**Question 4: Concerning xenon gas...**

A. In common with most general anaesthetics, xenon has been shown to enhance the inhibitory activity of GABA<sub>A</sub> receptors.

B. The MAC of xenon is 20%, making it five times more potent than N<sub>2</sub>O as an anaesthetic.

C. Xenon is insufficiently potent to act as a sole anaesthetic agent at 1 ATA.

D. Xenon is a greenhouse gas and should be recycled to keep it out of the atmosphere.

E. Inhibition of the NMDA receptor by xenon may explain the analgesic and amnesic effects of this gas.

**Question 5: Which of the following has not been reported as sign or symptom of inert gas narcosis?**

A. Increased risk-taking behaviour

B. Unconsciousness

C. Engorgement of the corpus cavernosum

D. Amnesia

E. Impairment of the ability to perform mathematical calculations

---

**Critical appraisal**

**HBOT did not improve exercise performance immediately following hyperbaric oxygen exposure**

**Bottom line**
No evidence found to suggest improved athletic performance after hyperbaric oxygen therapy.

**Citation**

**Lead author’s name and e-mail:**
R Rozenek, <rozenek@csulb.edu>

**Three-part clinical question**
Does hyperbaric oxygen exposure acutely improve exercise performance?

**Search terms**
Exercise, sport

**The study**
Double-blinded, concealed, randomised, controlled trial with intention-to-treat.

**The study patients**
Physically active males

**CONTROL GROUP**
(n = 9 analysed) Normobaric air for 1 h at 1.2 ATA.

**EXPERIMENTAL GROUP**
(n = 9 analysed) 100% O<sub>2</sub> for 1 hr at 2.0 ATA.

**The evidence**
See Table 1.

**Comments**
1 Small study with low power to show important differences.
2 Subjects were not high-performance athletes.
3 Paper actually describes two small trials with no benefit shown in treadmill or bench-press performance.

**Appraised by:** Michael Bennett, Adam Perczuk; Tuesday 17 June 2008

**E-mail:** <m.bennett@unsw.edu.au>

**Key words**
Hyperbaric oxygen, exercise, performance, research, critical appraisal

**Source**
<www.hboevidence.com>

**Table 1**
*Exercise performance outcome for hyperbaric oxygen exposure versus sham treatment*

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Control group</th>
<th>HBOT group</th>
<th>Difference</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean SD</td>
<td>Mean SD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time to fatigue (s) (treadmill)</td>
<td>84.4 20.0</td>
<td>77.3 14.7</td>
<td>7.1</td>
<td>-10.4 to 24.6</td>
</tr>
<tr>
<td>Heart rate post exercise (treadmill)</td>
<td>173 12</td>
<td>172 16</td>
<td>1.0</td>
<td>-12.9 to 14.9</td>
</tr>
<tr>
<td>Rating of exertion (/20) (treadmill)</td>
<td>18.3 0.9</td>
<td>17.9 1.2</td>
<td>0.4</td>
<td>-0.6 to 1.5</td>
</tr>
</tbody>
</table>
Abstracts reprinted from other sources
An experimental study of the use of hyperbaric oxygen to reduce the side effects of radiation treatment for malignant disease
Williamson RA

Hyperbaric oxygen (HBO) has been used for more than 20 years to assist wound healing in the treatment of the more severe complications associated with the side effects of therapeutic radiation treatment. A prospective study was performed in an irradiated rat model to determine whether HBO is effective in reducing the long-term side effects of therapeutic radiation treatment. The experimental model was designed to simulate a fractionated course of therapeutic radiation that is commonly used in the treatment of cancer of the mandible. One week following completion of the radiotherapy, the animals underwent a four-week course of HBO treatment and two animals from each group were killed at eight-week intervals until the end of the experiment at 36 weeks. Histological sections of tissue clearly showed continued growth of teeth and maintenance of specialised tissues, such as salivary gland and bone, in the treated group compared to the non-treated group. This experiment model demonstrated that HBO is effective in reducing the long-term side effects of therapeutic radiation treatment in normal tissue, when given one week after the completion of the radiation treatment.


Key words
Hyperbaric oxygen, hyperbaric research, radiation, side effects, reprinted from

Early hyperbaric oxygen therapy for reducing radiotherapy side effects: Early results of a randomized trial in oropharyngeal and nasopharyngeal cancer
David N Teguh, Peter C Levendag, Inge Noever, Peter Voet, Henrie van Der Est, Peter van Rooij, et al

Departments of Radiation Oncology, Maxillofacial Surgery, Otorhinolaryngology and Head and Neck Surgery, Biostatistics of Erasmus Medical Centre - Daniel den Hoed Cancer Centre, Rotterdam, The Netherlands; and The Institute for Hyperbaric Medicine, Rotterdam, The Netherlands

Purpose: Comparison of quality of life (QoL) and side effects in a randomised trial for early hyperbaric oxygen therapy (HBOT) after radiotherapy (RT).

Methods and materials: From 2006, 19 patients with tumours originating from the tonsillar fossa and/or soft palate (15), base of tongue (1), and nasopharynx (3) were randomised to receive HBOT or not. HBOT consisted of 30 sessions at 2.5 ATA (15 msw) with oxygen breathing for 90 minutes daily, five days per week, applied shortly after the RT treatment was completed. As of 2005, all patients received validated questionnaires (i.e., The European Organisation for Research and Treatment of Cancer [EORTC] QLQ-C30, EORTC QLQ Head and Neck Cancer Module (H&N35), performance status scale): before treatment; at the start of RT treatment; after 46 Gy; at the end of RT treatment; and two, four and six weeks and three, six, 12, and 18 months after follow up.

Results: On all QoL items, better scores were obtained in patients treated with hyperbaric oxygen. The difference between HBOT versus non-HBOT was significant for all parameters: EORTC H&N35 swallowing ($P = 0.011$), EORTC H&N35 dry mouth ($P = 0.009$), EORTC H&N35 sticky saliva ($P = 0.01$), PSS eating in public ($P = 0.027$), and pain in mouth (visual analogue scale; $P < 0.0001$).

Conclusions: Patients randomised for receiving hyperbaric oxygen after the RT had better QoL scores for swallowing, sticky saliva, xerostomia and pain in mouth.
The effects of radiation treatment on the hard and soft tissues in the management of malignancies of the head and neck are well known and often produce distressing symptoms, such as xerostomia, dysphagia, pain and particularly the problem of osteoradionecrosis (ORN) of the jaws. Patients having hyperbaric oxygen therapy (HBOT) in the management of ORN of the jaws often report an improvement in saliva flow and taste perception, which has led to the suggestion that HBOT given after initial radiotherapy might have some protective effect and, therefore, improve quality of life (QoL) for such patients.

