

EURAC
research



ISMM
International Society for Mountain Medicine



X. World Congress on High Altitude Medicine and Physiology & Mountain Emergency Medicine

Hypoxia and Cold – From Science to Treatment

EURAC research
Bozen/Bolzano, Italy
25-31 May 2014

PROGRAMME BOOKLET

	SUNDAY 25 MAY 2014	MONDAY 26 MAY 2014		TUESDAY 27 MAY 2014		WEDNESDAY 28 MAY 2014		THURSDAY 29 MAY 2014		FRIDAY 30 MAY 2014			SATURDAY 31 MAY 2014		
Location	EURAC research Main entrance	Auditorium (Main session)	Conference Hall (Parallel session)	Auditorium (Main session)	Conference Hall (Parallel session)	Auditorium (Main session)	Conference Hall (Parallel session)	Auditorium (Main session)	Conference Hall (Parallel session)	Auditorium (Main session)	Conference Hall (Parallel session)	Seminar Room (Parallel session)	Auditorium (Main session)	Conference Hall (Parallel session)	Seminar Room (Parallel session)
		HIGH ALTITUDE BASIC RESEARCH		HIGH ALTITUDE FOR THE CLINICIAN AND EXPEDITION DOCTOR		HIGH ALTITUDE FOR THE CLINICIAN AND EXPEDITION DOCTOR		FOCUS TOPIC: RESCUE IN NEPAL		IV. INTERNATIONAL SYMPOSIUM ON HYPOTHERMIA			TRAUMA, AIRWAY & CIRCULATION		
9:00-10:30		Session A	Special issues	Session A – Science update	Special issues	Session A	Special issues	Alternative programme MEDICAL WORKSHOPS (full day) GUIDED EXCURSIONS (full day)		Session A – Clinical update	Special issues	Technical workshop	Session A – Clinical update	Special issues	Technical workshop
		Genetic adaptation to high altitude: species and population differences <i>C Beall / J Storz</i>	Workers at high altitude <i>RL Ge / J West</i>	Acute altitude illnesses (AMS, HAPE, HACE) <i>B Basnyat / M Maggiorini</i>	Xtreme Everest 2 <i>D Martin</i> - Resamont 2 project <i>G Miserocchi</i>	Pre-existing cardiac and metabolic diseases at high altitude <i>G Parati / A Luks</i>	Solar irradiation and eye problems at high altitude <i>MM Bosch</i> - Kilimanjaro: a mountain medicine hot-spot <i>P Hackett / A Kulkarni</i>			Accidental hypothermia— prehospital management <i>K Zafren / G Strapazzon</i>	Immersion hypo- thermia and conse- quences for rescue and resuscitation <i>J Bierens</i> - Insights from diving science <i>C Balestra</i>	Stretchers: different models in mountain, canyoning and cave rescue <i>CNSAS / F Bonsante / G Mancinelli / A Santini</i>	Alpine trauma treatment <i>F Elsensohn / E Visetti</i>	Shoulder dislocation and thoracostomy <i>C Kruis / A Rinaldi</i> - Lightning <i>K Zafren</i>	Rescue strategies in cable car evacuations <i>BRD im AVS</i>
10:30-11:00		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK				COFFEE BREAK			COFFEE BREAK		
11:00-12:30		Session B	Meet the expert	Session B – Science update	Meet the expert	Session B	Meet the expert			Session B – Clinical update	Meet the expert	Technical workshop	Session B – Clinical update	Meet the expert	
		Molecular biology of hypoxia <i>J West / M Gassmann</i>	Practical medical problems at base camp <i>U Hefti / L Freer</i>	Chronic mountain sickness <i>RL Ge / F León-Velarde</i>	Requirements for expedition doctors—what to bring and what to know <i>F Berghold / R Fischer</i>	Pre-existing pulmonary, immunologic and neurologic diseases at high altitude <i>E Swenson / A Cogo</i>	Advising mountaineers on planning a trip to high altitude <i>P Hackett / P Bärtsch</i>	Accidental hypothermia— in-hospital management <i>B Walpoth / D Brown</i>	Frostbite and crevasse accidents <i>E Cauchy / B Durrer</i>	Rescue of hanging victims: technical and medical aspects <i>CNSAS / F Bonsante / M Biasioni</i>	Basic and advanced airway management <i>P Paal / I Tomazin</i>	Analgesia in the field <i>J Ellerton</i> - Canyoning and caving rescue <i>I Soteras</i>			
12:30-14:00		LUNCH BREAK & POSTER VIEWING SESSIONS						LUNCH BREAK & POSTER VIEWING SESSIONS							
14:00-15:30		Session C	Meet the expert	Session C	Meet the expert	Session C	Meet the expert	Special issues	Special issues	Session C	Wilderness workshop	Technical workshop	Session C – Clinical update	Special issues	Technical workshop
	REGISTRATION (afternoon)	Mitochondria— Key organelle for bioenergetics in hypoxia and cold? <i>E Gnaiger / R Boushel</i>	Prevention and treatment of AMS, HAPE, HACE <i>M Maggiorini / P Hackett</i>	Women and children at high altitude <i>H Messner / D Jean</i>	Prevention and treatment of non- altitude sickness related problems <i>B Basnyat / K Zafren</i>	UIAA/IKAR/ISMM Diploma of Mountain Medicine and other educational initiatives <i>D Hillebrandt / B Basnyat / F Elsensohn</i> - Celebrating the diversity of national diplomas <i>D Hillebrandt / J Ellerton / S McIntosh</i>	Sport climbing injuries <i>V Schöffl / T Küpper</i>	Rescue initiatives in Nepal <i>B Basnyat / I Tomazin</i>	Research initiatives in Nepal <i>A Ponchia / A Lohani</i>	Avalanche accidents <i>H Brugger / C Grissom</i>	Surviving the cold <i>S McIntosh / G Rodway</i>	Helicopter-supported water rescue <i>Fire Department Bolzano / Emergency Dispatch 118 / Helicopter Rescue South Tyrol</i>	Circulation management and cardiac arrest in mountain and remote areas <i>J Ellerton / M Milani</i>	Rescue in mountain and remote areas: educational and logistical issues <i>M Blacher / G Cipolotti</i>	How to extricate and immobilise a patient in extreme rescue situations <i>B Jelk / BRD im AVS</i>
15:30-16:00		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK			COFFEE BREAK		
16:00-17:30		Session D	Future issues	Session D	Future issues	Session D	Future issues	Panel discussion	Future issues (panel discussion)	Session D	Future issues	Technical workshop	Closing key lecture		
		Pros-cons: Hypo- vs. normobaric hypoxia and the influence on exercise performance <i>M Bartscher / R Roach</i>	Ultrasound and NIRS—new tools for research at high altitude <i>M Wilson / G Strapazzon</i>	Pros-cons: Is physiologic testing helpful for predicting the risk of acute high altitude illnesses? <i>P Bärtsch / JP Richalet</i>	Utstein style and GRADE—models for establishing high altitude recommendations? <i>K Monsieurs</i>	Pros-cons: Medications at high altitude—moving on from right and wrong to disclosure <i>J Ellerton</i>	Registries in high altitude and mountain emergency medicine <i>B Walpoth / JK Baillie</i>	Nepal mountain rescue development projects <i>G Cologna</i>	Revision of the Lake Louise Score <i>P Hackett / JK Baillie</i>	Traumatic and therapeutic hypothermia—recent developments and open issues <i>P Mair / M Holzer</i>	Avalanche mass casualty accidents— advances in rescue strategies <i>A Kottmann / M Genswein</i>	Insulation techniques in the field <i>BRD im AVS</i>	Recent developments and future perspectives in out-of-hospital resuscitation in mountain areas <i>H Brugger / F Elsensohn</i> - Closing ceremony		
	Opening key lecture	Public event		Public event				Gala dinner & Keynote speech		Public event			END OF CONGRESS		
20:00-22:00	High altitude medicine from the 19 th to 21 st century <i>P Bärtsch</i> EURAC research	Wenn Grenzen keine sind: Management und Bergsteigen <i>F Malik / H Eisendle</i> EURAC research		The Iceman <i>A Zink / E Egarter Vigl</i> EURAC research				Bringing medicine to the wild and wilderness medicine to the world <i>P Auerbach</i> Kurhaus, Merano		Conquering the disbelief—the challenge of man at 8800 m <i>R Messner / O Oelz</i> Mountain Messner Museum Firmian, Bolzano					

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1 Welcome message

The World Congress on High Altitude Medicine and Physiology & Mountain Emergency Medicine is an initiative of the International Society for Mountain Medicine (ISMM) and the International Commission for Alpine Rescue (ICAR MEDCOM) to share knowledge and competence in the broad field of mountain medicine, including high altitude physiology and pathophysiology, high altitude illness, cold injuries, hypothermia, trauma and rescue, in an exchange between scientists, physicians, paramedics, rescuers and mountaineering professionals.

We are more than pleased to welcome the event to the European Alps for the first time in the history of the congress and to dedicate half of the scientific/technical programme to mountain emergency medicine and rescue. We have invested particular interest in planning a congress that will maintain the highest scientific standards while increasing interest from emergency and technical personnel, promoting talented work of young investigators and encouraging student friendly opportunities.

Organized and hosted by the EURAC Institute of Mountain Emergency Medicine, situated in the heart of the Dolomites in Bolzano, Italy, the congress venue is bound to impress.

Welcome to Bolzano!
Sincerely,



Prof. Buddha Basnyat, MD
President, International Society of Mountain Medicine



Prof. Hermann Brugger, MD
Head, EURAC Institute of Mountain Emergency Medicine
ICAR MEDCOM

2 General information

2.1 Practical information

Congress venue

Congress venue

European Academy of Bozen/Bolzano (EURAC research)
EURAC convention center
Viale Druso 1
39100 Bozen/Bolzano, Italy
www.ismm2014.org

Hosting institutions

EURAC Institute of Mountain Emergency Medicine
EURAC meeting management
www.eurac.edu

Registration and info-desk

The registration and info-desk are in the main entrance of the congress venue.

Opening hours:

Sunday, 25 May: 14:00-18:00

Monday, 26 May – Saturday, 31 May: 8:00-18:00

Accreditation

For information on accreditation of this event at the national and international level please consult the website or ask at the info-desk.

Slide centre

Speakers must submit their presentation in electronic form to the technician at the on-site slide centre well in advance of their session. This is the only possibility to access your presentation in the conference rooms.

For congress-related questions:
Tel. +39 0471 055800

Internet access

We offer open internet access to all participants over the wireless network "OpenAir".

Registration fees

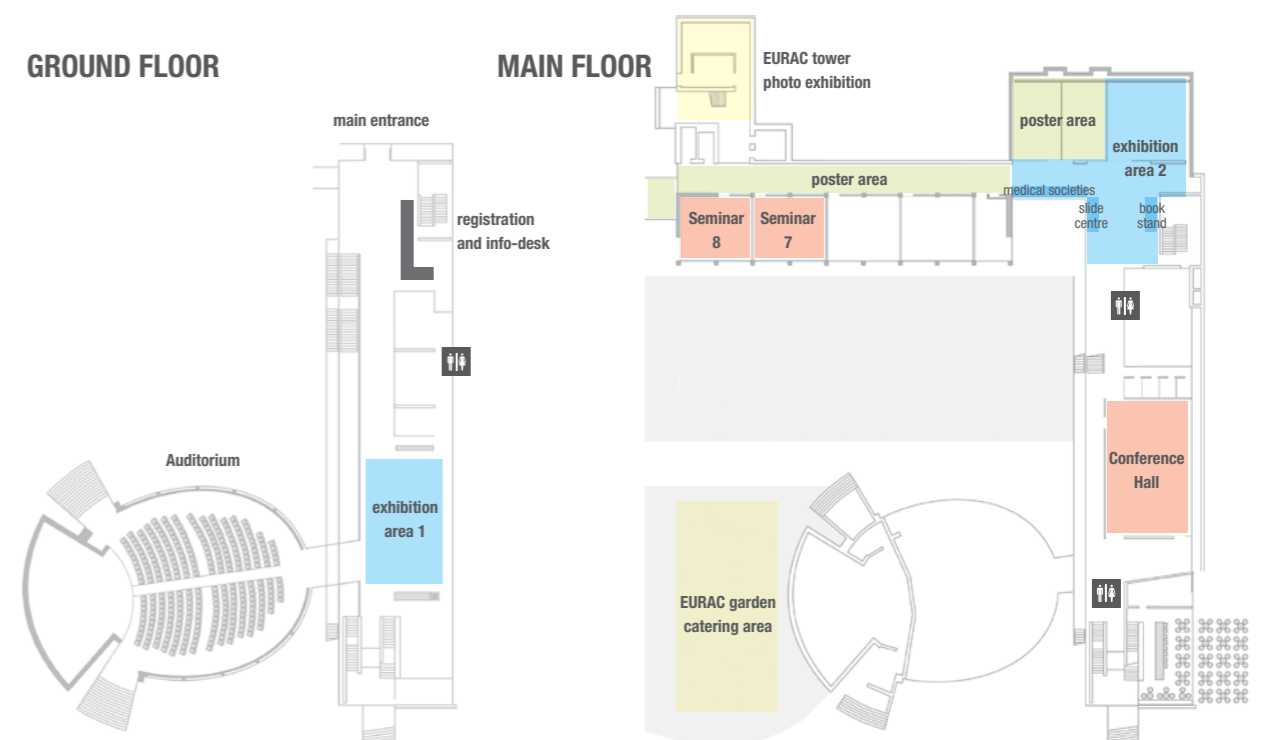
Registered participants have access to all programme sessions and free workshops, the welcome aperitif, coffee breaks and lunch. Medical workshops, guided excursions and the gala dinner are not included in registration fees and require pre-registration and payment. Coffee breaks and lunch will be served in the EURAC garden at the congress venue.

