



United Nations
Office for Outer Space Affairs



**World Health
Organization**

**United Nations/World Health Organization International Conference
on Space and Global Health**

in collaboration with the Government of Switzerland and Space and Global Health Network
Supported by the European Space Agency

Hosted by



Venue: Room VII, Building A, Palais des Nations, Geneva, Switzerland

Dates: 1-3 November 2023



Programme at glance

The United Nations Office for Outer Space Affairs, the World Health Organization and the United Nations Conference on Trade and Development are co-organizing, in collaboration with the Government of Switzerland and Space and Global Health Network hosted by the Geneva Digital Hub, the International Conference on Space and Global Health to raise awareness, build capacity and increase collaboration between the space domain and the global health domain, by inviting decision-makers and practitioners from both domains to share their experiences.

The Conference will provide a forum for discussion around the different aspects of how space can contribute to global health, in a holistic manner, seeking to contribute to the implementation of the United Nations General Assembly resolution on Space and Global Health A/RES/70/120 and support Sustainable Development Goal 3 "Good Health and Well-Being".

The Conference will focus on the areas identified by the Working Group of the Scientific and Technical Subcommittee on Space and Global Health and will seek to increase awareness and build capacity among the attendees in four distinct areas of interest:

1. Telemedicine and tele-health;
2. Tele-epidemiology and environmental health;
3. Space life sciences;
4. Disaster and health emergency management;

In addition, the objectives are to present use cases of space technologies applied to the areas of interest, identify the existing institutional arrangements and mechanisms linking health and space authorities in the above domains that could be used to develop recommendations to better connect health authorities and space authorities at the domestic level. Importantly, the aim is also to promote collaboration between the different stakeholders during the event and increase networking opportunities through the Space and Global Health Network and its online community platform (Implementome).

	Day 1	Day 2	Day 3
Morning	<p>Opening Ceremony UN, UNCTAD, WHO, the Government of Switzerland, Space and Global Health Network</p> <p>Setting the scene Keynotes Keynote: Introduction to the mission, work of the SGHN and the SGH Platform (Implementome)</p>	<p>Space solutions in support of tele-epidemiology and environmental health Use Cases/Best Practices How to drive effective collaboration/Networking/SGHN</p> <p>Discussion and Recommendations</p>	<p>Space solutions in support of disaster and health emergency management Use Cases/Best Practices How to drive effective collaboration/Networking/SGHN</p> <p>Discussion and Recommendations</p>
Afternoon	<p>Space Solutions in support of telemedicine and telehealth Use Cases/Best Practices How to drive effective collaboration/Networking/SGHN</p> <p>Discussion and Recommendations</p>	<p>Space life sciences Use Cases/Best Practices How to drive effective collaboration/Networking/SGHN</p> <p>Discussion and Recommendations</p>	<p>Review of recommendations Closing Ceremony</p>



Agenda of the Conference

DAY 1 (8:30-17:30) Wednesday, 1 November 2023

Time	Title of Presentation	Speaker	Organisation
9:30-10:00			
Opening Ceremony (5' presentations)			
9:30-9:35	Opening remarks by the Government of Switzerland	Julien Thöni	Ambassador, Deputy Permanent Representative to the United Nations Office in Geneva (Multilateral Affairs)
9:35-9:40	Opening remarks by UNOOSA	Driss El Hadani	Senior Adviser, UNOOSA
9:40-9:45	Opening remarks by WHO	Stephen McFeely	Director of Data and Analytics, World Health Organization
9:45-9:50	Opening remarks by European Space Agency	Stefano Ferretti	Stefano Ferretti, Lead of EO4Health, European Space Agency
9:50-9:55	Opening remarks by Space and Global Health Network	Antoine Geissbuhler	Coordinator, SGHN
10:00-11:15			
Setting the scene (15' presentations)			
10:00-10:15	GA Resolution and the work on Space and Global Health	Aygul Duysenhanova	Chief Committee, Policy and Legal Affairs, United Nations Office for Outer Space Affairs
10:15-10:30	Perspective from the World Health Organization	Katherine O'Brien	Director Immunization, Vaccines and Biological (IVB), World Health Organization
10:30-10:45	Introduction to the mission, work of the Space and Global Health Network	Antoine Geissbuhler	Coordinator, SGHN
10:45-11:00	GEO Activities in the field of Space and Global Health	Martyn Clark	Urban Resilience Coordinator, Group on Earth Observations (GEO)
11:00-11:15	Perspective from the Government of Switzerland	Natália Archinard	Deputy Head of the Science, Space and Arctic Section, Federal Department of Foreign Affairs, Switzerland
Coffee Break 20 minutes			
11:35-12:35			
Keynotes (20' presentations)			
Chair: Natália Archinard Rapporteur: Valentina Grigoryan			
11:35-11:55	ESA Earth Observation for Health Resilience		Stefano Ferretti, Lead of EO4Health, European Space Agency.
11:55-12:15	How NASA's technologies for Mars and Moon benefit Health		James D. Polk, Chief Health and Medical Officer, National Aeronautics and Space Administration, USA
12:15-12:35	Data and Analytics for Health in the World Health Organization		Stephen McFeely, Director of Data and Analytics, World Health Organization
12:35-13:45	Lunch Break (pay per consumption)		
13:45-14:00	Group Picture		



