South Korea)
- 1000-1010 THE TAIWAN MOUSE CLINIC
Chao-Kuen Lai (Taiwan Mouse Clinic, Taiwan)
- 1010-1020 THE MODEL ANIMAL RESEARCH CENTER (MARC), CHINA
(TBC)
- 1020-1030 LABORATORY ANIMAL RESOURCE CENTER (LARC), KOREA
(TBC)
- 1030-1040 DESIGNED ANIMAL RESOURCE CENTRE (DARC), KOREA
(TBC)

MORNING TEA

SESSION 3: RESEARCH APPROACHES AND DISCOVERIES

- 1100-1130 A MOUSE STRAIN FOR EVERY GENE, A PATHOLOGY FOR EVERY STRAIN?
SYSTEMATIC PATHOLOGY PHENOTYPING TO IDENTIFY THE
MORPHOLOGICAL BASIS OF PHENOTYPES
Colin McKerlie (Center for Phenogenomics, Canada)
- 1130-1200 EPIGENETICS
(TBC)
- 1200-1230 FECAL MICROBIOTA TRANSPLANTATION (FMT) FROM ANAEROBIC-
EXERCISED RATS IMPROVED METABOLIC PHENOTYPE IN TYPE 2
DIABETIC MODEL, ZDF RATS
Je Kyung Seong (Seoul National University, South Korea)



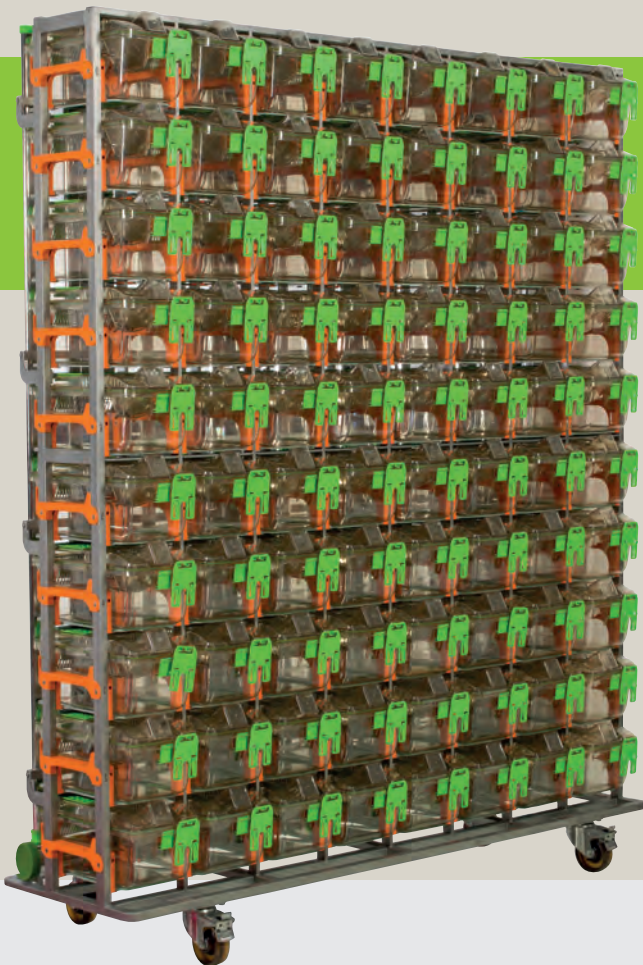
GROUP PHOTO AND LUNCH

- 1330-1400 MODELLING OF HUMAN COMPLEX DISEASES
Takanori Amano (RIKEN, Japan)
- 1400-1430 *ZIC3* LOSS-OF-FUNCTION IMPLICATES ELEVATED CANONICAL WNT SIGNALLING IN LEFT-RIGHT
 AXIS DEFECTS AND HUMAN HETEROTAXY
Ruth Arkell (Australian National University, Canberra)
- 1430-1500 PHENOTYPIC DISCREPANCY OF THE R229Q MUTATION OF RAG2 IN MICE (INTRODUCTION OF
 CENTER FOR MOUSE MODELS OF HUMAN DISEASES [CMHD])
Han-Woong Lee (Yonsei University, South Korea)
- 1500-1530 USE OF MOUSE MODELS IN PERSONALISED MEDICINE
Simon Jiang (Australian National University, Canberra)

