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research



Scientific programme
XII ISMM World Congress 2018

Mountain Medicine
in the Heart of the Himalayas

PROGRAM BOOKLET

1. Welcome message

In the tradition of the last 24 years, the biennial congress will continue to focus on high altitude medicine, which is an important flagship of the International Society for Mountain Medicine. While originally this event focused mainly on science and research aspects of high altitude medicine, for some years now the congress objectives have extended. ISMM aims to offer a comprehensive overview of ongoing topics of interest in mountain medicine, whilst also extending the program by adding a dedicated mountain emergency medicine component (in collaboration with the International Commission of Mountain Emergency Medicine ICAR MEDCOM and the Wilderness Medical Society WMS). This renewed program will also include practical workshops related to trekking, expedition medicine, and clinical education. In the last few years, enrolment in Mountain Medicine Diploma courses has shot up internationally, and the faculty feels there is a need for better unification, coordination and quality management. Moreover, nowadays travelling mountaineers should be aware not only of the risks of global epidemics such as SARS, Zika and Ebola, but also tropical diseases and protective measures for common problems like travelers' diarrhea and fever in the traveler. For these reasons, the ISMM World Congress 2018 has adopted many new fields of interest.

For the first time, the congress will be held in Kathmandu, hosted by an active group of young physicians gathered in the Mountain Medicine Society of Nepal. The program includes many aspects of mountain medicine, from science through to expedition medicine. It gives the attendants the opportunity to combine this unique congress with a journey to the highest peaks of the planet, to a land of miraculous peoples, cultures and landscapes.



Dr. Hermann Brugger

President, International Society for Mountain Medicine
Head, Institute of Mountain Emergency Medicine, EURAC
Associate Professor, Innsbruck Medical University



Dr. Buddha Basnyat

President, Mountain Medicine Society of Nepal
Medical Director, Himalayan Rescue Association
Past President, ISMM & UIAA MedCom

2. International committee



Prof. Dr. Buddha Basnyat



Dr. Santosh Baniya



Dr. Maniraj Neupane



Miriam Gottardi



Diane Martinelli

2.1 Local organizing committee



Dr. Santosh Baniya
Local organizing committee
chair



Dr. Jayant Yadav



Dr. Suvash Dawadi



Dr. Suman Acharya



Dr. Subarna Adhikari



Dr. Prakash Kharel



Mr. Vivek Karn



Dr. Sushil Pant



Dr. Samriddha Raj Pant

Contents:

1. Welcome message
2. International committee
 - 2.1 Local organizing committee
3. General information
 - 3.1 Practical information
 - 3.2 About ISMM World Congress
 - 3.3 Congress partners
 - 3.4 Dissemination and international network
 - 3.5 Important note for chairpersons, speakers and audience
4. Faculty
 - 4.1 Scientific committee
 - 4.2 Chairpersons and speakers
5. Scientific programme
 - 5.1 Full programme
 - 5.2 Poster schedule
 - 5.3 Poster details
6. Scholarship campaign
 - 6.1 Donors
 - 6.2 Scholarship Recipients
7. Exhibitors and supporters

3. General information

3.1 Practical information

- **Help desk at airport**

An airport help desk will be present in Tribhuvan International Airport. Our volunteers will be present at the airport for any help needed. The help desk will remain open between 1 pm and 11 pm on 20th and 21st November.

- **Registration desk**

Registration desks are located in the atrium of the Yak and Yeti Hotel (ground floor). Registration is from 11 am to 5 pm on the 21st November. Conference kits will be provided during registration. Registered participants have access to all program sessions, the welcome aperitif, coffee breaks and lunch. The gala dinner is not included in the registration fees and requires pre-registration and payment.

- **Welcome speech and welcome aperitif**

All registered participants are invited to the welcome speech and welcome aperitif on 21st November. The official program will be held at Regal Hall from 5 pm and will be followed by a welcome aperitif in Foyer hall.

- **Refreshments**

Morning and afternoon coffee breaks will be served at the Foyer Hall, 10:30 am-11 am and 3:30 pm-4 pm respectively.

- **Lunch**

Lunch will be served on 22nd, 23rd and 24th November, 12:30 pm-1:30 pm, at the Yak and Yeti Hotel garden. Lunch coupons are necessary for lunch.

- **Gala Dinner**

The gala dinner will be served at Hotel Yak and Yeti on Friday, November 23, 2018. Gala dinner tickets can be purchased at the time of registration.

- **CME accreditation**

For information on accreditation of this event at the national and international level, please consult the website or contact the congress secretariat.

- **Badge**

Upon registration, you will receive your badge and conference kit. Please wear your badge during all conference sessions and social events.

- **Sessions**

Please make sure to be in the session halls on time, as all sessions will begin as per schedule. Changes in the program will be announced on the announcement slides inside the session halls.

- **Slide center**

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

- **Certificate of attendance**

Please note that certificates of attendance will not be printed onsite. Certificates will be issued to all attendees electronically after the conference and forwarded to their email. Certificates for poster/oral presentations will be issued upon request after the conference.

- **Mail/ messages/ medical assistance/ lost and found**

Please refer to conference secretariat for assistance

- **Smoking policy**

Smoking is not allowed inside the session halls, exhibition area and restrooms. Your compliance is appreciated.

- **Conference secretariat**

Please do not hesitate to contact the secretariat for any additional information or assistance.

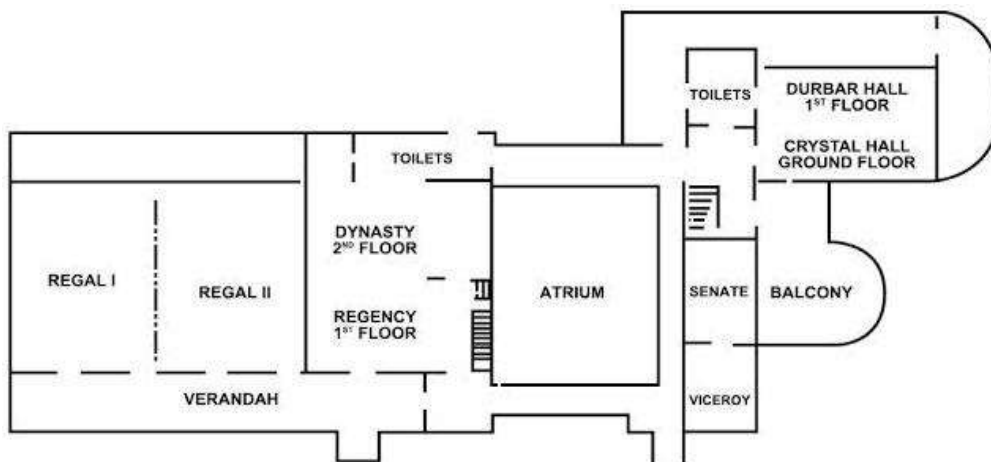
Maharajunj, Kathmandu, Nepal

Phone: +977 9813273171, +977 9813273109

Email: ismm.wc2018@gmail.com

Website: www.ismm2018.org

- **Floor plan and map of congress venue**



XII ISMM WORLD CONGRESS ON MOUNTAIN MEDICINE
"Mountain medicine in the heart of the Himalayas"

3.2 About ISMM World Congress

The International Society of Mountain Medicine (ISMM) was founded in 1985 by the medical commission of the Union Internationale des Association 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 XII World Congress for the very first time to the heart of the mountains in Nepal.

3.3 Congress Partners

- International Society of Mountain Medicine (ISMM)
- Mountain Medicine Society of Nepal (MMSN)
- Institute of Mountain Emergency Medicine – Eurac Research
- Himalayan Rescue Association (HRA)

3.4 Dissemination and international networks

Our dissemination network includes both research and clinical institutions worldwide as well as leading medical, alpine and rescue associations.

The XII ISMM World Congress on Mountain Medicine has already been announced at several medical and mountain medicine congresses in Europe and Northern America. It is supported by some of the leading mountain medicine and mountaineering organizations around the world.

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

3.5 Important note to the chairpersons, speakers, and the audience

All speakers are requested to send their presentations preferably 24 hours before, or at the latest by 3 hours before their presentation schedule, to ismmpresentations@gmail.com We also request all speakers and chairpersons to download any materials they need for their presentation beforehand, as there shall be no Wi-Fi connection at the conference venue.

This ISMM World Congress meeting in Nepal is very serious about adherence to time. In fact, the organizers hope that the meeting will be defined by chairpersons ensuring the speakers' absolute adherence to their allotted time. The chairperson may "pull the plug" if a speaker continues to speak beyond their allotted time. When there are 3 minutes left in the talk, it is strongly recommended that the chairperson rings a warning bell to make the speakers aware of the time remaining. Speakers are strongly

recommended to use their smartphones to time themselves, if that helps them. The chairpersons should please remind the speakers about these points just prior to the session.

These steps are crucial to ensure that all the many young participants in the meeting appreciate the importance of time management, something that is completely overlooked and under-emphasized in South Asia.

Along this vein, it is important that the chairpersons please instruct the audience that only one question will be allowed per person, so that others in the audience may have a chance to ask questions too; and kindly to please keep the questions short and crisp.

4. Faculty

4.1 Scientific Committee

Name	Affiliation
Basnyat Buddha	MD, MSc, FACP, FRCP Medical director of HRA Director of Oxford University Clinical Research Unit-Nepal
Beall Cynthia	PhD Professor of Anthropology Case Western Reserve University
Brodmann Monika	MD, MME Senior Researcher Eurac Research, Institute of Mountain Emergency Medicine, Bolzano, Italy
Brugger Hermann	MD Head of Institute of Mountain Emergency Medicine Associate Professor Innsbruck Medical University President International Society for Mountain Medicine ISMM
Dawadi Suvash	MDGP, MBBS, DiMM Mountain Medicine Society of Nepal
Ellerton John	MRCGP, UIAA/ICAR/ISMM DiMM General Practitioner and Mountain Rescue Doctor, Lake District, England; Medical Officer Mountain Rescue England and Wales 2002-12 President of ICAR Medcom (from October 2017) member of the administrative group for the UIAA/ICAR/ISMM Diploma in Mountain Medicine
Elsensohn Fidel	MD Past President of ICAR MEDCOM (from October 2017)
Gatterer Hannes	PhD Senior Researcher Eurac Research, Institute of Mountain Emergency Medicine, Bolzano, Italy
Ge Ri-Li	MD, PhD, Research Center for High Altitude Medicine, Qinghai University, China
Hackett Peter	MD Altitude Research Center University of Colorado School of Medicine
Hanaoka Masayuki	First Department of Medicine Shinshu University School of Medicine

Jean Dominique	MD Paediatrics and Infectious Diseases Centre for Prenatal Diagnosis Grenoble University Hospital, France
Keyes Linda	MD, FACEP Assistant Clinical Professor of Emergency Medicine University of Colorado and Attending Physician Boulder Community Health
Leon-Velarde Fabiola	DSc Rector. Professor of Physiology Department of Biological and Physiological Sciences. Facultad de Ciencias y Filosofia/ IIA Universidad Peruana Cayetano Heredia, Lima, Perú
Maggiorini Marco	MD Medical Intensive Care Unit, University Hospital, Zurich
Masuyama Shigeru	MD, Japan
Neupane Maniraj	Resident Physician, University of Pittsburgh Medical Center, Pittsburgh, USA Vice-president, Mountain Medicine Society of Nepal, Kathmandu, Nepal
Norboo Tsering	MD, Ladakh Institute of Prevention, India
Oshiro Kazue	MD, UKDiMM, FAWM Director of Mountain Medicine, Research, & Survey Division Hokkaido Ohno Memorial Hospital
Pandey Prativa	Medical Director for CIWEC Hospital and Travel Medicine Center, Kathmandu, and Pokhara
Parati Gianfranco	MD Professor of Cardiovascular Medicine, Dept. Health Sciences, University of Milano-Bicocca Head, Dept. Cardiovascular, Neural and Metabolic Sciences, S. Luca Hospital, IRCCS Istituto Auxologico Italiano, Milano, Italy
Pasha Qadar	PhD CSIR-Institute of Genomics & Integrative Biology Mall Road, Delhi-110007, India
Paterson Ryan	MD; DiMM, DTM&H Kaiser Permanente and the University of Colorado Department of Emergency Medicine