14:00 – 15:40		
Session 1a: Space Solutions in support of tele-medicine and tele-health		
Chair: Ilona Kickbush Rapporteur: Ismail Rasulov		
14:00-14:20	Market perspective on Health and Space	Thomas Crone, European Space Agency
14:20-14:40	Revolutionizing Healthcare Access: "The Transformative Role of Space Technology in Telemedicine and Telehealth"	Anwasha Pathak Singh, University of Petroleum and Energy Studies, India
14:40-15:00	Ethical implications of Telemedicine and Telehealth	Ravi Anand Ragnuth, Ministry of Health and Wellness, Mauritius
15:00-15:20	El Salvador: experience in the use of Telemedicine as an innovative alternative to provide accessible, continuous, and timely medical services	Monica Ayala Guerrero, El Salvador Institute for Social Insurance (ISSS), El Salvador
15:20-16:00	Coffee Break	
16:00 – 17:00		
Session 1b: Space and digital Solutions supporting health		
Chair: Ilona Kickbush Rapporteur: Ismail Rasulov		
16:00-16:20	Digital health interventions and the need for digitalovigilance	Kerstin Denecke, Bern University of Applied Sciences, Switzerland
16:20-16:40	The role of the metaverse in the future of the Space sector	Marie-Louise von Hohenbuehel/Britt Wiseman, International Space University
16:40-17:00	Satellite-based ML models for environmental health research	Rochelle Schneider, European Space Agency
17:00-17:30	Discussion	
END OF DAY 1		

18:30 – Welcome address by Ambassador Alexandra Baumann, Head of the Prosperity and Sustainability Division, Federal Department of Foreign Affairs, Swiss Government

18:35 – Welcome address by Driss El Hadani, Senior Adviser, United Nations Office for Outer Space Affairs

18:30-20:30 Cocktail reception offered by the Swiss Government

Address: Campus Biotech

Chem. des Mines 9,

1202 Genève

DAY 2 (9:30-17:30) Thursday, 2 November 2023		
Session 2: Space Solutions in support of tele-epidemiology and environmental health		
Chair: Martin Hilljegerdes Rapporteur: Firuza Rahmatulloeva		
9:30-11:30	Tele-epidemiology tranche	
9:30-9:50	Global environmental change complicates malaria elimination agenda	Tatiana Loboda, University of Maryland, USA
9:50-10:10	Malaria risk assessment and mapping using satellite imagery and boosted regression trees in the Peruvian Amazon.	Elisa Solano, Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Peru
10:10 – 10:15	Space Application for Dengue Outbreaks in a smart city platform	Ana Cristina Rosa, Dipteron
10:15-10:35	Research, development, and capacity building in Global Health at Instituto Gulich, CONAE, Argentina	Ximena Porcasi, National Commission for Space Activities (CONAE), Argentina
10:35-10:55	Space Technology Applications for Healthcare in Pakistan	Aliya Kashif, Pakistan Space and Upper Atmosphere Research Commission, SUPARCO
10:50-11:10	Coffee Break	