AFTERNOON TEA

- 1600-1630 NGS AND MURINE MODELS FACILITATE THE IDENTIFICATION OF GENES LINKED TO HEARING
 LOSS IN HUMAN
Heon Yung Gee (Yonsei University, South Korea)
- 1630-1700 MOTOR PROTEIN MYOSINX IS A NOVEL REGULATORY FACTOR FOR LONGITUDINAL BONE
 GROWTH AND TRABECULAR BONE MICROSTRUCTURES VIA THE NORMAL ENDOCHONDRAL
 OSSIFICATION IN THE GROWTH PLATE
Taro Kataoka (Kumamoto University, Japan)
- 1700-1730 HEALTHY LONGEVITY OF MICE WITH A GENETICALLY MODIFIED HEMATOPOIETIC / BLOOD
 SYSTEM
Yu-Chiau Shyu (Institute of Molecular Biology, Taiwan)








MEETING CLOSE



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PROGRAM - WORKSHOP

FRIDAY FEBRUARY 22ND

0900-0930 QUALITY CONTROL AND REPRODUCIBILITY
Atsushi Yoshiki (RIKEN BRC, Japan)

0930-1000 PRODUCTION & PRESERVATION – DEVELOPMENT OF MOUSE REPRODUCTIVE TECHNOLOGY
Toru Takeo (Kumamoto University, Japan)

1000-1030 CELL AND TISSUE MODEL SYSTEMS
Helen Abud (Monash University, Melbourne)

MORNING TEA

1100-1130 ART OF PHENOTYPING
Ruth Arkell (Australian National University, Canberra)

1130-1200 IT ALL STARTS WITH A GOOD NECROPSY: SYSTEMATIC TISSUE COLLECTION, DATA CAPTURE, ANNOTATION, AND INTERPRETATION
Colin McKerlie (Center for Phenogenomics, Canada)

1200-1230 BEHAVIORAL PHENOTYPING PIPELINE IN THE JAPAN MOUSE CLINIC
Tamio Furuse (RIKEN, Japan)

LUNCH AND GROUP PHOTO

1330-1400 GENOME EDITING OF MOUSE EMBRYOS
Shinya Ayabe (RIKEN Japan)

1400-1430 IMPROVING HDR EFFICIENCY FOR CRISPR/CAS9 EDITING IN MICE
Gaétan Burgio (Australian National University, Japan)

1430-1500 THE APPLICATION OF CRISPR/CAS9 TECHNOLOGY IN GENERATING COMPLEX MOUSE MODELS
Andrew Kueh (WEHI, Melbourne)

1500-1530 LINKING GENES AND PHENOTYPES FOR INDUSTRY THROUGH LARGE-SCALE ENU MUTAGENESIS OF THE MAMMALIAN GENOME
Lucy Morris (Australian National University, Canberra)

AFTERNOON TEA

1600-1630 THE USE OF ANIMAL MODELS IN TRANSLATIONAL RESEARCH
Genie Chin (National Laboratory Animal Center, Taiwan)

1630-1700 DATA & BIOINFORMATICS: INCL. GENOTYPE-PHENOTYPE CORRELATIONS, ONTOLOGIES, MATCHMAKER, MACHINE LEARNING, GA4GH
(TBC)

DRINKS



**FREQUENTLY
ASKED
QUESTIONS**

What is the weather like in Melbourne?

With its variable climate, Melbourne is warm to hot during Summer, with temperatures averaging around 28C during the day, and 16C at night, it is recommended that visitors bring clothes suitable for warm days and cool nights.

