

European Journal of Underwater and Hyperbaric Medicine



Official NEWSLETTER

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EDITOR'S COLUMN

Dear Readers!

With the first issue of the new year we are back on our regular schedule for the publication of the Journal (and I do hope this will remain so for the time being). Those of you planning to publish in the Europ J Underwater & Hyperbaric Med are referred to the re-announcement of deadlines which can be found from now on inside of the back cover.

After having missed two years of publication of the Zetterström Award winning poster from the EUBS Annual Scientific Meeting we have now again a full paper in this issue. Dr. Ratzenhofer-Komenda has to be congratulated not only for winning the Award, but also for delivering the paper under extremely difficult circumstances in appropriate time.

My congratulations also go to Tricia Wooding who has taken over the difficult task as Membership Secretary and Treasurer of this Society. She has already demonstrated more efficiency in her short term than I had to get used to over the past 6 years. Would all members please continue to support her!?! A membership renewal form can be found on page 2 of this issue.

Best wishes,

Peter

PRESIDENT'S NOTE

Dear Friends,

With this first issue for 2004, I send my best wishes and hopes that the New Year has started successfully for all of you.

Regrettably, I must start this message by sharing with you the sad news we have just received. On December 31st, our friend Nikola Deklava passed away at the age of 77, after a short but relentless illness. Dr. Dekleva, Director of the Hyperbaric Medical Centre in Belgrade and Professor at the International School of Baromedicine at the Belgrade Medical School, was one of the pioneers in the hyperbaric field. In the next issue, Dr Alessandro Marroni will share with us his memories about Nikola's special personality and his breakthrough scientific work. We will all continue, I am sure, to draw inspiration from Nikola's enthusiasm, curiosity and dedication in exploring and developing the baromedical field.

I am pleased to welcome Ms. P. Wooding as our new treasurer/membership secretary. As you have probably noticed, Ms. Wooding has already started with her first priority task - collecting the annual membership fees. Due to technical problems last year, many of us have not yet paid our 2003 membership fees, so please do not forget to add

them to the 2004 payment. In addition, it is also a good opportunity for all of us to try recruiting new members and bringing past members back to our society (buy one get one free...).

Winter is almost over and spring is the time for accelerating the preparations for our annual meeting in Ajaccio, Corsica. **This year it will be our 30th annual scientific meeting. Let's make it a great celebration!**

As you have all probably realized on receiving the second call, Bruno Granjean and his colleagues are doing a great job in preparing the EUBS 2004, both scientifically and socially. However, 30 years are without a doubt a piece of history! All of us have plenty of memories from previous meetings, and some probably can go back even to those first pioneering gatherings. Would they perhaps be willing to share with us some of the memories and the dreams the founders had, so we can re-evaluate where we are today, almost a generation later? Just imagine what happened to the young and shy student presenting his scientific work at the first annual meeting of the EUBS; where he or she is 30 years later, and what his or her dreams are today?

Any member who has any ideas for how can we make this meeting is welcome to send them to me. All ideas will be considered, starting from a special ceremony, a historical lecture or a presentation with the highlights of the past 30 meetings, a collection of pictures, a poster, a poem, special guests to interview, or even a souvenir for every member such as shirt or tie.... Any idea will be welcome and will be passed on to the executive committee and the local organizing committee. Volunteers and sponsors are appreciated!

I would also like to remind you about the special student travel grants we have for students attending and presenting at the EUBS Annual meetings. Please be sure that the students from your laboratory send their work to the EUBS 2004 Annual meeting, and that they apply in time for the grants. And don't forget, the deadline for abstracts is May 22nd, 2004.

Another urgent issue is the vacant position of Vice President. We have not received any suggestions for candidates for this very prestigious position (remember that he or she will be the next President of our society). Since the time is approaching for electing our members at large for 2004, please pass on your suggestions for nominees to me or to Ms. Wooding. We would like to have a significant number of candidates for both positions in order to ensure democratic elections with massive member participation.

And finally, as was recently announced, there is a chance that there is water on Mars. Here is an opportunity for all divers of the EUBS to start organizing a Martian diving expedition ...