An animal study by Williamson demonstrated that HBOT is effective in reducing the long-term side effects of therapeutic radiation treatment in normal tissues, when given one week after the completion of the radiation therapy. Histology showed maintenance of specialised tissues such as salivary gland and bone, as well as continued growth of teeth, in the HBO-treated group compared to the non-treated group.

In a randomised trial for early HBOT after radiotherapy for oropharyngeal cancer, Teguh et al showed better scores for QoL in patients treated with hyperbaric oxygen, and significant differences for all parameters of swallowing, dry mouth, sticky saliva, eating in public, and pain in the mouth, in patients treated with HBOT versus non-HBOT. Similarly, Gerlach et al observed a reduction of swallowing problems, a subjective improvement of xerostomia and an improvement in sense of taste in 21 patients receiving HBO after radiotherapy for oral or oropharyngeal carcinoma.

Whilst these studies are limited by relatively small numbers and it is yet to be determined the optimal commencement of HBOT after radiation therapy and the ideal numbers of treatments, results are very encouraging in relation to QoL and should demand a large randomised trial to answer these questions.

In the meantime, our patients are our best measure of the success of this modality of treatment.

References


Key words

Hyperbaric oxygen, radiotherapy, malignancy, head & neck, side effects

The database of randomised controlled trials in hyperbaric medicine maintained by Dr Michael Bennett and colleagues at the Prince of Wales Hospital Diving and Hyperbaric Medicine Unit is at:

<www.hboevidence.com>
Diving and Hyperbaric Medicine  Volume 40 No. 2 June 2010

Review of diver noise exposure
Anthony TG, Wright NA, Evans MA
QinetiQ Ltd, Hampshire, UK

Divers are exposed to high noise levels from a variety of sources both above and below water. The noise exposure should comply with The Control of Noise at Work Regulations 2005 (CoNaWR05, 2005). A detailed review of diver noise exposure is presented, encompassing diver hearing, noise sources, exposure levels and control measures. Divers are routinely exposed to a range of noise sources of sufficiently high intensity to cause auditory damage, and audiometric studies indicate that diver hearing is impaired by exposure to factors associated with diving. Human hearing underwater, in cases where the diver’s ear is wet, is less sensitive than in air and should be assessed using an underwater weighting scale. Manufacturers of diving equipment and employers of divers have a joint responsibility to ensure compliance with the exposure values in the CoNaWR05, although noise is only one hazard to a diver, and a balanced risk assessment must be applied to the whole diving operation. A diver noise-reduction strategy is proposed, and a health surveillance programme involving audiometric tests for divers should be established.


Key words
Occupational diving, occupational health, hearing, injuries, environment, reprinted from

Editor’s comment
This report is part of a larger research report (RR735 - Review of diver noise exposure) funded by the United Kingdom Health and Safety Executive (the full report available at <http://www.hse.gov.uk/research/rrhtm/rr735.htm>). This paper is available from Ingenta at: <http://www.ingentaconnect.com/content/sut/unwt/2010/00000029/00000001/art00003>. Physicians undertaking commercial diving medical assessments should familiarise themselves with this article since hearing loss is one of the commonest medical problems that present in employed divers.

_______________________________________________________________

Letter to the Editor

Continuing Professional Development Programme (ANZCA)

Dear Editor,

Here are the details of the Continuing Professional Development Programme (CPD) points that have been approved by the Australian and New Zealand College of Anaesthetists (ANZCA) for the SPUMS 39th Annual Scientific Meeting combined with the Asian Hyperbaric and Diving Medicine Association 6th Annual Scientific Meeting held at Redang Island, Malaysia, 23–28 May 2010 (Approval number 1721).

Lecture Type Session: Category 1 / Level 1: 1 credit per hour

Practical Workshop: Category 3 / Level 2: 3 credits per hour

Jan Lehm
Senior Specialist, Department of Diving and Hyperbaric Medicine, Prince of Wales Hospital, Randwick, NSW 2031

Key words
Letters (to the Editor), meetings, MOPS, (maintenance of professional standards)
Book reviews

The future of diving: 100 years of Haldane and beyond

A Smithsonian contribution to knowledge
MA Laing, AO Brubakk, editors

Softcover, 286 pages
Smithsonian Institute of Scholarly Press
Download a PDF at: <www.scholarlypress.si.edu>
Print copies: <schol_press@si.edu>
Print copies of this publication are free on request while supplies last.

When I was asked to review this book, I took it as a welcome opportunity to virtually participate in the meeting from which it originated, a meeting that unfortunately I missed because of unexpected, last-minute complications. The positive expectations I had had about the meeting were fully confirmed by reading the book, which well deserves its title. It is pleasant and informative reading for any specialist or, for that matter, anyone interested in diving medicine. The book is well structured, in three independent but linked sections, taking the reader along a path that, starting from the origins of the modern scientific basis of decompression theory, leads to its possible future. The list of international contributors reads like a ‘Who’s Who’ of diving and diving physiology – Costantino Balestra, Jean-Eric Blatteau, Alf Brubakk, David Doolette, Zeljko Dujic, Cliff Effedal, David Elliott, Susan Kayer, Michael Lang, Lassie Loevstakken, Andreas Møllerlokken, Richard Moon, George Perdrizet and Russell Richardson.

The foreword, by David Elliott, and the introductory papers offer a different perspective on the John Scott Haldane we in diving medicine are used to thinking of, placing him in a more complex and complete frame as an all-round scientist of his time and an initiator of what is today known as environmental physiology, not simply the ‘inventor’ of the decompression theories and modalities still in use today. The introductory section of the book closes with an article that bridges the past and future of decompression research, illustrating its environmental physiology nature and the need to monitor and properly measure not only “phenomena of immediate interest, but of physiology in general”, going beyond the traditional steady-state methods “to include techniques that can detect and measure transients”.

The second section starts by covering ‘classic’ aspects of decompression physiology, with comprehensive, though concise, papers on the clinical aspects of decompression illness, and on decompression algorithms, both tissue-gas content and bubble-model based. After these, the reader is led through other essential, current and possible future aspects of decompression physiology and pathophysiology, illustrating the complexities of the biological and functional responses to decompression stress. The possibilities of “biochemical decompression” using “gas-metabolizing” bacterial strains, endothelial and cellular responses to decompression stress, the possibility that exposure to pressure and decompression cause genetic variation and the role of physical and pharmacological "preconditioning" methods to reduce decompression stress are covered in articles by this international range of authors. Another interesting paper in this section was that dealing with the much discussed and still controversial topic of long-term, diving-induced brain damage. In all, this was a very interesting and informative section.