Language

The official language of the congress is English. Simultaneous translation in Italian and German will be available for main sessions only (in the Auditorium).

Exclusion of liability

The organizers decline all liability for losses, accidents or damages—whatever the causes—to persons or goods. Participation in the conference, excursions and social events are at your own risk.



Useful tips to Bolzano

**Downtown shops**

Opening hours Monday - Friday 9:30-18:00 (closed for lunch 13:00-15:00),
Saturday 9:30-12:00 (some until 18:00).

**Transportation**

For information about local public transport please contact the registration desk or go to
<http://www.mobilcard.info/en/mobilcard.asp>

Local Taxi service: +39 0471 981 111

**Public parking**

Via Trieste 21, Lido Bolzano
Via Perathoner 8, City Parking P2

**Regional Hospital Bolzano**

Via Lorenz Böhler 5
39100 Bozen/Bolzano, Italy
Emergency number: 118

Closest pharmacy

Farmacia Passazi Maria & C.S.N.C.
Viale Druso 19
39100 Bozen/Bolzano, Italy
Tel. +39 0471 287559
Opening hours: Monday-Friday 8:30–12:30 and 15:00–19:00
Saturday and Sunday: closed

EMERGENCY NUMBER: 118

Hi!
English

Hallo!
German

Hoi!
Ladin

Ciao!
Italian

Guten Morgen!
German

Good morning!
English

Bon dì!
Ladin

Buon giorno!
Italian

Wie geht es Ihnen?
German

How are you?
English

Co vala pa?
Ladin

Come sta?
Italian

2.2 About ISMM World Congress

The International Society for Mountain Medicine (ISMM) was founded in 1985 by the medical commission of the Union Internationale des Associations d'Alpinisme (UIAA MEDCOM). The Society aims to bring together physicians, scientists and allied professionals interested in mountain medicine, to encourage research on all aspects of mountains, mountain people and mountaineers, and to spread scientific and practical information about mountain medicine around the world.

The ISMM World Congress series has been held approximately every two years since 1986 in mountainous regions around the globe, including La Paz in Bolivia, Matsumoto in Japan, Arica in Chile, Xining and Lhasa in China/Tibet, Aviemore in Scotland, Arequipa in Peru and Taipei in Taiwan. We are pleased to welcome the X. event to the European Alps for the first time in the history of the congress.

2.3 About EURAC Institute of Mountain Emergency Medicine

The EURAC Institute of Mountain Emergency Medicine was opened in 2009 as the first research institute in this field. The Institute was founded with the aim to achieve an internationally recognised, evidence-based scientific standard of excellence in the field of mountain emergency medicine through the methodical acquisition of epidemiological and experimental data.

The Institute's fields of interest are all aspects of emergency medicine with a particular focus on the influence of geographic/logistical factors and extreme environmental factors on the pathophysiology (experimental methods), epidemiology (observational) and on-site treatment (position papers/clinical trials) of cold injuries, trauma and other acute illnesses.

The Institute is part of the European Academy of Bozen/Bolzano (EURAC research), an independent research centre founded in 1992. EURAC is home to eleven research institutes and over 300 researchers who work together on a wide range of interdisciplinary projects. Experts in law and natural sciences, linguists and geneticists collaborate with public and private agencies towards the resolution of some central issues of our day. Together they contribute to create a future-oriented Europe.

2.4 Congress partners

In collaboration with

International Society for Mountain Medicine (ISMM)
International Commission for Alpine Rescue, Medical Commission (ICAR MEDCOM)
International Mountaineering and Climbing Federation, Medical Commission (UIAA MEDCOM)
Wilderness Medical Society (WMS)

Institutional partners

Medical University Innsbruck
University of Insubria, Varese
University of Padova

With participation of

Alpine Club South Tyrol AVS
Asian Pacific Society for Mountain Medicine APSMM
Austrian Society of Mountain and High Altitude Medicine ÖGAHM
Central Medical Commission of the Italian Alpine Club CAI MEDCOM
German Society for Mountain and Expedition Medicine BEXMED
Italian Alpine Club CAI
Italian Society of Mountain Medicine SIMeM
Spanish Society of Mountain Medicine SEMAM
Swiss Alpine Club SAC
Swiss Society of Mountain Medicine SGGM

3 Faculty

3.1 Scientific committee

COMMITTEE BOARD

BRUGGER, Hermann	Head, EURAC Institute of Mountain Emergency Medicine, European Academy of Bozen/Bolzano, Italy Former President, International Commission for Alpine Rescue ICAR MEDCOM
BASNYAT, Buddha	Director, Oxford University Clinical Research Unit, Nepal; Medical Director, Nepal International Clinic and Himalayan Rescue Association; Principal Investigator, Nuffield Department of Medicine, University of Oxford President, International Society of Mountain Medicine
MAGGIORINI, Marco	Director, ICU, UniversitätsSpital Zürich, Switzerland Former President, International Society of Mountain Medicine Switzerland
ELSENSOHN, Fidel	President, International Commission for Alpine Rescue ICAR MEDCOM, Austria
STRAPAZZON, Giacomo	Vice-Head, EURAC Institute of Mountain Emergency Medicine, European Academy of Bozen/Bolzano, Italy Member, International Commission for Alpine Rescue ICAR MEDCOM

MEMBERS

BEALL, Cynthia	Professor, Anthropology, Case Western Reserve University, Cleveland, United States
GASSMANN, Max	Director/Professor, Institute of Veterinary Physiology, University of Zurich, Switzerland
GE, Ri-Li	Director/Professor, Researcher Center for High Altitude Medicine, Qinghai University Medical College, China
GNAIGER, Erich	Dept. of General and Transplant Surgery, D. Swarovski Research Laboratory, Medical University of Innsbruck, Austria
HACKETT, Peter	Director, Institute for Altitude Medicine, Telluride; Clinical Professor, Emergency Medicine, University of Colorado, Denver School of Medicine, United States
MAIRBAEURL, Heimo	University Hospital Heidelberg, Sports Medicine, Medical Clinical VII, German Lung Center, Germany
PARATI, Gianfranco	Professor, Cardiovascular Medicine, Dept. of Health Sciences, University of Milano-Bicocca; Head, Dept. of Cardiovascular, Neural and Metabolic Sciences, S. Luca Hospital, IRCCS Istituto Auxologico Italiano, Milano, Italy
RICHALET, Jean-Paul	Professor, Physiology, Université Paris 13; Clinical Physiology and Sports Medicine Dept., Hôpital Avicenne, Bobigny, France
SWENSON, Erik	Professor, Medicine and Physiology, University of Washington, Seattle, United States
WALPOTH, Beat	Director, Cardiovascular Research, Service of Cardiovascular Surgery, Geneva University Hospital, Switzerland
WEST, John	Professor, Medicine and Physiology, University of California San Diego, United States
ZAFREN, Ken	Associate Medical Director, Himalayan Rescue Association, Nepal; Vice President, International Commission for Mountain Emergency Medicine ICAR MEDCOM; Clinical Associate Professor, Division of Emergency Medicine, Stanford University Medical Center; Alaska Native Medical Center, United States

SCIENTIFIC PROGRAMME

3.2 Invited speakers

AUERBACH, Paul	Division of Emergency Medicine, Dept. of Surgery, Stanford Medical School, United States
BAILLIE, Kenneth	University of Edinburgh, United Kingdom
BALESTRA, Costantino	Professor of Physiology, Haute Ecole Paul Henri-Spaak; Head, Environmental, Occupational & Ageing Physiology Laboratory (Integrative Physiology); VP. Research & Education DAN Europe, Belgium
BÄRTSCH, Peter	Professor emeritus, University of Heidelberg, Germany
BAUMGARTNER, Ralf	NeuroZentrum Hirslanden, Switzerland
BERGER, David	Inselspital Bern, Switzerland
BERGHOLD, Franz	Professor, Dept. of Sport Science, University of Salzburg, Austria
BIASIONI, Marco	Regional Hospital of Bolzano, Italy; CNSAS - Italian Mountain Rescue Service, Italy
BIERENS, Joost	VU University Medical Center, Netherlands
BINER, Gerold	President, Alpine Rescue Foundation, Switzerland
BLANCHER, Marc	Grenoble University Hospital and ANMSM, France; ICAR MEDCOM
BONSANTE, Francesco	Regional Hospital of Bolzano, Italy; CNSAS - Italian Mountain Rescue Service, Italy
BOSCH, Martina M	Vista Diagnostics Eye Clinic, Switzerland
BOUSHEL, Robert	Professor, Åstrand Laboratory, The Swedish School of Sport and Health Sciences, Sweden
BRODMANN MAEDER, Monika	Dept. of Emergency Medicine, University Hospital Bern, Switzerland; SGGM
BROWN, Douglas	University of British Columbia teaching hospital; Royal Columbian Hospital, Canada
BURTSCHER, Martin	Institute of Sport Science, Medical Section, University of Innsbruck, Austria
CAUCHY, Emmanuel	Founder and Executive Chief, IFREMMONT (Mountain Medicine Institute for Training and Research), France
CHICCO, Andrew	Assistant Professor, Dept. of Health and Exercise Science, Food Science and Human Nutrition, and Biomedical Sciences; Director, Integrative Cardiac Biology Laboratory, Colorado State University, United States
CIPOLLOTTI, Giovanni	SUEM 118 Belluno, Italy; CNSAS - Italian Mountain Rescue Service, Italy
COGO, Annalisa	Associate Professor, Respiratory Medicine, University of Ferrara, Italy; Director, Biomedical Sport Study Centre, University of Ferrara, Italy
COLOGNA, Günther	Head, EURAC education, European Academy of Bozen/Bolzano, Italy
COPPO, Lorenzo	Neurology Dept., University Hospital A. Avogadro, Italy
DEHNERT, Christoph	Medbase Sports Medical Center Zurich, Switzerland
DEMBECK, Axel	Spital fmi Interlaken, Switzerland
DIKIC, Nenad	UIAA Belgrade, Serbia and Montenegro
DURRER, Bruno	ICAR MEDCOM, UIAA MEDCOM, Switzerland
ELLERTON, John	Vice President, ICAR MEDCOM; UIAA MEDCOM, United Kingdom
FISCHER, Rainald	President, BEXMED, Germany

