



**RACP**  
**Specialists. Together**  
EDUCATE ADVOCATE INNOVATE



Australasian Faculty of  
Occupational and Environmental Medicine

# AFOEM

# ANNUAL TRAINING MEETING

# HANDBOOK

FRIDAY, 5 MAY to SUNDAY, 7 MAY 2017

# CONTENTS

Welcome message	3
About training in the occupational and environmental medicine program	4
Contributors and sponsors	5
Venue directory and general information	6
Program	13
Speakers	16
Worksites scenarios	23
Pre-session reading and activity	36
Notes	40

## WELCOME MESSAGE



**Welcome to the 2017 Annual Training Meeting (ATM) and to Melbourne. The aim of the ATM is to provide an interactive and engaging program, covering the key domains of learning in the training curriculum.**

The ATM will again incorporate the worksite visits on the first day to some uniquely Victorian workplaces. This will be followed by the clinical day on day two which aims to provide you with the knowledge and insight for you to be able to meet your key learning outcomes in all stages of training.

On the third and last day of the ATM, we are honoured to host this year's Ferguson-Glass Orator, Professor Nortin M Hadler and our Faculty President, Associate Professor Peter Connaughton. The topics for these sessions involve discussing perspectives on treating backache and exploring future opportunities in occupational health respectively.

During the ATM, you will get plenty of opportunities to express your views and ask questions of the ATM Organising Committee and other representatives of the AFOEM Education, Training and Assessment Committees.

On behalf of the ATM Organising Committee, I would like to reiterate our appreciation and gratitude to all the Fellows, trainees, RACP staff and industry representatives who have contributed to another successful ATM.

**Dr Dominic Yong**  
**Victorian Training Program Director (TPD)**  
**Lead Fellow, ATM Organising Committee**

# ABOUT TRAINING IN THE OCCUPATIONAL AND ENVIRONMENTAL MEDICINE PROGRAM

Training in Occupational and Environmental Medicine (OEM) under the Physician Readiness for Expert Practise (PREP) framework develops the knowledge, skills and behaviours that a specialist Occupational and Environmental Physician (OEP) is required to have in order to practise OEM effectively.

OEM training is a vocational, on-the-job educational program, underpinned by nine key competencies that reflect the clinical, preventive and population-based aspects of OEM and guide the aims, objectives and individual components of the program. The competencies are represented in the training program under the following domain names:

- clinical practice
- workplace hazard assessment
- critical appraisal of information
- research methods
- working with leaders
- professional qualities
- law and medicine
- fitness and return to work
- environmental risks and incidents.

Domains are divided into sub-domains, themes and specific learning objectives, the latter numbering 172 in total, with some appearing in more than one stage of the curriculum.

Unlike other RACP training programs which are predominantly hospital-based, OEM training does not involve a series of registrar-level rotations at accredited training sites and is instead nearly always conducted in community settings.

Trainees are supported by a regional Training Program Director and receive guidance from Fellows who have agreed to be their educational supervisor.

OEM training is based around three stages – stage A is a basic stage and stages B and C are advanced stages.

- Stage A (minimum 12 months) emphasises clinical skills, critical appraisal skills and professional qualities.
- Stage B (minimum 24 months) includes all the special features that distinguish OEM – fitness and return to work, interacting with organisations, relevant law, and assessment of work-related hazards and environmental risks and incidents.
- Stage C (minimum six months) addresses the abilities that distinguish an OEP including high-level communication, policy development, funding and staffing a service, and completion of research.

Assessments mark the end of each stage of learning, however, there are also ‘formative’ assessments to be completed during the stages.

There is no designated minimum period of training in Occupational and Environmental Medicine, but a typical period is four to five years. The periods in brackets (above) represent the likely minimum times spent at each stage, although it is possible to bypass stage A by meeting specific eligibility requirements.

Trainees have a maximum of 10 years in which to complete all components of the training and assessment and are responsible for their own progress through the competency-based program.

[Training portals](#)

[Training Support Pathway Resources – Occupational and Environmental Resources](#)

## CONTRIBUTORS

### AFOEM ATM Organising Committee

Dr Dominic Yong, Chair

Dr James Crompton

Dr Kah-Heng Lee

Ms Rumbidzai Mabambe, AFOEM Executive Officer

Ms Anne Chang, RACP Events

## SPONSORS



### AFOEM ATM Practical Session Sponsor

Sonic HealthPlus is Australia's leading provider of occupational healthcare and general medical services. With over 50 years' experience, we understand the importance of protecting the health and wellbeing of your company's greatest asset – its workforce. We employ and work with some of the best and most experienced health professionals in Australia.



### AFOEM ATM Exhibitor Partner

WorkSafe Victoria recognise the importance of work as a determinant of a person's health and the important role of health providers in treating injured workers and supporting them to stay at or return to safe work.

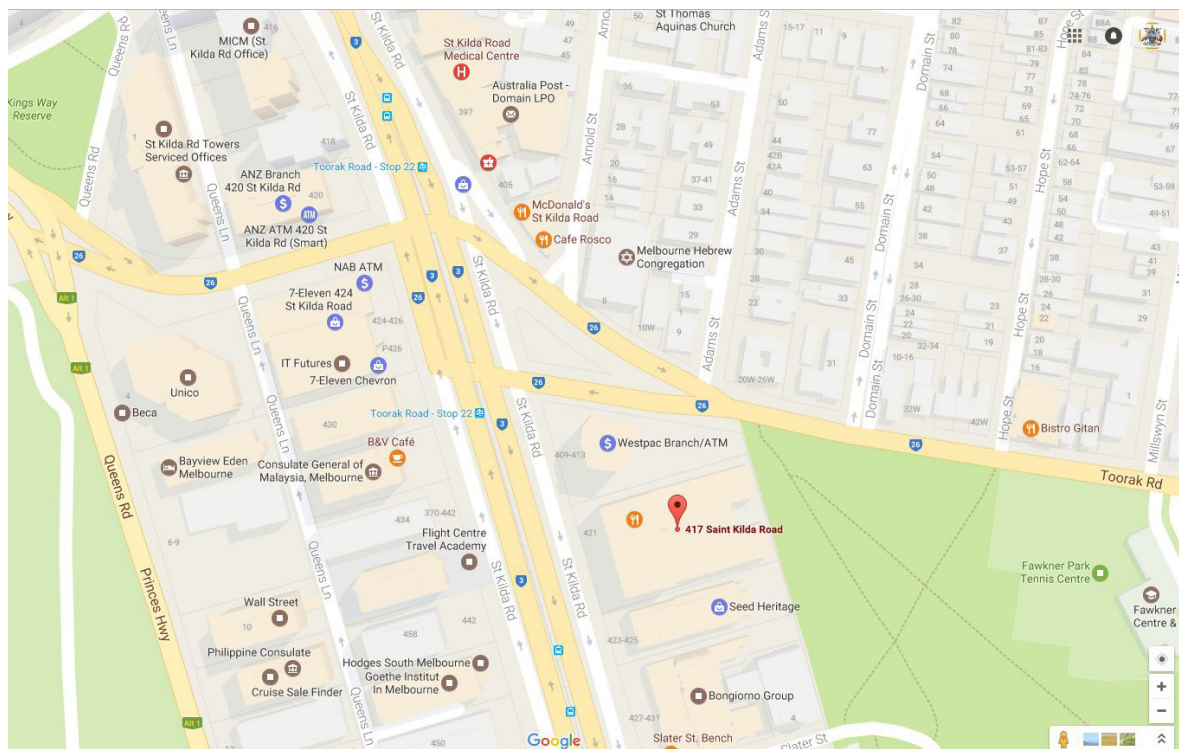
WorkSafe is pleased to be a signatory to the Australasian Consensus Statement on the Health Benefits of Work.

