

## PROGRAM



# 26th Capita Selecta Duikgeneeskunde Symposium Diving Medicine, Marsa Salam, Egypt



Date: 11 -18 May 2019

Venue: Marsa Shagra Dive Eco Village, Marsa Alam, Egypt

### Aim

*This course aims to give insight to the dive physician in various aspects of diving (patho-) physiology and medicine. It gives a theoretical basis for the medical exam as well as practical knowledge.*

It is intended for diving physicians coming from the various disciplines such as occupational-, sports- general medicine as well as clinical specialists, other health workers and high-educated instructors. The material will be presented by video-lectures given by renowned scholars of diving physiology and medicine and will be discussed afterwards by Adel Taher MD, diving and hyperbaric physician, and Dr. Nico Schellart, diving physiologist.

### Recommendation

The course is recommended by the Nederlandse Vereniging voor Duikgeneeskunde (NVD, Dutch Soc Dive Med).

### Accreditation

In general, the level of the various lectures / subjects of the meeting are (at least) in accordance with that of EDTC and ECHM, level 1 (Medical Examiner) and Level 2D (Diving Physician). The program comprises **8 oral contact hours**. The Dutch SCAS (diving physicians C and D) has been requested to provide 8 accreditation points for the meeting.

### Moderators

GP Adel Taher, diving and hyperbaric physician, director Hyperbaric Medical Centre in Sharm el Sheik, Egypt.

Nico Schellart, PhD MSc, Assoc. Prof ret, medical physicist, Academisch Medisch Centrum, Amsterdam, The Netherlands.

### Participants

Diving physicians, academic and higher educated paramedics, high qualified instructors with higher education. The maximum number of participants is 25. Participants obtain a reader in advance of the meeting. Those who attended the whole program and performed the test obtain a certificate.

### Scientific committee

Nico Schellart (chair, medical physicist and diving physiologist), Tjeerd van Rees Vellinga (occupational and hyperbaric physician), Marga Schweigmann (GP, hyperbaric & diving physician), Peter Westerweel (internist-haematologist) and ad hoc Adel Taher.

### Executive committee

Nico Schellart (congress director) and Hans van Dam. (administrative manager)

### Responsibility

The Capita Selecta Duikgeneeskunde are given under the responsibility of the Academic Medical Centre, Univ. of Amsterdam (director Nico Schellart). The organization is by the Stichting Duik Research (SDR)<sup>1)</sup> and Biomedical Engineering & Physics, AMC (chair Prof. Dr. A.G.J.M. van Leeuwen, PhD, MEng).

### Announcements

Ongoing announcements about future courses can be found at [www.duikresearch.org](http://www.duikresearch.org), [www.diverresearch.org](http://www.diverresearch.org) or are communicated by E-mail.

<sup>1)</sup> SDR is a non-profit organisation aimed to promote dive safety. Work for SDR is done on a voluntary base.

## Moderators



**Adel Taher, MD.** He is diving & hyperbaric medicine physician, diving instructor and diving medical specialist at the time, he was the driving force behind the multi-place, multi-lock chamber in Sharm el Sheik as he saw the need for a facility to specialize in diving related accidents. The chamber was built in the USA. He is, in addition to being director of the Hyperbaric Medical Centre in Sharm el Sheik also the founder and director of the diving chamber of Dahab. With over 200 diver-HBO treatments per year, he is without any doubt world leader and trained many physicians in hyperbaric medicine. Dr Adel Taher is

member of many international medical diving committees, and lectures about his work at universities, courses, etc. all over the world. He is also the director of DAN-Egypt, a member of the UHMS and of the EUBS. He was the driving force behind the EUBS Annual Scientific Meeting in Sharm el Sheik in 2007 and a recognized invited speaker at their congresses. Diving still is his passion. He worked intensively on diver education and raising the awareness of dive professionals and divers regarding proper management of dive accidents in remote areas and the proper utilization of normobaric oxygen. The Hyperbaric Medical Centre in Sharm hosts dive medical specialists from all over the world to offer hands-on experience.