FREER, Luanne	Associate medical director, Medcor®, United States; Himalayan Rescue Association
GARGANI, Luna	Institute of Clinical Physiology, Italian National Council of Research, Italy
GENSWEIN, Manuel	Genswein, Switzerland
GILBERT-KAWAI, Edward	University College London Centre of Altitude, Space and Extreme Environment (CASE) Medicine, United Kingdom
GRÄSNER, Jan-Thorsten	Universitätsklinikum Schleswig-Holstein, Campus Kiel, Klinik für Anästhesiologie und Operative Intensivmedizin, Germany
GRISSOM, Colin	Shock Trauma ICU at Intermountain Medical Center, University of Utah School of Medicine, United States
GRUBER, Elisabeth	Dept. of Anaesthesiology and Critical Care Medicine, Hospital of Bruneck, Italy
HARRIS, Stuart	Massachusetts General Hospital; Harvard Medical School, United States; Chief, Division of Wilderness Medicine, Fellowship Director, MGH Wilderness Medicine Fellowship Dept. of Emergency Medicine, Massachusetts General Hospital; Assistant Professor, Surgery, Harvard Medical School, United States
HEFTI, Urs	Head, Swiss Sport Clinic Bern, Switzerland; SGGM, UIAA MEDCOM
HENRIKSSON, Otto	Dept. of Surgery and Perioperative Sciences, Umea University, Sweden
HILLEBRANDT, David	President, UIAA MEDCOM; vice president ISMM; Hon Medical Advisor to the British Mountaineering Council and the British Mountain Guides Association, United Kingdom
HOIGNÉ, Philipp	President, Schweizerische Gesellschaft für Gebirgsmedizin - SGGM, Switzerland
HOLZER, Michael	Dept. of Emergency Medicine, Medical University of Vienna, Austria
HÖLZL, Markus	Bergrettungsdienst im Alpenverein Südtirol (BRD im AVS), Italy
HORNER, Brian	LTR Training Systems, United States
JAEGER WANSCHER, Michael	Clinical Director of Cardiothoracic ICU 4141, Dept. of Cardiothoracic Anesthesiology 4142, The Heart Center, Rigshospitalet, Denmark
JEAN, Dominique	Centre for prenatal diagnosis, CHU Grenoble, France; ISMM, WMS, UIAA MEDCOM, ISTM
JELK, Bruno	Air Zermatt, Switzerland; KWRO (Kantonale Walliser Rettungsorganisation), Switzerland
KEIL, Thorsten	Head, Dept. of Anesthesiology, Helmut-G.-Walther-Klinikum Lichtenfels, Germany
KEYES, Linda	Assistant Clinical Professor, University of Colorado, United States; Associate Editor, Wilderness and Environmental Medicine
KOIRALA, Pranawa	Mountain Medicine Society of Nepal, Nepal
KOTTMANN, Alexandre	Rega, Swiss Air Ambulance, Switzerland; SGGM; ICAR MEDCOM, Switzerland
KRIEMLER, Susi	FMH Pediatrics, Sports Medicine, Institute of Social and Preventive Medicine, Switzerland
KRUIS, Christoph	Unfallklinik Murnau, Germany
KULKARNI, Amol	Consultant Oral & Maxillofacial Surgeon WALS, WEMT; Savanna Medics, Tanzania
KÜPPER, Thomas	Occupational Medicine, Sports Medicine, Mountain Medicine (UIAA), Travel Medicine (DFR), Inst. of Occupational & Social Medicine, Aachen Technical University, Germany
LAVEDER, Paolo	Dept. of Biology, University of Padova, Italy
LEÓN VELARDE, Fabiola	Rector, Professor of Physiology, Dept. of Biological and Physiological Sciences, Universidad Peruana Cayetano Heredia, Peru

LINTNER, Lorenz	White Cross rescue organization South Tyrol, Italy
LOCHNER, Piergiorgio	Neurology Dept., Tappeiner Hospital Merano, Italy
LOHANI, Ashish	Mountain Medicine Society of Nepal, Nepal
LUNDGREN, Peter	Dept. of Surgery and Perioperative Sciences, Umea University, Sweden
LUKS, Andrew	Division of Pulmonary and Critical Care Medicine, University of Washington, United States
MACINNIS, Martin	School of Kinesiology, University of British Columbia, Canada
MAIR, Peter	Dept. of Anaesthesia and Critical Care Medicine, Innsbruck Medical University, Austria
MALACRIDA, Sandro	EURAC Institute of Mountain Emergency Medicine, European Academy of Bozen/Bolzano, Italy
MANCINELLI, Gigliola	CNSAS - Italian Mountain Rescue Service, Italy
MARTIN, Daniel	Honorary Consultant, Anaesthesia and Critical Care, Royal Free London NHS Trust; Senior Lecturer, Anaesthesia and Critical Care, Division of Surgery, University College London; Director, UCL Centre for Altitude, Space and Extreme Environment Medicine; Co-Director, Caudwell Xtreme Everest Hypoxia Research Consortium, United Kingdom
MCINTOSH, Scott	Associate Professor, Division of Emergency Medicine; Director, EMS-Wilderness Medicine Fellowship; Medical Director, Summit County EMS; Associate Medical Director, AirMed; United States
MERZ, Tobias	Dept. of Intensive Care Medicine, University Hospital (Inselspital) and University of Bern, Switzerland
MESSNER, Hubert	Neonatal and Paediatric ICU, Hospital of Bolzano, Italy
MILANI, Mario	CNSAS - Italian Mountain Rescue Service, Italy; ICAR MEDCOM, Italy
MISEROCCHI, Giuseppe	Dept. of Experimental Medicine, University of Milano-Bicocca, Italy
MOENS, Didier	Medical Director, Centre Médical Hélicoptère de Bra sur Lienne; Head, Clinique urgences-SAMU, France; UIAA MEDCOM
MONSIEURS, Koen	Antwerp University Hospital, Belgium
MORRISON, Audrey	UIAA MEDCOM, United Kingdom
MUCKENTHALER, Martina	Dept. of Pediatric Oncology, Hematology and Immunology, University of Heidelberg, Germany
MURRAY, Andrew	University of Cambridge, United Kingdom
O'CONNOR, Rory D	Admiraal de Ruyter Hospital, Goes, Netherlands
PAAL, Peter	Dept. of Anaesthesiology and Critical Care Medicine, Innsbruck Medical University, Austria
PANARITI, Alice	University of Padova, Italy
PICHLER HEFTI, Jacqueline	Dept. of Pneumology, Inselspital Bern, Switzerland
PIRIS, Monica	Expedition doctor, Alpenglow expeditions, Spain
PONCHIA, Andrea	University of Padova, Italy
PRATALI, Lorenza	Institute of Clinical Physiology, Italian National Council of Research, Italy
PROCTER, Emily	EURAC Institute of Mountain Emergency Medicine, European Academy of Bozen/Bolzano, Italy
PUTZER, Gabriel	Dept. of Anaesthesiology and Critical Care Medicine, Innsbruck Medical University, Austria
RAMMLMAIR, Georg	White Cross rescue organization South Tyrol, Italy
REISTEN, Oliver	Air Zermatt, Switzerland

RINALDI, Adriano	CAI medical commission; Dept. of Anesthesia and Intensive Care, University of Trieste, Italy
ROACH, Rob	University of Colorado, United States
RODWAY, George	University of Nevada, United States
SANTINI, Antonella	CNSAS - Italian Mountain Rescue Service, Italy
SCHAFFERT, Wolfgang	Former President, BEXMED; Committee, ÖGHAM; Transalp mountain emergency doctor; "Bergwacht" (Bavarian mountain rescue), Germany
SCHNEIDER, Michel	Institute and Out-patient Clinic of Occupational Medicine, University Hospital Aachen, Germany
SCHÖFFL, Volker	Dept. of Sportsmedicine - Sport Orthopedics, Germany
SCHWEIZER, Andreas	Uniklinik Balgrist, Switzerland
SCHWEIZER, Jürg	WSL Institute for Snow and Avalanche Research SLF, Switzerland
SHERPA, Lakhphuti	Executive Director, Mountain Academy Nepal, Nepal
SIMONSON, Tatum S	University of California San Diego, United States
SKAIAA, Sven Christjar	ICAR MEDCOM, Norway
SOTERAS, Inigo	Hospital de Cerdanya, Spain; Medicine School University de Girona, Spain; School of Health Sciences Manresa, Spain
STOKES, Suzy	Oxford University Hospitals, United Kingdom
STORZ, Jay F	School of Biological Sciences, University of Nebraska-Lincoln, United States
THAPA, Ghan Bahadur	Mountain Medicine Society of Nepal, Nepal
THORVALDSDÓTTIR, Sólvieg	Director, Rainrace Consultancy, Iceland
TOMAZIN, Iztok	Slovenian Mountain Rescue Association, Slovenia; ICAR MEDCOM
VILLAFUERTE, Francisco	Laboratorio de Fisiología Comparada-LID, Facultad de Ciencias y Filosofía, Universidad Peruana Cayetano Heredia, Peru
VISETTI, Enrico	Az. USL Valle d' Aosta, Italy; CNSAS - Italian Mountain Rescue Service, Italy
WAGNER, Dale	Professor, Exercise Physiology, Utah State University, United States
WEGER, Christoph	Bergrettungsdienst im Alpenverein Südtirol (BRD im AVS), Italy
WEI, Guan	Dept. of Respiratory Medicine, Qinghai University Affiliated Hospital, China
WERNER, Andreas	Center of Aerospace Medicine, German Air Force, Germany
WIGET, Urs	Past president ICAR MEDCOM, Switzerland
WILSON, Mark	Traumatic Brain Injury Centre, Imperial College London, United Kingdom
ZEDDE, Marialuisa	Stroke Unit, Neurology Unit, Dept. of Neuromotor Physiology, Arcispedale Santa Maria Nuova-IRCCS, Italy
ZELLNER, Pascal	Institut de formation et de recherche en médecine de montagne (IFREMMONT), France

PUBLIC EVENTS

EGARTER VIGL, Eduard	President of the scientific council, Claudiana – College of Health-Care Professions, Italy
EISENDLE, Hanspeter	Mountain guide, Italy
MALIK, Fredmund	Expert for Complexity Management, Governance and Leadership, Switzerland
MESSNER, Reinhold	Mountaineer, adventurer, explorer and author, Italy
OELZ, Oswald	Mountaineer and physician, Switzerland
ZINK, Albert	Head of the EURAC Institute for Mummies and the Iceman, Italy

4 Scientific programme

4.1 Full programme

SUNDAY 25 MAY 2014	REGISTRATION DAY
MONDAY 26 MAY 2014	HIGH ALTITUDE BASIC RESEARCH
TUESDAY 27 MAY 2014	HIGH ALTITUDE FOR THE CLINICIAN AND EXPEDITION DOCTOR
WEDNESDAY 28 MAY 2014	HIGH ALTITUDE FOR THE CLINICIAN AND EXPEDITION DOCTOR
THURSDAY 29 MAY 2014	FOCUS TOPIC: RESCUE IN NEPAL
FRIDAY 30 MAY 2014	IV. INTERNATIONAL SYMPOSIUM ON HYPOTHERMIA
SATURDAY 31 MAY 2014	TRAUMA, AIRWAY & CIRCULATION

SUNDAY 25 MAY 2014 REGISTRATION DAY

Location	EURAC RESEARCH
8:30-17:30	1 st Pre-conference faculty development day for DIMM course directors
14:00-18:00	Registration
20:00-22:00	<p>Welcome speech <i>B Basnyat, H Brugger, W Stuflesser, M Stocker</i></p> <p>Opening key lecture High altitude medicine from the 19th to 21st century <i>P Bärtsch (Germany)</i></p> <p>Welcome aperitif</p>