## VENUE DIRECTORY AND GENERAL INFORMATION

Worksite Visits – Friday, 5 May 2017		
7.30am–8.30am	Registration and welcome	RACP Melbourne Office, Oracle Building, Level 2 417 St Kilda Road, Melbourne Tel: (03) 9927 7700 <i>Refer to location map</i>
8.30am–9.30am	Buses will depart from the RACP Melbourne Office	
9.30am–4pm	Morning and afternoon visits	Various sites <i>Refer to location map</i>
4pm–5pm	Buses will return and drop passengers off at two locations: <ul style="list-style-type: none"><li>• RACP Melbourne Office</li><li>• Melbourne Convention and Exhibition Centre</li></ul>	
Clinical Day – Saturday, 6 May 2017		
8am–8.30am	Registration and welcome	The Alfred Centre Level 5 Corner of Punt and Commercial Roads, Prahran, Melbourne (entry via Centre Lane) <i>Refer to site map</i>
8.30am–5.30pm	Sessions	
Program – Sunday, 7 May 2017		
8am–8.30am	Registration and welcome	Melbourne Convention Centre 1 Convention Centre Place, South Wharf <i>Refer to site map</i>
8.30am–3.30pm	Sessions	

## RACP MELBOURNE OFFICE

Oracle Building, Level 2/417 St Kilda Road, Melbourne



**INTERNET** WiFi available. By connecting to the RACP Guest WiFi network, you agree to use this complimentary service in accordance within legislative conditions and to refrain from accessing malicious, fraudulent, and/or offensive material.

To connect:

1. Select the network **RACP-Guest** from your device.
2. Enter password **RACPGuest1609** (case sensitive).

---

### ATM FACILITY

Not available on the Oracle Building site. Nearest ATMs are:

- Westpac Bank – 409 St Kilda Road, Melbourne (next to Oracle Building)
- 7-Eleven convenience store – 401 St Kilda Road, Melbourne (across the Oracle Building)
- NAB – 424 St Kilda Road, Melbourne (across the Oracle Building)

---

### PARKING

Not available on the Oracle Building site. Nearest secured parking:

- Wilson Parking – 436 St Kilda Road, Melbourne
  - Secure Parking – 474 St Kilda Road, Melbourne
-

## WORKSITE VISIT LOCATIONS

### Group A

#### Morning visit at 9.30am–12pm

Qenos	Corner of Kororoit Creek Road and Maidstone Street, Altona	<a href="#">Location map</a>
-------	--	------------------------------

### Group A

#### Afternoon visit at 1.30pm–4pm

Australian Synchrotron	800 Blackburn Road, Clayton	<a href="#">Location map</a>
------------------------	-----------------------------	------------------------------

### Group B

#### Morning visit at 9.30am–12pm

TNT Australia	41-53 Sky Road, Melbourne Airport	<a href="#">Location map</a>
---------------	-----------------------------------	------------------------------

### Group B

#### Afternoon visit at 1.30pm–4pm

Ego Pharmaceuticals	21-31 Malcolm Road, Braeside	<a href="#">Location map</a>
---------------------	------------------------------	------------------------------

### Group C

#### Morning visit at 9.30am–12pm

Nestlé Australia	1585 Hume Highway, Campbellfield	<a href="#">Location map</a>
------------------	----------------------------------	------------------------------

### Group C

#### Afternoon visit at 1.30pm–4pm

Boeing Aerostructures Australia	226 Lorimer Street, Port Melbourne	<a href="#">Location map</a>
---------------------------------	------------------------------------	------------------------------

### Group D

#### Morning visit at 9.30am–12pm

CSL Behring Australia	189-209 Camp Road, Broadmeadows	<a href="#">Location map</a>
-----------------------	---------------------------------	------------------------------

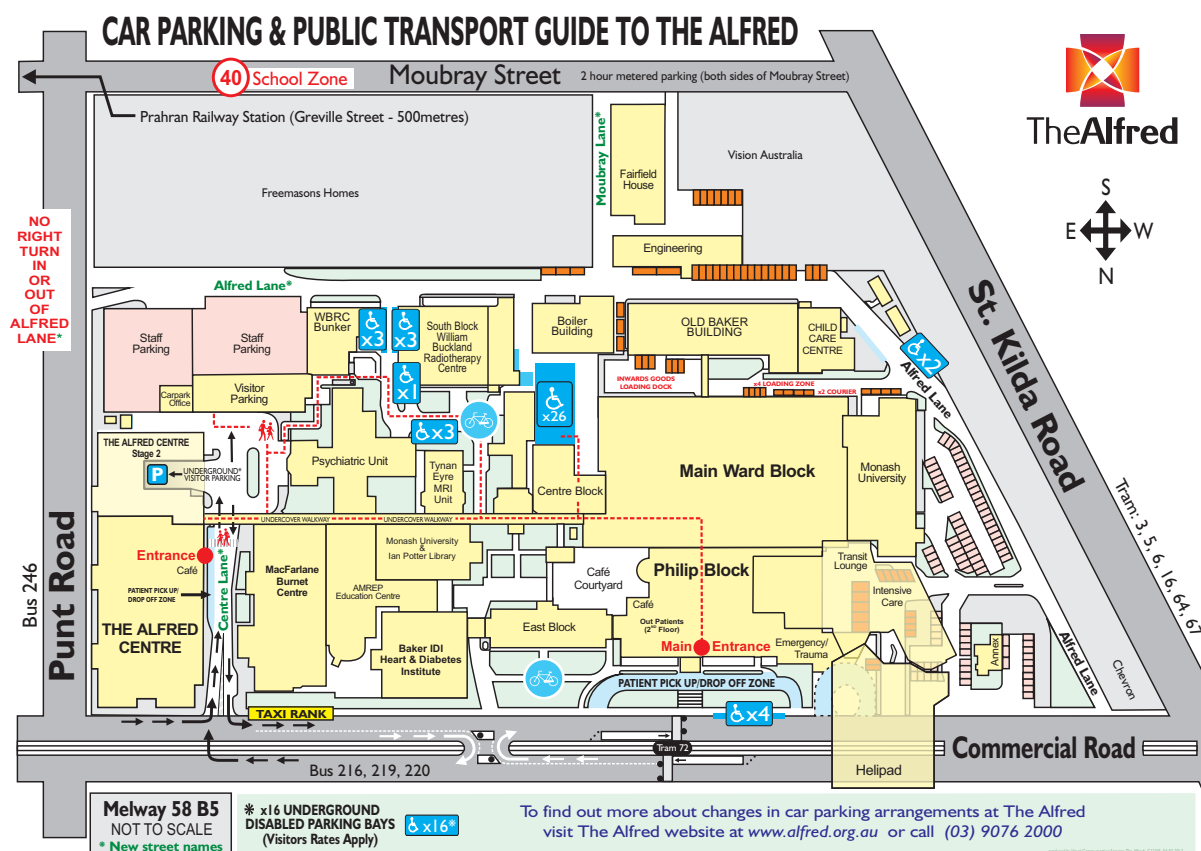
### Group D

#### Afternoon session at 1.30pm–4pm

ExxonMobil Australia	Corner Millers Road and Kororoit Creek Road, Altona North	<a href="#">Location map</a>
----------------------	---	------------------------------

# THE ALFRED CENTRE

Level 5, Corner of Punt and Commercial Roads, Prahran, Melbourne



## INTERNET

Monash Free WiFi is available at the Alfred Centre, however, it is not encrypted so please consider the security of your device when connecting.

To connect:

1. Select the network **Monash Free WiFi** on your device.
2. Launch an internet browser.
3. Click the **I accept** button.
4. Don't forget to disconnect when you're done.