Pun Matiram	MBBS, MSc, MA Laboratory of Human Cerebrovascular Physiology Program in Mountain Medicine and High Altitude Physiology University of Calgary, Calgary, Canada
Richalet Jean Paul	MD Professor of Physiology and Sports Medicine Université Paris 13
Rodway George	MD, PhD Associate Professor School of Nursing University of California, Davis Sacramento, CA
Shlim David	MD Jackson Hole Travel and Tropical Medicine Jackson Hole, Wyoming Past-president, International Society of Travel Medicine
Strapazzon Giacomo	MD, PhD EURAC research, Vice-Head of Institute of Mountain Emergency Medicine, Bolzano, Italy
Swenson Erik	MD VA Puget Sound Health Care System, University of Washington, Seattle, WA, USA
Thapa Ghan Bahadur	MD, Mountain Medicine Society of Nepal (MMSN)
Zafren Ken	MD, FAAEM, FACEP, FAWM Medical Advisor, Alaska Mountain Rescue Group Vice President - International Commission for Mountain Emergency Medicine (ICAR MedCom) Clinical Professor - Department of Emergency Medicine Stanford University Medical Center -Stanford, CA USA Staff Emergency Physician - Alaska Native Medical Center - Anchorage, AK USA

4.2 Chairpersons and speakers

Name	Affiliation
Acharya Suman	MBBS, DiMM Mountain Medicine Society of Nepal, Nepal
Adhikari Subarna	MD, Mountain Medicine Society of Nepal
Arjyal Amit	MD, Patan Academy of Health Sciences

Bailey Damian	FPVRI FRSC FACSM FPS Royal Society Wolfson Research Fellow Head of the Neurovascular Research Laboratory Faculty of Life Sciences and Education, University of South Wales
Baniya Santosh	MD, DiMM, DiGH
Bao Haihua	Department of Medical Imaging Center, Affiliated Hospital of Qinghai University, Xining, China
Bashyal Gobi	Himalayan Rescue Association
Basnyat Buddha	MD, MSc, FACP, FRCP Medical director of HRA Director of Oxford University Clinical Research Unit-Nepal
Beall Cynthia	PhD Professor of Anthropology Case Western Reserve University
Bhandari Sanjeeb	MD, Mountain Medicine Society of Nepal
Bhatta Narendra	President of the Himalayan Rescue Association
Bing Su	Kunming Institute of Zoology, Chinese Academy of Sciences, China
Brodmann Maeder Monika	MD, MME Senior Researcher Eurac Research, Institute of Mountain Emergency Medicine, Bolzano, Italy
Brugger Hermann	MD Head of Institute of Mountain Emergency Medicine, EURAC research, Bolzano, Italy Associate Professor Innsbruck Medical University, Innsbruck, Austria President of the International Society for Mountain Medicine (ISMM)
Burns Patrik	MD, Stanford University School of Medicine, Stanford, California
Caws Maxine	PhD, Senior Lecturer at Liverpool School of Tropical Medicine (LSTM), UK
Chahal Anthony	Clinical Assistant Professor at The University of British Columbia, Vancouver, Canada Medical Director for Canadian Society of Mountain Medicine
Chen Xiaoming	Fourth Military Medical University, Xi'an, China
Cologna Günther	EURAC research, Head of Education department
Dawadi Suvash	MDGP, MBBS, DiMM Mountain Medicine Society of Nepal
De Decker Rik	Associate Professor Consultant Paediatric Cardiologist Director of Cardiac Catheterisation Laboratory Dept of Paediatrics and Child Health University of Cape Town Red Cross War Memorial Children's Hospital
Dixit Kunda	Editor and Publisher of Nepali Times

Ellerton John	MRCGP, UIAA/ICAR/ISMM DiMM General Practitioner and Mountain Rescue Doctor, Lake District, England Medical Officer Mountain Rescue England and Wales 2002-12 President of ICAR Medcom (from October 2017) Member of the administrative group for the UIAA/ICAR/ISMM Diploma in Mountain Medicine
Elsensohn Fidel	MD Past President of ICAR MEDCOM (from October 2017)
Faulhaber Martin	PhD, Department of Sport Science, University Innsbruck, Austria Austrian Society of Alpine and High Altitude Medicine
Garg Iti	DIPAS, DRDO, India
Gatterer Hannes	PhD, Senior Researcher at EURAC research, Institute of Mountain Emergency Medicine, Bolzano, Italy
Ge Ri-Li	MD, PhD, Research Center for High Altitude Medicine, Qinghai University, China Director and Professor, Research Center for High Altitude Medicine Qinghai University Medical College, China
Ghimire Abhyu	The Mountain Medical Institute Namche 01, Solukhumbu, Nepal
Ghosh Sudipta	North-Eastern Hill University, Shillong, India
Giardini Guido	MD, Head of Mountain Medicine and Neurology Centre, Valle d'Aosta Regional Hospital, Aosta, Italy
Gonggalanzi Gonggalanzi	Tibet University Medical College, China
Gorjanc Jurij	Mountain Rescue Association Slovenia, Hospital of St. John of God, Austria
Greene Mike	MD, Mountain Rescue England and Wales, United Kingdom
Guan Weii	Qinghai University Affiliated Hospital, China
Gurung Siddhart	Captain, Simrik Air, Nepal
Hackett Peter	MD Altitude Research Center University of Colorado School of Medicine
Heinrich Erica	MD, University of Michigan Medical School, Hematopathology
Hillebrandt David	MD Vice President ISMM Hon Med Advisor to British Mountaineering Council Member UIAA Medcom
Holthof Niels	MD, Anesthesiology Resident bei Insel Gruppe, Emergency Physician bei Air Glaciers, Switzerland
Jean Dominique	MD Paediatrics and Infectious Diseases Centre for Prenatal Diagnosis Grenoble University Hospital, France
Kamal Thapa	MD, Mountain Medicine Society of Nepal
Karkey Abhilasha	Vice Director, Oxford University Clinical Research Unit Nepal

Keyes Linda	MD, FACEP Assistant Clinical Professor of Emergency Medicine University of Colorado and Attending Physician Boulder Community Health
Kharel Prakash	MBBS Mountain Medicine Society of Nepal, Nepal
Koirala Pranawa	MD, Mountain Medicine Society of Nepal
Kumar Bhuvnesh	Defence Institute of Physiology and Allied Sciences (DI-AU66 c PAS), Delhi, India
Li Yinglan	Department of General, Qinghai Provincial People's Hospital, Xining, China
Lischke Volker	ICAR-MEDCOM, Zürich, Switzerland Bergwacht, Berlin, Germany Air Zermatt, Zermatt, Switzerland
Lodin Sundström Angelika	Department of Nursing Sciences, Mid Sweden University, Sweden
Longli Kang	Key Laboratory for Molecular Genetic Mechanisms and Intervention Research on High Altitude Disease of Tibet Autonomous Region, Xizang Minzu University, China
Luks Andrew	MD, Professor in Pulmonary, Critical Care & Sleep Medicine, University of Washington, Seattle, WA, USA
Ma Jie	Qinghai University Affiliated Hospital, Xining, China
Maggiolini Marco	MD Medical Intensive Care Unit University Hospital
Martinelli Massimo	Italian National Research Council, Institute of Information Science and Technologies, Italy
McIntosh Scott	MD, MPH Associate Professor, Division of Emergency Medicine, University of Utah Director, Wilderness Medicine Fellowship Medical Director, Summit County EMS Associate Medical Director, AirMed
Mena Nicolas	Universidad Catolica de Chile, Chile
Mishra Aastha	CSIR-Institute of Genomics and Integrative Biology, Delhi, India; 2SNM Hospital, Leh, India
Moens Didier	MD, Anesthésiste-Réanimateur Urgentiste Médecin chef du Centre Médical Hélicoptère de Bra sur Liègne Chef de Clinique Clinique6-SAMU Services des Clinique6 CHU de Liège Anesthésiste Clinique6 Clinique du Mont St Martin
Molden David	PhD Director General International Centre for Integrated Mountain Development
Muckenthaler Martina	University of Heidelberg, Heidelberg, Germany
Neupane Maniraj	Resident Physician, University of Pittsburgh Medical Center, Pittsburgh, USA

Niroula Shailesh	MD, Tribhuvan Medical University, Nepal
Norboo Tsering	MD, Ladakh Institute of Prevention, India
Nordgren Marie	Swedish Mountain Rescue, Sweden
Oshiro Kazue	MD, UKDiMM, FAWM Director of Mountain Medicine, Research, & Survey Division Hokkaido Ohno Memorial Hospital
Paal Peter	MD, Department of anesthesiology and intensive care medicine, Hospitallers Brothers Hospital Salzburg, Austria
Pandey Kishore	MD, CIWEC Hospital and Travel Medicine Center, Nepal
Panjwani Usha	Defence Institute of Physiology and Allied Sciences, India
Pant Sushil	MD, Mountain Medicine Society of Nepal
Parati Gianfranco	MD Professor of Cardiovascular Medicine, Dept. Health Sciences, University of Milano-Bicocca Head, Dept. Cardiovascular, Neural and Metabolic Sciences, S. Luca Hospital IRCCS Istituto Auxologico Italiano, Milano, Italy
Pasha Qadar	PhD CSIR-Institute of Genomics & Integrative Biology Mall Road, Delhi-110007, India
Paterson Ryan	MD, DiMM, DTM&H Kaiser Permanente and the University of Colorado Department of Emergency Medicine
Pradhan Rashila	CIWEC Hospital and Travel Medicine Center, Nepal
Pratali Lorenza	MD, PhD Institute of Clinical Physiology, CNR, Italy
Rain Manjari	CSIR-Institute of Genomics and Integrative Biology, Delhi, India
Rauch Simon	MD, EDIC, EURAC research, Institute of Mountain Emergency Medicine, Bolzano, Italy
Raj Pant Samriddha	MBBS Mountain Medicine Society of Nepal, Nepal
Reddy Prasanna	Defence Institute of Physiology & Allied Sciences, India
Richalet Jean Paul	MD Professor of Physiology and Sports Medicine Université Paris 13
Rodway George	MD, PhD Associate Professor School of Nursing University of California, Davis Sacramento, CA
Roy Steve	MD, Northern Ontario School of Medicine, Thunder Bay, Canada
Sakya Mila	Patan Academy of Health Sciences, Nepal
Schagatay Erika	Department of Health Sciences, Mid Sweden University, Sweden

