GENOA, ITALY

March, 19th - 21st, 2025



New Advances in Mountain, Sea and Space Rescue. A new approach against the consequences of climate change

Preliminary Program

with patronage of





















































Dear Colleagues and Esteemed Participants,

It is with great enthusiasm and pleasure that we extend to you a warm invitation to the International Forum on "RESCUE in DIFFICULT ENVIRONMENT: New Advances in Mountain, Sea and Space Rescue". This congress, taking place in Genoa, Italy from March 19th to 21st, 2025, aims to foster innovative approaches and solutions in the field of rescue operations, particularly in the face of the evergrowing challenges posed by climate change.

Our forum brings together leading experts, researchers, and practitioners from around the globe to share their insights and advancements in mountain, sea, and space rescue missions with a specific interest in the healthcare aspects of rescue operations. This event provides a unique platform for interdisciplinary collaboration, where new ideas and cutting-edge technologies will be discussed to enhance our collective response capabilities in difficult environments. Additionally, we will delve into the specialized fields of mountain, diving, space, expedition and wilderness medicine.

As we face the consequences of climate change, it is imperative that we adapt and develop new strategies to ensure effective rescue operations. This congress will address critical issues and present pioneering techniques that will shape the future of rescue missions, ensuring safety and resilience in extreme conditions.

We look forward to your active participation and contributions to what promises to be an enlightening and groundbreaking event. Let us unite our efforts to advance the field of rescue operations and make significant strides in protecting lives in the most challenging environments.

Warm regards,

Dr. Luigi Festi

Dr. Federico Emiliano Ghio

















Forum Director	Luigi Festi		
President	Giacomo Strapazzon, Hermann Brugger, Osvaldo Chiara, Gianfranco Parati, Michael Wanscher		
Organizing and Scientific Committee	Federico Emiliano Ghio, Urs Hefti, Lorenza Pratali, George Rodway, Natalie Holzl, Peter Paal, Marika Falla, Simona Mrakic Sposta, Giovanni Vinetti, Vittore Verratti, Stefano Trinchi, Bruna Catuzzo, Francesco Marchiori, Gege Agazzi, Desiree Pantalone, Alessandro Marroni, Simona Berteletti, Mario Milani, Alessandro Bacuzzi, Luca Carenzo, Massimo Lombardo, Andrea Moscatelli, Fabrizio Iseni, Oscar Santunione		
Organizing Secretariat	NOEMA Via Orefici 4 - Bologna (Italy) - Ph. +39 051 230385 info@noemacongressi.it - www.noemacongressi.it		



CENTRO CONGRESSI PORTO ANTICO - Sala Scirocco Libeccio

Magazzini del cotone - Modulo 8 16128 Genova



OFFICIAL LANGUAGES

English, Italian.



REGISTRATION FEES

€ 300 (22% VAT included)



HOW TO REGISTER

On-line on the website: https://www.noemacongressi.it/en/ from 13th January 2025. For further information please consult:

https://secure.onlinecongress.it/onlinecongress/secure/form.aspx?GUID=32419 74227069397477259189 or write an email to info@noemacongressi.it.















FACULTY

Alessandro Alcibiade Les Gordon Desiree Pantalone Alessandro Bacuzzi Marcelo Parada Angelo Gratarola Stefano Gualandris Gianfranco Parati Steen Kroyer Barnung Cristiano Belfiore Peter Habeler Lorenza Pratali Luca Berardi Peter Hackett George Rodway Simona Berteletti Tamas Haidegger Nicola Rotolo Loredana Bessone Mark Hannaford Steve Rov

Mattia Bixio Patrizio Rubcich Frank Hartig Gerardo Bosco Wade Hawkins Katie Russell Hermann Brugger Urs Hefti Giovanni Sabatino Francesco Sauro Michele Burlando Sharon Henry Roberto Canese Natalie Holzl Gianluca Savoca Tom Scalea Giulio Carcano Chris Imray

Luca Carenzo Matthias Jacob Federico Semeraro
Osvaldo Chiara Marc Kaufmann Sven Christjar Skaiaa
Francesca Cialdai Andrew Kirkpatrick Maria Rosaria Squeo
Barbara Codo Axel Krieger Niccolò Stomeo
Annalisa Cogo Marco Lastilla Giacomo Strapazzon