The next section covers (in two articles) the current methods of monitoring decompression and its risks, mainly using ultrasound bubble-detection methods. How to turn all this into a ‘diver-friendly’ tool is illustrated in an article on the future of dive computers. The subsequent chapters contain lively and interesting discussions on the future of decompression physiology and methodology and the need for more effective recruitment of young researchers into diving and environmental physiology – a topic that, in particular, has concerned Alf Brubakk for a number of years.

The ‘pearl’ in this book, however, or the ‘cherry on the cake’ if you wish, and what makes it really worth having, if for no other reason, is a complete reprint of the original 1908 article by Boycott, Damant and Haldane on the prevention of decompression sickness. After more than 100 years, this is still enlightening reading and a ‘must know’ for every diving medicine specialist.

This is definitely a book to have, not only on the library shelf, but on our desks.

Reference


Alessandro Marroni,
President, Divers Alert Network (DAN) Europe and International DAN

Key words
Diving, decompression, decompression illness, decompression sickness, diving tables, diving theory (see Physiology), history, book reviews
Diving medicine for scuba divers, 3rd edition

Carl Edmonds, Bart McKenzie, Robert Thomas, John Pennefather

e-Book, 347 pages
ISBN: 978-0-646-52726-0
Carl Edmonds; 2010
Available as a free copy at: <www.divingmedicine.info>

_Diving medicine for scuba divers_ was downloaded and reviewed on screen. It was reviewed by two non-medical but DMT-trained, ex-commercial divers now involved in hospital-based diving and hyperbaric medicine.

The authors, three physicians and a physiologist, all worked at the Royal Australian Navy’s School of Underwater Medicine in its heyday and have decades of experience in teaching diving medicine to medical practitioners and divers. The third edition of this book is a comprehensive and useful resource.

With enough physics and physiology to provide a sound introduction, the medical aspects of diving are covered in a thorough, interesting and well-explained way. Many of the chapters would surpass information currently available in more specialised DMT manuals. The highlighting of key words in important paragraphs is certainly helpful in absorbing information.

The text is broken into 43 short chapters and several appendices. Background chapters 1–8 deal with history, physics, physiology, breath-hold diving, diving equipment and environments, stress disorders, and female divers. Specific diving diseases (pressure-related diseases) are fully covered in the next 16 chapters. Aquatic diseases, covering drowning, salt-water aspiration, hypothermia, infections and dangerous marine animals, are chapters 25–29. General diving-related medical problems are covered in chapters 30–37, whilst chapters 38–42 look at treatment and prevention, covering medical examination, the first-aid kit, oxygen therapy, training and safety, and a review of resuscitation. The final chapter is a brief look at technical diving. The appendices consist of a diving medical library, emergency contact numbers, an in-water oxygen recompression therapy table and diving emergency (DAN) contacts.

“If a diver were to pass wind in a confined room, all the occupants of the room would soon be aware of the fact but, fortunately, not necessarily the source.” On the topic of gas diffusion, this is just an example of the touches of humour that abound, making the book so readable for a lay audience. However, whilst not incorrect, there were several areas in the book about which we would like to offer our comments. Whilst flying and altitude exposure after diving is discussed, we felt this was somewhat vague. We are often posed with the same questions at the hyperbaric unit. Although there are many different situations, and all of them open to conjecture, we would follow the DCIEM recommendation of “whenever possible it is inadvisable to fly above 600 metres in any aircraft within 48 hours of completing any dive. Travelling by vehicle over mountain ranges or hills can expose divers to the same dangers as flying and should be avoided in the same way for 24 hours. If flying after diving is considered essential, flying may be carried out after 24 hours but the increased risk of DCS must be borne in mind.”

When dealing with deaths in professional divers, from experience, the highly regulated and safety conscious offshore sector has a relatively low incidence of diving disease fatality compared to traumatic accidents. The authors’ quote of 48 deaths per 10,000 divers per year is long out of date; the Health and Safety Executive in the UK safety strategy to 2010 quotes approximately three deaths per 10,000 divers per year for the offshore and inshore sectors.

The authors seem rather sceptical of anything electronic or technical, ranging from dive computers to closed-circuit rebreathers. While we can understand this reluctance to a certain extent, modern computers, when used with the authors’ own ten commandments, will prove very safe, particularly for today’s multi-level recreational diving. Computers must surely have contributed to the reduction in the incidence of decompression sickness seen throughout Australasia in recent decades.

Nitrox has distinct bottom-time advantages in the 15–30 metre depth range and is widely used in scientific, military, and commercial diving, including saturation. Recreational use of oxygen rebreathers should be limited to an oxygen partial pressure of 1.6 Ata, i.e., 6 metres’ sea water maximum. Rebreathers are not for everyone; however, it is another interesting facet of the sport that has made advances in recent years. Reliable oxygen and more recently carbon dioxide monitoring, are enhancing the safety aspects of rebreather diving.

The chapter on ear barotrauma was one of our favourites, with a concise explanation of an often ill-informed subject. The four chapters involving decompression sickness tackle the age-old subject clearly in lay person’s terms. The chapter on dangerous marine animals provides a quick reference for the nastiest of the nasty. Oxygen therapy techniques and the resuscitation review provided a good reminder of what we should know.

To provide a free, downloadable copy of this comprehensive resource to the general diving public, in this day and age, is a tremendous educational gift to the diving community from Dr Edmonds and his colleagues. Not all divers are good at reading from a screen and to read the entire text in this way is quite a task. For quick reference to a particular situation, where a computer is available, it will prove very
useful. Even in the field these days, a computer is never far away and a downloaded disc carried on a dive trip could prove very useful.

Astute divers, dive instructors, DMTs and doctors new to diving will find this text worthy of a regular read. Nursing staff at hyperbaric units would find it a great introduction or refresher in the diving medicine field. We found it to be a humorous and well-informed read. We will leave you with the mental image of a heavily over-weighted gentleman sitting on the gunwale of a resort vessel and the accompanying comment: “Lead poisoning is a common contributor to recreational scuba diving deaths.”

Warren Harper and Trevor Carson
Hyperbaric Technologists, Christchurch Hospital Hyperbaric Medicine Unit, New Zealand

Key words
Scuba diving, physiology, underwater medicine, general interest, book reviews

Conference time

It was conference time again, time to update and dive.
The gang flocked to Redang to see who’s still alive,
For the regulars are aging, less able but more patient
But new faces and new cases prevent them dying ancient.