Semple John	MD, MSc, FRCSC, FACS Head Division of Plastic Surgery Women's College Hospital Chair, Surgical Research Canadian Breast Cancer Foundation Professor, Dept of Surgery University of Toronto
Shah Kashim	CIWEC Hospital and Travel Medicine Center, Nepal
Sherpa Ang Tshering	Chairman of Climate Alliance of Himalayan Communities (CAHC) Honorary Member of International Climbing and Mountaineering Federation (UIAA) IP President of Asian Mountaineering and Climbing Federation (UAAA) and Nepal Mountaineering Association (NMA)
Sherpa Lhakputi	Executive Director, Mountain Academy Nepal, Nepal
Sherpa Nima Namgyal	MD, Himalayan Medics, Nepal
Sherpa Dawa Steven	Mountaineer and Co-founder of Himalayan Climate Initiative, Nepal
Shlim David	MD Jackson Hole Travel and Tropical Medicine Jackson Hole, Wyoming Past-president, International Society of Travel Medicine
Shrestha Ninadini	MD, Nidan Hospital, Nepal
Singh Somnath	Defence Institute of Physiology and Allied Sciences, India
Skaiaa Sven Christjar	MD, Oslo University Hospital, Air Ambulance Department, Norway
Soria Jose Manuel	Genomic of Complexes Diseases Unit, Hospital de la Santa Creu i Sant Pau, Spain
Soteras Inigo	MD, PhD. Hospital Cerdanya, Spain Bombers de la Generalitat de Catalunya
Stokes Suzy	Consultant in Emergency Medicine and Pre-hospital Emergency Medicine Oxford University Hospitals, Oxford, England MRCEM, FIMC, DiMM, FAWM
Strapazzon Giacomo	MD, PhD, EURAC research, Vice-Head of Institute of Mountain Emergency Medicine, Bolzano, Italy
Sumann Günther	MD, MSc, FMH, EDIC, DESA Medical Director – Multidisciplinary Intensive Care Unit Department of Anesthesiology, Intensive Care Medicine & Resuscitation President of the Austrian Society of Mountain and High Altitude Medicine SRRWS Hospital Grabs Spitalstrasse 44 CH-9472 Grabs
Sun Yanqiu	Department of Radiology, Qinghai Provincial People's Hospital, Xining, China
Suwal Indraman	Director, Disaster Management Department Kathmandu Metropolitan City Bag Darbar, Kathmandu

Swenson Erik	MD VA Puget Sound Health Care System, University of Washington, Seattle, WA, USA
Systemans Brenton	Senior Lecturer in Remote and Extreme Environment Medicine, University of Tasmania
Szawarski Piotr	MD, Guy's and St Thomas' NHS Foundation Trust, Department of Anaesthetics, UK
Tang Feng	Qinghai University, Xining, China
Thapa Man Bahadur	UNEP, Nepal
Thapa Kamal	MD, Mountain Medicine Society of Nepal
Tomazin Iztok	MD, University of Ljubljana, Department of Family Medicine, Ljubljana, Slovenia
Turner Rachel	PhD candidate, EURAC research, Institute of Mountain Emergency Medicine, Bolzano, Italy
Upadhyay Jenisha	MBBS, DiMM Mountain Medicine Society of Nepal, Nepal
Van Vesse Marieke	Leiden University Medical Center, The Netherlands
Walpoth Beat	MD, FAHA, Emeritus, Dept. of Cardiovascular Surgery, University Hospital, Geneva, Switzerland
Wiget Urs	Past President of ICAR MEDCOM, Switzerland
Williams Jason	BS, NRP, DiMM, Director of the International Mountain Medicine Center at the University of New Mexico, Department of Emergency Medicine
Willmann Gabriel	MD, University of Tuebingen ECU Tübingen · Eye Hospital, Germany
Yadav Jayant	MBBS Mountain Medicine Society of Nepal, Nepal
Yuying Zhang	Department of Radiology, Qinghai Provincial People's Hospital, Xining, China
Zafren Ken	MD, FAAEM, FACEP, FAWM Medical Advisor, Alaska Mountain Rescue Group Vice President - International Commission for Mountain Emergency Medicine (ICAR MedCom) Clinical Professor - Department of Emergency Medicine Stanford University Medical Center -Stanford, CA USA Staff Emergency Physician - Alaska Native Medical Center - Anchorage, AK USA
Zeng Changqing	Beijing Institute of Genomics, Chinese Academy of Sciences, China

5. Scientific program

5.1 Full program



XII ISMM WORLD CONGRESS ON MOUNTAIN MEDICINE
"Mountain medicine in the heart of the Himalayas"

WEDNESDAY 21 NOVEMBER

REGISTRATION DAY

LOCATION: CRYSTAL HALL 11:00-15:00 SENATE 11:00-15:00 SENATE 15:00-17:00	International societies meetings <i>UIAA meeting</i> <i>ICAR MEDCOM informal meeting*</i> <i>ISMM Executive Committee meeting</i>
LOCATION: FOYER 10:00-17:00	Registration
LOCATION: REGAL I 17:00-18:30	Welcome speech <i>B Basnyat / H Brugger / S Baniya / K Dixit</i> Opening key lectures Mountain medicine in Nepal and the early days of the Himalayan Rescue Association – P Hackett Altitude and attitude in a warming Himalaya – K Dixit
LOCATION: REGAL BALLROOM 19:30	Welcome aperitif

THURSDAY 22 NOVEMBER

MOUNTAIN EMERGENCY MEDICINE main session

LOCATION: meeting point REGAL I 07:00-08:00	PRACTICAL WORKSHOP - Technology in search and rescue – <i>S McIntosh / Sherpa NN</i>
LOCATION: REGAL I 08:00-09:00	JOINT SESSION - Mountain rescue in the Himalayas – <i>Himalayan Rescue Association and Mountain Medicine Society of Nepal – G Bashyal / S Adhikari / B Systemans</i>
LOCATION: REGAL I 09:00-10:30	SESSION A - Science update – Trauma in mountain rescue – <i>J Ellerton / R De Decker</i> <ul style="list-style-type: none">⌚ 30 min Human factors in wilderness accidents – <i>R De Decker</i>⌚ 30 min Evolving management of the multi-trauma patient – <i>G Sumann</i>⌚ 15 min Blood transfusion in mountain emergency medicine – experiences from Norwegian HEMS – <i>S C Skaiaa</i>⌚ 15 min Emergency medicine in Nepal - <i>S Bhandari</i>
LOCATION: FOYER 10:30-11:00	COFFEE BREAK
LOCATION: REGAL I 11:00-12:30	SESSION B - Science update – Accidental hypothermia and cold injuries – <i>P Paal</i> <ul style="list-style-type: none">⌚ 20 min Frostbite injuries – a Himalayan perspective – <i>S Dawadi</i>⌚ 15 min Frostbite injuries in the Austrian Alps – a retrospective 11-year national registry study – <i>S Rauch</i>⌚ 15 min Cold susceptibility of digit stumps resulting from amputation after freezing cold injury in elite alpinists – <i>J Gorjanc</i>⌚ 20 min The International Hypothermia Registry – lessons learned of 240 cases – <i>B Walpoth</i>⌚ 20 min Hypothermia outcome prediction after ECLS for hypothermic cardiac arrest: The HOPE score – <i>P Paal</i>
LOCATION: GARDEN 12:30-13:30	LUNCH BREAK
LOCATION: REGAL I 13:30-15:00	SESSION C - Science update – Avalanche rescue – <i>G Strapazzon / S McIntosh</i> <ul style="list-style-type: none">⌚ 20 min Avalanche survival: can we dive in snow? – <i>G Strapazzon</i>⌚ 10 min Analysis of the avalanche at Mount Everest Base Camp during the April 2015 earthquake in Nepal – <i>J Semple</i>⌚ 20 min Open issues in avalanche rescue: from guidelines to new strategies – <i>S McIntosh</i>⌚ 10 min BLS resuscitation in avalanche victims is related to body position – a randomized single blinded mannequin study – <i>R Turner</i>⌚ 10 min Cut-off values for serum potassium and core temperature at hospital admission for extracorporeal rewarming of avalanche victims in cardiac arrest – <i>H Brugger</i>⌚ 10 min Prevention and management of avalanches in the Himalayas - <i>S Bhandari / A Tiwari</i>

THURSDAY 22 NOVEMBER

MOUNTAIN EMERGENCY MEDICINE main session

LOCATION: REGAL I
15:00-16:30

SESSION D - **Case discussion** – *K Zafren / R Paterson*

- ⌚ 30 min **Rescue with multiple cases of severe hypothermia in Arolla, Switzerland** – *N Holthof*
- ⌚ 30 min **Everest Base Camp disaster following 2015 earthquake** – *M Brodmann*
- ⌚ 15 min **A report of rescue work in 2014 volcanic eruption in Japan** – *K Oshiro*
- ⌚ 15 min **Mass casualty incident on Ptarmigan Peak, Alaska** – *K Zafren*

LOCATION: FOYER
16:30-17:00

COFFEE BREAK

LOCATION: REGAL I
17:00-18:00

KEY LECTURE – **Research and methodology** – *E Swenson / H Brugger / R Turner*

- ⌚ 20 min **History of methods in high altitude research** – *E Swenson*
- ⌚ 20 min **Considerations on methodological problems in high altitude and mountain emergency medicine research** – *H Brugger*
- ⌚ 20 min **New facility: terraXcube** – *R Turner*

LOCATION: REGAL I
18:00-18:30

DiMM Course in Nepal – *M Neupane*

- ⌚ 3 min **Introduction**
- ⌚ 8 min **Glacier training and its challenges in Nepal** – *S Pant*
- ⌚ 8 min **Experiences of a Nepalese female Diploma candidate** – *J Upadhyay*
- ⌚ 8 min **Nepalese Diploma in Mountain Medicine and its future – an international perspective** – *S Stokes*

LOCATION: REGAL I
19:00-20:00

ISMM General Assembly meeting

THURSDAY 22 NOVEMBER

HIGH ALTITUDE PHYSIOLOGY parallel session

LOCATION: meeting point: REGAL I 07:00-08:00	PRACTICAL WORKSHOP – Technology in Search and Rescue – <i>S McIntosh / Sherpa NN</i>
LOCATION: REGAL I 08:00-09:00	JOINT SESSION - Mountain Rescue in the Himalayas – <i>Himalayan Rescue Association and Mountain Medicine Society of Nepal – G Bashyal / S Adhikari / B Systemans</i>
LOCATION: REGAL II 09:00-10:30	SESSION A - Science update – Genetics and pathophysiology – <i>C Beall / S Bing</i> <ul style="list-style-type: none">⌚ 15 min Genetic and epigenetic signals influence adaptation under hypobaric hypoxia – <i>Q Pasha</i>⌚ 15 min Regulating iron and hemoglobin levels at high altitude – <i>M Muckenthaler</i>⌚ 15 min Multi-gene interactions underlying genetic adaptation to high altitude in highlander Tibetans – <i>S Bing</i>⌚ 15 min Associations between arterial oxygen saturation, heart rate and acute mountain sickness in a population of 17-21 year old Han Chinese students traveling from low altitude to Lhasa at 3,658 m above sea level – <i>G Gonggalanzi</i>⌚ 15 min Porters, pilgrims and pickers – <i>P Koirala</i>⌚ 15 min Hypoxic ventilatory response in relation to hypobaric hypoxia among the Tawang Monpa from Eastern Himalayan Mountain – <i>S Ghosh</i>
LOCATION: FOYER 10:30-11:00	COFFEE BREAK
LOCATION: CRYSTAL HALL 11:00-12:30	SESSION B – Poster presentations – <i>S Pant / S Raj Pant</i>
LOCATION: GARDEN 12:30-13:30	LUNCH BREAK
LOCATION: REGAL II 13:30-15:00	SESSION C – Science update – Pre-existing diseases at High Altitude – <i>G Parati / H Brugger</i> <ul style="list-style-type: none">⌚ 15 min Altitude exposure of patients with coronary artery disease – <i>A Luks</i>⌚ 15 min Altitude exposure of patients with pulmonary hypertension and congenital heart disease – <i>E Swenson</i>⌚ 15 min Altitude exposure of patients with heart failure – <i>M Maggiorini</i>⌚ 15 min Altitude exposure of patients with arterial hypertension – <i>G Parati</i>⌚ 15 min Effect of geographical altitude on coronary artery diameter and myocardial perfusion in healthy volunteers – <i>Y Sun</i>⌚ 15 min Exposure to high altitude: a possible risk factor for venous thromboembolism – <i>I Garg</i>

