Diving and Hyperbaric Medicine

October 2021 > September 2022
Underwater medicine (or diving medicine) and hyperbaric medicine are growing disciplines. The development of a very specialized technology is being witnessed. The Evidence-Based-Medicine that was lacking in the hyperbaric field about twenty years ago has developed and has demonstrated the effectiveness of this therapy in many cases.

While underwater medicine is primarily concerned with divers, hyperbaric medicine interacts with many medical and surgical specialties. It can be applied to acute and chronic diseases involving multidisciplinary teams. This specialty nowadays allows many patients to benefit from hyperbaric oxygen therapy as in post-radiation lesions, diabetic ulcers, difficult healing wounds, necrotizing fasciitis, chronic osteomyelitis, etc.

The Certificate of Advanced Studies (CAS) in Diving and Hyperbaric Medicine of the Faculty of Medicine at the University of Geneva is an innovative course, unique in Switzerland. The purpose of the CAS is to train specialists and general practitioners to use hyperbaric medicine. This state-of-the-art advanced training programme develops scientific knowledge and skills in prevention, diagnosis, treatment and evaluation in underwater and hyperbaric medicine and applies them in their own professional environment. It interacts with emergency medicine, occupational medicine (hyperbaric workers, professional divers), and opens the field to research in multiple fields.

The CAS consists in 2 modules described below, allowing each student to acquire the desired knowledge according to his objectives.
Steering Committee

Director

Prof. François Sarasin, Head of the Emergency Department of Geneva University Hospitals (HUG), Ordinary Professor, Department of Acute Medicine, Faculty of Medicine, University of Geneva, Program Director

Experts

- Dr Jean-Yves Berney, Hyperbaric Medicine, Emergency Department Department of Acute Medicine, Geneva University Hospitals (HUG)
- Dr Rodrigue Pignel, Deputy Physician in charge of the Hyperbaric Medicine Program, Emergency Department, Department of Acute Medicine, Geneva University Hospitals (HUG)

Members

- Dr Jerome Stirnemann, General Intern Medicine Department, Geneva University Hospitals (HUG)
- Prof. Laszlo Vutskits, Department of Anaesthesiology, Pharmacy and Intensive Care, Faculty of Medicine, University of Geneva

Scientific Committee

- Prof. Michel Decroux, Department of Quantum Matter Physics, Faculty of Science, University of Geneva
- Dr Jean-Yves Berney, Hyperbaric Medicine, Emergency Department, Department of Acute Medicine, Geneva University Hospitals (HUG)
- Dr Pierre Louge, Hyperbaric Medicine, Emergency Department, Department of Acute Medicine, Geneva University Hospitals (HUG)
- Dr Marie-Anne Magnan, High Altitude and Hyperbaric Medicine, Emergency Department, Department of Acute Medicine, Geneva University Hospitals (HUG)
- Dr Rodrigue Pignel, Physician in charge of the Hyperbaric Medicine Program, Emergency Department, Department of Acute Medicine, Geneva University Hospitals (HUG)
Speakers

Researchers and professors of the Universities, experts of the field at the Swiss and international level:

Prof. C. Balestra, Brussels, Belgium • Prof. J.E. Blateau, Toulon, France • Dr M. Gelsomino, Basel, Switzerland • Dr P. Germonpré, Brussels, Belgium • Dr M. Coulange, Marseille, France • Dr T. Joffre, Lyon, France

Public

Physician

Objectives

- Train qualified physicians in the field of underwater and hyperbaric medicine
- Provide the theoretical and practical basics of underwater and hyperbaric medicine: determine indications and monitor treatments

Programme

- The CAS consists in 2 thematic theoretical modules and 100 hours of professional practice in the form of an internship in the field of underwater and hyperbaric medicine. In addition, a research paper is required.
- The CAS conforms to the European standards of ECHM (European Committee for Hyperbaric Medicine, www.echm.org).
- Both levels are recognized by SUMHS (Swiss Society of Underwater and Hyperbaric Medicine, www.suhms.org).
Module | **Diving Medicine Physician**  
**Level 2D ECHM**