All the best,

Noemi



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MEMBERSHIP RENEWAL FORM

NAME: _____

ADDRESS: _____

WORK TEL NO: _____ **FAX NO:** _____

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Membership fee as per 2004 is:

Membership fee as per 2003 was:

☐ Member – Euro 40 (£27)

☐ Member – Euro 30 (£20)

☐ Undergraduate Member – Euro 20 (£13.50) ☐ Undergraduate Member – Euro 15 (£10.00)

☐ Corporate Member – Euro 250 (£167) ☐ Corporate Member – Euro 225 (£150)

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Method of Payment: ☐ VISA ☐ Bank Draft ☐ Euro cheque

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Please return your form and payment to:

Ms P Wooding
Membership Secretary
35 Westmede,
Chigwell, Essex, IG7 5LR
United Kingdom

Or Fax to +44 208 500 1778.

MEETINGS

UHMS ANNUAL SCIENTIFIC MEETING 2004 "Downunder"

**SYDNEY, AUSTRALIA
26-29 May 2004**

We invite your participation in the Undersea & Hyperbaric Medical Society's Annual Scientific Meeting (UHMS ASM), to be held at the Four Seasons Hotel Sydney from Wednesday 26th to Saturday 29th May 2004. We look forward to welcoming you to a conference designed to improve your knowledge and provide opportunities for networking in the field.

Conference venue

Four Seasons Hotel Sydney, superbly situated in the heart of the historic Sydney Harbour /Rocks area. The Four Seasons Hotel Sydney is only a short walk away from Sydney's major shopping and business districts and affords dramatic views of the famous Opera House and Sydney Harbour Bridge.

Scientific and Social Program

To feature a number of outstanding local and international speakers, concurrent sessions, poster presentations and site visits around the Sydney area. The UHMS ASM always attracts researchers and clinicians from all around the world and provides a wonderful opportunity to meet and extend contacts.

With plenty to see and do in Sydney, this is the perfect opportunity to bring your partners and family along. There will be pre-conference tours you can all enjoy and an Accompanying Persons Programs with tours and social events to keep your partner and family entertained whilst you attend the conference. For more information, please visit the conference website: www.iceaustralia/uhms2004. The HTNA will be run concurrently with the UHMS Conference on Thursday 27th May 2004. This annual one day conference is designed to provide a forum for technicians and nurses to present clinical and technical research to their peers. It is always a lively and active forum for meeting your peers and widening your horizons.

Conference Convener

Dr Mike Bennett

Past Vice-President UHMS

Conference Organisers

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Email: uhms@iceaustralia.com

Le SPUMS

**NOUMEA,
NOUVELLE-CALEDONIE
01-05 June 2004**

**SPUMS 2004 Annual Scientific Meeting will follow
UHMS Meeting in Sydney 25-28 May, 2004**

The **Theme** for 2004 will be "Marine Stingers" and the Guest Speaker will be Dr Peter Fenner.

A Sub-Theme will be "Diving" with Guest Speaker Dr. David Doolette.

SPUMS ASM format will be to hold five days of meetings, preceded by a Welcome Cocktail Party, followed by the Scientific Meeting which will run from 3pm until 7pm each day.

- Diving Program will run each day before the daily meeting sessions.
- On the last day, the Annual General Meeting of SPUMS will be held.
- Conference Dinner will be on the Fifth Evening.

Venue – Le Meridien Noumea

Provisional Costings

- Return Airfares Sydney/Noumea/Sydney or Brisbane/Noumea/Brisbane
- Seven nights Le Meridien Deluxe Room
- 7 buffet breakfasts and 5 Dinners
- (inclusive of Conference Dinner)
- Cost per diver (10 Dives) AUD\$3660.00
- Cost per Non Diver AUD\$2800.00
- Taxes AUD\$150.00

Conference Convener

Dr Guy Williams

Past President SPUMS

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SECOND ANNOUNCEMENT**EUBS 2004**
30TH ANNUAL SCIENTIFIC MEETING OF THE EUROPEAN
UNDERWATER AND BAROMEDICAL SOCIETY**September 15th-19th, 2004****Ajaccio, Corsica**

Organised by EUBS in collaboration with:
Hyperbaric Medicine Department, «la Miséricorde» Hospital, Ajaccio
MEDSUHYP
IMSMAH
FFESSM

WELCOME TO AJACCIO!

Host city of the 30th Annual Scientific Meeting of the European Underwater and Baromedical Society on Diving and Hyperbaric Medicine. The organising committee of the EUBS 2004 Meeting is very happy to welcome you in Ajaccio, Corsica (France) a Mediterranean Island situated in the heart of the gulf of Genoa.

Ajaccio has managed to keep natural beauty of its coast line, which is famed for being one of the most beautiful gulfs in the world. In the pedestrian streets of the old town, you will naturally follow the footsteps of the Napoleon way, enjoy the wonderful museums and savour the bustle of the daily market.