Ex sat dive and astronaut, Mike Gernhardt, led the speaking
With underwater lessons that guide Moon and Mars’ seeking
And Swedish Dr Folke Lind with a chamber extraordinaire
Gave lectures of pictures of intensive hyperbaric care.

Other presentations were varied in their range;
Spinal bends and recent trends, new ideas to interchange;
Shark bites and rebreather sets, lung function, Romberg’s sign
Were revisited and elicited along fresh and novel lines.

The great debate was a huge success, ‘The Diving Doctor’s Dead’. Speakers posed, weakness exposed, no fault or fact unsaid.
Once the blood was mopped up and handshakes healed the scars,
The count confirmed a large amount still lived and breathe the bars.

The warm Malaysian waters were tropical and clear
So the diving was thriving with the minimum of gear.
Flashes flashed and bubbles blew in each underwater group,
A mismatch of limbs and fins like an acrobatic troupe.

‘The convenor’ Glen was tireless, a hawkeyed overseer,
Meeting, greeting, seating and always ever near.
All delegates were overjoyed for a conference free of stress.
The gala ball was fun for all to conclude this huge success.

John Parker
<drjohnparker@hotmail.com>
EXECUTIVE COMMITTEE (as of September 2009)

**PRESIDENT**
Dr Peter Germonpré  
Centre for Hyperbaric Oxygen Therapy  
Military Hospital Brussels  
B-1120 Brussels, Belgium  
**Phone:** +32-(0)2-264-4868  
**Fax:** +32-(0)2-264-4861  
**E-mail:** <peter.germonpre@eubs.org>

**VICE PRESIDENT**
Professor Costantino Balestra  
Environmental & Occupationa Physiology Laboratory  
Haute Ecole Paul Henri Spaak  
91 Av. C. Schaller  
B-1160 Auderghem, Belgium  
**Phone & Fax:** +32-(0)2-663-0076  
**E-mail:** <costantino.balestra@eubs.org>

**IMMEDIATE PAST PRESIDENT**
Professor Alf O Brubakk  
NTNU, Department of Circulation and Imaging  
N-7089 Trondheim, Norway  
**Phone:** +47-(0)73-598904  
**Fax:** +47-(0)73-597940  
**E-mail:** <alf.brubakk@eubs.org>

**PAST PRESIDENT**
Dr Noemi Bitterman  
Technion, Israel Institute of Technology  
Technion City  
Haifa 32000, Israel  
**Phone:** +972-(0)4-829-4909  
**Fax:** +972-(0)4-824-6631  
**E-mail:** <noemi.bitterman@eubs.org>

**HONORARY SECRETARY**
Dr Joerg Schmutz  
Foundation for Hyperbaric Medicine  
Kleinunhringerstrasse 177  
CH-4057 Basel, Switzerland  
**Phone:** +41-(0)61-631-3013  
**Fax:** +41-(0)61-631-3006  
**E-mail:** <joerg.schmutz@eubs.org>

**MEMBER AT LARGE 2009**
Dr Andreas Møllerloken  
NTNU, Department of Circulation and Imaging  
N-7089 Trondheim, Norway  
**Phone:** +47-(0)73-598907  
**Fax:** +47-(0)73-598613  
**E-mail:** <andreas.mollerloken@eubs.org>

**MEMBER AT LARGE 2008**
Dr Peter Knessl  
Steinechtweg 18  
CH-4452 Itingen, Switzerland  
**Phone:** +41-(0)44-716-7105  
**E-mail:** <peter.knessl@eubs.org>

**MEMBER AT LARGE 2007**
Dr Phil Bryson  
DDRC, The Hyperbaric Medical Centre  
Tamar Science Park, Research Way  
Derriford, Plymouth  
Devon, PL6 8BU, United Kingdom  
**Phone:** +44-(0)1752-209999  
**Fax:** +44-(0)1752-209115  
**E-mail:** <phil.bryson@eubs.org>

**HONORARY TREASURER & MEMBERSHIP SECRETARY**
Ms Patricia Wooding  
16 Burselm Avenue  
Hainault, Ilford  
Essex, IG6 3EH, United Kingdom  
**Phone & Fax:** +44-(0)20-8500-1778  
**E-mail:** <patricia.wooding@eubs.org>

**EUROPEAN EDITOR, DIVING AND HYPERBARIC MEDICINE**
Dr Peter HJ Müller  
Dudenhofer Strasse 8C  
D-67346 Speyer, Germany  
**Phone & Fax:** +49-(0)6232-686-5866  
**E-mail:** <peter.mueller@eubs.org>

*The website is at www.eubs.org*  
Members are encouraged to log in
EUBS Annual Scientific Meeting 2010
14–18 September 2010
Istanbul (European Cultural Capital 2010)

Venue: The Point Hotel-Barbaros, Istanbul, Turkey

Prof. Maide Cimsit, Istanbul University
Secretary General, EUBS ASM 2010
E-mail: <mcimsit@istanbul.edu.tr>

Istanbul is a centuries-old city, located on the Bosphorus Strait connecting Asia and Europe. It was the capital of three empires: Roman, East Roman (Byzantine), and the Ottoman Empire. Many historic areas are on the UNESCO World Heritage List. Istanbul is unique with its location, cultural and historical heritage, palaces, and monuments, museums and bazaars, blending with modern architecture, shopping centres, and all sorts of restaurants, clubs and friendly wine houses.

The scientific programme will cover a broad spectrum of topics in diving and hyperbaric medicine.
An ECHM Workshop and EDTC meeting will also take place during the meeting.
Full details of the scientific programme and workshops are available on the meeting website:

<http://www.eubs2010.org>

Main Topics
Diving Medicine: Diving physiology, fitness to dive standards, breath-hold diving, handicapped diving, medical aspects of underwater archaeology, diving pathologies, diving technologies.
Hyperbaric Medicine: Infection, wound healing, HBOT in traumatology, burns injury, HBOT in ICU patients, ophthalmologic disorders, sudden hearing loss and HBOT, hyperbaric safety and organization.

For important dates, registration and accommodation and other details please visit the meeting website:

<http://www.eubs2010.org>

The official language of the conference will be English.

Social programme
Details of the many optional activities, including a diving programme, tours and excursions, in the Social Programme may be found on the website or are available from the Congress Secretariat.
We hope that you will enjoy the meeting, and the unique ambience and hospitality of Istanbul.

