## Sunday 3 July

### 5.00-8.00pm  WELCOME RECEPTION AND REGISTRATION  
Venue: Oxford Scholar Hotel, RMIT University

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## Monday 4 July

### 8.30am  Chair: Emeritus Prof Felicity Roddick, RMIT University, Australia  
WELCOME TO COUNTRY  
OFFICIAL OPENING: Professor Sujeeva Setunge, the Associate Deputy Vice Chancellor, Research and Innovation of RMIT STEM College, RMIT University  
OPENING: Emeritus Prof Felicity Roddick, RMIT University, Australia  
Welcome from Professor Greg Leslie, Director, UNSW Global Water Institute  
Welcome from A/Prof Rita Henderson, Chair of the WPAT22 Organising Committee

### 9.15am  Dr Catherine Rees, Acting Manager of Applied Research, Melbourne Water.  
Melbourne’s Western Treatment Plant: a case study in global urban water sector challenges and opportunities

### 9.45am  MORNING TEA

### 10.30am  Keynote: Dr Bill Wood, Tasmania Water, Australia. Minor process upgrades to a lagoon-based sewage treatment plant delivers major OPEX benefits

### 10.55am  Prof Anas Ghadouani, University of Western Australia, Australia. Emerging challenges and opportunities for waste stabilisation pond research in Australia

### 11.00am  Mrs Most Fahima Ahmed Anny, The University of Shiga Prefecture, Japan.  
The utilizations of excess-growth aquatic macrophytes in lake ecosystem through anaerobic digestion (AD) and culturing microalgae using the AD effluents

### 11.25am  Dr Bojan Tamburic, UNSW, Australia. Analysis of Aulacoseira blooms at Melbourne’s Western Treatment Plant

### 11.40am  Mrs Sandra Chacon, Rey Juan Carlos University, Spain.  
Single-stage co-treatment of domestic wastewater and the hydrolyzed liquid organic urban waste mediated by a mixed culture of PPB under microaerophilic conditions

### 11.55am  Panel Discussion

### 12.15pm  LUNCH
SESSION C: NUTRIENT CONTROL AND RECOVERY
Chair: Prof Dries Vandamme, University of Hasselt, Belgium and Dr Mutsumi Sekine, Soka University, Japan

1.15pm 
Keynote: A/Prof Doan Thi Thai Yen, Hanoi University of Science and Technology, Vietnam. Microalgae to recover nitrogen and phosphorus from wastewater toward resource circulation

1.40pm 
Miss Tatiana Zuniga Burgos, University of Leeds, UK. Overexpression of PSRI transcription factor for enhanced phosphorus removal from wastewaters by luxury algal phosphorus uptake and storage

1.55pm 
Lukas Trebuch, Netherlands Institute of Ecology, The Netherlands. Photogranules for light-driven wastewater treatment and resource recovery

2.10pm 
Ms Joana Fradinho, Nova School of Science and Technology, Portugal. Photosynthetic biological nutrient removal systems: impact of CO$_2$ concentration and light exposure on process performance

2.25pm 
Miss Siti Rosli, UNSW, Australia. The Impact of Reusing Spent Wastewater Medium on the Growth of Chlorella vulgaris

2.40pm 
Panel Discussion

3.00pm 
AFTERNOON TEA

SESSION D: CLIMATE CHANGE AND WASTEWATER REUSE
Chairs: Dr Nick Crosbie, Melbourne Water, Australia and A/Prof Rita Henderson, UNSW Sydney, Australia.

1.15pm 
Keynote: Dr Liah Coggins, University of Western Australia, Australia. Integrated approach towards quantifying carbon dioxide and methane release from waste stabilisation ponds

1.40pm 
Mr Sam Butterworth, Flinders University, Australia. Effect of the cessation of HRAP mixing for one retention time (10 days) on wastewater treatment performance at Kingston on Murray

1.55pm 
Mr Kim Milferstedt, National Research Institute for Agriculture, Food and Environment (INRAE), France. Ecologically engineering methanotrophic photogranules

2.10pm 
Dr Long Ho, University of Ghent, Belgium. Effects of sludge distribution and accumulation on greenhouse gas emissions from waste stabilization ponds

2.25pm 
Jineth Arango, Pontifical Catholic University of Valparaíso, Chile. Raceway photomembrane bioreactor for the treatment of real sewage

2.40pm 
Panel Discussion

SESSION E: NUTRIENT CONTROL AND RECOVERY
Chairs: Prof Ho-Sung Yoon, Kyungpook National University, South Korea and Dr Xin Liu, University of Shiga Prefecture, Japan

3.30pm 
Keynote: Prof Howard Fallowfield, Flinders University, Australia. Reflections on nutrient removal and recovery using algae

3.55pm 
Dr Swaminathan Palanisami, University of Technology, Australia. Blending different wastewaters for algal cultivation and nutrient recovery

4.10pm 
Mr Johan Pasos, University of Leeds, UK. Use of duckweed for nutrient recovery from wastewaters: Culture considerations for a sound process design

4.25pm 
Dr Shinichl Akizuki, Soka University, Japan. Down-flow hanging sponge photobioreactor for energy-saving nitrogen removal from anaerobic digestate

4.40pm 
Miss Alice Ferreira, National Laboratory of Energy and Geology (LNEG), Portugal. Effect of microalga grown in pre-treated piggy wastewater in wheat seed germination and growth

4.55pm 
Panel Discussion

5.15-7.00pm 
Poster Session

7.30-10.00pm 
CONFERENCE DINNER
Venue: South and West Rooms, Woodward Centre, University of Melbourne
## Tuesday 5 July