THURSDAY 22 NOVEMBER

HIGH ALTITUDE PHYSIOLOGY parallel session

LOCATION: REGAL II 15:00-16:30	<p>SESSION D - Meet the experts – Drug therapy and prevention of acute mountain sickness – <i>B Basnyat / K Thapa</i></p> <ul style="list-style-type: none">⌚ 15 min Reduced acetazolamide dosing in countering altitude illness: a comparison of 62.5 vs 125 mg (the RADICAL trial) – <i>S McIntosh</i>⌚ 15 min Prophylactic Acetaminophen or Ibuprofen result in equivalent acute mountain sickness incidence at high altitude: a prospective randomized trial – <i>P Kharel</i>⌚ 15 min Altitude sickness in climbers and efficacy of NSAIDs trial (ASCENT): randomized, controlled trial of Ibuprofen versus placebo for prevention of altitude illness – <i>J Yadav</i>⌚ 15 min Acute mountain sickness prevention with Ibuprofen relative to Acetazolamide – <i>P Burns</i>⌚ 15 min Spirolactone does not prevent acute mountain sickness: a prospective, double-blind, randomized, placebo-controlled trial by SPACE Trial Group (Spirolactone and Acetazolamide trial in the prevention of acute mountain sickness group) – <i>J Upadhyay</i>⌚ 15 min What may be the optimal way to prevent AMS – <i>K Thapa / A Ghimire</i>
LOCATION: FOYER 16:30-17:00	COFFEE BREAK
LOCATION: REGAL I 17:00-18:00	<p>KEY LECTURE – Research and methodology – <i>E Swenson / B Brugger / R Turner</i></p> <ul style="list-style-type: none">⌚ 20 min History of methods in high altitude research – <i>E Swenson</i>⌚ 20 min Considerations on methodological problems in high altitude and mountain emergency medicine research – <i>H Brugger</i>⌚ 20 min New facility: terraXcube – <i>R Turner</i>
LOCATION: REGAL I 18:00-18:30	<p>DiMM Course in Nepal – <i>M Neupane</i></p> <ul style="list-style-type: none">⌚ 3 min Introduction⌚ 8 min Glacier training and its challenges in Nepal – <i>S Pant</i>⌚ 8 min Experiences of a Nepalese female Diploma candidate – <i>J Upadhyay</i>⌚ 8 min Nepalese Diploma in Mountain Medicine and its future – an international perspective – <i>S Stokes</i>
LOCATION: REGAL I 19:00-20:00	ISMM General Assembly meeting

THURSDAY 22 NOVEMBER

parallel session II

LOCATION:
CRYSTAL HALL
14:00-15:30

New research studies in high altitude physiology in Asia I – *RL Ge*

- ⊙ 15 min **Study on the biologic viability and boundary range of Hepatic Alveolar Echinococcosis by the contrast-enhanced ultrasonography and ARFI in the plateau area** – *Y Zhang*
- ⊙ 15 min **Hypoxia adaptation of Tibetan mountaineering athletes** – *C Zeng*
- ⊙ 15 min **Study on the correlation vascular lesions and cognitive function in native Tibetan with H-type hypertension in plateau** – *Y Li*
- ⊙ 15 min **Cognitive and neuroimaging changes in healthy immigrants upon reLocation to high altitude: a panel study** – *X Chen*
- ⊙ 15 min **Exon sequences study of candidate target gene from high altitude polycythemia** – *L Kang*
- ⊙ 15 min **Apoptosis and the role of molecular in hematopoietic cell in chronic mountain sickness** – *J Ma*

THURSDAY 22 NOVEMBER

parallel session III

LOCATION:
CRYSTAL HALL
15:30-17:15

New research studies in high altitude physiology in Asia II – Q Pasha

- ⌚ 15 min **Optimizing human health in high altitude: DRDO's initiatives** – *B Kumar*
- ⌚ 15 min **Long term residence at high altitude alters brain functions in a time dependent manner in lowlanders** – *U Panjwani*
- ⌚ 15 min **Nutritional status during acclimatization and stay at high altitude** – *SN Singh*
- ⌚ 15 min **Inflammasome pathway plays an important role in pathophysiology of high altitude induced pulmonary hypertension** – *P Reddy*
- ⌚ 15 min **Homeostasis of molecules of hypoxia-sensing pathway in adaptation to hypobaric hypoxia** – *A Mishra*
- ⌚ 15 min **Role of telomere and telomerase in high-altitude pulmonary edema** – *M Rain*
- ⌚ 15 min **Chronic mountain sickness in Rubsho valley of Ladakh** – *T Norboo*

FRIDAY 23 NOVEMBER

HIGH ALTITUDE PHYSIOLOGY main session

LOCATION meeting point: REGAL I 06:30-08:00	PRACTICAL WORKSHOP - POCUS – HAPE AND HACE – <i>L Pratali / G Giardini</i>
LOCATION: REGAL I 08:30-08:55	OPENING KEY LECTURE High altitude medicine in the Himalayas – <i>B Basnyat</i>
LOCATION: REGAL I 09:00-10:30	SESSION A - Science update - High altitude research: new scores, tools and protocols – <i>P Hackett</i> <ul style="list-style-type: none">⌚ 25 min Strengthening Altitude Research – the “STAR” data reporting guidelines for clinical high altitude research – <i>M Brodmann</i>⌚ 25 min Overview of scoring systems for acute mountain sickness and the new Lake Louise score – <i>A Luks</i>⌚ 25 min Ultrasound for clinical and research use at high altitude – <i>L Keyes</i>⌚ 15 min Revisiting the Lake Louise score and its 2018 version – <i>JP Richalet</i>
LOCATION: FOYER 10:30-11:00	COFFEE BREAK
LOCATION: REGAL I 11:00-12:30	SESSION B - Science update - Acute mountain diseases – <i>M Maggiorini</i> <ul style="list-style-type: none">⌚ 20 min High altitude cerebral edema – <i>A Luks</i>⌚ 20 min High altitude pulmonary edema – <i>M Maggiorini</i>⌚ 20 min High altitude retinopathy – <i>G Willmann</i>⌚ 10 min Choroidal thickness changes induced by hypoxia in high-altitude conditions: results from the SHERPA-Everest’2017 project – <i>JM Soria</i>⌚ 10 min Long-term effects of high altitude cerebral edema – <i>M van Vessel</i>⌚ 10 min General discussion
LOCATION: GARDEN 12:30-13:30	LUNCH BREAK

FRIDAY 23 NOVEMBER

HIGH ALTITUDE PHYSIOLOGY main session

LOCATION: REGAL I
13:30-15:00

SESSION C - Science update - Chronic mountain sickness – E Swenson / RL Ge

- ⌚ 20 min **An update of sleep disorder and chronic mountain sickness** – W Guan
- ⌚ 20 min **Genetic basis of chronic mountain sickness** – E Heinrich
- ⌚ 20 min **Hypoventilation in chronic mountain sickness: cause or consequence of polycythemia?** – E Swenson
- ⌚ 15 min **Inhibition of suicidal erythrocyte death by chronic hypoxia** – F Tang
- ⌚ 15 min **MRI related study on chronic mountain sickness patients: right ventricular remodeling and changes of main pulmonary artery** – H Bao

LOCATION: REGAL I
15:00-16:30

SESSION D - Case discussion – A Luks

- ⌚ 20 min **Unusual presentations at the Everest ER** – S Adhikari
- ⌚ 20 min **A difficult case of dyspnea** – S Stokes
- ⌚ 20 min **A pilgrim with ataxia** – S Dawadi
- ⌚ 20 min **High altitude psychosis** – B Brugger
- ⌚ 10 min **General discussion**
Panelists: P Hackett / L Keyes / P Paal / D Bhandari

LOCATION: FOYER
16:30-17:00

COFFEE BREAK

LOCATION REGAL I
17:00-19:00

COMBINED SESSION AND PUBLIC EVENT

Disaster preparedness in the Himalayas (ICIMOD and UNDP) – G Cologna (moderator)

Talk 1: **How will climate change affect people in the Himalayas** – D Molden

Talk 2: **Disaster risk management in Nepal** – MB Thapa

Roundtable discussion with all stakeholders

LOCATION: REGAL
BALLROOM
20:00

Talk by Dawa Steven Sherpa

LOCATION: GARDEN
20:30

GALA DINNER

FRIDAY 23 NOVEMBER

MOUNTAIN EMERGENCY MEDICINE parallel session

LOCATION meeting point: REGAL I 07:00-08:00	PRACTICAL WORKSHOP - POCUS – Mountain emergency medicine – <i>L Keyes / M Brodmann Maeder / D Moens</i>
LOCATION: REGAL I 08:30-08:55	OPENING KEY LECTURE High altitude medicine in the Himalayas – <i>B Basnyat</i>
LOCATION: REGAL II 09:00-10:30	SESSION A - Science update - Special search and rescue operations – <i>F Elsensohn</i> <ul style="list-style-type: none">⌚ 15 min Canoe accident with three adolescent boys with submersion and profound accidental hypothermia in the Swedish mountains – <i>M Nordgren</i>⌚ 15 min Consensus guidelines for on-site management and transport of patients in canyoning incidents – <i>G Strapazzon</i>⌚ 15 min The impact on MR in Nepal after the big earthquake – <i>P Koirala</i>⌚ 15 min Suspension syndrome: a potentially fatal vagally mediated circulatory collapse - an experimental randomized crossover trial – <i>S Rauch</i>⌚ 15 min Advanced Resuscitation Strategies in mountain emergency medicine – <i>SC Skaiaa</i>⌚ 15 min General discussion
LOCATION: FOYER 10:30-11:00	COFFEE BREAK
LOCATION: CRYSTAL HALL 11:00-12:30	SESSION B – Poster presentations – <i>S Dawadi / S Acharya</i>
LOCATION: GARDEN 12:30-13:30	LUNCH BREAK
LOCATION: REGAL II 13:30-15:00	SESSION C - Science update - Cardiopulmonary resuscitation – <i>K Oshiro / Q Pasha</i> <ul style="list-style-type: none">⌚ 30 min CPR for a favorable neurological outcome in mountain emergency medicine – <i>P Paal</i>⌚ 30 min OHCA resuscitation about manual, mechanical CPR and CPR at high altitude – <i>SC Skaiaa</i>⌚ 15 min Airway management and ventilator choices in helicopter human external cargo evacuation – <i>V Lischke</i>⌚ 15 min Implementation of a mechanical CPR device in a physician staffed HEMS – a prospective observational study – <i>S Rauch</i>

FRIDAY 23 NOVEMBER

MOUNTAIN EMERGENCY MEDICINE parallel session

LOCATION: REGAL II 15:00-16:30	<p>SESSION D - Meet the experts – <i>M Neupane / K Thapa</i></p> <p>⌚ 20 min Challenges and solutions of delivering analgesia in the mountains: experience from England and Wales – <i>M Greene</i></p> <p>⌚ 20 min Fentanyl sublingual versus Fentanyl intravenous for acute traumatic pain – a prospective, randomized, double-blind, clinical, single-center non-inferiority trial – <i>G Strapazzon</i></p> <p>⌚ 15 min Pain management in canyoning and caving accidents – <i>I Soteras</i></p> <p>⌚ 15 min Modalities of pain management in rural Nepal – <i>N Shrestha</i></p> <p>⌚ 15 min Pain management in the field- the North American perspective – <i>S McIntosh</i></p> <p>⌚ 5 min Session summary</p>
LOCATION: FOYER 16:30-17:00	COFFEE BREAK
LOCATION REGAL I 17:00-19:00	<p>COMBINED SESSION AND PUBLIC EVENT</p> <p>Disaster preparedness in the Himalayas (ICIMOD and UNDP) – <i>G Cologna (moderator)</i></p> <p>Talk 1: How will climate change affect people in the Himalayas – <i>D Molden</i></p> <p>Talk 2: Disaster risk management in Nepal – <i>MB Thapa</i></p> <p>Roundtable discussion with all stakeholders</p>
LOCATION: REGAL BALLROOM 20:00	Talk by Dawa Steven Sherpa
LOCATION: GARDEN 20:30	GALA DINNER