Contacts:
Congress Organization Secretariat
Figür Congress and Organisation Services
Ayazmadesi Cad. Karadut Sok. No:7
34394 Dikilitas - Istanbul / TURKEY
Phone: +90-(0)212-258-6020
Fax: +90-(0)212-258-6078
E-mail: <eubs2010@figur.net>

Scientific Secretariat
Prof. Dr. Akin Savas Toklu
I.U., Istanbul Tip Fakultesi
Sualti Hekimligi ve Hiperbarik Tip AD
34093 Çapa Istanbul/TURKEY
Phone: +90-(0)212-414-2234
E-mail: <akin@toklu.net>
Nominations for election as EUBS Executive Committee Member-at-Large 2010

For the term 2010–2013, the following nomination has been accepted by the EUBS Executive Committee. Voting will be done via Internet Ballot; all members of EUBS will receive an e-mail with a voting ‘link’.

Jean-Michel Pontier

Born 28 February 1968 in Aix-en-Provence (France)

Since 2002 Licensed physician in diving medicine with the French Armed Forces, and working at the Diving School (Ecole de Plongée) in St Mandrier.

2002-2004 St. Anne Hospital hyperbaric centre (Toulon, France). During that period, participated as on-call physician for the hyperbaric centre of the Font-Pré Hospital.

2005 Master’s Degree in physiology and extreme environments.

Certified specialist in sports medicine and emergency medicine.

Member, French Society of Diving and Hyperbaric Medicine (MedSubHyp).

Author or co-author of eight peer-reviewed scientific papers and 15 scientific conference presentations on the specific aspects of military diving (more particularly navy ‘seals’), military rebreather diving (epidemiological study) and factors increasing the risks for decompression pathology (clinical study).

Participated in the experimental studies demonstrating the protective effect of physical activity on decompression bubble formation.

Currently investigating, for a Master Thesis, the mechanisms of platelet activation during decompression, using an animal model of decompression sickness.

He is a professional diver and mine-clearance diver, certified sports medicine and emergency medicine specialist. He worked at the St. Anne Hospital hyperbaric centre (Toulon, France) from 2002 to 2004 and during that time also acted as on-call physician for the hyperbaric centre of the Font-Pré Hospital.

In 2005 he served as on-board physician for the Clipperton Atoll expedition, together with Dr Jean-Louis Etienne. For this mission, he participated in the elaboration of a therapeutic re-immersion protocol for treating decompression disorders in remote areas.

EUBS General Assembly: invitation and agenda

All EUBS Members are invited to attend the EUBS General Assembly, which will take place during the Annual Scientific Meeting, on 18 September at 1400 h.

Agenda:

1 Approval of minutes of previous GA (see the December 2009 issue of DHM: 239-41.)
2 Status of current Meeting
3 Awards and Grants
4 Financial Report
5 Website Report
6 Journal Report
7 Next EUBS Meetings
8 Miscellaneous

Members who wish to place an item on the agenda, are kindly requested to notify the Honorary Secretary, Joerg Schmutz, and/or another ExCom member in writing (paper or e-mail).

EUBS website news

The EUBS website provides information about the Society and its Executive Committee, the Annual Scientific Meeting, the Corporate Members, and lists research, courses and conferences in hyperbaric and diving medicine. In addition, on the ‘Members Area’ pages, EUBS members will find access to:

• the full-text literature database on diving and hyperbaric medicine, provided courtesy of GTUEM
• the EUBS Members Directory
• full text of the Diving and Hyperbaric Medicine Journal
• their own membership information and status
• a dedicated private discussion forum

Log in at: <www.eubs.org>
Requirements for candidates (updated October 2008)

In order for the Diploma of Diving and Hyperbaric Medicine to be awarded by the Society, the candidate must comply with the following conditions:

1. The candidate must be medically qualified, and be a current financial member of the Society.
2. The candidate must supply evidence of satisfactory completion of an examined two-week full-time course in Diving and Hyperbaric Medicine at an approved facility. The list of approved facilities providing two-week courses may be found on the SPUMS website.
3. The candidate must have completed the equivalent (as determined by the Education Officer) of at least six months’ full-time clinical training in an approved Hyperbaric Medicine Unit.
4. The candidate must submit a written proposal for research in a relevant area of underwater or hyperbaric medicine, in a standard format, for approval before commencing their research project.
5. The candidate must produce, to the satisfaction of the Academic Board, a written report on the approved research project, in the form of a scientific paper suitable for publication. Accompanying this written report should be a request to be considered for the SPUMS Diploma and supporting documentation for 1–4 above.
6. In the absence of documentation otherwise, it will be assumed that the paper is submitted for publication in *Diving and Hyperbaric Medicine*. As such, the structure of the paper needs to broadly comply with the 'Instructions to Authors' – full version, published in *Diving and Hyperbaric Medicine* 2010; 40(2):110-2.
7. The paper may be submitted to journals other than *Diving and Hyperbaric Medicine*; however, even if published in another journal, the completed paper must be submitted to the Editor of *Diving and Hyperbaric Medicine* for assessment as a diploma paper. If the paper has been accepted for publication or published in another journal, then evidence of this should be provided.
8. The diploma paper will be assessed, and changes may be requested, before it is regarded to be of the standard required for award of the Diploma. Once completed to the reviewers’ satisfaction, papers not already accepted or published in other journals will be forwarded to the Editor of *Diving and Hyperbaric Medicine* for consideration. At this point the Diploma will be awarded, provided all other requirements are satisfied. Diploma projects submitted to *Diving and Hyperbaric Medicine* for consideration of publication will be subject to the Journal’s own peer review process.

Additional information – prospective approval of projects is required

The candidate must contact the Education Officer in writing (e-mail is acceptable) to advise of their intended candidacy, and to discuss the proposed subject matter of their research. A written research proposal must be submitted before commencing the research project.

All research reports must clearly test a hypothesis. Original basic or clinical research is acceptable. Case series reports may be acceptable if thoroughly documented, subject to quantitative analysis, and the subject is extensively researched and discussed in detail. Reports of a single case are insufficient. Review articles may be acceptable if the world literature is thoroughly analysed and discussed, and the subject has not recently been similarly reviewed. Previously published material will not be considered.

It is expected that all research will be conducted in accordance with the joint NHMRC/AVCC statement and guidelines on research practice (available at <http://www.health.gov.au/nhmrc/research/general/nhmrcavc.htm>) or the equivalent requirement of the country in which the research is conducted. All research involving humans or animals must be accompanied by documented evidence of approval by an appropriate research ethics committee. It is expected that the research project and the written report will be primarily the work of the candidate, and that the candidate is the first author, where there are more than one.