HIGH ALTITUDE MEDICINE AND PHYSIOLOGY

HIGH ALTITUDE BASIC RESEARCH

HIGH ALTITUDE FOR THE CLINICIAN
AND EXPEDITION DOCTOR

MONDAY 26 MAY 2014 HIGH ALTITUDE BASIC RESEARCH

LOCATION	AUDITORIUM (MAIN SESSION)
9:00-10:30	<p>SESSION A - Genetic adaptation to high altitude: species and population differences - C Beall / J Storz</p> <ul style="list-style-type: none"> ⌚ 30 Mechanisms of hemoglobin adaptation to hypoxia in high-altitude vertebrates <i>J Storz (United States)</i> ⌚ 10 004-0 Functional genomics of adaptation to hypoxic cold stress: regulatory plasticity and thermogenic performance in high-altitude deer mice <i>Z Cheviron, A Connaty, J Jones, G McClelland, G Scott, J Storz</i> ⌚ 10 013-0 Genetic evidence of Paleolithic colonization and Neolithic expansion of modern humans on the Tibetan Plateau <i>X Qi, C Cui, Y Peng, X Zhang, Z Yang, H Zhong, H Zhang, K Xiang, X Cao, Y Wang, L Ouzhu, S Ba, S Ciwang, B Bian, I Gongga, T Wu, H Chen, H Shi, B Su</i> ⌚ 10 015-0 Down-regulation of <i>EPAS1</i> contributes to high altitude hypoxic adaptation in Tibetans <i>B Su, Y Peng, C Cui, T Wu, S Bhandari, K Xiang, H Zhang, Quzhuluobu, Bianba, Gonggalanzi, Basang, Ciwangsangbu, H Chen, H Shi, X Qi</i> ⌚ 30 Comparative population biology and genomics of high-altitude human populations <i>C Beall (United States)</i>
10:30-11:00	COFFEE BREAK
11:00-12:30	<p>SESSION B - Science update - Molecular biology of hypoxia - J West / M Gassmann</p> <ul style="list-style-type: none"> ⌚ 20 New physiological and genetic factors for CMS? <i>F Villafuerte (Peru)</i> ⌚ 20 Tibetan adaptations and their physiological mechanisms <i>T Simonson (United States)</i> ⌚ 20 Iron requirements in hypoxia <i>M Muckenthaler (Germany)</i> ⌚ 20 Whether Epo evolved to generate red blood cells <i>M Gassmann (Switzerland)</i> ⌚ 10 010-0 Hypoxia-induced vascular leakage and microhaemorrhage in the mouse brain: role of HIF target genes <i>H Marti, R Kunze, A Hoffmann, S Reischl, X Helluy, M Bendszus, S Heiland, M Pham</i>
12:30-14:00	LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 1 AND 3, SEE PAGE 35)
14:00-15:30	<p>SESSION C - Mitochondria—Key organelle for bioenergetics in hypoxia and cold? - E Gnaiger / R Boushel</p> <ul style="list-style-type: none"> ⌚ 20 Hypoxia – is mitochondrial capacity and efficiency an issue? <i>E Gnaiger (Austria)</i> ⌚ 20 Contribution of convective O₂ supply, diffusion and mitochondrial OXPHOS capacities to maximal oxygen consumption at high altitude <i>R Boushel (Sweden)</i> ⌚ 20 Enhanced fatty acid oxidation capacity and phosphorylation control of human skeletal muscle mitochondria following 16 days at 5260 m <i>A Chicco (United States)</i> ⌚ 20 Muscle mitochondrial function in Sherpas <i>A Murray (United Kingdom)</i> ⌚ 10 007-0 Human skeletal muscle mitochondria at high-altitude: adaptation and acclimatization <i>J Horscroft, A Kotwica, V Laner, E Gilbert-Kawai, D Howard, H Montgomery, M Grocott, D Levett, E Gnaiger, D Martin, A Murray</i>
15:30-16:00	COFFEE BREAK
16:00-17:30	<p>SESSION D - Pros-cons: Hypo- vs. normobaric hypoxia and the influence on exercise performance - M Burtscher / R Roach</p> <ul style="list-style-type: none"> ⌚ 20 Differences in normobaric versus hypobaric hypoxia at rest and after training for sea level competition <i>R Roach (United States)</i> ⌚ 20 Innovation and challenges by using the High-Altitude-Chamber for flight personnel and high altitude mountaineering laboratory in contrast with reality <i>A Werner (Germany)</i> ⌚ 15 179-0 Enhanced blood boosting spleen contraction after climbing Mt Everest <i>H Engan, A Lodin-Sundström, F Schagatay, E Schagatay</i> ⌚ 15 182-0 The central role of hypoxemia in cardiorespiratory adaptation to exercise and intermittent hypoxia <i>L Plakane, V Lusa</i> ⌚ 20 Differences between cardiorespiratory responses to exercise in normobaric and hypobaric hypoxia <i>M Burtscher (Austria)</i>

CONFERENCE HALL (PARALLEL SESSION)

Special issues - Workers at high altitude - RL Ge / J West

- ⌚ 20 **Strategies for improving work performance at high altitude**
J West (United States)
- ⌚ 20 **Associations between hemoglobin concentration and exercise capacity in Tibetan highlanders**
G Wei (China)
- ⌚ 20 **Effects of chronic intermittent hypoxia on health status and performance of Chilean miners**
JP Richalet (France)
- ⌚ 10 **096-0** Chile dictates safety and health standards for intermittent occupational exposure to 3000-5500 meters altitude
D Jimenez
- ⌚ 10 **101-0** Annual and occupational screening of miners at high altitude gold mine (4000 meters) effectively precludes sick people from employment
D Vinnikov, N Brimkulov, R Redding-Jones
- ⌚ 10 **098-0** Increase in hemoglobin values through the years in Peruvian highland workers
C Mejia, D Quiñones, C Cruzalegui, V Gómez, R Gomero, I Arriola

COFFEE BREAK

Meet the expert - Practical medical problems at base camp - U Hefti / L Freer

Introduction U Hefti (Switzerland)

Practical medical problems at base camp

- ⌚ 12 **Mount Everest** L Freer (United States)
- ⌚ 12 **Pilgrims expedition** P Koirala (Nepal)
- ⌚ 12 **Himlung Himal Research Expedition 2013** D Berger (Switzerland)
- ⌚ 10 **A commercial expedition** L Freer (United States)
- ⌚ 8 **A privately organized expedition** U Hefti (Switzerland)

Controversies in expedition medicine

- ⌚ 8 **Thrombolytic medication on an expedition is a must**
Affirm: P Hackett (United States)
Oppose: P Hoigné (Switzerland)
- ⌚ 8 **The hyperbaric chamber is part of the expedition medical kit**
Affirm: J Pichler (Switzerland)
Oppose: P Koirala (Nepal)
- ⌚ 8 **Dexamethasone for summit day; a good idea?**
Affirm: P Hackett (United States)
Oppose: T Merz (Switzerland)

LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 1 AND 3, SEE PAGE 35)

Meet the expert - Prevention and treatment of AMS, HAPE, HACE - M Maggiorini / P Hackett - Guests: M Piris, L Freer

This session is an interactive discussion of clinical cases. The aim is to guide participants in solving interesting health problems of high altitude. Participants are encouraged to share their own cases during the discussion as well.

COFFEE BREAK

Future issues - Ultrasound and NIRS—new tools for research at high altitude - M Wilson / G Strapazzon

- ⌚ 20 **Ultrasound and NIRS at altitude—implications of the Xtreme Everest study and the future**
M Wilson (United Kingdom)
- ⌚ 15 **Ultrasound and NIRS during acute hypoxia, hypercapnia and cold—from experiments to the clinic**
G Strapazzon (Italy)
- ⌚ 15 **053-0** Correlation of severity of high altitude illnesses with the optic nerve sheath diameter in non-acclimatized lowlanders at high altitude
U Yanamandra, A Gupta, S Yanamandra, S Patyal, V Nair
- ⌚ 15 **049-0** Ultrasound-based biomarkers as predictors of acute mountain sickness
L Pratali, RM Bruno, S Malacrida, B Catuzzo, S Armenia, R Brustia, E Cauchy, G Giardini
- ⌚ 15 **050-0** Cerebral hemodynamic responses to 6 days at 4350 m
S Verges, T Rupp, M Villien, P Bouzat, F Esteve, C Lundby, S Perrey, Y Wamking, P Robach, P Levy
- ⌚ 10 **Discussion on future perspectives**

HELPFUL HINT ON SESSION TYPES

Main sessions (sessions A to D) cover main topics with a focus on clinical and science updates. Simultaneous translation in English, German and Italian will be provided.

Special issues sessions deal with specific topics related to the environmental influence that laypersons and rescuers have to face in mountain and remote areas.

Future issues sessions present front-line, open issues that are currently under discussion.

Meet the expert sessions are an interactive, seminar-like session hosted by leading experts in the field.

Technical workshops focus on practical rescue-related issues and are addressed to medical and non-medical rescue personnel.

Wilderness workshops present practical wilderness-related issues by the leading experts in the field and are addressed to medical and non-medical attendees.

Medical workshops are offered in an adjunct programme and are addressed to medical attendees. Registration and prepayment is required.

TUESDAY 27 MAY 2014 HIGH ALTITUDE FOR THE CLINICIAN AND EXPEDITION DOCTOR

LOCATION	AUDITORIUM (MAIN SESSION)
9:00-10:30	SESSION A - Science update - Acute altitude illnesses (AMS, HAPE, HACE) - B Basnyat / M Maggiorini <ul style="list-style-type: none"> ⌚ 15 Epidemiological and clinical aspects of high altitude illness <i>B Basnyat (Nepal)</i> ⌚ 15 047-0 The AL.P.I. project (Altitude & Pathology in Italy, AL.P.I.) Italian Survey on High Altitude Illnesses on behalf of Club Alpino Italiano (CAI) and the Italian Society of Mountain Medicine (SIMEM) <i>F Marchiori, I Rigucci, G Nadali, M Cavana, L Fortunato, L Bastiani, M Bartesaghi, G Miserocchi, G Giardini, L Pratali</i> ⌚ 15 051-0 Impact of study design on the incidence of acute mountain sickness. Systematic review <i>B Waeber, N Elia, L Dumont, C Lysakowsky, MR Tramèr, B Kayser</i> ⌚ 15 Circulatory hemodynamic aspects of high altitude illness <i>M Maggiorini (Switzerland)</i> ⌚ 15 044-0 Cerebral hemodynamic characteristics of acute mountain sickness upon acute high-altitude exposure at 3700 m in young Chinese men <i>L Huang</i> ⌚ 15 052-0 Observational study of radiological features of 588 cases of HAPO and validation of new radiological severity scoring <i>U Yanamandra, A Gupta, S Yanamandra, M Chinta, S Patyal, V Nair</i>
10:30-11:00	COFFEE BREAK
11:00-12:30	SESSION B - Science update - Chronic mountain sickness - RL Ge / F León-Velarde <ul style="list-style-type: none"> ⌚ 20 Recent advances of pathophysiological studies on chronic mountain sickness in China <i>RL Ge (China)</i> ⌚ 20 New risk factors for CMS? <i>F León Velarde (Peru)</i> ⌚ 15 097-0 Differential gene expression profile and biological features of bone marrow mesenchymal stem cells in chronic mountain sickness <i>J Li, J Feng, W Li, X Dai, L Wang, G Han, G Han, W Yan</i> ⌚ 15 093-0 Study on brain structure and cognitive function in patients with chronic mountain sickness in 3T MRI <i>HH Bao, M He, RL Ge</i> ⌚ 15 095-0 Major components level of the ACE-Ang-AT1 axis in local hematopoietic bone marrow of patients with chronic mountain sickness <i>L Ji, Z Li, S Cui, J Su, H Geng, H Xiong, W Luo, X Ma, Y Chen, RL Ge</i> ⌚ 5 Discussion
12:30-14:00	LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 2 AND 6, SEE PAGE 35)
14:00-15:30	SESSION C - Women and children at high altitude - H Messner / D Jean <ul style="list-style-type: none"> ⌚ 25 Exercise and travel at high altitude during pregnancy <i>L Keyes (United States)</i> ⌚ 25 Children going to the mountains <i>D Jean (France)</i> ⌚ 15 High altitude illness in youth: do parents matter? <i>S Kriemler (Switzerland)</i> ⌚ 10 149-0 Using ventilation to get ahead: gender differences in ventilatory parameters at high altitude <i>S Dua</i> ⌚ 10 150-0 Acute mountain sickness (AMS) among high altitude Nepalese pilgrim children – A five year study <i>M Pun, PS Holck, GB Thapa, S Neupane, N Kharel, S Shrestha, P Subedi, M Neupane, B Basnyat</i> ⌚ 5 Discussion
15:30-16:00	COFFEE BREAK
16:00-17:30	SESSION D - Pros-cons: Is physiologic testing helpful for predicting the risk of acute high altitude illnesses? P Bärtsch / JP Richalet <ul style="list-style-type: none"> ⌚ 20 Pro: Hypoxic exercise test is useful for the detection of subjects at high risk for severe high altitude illness <i>JP Richalet (France)</i> ⌚ 20 Con: Physiologic testing is not helpful for predicting the risk of acute high altitude illnesses <i>P Bärtsch (Germany)</i> ⌚ 15 Abnormal hypoxic pulmonary vascular response alone is not sufficient to induce high altitude pulmonary edema <i>C Dehnert (Switzerland)</i> ⌚ 15 045-0 Can lung function assessment help predict Acute Mountain Sickness? <i>O Johansson, A Patrician, S Wisniewski, E Schagatay</i> ⌚ 15 181-0 Maintaining a good ventilatory efficiency in the transition between normoxia (N) and hypoxia (H) at rest predicts a better oxygenation (SpO₂) during exercise in hypoxia <i>G Papi Renzetti, G Giardini, G Mandolesi, B Catuzzi, A Cogo</i>