## ATM FACILITY

Located in the hospital café in Phillip Block, which is near the Main Ward Block, refer to The Alfred site map.


## PARKING

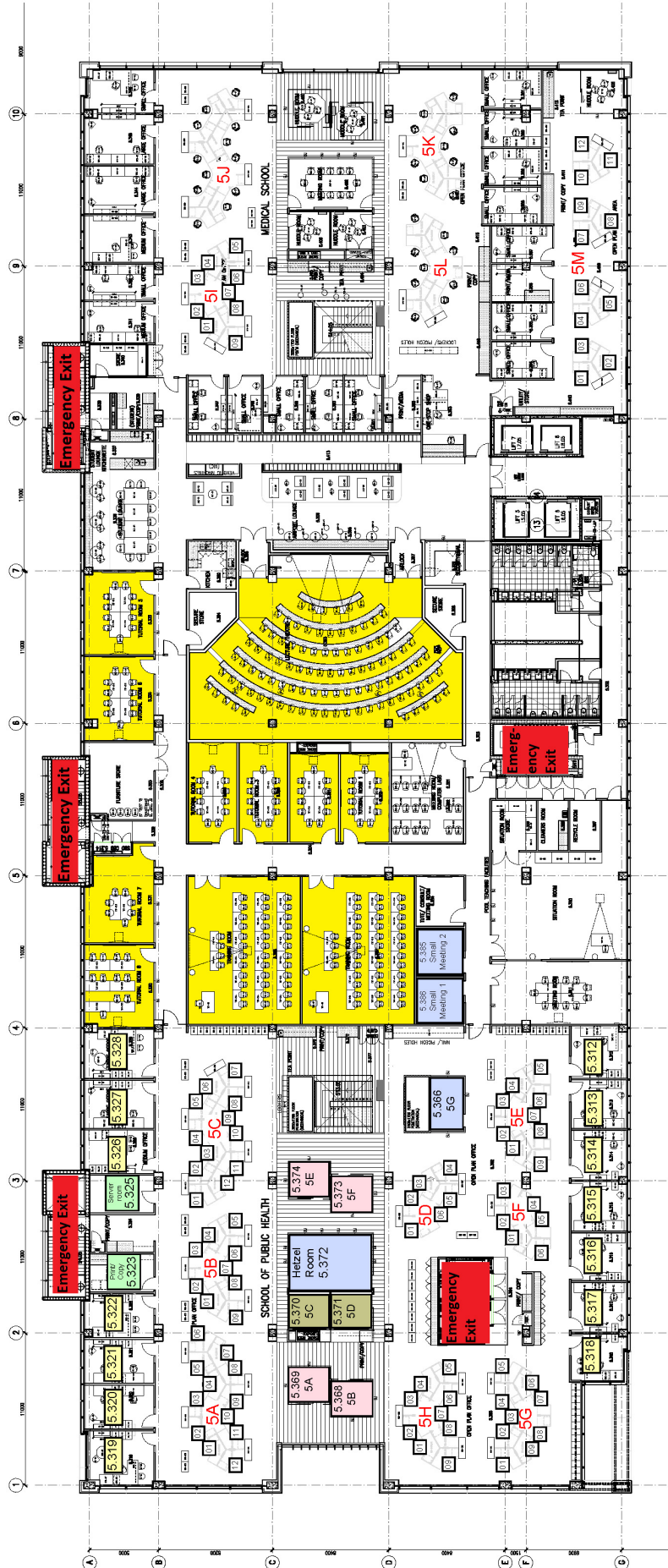
Underground visitor parking available. Weekend parking fees is AUD \$10 flat rate.

Enter via Centre Lane which runs off Commercial Road. Traffic approaching along Commercial Road from either direction can turn into Centre Lane.

Some street parking is available in the surrounding streets and is metered Monday through to Saturday. Check signs for details.

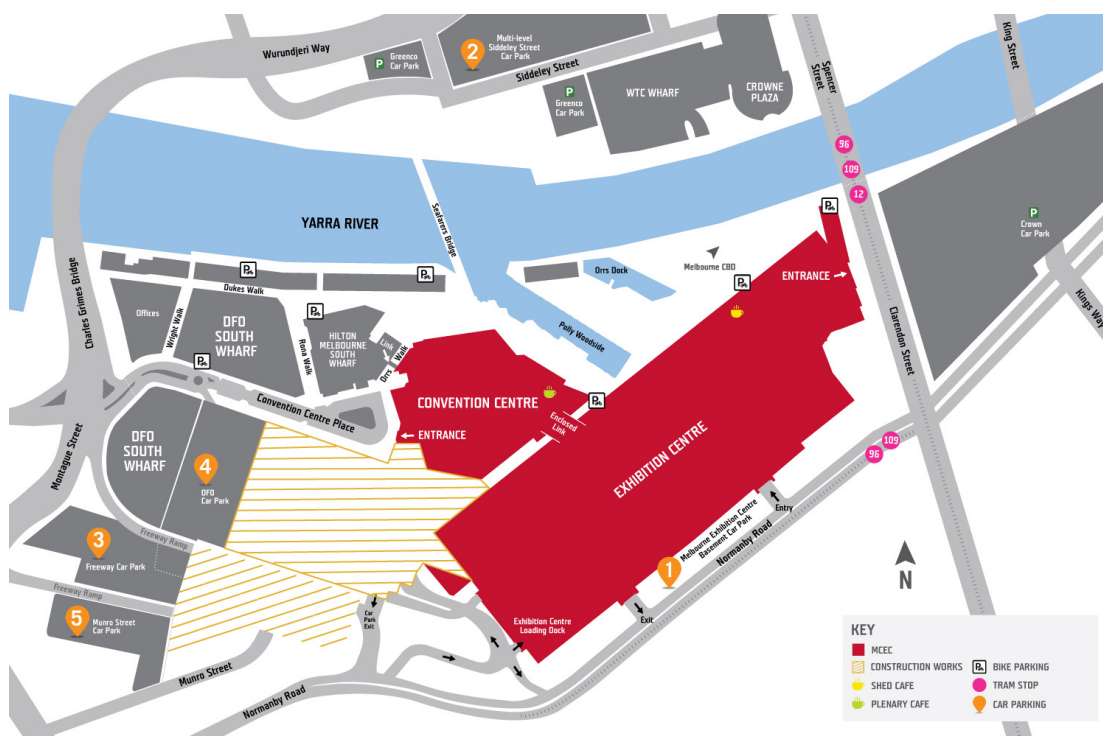
**The Alfred Centre  
Level 5  
Corner of Punt and  
Commercial Road  
Prahran, Melbourne**

 Rooms for AFOEM  
ATM 2017



# MELBOURNE CONVENTION AND EXHIBITION CENTRE

1 Convention Centre Place, South Wharf, Melbourne



## INTERNET

Complimentary Wi-Fi is offered through the Melbourne Convention and Exhibition Centre. This service is designed for web browsing and checking web based emails.

To connect:

1. Select the network **RACP Congress** on your device.
2. Enter password **RACP2017** (case sensitive).

## ATM FACILITY

The following ATMs are located on the Melbourne Convention and Exhibition Centre site:

- Commonwealth Bank, located near the Customer Service desk in the Melbourne Convention Centre.
- Commonwealth Bank, located between Doors 3 and 4 of the Melbourne Exhibition Centre concourse.
- ANZ Bank, located between Doors 3 and 4 of the Melbourne Exhibition Centre concourse.
- Westpac Bank, located between Doors 3 and 4 of the Melbourne Exhibition Centre concourse.

## PARKING

Please refer to the Melbourne Convention and Exhibition Centre parking information website for details

Link [www.eiseverywhere.com/file\\_uploads/5e356934f9c765c6ac6d60424986eebd\\_Congress17\\_parking.pdf](http://www.eiseverywhere.com/file_uploads/5e356934f9c765c6ac6d60424986eebd_Congress17_parking.pdf)

## BUSINESS CENTRE

Not available, however, the Customer Service Desk in the Melbourne Convention Centre offers printing services. Printing cost start from AUD \$0.25 per sheet (one-sided).

## **CERTIFICATE OF ATTENDANCE**

An electronic certificate of attendance will be emailed to all delegates after the ATM.

## **DISCLAIMER**

- Trainees participating in any of the practical stations at the AFOEM ATM are advised that standards applied in these sessions and their individual performance on the day should not be regarded as necessarily reflective of how they will perform in their actual examinations. The practical stations include the exhibit based assessments, the clinical examinations and the objective structured clinical examinations.
- Every effort has been made to present all the information contained in this document as accurately as possible. The ATM Organising Committee takes no responsibility for changes to the program or any loss and/or damage that may occur as a result of changes to the program.
- Some of the information contained in this publication has been provided by external sources. Although every effort has been made to ensure the accuracy, currency and reliability of the content, the organisers accept no responsibility in that regard.

## PROGRAM

### Friday, 5 May 2017 – worksite visits

Times	Session/activity			
7.30am–8am	Registration – arrival tea/coffee RACP Melbourne Office – Level 2, 417 St Kilda Road, Melbourne			
8am–8.30am	<b>Welcome and program overview</b> Introduction to worksite visits			
8.30am–9.30am	Bus departure for worksite visits			
9.30am–12pm	Qenos	TNT Australia	Nestlé Australia	CSL Behring Australia
12pm–1.30pm	Travel between worksites and lunch break			
1.30pm–4pm	Australian Synchrotron	Ego Pharmaceuticals	Boeing Aerostructures Australia	ExxonMobil Australia
4pm–5pm	<b>Bus return</b> RACP Melbourne Office and Melbourne Convention and Exhibition Centre			
5pm	End			

## Saturday, 6 May 2017 – The Alfred Centre

Times	Session/activity	
8am–8.15am	<b>Registration – arrival tea/coffee</b> The Alfred Centre – Corner of Punt and Commercial Roads, Prahran, Melbourne	
8.15am–8.30am	<b>Welcome and administration</b>	
8.30am–9am	<b>Exam tips</b> Stage A - Dr Hui Ting Ooi Stage B - Dr Robyn MacBeth	
9am–10am	<b>Practical stations</b> One hour rotation per station Chair: Dr Dominic Yong Dr Roy Wilkinson, Dr Nathan Pastor, Dr Michael Kahan, Dr Bert Boffa, Dr Joseph Slesenger, Dr Robyn MacBeth, Dr Andrea James, Dr Rod Douglas	
	<b>Exhibit based assessments</b>	<b>Clinical examinations</b>
10am–10.30am	Morning tea break	<b>Objective structured clinical examinations</b>
10.30am–12.30pm	<b>Practical stations continued</b> One hour rotation per station Chair: Dr Dominic Yong Dr Roy Wilkinson, Dr Nathan Pastor, Dr Michael Kahan, Dr Bert Boffa, Dr Joseph Slesenger, Dr Robyn MacBeth, Dr Andrea James, Dr Rod Douglas	
	<b>Exhibit based assessments</b>	<b>Clinical examinations</b>
12.30pm–1.30pm	Lunch break	<b>Objective structured clinical examinations</b>
1.30pm–3pm	<b>Coal miner pneumoconiosis session and workshop continued</b> Dr Bruce Hocking, Dr Ryan Hoy, Professor Malcolm Sim, Dr Rob McDonald, Dr David Cleveland	
3pm–3.30pm	Afternoon tea break	
3.30pm–4.30pm	<b>Coal miner pneumoconiosis session and workshop continued</b> Dr Bruce Hocking, Dr Ryan Hoy, Professor Malcolm Sim, Dr Rob McDonald, Dr David Cleveland	
4.30pm–5.30pm	<b>Quiz</b>	

## Sunday, 7 May 2017 – Melbourne Convention and Exhibition Centre

Times	Session/activity
8am–8.15am	<b>Registration – arrival tea/coffee</b> Melbourne Convention and Exhibition Centre – 1 Convention Centre Place, South Wharf
8.15am–8.30am	<b>Welcome and administration</b>
8.30am–10am	<b>Health surveillance</b> Associate Professor Tony Brown, Dr Chung Yew Chee
10am–10.30am	Morning tea break
10.30am–11.30am	<b>Open session - questions about training</b> Professor Tim Driscoll, Associate Professor Tony Brown, Dr Alison Drewry, Dr Dominic Yong
11.30am–12.30pm	<b>The research project</b> Professor Tim Driscoll Chair: Dr Armand Casolin
12.30pm–1.30pm	Lunch break
1.30pm–2.15pm	<b>Future opportunities in occupational health</b> Associate Professor Peter Connaughton
2.15pm–3.15pm	<b>Treating backache on a procrustean bed – the iatrogenicity of memetic and linguistic determinism</b> Emeritus Professor Nortin M Hadler
3.15pm–3.30pm	Closing session
4pm–6pm	College Ceremony
6pm–7pm	College Ceremony Reception

## SPEAKERS



### **ASSOCIATE PROFESSOR ANTHONY BROWN**

Tony Brown is a Fellow of both the Australasian Faculty of Occupational and Environmental Medicine (AFOEM) and the Australasian Faculty of Public Health Medicine (AFPHM).

Tony has worked for the School of Rural Health, the University of Sydney based in Dubbo since early 2009 and was the Associate Dean and Head of the School for some years. He now works coordinating the population health and professional development teaching and doing some research at the School.

Tony was previously the Area Manager of Population Health and Medical Officer of Health for Greater Western Area Health Service. Before that, he worked for many years at the University of Newcastle. There he taught population health to medical students and contributed extensively to the University's Occupational Health and Safety courses.

Tony has considerable experience in communicable disease surveillance and for a number of years ran an occupational health surveillance program in vineyard workers.

Tony does some consulting in Occupational and Public Health Medicine. He is chair of the AFOEM Faculty Assessment Committee.



### **DR ARMAND CASOLIN**

Chief Health Officer, Chief Health Officer of Sydney Trains and NSW trains, Sydney, Australia

Armand Casolin graduated MBBS from the University of Sydney in 1992 and MSci Tech (Occ Med) from the University of NSW in 2000. He has over 20 years experience in occupational medicine and is a fellow of the Australasian Faculty of Occupational and Environmental Medicine.

In 2005 Armand joined RailCorp (now Sydney Trains) as Chief Health Officer. Notable achievements in recent years have been: the establishment of an Australian national training program for authorised health professionals conducting rail safety health assessments; contributing to the working group that prepared the 2012 and 2017 editions of the National Standard for Health Assessment of Rail Safety Workers; and the development of the Railway LED Lantern Test. Armand has published numerous research papers in international journals and is Chairman and on the teaching faculty the Australasian Medical Review Officer's Association (AMROA).



### **DR CHUNG YEW CHEE**

Chung Yew Chee is an Occupational Medicine Registrar and Medical Review Officer (MRO) with over five years experience in this field. She overlooks the health of more than 600 workers at the Geelong refinery for Viva Energy and is involved in the development of health surveillance protocols and health promotion programs.

Chung Yew also works at Sonic Health Plus providing services such as pre-employment medical, injury management, exposure assessment and health surveillance. Her experience spans multiple industries including aircraft fabrication, automotive, transport, sea ferrers, mining, abattoir and steel manufacturing.