On the way to the «Sanguinaires» Islands you will see stunning beaches, isolated creeks and you will be overawed by the fascinating colours of the purple cliffs by sunset. In Ajaccio surrounded by scenic mountains, you are never far from the sea. «Ajaccio la Belle» is pleased to welcome you to such a wonderful and inspirational place.

We strive to maintain a high level of oral and poster presentations, and we would like to invite you to actively participate in this meeting. This is a good opportunity to share ideas and opinions on current topics. We think this could promote a high level of quality works. This year, the organising and scientific committees have decided that a prize will be awarded to the best presentation (oral or poster), one in diving medicine and the other one in hyperbaric medicine.

We hope you will be entirely satisfied with our hospitality and we are looking forward to seeing you at the EUBS 2004 meeting.

On behalf of the organising committee, I would like to welcome you to Ajaccio in Corsica.

Bruno Grandjean, MD
Secretary General of the EUBS 2004 meeting

SCIENTIFIC COMMITTEE**Chairman of Scientific Committee:**

Jean-Louis Meliet

Members of Scientific Committee:

Jordi Desola	Spain
Peter Germonpré	Belgium
Martin Hamilton-Farrell	United Kingdom
Erik Jensen	Denmark
Jacek Kot	Poland
Jean-Claude Le Péchon	France
Theodore Mesimeris	Greece
Peter Mueller	Germany
Monica Rocca	Italy
Jörg Schmutz	Switzerland
Ad. J. Van Der Kleij	The Netherlands

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SUPPORTING ORGANISATIONS:

EUBS 2004 is organised by European Underwater and Baromedical Society in collaboration with:

- Hyperbaric Medicine Department, «La Miséricorde» Hospital, Ajaccio
- MEDSUBHYP (Société de Physiologie et de Médecine Sub-aquatiques et Hyperbares de Langue Française)
- IMSMAH (Institut Méditerranéen de Sciences Médicales Appliquées à l'Hyperbarie)
- FFESSM (Fédération Française d'Etudes et de Sports Sous-marins)

GENERAL INFORMATION:

Dates: Wednesday 15th to Sunday 19th September, 2004

Location: The 30th annual scientific meeting of the European Underwater and Baromedical Society will take place in Ajaccio, the regional capital of the «Ile de Beauté», a friendly stopping place surrounded by scenic mountains on the shore of one of the most beautiful gulfs in the world.

Venue: The meeting will be held at the «Palais des Congrès et Expositions Millenari» d'Ajaccio. The «Palais des Congrès et Expositions Millenari» built according to maritim architecture, like a boat dominating the sea, ideally situated at the heart of the imperial city, is next to both the marina and the merchant harbour, 10 min away from Ajaccio Campo dell'Oro International Airport. The short walking distance from the hotels to the congress center will give the participants a general impression of Ajaccio, an elegant city pleasant to live and a delight to discover, which has kept the charm of a small mediterranean town with a rich architectural and historical heritage.

How to reach Ajaccio:

By plane: Ajaccio International Airport is situated at 4km from the city center. From the airport a 10 min bus connection will take you directly to the city center where most of the hotels available for the EUBS meeting are situated.

By boat: There are crossings by ferry or high speed boats between Ajaccio merchant harbour (which is situated near the town center) and the continent. Departing from the harbours of Marseilles, Nice or Toulon.

Needing more information for organising your trip, you can contact our official travel agency:

«Corsica Voyages, Selectour»

Phone: +33 (0)495 21 10 12

Fax: +33 (0)495 51 05 54

Website: www.ollandini-voyages.fr

PRE-AND POST CONGRESS MEETING:

Pre-Congress Workshop: Quality insurance in Hyperbaric Medicine – Wednesday September 15th.

A full day workshop, organised by the European Committee on Hyperbaric Medicine, will provide an overview and discussion forum on following topics: clinical governance, used equipments and certification, health and safety guidelines, adverse events and accreditation of hyperbaric facilities.

Post-Congress Symposium – Sunday September 19th.

This morning symposium organised by MEDSUBHYP (Société de Physiologie et de Médecine Sub-aquatiques et Hyperbares de Langue Française) will be devoted to presentations and discussions on a «hot topic»: the safety of decompression models. Simultaneous translation from french (the official language of Medsubhyp) to English will be provided in order to make this symposium accessible to as many EUBS participants as possible.

SOCIAL ACTIVITIES:

Welcome Reception: On Thursday September 16th, we are proud to invite you and your spouse to a welcome reception at the Ajaccio City Hall, «Salon Napoléonien» where the Mayor will host us at 6.30 pm.

Guided Tour of Ajaccio: Friday afternoon September 17th, will be devoted to the cultural and historical aspects of Ajaccio founded in 1492. The memory of Napoleon Bonaparte is firmly entrenched in the city and many are the places, streets and buildings reminding us that the future Emperor was born here in 1769.

EUBS annual banquet: In the good tradition of EUBS, we will keep the annual banquet at an exquisite venue. The Ajaccio's art of living will confirm your feelings that the local inhabitant hospitality is as warm as the sun, and will make your stay truly unforgettable.

Partner's program: A special partner's program will also be organised. More details will follow in the second announcement.

6th ECHM CONSENSUS CONFERENCE

on

Prevention of dysbaric injuries in diving and hyperbaric work

Organised jointly with
the European Diving Technology Committee, DAN Europe and
SUHMS

Friday 24th and Saturday 25th October 2003
Geneva, Switzerland

Dedication:

To the memory of **Tor Nome**, a most knowledgeable expert in the field of professional diving and a very charming friend died recently.

Questions:

- 1) Is there a consensus about the fitness-to-dive criteria?
- 2) Is a medical re-assessment necessary for all divers?
- 3) Should safety management be the same independent of diving activities?
- 4) Which is the role of decompression procedures for prevention of dysbaric injuries?
- 5) Does personal of hyperbaric treatment chambers and compressed air workers need specific safety procedures to prevent dysbaric injury?

Scientific Committee:

- Pr Daniel Mathieu (ECHM)
- Pr Alessandro Marroni (DAN Europe)
- Mr Crawford Logan (EDTC)
- Dr Jordi Desola (ECHM/EDTC)
- Dr Jürg Wendling (ECHM/EDTC)

Organising Committee:

- Dr Jürg Wendling
- Dr Jörg Schmutz
- Dr Peter Knessl
- Dr Christine Wehrli

Jury:

- Pr Dirk Bakker (chairman), the Netherlands
- Pr David Elliott, United Kingdom
- Dr Bruno Grandjean, France
- Dr Pietro Giovanoli, Italy
- Mr Olav Hauso, Norway
- Dr Filipe Roque, Portugal
- Dr Zdzislaw Sicko, Poland
- Dr Seppo Sipinen, Finland
- Pr Daniel Slosman, Switzerland
- Dr Akin Toklu, Turkey
- Dr Ulrich Van Laak, Germany

Literature reviewers:

- Dr Sandra Torti-Gerber, Switzerland:
"Fitness to dive"
- Dr Peter Müller, Germany:
"Decompression procedures and safety"

Experts:

- Dr Ramiro Cali-Corleo:
"Impact of pre-dive medical examination on the incidence of diving accidents"
- Dr Stephen Watt:
"Fitness to dive medical assessment: professional aspects"
- Dr Robert Van Hulst:
"Fitness to dive medical assessment: military aspects"
- Dr Kay Tetzlaff:
"Fitness to dive medical assessment: air compressed worker aspects"
- Dr Chris Edge:
"Fitness to dive medical assessment: recreational diving aspects"
- Dr Peter Germonpre:
"How a newly identified medical condition may impact fitness to dive criteria"
- Mr Deric Ellerby:
"Safety management: recreational diving aspects"
- Mr Michael Lang:
"Safety management: scientific diving aspects"
- Mr Alessandro Bosco:
"Safety management: professional aspects"
- Dr Jacek Kot:
"Safety management: HBO aspect"
- Dr Valerie Flook:
"Models for safe decompression procedures"
- Mr Jean-Pierre Imbert:
"Decompression data bases: what impact to improve safety of decompression procedures"
- Pr Constantino Balestra:
"Lessons drawn from the in-field experience"
- Mr Jean-Claude Lepechon:
"Specific aspects of safety procedures for air compressed workers"
- Dr Pasquale Longobardi:
"Specific aspects of safety procedures for HBO personnel"
- Dr Adel Taher:
"Do we have to adapt safety procedures for personnel in remote HBO facility"

Recommendations of the Jury

Question 1

Is there a consensus about the fitness-to-dive criteria? and

Question 2

Is a medical re-assessment necessary for all divers / pressure-exposed-individuals (PEI)?