Shopping and shopping hours

Melbourne city shops generally open from 9:00am to 5:00pm but some have hours of 10:00am till 6:00pm, Monday to Friday. On Friday, we call it late night shopping day, which means that many shops in the CBD and suburban shopping centres remain open until 9:00pm.

Here is some famous shopping destination around the CBD:

Bourke Street Mall – One of the most popular shopping hubs in the city, Bourke Street Mall is buzzing with locals and tourists rushing from shop to shop buying from some of the country's biggest brands

The Block Arcade – One of the most iconic shopping destinations, The Block Arcade is a heritage listed building located in the CBD.

Melbourne Central – Known for the busy train station, Melbourne Central is a shopping and food mecca with a number of popular stores under the one roof.

Emporium Melbourne – Focusing on high-end shopping with a number of international brands opening their doors.

DFO South Wharf (Direct Factory Outlets) – For the best outlet shopping in Melbourne, DFO South Wharf is the place to go!

Time Zone

During February, Melbourne is in Australian Eastern Daylight Time (AEDT), AEDT is equal to Coordinated Universal Time plus 11 hours (UTC +11).

Melbourne Culture

In Melbourne you'll discover a city buzzing with dynamic and cutting-edge arts and culture. Below are must-go places around CBD to know more about Melbourne:

National Gallery of Victoria (NGV) – see one of the most impressive collections of European, Asian, Oceanic and American art at this iconic Melbourne gallery.

ACMI/Federation Square – venture into Federation Square and explore the world of film, television and digital media with year-round exhibitions, rare screenings and culture events.

Hosier Lane – well known by its "street art", walk down the famous bluestone laneway and admire the street art that has made the Melbourne urban art scene known across the globe.

Degraves Street – come and have a quintessentially Melbourne cafe experience in Degraves street, one of the best laneways in Melbourne

Where is the meeting venue?

Walter and Eliza Hall Institute of Medical Research (WEHI)

1G, Royal Parade, Parkville VIC 3052

(03) 9345 2555

How do I get from the airport to the meeting venue?

Uber – Ridesharing site UBER offers uberX, and UberBLACK to and from Melbourne Airport. Simply download the Uber app for iOS, Android or Windows and request a ride. Uber is a cashless service and payment is made directly through the app. It is a good idea to download the app in advance.

At Melbourne Airport, request your ride when you're ready to walk outside, exit the terminal and follow the signs to the Ride Share pickup area.

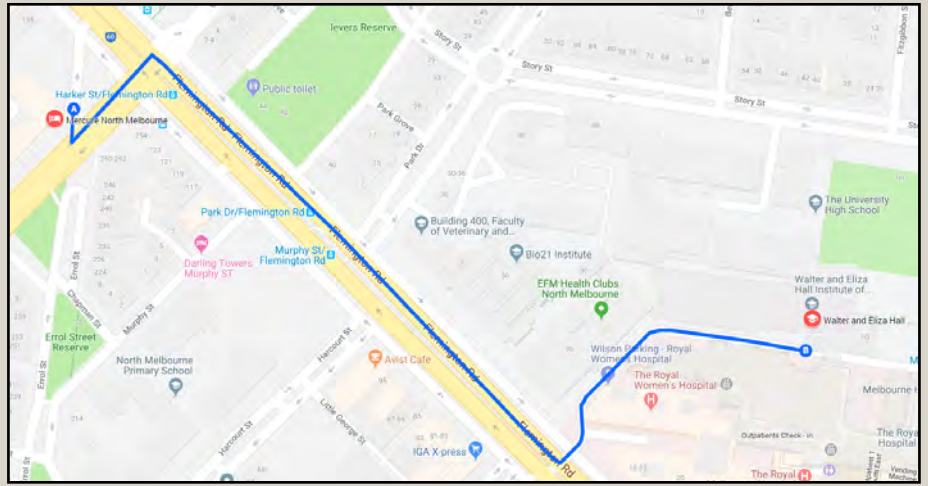
Taxi – Melbourne's taxis are a safe and convenient way to get from the airport to your destination. Taxi ranks are located on the ground floor outside Terminals 1 and 3. Taxi fares are calculated according to the distance and duration of the journey and will vary based on the number of people and time of travel. Additional charges apply if you travel on some public holidays, late at night, with five or more people or pay with credit/debit card. Taxi Fare Estimator: www.taxifare.com.au