7, 8, 9 October 2021  
5, 6, 7 December 2021  
28, 29 January 2022

**Dr Jean-Yves Berney and Dr Marie-Anne Magnan**

**Topics**
- Adaptation to pressure  
- Introduction to diving medicine  
- Ability to dive  
- Diving: technique and decompression  
- Diving accidents  
- Management and treatment of diving accidents  
- Professional diving  
- Practical courses

**Process**
- Internship in hyperbaric center (5 days)  
- One Dive, a Compression 4 ATA

**Skills**
- Ensure the medical evaluation of divers and other professionals working in hyperbaric environment (aptitude, advice)  
- Manage diving accidents (therapeutic, monitoring, requalification, prevention)

**Exam**
- 5 February 2022
Module | Hyperbaric Medicine Physician
Level 2H ECHM

24, 25, 26 March 2022
10, 11 June 2022

Dr Rodrigue Pignel

Topics
Physiological aspects of HBOT
Indications of HBOT
Incidents and contraindications of HBOT
Organization and operation of a hyperbaric system
Practical courses (8 days)

Process
E-learning
Internship in hyperbaric centre (8 days)

Skills
Manage hyperbaric oxygen therapy and its multiple treatment indications
Master a high level hyperbaric facility

Exam
Final Exam and oral presentations: 23 and 24 September 2022

This module can only accept up to 20 candidates.
Teaching methods
The complete programme of studies (2 thematic modules) takes place over 2 semesters, articulating theoretical teaching and practical cases, hours of professional practice in the form of traineeship, a final exam and a research paper.

Evaluation methods
The complete programme of studies (2 thematic modules) takes place over 2 semesters, articulating theoretical teaching and practical cases, hours of professional practice in the form of traineeship, a final exam and a research paper.

Graduation work
The final paper completes the Hyperbaric Medicine Physician module. A written report aims to deepen and / or put into practice the lessons learned. There is a public oral presentation. The subject to be discussed is defined with a member of the Steering Committee or the Scientific Committee.
Qualification awarded

The Certificate of Advanced Studies (CAS) in Diving and Hyperbaric Medicine / Certificat de formation continue (CAS) en médecine subaquatique et hyperbare is awarded by the Faculty of Medicine of the University of Geneva. It equates to 15 ECTS credits (European Credit Transfer and Accumulation System). These credits are validated through the candidates follow-up during all the programme.

Certificate

A certificate is issued to participants who have completed only the Diving Medicine Physician module and have successfully passed the corresponding evaluation.

Recognition

These 2 levels are recognised by the European College of Baromedicine (ECB / ECHM). The candidate is responsible for obtaining the different equivalences of certificates or diploma.
Practical information

Admission Criteria

- Federal title of doctor or deemed equivalent
- Valid BLS
- Experience in emergency medicine, intensive care or anaesthesia (otherwise 8 days of training)
- Medical visit: no contraindication to diving or medical visit: of aptitude to diving

Application files must be submitted before 30 June 2021 and should include the signed registration form, a letter of motivation, a photograph, a CV with copies of the diplomas obtained as well as information concerning professional experience.

Equivalence
Successful applicants who have already validated the Dive Medicine module (Level 2D) as part of an ECHM / SUMHS or equivalent training can register for the Hyperbaric Medicine module. For this, they will have to provide the certificates justifying their preliminary training during their application for admission.

The applications are assessed by the Steering Committee.

Registration before 30 June 2021
The registration form can be downloaded from www.unige.ch/formcont/cours/diving-med
**Registration fees**
- CAS in Diving and Hyperbaric Medicine full: CHF 3,800.-
- Module Diving Medicine Physician | Level 2D ECHM: CHF 2,600.-
- Module Hyperbaric Medicine Physician | Level 2H ECHM: CHF 2,300.-

Applicants enrolled in the entire CAS are given priority.

**Teaching Venue**
Geneva University Hospitals (HUG)
Rue Gabriel Perret Gentil 2-4 – CH-1205 Genève

**Timetable**
8h30-18h00 (Lunch break: 1h30)

**Information**
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