Annalisa Cogo Giacomo Strapazzon Davide Colombo Mijel Lofti Pascal Strapazzon Paolo Comune Massimo Lombardo Guenther Sumann Andrew Luks Carlo Coniglio Marco Tartaglione Claudia Dallari Darryl Macias Michael Tipton Andrea De Bellis Andrea Tomaselli Enrico Macrì Matteo Della Bordella Alberto Mantovani Iztok Tomazin Alessandro Marroni Luca Tortorolo Angela Donati

Marika Falla Fabrizio Masella Sylvain Tosetti
Stephen Fenton Kyle McLaughlin Francesca Verginella
Guido Ferretti Hubert Messner Vittore Verratti
Luigi Festi

Luigi FestiMario MilaniLeonardo ViamonteJean Pierre FossonSilvio MondinelliGiovanni Vinetti

Paolo Frisoni Monica Monici Stein Bastian von Tagen-Jordan

Lorenzo Gamberini Andrea Moscatelli Beat Walpoth Hannes Gatterer Simon Murray Michael Wanscher

Alessandro Geddo Martin Musi Dave Weber
Federico Ghio Marie Nordgreen Sebastian Wiberg
Tommaso Giacon Johnny Olofsson Jason Williams
Guido Giardini Peter Paal Andrea Wolfler

* = Faculty subject to change

















OPENING

13:30	14:30	Registration	
14:30	15:00	Greetings from the authorities	
15:00	15:30	Lectio Magistralis: Impact of Environmental	G. Parati
		Factors on the Cardiovascular System	

COLD INJURIES - LESSONS FROM CITIES, MOUNTAINS AND OCEANS

Chairpersons: H. Brugger, L. Gordon, P. Paal

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Each lecture: 20 min

Hypothermia from the mountain to the sea	L. Gordon
Frostbites: a "orphan" disease?	C. Imray
Physiology of cold-water immersion	M. Tipton
ALS changes in hypotermic patients	F. Semeraro
ECLS in hypotermic patient: cerebral prognostication	M. Wanscher
Hypothermia and coagulation	P. Paal
Impact of climate change on human health at high altitude	G. Rodway

18:00 2		Welcome	
	21.00	Between Mountains and Medicine: the Challenge of the Extreme	P. Habeler, A. Mantovani, M. Della Bordella,
			S. Mondinelli

ay 20/03/2025

08:30	09.00	Lectio Magistralis: Immunity, Inflammation and	A. Mantovani
		Cancer; Training the Immune System	















MOUNTAINS: OLD AND NEW CHALLENGES WITH NEW VISITORS AND CLIMATE CHANGE

Chairpersons: N. Holzl, G. Strapazzon, G. Giardini



Each lecture: 20 min

Oxygen at high altitude: from the past to the future	P. Hackett
The pioneers of high-altitude sickness: a masterful story	A. Cogo
High altitude illnesses	A. Luks
Challenges for patients in the mountains	M. Falla
Search and rescue at altitude - new ICAR guidelines	K. McLaughlin
Challenges for athletes in the mountain	H. Gatterer
Avalanches accident: old and new threats	G. Strapazzon
Hyperthermia: so important and so underestimated	D. Macias

11.15 11.35

DIVING MEDICINE FROM BENCH TO BEDSIDE

Chairpersons: A. Marroni, M. Wanscher



Real Time Wireless Physiological Telemonitoring of the Submerged	A. Marroni
Diver for research and emergency assistance purposes	
Keeping people alive during rescue - lessons from other scenarios?	M. Tipton
Biomarkers and cerebral outcome following cardiac arrest/cerebral	S. Wiberg
hypoxia normo-/hypothermia	
Diving and Hyperbaric Medicine: New Perspectives	G. Bosco
Stress and circadian rhythm	T. Giacon
Modern cave diving rescue technique with limited equipment	F. Hartig
Physiology of water immersion	G. Ferretti*