- 1) There is consensus within the Jury that the joint ECHM-EDTC fitness-to-dive criteria are an agreed standard for all categories of diving and work at raised environmental pressure
- 2) It is agreed that these standards may be accepted in different Countries with modifications that are required by national legislation or customary medical practice
- 3) We recommend that these standards should be reviewed periodically by ECHM and EDTC for possible modifications
- 4) The method of assessment for compliance with these fitness recommendations may vary. For example, different categories of diving may select a greater or lesser dependence on the use of self-administered questionnaires. It is considered that at present there is insufficient evidence to make a final decision on this and the Jury recommends that the ECHM-EDTC conduct a future review on the basis of validated evidence.
- 5) It is agreed that medical re-assessment is important. The ECHM-EDTC has recognized that there should be two types of re-assessment. The Jury recommends that periodic re-assessment be required for all and that re-assessment is also required occasionally in between such periodic assessments. This may be the result of some illness or accident whether it occurs while diving or when at the surface. It is recommended by the Jury that the diver or worker at raised environmental pressure be instructed on their personal responsibility for initiating this process
- 6) The Jury notes that the result of the assessment can be unfitness, fitness or an individual specification of some restricted fitness. It is agreed that the diver/worker at raised environmental pressure has the right to appeal against any decision made by the examiner. The procedures for such appeals may vary between categories of diving/work at raised environmental pressure and between countries.
- 7) The Jury endorses the ECHM-EDTC Training Standards in Diving and Hyperbaric Medicine and recommends that these standards be reviewed periodically by the committees for possible modifications.
- 8) The Jury recognizes that in some Countries the trained medical examiner (Level 1) may not have the legal authority to sign a fitness to dive certificate for all diving/work capacities. The Jury recommends that the ECHM-EDTC Standards of Fitness be brought to the attention not only of national government authorities (already aware through their EDTC Representatives) but also the national organizations for occupational and sports medicine and the various recreational diving organizations

Question 3

Should safety management be the same independent of diving/hyperbaric work activities?

- 1) The risk management methodology composed of three steps: risk analysis, risk evaluation and risk control (ref: EN ISO 14971), should be applied to every activity involving underwater diving or exposure to compressed gas. All the individuals diving or exposed to compressed gas atmospheres should follow the same rules.
- 2) The general rule that no single failure may cause serious accidents has to be implemented through safety plans.
- 3) Risk control includes the introduction of barriers that may be of technical and/or organizational and/or operational nature.
- 4) Responsibilities shall be clearly defined before any operation.
- 5) In every activity, Emergency Procedures (EPs) as well as Standard Procedures (SPs) shall be prepared in advance in order to minimize the consequences of failure/accidents
- 6) Emergency Procedures (EPs) and Standard Procedures (SPs) shall be in written form, easily available, adapted to the situation, regularly updated and familiar to everyone involved in the diving / compressed gas activity
- 7) Everybody involved in a diving / compressed gas activity shall be trained to react appropriately to emergency situations according to his/her level of responsibility.
- 8) In diving / compressed gas activities performed in a professional capacity, prevention measures shall be in place through regulations. It should be understood that, in recreational diving, any such regulations might have a limited impact/effect; education is therefore essential to implement a safety-oriented culture in recreational divers. Main targets for such education are, as a priority, persons connected with responsibility: managers, medical advisers, instructors, diving guides, etc.
- 9) There should be a reporting system of incidents organized in a way that information is readily available and shared.
- 10) All individuals involved in diving / compressed gas activities shall be informed by the responsible person of the hazards and the implemented preventive measures before giving his/her informed consent.
- 11) The joint ECHM-EDTC Committee should periodically review these recommendations.

Question 4**What is the role of decompression procedures in prevention of dysbaric injuries?**

Background:

- Diving/ Exposure to Pressure is considered to be safe according to the data currently available.
- However, this is based upon clinical symptoms of DCI rather than upon bubble production.
- “Haldanian” decompression models (and currently adopted models for saturation diving/exposure) are still an acceptable basis for prevention of DCI. They should be adapted to the bubble phenomena, which are generally present at the end of a dive/exposure to pressure.
- Mathematical models, experience from saturation diving/exposure to pressure and first studies based upon bubble detection in divers / pressure-exposed-individuals (PEI) show evidence that deep stop and reduced ascent rate contributes to lower bubble production.