Car hire and other transport can be found at: www.melbourneairport.com.au



How far away is the meeting venue to my accommodation?

If you are staying at our suggested hotel – Mercure North Melbourne, it is about 8mins (650m) walking distant to the conference venue. Please see map for direction:



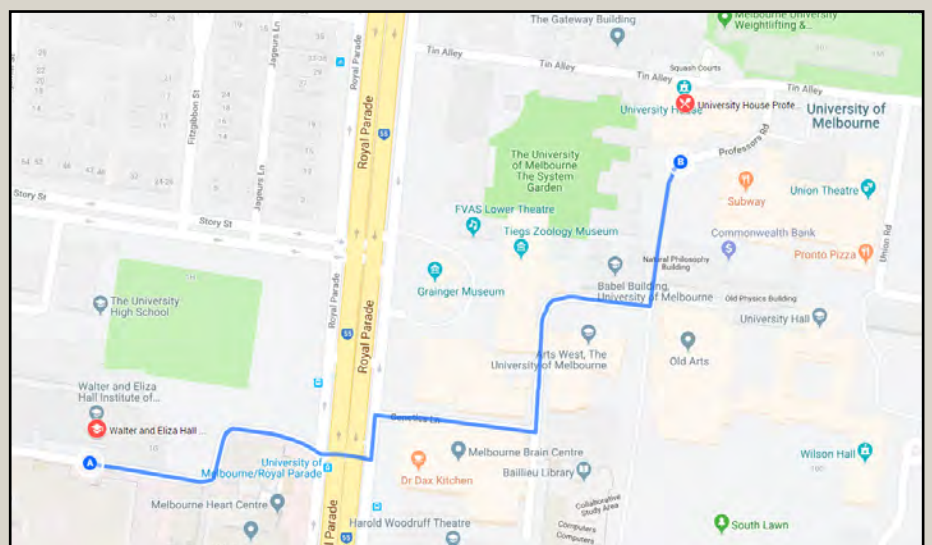
When and where is the meeting dinner?

20 February 2019, 7 – 10 PM

University House Professors' Walk - The Main Dining Room

112, Professors Walk, The University of Melbourne VIC 3010

Please be aware that for walking to dinner venue, Tin Alley is only accessible via Swanston Street, as the Royal Parade entrance is closed for works or you could follow this map.



What food is included in my registration?

Morning tea, lunch and afternoon tea is provided each day.

Water

Melbourne tap water is filtered, fresh and safe to drink.

Special dietary requirements

The venue or the caterer will be advised of any special diet preferences you have indicated on your registration form. A special buffet table will be set aside in the foyer for dietary requirements.

Visitor Information

For more information about local attractions, please visit:

www.visitmelbourne.com

Registration desk opening hours

Please direct any questions you may have regarding registration, accommodation, or social functions to Leishman Associates staff at this desk.

The registration desk will be open at the following time:

Wed. 20 FEB – 11:30 AM to 6:30 PM

Thurs. 21 FEB – 8:00 AM to 5:30 PM

I would like to pay my registration fee by cash on arrival, where should I go?

If you have selected to pay via Cash during your online registration, please bring your invoice and exact dollar amount to the registration desk, cash payment must be made in Australia dollars. Change will not be available.

What is the dress code for the meeting and social functions?

Dress code throughout the event is smart casual or informal business.