SATURDAY 24 NOVEMBER

TRAVEL MEDICINE main session

LOCATION meeting point: REGAL I 07:00-08:00	PRACTICAL WORKSHOP How to manage a base camp clinic – <i>S Baniya / S Adhikari / S Dawadi / S Bhandari</i>
LOCATION: REGAL I 08:30-08:55	OPENING KEY LECTURE - The history of travel medicine in Nepal – <i>D Shlim</i>
LOCATION: REGAL I 09:00-10:30	SESSION A - Science update - Biblical illnesses: tuberculosis and typhoid in South Asia – <i>B Basnyat</i> ⌚ 30 min Tuberculosis in South Asia – <i>M Caws</i> ⌚ 20 min Randomized controlled trial of conjugate typhoid vaccine in Kathmandu, Nepal – <i>M Sakya</i> ⌚ 20 min Randomized controlled trials in the treatment of typhoid fever in Kathmandu, Nepal – <i>A Arjyal</i> ⌚ 20 min Antimicrobial resistance in typhoid fever in South Asia – <i>A Karkey</i>
LOCATION: FOYER 10:30-11:00	COFFEE BREAK
LOCATION: REGAL I 11:00-12:30	SESSION B - Meet the experts – Travellers' diarrhea/medicine in Nepal – <i>B Basnyat</i> ⌚ 30 min Travellers' diarrhea in Nepal - etiology and resistance – <i>K Pandey</i> ⌚ 15 min Demographic profile of helicopter rescued patients visiting CIWEC hospital – <i>R Pradhan</i> ⌚ 30 min Nick Simon's Institute: enhancement of health outside Kathmandu valley – <i>K Shah</i>
LOCATION: GARDEN 12:30-13:30	LUNCH BREAK

SATURDAY 24 NOVEMBER

TRAVEL MEDICINE main session

LOCATION:
CRYSTAL HALL
13:30-15:00

Poster presentations – *S Adhikari / J Yadav*

LOCATION: REGAL I
15:00-16:30

SESSION C – Science update - Pilgrims' and other medically disadvantaged populations at high altitude – *K Zafren / S Baniya*

- ⌚ 5 min **Introduction** – *S Baniya*
- ⌚ 20 min **The changing demographics of mountain porters in the Gokyo Valley of Nepal** – *A Bhattarai*
- ⌚ 20 min **Gosainkund Health Camp - 2 Decades of the Himalayan Rescue Association, Nepal** – *G Bashyal*
- ⌚ 20 min **Pilgrims at high altitude - data from the Gosainkund Health Camp** – *S Acharya*
- ⌚ 20 min **Yarshagumba collectors in Nepal Himalayas** – *K Zafren*
- ⌚ 5 min **Summary/conclusions** – *S Baniya / K Zafren*

LOCATION: FOYER
16:30-17:00

COFFEE BREAK

LOCATION: REGAL I
17:00-18:30

Telemedicine – *P Hackett / D Hillebrandt*

- ⌚ 5 min **Introduction** – *P Hackett*
- ⌚ 15 min **Telemedicine: coming of age in travel and expedition medicine** – *P Szawarski*
- ⌚ 50 min **Case presentations and panel discussion** – *P Hackett (moderator)*
Panelists: *D Hillebrandt / R Paterson / S Baniya*
- ⌚ 10 min **Teleconsultations in the mountains: the role of nurses expert in mountain medicine** – *G Giardini*
- ⌚ 10 min **Telemedicine in Italian mountain area: the e-Res@mont project** – *M Martinelli*

LOCATION: REGAL I
18:30-18:45

Closing ceremony – *MMSN*

SATURDAY 24 NOVEMBER

EXPEDITION MEDICINE parallel session

LOCATION meeting point: REGAL I 07:00-08:00	PRACTICAL WORKSHOP How to manage a base camp clinic – <i>S Baniya / S Adhikari / S Dawadi / S Bhandari</i>
LOCATION: REGAL I 08:30-08:55	OPENING KEY LECTURE - The history of travel medicine in Nepal – <i>D Shlim</i>
LOCATION: REGAL II 09:00-10:30	SESSION A - Science update - Research on expeditions – <i>JP Richalet</i> ⌚ 30 min Research during expeditions: physiological, medical, ethical and practical issues – <i>JP Richalet</i> ⌚ 30 min Multi-Omic data approach for discovery hypoxia-related processes: the SHERPA_Everest 2017 project – <i>JM Soria</i> ⌚ 15 min Spleen volume and contraction during apnea in Mt. Everest climbers and EBC trekkers – <i>A Lodin Sundström</i> ⌚ 15 min Level of knowledge about mountain medicine in mountaineers who tried to ascend Mt. Dhaulagiri during spring 2018 – <i>N Mena</i>
LOCATION: FOYER 10:30-11:00	COFFEE BREAK
LOCATION: REGAL II 11:00-12:30	SESSION B - Case reports – <i>K Zafren</i> ⌚ 15 min Rescue of a dead person on Aconcagua – <i>I Tomazin</i> ⌚ 15 min Psychotic break on Ohmi Kangri – <i>K Zafren</i> ⌚ 15 min Pregnancy on high altitude expeditions – <i>U Wiget</i> ⌚ 15 min Accident on Gasherbrun I – <i>I Tomazin</i> ⌚ 15 min Evacuation from Annapurna in 1987 – <i>G Rodway</i> ⌚ 15 min Plane crash on Mt. Vaughan Antarctic expedition – <i>K Zafren</i>
LOCATION: FOYER 12:30-13:30	LUNCH BREAK

SATURDAY 24 NOVEMBER

EXPEDITION MEDICINE parallel session

LOCATION: REGAL II
13:30-15:00

SESSION C - **Meet the experts - Special populations going to high altitude** – *G Rodway / D Jean*

- ⌚ 30 min **Lowland families relocating to high altitude: risks to pregnant women and young children** – *D Jean*
- ⌚ 15 min **Cerebral blood flow in high-altitude Sherpa children** – *S Niroula*
- ⌚ 15 min **Ventilatory response to hypoxia and tolerance to high altitude in women. Influence of menstrual cycle, oral contraception and menopause** – *JP Richalet*
- ⌚ 15 min **The elderly going to high altitude** – *A Luks*
- ⌚ 15 min **Considerations for cancer patients travelling to high altitude** – *S Roy*

LOCATION: REGAL II
15:00-16:30

SESSION D - **Science update - Extreme sports at high altitude and in the wilderness** – *H Gatterer / M Faulhaber*

- ⌚ 30 min **How does your brain sense oxygen? Pushing the limits with the physiology of flow!** – *D Bailey*
- ⌚ 15 min **Morbidity amongst runners presenting for medical care during 3 editions of an ultra trail race in the Himalayas** – *S Dawadi*
- ⌚ 15 min **Challenges and applications for advanced medical monitoring in extreme environments** – *R Turner*
- ⌚ 15 min **How diving takes us higher – new insights in high altitude physiology by studying freediving** – *E Schagatay*
- ⌚ 15 min **Mountain ultra-marathon running: performance determinants and biochemical alterations** – *H Gatterer*

LOCATION: REGAL I
17:00-18:30

Telemedicine – *P Hackett / D Hillebrandt*

- ⌚ 5 min **Introduction** – *P Hackett*
- ⌚ 15 min **Telemedicine: coming of age in travel and expedition medicine** – *P Szawarski*
- ⌚ 50 min **Case presentations and panel discussion** – *P Hackett (moderator)*
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- ⌚ 10 min **Teleconsultations in the mountains: the role of nurses expert in mountain medicine** – *G Giardini*
- ⌚ 10 min **Telemedicine in Italian mountain area: the e-Res@mont project** – *M Martinelli*

LOCATION: REGAL I
18:30-18:45

Closing ceremony – MMSN

5.2 Poster schedule

Posters have been assigned to the first section (High altitude medicine and physiology) second section (Mountain emergency medicine), and final section (High altitude and travel medicine) in the Crystal hall as scheduled below.

Topic:	Date:	Poster ID:	Time:
High altitude medicine and physiology	THURSDAY 23 NOV 2018	P-001 to P-035; P-109; P-110	11:00-12:30
Mountain Emergency Medicine	FRIDAY 23 NOV 2018	P-036 to P-068;P-106;P-107;P-108;P-111	11:00-12:30
High altitude and Travel Medicine	SATURDAY 24 NOV 2018	P-069 to P-105; P-112	13:30-15:00

DAY 1: HIGH ALTITUDE PHYSIOLOGY (37)

Poster no.	Abstract no.	Abstract title	Authors	Under
P-001	3835	SUBCLINICAL HIGH-ALTITUDE PULMONARYEDEMA: AN ESTABLISHED CLINICAL ENTITY	Bhibhu Nayak and Mukul Mittal	HAP
P-002	3869	CEREBROVASCULAR REACTIVITY IN HEALTHY ADULTS AFTER RAPID ASCENT TO HIGH ALTITUDE	Jie Liu and Shizheng Wu	HAP
P-003	3876	OXYGEN CONSUMPTION AND LACTATE CONCENTRATION DURING MAXIMUM EXERCISE AT SEA LEVEL AND HIGH ALTITUDE IN MINERS EXPOSED TO CHRONIC INTERMITTENT HYPOBARIC HYPOXIA AT 3800 m	Fernando Moraga, Jorge Osorio, Andrés Pedreros, and Rodrigo Calderon-Jofre	HAP
P-004	3924	EFFECT OF HYPOXIA ON THE EXPRESSION OF ERYTHROID TRANSCRIPTION FACTORS	Youbang Xie	HAP
P-005	3907	BLUNTED NITRIC OXIDE REGULATION IN TIBETANS UNDER HIGH-ALTITUDE HYPOXIA	Yaoxi He, Xuebin Qi, Ouzhuluobu Ouzhuluobu, Shiming Liu, Jun Li, Bing Su, and Chaoying Cui	HAP
P-006	3922	EFFECT OF HYPOXIA ON ANGIOGENESISRELATED FACTORS IN K562 CELLS	Feng Jianming	HAP

P-007	3923	EFFECT OF HIF-1A ON ANGIOGENESIS-RELATED FACTORS IN K562 CELLS UNDER NORMOX	Wenqian Li	HAP
P-008	3931	miR-17 REGULATES HYPOXIA-INDUCED ANGIOGENIC GROWTH FACTOR SECRETION IN MESENCHYMAL STEM CELLS BY TARGETING HIF-1a	Qin-Qin Xu, Hui-Yan Sun, Ri-Li Ge, and Lisheng Wang	HAP
P-009	3934	ANTIOXIDANT ACTIVITY OF A SU5416/HYPOXIAINDUCED EMPHYSEMA AND PULMONARY HYPERTENSION MODEL IN RATS	Yosuke Wada, Yoshiaki Kitaguchi, Masanori Yasuo, and Masayuki Hanaoka	HAP
P-010	3936	HYPOBARIC HYPOXIA-INDUCED CHANGES IN THE SEX HORMONES AND THEIR UNDERLYING REGULATORY PATHWAYS IN ADULT FEMALE RATS	Snigdha Shaw, Utkarsha Kumar, Dishari Ghosh, GopinathBhaumik, Prasanna Reddy, and Kumar Bhuvnesh	HAP
P-011	3939	GENOME-WIDE ANALYSIS REVEALS HIGHALTITUDE HYPOXIA-INDUCED Ras/Rap1 SIGNALING AS AN ACCLIMATIZATION RESPONSE IN KYRGYZ AS COMPARED WITH INDIAN MALES	Priya Gaur, Supriya Saini,Karan Pal, Praveen Vats, Akpay Sarybaev and Bhuvnesh Kumar	HAP
P-012	3941	HIGH-LEVEL MATRILIN-2 EXPRESSION IN THE OSTEOARTHRITIS PATIENTS IN XINING AREA	Junming Luo, Xiaona Li, ZhiliDuan, and Xiaoqin Luo	HAP
P-013	3944	CLINICOPATHOLOGICAL AND MOLECULAR CHARACTERISTICS OF SYNCHRONOUS GASTRIC ADENOCARCINOMA AND GASTROINTESTINAL STROMAL TUMORS IN XINING AREA	Falong Cao and Junming Luo	HAP
P-014	3946	miR-122 INHIBITS ERYTHROID DIFFERENTIATION OF HEMOPOIETIC STEM CELL IN CHRONIC HYPOXIC ENVIRONMENT	Huihui Liu	HAP
P-015	3947	HIGH-ALTITUDE PULMONARY EDEMA AMENABLE INTERACTION BETWEEN RS479200 OF EGLN1 AND RhoGDI-1	Kavita Sharma, Ghulam Mohammad, Tashi Thinlas, and Qadar M.A. Pasha	HAP
P-016	3949	TANKYRASE: A PROMISING TARGET TO EXPLICATE THE ADAPTATION/MALADAPTATION PHENOMENA AT HIGH ALTITUDE	Manjula Miglani, Manjari Rain, Qadar M.A. Pasha, and Arpana Vibhuti	HAP
P-017	3958	ASSOCIATION BETWEEN GENETIC POLYMORPHISMS OF HIF-2a GENE AND HIGH-ALTITUDE PULMONARY HYPERTENSION IN HAN POPULATION	Rong Chang	HAP