13.30	Lunch
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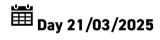


WILDERNESS AND SPACE MEDICINE - WHAT TO LEARN FROM THE EXTREMES

Chairpersons: D. Pantalone, B. Walpoth, J.P. Fosson



Experience from the Swiss cave diving team	GRIMM
ESA CAVES: simulating space expeditions in underground	L. Bessone*
environments	
Terra X Cube: when extreme conditions are controlled	G. Vinetti
Fly! Challenges of disability in space	A. Alcibiade
The new frontiers of surgery in space missions:	D. Pantalone
exposome and more	
Submarine environment and similitude with space	M. Monici
environment condition	
Title: TBD	Italian Air Force
Autonomous Robotic Surgery: Science Fiction or Reality?	A. Krieger
The marriage of drone delivered resuscitative responses with	A. Kirkpatrick/W.
telementored just in time guidance: 2 + 2 is 64	Hawkins
Pharmaceuticals at low atmospheric pressure: implications for	S. Roy
human space flight	
Wound Healing in Space – ESA and ASI Projects	F. Cialdai
Trauma care in space: how far the robotic and AI solutions?	T. Haidegger
Extreme Medicine: a global perspective	M. Hannaford



08.30	09.00	Lectio Magistralis: "Beyond the Limits –	H. Brugger
		Mountain Medicine Pushing the Extreme"	















SEA RESCUE: EXPERIENCES FROM ALL OVER THE WORLD

Chairpersons: A. Gratarola, S. Gualandris



Each lecture: 15 min

Sinistre in submarine rescue	Italian Navy
Hemorrhagic shock management in the context of special forces	Italian Navy
operations	·
Norway: characteristics of helicopter hoist operations with intubated	S.C. Skaiaa
patients - experiences from the RNoAF 330 Squadron	
When tragedy strikes for the helicopter rescue crew rescuing in extreme	S. Murray
environments	
Denmark: The Praestoe mass drowning incident, very difficult rescue	S. K. Barnung
operation	
Sea Italian Coast-Guard: Organization of SAR	TBD
Lake Italian Coast- Guard: Organization of SAR	TBD

11.00

MOUNTAIN RESCUE: EXPERIENCES FROM ALL OVER THE WORLD

Chairpersons: U. Hefti, M. Milani



Each lecture: 15 min

Rescue experience in Valais region	GRIMM
Valle D'Aosta rescue team experience	P. Comune
Scotland: Challenges for the pilots rescuing in extreme environments	S. Murray
Norway: Operating heavy helicopters in mountain rescue, a	S.B. Von Tangen-
presentation of 330 squadrons super long line procedure	Jordan
CNSAS 1 experience between sea and mountains	F. Masella/R.
CNSAS 1 experience between sea and mountains	F. Masella/R. Canese

13	3:00	14:00	Lunch















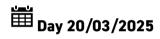
From SOS to safety: the story of an all-night rescue mission	S. Berteletti
France: rescue experience in Grenoble Region	TBD
Limitations in Mountain Emergency Medicine	G. Sumann
Mountain rescue in Argentina: A general review of rescue organization	M. Parada
in the Argentine Andes	
Rescues in Aconcagua provincial park as a particular example in Andes	M. Lotfi
Andes: Rescue at El Chalten, what challenges?	C. Codo, L.
	Viamonte
France: ECASC (école d'application de la sécurité civile)	Pascal, G.
in Chamonix, experience on Mont-Blanc	Strapazzon
Slovenian rescue team experience	I. Tomazin
National Park service mountain rescue	D. Weber
Mountain Rescue in Sweden: Search and Rescue of missing people in	M. Nordgreen/ J.
extreme bad weather condition	Olofsson

HELICOPTER RESCUE OPERATION FROM MOUNTAIN TO THE SEA AND BACK: WHAT FUTURE?