Recommendations:

- 1) It is recommended that groups of experts join their efforts in order to perform studies using bubble detection methods in the field.
- 2) However, studies like this have to focus on bubble production in divers / pressure-exposed-individuals (PEI) always using dive / exposure profiles that are considered to be safe according to the current diving medical knowledge. This can be accomplished by collecting large numbers of data from unrestricted diving / exposures including adequate pre-, post dive / exposure questionnaires, electronic filed dive / exposure profiles, and possibly bubble detection or any other suitable method.
- 3) A surveillance system such as a centralized database is considered to be an extremely helpful tool for development of safer decompression procedures.

Question 5**Do personnel of hyperbaric treatment chambers and compressed air workers need specific safety procedures to prevent dysbaric injury?**

- 1) Certain differences between hyperbaric treatment attendants and compressed air work exist.
- 2) Generally the occupation of working as multiplace hyperbaric attendant is safe.
- 3) Incidence of DCI in hyperbaric chambers has been variously reported depending on treatment pressure (depth). The overall incidence rate was extremely low with no correlation of DCI and gender of tender. There was a linear correlation with increasing pressure and incidence of DCI.
- 4) Prevention of DCI by oxygen breathing and rotation of hyperbaric attendants is extremely useful.
- 5) Standards for medical fitness to dive are written primarily for occupational in-water divers and/or compressed air workers, and do not specifically address the requirements of hyperbaric medicine attendants. It is recommended that the specificities of hyperbaric medical attendants will be included in revised ECHM-EDTC fitness standards.
- 6) Oxygen decompression seems to be the best method for safe decompression of compressed air workers. Development of customised tables, taking into account the specific working conditions in different hyperbaric environments is recommended.
- 7) If oxygen breathing for compressed air workers or hyperbaric personnel is not possible in the present situation, technical solutions should be developed to enable oxygen breathing at any time during the hyperbaric exposure according to the needs of the employee.

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BOOK REVIEWS

THE BIOLOGY OF HUMAN SURVIVAL Life and death in extreme environments.

by Claude A. Piantadosi, MD.

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This small book (263 pages) packs a large punch. In an age of ever increasing specialisation, it is refreshing to find an expert guide to so many areas that have their own literature, societies, accreditation and career paths. The book is not a reference tome for those who are happy being in familiar well learned areas of detailed knowledge, but even they will appreciate the useful bibliography and will have pleasant surprises in their own fields. A prime use of this book is that it is a superb and selectively referenced guide to less familiar overlapping areas that few can claim equal expertise in. Had this volume been available at the start of my ventures into hyperbaric, hypobaric and survival medicine in a previous military life in Australia and elsewhere, the path would have been much more clearly way marked. Piantadosi has the gift of the polymath in distilling to the essentials, and making the complex appear simple.

There are chapters on the environment, survival in extreme environments, cross-acclimation (that word should get you intrigued), water, salt and nutrition as starters. Hyperbaric and Hypobaric Medicine and insights into the latest thinking into the pathophysiology of submarine disasters including the recent Kursk tragedy follow. He then discusses weapons of mass destruction and their impact on man before finishing by discussing the principles that will guide man's future exploration and colonisation of space, illustrating his capacity not to stand still.

Who should read this book? Certainly all those with an interest in the physiology Piantadosi so clearly expounds. He destroys several fondly held myths, and shows how extreme states frequently give insights into the "normal". Non medical readers will find the explanations understandable, and perhaps those who would benefit most might be those who even today do not heed the hard won lessons of the past. Lives would be saved if this book was put into their hands. Military and perhaps other disasters that appear cyclically from the past do not always arise from stupidity, ignorance, and bad luck. More commonly they arise from the inability to take clearly demonstrated facts into account that do not fit preconceived ideas or priorities. Refs 1 & 2.

Piantadosi's way of thinking as well as the clearly stated principle make this book hard to put down. Many of the chapters can stand on their own.

References:

1. On The Psychology of Military Incompetence. Norman F Dixon. Publ Jonathon Cape. 1976. ISBN 0-244-01161-8
2. Why Continue To Induce Decompression Bends In Military Personnel? Sightings. High Altitude Medicine and Biology. 4: 1. Spring 2003. ISSN 152-0297. P11.

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1. Thorsen E, Risberg J, Segadal K, Hope A. Effects of venous gas microemboli on pulmonary gas transfer function. *Undersea Hyperbaric Med* 1995; 22:347-353.
2. Hempleman HV. History of decompression procedures. In: Bennett PB, Elliott EH, eds. *The physiology and medicine of diving*. London: WB Saunders, 1993:324-375.
3. Kindwall EP, Goldmann RW. *Hyperbaric medicine procedures*. Milwaukee, WI: St. Luke's Medical Center, 1970.

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