P-018	3963	LUNG FUNCTION AMONG ADULT TIBETAN POPULATION LIVING AT 2300 AND 5300 m IN TIBET	BianbaBianba, Yuzhen Yuzhen, QulaQula, Chaoying Cui, and OuzhuluobuOuzhuluobu	HAP
P-019	3973	ENDOTHELIAL NITRIC OXIDE SYNTHASE REVISITED: IN SILICO PROFILING REVEALS NINE POTENTIAL RISK MARKERS FOR HIGH-ALTITUDE PULMONARY EDEMA	Tsering Palmo, Himanshu Singh, Mohammed Faruq, M. Abdin, and Qadar M.A. Pasha	HAP
P-020	3977	EFFECTS OF ACUTE NORMOBARIC VERSUS HYPOBARIC HYPOXIA ON REACTIVE OXYGEN SPECIES PRODUCTION ASSESSED BY ELECTRON PARAMAGNETIC RESONANCE AND OXIDATIVE DAMAGE	Simona Mrakic Sposta, Alessandra Vezzoli, Maristella Gussoni, Giacomo Strapazzon, Sandro Malacrida, Guido Giardini, Michela Montorsi, Vittore Verratti, and Lorenza Pratali	HAP
P-021	3994	“ITALY BIOMEDICAL RESEARCH—SHERPA PROJECT—NEPAL”’: PRELIMINARY RESULTS OF ENVIRONMENTALLY MODULATED METABOLIC ADAPTATION TO HYPOXIA IN ALTITUDE NATIVES AND SEA LEVEL DWELLERS	Simona Mrakic Sposta, Alessandra Vezzoli, Maristella Gussoni, Vittore Verratti, Ashok Bajracharya, Suwas Bhandari, Sarah Moretti, Manuela Moriggi, Danilo Migliorelli, Mauro Marzorati, and Paolo Cerretelli	HAP
P-022	3996	GREATER SPLEEN VOLUME AND CONTRACTION DURING APNEA IN SHERPA HIGHLANDERS THAN IN NEPALESE LOWLANDERS MAY REFLECT ADAPTATION TO HIGH ALTITUDE	Erika Schagatay, Pontus Holmström, Eric Mulder, Prakash Limbu, and Angelica Lodin Sundström	HAP
P-023	4002	SHERPA_ EVEREST’2017 PROJECT: CARDIOPULMONARY CHANGES BETWEEN CAUCASIANS AND SHERPAS AT Mt. EVEREST BASE CAMP (5364 m)	Marc Abuli, Oriol Sibila, Angel Martinez-Perez, Sanjeeb Bhandari, Yogesh Subedi, Devis Paykurel, Emma Roca, Eduardo Garrido, Antoni Bayes-Genis, and Manuel Jose Soria	HAP
P-024	4012	PHYSIOLOGICAL PARAMETERS TO PREDICT ACUTE MOUNTAIN SICKNESS BASED ON LAKE LOUISE QUESTIONNAIRE SYMPTOMS: RESULTS FROM THE SHERPA-EVEREST’2017 PROJECT	Huang Chen, Angel Martinez-Perez, Marc Abuli, Oriol Sibila, Sanjeeb Bhandari, Yogesh Subedi,	HAP

			Devis Paykurel, Emma Roca, Eduardo Garrido, Antoni Bayes-Genis, Oriol Pujol Vila, and Manuel Jose Soria	
P-025	4019	TIBETANS WITH EGLN1 C12G/G380C HAPLOTYPE EXHIBIT DIMINISHED INFLAMMATORY RESPONSE BY MONOCYTES	Sulagna Bhattacharya, Nishith Shrimali, Ghulam Mohd, Parvaiz Koul, Josef T. Prchal, and Prasenjit Guchhait	HAP
P-026	4025	DIFFERENTIAL EFFECTS ON SLEEP AND AUTONOMIC BALANCE BETWEEN LOWLANDER AND HIGHLANDER CHILDREN DWELLING AT HIGH ALTITUDE	Alain Riveros-Rivera, Juan Cote-Orozco, Pilar Guerrero, and Hanns-Christian Gunga	HAP
P-027	4034	PATHOLOGICAL CHARACTERISTICS OF GASTRIC MUCOSAL LESION IN PATIENTS WITH EXCESSIVE POLYCYTHEMIA AT HIGH ALTITUDE	Dongqu Qian, Cuo Zhuoma, Wantai Li, and Ri-Li Ge	HAP
P-028	4038	CARDIORESPIRATORY EXERCISE RESPONSES IN NORMOBARIC AND HYPOBARIC HYPOXIA	Martin Faulhaber and Stephan Pramsohler	HAP
P-029	4044	ACUTE HYPOXIA DECREASES SYSTEMIC BLOOD PRESSURE AT EXERCISE, AT CONSTANT HEART RATE, AND IN HYPERTENSIVE AND NORMOTENSIVE SUBJECTS	Jean-Paul Richalet, Laurent Winkler, and Francois Lhuissier	HAP
P-030	4048	PRELIMINARY STUDY IN RIGHT VENTRICULAR REMODELING IN PATIENTS WITH CHRONIC MOUNTAIN SICKNESS WITH CARDIAC MAGNETIC RESONANCE	Haihua Bao and Wen Wang	HAP
P-031	4054	STUDY ON CEREBRAL HEMODYNAMICS OF CHRONIC MOUNTAIN SICKNESS WITH MR PERFUSION	YuanYuanBao and HaihuaBao	HAP
P-032	4056	TRANSCRIPTION FACTORS REGULATION IN HUMAN PERIPHERAL WHITE BLOOD CELLS DURING HYPOBARIC HYPOXIA EXPOSURE: AN IN VIVO EXPERIMENTAL STUDY	Sandro Malacrida, Giulio Ceolotto, Alessandra Giannella, Carlo Reggiani, Alessandra Vezzoli, Simona Mrakic Sposta, Sarah Moretti, Rachel Turner, Marika Falla, Hermann Brugger, and Giacomo Strapazon	HAP
P-033	4064	GROWTH PATTERN IN NEWBORN AT HIGH ALTITUDE (Alt. 2700–4500 m): A CROSS-SECTIONAL STUDY OF NEW BORN THROUGH	Tsering Norboo, Tsering Dolma, Tsering Stobdan, Tsering Lhadol, SpalchenGonbo, Zahid	HAP

		EARLY CHILDHOOD IN LADAKH, NORTHERN INDIA 2015–2018	Hussain, T. Norphel, Rinchen Wangmo, Ayesha Malo, Phunchok Norboo, Tsewang Chorol, Stanzin Choeying, and Norboo Angchuk	
P-034	4065	CHRONIC MOUNTAIN SICKNESS IN RUBSHO VALLEY OF LADAKH (ALTITUDE 4500–4900 m): COMPARATIVE STUDY OF TWO DIFFERENT ETHNIC POPULATIONS WITH DIFFERENT CHRONIC MOUNTAIN SICKNESS SCORING SYSTEM	Norboo Angchuk, Tsering Dolma, Tsering Stobdan, Inderjeet Singh Sahota, Tsering Norboo, Reddy Prasanna, Shashi Bala Singh, and Bhuvnesh Kumar	HAP
P-035	4068	ALTITUDE CHANGES OF HYPOXIA-INDUCIBLE FACTOR-1a, INDUCIBLE NITRIC OXIDE SYNTHASE, AND NITRIC OXIDE IN HEALTHY SUBJECTS AND THE INFLUENCE ON ERYTHROCYTE DEFORMABILITY	Aiqi Xi	HAP
P-109	4049	CARDIAC MAGNETIC RESONANCE EVALUATES THE EFFECT OF MAIN PULMONARY ARTERY DILATATION ON RIGHT HEART STRUCTURE AND FUNCTION WITH CHRONIC MOUNTAIN SICKNESS	Haihua Bao, Wen Wang	HAP
P-110	4053	VBM AND REHO WITHIN BRAIN GRAY MATTER AND NEURAL ACTIVITY HOMOGENEITY IN OBSTRUCTIVE SLEEP APNEA–HYPOPNEA SYNDROME	Dongjie Kang, Haihua Bao, and Zongyuan Qin	HAP

DAY 2: MOUNTAIN EMERGENCY MEDICINE (37)

Poster no.	Abstract no.	Abstract title	Authors	Under
P-036	3860	SKI-EVEREST (8848 M) EXPEDITION: EVIDENCE OF SUSCEPTIBILITY TO COLD INJURY IN A MOUNTAIN CLIMBER	Jurij Gorjanc, Igor Mekjavic, Shawnda Morrison, Adam McDonnell, Polona Jaki Mekjavic, and Rok Blagus	MEM
P-037	3861	THE PLANICA PROTOCOL FOR FROSTBITE MANAGEMENT-2 CASE REPORTS	Jurij Gorjanc, Igor Mekjavic, Tomo Havlicek, Bostjan Sluga, Polona Jaki Mekjavic, and Matjaz Veselko	MEM
P-038	3863	THE NORWEGIAN GUIDELINES FOR PREHOSPITAL MANAGEMENT OF ACCIDENTAL HYPOTHERMIA: A BRIEF	Sven Christjar Skaiaa	MEM