**Nico Schellart, PhD, MSc,** graduated as biologist and specialized in physiological and biomedical physics. He investigated visual information processing of the retina, resulting in a PhD in 1973 (University of Amsterdam). He is an associate professor with the dept. of Biomedical Engineering and Physics of the AMC and was associate editor of a bioengineering journal. He has investigated information processing of the visual and auditory system in the brain, with animals and with humans by fundamental and clinical EEG and MEG research. His neuroscience studies have been published in some 50 papers, 80 abstracts and 10 contributions in textbooks and published an electronic free textbook in biomedical

physics. He has studied the brain and the visual system under hypoxic and hyperoxic conditions both in the lab and in the field, including pre-cordial Doppler studies, and recommends HBO treatment for patients with cerebral radiation damage. He published these about 20 dysbaric and HBOT studies in e.g. Cancer, J Appl Physiol, and in conference proceedings. He teaches diving physiology. is member EUBS and NVD, was member of UHMS (during Obama administration), and often participated with contributions in their annual meetings. Also, he has tested the technical and physiological performance of dozens of dive computers ([www.duikresearch.org](http://www.duikresearch.org)), and is a recreational scuba- and formerly a free diver.

## Lecturers

**Nick Bird, MD** After medical school he completed a residency in family medicine, and subsequently joined the US Air Force as a flight surgeon and served in Iraq. He received his initial training in hyperbaric medicine while stationed at Travis Air Force Base and completed a fellowship in diving and hyperbaric medicine at the University of California San Diego. He then served as the medical director for hyperbaric medicine at Dixie Regional Medical Center in St. George, UT prior to coming to DAN. He is the CEO and Chief Medical Officer at DAN and oversees the mission departments of medicine, research and education. He started diving in 1984 and became an instructor in 1989. He taught diving in southern and northern California prior to attending medical school.

**David Charash, DO** currently serves as the medical director for the Wound Care and Hyperbaric Medicine division of the Danbury Hospital in Connecticut. He is Board certified in Emergency Medicine and Undersea and Hyperbaric Medicine. He has completed both the UHMS/NOAA Dive Medicine Physician, and UHMS Medical Evaluation of Diver programs. He is a DAN Referral Physician, DAN Instructor, and PADI Diver. He lectures locally and nationally on topics of dive safety and dive medicine.

**Stephen Hoffman, MD** is a board certified emergency medicine physician in San Francisco, California. He is currently licensed to practice medicine in California and Nevada. He is affiliated with UCSF Medical Centre and is an Associate Clinical Professor at UCSF School of Medicine..

**Christopher Logue, MD** graduated medical school from the State University of New York at Buffalo School of Medicine and Biomedical Sciences. He currently serves as the health system's clinician/clinical instructor, emergency department physician at Penn Presbyterian Medical Center and the hyperbaric medicine attending physician at the Hospital of the University of Pennsylvania. Christopher became a SCUBA Instructor in 1993 through the National Association of Underwater Instructors (NAUI) and he still remains in active status.

**Dan Orr, MSc** studied Biology. Prior to coming to DAN, he was the Associate Diving Officer at Florida State University and, before that, he was Director of Diver Training Programs at Wright State University in Dayton, Ohio and has authored and contributed to many books and magazine articles including co-author of Scuba Diving Safety and DAN's Pocket Guide for Diving Safety series. He came to Divers Alert Network in 1991 as Director of Training. He was responsible for developing and implementing DAN training programs including the internationally successful DAN Oxygen First Aid Course. Dan Orr. He is President of Divers Alert Network

**Neal Pollock, PhD.** is a Canadian academic and diver. Born in Edmonton, Canada he completed a bachelor's degree in zoology; the first three years at University of Alberta and the final year at the University of British Columbia. After completing a master's degree he then served as diving officer at University of British Columbia for almost five years. He then moved to Florida and completed a doctorate in exercise physiology/environmental physiology at Florida State University. Neal co-organized and edited the proceedings of the 2005 Undersea and Hyperbaric Medical Society / Divers Alert Network 'Diabetes and Recreational Diving: Guidelines For The Future Workshop. He co-chaired the Undersea and Hyperbaric Medical Society / Divers Alert Network 2006 breath-hold workshop and co-edited the proceedings published from that meeting.

**Richard Sadler, MD** attended the Medical College of Virginia and completed his surgery residence at the University of California– Irvine, followed by simultaneous Vascular and Thoracic Surgery residencies at the University of Iowa. Desiring to reconnect with his trauma experience, he merged his General Surgery and CV expertise and started the nonprofit Med Force Helicopter EMS system with a used Bell 222. His professional interests include surgery of the aorta, underwater medicine and the evolution of crew resource management and human factors applications to the operating room environment. Additional appointments include Safety Officer for the Mississippi Valley Surgery Center in Davenport, Iowa. He completed the NOAA Diving Medical Officer Course and became Board Certified in Underwater Medicine. He received his PADI Divemaster certification from the Kapalua Dive Company. He currently is an active Public Safety Diver, and is medical director for the Dive Rescue International training agency. He is an active diver since 1988,