The SPUMS Diploma will not be awarded until all requirements are completed. The individual components do not necessarily need to be completed in the order outlined above. However, it is mandatory that the research project is approved prior to commencing research.

The Academic Board reserves the right to modify any of these requirements from time to time. As of October 2008, the SPUMS Academic Board consists of:

Associate Professor David Smart, Education Officer
Associate Professor (ret’d) Mike Davis
Associate Professor Simon Mitchell.

All enquiries and applications to the Education Officer:

*Associate Professor David Smart*
*GPO Box 463, Hobart, Tasmania 7001*
*E-mail: <david.smart@dhhs.tas.gov.au>*

Key words
Qualifications, underwater medicine, hyperbaric oxygen, research, medical society
Minutes of the SPUMS Executive Committee Meeting 21 November 2009 at Prince of Wales Hospital Hyperbaric Unit, Randwick

Opened: 0930h

Present: M Bennett, S Lockley, J Lehm, G Hawkins, M Davis, D Smart and G Williams

Apologies: S Squires, C Acott and V Haller

1 Minutes of previous meeting
   Minutes accepted for Executive Committee Meeting, Snorkelers’ Cove Resort, Iririki Island, Vanuatu held 29 May 2009. Proposed Dr M Bennett, seconded Dr G Hawkins, carried.

2 Matters arising from previous minutes
   Reviewed.

3 Annual Scientific Meetings
   3.1 ASM 2010
      3.1.1 Berjaya Resort (Redang) has postponed renovations so can accommodate conference. Some issues that have arisen were discussed including weight restriction of 10 kg on flights to Redang. Resort to arrange transport of all luggage for registrants. In addition, passenger limit of 90 on Berjaya Air flights from Kuala Lumpur and Singapore. Timing of flights to Redang require an overnight stay in Singapore or Kuala Lumpur, with luggage collection from the Berjaya Hotels in these locations. Other option is ferry to Redang.
      3.1.2 Delegates to book three components online: conference registration, accommodation at Berjaya Redang Resort with Berjaya Airline flight, then international flights. Other Academic programme in development and Dr Hawkins shared current plan. Includes AGM on 27 May 2010. Diving from 0800–1300h. Poster presentations and free papers also included.
      3.1.3 Welcome dinner, cocktail party and gala theme dinner are all covered by the conference registration.
      3.1.4 Diving and hyperbaric medicine refresher courses on 25 and 27 May, during diving programme.
      3.1.6 Budget presented to the Committee – AUD23,920 (fixed costs) and AUD17,995 variable costs. Dives at a cost of AUD28 per dive. Booking for 60 registrants, 50 accompanied and 20 children.
   3.2 ASM 2011
   Dr Lockley to convene ASM 2011. Discussed theme will cover technical diving, including military and occupational diving medicine. Suggestions for speakers requested and discussed. Intention to actively invite and involve military divers and military diving doctors. Location options being explored. Action: Dr Lockley to report progress planning arrangements to President and Committee.

3.3 ASM 2012
   Dr Bennett called for volunteers to convene ASM 2012. Committee members to direct expressions of interest to the President or Secretary. Action: Committee members to report expressions of interest to the President.

4 Journal matters
   4.1 EUBS/SPUMS arrangements discussed. Committee agrees quality of the Journal has improved significantly due to the efforts of the Editor DHM and amalgamation of EUBS/SPUMS.
   4.2 EUBS to be formally requested to provide details regarding two-year agreement (EUBS proposal).
   4.3 Proposed advertising policy has been sent out to the Committee by the DHM Editor and is accepted. This includes free advertising of “not for profit” organisations, institutions and for courses and meetings. Policy needs further development and the letter will be recirculated to the Editor, with points from Dr Smart.
   4.4 Discussed SPUMS/EUBS could endorse that one of two editors be funded to attend EUBS and SPUMS ASMs and this should be factored into journal costs. Committee unanimously agreed.
   4.5 Dr Bennett and Neal Pollock were mentioned for their ongoing support of the Journal. The number of manuscripts is now double previous years with a pool of articles awaiting publication.
   4.6 Editor suggested the future of the DHM hangs in the balance of approval for Medline citation.
   4.7 Recommended by the Editor that EUBS and SPUMS provide the same amount of money for each copy of the DHM. Proposed Dr M Davis, seconded Dr J Lehm, carried.
   4.8 Ownership and publisher: current situation is that SPUMS does not own journal due to statement in the Constitution. SPUMS incorporated in Victoria Articles states that we will produce a Journal. Publisher should be through the “Journal Entity” for example “DHM incorporated”. Likely that the incorporation journal currently belongs to SPUMS and that it may require a change of ownership to the two societies. Actions: President to explore legal opinion regarding ownership/publisher. Editor to explore options for legal advice. Action: Dr Lehm to calculate cost per journal and each Society charged per copy received. In Annual Financial Report, true cost of Journal needs to be outlined with costs separated out.
   4.10 Discussed possibility of book-keeper being employed, with financial independence of Journal. Await further legal advice as above.
4.11 DHM Editor contract was discussed and has been forwarded via e-mail to the President and Secretary. Action: Executive Committee to resolve contract before end December. President to forward the proposed contracts to the Committee for an opinion.

4.12 Discussed DHM Editorial Board newsletter (e-mail correspondence has been forwarded to the Committee).

5 Website update
5.1 Demonstration of new website by Dr Hawkins. All members will require new passwords for access. Almost completed new website and total cost to date is just over AUD8,000.

6 Education Officer’s report
6.1 Accreditation of courses discussed, including SPUMS role in this. Committee agrees SPUMS should have a leading role in accreditation of diving medicine courses.

6.2 Dr Smart recommended a tiered structure to the course accreditation system, similar to the current European system. For example, a candidate must complete requirements for Level 1 prior to progressing to Level 2 and Level 2 prior to progression to Level 3. Action: Dr Smart to further investigate European system.

6.3 Discussed proposal to change requirement of SPUMS Diploma from “must be a financial member of SPUMS for 2 years” to “must be a current financial member of SPUMS”.

7 Treasurer’s report
7.1 The Treasurer has recommended that the SPUMS Administrator Mr Steve Goble be given approval for purchase of a new laptop and software for the purpose of SPUMS administration including the ASM up to AUD3,000. Proposed Dr J Lehm, seconded Dr M Bennett, carried.

7.2 DHM Editor requires a new printer and will obtain quotations on purchase of a laser printer and provide to the Treasurer. The old printer used by the Editor and the old printer/scanner used by the Secretary are both to be written off as these items are well over five years old and now outdated. Dr Lockley will use her own printer and purchase consumables as required. Proposed Dr M Davis and Dr S Lockley, seconded Dr J Lehm, carried.