### **DR DAVID CLEVELAND**

David Cleveland is currently the Occupational Physician Registrar representative for Australia and New Zealand on the Australasian Faculty of Occupational and Environmental Medicine (AFOEM), RACP. He has worked in Mackay, Queensland since 2011.

He is a Nominated Medical Advisor with the Department of Natural Resources and Mines, Queensland. He is also a Member of the Technical Medical Working Party (Medical) convened by the Department of Natural Resources and Mines, Queensland. David is also a Clinical Examiner for the Royal Australian College of General Practitioners.

David is an Authorised Health Provider for the Rail Industry Safety and Standards Board and a designated doctor with Hazardous Substances, Queensland. He is the Government Contracted Doctor with the Department of Human Services, undertaking disability support medicals and carer visa applications.

He is a physician on the Australian Panel of Medical Examiners (Department of Immigration and Border Protection), which plays an important role conducting immigration medical examinations for people wanting to travel to or live in Australia.

In addition to his working roles, he is currently undertaking postgraduate study at Monash University.

## SPEAKERS CONTINUED



### **ASSOCIATE PROFESSOR PETER CONNAUGHTON**

Peter Connaughton is the President of the Australasian Faculty of Occupational and Environmental Medicine (AFOEM). He works in private practise in Perth, Western Australia and he is an Adjunct Associate Professor at the School of Medicine, the University of Notre Dame, Fremantle.

Peter graduated from the Medical School of the Royal College of Surgeons in Ireland and later studied occupational medicine at the Institute of Occupational Medicine in Edinburgh. He has a Master of Business Administration from the University of Western Australia and has a special interest in Corporate Social Responsibility. He serves on the boards of the Royal Australasian College of Physicians and the charity Child in Need India Australia (CINI).



### **DR ALISON DREWRY**

Alison Drewry has been in professional, specialist practice as an occupational physician in Australasia since 1994 in both public and private roles, and is currently working as Senior Medical Advisor at ACC (the New Zealand national injury insurer), and in medico-legal practice in Australia.

Alison's background includes extensive experience in clinical medicine (including non-specialist practice in intensive care, psychiatry, emergency medicine, and anaesthetics), military medicine, and in health services management. She was the Director of Defence Health in New Zealand 2006-2013, and graduated with a MBA (Queensland) with the Dean's Award for Excellence in Business Studies in 2003. Throughout, she was closely involved with the Faculty and College assessment systems as Chair of our Faculty Assessment sub-committee (1998-2012), and the Chair of the College Expert Advisory Group 2006-2011. She has also held ministerial appointments as Medical Convener in civil aviation, and on the Expert Panel on Veterans' health.

Her current areas of interest are national strategies for improving outcomes from injury by reducing variation in health care (particularly through trauma systems and improving antenatal and perinatal services); improving standards of professional practice, and understanding the impact of the Australasian medico-legal environment (via a Masters of Medical and Health Law).



## **PROFESSOR TIM DRISCOLL**

Tim Driscoll is an occupational epidemiologist and a specialist in occupational and environmental medicine and public health medicine. He is a Professor in epidemiology and occupational medicine in the Sydney School of Public Health at the University of Sydney, Australia, where he runs the general epidemiology teaching and is Director of the Master of Public Health.

Tim's main areas of research interest include the burden of occupational disease and injury; occupational cancer and exposure to occupational carcinogens; increasing the practical application and influence of epidemiological principles and findings; and improving the communication of epidemiological principles and findings to the general public. He is the outgoing Chair of the Australasian Faculty of Occupational and Environmental Medicine Education Committee.



## **EMERITUS PROFESSOR NORTIN M HADLER** **FERGUSON-GLASS ORATION, RACP CONGRESS**

Professor Hadler is a graduate of Yale College and The Harvard Medical School. He trained at the Massachusetts General Hospital, the National Institutes of Health, and the Clinical Research Centre in London. He was certified a Diplomate of the American Boards of Internal Medicine, Rheumatology, Allergy & Immunology, and Geriatrics. He joined the Faculty of the University of North Carolina in 1973, was promoted to Professor in 1985 and transitioned to Emeritus Professor of Medicine and Microbiology/Immunology in 2015. He served as Attending Rheumatologist at the UNC Hospitals till 2015. In recognition of his clinical activities, he was elevated to Mastership in both the American College of Physicians and the American College of Rheumatology.

The molecular biology of hyaluran and the immunobiology of peptidoglycans were the focus of his early investigative career. Because of the contributions of his laboratory, he was selected as an Established Investigator of the American Heart Association and elected to membership in the American Society for Clinical Investigation. The focus on basic biology was superseded by what he initially termed "industrial rheumatology." Over 200 papers and 12 books bear witness to his analyses of "the illness of work incapacity" including the sociopolitical constraints imposed by various nations faced with the challenges of applying disability and compensation insurance schemes to predicaments such as back pain and arm pain in the workplace as well as for a more global illness narrative such as is labeled "fibromyalgia." He is widely regarded for his critical assessment of the limitations

## SPEAKERS CONTINUED

of certainty regarding medical and surgical management of the regional musculoskeletal disorders. The third edition of his monograph, *Occupational Musculoskeletal Disorders*, was published by Lippincott Williams & Wilkins in 2005 and provides a ready resource as to his thinking on the regional musculoskeletal disorders. In recognition of this work he was elected to the National Academy of Social Insurance and is a Fellow of the American College of Occupational and Environmental Medicine.

Fifteen years ago he turned his critical razor to much that is considered contemporary medicine at its finest. Assaults on medicalisation and overtreatment have appeared in many editorials and commentaries, and in 6 monographs.

Dr Hadler has lectured widely, including many named lectureships and is a frequent commentator for the print and broadcast media. He has garnered multiple awards and served lengthy Visiting Professorships in England, France, Israel and Japan. In 2015 he assumed a leadership role in an initiative designed to provide rational health care as an evidence-based, cost-effective, employer-sponsored, defined-contribution insurance benefit.

### DR BRUCE HOCKING

Bruce Hocking is a consultant in occupational medicine. He has been involved with drafting several national occupational medicine standards



### DR RYAN HOY

Ryan Hoy is a Respiratory and Sleep Disorders physician who completed his medical degree at the University of Melbourne in 1998. Ryan undertook specialist training in respiratory and sleep medicine in Victoria and obtained his Fellowship from the Royal Australasian College of Physicians.

Ryan then undertook a fellowship in Occupational Lung Diseases at Toronto Western Hospital in Canada, where he gained valuable experience in the diagnosis and management of complex work-related respiratory disorders. He obtained a Master's degree of Occupational and Environmental Health at Monash University. Ryan is a senior research fellow at the Monash Centre for Occupational and Environmental Health.

He has several publications in this field and has presented at national and international conferences. His clinical practice is based at Cabrini Malvern and the Alfred Hospital.



### **DR ROB MCDONALD**

Rob McDonald is a Fellow of the Australasian Faculty of Occupational and Environmental Medicine and the Vice President Health and Hygiene at BHP Billiton, a role he has held for the past six years. In this role he is accountable for developing and maintaining a framework that enable the company to effectively manage health risks. This includes accountability for establishing and maintaining minimum mandatory performance standards for health risk management, developing and implementing group-level strategies for material health issues and providing advice and support to the Executive Leadership Team on health matters, global practices and emerging trends. He also represents BHP Billiton on the International Council of Mining and Metals Health and Safety Committee.

Rob is also a Director of BHP Billiton Sustainable Communities, an independent charity, designed to support large, long-term projects with a geographic footprint that extends beyond BHP Billiton's individual operations. The charity aims to provide a public benefit by enabling people to improve their quality of life, contribute to the conservation of the environment and developing community capacity to advocate for and manage effective change.