**Michael Strauss, MD** is a Clinical Professor of Orthopaedic Surgery at the University of California Irvine as well as the orthopaedic consultant for the PACT (Preservation-Amputation, Care, and Treatment) Clinic at the Veterans Affairs Health Care Medical Center, Long Beach, Calif. He is an undersea and hyperbaric medicine expert. After completing U.S. Navy Submarine and Diving Medical Schools, he served on a nuclear submarine, with salvage divers in the Philippines and Vietnam and with the SEAL teams in San Diego. After these fleet experiences, he completed his orthopaedic surgery residency at the Navy Medical Center, San Diego. He was released from active duty in 1977, but remained with the Navy SEAL reserve teams until his retirement from the Naval Reserve in the year 2000, concluding a 34 1/2 year affiliation. He has written two text books ("Diving Science," 2004 and "MasterMinding Wounds," 2010), three chapters for Kindwall's 2008 "Hyperbaric Medicine Practice" text as well as more than 100 publications on orthopaedic, diving medicine, hyperbaric medicine and wound management subjects as well as an equal number of posters and exhibits.

**David Young, MD, MSc, MSc** trained in Emergency Medicine at Massachusetts General/Brigham & Women's Hospital and complete the Wilderness and Environmental Medicine Fellowship at the University of Colorado Anschutz Medical Campus. His interests involve remote and extreme environments as well as ultra-endurance race medicine. He has served as the physician at the Amundsen-Scott South Pole Research Station and as medical staff for many ultra-endurance events. He currently serves as the co-director for the medical student wilderness medicine course at the University of Colorado and is Wilderness Medicine Fellow, Emergency Medicine Faculty.

## General programme

At the diving resort it is possible to dive from 6:00 to 19:00 (night dives must start in twilight). Every day breakfast is from 7:00, lunch from 12:00 and dinner from 18:30. Experimental dives.. Afternoon leisure time for diving and snorkelling. Dinner from 18:30. After dinner course starts at 19:15..

**11 May:** Arrival at Marsa Shagra. For those coming with the group package from Amsterdam there is free transfer to the resort.

Those who arrive in the early night will have their dinner directly after arrival.

12 May

- o 9:00-12:00 Morning research by SDR (for those who volunteered).
- o Afternoon Leisure time (diving etc.).
- o 19:15-21:15 Pre-course session. Explanation diving-physiological study with volunteers.

13 and 14 May

- o 6:00-12:00 Morning research by SDR (for those who volunteered).
- o Afternoon Leisure time (diving etc.).
- o 19:15-21:15 International course Diving medicine.

15 May

- o 6:00-12:00 Morning research by SDR (for those who volunteered).
- o Afternoon Leisure time (diving etc.).
- o No course. Course attendants can perform a nightdive.

16 & 17 May

- o Same as 13 May

*Course contact time 8 hours.*

18 May. Time for leisure and snorkelling and lying back to Europe or else.

The program is subjected to changes (weather, flying times at Saturday).



## Pre-course video presentations

- 0 19:15-19:30 Nico Schellart Explanation diving-physiological study with volunteers**  
**0 19:30 -21:15 Stephen Hoffman Dive Medicine, for instructors and high-certificated divers. Sunken Ancient Egyptian City Discovered – Documentary.**
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## Course lectures

**13 May**

**1 David Young Dive Medicine, Moderator Adel Taher (60 +20\* min)**

This lecture provides an up-to-date approach to the issue of medications and diving. Emphasized is a systems approach to evaluate medical fitness to dive questions for divers who are either taking or will take medications.

**1 Nick Bird, Remote Management of DCS, Moderator Adel Taher (24 + 16 min).**

Check out this talk and learn signs and symptoms of decompression sickness; diagnostic criteria and treatment options in remote areas; and important factors that may help guide decisions about treatment versus evacuation.

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**14 May**

**2 David Charash, Children and diving, Moderator Nico Schellart (22+3 min)**

Highlights important considerations for making informed decisions regarding children and diving.

**2 Michael Strauss, Ageing and Diving, Moderator Nico Schellart (16 + 4 min)**

While older age is not a contraindication, it's important to have a framework for making informed decisions about diving as we age. Michael Strauss, MD, addresses these important concepts in his presentation "Aging and Diving: Guideline for Diving in Older Aged Individuals" from The Science of Wound Care, Diving and Hyperbaric Medicine 3rd Annual Conference and Expo.