		REVIEW OF THE HISTORY OF HYPOTHERMIA AND THE DEVELOPMENT OF CONSENSUS GUIDELINES		
P-039	3874	STUDY OF GLOBAL REGISTRY OF ACUTE CORONARY EVENTS AND THROMBOLYSIS IN MYOCARDIAL INFARCTION RISK SCORES' APPLICATION IN THE RISK STRATIFICATION AND PROGNOSTIC EVALUATION IN PATIENTS WITH ACUTE CORONARY SYNDROME IN QINGHAI	Wujian He, Ling Lin, and Zhenying Chen	MEM
P-040	3888	THE EXPRESS OF MMP-9 ON SEVERE ACUTE PANCREATITIS IN THE HIGH ALTITUDE	Bai Yanlin	MEM
P-041	3894	MECHANICAL CHEST COMPRESSION DURING MOUNTAIN RESCUE MISSIONS	Volker Lischke, Armin Berner, Jürgen Knapp, Christian Freund, Sebastian Bähr, Urs Pietsch, and Nina Lischke	MEM
P-042	3895	METHOXYFLURANE AS ANALGESIC IN MOUNTAIN RESCUE MISSIONS	Volker Lischke, Armin Berner, Jürgen Knapp, Urs Pietsch, and Nina Lischke	MEM
P-043	3896	FATAL MOUNTAIN ACCIDENTS IN EUROPE: ARE THE NUMBERS INCREASING?	Volker Lischke, Armin Berner, Jürgen Knapp, Urs Pietsch, and Nina Lischke	MEM
P-044	3898	CARDIOPULMONARY RESUSCITATION OF CARDIAC ARREST IN THE AUSTRIAN ALPS: A RETROSPECTIVE 10-YEAR NATIONAL REGISTRY STUDY	Mathias Ströhle, Anna Vögele, Paul Neuhauser, and Peter Paal	MEM
P-045	3900	LIGHTNING ACCIDENTS IN THE AUSTRIAN ALPS: A 10-YEAR RETROSPECTIVE NATIONWIDE ANALYSIS	Mathias Ströhle, Bernd Wallner, Michael Lanthaler, Simon Rauch, and Peter Paal	MEM
P-046	3908	A RELIABLE NOMOGRAM MODEL TO PREDICT THE RECURRENCE OF CHRONIC SUBDURAL HEMATOMA AFTER BURR-HOLE SURGERY	Yang Mingfei	MEM
P-047	3928	EFFECT OF BOSENTAN IN HYPOXIA-INDUCED INCREASE IN PULMONARY ARTERY PRESSURE: A META-ANALYSIS	Gaurav Nepal, Saurav Dahal, and Sushil Yadav	MEM
P-048	3942	HYPOMETHYLATION SEEMS TO DRIVE CLINICAL FAILURE AT HIGH ALTITUDE	Narayan Himanshu Singh, Aastha Mishra, Ghulam Mohammad, Tashi Thinlas, Qadar M.A. Pasha	MEM

P-049	3969	APOPTOSIS OF PANCREATIC CELLS IN RATS WITH SEVERE ACUTE PANCREATITIS AT HIGH ALTITUDE	Liu Linxun and Wu Xinming	MEM
P-050	4010	ANALYSIS OF RISK FACTORS ASSOCIATED WITH PROTEINURIA IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA–HYPOPNEA SYNDROME IN HIGH ALTITUDE AREA	Feng Mei and Huijie Zhong	MEM
P-051	4013	EFFECTS OF 300 AND 1500 m ALTITUDE ON CARDIOVASCULAR RESPONSES DURING APNEA	Eric Mulder, Pontus Holmström, and Erika Schagatay	MEM
P-052	3905	EXPRESSION OF MERLIN PROTEIN IN FEMALE CERVICAL CANCER OF HAN, TIBETAN, AND HUI NATIONALITIES IN QINGHAI	Zhang Jianqing, Wei Chunmei, Yang Xing, Zhang Man	TM
P-053	4035	STUDY ON THE CORRELATION BETWEEN VASCULAR LESIONS AND COGNITIVE FUNCTION IN NATIVE TIBETAN WITH H-TYPE HYPERTENSION IN PLATEAU	Yinglan Li and Shizheng Wu	MEM
P-054	4060	PREHOSPITAL TIMES AND CLINICAL CHARACTERISTICS OF SEVERE TRAUMA PATIENTS: A COMPARISON BETWEEN MOUNTAIN AND URBAN/SUBURBAN AREAS	Simon Rauch	MEM
P-055	4063	A USER FRIENDLY MOTHER AND CHILD HEALTH HAND BOOK CAN EMPOWER PREGNANT MOTHERS TO IMPROVE PREGNANCY OUTCOME AND CHILD CARE: A CROSS-SECTIONAL STUDY IN A SECONDARY LEVEL CARE HOSPITAL IN LADAKH (Alt. 2800–4500 m) 2015–2018	Tsering Lhadol, Tsering Norboo, Tsering Stobdan, Padma Dolma, Khatisha Bano, Ayesha Malo, Spalchen Gonbo, Rinchen Wangmo, Tsewang Chorol, Norboo Angchuk, Tsering Dolma, and Noney Wangchuk	MEM
P-056	4069	EVALUATION OF 90-DAY OUTCOME AND SLEEP QUALITY IN PATIENTS WITH NONDISABLING ISCHEMIC CEREBROVASCULAR EVENTS AT HIGH ALTITUDE	Quanzhong Hu	MEM
P-057	4070	CLINICAL RESEARCH ON INTRAVENOUS HYDRATION AND ORAL HYDRATION OF PLATEAU AREA PATIENTS IN PREVENTION OF POSTOPERATIVE CONTRAST AGENT NEPHROPATHY WITH CORONARY INTERVENTION	Baoxia Liao, Wei Nian, Aiqi Xi, and Maowei Zheng	MEM

P-058	4090	CHALLENGES AND APPLICATIONS FOR ADVANCED MEDICAL MONITORING IN EXTREME ENVIRONMENTS	Rachel Turner, Hannes Gatterer, Anna Vögele, Nikolaus Netzer, Sandro Malacrida, Hermann Brugger, and Giacomo Strapazzon	MEM
P-059	4092	SUCCESSFUL USE OF AMLODIPINE FOR HIGH ALTITUDE PULMONARY EDEMA IN PATIENTS WITH LOW SYSTOLIC BLOOD PRESSURE	Abhyu Ghimire, Nicholas Mason, and Ken Zafren	MEM
P-060	3988	EXPOSURE TO HIGH ALTITUDE: A POSSIBLE RISK FACTOR FOR VENOUS THROMBOEMBOLISM	Iti Garg, Swati Srivastava, Chhavi Rai, Babita Kumari, Vinay Kumar, Lilly Ganju, and Bhuvnesh Kumar	MEM
P-061	4074	EFFECTS OF TIBETAN HERB, RHODIOLA ALGIDA, ON PROLIFERATION AND HIF-1a AND HIF-2a EXPRESSION IN MCF-7 CELLS UNDER HYPOXIA IN VITRO	YuJuan Qi	HAP
P-062	4075	EFFECTS OF HYPOXIA, HYPERCAPNIA, AND HYPOTHERMIA ON CEREBRAL OXYGENATION: A PROSPECTIVE PORCINE STUDY	Giacomo Strapazzon, Gabriel Putzer, Miriam Dal Mulino, Patrick Braun, Tomas Dal Cappello, Raimund Helbok, Markus Falk, Peter Mair, and Hermann Brugger	HAP
P-063	4077	HEMOGLOBIN CONCENTRATION, PULSE, AND LIFETIME REPRODUCTIVE SUCCESS AMONG ETHNIC TIBETANS AT HIGH ALTITUDES IN NEPAL	Cynthia Beall, C. Jeong, D. Witonski, B. Basnyat, M. Neupane, G. Childs, S. Craig, J. Novembre, and A. Di Rienzo	HAP
P-064	4086	CONSIDERATIONS FOR ENHANCED DELINEATION OF THE PHYSIOLOGICAL IMPACT OF HIGH ALTITUDE STRESSORS	Giacomo Strapazzon, Rachel Turner, Sandro Malacrida, Marika Falla, Hannes Gatterer, Nikolaus Netzer, Tomas Dal Cappello, and Hermann Brugger	HAP
P-065	4087	HUMAN PHYSIOLOGY DURING EXPOSURE TO CAVE ENVIRONMENT: A SYSTEMATIC REVIEW AND POTENTIAL FUTURE IMPLICATIONS FOR HYPOBARIC CHAMBER RESEARCH	Rachel Turner, Lucrezia Zuccarelli, Loredana Bessone, Letizia Galasso, Emily Coffey, and Giacomo Strapazzon	HAP
P-066	4091	URINARY PHYSIOLOGY AT ALTITUDE: EFFECT OF A MODERATE HYPOXIA ON	Vittore Verratti, Simona Mrakic-Sposta, Manuela	HAP

		SYMPATHOVAGAL BALANCE AND URODYNAMIC PARAMETERS	Moriggi, Alessandro Tonacci, Lorenza Pratali, Suwas Bandhari, Danilo Migliorelli, Guido Giardini, and Paolo Cerretelli	
P-067	0003	EFFECT OF ALTITUDE VARIATIONS ON CARDIORESPIRATORY PARAMETERS AMONG TREKKERS TO THE INDIAN HIMALAYAS	Ishani Sanjay Ghotikar, Keren Susan Cherian, and Venkata Ramana Yagnambhatt	HAP
P-068	3999	INFLAMMASOME PATHWAY PLAYS AN IMPORTANT ROLE IN PATHOPHYSIOLOGY OF HIGH ALTITUDE INDUCED PULMONARY HYPERTENSION	Prasanna Reddy, Gidgu Himashree, Ekta Kohli, Amit Baidya, T.C. Kain, Lokesh Rai, Tsering Norboo, Ambuj Roy, Archana Singh, Usha Panjuwani, Shashi Bala Singh, and Bhuvnesh Kumar	HAP
P-106	4054	STUDY ON CEREBRAL HEMODYNAMICS OF CHRONIC MOUNTAIN SICKNESS WITH MR PERFUSION	YuanYuan Bao and Haihua Bao	HAP
P-107	3864	WINCH INSERTION OF AN INTERDISCIPLINARY RESCUE TEAM IN COMPLEX SEARCH AND RESCUE OPERATIONS	Sven Christjar Skaiaa	MEM
P-108	3953	ROCK CLIMBING TOURISTS - AN AT RISK GROUP FOR TRAUMATIC INJURIES IN LOW AND MIDDLE INCOME COUNTRIES	Bebbington, Emily	MEM
P-111	3954	RABIES AND ROCK CLIMBING - A CALL FOR ROCK CLIMBING SPECIFIC TRAVEL HEALTH INFORMATION	Bebbington, Emily	MEM

DAY 3: HIGH ALTITUDE AND TRAVEL MEDICINE (37)

Poster no.	Abstract no.	Abstract title	Authors	Under
P-069	3859	KOROS`KA 8000 HIMALAYAN EXPEDITION: DIGIT RESPONSES TO COLD STRESS AFTER ASCENT TO BROAD PEAK (PAKISTAN, 8051 M)	Jurij Gorjanc, Adam McDonnell, Igor Mekjavic, and Shawnda Morrison	TM
P-070	3866	ARE THE EIGHT-THOUSANDERS PRONE TO BECOME MENTALLY RETARDED?	Kristina Hoschlova	TM
P-071	3867	MAY BE TRIPS TO ALTITUDE BENEFICIAL FOR PSYCHIATRIC PATIENTS?	Kristina Hoschlova and Dorothee Berguet	TM