Where is my accommodation?

Mercure North Melbourne is located at the corner of Flemington Road and Harker St, Melbourne VIC 3051. Please refer to the map opposite for directions to the conference venue.

Will there be internet available?

Delegates will have access to complimentary WiFi for the duration of the conference. Please note that movies, music or illicit downloads are restricted. It is not designed for accessing VPNs or downloading large files.

Please connect to the ampra connection, the password is ampc2019.

If you have trouble connecting please see the staff at the registration desk.

Is there security at the meeting?

The members of the organising committee and Leishman Associates accept no liability for personal accident of loss or damage suffered by any participant, accompanying person, invited observer or any other person by whatever means. Nor do we accept liability for any equipment or software brought to the conference by delegates, speakers, sponsors or any other party. Please protect your personal property. Do not leave laptops, cameras, and other valuable items unsecured. Be conscious of individuals who appear out of place and do not wear a conference name badge. Advise Leishman Associates staff if this does not occur.

Name badges

All delegates, speakers, sponsors and exhibitors will be provided with a name badge, which must be worn at all times within during the conference, as it is required for access to all the conference sessions and social functions.

Please collect your name badge at the conference registration desk.

I am a speaker, what should I do?

Please bring your presentation slides to the registration desk at least 2 hours before your session (or the catering break before your session), the event coordinator will assist you to pre-load it to the laptop. Please also be noted that speaker will need to operate the slides from the lectern during your presentation.

I have a poster for the poster session, what should I do?

Posters must be no larger than A0 (1189mm high x 841mm wide) portrait. Authors must bring their poster with them to the Conference and advise Leishman Associates staff at the registration desk when they arrive. We encourage authors to provide their own Velcro 'hooks' to display the posters if possible.

All authors are asked to be alongside their poster during poster session. The Poster Session is marketed as an opportunity for delegates to approach the author of the poster and ask questions or discuss any element of the information displayed.



How do I book my accommodation?

You can book your accommodation through the online registration form or by emailing Leishman Associates. You will be asked to provide your check-in and check-out date as well as your credit card details to secure the booking. Payment for your accommodation will not be taken until you check in or out of the Hotel. Delegates are encouraged to book in advance as availability closer to the Conference date is not guaranteed.

Where and when is the workshop being held?

22 February 2019

Walter and Eliza Hall Institute of Medical Research (WEHI)

ADDRESS: 1G, Royal Parade, Parkville
VIC 3052

(03) 9345 2555

DISCLAIMER

The meeting reserves the right to amend or alter any advertised details relating to dates, program and speakers if necessary, without notice, as a result of circumstances beyond their control. All attempts have been made to keep any changes to an absolute minimum.

How do I pay for my accommodation?

When you book your accommodation your credit card details will be transferred to the hotel you have selected – please confirm this on check in with your hotel. Your credit card will not be charged until you check out. If someone is paying on behalf of you, make sure you have filled and submitted a credit card authorization form to your hotel.

Is there any parking available at the meeting venue?

WEHI has limited paid parking is available along Royal Parade and in paid parking facilities beneath the Institute. A small number of temporary visitor parking bays in the underground parking lot and on the Institute forecourt can be booked by prior arrangement.

Call WEHI's reception on 03 9345 2555 to arrange a parking permit or visit www.wehi.edu.au for more parking details.

I would like to change or cancel my accommodation booking?

Please email Leishman Associates to cancel or change your accommodation prior to the Conference. If you need to cancel your accommodation booking within 30 days of your arrival date any cancellation fees will be subject to the hotel cancellation policy. Therefore, no accommodation refund can be guaranteed within 30 business days of the Conference. If you alter your accommodation booking after you have checked in, please deal directly with the hotel. If you arrive 24 hours later than your indicated arrival day, charges will apply.

What is the dress code for the meeting and social functions?

Dress code throughout the event is smart casual or informal business.