### 9.00am
Chair: **A/Prof Miller Alonso Camargo-Valero**, University of Leeds, UK  
**PLENARY: Professor Alison Smith**, Head of Department of Plant Sciences, University of Cambridge.  
*Coming into the light – using the Cambridge Algal Innovation Centre to develop novel products from microalgae*

### 9.45am
**MORNING TEA**

### 10.15am
**Keynote:** **Dr Masatoshi Kishi**, Japan Agency for Marine-Earth Science and Technology, Japan.  
*Chlorophyll Fluorescence Response towards Ammonia Toxicity: Ammonia Detection in Algal Ponds*

### 10.40am
**Mr Brad Long**, Xylem, Australia.  
*Xylem’s modern applications in sludge and algae biotech monitoring*

### 10.55am
**Mr Thiago Silva**, Federal University of Vicosa, Brazil.  
*Algal biomass production from swine wastewater: Use of biofilm reactor technology*

### 11.00am
**Ms Tengge Zhang**, Penn State University, USA.  
*Hybrid ion exchange and biological processes of ammonia removal from wastewater: Experimental and modelling studies*

### 11.10am
**Mr Raj Kumar Oruganti**, Indian Institute of Technology Hyderabad, India.  
*Domestic wastewater treatment in a pilot-scale anaerobic-aerobic algal-bacterial suspended-growth reactor: Carbon, nutrients, and organic micropollutants removal*

### 11.25am
**Mrs Sulochana Pitawala**, University of Melbourne, Australia.  
*A New Growth Model for Filamentous Algae in Wastewater Treatment Systems*

### 11.40am
**Dr Nick Crosbie**, Melbourne Water, Australia.  
*The research that has shaped Western Treatment Plant*

### 12.00pm
**Panel Discussion**

### 1.00pm
**Keynote:** **Dr Franklin Bailey Green**, Allied Engineers, Inc., USA.  
*Completing the circular wastewater economy through water, energy, and nutrient resource recovery and reuse*

### 1.25pm
**Mrs Sulochana Pitawala**, University of Melbourne, Australia.  
*A New Growth Model for Filamentous Algae in Wastewater Treatment Systems*

### 1.40pm
**Dr Martin Gross**, Gross-Wen Technologies, USA.  
*Evaluating a Rotating Algal Biofilm (RAB) System to Reduce WWTP Loading by Treating Anaerobic Digester Effluent*

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**Dr Martin Gross**, Gross-Wen Technologies, USA.  
*Evaluating a Rotating Algal Biofilm (RAB) System to Reduce WWTP Loading by Treating Anaerobic Digester Effluent*

### 2.10pm
**Dr Dominik Refardt**, Zurich University of Applied Sciences, Switzerland.  
*Cultivation of a PHB-producing cyanobacterium in an open system using wastewater as nitrogen source*

### 2.25pm
**Panel Discussion**
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| 2.45pm | **AFTERNOON TEA** | **SESSION K: WASTEWATER TREATMENT WITH ALGAE**  
Chairs: Prof Bruce Jefferson, Cranfield University, UK and Dr Liah Coggins, University of Western Australia, Australia. | **SESSION L: EMERGING CONTAMINANTS AND METALS**  
Chairs: Associate Professor Yi Tao, Tsinghua University, China and Dr Naras Rao, KU Leuven, Belgium. |
| 3.15pm | **Keynote:** Miss Ana Sanchez, University of Almeria, Spain. Respirometric assessment of bacterial populations in activated sludge and microalgae-based wastewater treatment | Keynote: Dr Franja Pronsenc, University of Ljubljana, Slovenia. Contaminants of Emerging Concern in Algae-Based Treatment. |
| 3.40pm | Dr Jason Dwyer, Queensland Urban Utilities, Australia. Regional sewage treatment transformation: Optimising Algae based Treatment system to Scale | Mr Mitchell Zak, University of Toronto, Canada. Effect of Extracellular Polymeric Substances from Algal Biofilms to Enhance the Recovery of Lanthanum from Dilute Aqueous Solutions. |
| 3.55pm | Mr Kento Nishi, Soka University, Japan. Effect of biomass ratio in microalgae-nitrifying bacteria using light-shielding hydrogel | Miss Javiera Collao, University of Valladolid, Spain. Effects of tetracycline, ciprofloxacin and sulfadiazine on microbial communities and nutrient and antibiotic removals in wastewater treatment photobioreactors. |
| 4.00pm | Dr Maria Rodriguez, University of Valladolid, Spain. Modelling and Control Differences for pH Regulation in Microalgae Production System between Fertilizers and Wastewater Sources | Mr Kaiyi Wu, Netherlands Institute of Ecology, The Netherlands. Removal of individual and mixed organic micropollutants by microalgae-based technologies. |
| 4.40pm | Panel Discussion | Panel Discussion |
| 5.00-5.30pm | **CLOSING CEREMONY**  
Closing Remarks: A/Prof Miller Alonso Camargo-Valero, Chair of the IWA Specialist Committee for Wastewater Ponds and Algal Technologies |  |
| 7pm till late | **YWP EVENT** (all welcome), Location TBD |  |

### Wednesday 6 July

- **8.30am** Coach departs RMIT
- **9.30am** Arrival at Western Treatment Plant and site inductions
- **10.00am** Western Treatment Site tour
- **12.30pm** Site departure (packed lunch provided)
- **1.30pm** Arrival at RMIT
- **4-5pm** Online technical tour introduction and discussion

#### Technical tour

The Western Treatment Plant, operated by Melbourne Water, is a shining example of an environmentally-friendly sewage treatment and community facility just minutes from Melbourne city. For our online delegates, you will be able to navigate an exciting, fully interactive, virtual tour of the facility.