7.3 Dr Lehm has suggested opening an on-line savings account at St George Bank, with a higher interest rate, so that a reasonable rate of interest can be earned on SPUMS funds. Proposed Dr J Lehm, seconded Dr M Bennett, carried.

7.4 Proposed that Dr G Hawkins be added as a signatory to all SPUMS accounts. Other current signatories on the accounts will remain unchanged. Proposed Dr J Lehm, seconded Dr M Bennett, carried.

8 Secretary’s report
8.1 Update all committee member contact details to <spums.org.au> addresses, and previous e-mail accounts will or have been redirected.

8.2 The training requirements to perform occupational dive medicals in Australia and New Zealand, including current recognised courses, were discussed because of apparent confusion and request from members via e-mail for clarification on this issue. Education Officer confirmed that doctors performing occupational diving medicals must complete one of the SPUMS approved courses or a course accredited by the Education Committee. Currently SPUMS recommend if five years or more has lapsed since a medical practitioner has performed an occupational dive medical or since completion of an approved course, the medical practitioner should re-attend a course prior to performing an occupational dive medical.

9 Other business
9.1 Option for tele/video conferencing committee meetings was discussed. Is a cost-effective option; however, at present not all committee members have access to the technology and this arrangement would be difficult given current circumstances. At present, two meetings per year have been adequate.

9.2 DHM Editor was asked to leave the room while Committee discussed SPUMS funding part of attendance costs of a member of the ANZHMG sub-committee at MSAC. Last meeting attendance in Canberra was approximately AUD1,000. Two further meetings expected in the coming months. Committee has agreed to contribute funds to support attendance. Proposed Dr M Bennett, seconded Dr D Smart, carried.

9.3 Committee to consider formation and be involved in supporting proposition of an international diving and hyperbaric medicine federation as proposed initially by Dr A Brubakk, President EUBS. Proposed Dr M Bennett, seconded Dr D Smart, carried.

9.4 Committee informed that Gordon Bingham received the SPUMS Award of a Book Prize at HTNA.

10 Correspondence
Submission written to Medical Council of New Zealand by Dr M Davis regarding qualifications for practising hyperbaric medicine in New Zealand. Correspondence received in response from Dr Philip Pigon (CEO Medical Council of New Zealand).

11 Next meeting
The next meeting is scheduled on 23 May 2010 at Berjaya Resort, Redang Island, Malaysia.

Closed: 1849h
South Pacific Underwater Medicine Society
40TH Annual Scientific Meeting
Preliminary Notification

24–28 May 2011

Venue: Palau Pacific Resort

Further details will be on the SPUMS website soon:
<www.spums.org.au>

Theme
What’s so technical about diving? Medical aspects of military, occupational and recreational technical diving

Guest speakers
Dr David Doolette, PhD
Associate Professor Simon Mitchell, PhD
Dr Andrew Fock, FANZCA

SPUMS 2011 ASM Convenor:
Dr Sarah Lockley
Secretary SPUMS
C/- Hyperbaric Health
Suite 3, Ground Flr
46-50 Kent Rd, Mascot
NSW 2020

Email: secretary@spums.org.au
Mobile: +61 (0) 43 1144817
Australian and New Zealand College of Anaesthetists
Certificate in Diving and Hyperbaric Medicine

Eligible candidates are invited to present for the examination for the Certificate in Diving and Hyperbaric Medicine of the Australian and New Zealand College of Anaesthetists.

Eligibility criteria are:
1  Fellowship of a Specialist College in Australia or New Zealand. This includes all specialties, and the Royal Australian College of General Practitioners.
2  Completion of training courses in Diving Medicine and in Hyperbaric Medicine of at least four weeks’ total duration. For example, one of:
   a  ANZHMG course at Prince of Wales Hospital Sydney, and Royal Adelaide Hospital or HMAS Penguin diving medical officers course OR
   b  Auckland University Diploma in Diving and Hyperbaric Medicine.
3  EITHER:
   a  Completion of the Diploma of the South Pacific Underwater Medicine Society, including six months’ full-time equivalent experience in a hyperbaric unit and successful completion of a thesis or research project approved by the Assessor, SPUMS
   b  Completion of a further 12 months’ full-time equivalent clinical experience in a hospital-based hyperbaric unit which is approved for training in Diving and Hyperbaric Medicine by the ANZCA.
   OR:
   c  Completion of 18 months’ full-time equivalent experience in a hospital-based hyperbaric unit which is approved for training in Diving and Hyperbaric Medicine by the ANZCA
   d  Completion of a formal project in accordance with ANZCA Professional Document TE11 “Formal Project Guidelines”. The formal project must be constructed around a topic which is relevant to the practice of Diving and Hyperbaric Medicine, and must be approved by the ANZCA Assessor prior to commencement.
4  Completion of a workbook documenting the details of clinical exposure attained during the training period.
5  Candidates who do not hold an Australian or New Zealand specialist qualification in Anaesthesia, Intensive Care or Emergency Medicine are required to demonstrate airway skills competency as specified by ANZCA in the document “Airway skills requirement for training in Diving and Hyperbaric Medicine”.

All details are available on the ANZCA website at: <www.anzca.edu.au/edutraining/DHM/index.htm>

Dr Margaret Walker, FANZCA, Cert DHM (ANZCA)
Chair, ANZCA/ASA Special Interest Group in Diving and Hyperbaric Medicine

The Hyperbaric Research Prize

The Hyperbaric Research Prize encourages the scientific advancement of hyperbaric medicine and is awarded annually whenever a suitable nominee is identified. It will recognise a scholarly published work or body of work(s) either as original research or as a significant advancement in the understanding of earlier published science. The scope of this work includes doctoral and post-doctoral dissertations. The Hyperbaric Research Prize is international in scope. However, the research must be available in English. The Hyperbaric Research Prize takes the form of a commissioned art piece and US$10,000 honorarium.

For detailed information please contact:
Baromedical Research Foundation
5 Medical Park, Columbia, SC 29203, USA
Phone: +1-803-434-7101
Fax: +1-803-434-4354
E-mail: <samir.desai@palmettohealth.org>

Hyperbaric medicine practice, 3rd edition
Kindwall EP, Whelan HT, editors

The review by Dr Karen Richardson of this textbook was not accompanied by key words for searches. These are listed below.