**2 Richard Sadler Situational awareness: metacognitive approach to person and time savety. Moderator Nico Schellart (22 +3 min)**

Do you ever multitask? Review of what can go wrong, even with training and preparation, emphasizing the importance of divers maintaining awareness while underwater.

**2 Neal Pollock, Breath Holding – Physiology, Hazards & Community Education. Moderator Nico Schellart (41 + 9 min)**

Blackout is caused by excessive hyperventilation. Risks are best managed through education and awareness.

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**16 May**

**3 Christopher Logue, Medical evaluation to dive, Moderator Adel Taher (27 +13 min)**

He presents a case study to provide insight to evaluation process for recreational divers, including previous illnesses and sports injuries.

**3 Dan Orr, Diver fatalities. Moderator Adel Taher (45 +15 min)**

This lecture provides information about Diver Fatalities

**3 Tim Clements and Marc Powells Diver Rescue Film IANTD TDI (12 + 8 min).**

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**17 May**

**4. Nick Bird, Medication and Diving, Moderator Adel Taher (24 +6 min).**

**4. Nico Schellart, Relevance of  $VO_{2max}$ , age, body fat for the assessment of fitness to dive (30 +10 min)**

**4 BBC Real Men Series Saturation Diving , Moderator Adel Taher (45 + 5min)**

**Test**

\* Duration of the lecture itself and discussion time

## Symposium Fees

|                        |         |
|------------------------|---------|
| Dutch Physician*       | € 135,- |
| Non-Dutch physicians** | € 100,- |
| Non- physician         | € 60,-  |

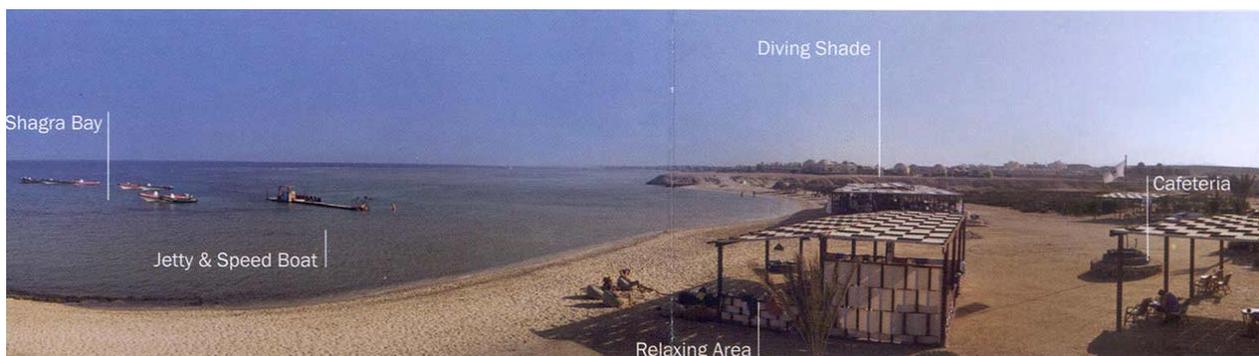
\* Dutch physicians (BIG registration) obtain after request the SCAS accreditation points when they have completed the whole course and the test.

\*\* Non-Dutch physicians obtain a certificate after request when they have completed the whole course and the test..

## Booking at the Eco Diving Village Marsa Shagra.

Dutch participants, departing from a Dutch airport can buy a flight&accommodation package of Diving World., <http://www.divingworld.nl> (guaranty organizations are ANVR ([www.ANVR.nl](http://www.ANVR.nl)), Calamiteitenfonds, Calamity Fund, [www.calamiteitenfonds.nl](http://www.calamiteitenfonds.nl) and the Guarantee fund, [www.sgr.nl](http://www.sgr.nl)). In addition when you have a CMAS 2\* or PADI Advanced licence, then you can order with e.g. Dive World a 5-dive diving package (Dive tank (10 or 12 L; DIN and International valves), air and weights, and Zodiac rides to the drop-off of the house reef are included). For boat there will be additional charges. Dive equipment rental and nitrox are available. You can also book directly at <https://www.redsea-divingsafari.com/villages/marsa-shagra> with a dive package and arrange your own flight .

For further info: Hans van Dam ([hansvdamster@gmail.com](mailto:hansvdamster@gmail.com)).



Disclaimer: Capita Selecta Duikgeneeskunde is bound to execute the educational program, but program changes are under reserve.