CONFERENCE HALL (PARALLEL SESSION)	SEMINAR ROOM (PARALLEL SESSION)
Special issues <ul style="list-style-type: none"> Xtreme Everest 2 - D Martin ⌚ 15 Xtreme Everest 2 <i>D Martin (United Kingdom)</i> ⌚ 15 Microcirculation at high altitude <i>E Gilbert-Kawai (United Kingdom)</i> ⌚ 15 Mitochondrial metabolism at high altitude <i>A Murray (United Kingdom)</i> Resamont 2 project - G Miserocchi ⌚ 15 Individual differences in the adaptation of the air-blood barrier when an increase in oxygen diffusion/transport is requested <i>G Miserocchi (Italy)</i> ⌚ 15 Human genomics and hypoxia adaptive response <i>P Laveder (Italy) / S Malacrida (Italy)</i> ⌚ 15 Regional differences in lung matrix remodelling in hypoxia <i>A Panariti (Italy)</i> 	
COFFEE BREAK	
Meet the expert - Requirements for expedition doctors—what to bring and what to know F Berghold / R Fischer <ul style="list-style-type: none"> ⌚ 20 Do they really need an expedition doctor? <i>F Berghold (Austria)</i> ⌚ 20 From the airport to basecamp <i>R Fischer (Germany)</i> ⌚ 20 Up to the summit <i>W Schaffert (Germany)</i> ⌚ 30 Discussion 	
LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 2 AND 6, SEE PAGE 35)	
Meet the expert - Prevention and treatment of non-altitude sickness related problems - B Basnyat / K Zafren <ul style="list-style-type: none"> ⌚ 15 Problems at altitude other than AMS/HACE and HAPE <i>K Zafren (United States)</i> ⌚ 15 Neurologic problems at altitude other than AMS/HACE <i>B Basnyat (Nepal)</i> ⌚ 15 178-0 Medical data from Aconcagua Provincial Park's Medical Service, 2011-2012 season <i>S Donato, M Straniero, I Rogé, V Rainone, F Borzotta</i> ⌚ 45 Interactive case presentations 	Applied Workshop – High-resolution respirometry and mitochondrial function under hypoxia: overview, demo experiment and discussion – E Gnaiger <p>A three-part applied workshop including an overview of the measurement of mitochondrial function in the lab and the field and its scopes and limitations, a demo experiment on cell respiration and ROS production under normoxia and hypoxia, and a discussion of mitochondria and intercellular oxygen levels and what is normoxia.</p> <p>Location: Seminar 8</p> <p>Pre-registration required at the Oroboros exhibition stand.</p>
COFFEE BREAK	
Future issues - Utstein style and GRADE—models for establishing high altitude recommendations? K Monsieus <ul style="list-style-type: none"> ⌚ 20 How to use GRADE for guideline development <i>K Monsieus (Belgium)</i> ⌚ 20 Data collection in emergency medicine (UTSTEIN) <i>JT Gräsner (Germany)</i> ⌚ 20 Assessing high altitude illness over the last 25 years: can we do better? <i>M Maggiorini (Switzerland)</i> ⌚ 15 046-0 Strengthening Altitude Research (STAR): guidelines for collecting and reporting data from high altitude studies The STAR task force (in alphabetic order): <i>P Bärtsch, H Brugger, M Falk, P Hackett, M Maggiorini, S Malacrida, E Procter, G Strapazzon, K Zafren</i> ⌚ 15 Discussion 	

WEDNESDAY 28 MAY 2014 HIGH ALTITUDE FOR THE CLINICIAN AND EXPEDITION DOCTOR

LOCATION	AUDITORIUM (MAIN SESSION)
9:00-10:30	SESSION A - Pre-existing cardiac and metabolic diseases at high altitude - G Parati / A Luks <ul style="list-style-type: none"> ⊙ 20 Cardiac patients at high altitude 1: Coronary artery disease and cardiomyopathy <i>A Luks (United States)</i> ⊙ 20 Cardiac patients at high altitude 2: Hypertension <i>G Parati (Italy)</i> ⊙ 15 127-0 Hypobaric hypoxia causes body weight reduction in obese males, double-blinded, placebo-controlled study <i>B Buchzik, M Robinzonov, RM Huber, J Behr, R Kiefl, N Robinzonov, M Karasz, R Fischer</i> ⊙ 15 128-0 Normobaric hypoxia stress test in coronary heart disease patients <i>B Catuzzo, G Giardini, M Sicuro, B Thiebat, G Cavoretto, F De la Pierre</i> ⊙ 15 126-0 Prevalence and predictors of ambulatory hypertension among high altitude dwellers; HIGHCARE-ANDES Highlanders Study <i>G Bilo, FC Villafuerte, C Anza Ramirez, JL Macariupu, G Vizcardo-Galindo, M Revera, A Giuliano, A Faini, S Caravita, F Gregorini, G Parati</i> ⊙ 5 Discussion
10:30-11:00	COFFEE BREAK
11:00-12:30	SESSION B - Pre-existing pulmonary, immunologic and neurologic diseases at high altitude - E Swenson / A Cogo <ul style="list-style-type: none"> ⊙ 20 Going high with immunologic diseases <i>E Swenson (United States)</i> ⊙ 20 Going high with respiratory diseases <i>A Cogo (Italy)</i> ⊙ 20 Going high with neurologic diseases <i>R Baumgartner (Switzerland)</i> ⊙ 15 184-0 Applying pulmonary function parameter changes to screen hypoxia-susceptible candidates of Chinese Antarctic expeditioners in Tibet <i>C Xu</i> ⊙ 15 006-0 Genetic evidence for the origin and dispersal of HBV/CD in Tibetans on the Qinghai-Tibetan Plateau <i>C Cui, X Qi, L Quzhu, B Bian, T Wu, B Su</i>
12:30-14:00	LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 4, 5 AND 7, SEE PAGE 35)
14:00-15:30	SESSION C - Mountain medicine diploma and education sessions <p>UIAA/IKAR/ISMM Diploma of Mountain Medicine and other educational initiatives - D Hillebrandt (UIAA MEDCOM) / B Basnyat (ISMM) / F Elsensohn (ICAR MEDCOM)</p> <ul style="list-style-type: none"> ⊙ 8 UIAA/IKAR/ISMM Diploma of Mountain Medicine <i>D Hillebrandt (United Kingdom)</i> ⊙ 8 UIAA/IKAR/ISMM Rescue Specialty Module <i>O Reisten (Switzerland)</i> ⊙ 8 Transalp Ausbildung für Bergrettungsärzte (Bavarian, Austrian and South Tyrolean mountain rescue) <i>J Schiffer (Germany)</i> ⊙ 5 Educational activities of the Asia Pacific Society of Mountain Medicine <i>F Ming (China)</i> ⊙ 5 Educational activities of the Italian Society of Mountain Medicine <i>G Giardini (Italy)</i> ⊙ 5 Educational activities of the Asociación Andina de Medicina para la Altura-AAMPa with specific reference to Aconcagua <i>S Donato (Argentina)</i> <p>Celebrating the diversity of national diplomas - D Hillebrandt / J Ellerton / S McIntosh</p> <ul style="list-style-type: none"> ⊙ 3 each <p><i>Austria, F Berghold; Canada, D Watson; Germany, Nordbadische Sportärztebund, P Bärtsch; Italy, Padova, A Ponchia; Italy, International Master Course in Mountain Medicine, L Festi; Japan, K Oshiro; Nepal, M Neupane; Spain, Barcelona, X Sanchez; United Kingdom, M Greene; United States, New Mexico, J Williams; United States, Utah, S McIntosh; Unites States Military, I Wedmore</i></p>
15:30-16:00	COFFEE BREAK
16:00-17:30	SESSION D - Pros-cons: Medications at high altitude—moving on from right and wrong to disclosure - J Ellerton <ul style="list-style-type: none"> ⊙ 15 Introduction <i>J Ellerton (United Kingdom)</i> ⊙ 75 Panel discussion <i>D Hillebrandt (United Kingdom), B Basnyat (Nepal), N Dikic (Serbia), D Moens (France), I Tomazin (Slovenia), D Wagner (United States)</i>

CONFERENCE HALL (PARALLEL SESSION)
Special issues <p>Solar irradiation and eye problems at high altitude - MM Bosch</p> <ul style="list-style-type: none"> ⊙ 15 Solar irradiation and its damaging effects to the eye at high altitude <i>MM Bosch (Switzerland)</i> ⊙ 10 092-0 The influence of chronic hypoxia to retinal venous and ocular perfusion pressure <i>M Baertsch, J Flammer</i> ⊙ 10 162-0 The clinical curative effect observation about the treatment of Lucentis in choroid neovascularization of high altitude <i>L Ling</i> ⊙ 10 Discussion <p>Kilimanjaro: a mountain medicine hot-spot - P Hackett / A Kulkarni</p> <ul style="list-style-type: none"> ⊙ 15 Safety, evacuation and rescue on Kilimanjaro <i>A Kulkarni (Tanzania)</i> ⊙ 10 180-0 Our experience in telemedical prevention and treatment of acute mountain sickness in 280 clients ascending to 5895 m above sea level <i>P Jonetzko, T Kobielski</i> ⊙ 20 Panel discussion
COFFEE BREAK
Meet the expert - Advising mountaineers in planning a trip to high altitude - P Hackett / P Bärtsch <ul style="list-style-type: none"> ⊙ 15 Introduction ⊙ 30 Risk assessment of ascent profile / Preacclimatization <i>P Bärtsch (Germany)</i> ⊙ 30 Protocols for treatment and medical kits / Preexisting medical conditions <i>P Hackett (United States)</i> ⊙ 15 Summary and discussion
LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 4, 5 AND 7, SEE PAGE 35)
Meet the expert - Sport climbing injuries - V Schöffl / T Küpper <ul style="list-style-type: none"> ⊙ 10 Epidemiology of sport climbing injuries <i>V Schöffl (Germany)</i> ⊙ 10 Ice climbing injuries <i>M Schneider (Germany)</i> ⊙ 15 Prehospital emergency care of sport climbing injuries <i>T Keil (Germany)</i> ⊙ 15 Are supplements needed to improve climbing performance? <i>A Morrison (United Kingdom)</i> ⊙ 15 Osseous adaptations and osteoarthritis in long time climbers <i>A Schweizer (Switzerland)</i> ⊙ 10 Finger injuries in sport climbing <i>V Schöffl (Germany)</i> ⊙ 15 Sport climbing with internal medical conditions <i>T Küpper (Germany)</i>
COFFEE BREAK
Future issues - Registries in high altitude and mountain emergency medicine - BH Walpoth / JK Baillie <ul style="list-style-type: none"> ⊙ 20 International Hypothermia Registry <i>BH Walpoth (Switzerland)</i> ⊙ 20 International HAPE Registry—REDCAP's to the rescue <i>S Harris (United States)</i> ⊙ 15 International Alpine Trauma Registry <i>G Strapazzon (Italy)</i> ⊙ 20 International HAPE Database: direct recruitment of probable cases of altitude illness through www.altitude.org <i>JK Baillie (United Kingdom)</i> ⊙ 15 Discussion



FOCUS TOPIC: RESCUE IN NEPAL

THURSDAY 29 MAY 2014 FOCUS TOPIC: RESCUE IN NEPAL

Location	AUDITORIUM (MAIN SESSION)
14:00-15:30	<p>Special issues - Rescue initiatives in Nepal - B Basnyat / I Tomazin</p> <ul style="list-style-type: none"> ⊙ 15 Helicopter-based training and rescue in Nepal <i>G Biner (Switzerland)</i> ⊙ 15 272-0 From Sagarmatha to Bung: training helicopter rescuers, developing a rescue chain in the Khumbu region and improving health in remote areas of Nepal <i>M Brodmann Maeder, B Basnyat, S Harris</i> ⊙ 15 267-0 Mountain Medicine Society of Nepal-actively involved in making the Nepalese Himalayas safer <i>M Neupane, GB Thapa, P Koirala, M Pun, B Basnyat</i> ⊙ 15 259-0 Professional pre-hospital care in Nepal - The Nepal Ambulance Service <i>M Doe, N Wilson, E Stirling, R Pariseau, E Coleman, C White, C Stirling</i> ⊙ 15 Nepalese Mountain Rescue Development Project (EURAC/BRD/HRA) <i>G Strapazzon (Italy)</i> ⊙ 15 Discussion
15:30-16:00	COFFEE BREAK
16:00-17:30	<p>Panel discussion - Nepal mountain rescue development projects - G Cologna</p> <ul style="list-style-type: none"> ⊙ 15 An insider account of the Everest tragedy 2014 <i>P Koirala (Nepal) / S Stokes (United Kingdom)</i> ⊙ 10 Discussion ⊙ 10 Perspective on future developments in mountain rescue in Nepal <i>GB Thapa (Nepal)</i> ⊙ 55 Panel discussion <i>B Basnyat (Nepal), G Biner (Switzerland), M Brodmann (Switzerland), H Brugger (Italy), F Elsensohn (Austria), P Koirala (Nepal), T Preindl (Italy), L Sherpa (Nepal), GB Thapa (Nepal)</i>