### **PROFESSOR MALCOLM SIM**

Malcolm Sim is an Occupational Physician and Director of the Centre for Occupational and Environmental Health in the School of Public Health and Preventive Medicine at Monash University. He leads a diverse research program studying workplace and environmental hazards and their role in chronic diseases, such as cancer, respiratory disease and psychological impacts, as well as an extensive education and training program.

Malcolm is a Board Member of the International Commission on Occupational Health, the Editor-in-Chief of *Occupational and Environmental Medicine*, a member of the OHS Advisory Committee for WorkSafe Victoria and a Presiding Member on the Victorian Medical Panels. He has a particular interest in capacity building in the Asia Pacific region and in 2014 was awarded the Dean's Award for Excellence in External Engagement. In 2016 Malcolm led the review of the respiratory component of the Coal Mine Workers' Health Scheme for the Queensland Department of Natural Resources and Mines.

## SPEAKERS CONTINUED



### **DR HUI TING OOI**

Hui Ting is currently a Stage B AFOEM trainee. She graduated from Monash University in 2011 and completed her internship and residency years at Monash Health from 2012–2014.

She joined Medibank Health Solutions as an occupational medicine doctor in early 2015 and enrolled herself in the Postgrad Diploma in Occupational and Environmental Health at Monash University.

Hui Ting got onto the AFOEM training in July 2015. She is now working part time with Sonic HealthPlus and part time as the Company Medical Officer at Toyota Motor Corporations in Altona North, Melbourne.

She successfully passed Stage AAFOEM exam in August 2016.

### **DR DOMINIC YONG**

Dominic Yong is an occupational physician working in the northern suburbs of Melbourne. He has been the Training Program Director for Victoria since 2011, and he sits on the AFOEM Faculty Training Committee and the Victorian AFOEM Regional Committee. His work is varied, ranging from treating injured workers, consulting to employers, performing worksite assessments and doing independent medical assessments. He has recently been appointed as a Presiding Member on the Victorian Medical Panels and is a graduate of the Australian Institute of Company Directors (AICD).

Dominic's journey into occupational medicine began when working as a resident doctor at Austin Health. He was asked to work for a few weeks in the Staff Clinic, and this was his first taste of occupational medicine, and it seemed more interesting than writing drug charts or holding a surgical retractor. He then entered the general practice training program, and was rotated to a medical clinic located in an industrial area of Melbourne. It was through this clinic rotation that he was exposed to front line occupational medicine. He started to treat workers and deal with issues at car manufacturers and clothing factories.

Dominic has a love of occupational medicine and aims to practise what he preaches with the issue of work-life balance.

## WORKSITES SCENARIOS

	Morning visit 9.30am-12pm	Afternoon visit 1.30pm-4pm
<b>Group A</b>	Qenos	Australian Synchrotron
<b>Group B</b>	TNT Australia	Ego Pharmaceuticals
<b>Group C</b>	Nestlé Australia	Boeing Aerostructures Australia
<b>Group D</b>	CSL Behring Australia	ExxonMobil Australia

# QENOS

## **BACKGROUND:**

Qenos is Australia's exclusive manufacturer of polyethylene and a supplier of a diverse range of specialty polymers. These are essential to a variety of local industries such as food and beverage, construction, mining and energy, agriculture and water conservation, plus many more. Qenos uses raw materials from Australia's Bass Strait and Cooper Basin gas fields such as ethane and liquid petroleum gas for local conversion into polyethylene. In Victoria, the company is divided into three main sites called Olefins, Plastics, and Resins, depending on their role and the type of product.

## **SCENARIO:**

You have been approached by the Health and Safety Manager at Qenos about starting a new pre-employment screening examination process for their Operations Technicians. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

**1. What are some of the hazards you have observed on this site?**

**2. What sort of control measures did you observe?**

**3. What others would be appropriate?**

**4. What would you consider to be important physical/mental/health requirements for potential candidates of the Operations Technician role?**

**5. Who do you need to involve to implement this new program?  
What legal responsibilities would need to be considered?**

# AUSTRALIAN SYNCHROTRON

## BACKGROUND:

The Australian Synchrotron is a national synchrotron radiation facility located in Clayton, in the south-eastern suburbs of Melbourne, which opened in 2007. It is a light source facility (in contrast to a collider), which uses particle accelerators to produce a beam of high energy electrons that are boosted to nearly the speed of light and directed into a storage ring where they circulate for many hours. As the path of these electrons are deflected in the storage ring by either bending magnets or insertion devices, they emit synchrotron light. The light is channelled to experimental endstations containing specialised equipment, enabling a range of research applications including high resolution imagery that is not possible under normal laboratory conditions.

The Australian Synchrotron supports the research needs of Australia's major universities and research centres, and businesses ranging from small enterprises to multinational companies. During 2014-15 the Australian Synchrotron supported more than 4,300 researcher visits and close to 1,000 experiments in areas such as medicine, agriculture, environment, defence, transport, advanced manufacturing and mining.

In 2015, the Australian Government announced a ten-year, \$520 million investment in operations, through the Australian Nuclear Science and Technology Organisation.

Since commencing operations in 2007 the Australian Synchrotron has demonstrated that it is Australia's largest and arguably most successful scientific user facility, benefitting over 3000 researchers from academia, medical research institutes, government and other research organisations, and industry. The facility has now been directly involved in the generation of more than 700 publications in refereed journals. Scientific research and innovation at the Australian Synchrotron spans a huge diversity of activities from medical and life sciences to advanced materials and engineering, and from earth and environmental sciences to accelerator science and synchrotron research methods. The facility also plays a vital role in training and education of the next generation of scientists and the scientifically aware.

## SCENARIO:

You provide occupational medical services to a number of companies. You have been approached by the Return to Work Specialist at Australian Synchrotron to advise on an appropriate return to work of an Australian Synchrotron employee. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

You have been asked to advise on the return to work of Greg, a 42 year old mechanical fitter who is employed to provide support to the running of the accelerators.

Four months ago, Greg had an accident when driving his car and was airlifted to a large city hospital. He suffered significant injury to his right lower leg which led to a right below knee amputation.

Greg was discharged from hospital after three weeks and fitted with a prosthetic limb about a month later. He has made good progress, is now mobile without crutches, and his stump is fully healed. He walks well (with a minor limp) but cannot run, and he gets some discomfort after weight-bearing for more than 40 minutes.

Greg left school at age 17. He undertook training in fitting and turning, and subsequently formal mechanical technician training; and has worked at the Australian Synchrotron since he was 29 years old. He grew up in the district and his children attend local schools. His wife is a supply primary school teacher at a school several suburbs away from where they live.

The Australian Synchrotron employs a team of 14 mechanical technicians on its whole site working a shift pattern. They provides round-the-clock service to the physicist and other scientific staff.

Greg is on accident compensation equivalent to 80 per cent of his salary. He has financial problems and wants to return to work. The employer wants Greg back at work because the other technicians feel overloaded and have complained about the additional shift work they need to undertake to cover Greg's absence.

**1. What are some of the hazards, and barriers to Greg's return to work you have observed onsite?**

**2. What information would you seek from the employer?**

**3. What management would you advise?**

**4. What advice would you give to the employer?**

**5. Who do you need to involve to implement a new program?**

**6. Outline a specific return-to-work plan for Greg**

## TNT AUSTRALIA

### BACKGROUND:

Shortly after the cessation of hostilities of World War II in Asia, Australian Ken Thomas set up Thomas Nationwide Transport with a single truck in Sydney. At the same time, Hungarian immigrant Peter Abeles had formed Alltrans with fellow Hungarian immigrant George Rockey. In 1967, Alltrans merged with Thomas Nationwide Transport, and the combined companies became TNT Ltd., operating then in both Australia and New Zealand. TNT quickly expanded, and by the 1980s had established a presence in 180 countries and was termed “the second biggest transport empire in the world, operating by road, rail, sea, and air”.