Key words
Diving medicine, physiology, diving, textbook, book reviews
Diving and Hyperbaric Medicine  Volume 40 No. 2 June 2010

The Environmental Physiology Group, NNTU, Norway
Man in extreme environments – applied physiology from subsea to space
A symposium to honour Professor Alf O Brubakk and his long research career

**Dates:** 16–17 December 2010

**More information will be available at:**
<www.ntnu.no/diving>
or contact <andreas.mollerlokken@ntnu.no>

Scott Haldane Foundation, The Netherlands
The Scott Haldane Foundation is dedicated to education in diving medicine, and has organised over 100 courses in the past few years, both in the Netherlands and abroad.

**Website:** <www.scotthaldane.nl>
**E-mail:** <info@scotthaldane.nl>

- **2–9 October:** Basic course “Diving medicine for pneumologists”
- **14–15 October:** Advanced course “Evidence-based diving medicine” (Doom, NL)
- **6–13 November:** Basic course in diving medicine (Zanzibar, Tanzania)
- **13–20 and 20–27 November:** 17th Advanced course in diving medicine (Zanzibar, then Mafia Island, Tanzania)
- **11 December:** Refresher course “Neurology and diving”

Inter-university Diploma in Diving and Hyperbaric Medicine, France
University course (1-year duration) in diving and hyperbaric medicine, organised concurrently by 13 French universities (Angers, Antilles-Guyane, Besançon, Bordeaux II, Lille II, Lyon II, La Réunion, Marseille, Nancy, Nice, Paris XIII, Strasbourg, Toulouse).

**For further information go to:**
<http://www.medsubhyp.org> or <http://medecine.univ-lille2.fr/format/diu/hyperbar.htm>

17th International Congress of Hyperbaric Medicine

**Dates:** 16–19 March 2011
**Venue:** Cape Town International Convention Centre, Cape Town, South Africa
**Link to ICHM:** <www.ichm.org>
**For further details go to SAUHMA website:** <www.sauhma.co.za>

German Society for Diving and Hyperbaric Medicine (GTUeM)
An overview of basic and refresher courses in diving and hyperbaric medicine, accredited by the German Society for Diving and Hyperbaric Medicine (GTUeM) according to EDTC/ECHM curricula, can be found on the website: <http://www.gtuem.org/212/Kurse_/Termine/Kurse.html>

British Hyperbaric Association
2010 Annual Conference

**Dates:** 18–21 November
**Host:** East of England Hyperbaric Unit
James Paget University Hospitals NHS
Lowestoft Road
Gorleston Great Yarmouth
Norfolk NR31 6LA

**For further information contact:**
Karen Turner <karen.turner@jpaget.nhs.uk> or Maxine Palmer <maxine.palmer@jpaget.nhs.uk>
**Phone:** +44-(0)1493-453526
**Fax:** +44-(0)1493-453261

Diving Diseases Research Centre (DDRC), Plymouth, UK

**Diving medicine courses for 2010**
- **Introduction to Hyperbaric Medicine Course for Physicians (UHMS):** 13–17 September
- **Combined Introduction to Hyperbaric Medicine Course for Physicians (UHMS) and Level I (Medical Examiner of Divers) Course:** 13–19 September
- **Level I (Medical Examiner of Divers) Course:** 17–19 September
- **Level IIa (Diving Medical Physician):** 20–24 September
- **Medical Examiner of Divers, Refresher Course:** 25–26 November

**For further information:** <www.ddrc.org>

The Royal Swedish Navy in cooperation with Sahlgrenska University Hospital, Gothenburg University

**Basic course in diving medicine and HBO**

**Dates:** 20 September – 1 October 2010
**Venue:** Gothenburg, Sweden

**For further information:**
**E-mail:** Lena Fridman <lena.fridman@mil.se>
Royal Adelaide Hospital Diving Medicine
Medical Officers Course 2010

Week 1, 29 November – 3 December
Week 2, 6 – 10 December

Full DMT Courses:
2nd DMT course in November t.b.d.

For more information contact:
Lorna Mirabelli
Senior Administrative Assistant
Hyperbaric Medicine Unit, Royal Adelaide Hospital
Phone: +61-(0)8-8222-5116
Fax: +61-(0)8-8232-4207
E-mail: <L.mirabel@mail.rah.sa.gov.au>

2010 Royal Australian Navy Medical Officers Underwater Medicine Course

Dates: 25 October – 5 November 2010
Venue: HMAS PENGUIN, Sydney
Cost: to be advised

The course seeks to provide the medical practitioner with an understanding of the range of potential medical problems faced by divers. Considerable emphasis is placed on the contra-indications to diving and the diving medical, together with the pathophysiology, diagnosis and management of the more common diving-related illnesses. The course includes scenario-based simulation focusing on management of diving emergencies and workshop covering the key components of the diving medical.

For information and application forms contact:
Mr Rajeev Karekar for Officer in Charge,
Submarine and Underwater Medicine Unit
HMAS PENGUIN
Middle Head Rd, Mosman, 2088 NSW, Australia
Phone: +61-(0)2-99600572
Fax: +61-(0)2-99604435
E-mail: <Rajeev.Karekar@defence.gov.au>

Introductory Course in Diving Medicine
New Zealand

Dates: 24–27 September 2010
Venue: Navy Hospital, Devonport, Auckland

This course is designed to provide GPs who have an interest in diving medicine with a basic understanding of the principles involved.

RNZCGP approved for 20 hours’ CME.

For details and application form please see the website:
<www.navyhyperbaric.mil.nz>

The Australia and New Zealand Hyperbaric Medicine Group
Introductory Course in Diving and Hyperbaric Medicine

Dates: 21 February – 4 March 2011
Venue: Prince of Wales Hospital, Sydney, Australia

This course is approved as a CPD Learning Project by ANZCA – Cat 2, Level 2 – 2 credits per hour (Approval No. 1191)

For more information contact:
Ms Gabrielle Janik, Course Administrator
Phone: +61 (0)2-9382-3880
Fax: +61 (0)2-9382-3882
E-mail: <Gabrielle.Janik@sesiahs.health.nsw.gov.au>

Conference proceedings available
The future of diving: 100 years of Haldane and beyond

Michael A Laing and Alf O Brubakk, editors
Smithsonian Institution Scholarly Press

The proceedings of “The Future of Diving: 100 Years of Haldane and Beyond” symposium, convened 18–19 December 2008 in Trondheim, Norway, by the Baromedical and Environmental Physiology Group of the Norwegian University of Science and Technology, are reported in 28 papers and three discussion sessions.

Download a PDF of this publication through:
<www.scholarlypress.si.edu>
To request a print copy, e-mail SISP at:
<schol_press@si.edu>
Print copies of this publication are free upon request, while supplies last; limit five (5) copies.