CONFERENCE HALL (PARALLEL SESSION)

CONFERENCE HALL (PARALLEL SESSION)
<p>Special issues - Research initiatives in Nepal - A Ponchia / A Lohani</p> <ul style="list-style-type: none"> ⊙ 15 094-0 Educational and research project to increase awareness of chronic obstructive pulmonary disease (COPD) in Nepal and investigate the respiratory health in mountain dwellers exposed to indoor pollution <i>A Cogo, L Pratali, Italian-Nepalese Research Group</i> ⊙ 15 048-0 Science in thin air: Himlung Himal Research Expedition 2013 - a study of human adaptation to hypoxia <i>J Pichler Hefti, P Koirala, T Merz, U Hefti</i> ⊙ 15 099-0 Exposure to indoor air pollution induces endothelial dysfunction in nepalese high-altitude dwellers <i>L Pratali, A Cogo, Italian-Nepalese Research Group</i> ⊙ 15 073-P Role of low dose Acetazolamide (125 mg bid) in prevention of acute mountain sickness in pilgrims ascending rapidly: A prospective double blind placebo controlled randomized trial <i>M Pun, M Neupane, A Lohani, GB Thapa, S Yadav, PS Holck, B Basnyat</i> ⊙ 15 025-P A genome-wide association study of acute mountain sickness susceptibility in the Nepalese Himalaya <i>M MacInnis, N Widmer, U Timalsina, A Subedi, A Siwakoti, BP Pandit, M Freeman, E Carter, I Manokhina, GB Thapa, M Koehle, J Rupert</i> ⊙ 15 Discussion
<p>Future issues (panel discussion) - Revision of the Lake Louise Score - P Hackett / JK Baillie</p> <ul style="list-style-type: none"> ⊙ 15 Acute mountain sickness - the need for a data-driven definition <i>JK Baillie (United Kingdom)</i> ⊙ 15 Laboratory- and field-based evidence to revise the current definition of acute mountain sickness <i>M MacInnis (Canada)</i> ⊙ 15 042-0 A different scoring system to assess acute mountain sickness in the Italian Survey (Altitude & Pathology in Italy, AL.P.I.): Psychometric properties <i>L Bastiani, L Fortunato, F Marchiori, I Rigucci, G Nadali, M Cavana, M Bartesaghi, G Miserocchi, G Giardini, S Molinaro, L Pratali</i> ⊙ 15 Acute mountain sickness - the laboratory experience <i>R Roach (United States)</i> ⊙ 30 Panel discussion

ALTERNATIVE PROGRAMME

9:00-17:30
MEDICAL WORKSHOPS
 Location: Free University of Bozen/Bolzano
 (see page 35)

7:30-17:30
GUIDED EXCURSIONS
 (see page 38)



MOUNTAIN EMERGENCY MEDICINE

IV. INTERNATIONAL SYMPOSIUM ON HYPOTHERMIA

TRAUMA, AIRWAY & CIRCULATION

FRIDAY 30 MAY 2014 IV. INTERNATIONAL SYMPOSIUM ON HYPOTHERMIA

LOCATION	AUDITORIUM (MAIN SESSION)
9:00-10:30	<p>SESSION A - Clinical update - Accidental hypothermia—prehospital management - K Zafren / G Strapazzon</p> <ul style="list-style-type: none"> ⌚ 15 Update on the physiology and pathophysiology of accidental hypothermia <i>K Zafren (United States)</i> ⌚ 15 Field assessment and core temperature measurement in cold patients—a hot issue <i>G Strapazzon (Italy)</i> ⌚ 10 Field management of hypothermic patients without cardiac arrest <i>SC Skaiaa (Norway)</i> ⌚ 10 Field management of hypothermic patients with cardiac arrest <i>P Paal (Austria)</i> ⌚ 15 220-0 Deep accidental hypothermia with core temperature below 24°C <i>M Pasquier, B Weith, N Zurrón, P Turini, F Dami, P Carron, P Paal</i> ⌚ 15 Protection against cold—from simulation to practice <i>P Lundgren (Sweden) / O Henriksson (Sweden)</i> ⌚ 10 Discussion
10:30-11:00	COFFEE BREAK
11:00-12:30	<p>SESSION B - Clinical update - Accidental hypothermia—in-hospital management - BH Walpoth / D Brown</p> <ul style="list-style-type: none"> ⌚ 20 Extracorporeal rewarming of deep accidental hypothermia victims <i>BH Walpoth (Switzerland)</i> ⌚ 20 Outcome of accidental hypothermia with circulatory arrest in 7 young victims. Experience from the Danish Præstø Fjord boating accident <i>M Jaeger Wanscher (Denmark)</i> ⌚ 15 218-0 A proposal of modified in-hospital hypothermia algorithm in trans-border coordinating center for treatment of accidental hypothermic patients <i>L Festi, G Covaia, C Beghi, F Perlasca, G Minoja, A Zoli, G Avanzi, A Larghi, L Introzzi, F Barazzoni, M Lepori, C Bravi</i> ⌚ 15 217-0 The Bernese Hypothermia Algorithm goes Swiss <i>M Brodmann Maeder, I Breitenmoser, BH Walpoth</i> ⌚ 20 Accidental hypothermia—building the chain of survival <i>D Brown (Canada)</i>
12:30-14:00	LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 8 TO 11, SEE PAGE 35)
14:00-15:30	<p>SESSION C - Avalanche accidents - H Brugger / C Grissom</p> <ul style="list-style-type: none"> ⌚ 20 Update on the pathophysiology of avalanche victims <i>C Grissom (United States)</i> ⌚ 10 Two case reports of deeply hypothermic avalanche victims <i>M Blancher (France)</i> ⌚ 10 Is extracorporeal rewarming indicated in avalanche victims with unwitnessed hypothermic cardiorespiratory arrest? <i>P Mair (Austria)</i> ⌚ 20 ICAR MEDCOM treatment recommendations—adherence of emergency physicians and consideration of an update <i>H Brugger (Italy)</i> ⌚ 10 The influence of snow density on survival <i>G Strapazzon (Italy)</i> ⌚ 10 The effectiveness of avalanche airbags <i>E Procter (Italy)</i>
15:30-16:00	COFFEE BREAK
16:00-17:30	<p>SESSION D - Traumatic and therapeutic hypothermia—recent developments and open issues P Mair / M Holzer</p> <ul style="list-style-type: none"> ⌚ 30 Traumatic hypothermia—An overview <i>P Mair (Austria)</i> ⌚ 30 Therapeutic hypothermia after cardiac arrest: pros, cons and open issues <i>M Holzer (Austria)</i> ⌚ 15 223-0 Mild therapeutic hypothermia and DADLE rescue the brain after ischemia <i>K Schmitt, M Feldmann, G Tong, F Berger</i> ⌚ 15 243-0 Is core temperature assessed and relevant in severe alpine trauma victims? <i>G Strapazzon, A Trincanato, A Frasnelli, F Bonsante, G Rammilmair, E Gruber, E Fop, G Drüge, F Ploner, G Hofer, W Lunz, C Rilk, E Pandolfo, M Ströhle, P Zanon, P Mair, H Brugger for the International Alpine Trauma Registry group</i>

CONFERENCE HALL (PARALLEL SESSION)
<p>Special issues</p> <p>Immersion hypothermia and consequences for rescue and resuscitation - J Bierens</p> <ul style="list-style-type: none"> ⌚ 15 Immersion hypothermia and its consequences for rescue and resuscitation <i>J Bierens (Netherlands)</i> ⌚ 15 Immersion hypothermia in a disaster setting <i>M Jaeger Wanscher (Denmark)</i> ⌚ 15 From a Lazarus case-report to an immersion hypothermia protocol <i>RD O'Connor (Netherlands)</i> <p>Insights from diving science - C Balestra</p> <ul style="list-style-type: none"> ⌚ 15 Patency of the cardiac Foramen Ovale (PFO) / “The Normobaric Oxygen Paradox” <i>C Balestra (Belgium)</i> ⌚ 15 285-0 Comparative analysis of decompression stress at altitude based on the Dan Europe DSL (Diving Safety Laboratory) database using gradient factor (GF) analysis <i>S Murat Egi, M Pieri, D Cialoni, C Bonuccelli, C Balestra, A Marroni</i> ⌚ 15 286-0 Effect of acute hypobaric hypoxia on cerebral arousal in non-acclimatized lowlanders <i>S Theunissen, Q Crèvecoeur, E Cauchy, S Bolognési, S Dupont, P Germonpré, C Balestra</i>
COFFEE BREAK
<p>Meet the expert - Frostbite and crevasse accidents - E Cauchy / B Durrer</p> <ul style="list-style-type: none"> ⌚ 25 New advances in frostbite treatment: which treatment considering the healthcare environment? <i>E Cauchy (France)</i> ⌚ 25 On-site treatment of crevasse accidents. State of the art 2014? <i>B Durrer (Switzerland)</i> ⌚ 15 221-0 Epidemiology of glacier crevasse accidents <i>M Pasquier, A Kottmann, O Reisten, U Mosimann, O Hugli</i> ⌚ 15 219-0 The cold-induced vasodilatation response as a predictor of the risk of freezing cold injury <i>J Gorjanc, SS Cheung, M Milcinski, I Mekjavic</i> ⌚ 10 Discussion
LUNCH BREAK & POSTER VIEWING SESSION (TOPIC 8 TO 11, SEE PAGE 35)
<p>Wilderness workshop - Surviving the cold - S McIntosh / G Rodway</p> <p>This workshop focuses on the prevention and treatment of cold and cold injuries in the mountains: non-freezing cold injuries, frostbite, and hypothermia. In a practical session we will demonstrate how to care for and manage these problems, both as a patient and rescuer.</p>
<p>Future issues - Avalanche mass casualty accidents—advances in rescue strategies - A Kottmann / M Genswein</p> <ul style="list-style-type: none"> ⌚ 5 Introduction <i>A Kottmann (Switzerland) / M Genswein (Switzerland)</i> ⌚ 15 Statistical overview of MCIs in avalanche rescue <i>J Schweizer (Switzerland)</i> ⌚ 20 The USAR and UAVSAR perspective on MCIs <i>S Thorvaldsdóttir (Iceland)</i> ⌚ 20 AvaLife, Survival chance optimized decision making and procedures in avalanche rescue <i>M Genswein (Switzerland)</i> ⌚ 20 ICAR MEDCOM Avalanche victim resuscitation checklist. And if it is a mass casualty avalanche? <i>A Kottmann (Switzerland)</i> ⌚ 10 Panel discussion and summary <i>A Kottmann (Switzerland), J Schweizer (Switzerland), S Thorvaldsdóttir (Iceland), M Genswein (Switzerland)</i>