Expanding globally, by the 1980s the focus was on Europe, and TNT became the first transport company to buy its own aircraft, creating the first pan-European overnight service using a dedicated fleet.

In 2014, TNT planned Australia’s largest transport and logistics ‘super hub’ at Tullamarine.

The 38,000m<sup>2</sup> state-of-the-art facility – big enough to house more than five football pitches – occupies nearly a third of the 121,000m<sup>2</sup> site near Tullamarine Airport and was completed in July 2015, opening the subsequent September.

The new facility’s state-of the-art automated parcel sortation system is able to process up to 18,500 parcels per hour – a 60 per cent increase on TNT Melbourne’s prior capacity.

It will expected to meet TNT’s projected needs for at least the next 15 years, in addition to contributing significantly to employment growth in the local Hume City area. The new Tullamarine depot includes a call centre employing more than 50 people.

### SCENARIO:

You provide occupational medical services to a number of companies. You have been approached by the Return to Work Specialist at TNT to consider an appropriate return to work of a TNT employee. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

You have been asked to advise on the return to work of Greg, a 42 year old dockhand (fork-truck driver) who is employed in the warehouse and despatch bay of TNT Tullamarine.

Three months ago, Greg had an accident when driving his car and was airlifted to a large city hospital. He suffered significant injury to his right lower leg which led to a right below knee amputation.

Greg was discharged from hospital after three weeks and fitted with a prosthetic limb about a month later. He has made good progress, is now mobile without crutches, and his stump is fully healed. He walks well (with a minor limp) but cannot run, and he gets some discomfort after weight-bearing for more than 40 minutes.

Greg left school at age 17. He undertook an accredited logistics training course, and subsequently acquired a fork-lift truck license; and has worked in various warehouses since he was 19 years old. He has been at TNT since 2009. He grew up in the district and his children attend local schools. His wife is a supply primary school teacher at a school several suburbs away from where they live.

Greg’s warehouse employs more than forty dockhands in total, of whom more than twenty have fork-driving capabilities. However the depot provides round-the-clock service to the driving fleet, with the early shift starting in the small hours with a later busy period when vehicles return to be re-stocked. Despite the sizeable staff, a dockhand’s work is very busy.

Greg is on accident compensation equivalent to 80 per cent of his salary. He has financial problems and wants to return to work. The employer wants Greg back at work because the other fork-truck drivers are overloaded and have complained about the additional shift work they need to undertake to cover Greg's absence.

**1. What are some of the barriers to Greg's return to work you have observed on this site?**

**2. What information would you seek from the employer?**

**3. What management would you advise?**

**4. What advice would you give to the employer?**

**5. Who do you need to involve to implement a new program?**

**6. Outline a specific return-to-work plan for Greg**

## EGO PHARMACEUTICALS

### BACKGROUND:

Ego Pharmaceuticals was founded the 1950s when a young chemist and his wife, a nurse, saw a need for medicated products to restore and maintain healthy skin. In the laundry of their suburban Melbourne home they developed Ego Pine Tar Bath Solution, later called Pinetarsol, which remains one of Australia's most widely used inflammation treatments. Ever since Ego has continued to research and develop products and treatments to care for and meet the skin needs of all people leading the way in the development manufacture and marketing of innovative skincare products for 60 years. Products are made in several locations in Australia but shipped worldwide. Ego Pharmaceuticals state their reputation is built on consistently delivering effective, high-quality and innovative products to meet a diverse range of needs, and is committed to creating the best possible skin therapies for their customers.

You have visited Ego Pharmaceuticals' main manufacturing facility in Braeside, south-east Melbourne and performed a site review. You will most likely have noticed the scientific research facilities, the product synthesis areas, several production lines, and the packing and despatch facilities, as well as other departments.

### SCENARIO:

You provide occupational medical services to a number of companies. You have been approached by the Return to Work Specialist at Ego Pharmaceutical to consider an appropriate return to work of an Ego employee. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

You have been asked to advise on the return to work of Greg, a 42 year old warehouseman (fork-truck driver) who is employed in the warehouse and despatch bay of Ego Pharmaceuticals.

Three months ago, Greg had an accident when driving his car and was airlifted to a large city hospital. He suffered significant injury to his right lower leg which led to a right below knee amputation.

Greg was discharged from hospital after three weeks and fitted with a prosthetic limb about a month later. He has made good progress, is now mobile without crutches, and his stump is fully healed. He walks well (with a minor limp) but cannot run, and he gets some discomfort after weight-bearing for more than 40 minutes.

Greg left school at age 17. He undertook an accredited logistics training course, and subsequently acquired a fork-lift truck license; and has worked in various warehouses since he was 19 years old. He has been at Ego since 2007. He grew up in the district and his children attend local schools. His wife is a primary school teacher at a school several suburbs away from where they live.

Greg's warehouse employs eight warehousemen in total, of whom six have fork-driving capabilities. The warehouse provides a 12 hour service to the processing plant with early and late shifts, with the early shift starting in the small hours to service the driving fleet who tend to prefer to drive earlier to minimise traffic exposure and meet deadlines.

Greg is on accident compensation equivalent to 80 per cent of his salary. He has financial problems and wants to return to work. The employer wants Greg back at work because the other fork-truck drivers are overloaded and have complained about the additional shift work they need to undertake to cover Greg's absence.

**1. What are some of the barriers to Greg's return to work you have observed on this site?**

**2. What information would you seek from the employer?**

**3. What management would you advise?**

**4. What advice would you give to the employer?**

**5. Who do you need to involve to implement a RtW program?**

**6. Outline a specific return-to-work plan for Greg**

## NESTLÉ AUSTRALIA

### BACKGROUND:

Nestlé is amongst the largest creators and distributors of food products in the world. Their plant in Campbellfield is responsible for the production of many of the more well-known confectionary products that the general public knows and loves.

Nestlé has an almost round-the-clock enterprise in its three Victorian plants, running two long shifts at Campbellfield. The plant is able to adjust productivity according to demand, but many of its production lines are active for more than 14 hours per day, and the output accounts for all of the product sold in southern and Western Australia, including all Nestlé brands and many others that do not bear the Nestlé logo.

You have visited Nestlé's main Victorian manufacturing facility in Campbellfield, northern Melbourne and performed a site review. Although there is a considerable automation, there is a great need for experienced supervision of the production line and quality control of the final product, and you will have noticed varying degrees of manual handling within the plant.

You will most likely have noticed the product mixing facilities, several production lines, storage and the packing and despatch facilities, as well as other departments including administrative.

### SCENARIO:

You provide occupational medical services to a number of companies. You have been approached by the Return to Work Specialist at Nestlé to consider an appropriate return to work of a Nestlé employee. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

You have been asked to advise on the return to work of Greg, a 42 year old warehouseman (fork-truck driver) who is employed in the warehouse and despatch bay of Nestlé .

Four months ago, Greg had an accident when driving his car and was airlifted to a large city hospital. He suffered significant injury to his right lower leg which led to a right below knee amputation.

Greg was discharged from hospital after three weeks and fitted with a prosthetic limb about a month later. He has made good progress, is now mobile without crutches, and his stump is fully healed. He walks well (with a minor limp) but cannot run, and he gets some discomfort after weight-bearing for more than 40 minutes.

Greg left school at age 17. He undertook an accredited logistics training course, and subsequently acquired a fork-lift truck license; and has worked in various warehouses since he was 19 years old. He has been at Nestlé since 2009. He grew up in the district and his children attend local schools. His wife is a supply primary school teacher at a school several suburbs away from where they live.