P-072	3871	WHOLE BRAIN COMPUTED TOMOGRAPHY PERFUSION OF PATIENTS WITH VARYING DEGREES OF HIGH-ALTITUDE POLYCYTHEMIA: PRELIMINARY STUDY WITH A MULTIDETECTOR COMPUTED TOMOGRAPHY	Yanqiu Sun, Junjie Hu, and Yonghai Zhang	TM
P-073	3877	CORPORAL COMPOSITION, OXYGEN CONSUMPTION, AND [hsPCR] IN MINERS FROM 0 TO 2500 m	Fernando Moraga, Andrés Pedreros-Lobos, and Rodrigo Calderon-Jofre	TM
P-074	3897	AVIATION ACCIDENTS IN THE AUSTRIAN ALPS: A RETROSPECTIVE 10-YEAR NATIONAL REGISTRY STUDY	Mathias Ströhle, Bernd Wallner, Simon Woyke, Monika Maeder Brodmann, Simon Rauch, Hermann Brugger, and Peter Paal	TM
P-075	3901	DEVELOPMENT OF A SMARTPHONE APPLICATION TO ASSESS AND GUIDE TREATMENT OF ACUTE MOUNTAIN SICKNESS BY TELEMEDECINE IN THE SWISS ALPS	Niels Holthof, Pierre Métrailler, Deborah Glassey-Previdoli, Alexandre Cotting, Florence Selz, Matthieu De Riedmatten, and Guénoilé Addor	TM
P-076	3909	ULTRASOUND-GUIDED PERCUTANEOUS MICROWAVE ABLATION FOR HEPATIC ALVEOLAR ECHINOCOCCOSIS: A PRELIMINARY STUDY	Guo Jianqin	TM
P-077	3910	DIFFERENCE IN COMMUNICATION STYLES OF WESTERN TEACHERS AND NEPALESE LEARNERS IN AN INTERCULTURAL FACULTY DEVELOPMENT PROGRAM FOR MOUNTAIN RESCUERS IN NEPAL	Raphael Saghir, Matiram Pun, Elzbieta Agnieszka Stawinoga, Aristomenis Exadaktylos, Giacomo Strapazzon, Hermann Brugger, and Monika Maeder Brodmann	TM
P-078	3917	STUDY ON SUSCEPTIBILITY OF TUBERCULOSIS AND GENE POLYMORPHISM IN TIBETAN POPULATION IN CHINA	Qunying Hu	TM
P-079	3938	ELEVATION IN ALTITUDE LEVERAGES PHYSIOLOGICAL AND GENETIC ASPECTS	Samantha Sharma, Ghulam Mohammad, Tashi Thinlas, and Qadar M.A. Pasha	TM
P-080	3956	CROSS-ALTITUDE ANALYSIS SUGGESTS A TURNING POINT AT THE ELEVATION OF	Xuebin Qi, Hui Zhang, YaoxiHe, Chaoying Cui,	TM

		4500 m FOR POLYCYTHEMIA PREVALENCE IN TIBETANS	Ouzhuluobu Na, and Bing Su	
P-081	3960	OBSERVATION OF THE EFFICACY OF LEFLUNOMIDE COMBINED WITH HORMONE TREATMENT ON PATIENTS WITH IgA NEPHROPATHY IN HIGH-ALTITUDE AREA	Wenhua Liu	TM
P-082	3968	INTERVENTIONAL TREATMENT OF ACUTE MASSIVE HEMOPTYSIS OF TUBERCULOSIS IN THE QINGHAI-TIBET PLATEAU	Zhaoyu Wu and Yu Li	TM
P-083	3985	LEVEL OF KNOWLEDGE ABOUT MOUNTAIN MEDICINE IN MOUNTAINEERS WHO TRIED TO ASCEND Mt. DHAULAGIRI DURING SPRING 2018	Nicolas Mena, Pablo Muñoz, and Natalia Seguel	TM
P-084	4000	APPLICATION AND EFFECT OF OBSERVATION OF NRS2002 ON NUTRITIONAL RISK SCREENING OF ELDERLY CHRONIC OBSTRUCTIVE PULMONARY DISEASE PATIENTS AT HIGH-ALTITUDE AREA	Li Na	TM
P-085	4016	THE DIVING RESPONSE DURING APNEA CORRELATES WITH ACUTE MOUNTAIN SICKNESS SYMPTOMS IN EVEREST BASE CAMP TREKKERS	Pontus Holmström, Eric Mulder, Angelica Lodin Sundström, Prakash Limbu, and Erika Schagatay	TM
P-086	4022	COMPARING METHOXYFLURANE WITH NONORAL OPIOID ANALGESICS: WHERE DOES METHOXYFLURANE FIT ON THE PAIN TREATMENT PYRAMID?	Felicity Hughes	TM
P-087	4023	OCCUPATIONAL INJURIES IN MOUNTAIN RESCUE VOLUNTEERS	John Baldy, Michael Greene, and Karen Greene	TM
P-088	4027	DEMOGRAPHICS OF PATIENTS ATTENDING TWO HIGH-ALTITUDE RESCUE POSTS IN THE NEPALESE HIMALAYA BETWEEN 2012 AND 2017	James Farrant, Sean Tobin, Elana Owen, Santosh Baniya, Utsav Joshi, Anjan Bhattarai, and Nicholas Mason	TM
P-089	4031	STRANGERS IN PARADISE: TOURISTS PRESENTING TO A MOUNTAIN HOSPITAL IN NEPAL	Victor Speidel, Martin Mueller, Aristomenis Exadaktylos, and Monika Maeder Brodmann	TM
P-090	4040	EFFECT OF ALTITUDE ON HOSPITALIZATIONS FOR BRONCHIOLITIS IN THE FRENCH ALPS	Dominique Jean and Marie-Frédérique Pinturier	TM

P-091	4055	EMERGENCE OF SALMONELLA PARATYPHI A IN FRENCH TRAVELERS RETURNING FROM NEPAL	Dominique Jean, Mireille Plasse, Simon Le Hello, and François-Xavier Weill	TM
P-092	4062	DECISIONS AT HIGH ALTITUDE: PSYCHOLOGICAL TECHNIQUES OF MOTIVATION IN HIGH RISK SITUATIONS	Vladimir Bostandjiev and Radoslava Mitova	TM
P-093	4080	EXPANSION OF VECTOR-BORNE DISEASES TO HIGHER ALTITUDES: RISK FOR LOCAL POPULATIONS AND TRAVELERS	Dominique Jean	TM
P-094	4096	MULTIPLE HORNET STINGS AND ACUTE RENAL FAILURE: A CASE SERIES	Ghan Bahadur Thapa	TM
P-095	4100	DEVELOPMENT OF A QUESTIONNAIRE TO DETECT HIGH-ALTITUDE PSYCHOSIS: THE HAPSY QUESTIONNAIRE	Katharina Hüfner, Hermann Brugger, Fabio Caramazza, Agnieszka Stawingoa, Monika Brodmann Maeder, Hannes Gatterer, Rachel Turner, Iztok Tomazin, and Barbara Sperner-Unterweger	TM
P-096	0002	ETHICAL ISSUES IN MOUNTAIN AND HIGH ALTITUDE MEDICINE: RESULTS FROM AN INTERVIEW STUDY WITH PHYSICIANS IN THE FIELD	Georg Marckmann and Moritz Gatscher	TM
P-097	0004	GARLIC CONSUMPTION HABITS AMONG THE HIGH ALTITUDE PILGRIMS AND ITS EFFECT IN PREVENTION OF ACUTE MOUNTAIN SICKNESS: A REVIEW	Purushottam Adhikari	TM
P-098	0006	HYPOXIA IS NOT THE MECHANISM FOR EXERCISE-INDUCED PROTEINURIA	K. E. Joyce, S.J.E. Lucas, S. Bradwell, J. Delamere, S. Myers, O. Thomas, A. Fountain, Birmingham Medical Research Expeditionary Society, A.R. Bradwell	TM
P-099	3992	OPTIMIZING HUMAN HEALTH IN HIGH ALTITUDE: DRDO'S INITIATIVES	Bhuvnesh Kumar	TM
P-100	3976	LONG-TERM RESIDENCE AT HIGH ALTITUDE ALTERS BRAIN FUNCTIONS IN A TIME-DEPENDENT MANNER IN LOWLANDERS	Usha Panjwani	TM

P-101	3893	CROSS-SECTIONAL STUDY OF CONGENITAL HEART DISEASE AMONG TIBETAN CHILDREN IN QINGHAI PROVINCE	Chen, Qihong	TM
P-102	0005	LOSARTAN HAS NO EFFECT ON THE HYPOXIC DIURETIC RESPONSE TO ALTITUDE	JP Delamere, AR Bradwell, SB Bradwell, C Lewis, A Clarke, C Newman, K Joyce	TM
P-103	4050	CTA EVALUATION OF CEREBROVASCULAR COLLATERALS IN NORMAL ADULTS AT ALTITUDE	Huiying Hu and Haihua Bao	TM
P-104	3965	PREVALENCE AND RISK FACTORS OF H-TYPE HYPERTENSION IN QINGHAI-TIBET PLATEAU	Bian, Huiping; Wang, Xiaozhou	TM
P-105	4066	COMPARISON OF PULMONARY ARTERIAL PRESSURE AFTER TRANSCATHETER CLOSURE FOR PATENT DUCTUS ARTERIOSUS ASSOCIATED WITH SEVERE PULMONARY HYPERTENSION BETWEEN TIBETAN AND HAN PATIENTS	Wang, Xiaozhou Bian, Huiping Xu, Xiaolong	TM

6. Scholarship campaign

International conferences provide learning and networking opportunities. However, many of these conferences are beyond the financial reach of many young medical students and doctors. This time, the twelfth iteration of the World Congress on Mountain Medicine is being organized in the heart of the Himalayas. It was felt that due to the international nature of this revolving congress, many young medical students and doctors from all over the world, including Nepal, may have difficulty in participating in the congress, despite the highly subsidized fees especially for participants from low- and middle-income countries. Realizing this, Dr. Maniraj Neupane organized a closed fundraising campaign starting with his own pledge with an overall goal to provide scholarships to up to 100 deserving medical students, young doctors and researchers from all around the world. The campaign was promptly endorsed by the International Society of Mountain Medicine (ISMM) which offered to match the equivalent amount raised up to 10,000 USD. As of 3rd Nov 2018, Dr Neupane was able to raise 19,002 USD from generous donors who believed in this cause, along with the equivalent match from the ISMM.

This fund raised is used to provide scholarships to 13 international and 77 local Nepalese medical students and young doctors selected by the independent team of reviewers. 182 applicants completed an online scholarship application and submitted essays on how attending this conference would benefit them. These essays were marked by team of independent reviewers, led by Dr. Subarna Adhikari and Dr. Suman Acharya, who selected the following scholarship recipients.

6.1 Donors

We would like to express our sincere gratitude to the generous contributors to this campaign, listed in the chronological order they donated.

S.N.	Donated By	Amount in USD
1.	Maniraj Neupane	150
2.	John McCall	2500
3.	Anonymous 1	1000
4.	Eric Swenson	500
5.	Pritam Neupane	520
6.	Paul Auerbach	150
7.	Sagar Panthi	100
8.	Siddhartha Yadav	50
9.	Anonymous 2	100
10.	Andrew Luks	100
11.	Ken Zafren	500
12.	Hermann Brugger	1180
13.	ICIMOD	500
14.	CIWEC	500
15.	George Rodway	150
16.	Scott McIntosh	100
17.	Sanjay Yadav	300
18.	Sushil Pant	150

19.	Smith Giri	50
20.	Linda Keyes	100
21.	Anonymous 3	200
22.	Reto Pezzoli	500
23.	Bikash Bashyal	51
24.	Simant Thapa	50
25.	ISMM 100% Match	9501
	TOTAL as of 11/03/2018	19002

6.2 Scholarship recipients

SHORTLISTED INTERNATIONAL CANDIDATES

Registration fee discount provided		
S.N	Name	Country
1.	Alex Whynot	Canada
2.	Elina Christes	Switzerland
3.	Ellen Asselin	USA
Registration fee waived and accommodation provided		
4.	Kavita Sharma	India
5.	Manjaula Miglaini	India
6.	Mukul Mittal	India
7.	Priya Gaur	India
8.	Snigdha Shaw	India
9.	Sweetbert Ndebea	Tanzania
Registration fee waived		
10.	Tshering Palmo	India
11.	Astha Mishra	India
12.	Manjari Rain	India
13.	Sulagna Bhattacharya	India

SHORTLISTED NEPALI CANDIDATES (Registration fee waived)

S.N	Name	Country:
1.	Aaditya Gautam	Nepal
2.	Aakar Thapa	Nepal
3.	Aashna Bhandari	Nepal
4.	Aastha Ghimire	Nepal
5.	Aavash Mishra	Nepal
6.	Abhisekh Kharel	Nepal
7.	Abhishek Sharma	Nepal
8.	Abhyu Ghimire	Nepal
9.	Abishkar Thapa	Nepal
10.	Akhanda Upadhaya	Nepal
11.	Amit Sharma Nepal	Nepal
12.	Anil Hona	Nepal
13.	Anirudra Devkota	Nepal
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