SEMINAR ROOM (PARALLEL SESSION)
<p>Technical workshop - Stretchers: different models in mountain, canyoning and cave rescue CNSAS - F Bonsante / G Mancinelli / A Santini</p> <p>The evacuation and transport of victims in mountain, canyoning and cave rescue are strongly influenced by environmental and logistical factors. In a hands-on workshop CNSAS-Italian Mountain Rescue Service medical and technical personnel will illustrate different medical and technical characteristics of the stretchers (e.g., protection from impact/collision, positioning according to terrain transport and injury). Participants will rotate between three stations dedicated to specific scenarios.</p> <p>Location: Seminar 7</p>
<p>Technical workshop - Rescue of hanging victims: technical and medical aspects - CNSAS - F Bonsante / M Biasioni</p> <p>The on-site management of victims on walls and couloirs of the Dolomites requires specific medical and technical skills. CNSAS-Italian Mountain Rescue Service of South Tyrol, in collaboration with its historical group called <i>Judacrep Gherdeina-Catores</i>, will lead an interactive demo-workshop on the side of the congress building explaining specific evacuation and transport techniques and medical tips.</p> <p>Location: Seminar 8</p>
<p>Technical workshop - Helicopter-supported water rescue - Fire Department Bolzano / Emergency Dispatch 118 / Helicopter Rescue South Tyrol</p> <p>Hosted by highly-specialized teams from the local rescue organizations, this workshop focuses on the logistical and medical aspects of white water, flooding and ice accidents. Participants will discuss the elements of a coordinated response by air-based and water rescue teams, rapid intervention for hypothermic and drowning victims, and practical application to real case examples.</p> <p>Location: Seminar 7</p>
<p>Technical workshop - Insulation techniques in the field - BRD im AVS</p> <p>This workshop provides an overview of common and novel insulation techniques used in the field. The aim is an interactive discussion with experts and exchange of experience between participants.</p> <p>Location: Seminar 8</p>

SATURDAY 31 MAY 2014 TRAUMA, AIRWAY & CIRCULATION

LOCATION	AUDITORIUM (MAIN SESSION)
9:00-10:30	<p>SESSION A - Clinical update - Alpine trauma treatment - F Elsensohn / E Visetti</p> <ul style="list-style-type: none"> ⌚ 20 Multiple trauma in mountain rescue: Treatment, rescue strategy and limitations <i>F Elsensohn (Austria)</i> ⌚ 15 271-P Evaluation of pain management in mountain rescue: a prospective observational study of 49 patients managed by Physician Staffed Helicopter Emergency Medical Service (P-HEMS) during mountain rescue missions <i>M Blancher, E Dubie, I Favier, F Rocourt, R Briot, V Danel</i> ⌚ 15 244-0 Can emergency physicians correctly assess the pattern and severity of injury at the scene in alpine multitrauma victims? <i>M Ströhle, E Moritz, G Strapazzon, H Brugger, P Mair</i> ⌚ 15 256-0 Two year prospective observational study on mountaineering medical events and trauma: "Mind the head" <i>R Brustia, G Enrione, B Catuzzo, A Iriti, L Cavoretto, M Pesenti Compagnoni, E Visetti, E Cauchy, G Giardini</i> ⌚ 15 257-0 Epidemiology of fallers in Snowdonia, UK <i>N Dodds, J Christley, L Dykes</i> ⌚ 10 Discussion
10:30-11:00	COFFEE BREAK
11:00-12:30	<p>SESSION B - Clinical update - Basic and advanced airway management - P Paal / I Tomazin</p> <ul style="list-style-type: none"> ⌚ 15 241-0 Basic Life Support trained nurses ventilate more efficiently with laryngeal mask Supreme than with facemask or laryngeal tube Suction-Disposable—a prospective, randomized clinical trial <i>E Gruber, R Oberhammer, K Balkenhol, G Strapazzon, E Procter, H Brugger, M Falk, P Paal</i> ⌚ 30 Non-invasive ventilation and basic life support ventilation in mountains <i>P Paal (Austria)</i> ⌚ 30 Advanced airway management in mountains <i>I Tomazin (Slovenia)</i> ⌚ 15 Discussion
12:30-14:00	LUNCH BREAK
14:00-15:30	<p>SESSION C - Clinical update - Circulation management and cardiac arrest in mountain and remote areas J Ellerton / M Milani</p> <ul style="list-style-type: none"> ⌚ 20 Shock update <i>P Paal (Austria)</i> ⌚ 30 Termination of CPR including traumatic cardiac arrest <i>M Milani (Italy)</i> ⌚ 15 AED in remote areas—a case series from South Tyrol <i>G Rammlmair (Italy) / L Lintner (Italy)</i> ⌚ 10 261-0 Cardiac arrest in mountain setting (above 1800m); two years HEMS experience review in Aosta Valley, Italy <i>G Enrione, S Roero, B Catuzzo, G Giardini, E Visetti</i> ⌚ 15 Discussion
15:30-16:00	COFFEE BREAK
16:00-17:00	<p>Key lecture & Closing ceremony</p> <ul style="list-style-type: none"> ⌚ 30 Recent developments and future perspectives in out-of-hospital resuscitation in mountain areas <i>H Brugger (Italy) / F Elsensohn (Austria)</i> ⌚ 30 Presentation of XI. World Congress 2016 <i>B Basnyat (Nepal) / P Hackett (United States)</i>

CONFERENCE HALL (PARALLEL SESSION)
<p>Special issues</p> <p>Shoulder dislocation and thoracostomy - C Kruis / A Rinaldi</p> <ul style="list-style-type: none"> ⌚ 15 Traumatic pneumothorax—minithoracotomy <i>A Rinaldi (Italy)</i> ⌚ 15 When and how to reduce a shoulder dislocation in the field <i>C Kruis (Germany)</i> ⌚ 15 240-0 Improving patient safety—minimally-invasive drainage in the field for the treatment of a traumatic or spontaneous pneumothorax <i>L Festi, E Nardecchia, MA Cattoni, F Berizzi, U Hefti, L Dominioni</i> <p>Lightning - K Zafren</p> <ul style="list-style-type: none"> ⌚ 45 The shocking truths about lightning injuries! <i>K Zafren (United States)</i>
COFFEE BREAK
<p>Meet the expert</p> <p>Analgesia in the field - J Ellerton</p> <ul style="list-style-type: none"> ⌚ 15 Managing moderate and severe pain in mountain rescue. Official recommendations of ICAR MEDCOM <i>J Ellerton (United Kingdom)</i> ⌚ 15 258-0 Not to be sniffed at: efficacy & safety of intranasal diamorphine in UK adult mountain casualties <i>N Dodds, K Nakirikanti, J Ellerton, L Dykes</i> <p>Canyoning and caving rescue - I Soteras</p> <ul style="list-style-type: none"> ⌚ 25 Scenario and panel discussion <i>I Soteras (Spain), O Reisten (Switzerland), G Strapazzon (Italy), J Ellerton (United Kingdom)</i> ⌚ 5 268-0 First-responder caving rescue bags <i>L Pilo, A Santini, R Trevi, G Mancinelli, M Milani, G Strapazzon</i> ⌚ 5 269-0 STC Speleo Trauma Care—a course focused on trauma care in caving rescue <i>L Pilo, A Santini, M Milani, G Strapazzon, Medical Commission of the CNSAS Italian Caving Rescue (CoMed speleo)</i> ⌚ 5 266-0 A new stretcher for canyoning rescue based on medical and technical experience <i>G Mancinelli, P Schiavo, M Biasioni, M Milani, G Strapazzon</i> ⌚ 10 260-0 Canyoning injuries. Impact of wearing technical canyoning shoes in canyoning related accidents <i>JS Dupeyrat, C Riello, J Barberis, F Rocourt, I Favier, R Briot, M Blancher</i> ⌚ 10 262-0 Medical management of caving injuries in France. 71 medical rescue missions deep inside <i>J Faurax, M Blancher, F Rocourt, I Favier, F De Felix, R Briot</i>
<p>Special issues - Rescue in mountain and remote areas: educational and logistical issues M Blancher / G Cipolotti</p> <ul style="list-style-type: none"> ⌚ 15 Mountain telemedicine, here and there, today and tomorrow <i>E Cauchy (France) / P Zellner (France)</i> ⌚ 15 Telemedicine in mountain huts: going beyond simple AEDs <i>G Cipolotti (Italy)</i> ⌚ 15 183-0 Telemedicine backpack: bringing healthcare attention closer to inaccessible areas <i>M Sierra, M Avellanas, J Coll, R Anglés, S Mayo, V Rodrigalvarez, R Hurtado</i> ⌚ 15 263-0 Lessons learned from the Yushu earthquake 2010 <i>C Gongbao</i> ⌚ 15 264-0 Ultra events at high altitude: A challenge for the doctors <i>P Koirala</i> ⌚ 15 265-0 Medical simulation training in mountain rescue <i>V Lischke, A Berner, U Pietsch, J Schiffer, L Ney</i>

SEMINAR ROOM (PARALLEL SESSION)
<p>Technical workshop - Rescue strategies in cable car evacuations - BRD im AVS</p> <p>With the amount of tourist traffic via cable cars in mountain areas in the Alps, cable car evacuations belong to the basic skills of a mountain rescue team. This unique workshop presents a standard rescue technique that was successfully introduced in South Tyrol.</p> <p>Location: Seminar 7</p>
<p>Technical workshop - How to extricate and immobilise a patient in extreme rescue situations B Jelk / BRD im AVS</p> <p>This workshop will be a discussion of extrication and immobilization skills from specific and extraordinary rescue situations, drawing on the long-time experience of air-based rescue teams in Switzerland and South Tyrol.</p> <p>Location: Seminar 7</p>



MEDICAL WORKSHOPS

4.2 Poster schedule

Posters have been assigned to the first section (High Altitude Medicine and Physiology, 26-28 May 2014) or the second section (Mountain Emergency Medicine, 30-31 May 2014). Posters can remain for the entire duration of the section, but authors should be present between **12:30 and 14:00** during the poster viewing session specified below.

	TOPIC	POSTER ID	DATE
1	Molecular or genetic aspects of hypoxia and high altitude	016-P to 037-P	MONDAY 26 MAY 2014
2	Acute exposure to hypoxia and high altitude	054-P to 089-P	TUESDAY 27 MAY 2014
3	Chronic exposure to hypoxia and high altitude	102-P to 124-P	MONDAY 26 MAY 2014
4	Preexisting diseases at high altitude	129-P to 148-P	WEDNESDAY 28 MAY 2014
5	Women and children at high altitude	151-P to 161-P	WEDNESDAY 28 MAY 2014
6	Medications at high altitude	163-P to 173-P	TUESDAY 27 MAY 2014
7	Mountaineering, expedition and sports medicine	185-P to 208-P	WEDNESDAY 28 MAY 2014
8	Hypothermia and cold injuries	222-P, 227-P to 237-P	FRIDAY 31 MAY 2014
9	Airway, circulation and trauma management	242-P, 245-P to 254-P	FRIDAY 31 MAY 2014
10	Rescue in mountainous or remote areas	270-P to 282-P	FRIDAY 31 MAY 2014
11	Special issues	287-P to 290-P	FRIDAY 31 MAY 2014

4.3 Medical workshops

These refresher medical workshops are an adjunct programme. Pre-registration is required online or at the info-desk by Wednesday, 28 May 2014.

Location / Date	FREE UNIVERSITY OF BOZEN/BOLZANO / THURSDAY 29 MAY 2014		
9:00-12:00	<p>WORKSHOP 1 Targeted temperature management in accidental hypothermia <i>P Mair / P Paal</i></p> <p>A practice-oriented workshop on targeted temperature management in accidental hypothermia, including interactive discussion of case studies and current technology for core temperature measurement.</p> <p>Location: Room D1.03 Price: 100 €</p>	<p>WORKSHOP 2 Trauma management <i>E Gruber / I Tomazin</i></p> <p>An update on front-line issues in trauma management. This is an interactive session with discussion of case studies.</p> <p>Location: Room D1.01 Price: 100 €</p>	
14:00-15:30	<p>WORKSHOP 3 (group 1) Mechanical chest compression devices in mountain emergency medicine <i>G Putzer / O Reisten</i></p> <p>With the current buzz around mechanical chest compression devices, this workshop provides a discussion of existing evidence for use of these devices in terrestrial and air rescue and ample hands-on time for participants to familiarize themselves with different commercially-available devices.</p> <p>Location: Room D0.02 Price: 50 €</p>	<p>WORKSHOP 4 Alternative access for drug and volume administration <i>J Ellerton / M Milani / P Paal</i></p> <p>Participants will be shown state-of-the-art alternatives for prehospital drug and volume administration.</p> <p>Location: Room D0.03 Price: 50 €</p>	<p>WORKSHOP 5 Ultrasound at high altitude I — optic nerve <i>P Lochner / ML Zedde / L Coppo</i></p> <p>Participants will receive hands-on instruction in optic nerve ultrasonography and discuss its application in clinical studies at high altitude. The participants will be introduced to the basics of transcranial color-coded sonography and its value to detect, localize and quantify disease and evaluate hemodynamic responses.</p> <p>Location: Room F0.03 Price: 50 €</p>
16:00-17:30	<p>WORKSHOP 3 (group 2) Mechanical chest compression devices in mountain emergency medicine <i>G Putzer / O Reisten</i></p> <p>With the current buzz around mechanical chest compression devices, this workshop provides a discussion of existing evidence for use of these devices in terrestrial and air rescue and ample hands-on time for participants to familiarize themselves with different commercially-available devices.</p> <p>Location: Room D0.02 Price: 50 €</p>		<p>WORKSHOP 6 Ultrasound at high altitude II—lung <i>L Pratali / L Gargani</i></p> <p>Participants will receive hands-on instruction in lung ultrasonography using a portable ultrasound device and will be introduced to its application in clinical practice and clinical studies at high altitude.</p> <p>Location: Room F0.03 Price: 50 €</p>

5 Social programme



Mountains, water and horses are a triad used to characterize Kyrgyzstan. An old Kyrgyz proverb says "Horses are the wings of the Kyrgyz".