Greg's plant employs more than twenty warehousemen in total, of whom more than ten have fork-driving capabilities. However the depot provides round-the-clock service to the driving fleet, with the early shift starting in the small hours with a later busy period when vehicles return to be re-stocked. Despite the sizeable staff, a warehouseman's work is very busy.

Greg is on accident compensation equivalent to 80 per cent of his salary. He has financial problems and wants to return to work. The employer wants Greg back at work because the other fork-truck drivers are overloaded and have complained about the additional shift work they need to undertake to cover Greg's absence.

- 1. What are some of the barriers to Greg's return to work you have observed on this site?**
- 2. What information would you seek from the employer?**
- 3. What management would you advise?**
- 4. What advice would you give to the employer?**
- 5. Who do you need to involve to implement a new program?**
- 6. Outline a specific return-to-work plan for Greg**

## BOEING AEROSTRUCTURES AUSTRALIA

### BACKGROUND:

Boeing is the world's largest aerospace company and leading manufacturer of commercial jetliners and defence, space, and security systems. Boeing's presence in Australia is the company's largest footprint outside the United States, with more than 3,000 employees in 27 locations. Boeing has Australian subsidiaries working across a wide range of aerospace, commercial aviation, defence, logistics, training and navigation businesses. The facility in Port Melbourne manufactures carbon fibre aircraft parts.

### SCENARIO:

You have been approached by the Health and Safety Manager at Boeing about starting a new pre-employment screening examination process for their production workers. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

1. What are some of the hazards you have observed on this site?
2. What sort of control measures did you observe?
3. What others would be appropriate?
4. What would you consider to be important physical/mental/health requirements for potential candidates of the production worker role?
5. Who do you need to involve to implement this new program? What legal responsibilities would need to be considered?

# CSL BEHRING AUSTRALIA

## **BACKGROUND:**

CSL is a global specialty biotherapeutics company. They use human plasma as well as recombinant technology to produce a variety of medical products and pharmaceuticals, and are the national plasma fractionator for Australia. Their products include various plasma-derived therapies, vaccines, antivenoms, diagnostic products, and more.

## **SCENARIO:**

You have been approached by the Health and Safety Manager at CSL about starting a new pre-employment screening examination process for their production workers. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

**1. What are some of the hazards you have observed on this site?**

**2. What sort of control measures did you observe?**

**3. What others would be appropriate?**

**4. What would you consider to be important physical/mental/health requirements for potential candidates of the production worker role?**

**5. Who do you need to involve to implement this new program? What legal responsibilities would need to be considered?**

## EXXONMOBIL AUSTRALIA

### BACKGROUND:

ExxonMobil is the largest petrochemicals company in the world. Company operations are roughly divided into Upstream and Downstream. The Upstream side of the business is involved in searching for crude oil and natural gas reserves and extracting these reserves for sale or refining. The Downstream side is involved in processing the products received from Upstream into a usable form, for example turning crude oil into kerosene, petroleum, and diesel. Mobil Altona Refinery is a Downstream location, and a licensed Major Hazard Facility.

### SCENARIO:

You have been approached by the Health and Safety Manager at ExxonMobil about starting a new pre-employment screening examination process for their Operations Technicians. As part of this, you have been invited onto the site to familiarise yourself with the environment, requirements, and hazards of the site.

1. What are some of the hazards you have observed on this site?
  
  
  
  
  
  
  
  
  
  
2. What sort of control measures did you observe?
  
  
  
  
  
  
  
  
  
  
3. What others would be appropriate?
  
  
  
  
  
  
  
  
  
  
4. What would you consider to be important physical/mental/health requirements for potential candidates of the Operations Technician role?
  
  
  
  
  
  
  
  
  
  
5. Who do you need to involve to implement this new program? What legal responsibilities would need to be considered?

# PRE-SESSION READING AND ACTIVITY



**RACP**  
**Specialists. Together**  
EDUCATE ADVOCATE INNOVATE



Australasian Faculty of  
Occupational and Environmental Medicine

## AFOEM ANNUAL TRAINING MEETING 2017

### CASE STUDY: PNEUMOCONIOSIS

The relevant learning Domains for this case are:

- 10: clinical practice
- 20: workplace hazard assessment
- 30: critical appraisal of information
- 60: professional qualities
- 70: law and medicine
- 80: fitness and return to work

Some of the learning objectives from this case include:

- 12.3.10 Manage patients with disorders of the respiratory and sleep system
- 12.6.3 Manage respiratory conditions that affect or are affected by occupation or environment
- 12.2.1 Describe the potential health effects of common and important physical hazards
- 61.2.1 Apply communication skills in encounters with a third party, including a patient's employer or family
- 70.1.1 Locate and interpret legislation applicable to specific hazards in workplaces and the environment
- 80.1.3 Perform a clinical assessment of a person's fitness for work

### CASE

John, age 52, is referred to by his employer regarding his fitness to continue working underground in a coal mine where he has worked for the last 15 years.

A recent surveillance chest x-ray using the ILO classification (Refer ILO International Classification of Radiographs of Pneumoconioses [https://en.wikipedia.org/wiki/ILO\\_Classification](https://en.wikipedia.org/wiki/ILO_Classification)) was found to show "small (<1cm diam) opacities present but few in number". He is not short of breath and can play games with his children. He has a cough which is sometimes productive. He smokes 10 cigarettes per day. On examination of the chest no abnormalities are found. His lung function is normal. He is very keen to continue working underground because he needs the money to pay the house mortgage and a pension/above ground work would not be sufficient.

The mine operates using long wall mining (Refer [https://en.wikipedia.org/wiki/Longwall\\_mining](https://en.wikipedia.org/wiki/Longwall_mining)). It previously operated to a dust exposure limit of 3mg/m<sup>3</sup> but since July 2016 has voluntarily determined to progressively reduce levels to 1mg/m<sup>3</sup> by 2021. The mine uses forced ventilation for dust control; respiratory PPE is not routinely required but is required in certain specialised jobs.

145 Macquarie Street, Sydney NSW 2000, Australia • Tel: +61 2 9256 5444 • Fax: +61 2 9252 3310  
Email: [racp@racp.edu.au](mailto:racp@racp.edu.au) • Web: [www.racp.edu.au](http://www.racp.edu.au) • ACN 000 039 047 • ABN 90 270 343 237

**QUESTIONS**

1. What are the pneumoconioses? What is coal workers pneumoconiosis (CWP)? What are the clinical features of CWP? (Refer Zosky et.al. Coal workers' pneumoconiosis: an Australian perspective <https://www.mja.com.au/journal/2016/204/11/coal-workers-pneumoconiosis-australian-perspective>)

2. How should health surveillance for CWP be conducted? (Refer NIOSH Pneumoconioses <http://www.cdc.gov/niosh/topics/pneumoconioses/>).

3. What other history would you seek of John?

4. What is your differential diagnosis and final diagnosis? What is the difference between simple CWP and progressive massive fibrosis (PMF)?

5. What investigations would you request?

- Would a Diffusion capacity of lung for CO (DLCO) be helpful – give reasons?

- Would HRCT be helpful – give reasons?

- Other investigations – give reasons.

6. Is John fit to continue to work underground? Give reasons.

4. What is your differential diagnosis and final diagnosis? What is the difference between simple CWP and progressive massive fibrosis (PMF)?

5. What investigations would you request?

- Would a Diffusion capacity of lung for CO (DLCO) be helpful – give reasons?

- Would HRCT be helpful – give reasons?

- Other investigations – give reasons.

6. Is John fit to continue to work underground? Give reasons.

## NOTES

[illegible]