Chairpersons: M. Kaufmann, P. Frisoni

Round table with short presentation	
Closure of the conference	e

SESSIONE PARALLELA



TRAUMA MANAGEMENT: A COMMON THREAD FROM THE DIFFICULT ENVIRONMENT TO THE **HOSPITAL TRAUMA CENTER**

Chairpersons: O. Chiara, G. Carcano, L. Berardi



The Organization of trauma network: between present and future	O. Chiara
Hybrid damage control in hybrid room: a new option for a hybrid	T. Scalea
trauma surgeon	
Strategies in soft tissue injuries in civil and military settings	S. Henry
Thoracic trauma in difficult environment: what are the options?	N. Rotolo
New technologies in surgery: from the operating room to the extreme	G. Carcano
environment, what future?	
From Haiti to the european civil protection system: new approach to	D. Colombo
organization of disaster response	















11:00 11.30 Coffee break

PRE-HOSPITAL EMERGENCY DEPARTMENT ORGANIZATION: WHAT FUTURE?

Chairpersons: C. Coniglio, A. Bacuzzi

Each lecture: 20 min

Trauma care in extreme conditions - from austere environments to the	N. Holzl
hospital	
Management of critically ill patients in austere environment	M. Bixio
Prehospital blood in Italy state of the art:	M. Tartaglione
The role of prehospital ultrasound in clinical decision	L. Gamberini
making in austere and remote environments	
Urban environments are extreme environments	C. Belfiore

13.00	14 15	Lunch
15.00	17.13	Lunen

EVENT MEDICINE AND MASS GATHERING IN EXTREME ENVIRONMENT: NEW ORGANIZATIONAL AND CLINICAL APPROACH

Chairpersons: F. Ghio, M. Lombardo, M. Squeo

Title: TBD	Italian Air Force
Title: TBD	FISI (Federazione
	Italiana Sport Invernali)
Ski Patrol	F. Ghio
Elite sporting event medical management	M.R. Squeo
World Athletics Label Marathons	L. Carenzo
Delivering high quality clinical care during olympic winter sports	M. Lombardo
Delivering care during Fiji eco-challenge	N. Stomeo
High profile football games	A. Geddo

15.45	16.00	Coffee break
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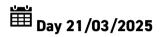
EXPEDITION MEDICINE

Chairpersons: D. Macias, M. Musi, V. Verratti



Each lecture: 20 min

Expedition medicine: from Sandia Mountains to Himalaya	D. Macias
The women's expedition to K2: insights for a new approach to high	L. Pratali
altitudes	
Death on the Nile managing heat stroke during expeditions	N. Stomeo
Expedition medicine in the Andes, teaching on expedition mode	M. Musi
Expedition medicine: the viewpoint of the expedition leader	F. Sauro
Expedition medicine: the viewpoint of the expedition doctor	P. Rubcich



PEDIATRIC WILDERNESS MEDICINE: TRAUMA AND EMERGENCY MEDICINE IN REMOTE AREA Chairpersons: F. Verginella, L. Tortorolo, A. Tomaselli

Children at high altitude: what perspectives with climate change?	H. Messner
Developing a pediatric urban search and rescue team	A. Moscatelli and
	VVFF
Child airway management: a hostile environment	A. Wolfer
Utah pediatric trauma network	K. Russell
Mobile pediatric ECMO	A. Moscatelli
Management of a child in difficult environment: what	M. De Luca
education/training?	
Burns: the first approach in children	A. De Bellis
Pre-hospital locoregional anesthesia in pediatric patients	S. Tosetti















EDUCATION AND TRAINING: A NEW APPROACH FROM THE MOUNTAIN TO THE SEA AND SPACE. ROLE OF DIFFICULT ENVIRONMENT SIMULATION

Chairpersons: L. Festi, L. Carenzo



Each lecture: 15 min

Diploma in mountain medicine and emergency medicine	J. Williams
Mountain medicine course on the Andes	M. Musi
Human performance and behaviour training in extreme environment	A. Donati
Cognitive appraisal in high stakes environment	L. Gamberini
Simulation for elite providers	L. Carenzo
Putting it all together: the master in mountain emergency medicine	C. Dallari
From CAVES to SPACE: using terrestrial analogues to train astronaut	L. Bessone*
expeditionary behaviour	

Lunch

ORAL PRESENTATION SESSION



Each presentation: 05 min

14.30 15.30 SIMeM, UIAA, ICAR

This document is constantly updated. Please find the latest version of the program and the registration opening date on our website:















