

Day 1 - 26 Aug 2013, Monday

PRE CONFERENCE VISIT

1400 - 1600hrs.

**Optional Site Visit - University of Adelaide:
Tour of Chemical Engineering Lab**
Separately Bookable at AUD 75/pax

14:00 Assemble at Stamford Hotel Lobby.
Depart for lab visit

14:15 Arrive lab

What you will see on this tour

- algae cultivated on a small scale in two-metre square tanks specially built by Chemical Engineering technical staff
- a climate controlled unit where algae bioreactors are being used to grow and study selected algae strains. Current plans are to extend the R&D work to small scale field trials of open-pond algae systems

16:00 Final Q & A.
Depart back to Stamford Hotel

A/Prof David Lewis and A/Prof Peter Ashman is leading the research - part of an innovative \$1.89 million project funded by the Federal Government - in commercial exploitation of microalgae for the production of renewable biofuels together with Prof Michael Borowitzka (Murdoch University), and other partners from Australia, India and China, including SQC Pty Ltd.

This research has led to the establishment of a joint venture company, Muradel Pty Ltd, which is responsible for the commercialisation and further development of this technology. As part of this work, David and his team are investigating the thermal processing of microalgae residue as part of an ARC Linkage project in collaboration with SQC Pty Ltd. This work will be undertaken using SACRI's fluid-bed combustion and gasification facilities at Thebarton.

Day 2 - 27 Aug 2013, Tuesday

08:00 Registration

09:00 Chairman's Introduction
*Dr Stephen Clarke, Senior Research Fellow
University of South Australia*

Progress of algal companies towards large scale production

09:10 **Muradel Project Update - Microalgae biomass to biofuel - is hydrothermal liquefaction the solution?**
Associate Prof David Lewis, Chief Technology Officer, Muradel Pty Ltd Leader, Microalgal Engineering Research Group

09:40 **Algorythm Project Update**
Stephen Bedford Clarke, General Manager Technical Director, Algorythm Pty Ltd

10:10 Discussion followed by Coffee Break

10:40 **SARDI's microalgal research and the facilities and services of the NCRIS PBR Facility/Algal Biofuels Facility**
Dr Sasi Nayar, Subprogram Leader & Phytoplankton Biologist, Algal Production Group SARDI Aquatic Sciences

11:10 **Towards high efficiency photo bioreactor systems**

- Determining effective algae strains and bioreactor designs
- Outlining the developments at UQ

Prof Dr Ben Hankamer, Director Solar Biofuels Consortium, Queensland Prof at Institute for Molecular Bioscience The University of Queensland

11:40 **Aurora Algae – Scaling and Commercializing Algae Production for Food, Pharma, and Supplement Markets**
*Dr. James D. Astwood
Senior Vice-President - Innovation Aurora Algae*

12:10 **Commercialising High Quality Sustainable EPA from Marine Microalgae through Fermentation process**
James Campbell, CEO Photonz Corp, New Zealand

12:40 Discussion followed by Lunch

14:00 **Realising Cost-Effective Macro Algae to Bio-Crude Oil Production**

- demonstrating large scale macro algal production and biomass processing

Andrew Lawson, Managing Director MBD Energy

Advancements in Algae-Based Wastewater Treatment including perspective from US and Japan

14:30 **Integrated Multi-Trophic Aquaculture - Using macroalgae to clean wastewater from sea cage based fish farms**
Dr Jason Tanner, Program Leader Marine Environment & Ecology, SARDI

15:00 **Application of High Rate Algal Ponds for the treatment of wastewaters and on-site biomass energy production**

- integrating wastewater treatment with sustainable on-site algal biomass energy production and the associated risk associated with treated wastewater reuse for agriculture

Assoc Prof Howard Fallowfield, Dept of Environmental Health, Flinders University

15:30 Discussion followed by Tea

16:00 **Integration of algal biomass production into wastewater treatment with a hybrid production system – Recent Developments in Japan**
*Prof Makoto M. Watanabe
Faculty of Life and Environmental Sciences University of Tsukuba*

16:30 **Energy-Efficient Algal-Bacterial Wastewater Treatment and Resource Recovery**
*Prof Dr Franklin Bailey Green
President / CTO, GO2 Water, Inc.*

17:00 Discussion. End of Day 1 Conference

Day 3 - 28 Aug 2013, Wednesday

08:20 Chairman's Introduction

New Developments

08:30 **Sustainable Aviation Biofuels - Alternative feedstocks, costs & technology**

Flyn Van Ewijk, Manager, Environment and Sustainable Fuel Qantas Airways

09:00 **Microalgae non-destructive oil extraction**

Navid Moheimeni Murdoch University

09:30 **Genetic improvement of microalgae for the production of high value products – opportunities and limitations**

Professor Michael A. Borowitzka Algae R&D Center - School of Biological Sciences & Biotechnology Murdoch University

10:00 Discussion followed by Coffee Break

10:30 **Sustainable Biorefinery Technologies for Converting Macroalgae High Value Products (Food, Cosmetics & Medicinal Compounds)**

Prof Wei Zhang, Director Flinders Centre for Marine Bioproducts Development (CMBD)

11:00 **Looking into the future - Glycerol from MicroAlgae**

- adding value to further downstream developments to biochemicals and epoxy resins

Stephen Clarke, Senior Research Fellow, University of South Australia

11:30 Final Discussion. End of Conference.

12:00 Lunch

POST-CONFERENCE VISIT

Wednesday 28th August
1400 - 1730hrs.

Optional Site Visit - SARDI Aquatic Sciences & Flinders University

Separately Bookable at AUD 75/pax

14:00 Depart Stamford Hotel

14:30 Arrive SARDI Aquatic Sciences/South Australian Aquatic Sciences Centre

14:35 Welcome and introduction

14:45 Tour of the NCRIS/ABF facility – experimental production facilities and laboratories

15:15 Tour of the micro- and macro-algal R&D facilities (e.g. aquaculture live feeds, climate change, Integrated Multi-trophic Aquaculture)

15:45 Leave on bus to Flinders University

16:15 Arrive Flinders University

16:20 Welcome & introduction

16:30 Tour Biotechnology laboratory - R&D on micro- and macro algal products

17:10 Depart back to Stamford Hotel

From Western Australia to Queensland to South Australia - Who will lead the race to commercially produce algae to biofuels?

Algal Fuels Key to nation's energy independence - The Australian April 18, 2013

Energy security is high on the agenda for Australia as the nation becomes increasingly vulnerable to overseas fuel supply disruption.

It is reported that as of now, 85 per cent of Australia's transport fuel now comes from overseas, as either refined or crude product.

Australia needs to find a sustainable solution and the key lies in growing ALGAE as the country is an attractive ground with abundant sunshine and suitable climate.

Leading airlines are backing algae while many big universities and start-ups have secured government grant to experiment with different approaches to bring algae-biofuel to commercialisation.

Algae produces protein and carbohydrate, which can be turned into high value added products for pharma, medicinal, plastics as well as food for Australia's \$5bn seafood farming industry.

This year's 3rd **AlgaeWorld AUSTRALIA** convenes in Adelaide - a strategic and timely venue with Muradel developing its algal biofuel demonstration plant at **Whyalla** after winning a \$4.4 million federal government.

Join A/Prof David Lewis and his team at the lab visit to the University of Adelaide on the 26th August.

CUSTOMISED SPONSORSHIP OPPORTUNITY

Package available include **Corporate, Exclusive Luncheon & Cocktail sponsor**. Exhibition / catalogue display can be arranged upon request. Contact nisha@cmtsp.com.sg

Program details published herein are confirmed as at 21/05/2013. Please visit <http://www.cmtevents.com/main.aspx?ev=130835> for latest information on speakers & topics.

Key highlights of the conference

- Progress of Australia algae cos moving towards large scale production
 - Aurora**
Scaling and Commercializing Algae Production for Food, Pharma, and Supplement Markets
 - Muradel**
Progressing from a concept to demonstrating the technical and economic feasibility of producing crude oil from algae
 - MBD Energy** - shifting into macroalgae, find out what the plans are for the company to develop this further
 - Algarythm** - update on the project
 - Solar Biofuels Research Centre** developed by University of Queensland
Taking on the challenge to produce algae with highly effective PBR systems
- Developments in Macroalgae & microalgae for Food, Pharma, Supplement markets
- Leading airlines - Qantas perspective on sustainable aviation biofuels and the support for algae-to-biofuels research
- Genetically modified Microalgae for High Value Added Products
- Algae based waste water treatment with new developments from US and Japan

Plus opportunities to visit the labs in University of Adelaide, SARDI Aquatic Sciences and Flinders University working on macroalgae.

Per Person Fee for Conference:	(AUD)
Regular Fee for 1	1395.00
Group Fee for 3 or more	1195.00

Site Visit	(AUD)
Pre Conference Visit: 26 Aug (per person)	75.00
Post Conference Visit: 28 Aug (per person)	75.00

3 Ways To Register

Online: www.cmtevents.com
Email: anna@cmtsp.com.sg
Tel: (65) 6346 9132