Highlight

Photo exhibition "A journey to Kyrgyzstan: Hiking among the Mountains of Heaven in Tien Shan" Photos: Giancelso Agazzi

Twenty photos from a 2006 summer expedition to the Chong Kemin Valley and Arpa Valley in Kyrgyzstan. The pictures describe my experience spent in this fascinating, remote and unknown country of Central Asia, in an alpine landscape among nomad people, simple and friendly, under the lee of great mountains.

5.1 Evening events

Sunday, 25 May 2014

Join us in the EURAC garden for the welcome aperitif!

When: Sunday, 25 May - 21:00

Where: EURAC research, Viale Druso 1, Bozen/Bolzano, Italy

Monday, 26 May 2014

Book presentation "Wenn Grenzen keine sind: Management und Bergsteigen"

Prof. Fredmund Malik, expert for complexity management, governance and leadership, scientist, author, entrepreneur and passionate mountaineer, will give a personal account of his new book Wenn Grenzen keine sind: Management und Bergsteigen ("If Limits Are None. Management and Mountain Climbing") and discuss with the renowned climber and guide Hanspeter Eisendle what management and mountaineering can learn from each other. This event is moderated by Günther Cologna. Congress participants and the general public are welcome! Registration not required. Simultaneous translation is provided.

When: Monday, 26 May - 20:00

Where: Auditorium, EURAC research, Viale Druso 1, Bozen/Bolzano, Italy

Open night at the Salewa headquarters

Salewa invites you to an open-door night at their headquarters in Bolzano. Participants are invited to join them for a guided tour or an introductory climbing course (max. 20 people for the climbing course). Registration required via email: ismm2014@eurac.edu.

When: Monday, 26 May - 18:00

Where: Salewa headquarters, Via Waltraud-Gebert-Deeg 4, Bozen/Bolzano, Italy

Departure time: 18:15 from EURAC main entrance (free shuttle bus)

Tuesday, 27 May 2014

The Iceman

The Tyrolean Iceman, commonly known as Ötzi, is the world's oldest glacier mummy, who was found in September 1991 on the Tisenjoch pass in the Italian part of the Ötztal Alps. The ongoing studies of the 5300-year-old Copper age individual revealed important insights into his origin, his life habits and the circumstances surrounding his demise. Dr. Albert Zink and Dr. Eduard Egarter Vigl will present the most important findings and the latest scientific results regarding the famous glacier mummy.

When: Tuesday, 27 May - 20:00

Where: Auditorium, EURAC research, Viale Druso 1, Bozen/Bolzano, Italy



The Iceman

(© Südtiroler Archäologiemuseum/Eurac/Samadelli/Staschitz)

Thursday, 29 May 2014

FOCUS TOPIC: NEPAL – A public invitation to an expert discussion and documentary film

– Nepal mountain rescue development projects: looking to the future of organized rescue in Nepal
A round table discussion with a representative from the Nepalese government and local and international emergency doctors and mountain rescue experts to define the future of organized rescue in Nepal. Beginning with an insider account of the Everest tragedy on 18 April 2014, we look at how to link existing rescue initiatives and add new ones to establish the basis for an integrated rescue system for target regions in Nepal.

– Film presentation

A documentary from filmmaker Stefano Levi and his small team on the struggle against blindness and awareness about the problem of cataract disease in Nepal. "OUT OF THE DARKNESS – Der Weg ins Licht" premiered at several international film festivals worldwide.

<http://www.outofthedarkness-film.de> English / Nepali / German / 81 min

When: Thursday, 29 May – Round table discussion begins at 16:00 – Film begins at 18:00

Where: Auditorium, EURAC research, Viale Druso 1, Bozen/Bolzano, Italy



Kurhaus Merano

(© Böhlinger Friedrich)

Gala dinner & Keynote speech

Join us for an elegant gala evening in the Kurhaus Merano, the cultural heart of the town of Merano. The original historical west wing of the Kurhaus dates back to 1874 and the gala room has been host to many esteemed visitors. The Kurhaus Merano is member of the Historic Conference Centres of Europe and one of Europe's most renowned conference centres.

A welcome aperitif and gala dinner will be followed by a keynote speech by wilderness medicine expert Dr. Paul Auerbach: Bringing medicine to the wild and wilderness medicine to the world. Musical accompaniment provided by local jazz musicians Lösch Duo. Participation by registration only.

When: Thursday, 29 May – 20:00

Where: Kurhaus Merano, Corso Libertà 33, Meran/Merano, Italy

Bus transportation to Merano is provided for congress participants and registered guests.

Departure time: 18:15

Departure place: Via Alto Adige 35, Bozen/Bolzano, Italy

Return to Bolzano: 23:00 and 23:45

Friday, 30 May 2014

Conquering the disbelief - the challenge of man at 8800 m

Renowned mountaineer Reinhold Messner and expedition medicine pioneer Dr. Oswald Oelz will give a first-hand account of the medical and public disbeliefs overshadowing the 1978 ascent of Mt. Everest. Congress participants and the general public are welcome! Registration not required.

– Special offer exclusively for conference participants and guests: the museum will be open (entrance fee required) to visit the exhibitions or just enjoy the view before the main event starts!

Bus departure time: 18:45 (see below)

– For participants joining us only for the evening event, we will start with an aperitif and accompaniment by jazz group No Oxygen. Bus departure time: 19:45 (see below)

Please note that this is an open-air event. Don't forget a raincoat!

In case of bad weather a new location will be announced.

When: Friday, 30 May – 20:00

Where: Messner Mountain Museum Firmian, Via Castel Firmiano 53, Bozen/Bolzano, Italy

Bus transportation to Firmiano is provided for congress participants and guests:

Departure time: 18:45 (to visit the museum)

19:45 (for the evening event only)

Departure place: Via Alto Adige 35, Bozen/Bolzano, Italy

Event sponsored by
LEITNER
ropeways

5.2 Guided excursions

Thursday, 29 May 2014

SPECIAL OFFER - Practical Excursions**Wilderness survival skills**

Mr. Brian Horner and survival instructors from his team at Learn to Return Training Systems, a survival training school based in Anchorage, Alaska, are offering a wilderness skills session you won't forget! This combination workshop-excursion is designed to provide real wilderness skills, improvised medical techniques and practical experience in a short time. In a dynamic six-hour, hands-on program, participants will learn to tie knots, make fishing nets, create emergency footwear and headgear, build shelters and build a fire with both primitive and modern techniques. Participants will build their own micro-survival kits, which they get to keep!

Tour time: 6 hours (3 hours indoors, 3 hours in the field)
Max. participants: 50

Field first aid with Dr. Urs Wiget

Renowned mountain guide and physician, Dr. Urs Wiget, will lead a small group on a practical excursion in creative first aid techniques. Participants will have hands-on exercises using limited resources in the field. This excursion is suitable for participants of any age and previous knowledge in first aid. You only need regular hiking gear.

Tour time: 5 hours
Level of difficulty: low to moderate
Max. participants: 12
Departure time: 7:30
Departure place: Via Alto Adige 35 (Hotel Alpi), Bozen/Bolzano, Italy

Scenic Excursions**Panorama Loop – Renon/Ritten**

Accessible directly from the city via cable car, this trail gives you a front row panorama view of the Dolomite ranges towering over Bolzano. This excursion is suitable for families and all walking abilities. An alternative route is possible to the highest point on the plateau, the Corno del Renon/Rittnerhorn (2260m). A lunch stop is planned along the way in a typical mountain hut.

Walking time: 3 hours (5 hours for alternative route)
Level of difficulty: low
Max. participants: 100
Departure time: 7:30
Departure place: Via Alto Adige 35 (Hotel Alpi), Bozen/Bolzano, Italy

Legend of the Rosengarten – Carezza/Karersee

Just a short bus ride away from the city this day trip brings you to the famous Rosengarten group, whose enchanting pink glow in the sunset is a reminder of the century-old legend of King Laurin and his rose garden. The trail winds along the eastern flank of this legendary massif, connecting the many mountain huts along the way. Lunch will be provided in one of these huts.

Walking time: 5 hours
Level of difficulty: moderate
Max. participants: 50
Departure time: 7:30
Departure place: Via Alto Adige 35 (Hotel Alpi), Bozen/Bolzano, Italy

Via ferrata “Sandro Pertini” – Val Gardena/Grödental

For those wanting a challenge, this via ferrata is a sure way to experience the Dolomites first hand. The ascent follows the via ferrata “Sandro Pertini” through its various passages up to a final elevation of 2140m. The view at the top is a due reward for your efforts! Packed lunch will be provided. The

Participants are reminded to come equipped for all weather conditions! Hiking boots/clothes and water are recommended.

descent follows an easy hiking trail back to the starting point. Participants must have complete safety equipment (rental of equipment is possible with notice) and show adequate experience with via ferratas. Children must be over 8 years and accompanied by a parent.

Ascent time: 2 hours / **Descent time:** 1.5 hours
Level of difficulty: challenging
Max. participants: 25
Departure time: 7:30
Departure place: Via Alto Adige 35 (Hotel Alpi), Bozen/Bolzano, Italy

5.3 Sight-seeing programme for guests

In collaboration with a local travel agency, we have planned a side programme for accompanying guests and families. Discover the local treasures, from wine-tasting and cultural landscapes, to the Dolomites and historical Italian cities!

Monday, 26 May 2014**Dolomites – Round-trip over the passes of the world famous white mountains**

Duration: full day excursion by bus, no hiking
Regular price: 45 Euro (40 Euro for registration before 21 May 2014)

Tuesday, 27 May 2014**Marlinger Waalweg near Merano – An excursion along the old irrigation channels**

Duration: 7 hours, approx. 4 hours hiking
Regular price: 45 Euro (39 Euro for registration before 21 May 2014)

Venice – Historic town of canals and bridges

Duration: full-day excursion, no hiking
Regular price: 85 Euro (79 Euro for registration before 21 May 2014)

Wednesday, 28 May 2014**South Tyrol's Kastanienweg – A hike from Feldthurns to the charming town of Klausen**

Duration: 7 hours, 3-4 hours of hiking
Regular price: 49 Euro (45 Euro for registration before 21 May 2014)

Innsbruck, Austria – Heart of the Alps

Duration: full-day tour, no hiking
Regular price: 59 Euro (55 Euro for registration before 21 May 2014)

Friday, 30 May 2014**Dolomites – Roundtrip over the passes of the world famous white mountains**

Duration: full day excursion by bus, no hiking
Regular price: 45 Euro (40 Euro for registration before 21 May 2014)



The Tre Cime di Lavaredo
 (©Südtirol Marketing/Helmuth Rier)



The Goldenes Dachl (Golden Roof), Innsbruck
 (©Thinkstock)

Western Dolomites – A hike from the Raschätz to the picturesque Villnöß valley

Duration: 7 hours, 5 hours hiking (level of difficulty low to moderate)

Regular price: 55 Euro (49 Euro for registration before 21 May 2014)

Venice – Historic town of canals and bridges

Duration: full-day excursion, no hiking

Regular price: 85 Euro (79 Euro for registration before 21 May 2014)

Marlinger Waalweg near Merano – An excursion along the old irrigation channel system

Duration: 7 hours, approx. 4 hours hiking

Regular price: 45 Euro (39 Euro for registration before 21 May 2014)



Venice (©Thinkstock)

Saturday, 31 May 2014

The vineyards of Kurtatsch – A hike through the vineyards of South Tyrol's Unterland

Duration: 6 hours, 3 hours hiking

Regular price: 59 Euro (55 Euro for registration before 21 May 2014)

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INSTITUTIONAL PARTNERS



WITH ORGANIZATIONAL SUPPORT FROM



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