11:10-12:10	Environmental Health tranche	
11:10-11:30	"Life Dee" a Platform for Air Pollution Monitoring in Chonburi Province, Thailand	Chanika Sukawattanavijit, Geo-informatics and Space Technology Development Agency (GISTDA), Thailand
11:30-11:50	Designing and Deploying Urban Greening Initiatives to Combat Global Warming and Air Pollution	John P. Wilson, University of Southern California, USA
11:50-12:10	Trusting in Digital Health and Space Technology for a Healthier Planet	Jordi Pons, UhDa Health
12:10-12:45	Discussion	
12:45-14:00	Lunch break	
Session 3: Space life sciences		
14:00	Chair: Awa Babington-Ashaye Rapporteur: Lili Baah	
14:00-14:20	'Heat Stress and Productivity in Sub-Saharan Africa	Hanss-Christian Gunga, Charite University Medicine Berlin
14:20-14:40	Survey of the activities in Health and Life Sciences at the Italian Space Agency	Micol Bellucci, Italian Space Agency
14:40-15:00	Smartphone-based eye disease screening for SDG-3 and Space	Scott Ritter, German Aerospace Center, Germany
15:00-15:20	Artificial Intelligence in Spaceflight Associated Neuro-Ocular Syndrome (SANS)	Fatma Shakarchi, Independent researcher
15:20-15:40	Coffee Break	
15:40-16:00	Synergistic Advances in Space Radiation Health Effects: Collaborative Insights from AMS Roma Sapienza and Medical Physics Division of IRCCS University Hospital of Bologna Hospital	Alessandro Bartoloni, National Institute for Nuclear Physics, Italy
16:00-16:20	The osmotic fragility test and its application for the diagnosis of spatial anemia	Georgina Aurelia Chavez Lizarraga, Universidad Catolica Boliviana "San Pablo", Bolivia
16:20-16:40	Suborbital flights open new routes of space manufacturing for medicine and high-performance materials	Loredana Santo, University of Tor Vergata Rome, Italy
16:40-17:00	Advancing Global Collaboration in Space Health Education	Ivan Dsouza, Bioviser
17:00-17:05	Project to Create a Human Research Program for Civilians in Spaceflight and Space Habitation (HRP-C)	Mary Cull, Institute of Space Commerce, USA
17:00-17:30	Discussion	
END OF DAY 2		

DAY 3 (9:30-17:00) Friday, 3 November 2023

Session 4: Space Solutions in support of disaster and health emergency management		
9:30	Chair: Stefano Ferreti Rapporteur: Ruby Ann King	
9:30-9:50	Solutions in support of universal health coverage and emergency situations	Karin Eva Elisabet Stenberg, Ravi Santhana, WHO
9:50-10:10	HeRAMS: a standard approach to modelling geospatial accessibility to essential health services in emergencies	Samuel Petragallo, WHO
10:10-10:30	The role of health infrastructure and services during the pandemic in Thiruvananthapuram, Kerala, INDIA	Anil Kumar Roy, CEPT University, Ahmedabad, India
10:30-10:50	The United Nations Space-Based Information Platform for Disaster Management and Emergency Response (UN-SPIDER)	Martin Hilljegerdes, UN-SPIDER, UNOOSA
10:50-11:10	Coffee Break	



11:10-11:30	The Global Heat Resilience Service: Building the foundation for heat resilient communities	Group on Earth Observations
11:30-11:50	Leveraging Satellite Communication for Effective Disaster and Health Emergency Management in India: A Path towards Global Health Resilience	Anubhav Prakash, SatCom Industry Association, India
11:50-12:10	Population mobility mapping for outbreak preparedness, readiness, and response	Teresa Zakaria, World Health Organization
12:10-12:50	Discussion	
12:50-14:00	Lunch Break	
Review of Recommendations		
	Facilitator: Jorge Del Rio Vera Rapporteur: Katarina Pavlovic	
14:00-16:00	Discussion and Review by all	All
Closing Ceremony		
16:00	Closing remarks by Space and Global Health Network	Antoine Geissbuhler, Coordinator, SGHN
	Closing remarks by European Space Agency	Stefano Ferretti, Lead of EO4Health, European Space Agency
	Closing remarks by WHO	Stephen McFeely, Director of Data and Analytics, World Health Organization
	Closing remarks by UNOOSA	Driss El Hadani, Senior Adviser, UNOOSA
	Closing remarks by the Government of Switzerland	Julien Thöni, Ambassador, Deputy Permanent Representative to the United Nations Office in Geneva (Multilateral Affairs)
16:30 Group Picture		
END OF THE CONFERENCE		

Posters should be in A1 format and will be displayed throughout the whole conference.

POSTER SESSION		
1	Space and Global Health Network Platform	Caroline Perrin, Geneva Digital Health Hub, Switzerland
2	Contribution of remote sensing in the risk assessment of cutaneous leishmaniosis. Case of the region of Biskra in Algeria	Kebir Lahsen Wahib, Algeria Space Agency (ASAL)
3	Use of the Geographical Information System (GIS) in epidemiology: Systematic review	Bouati El Arbi, The Moroccan Kingdom's Royal Armed Forces Health Service
4	Orbital Overload: Space Debris and its Implications for Global Health	Sophie Goguichvili, The Wilson Center (Woodrow Wilson International Center for Scholars), USA
5	From LEO to Lunar: Exploring Deep Space Medical Capabilities (Virtual Poster Only)	Sara Khan, European Space Agency

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USEFUL INFORMATION FOR PARTICIPANTS

The conference will take place in Room VII, Building A, Palais des Nations, Geneva, Switzerland.

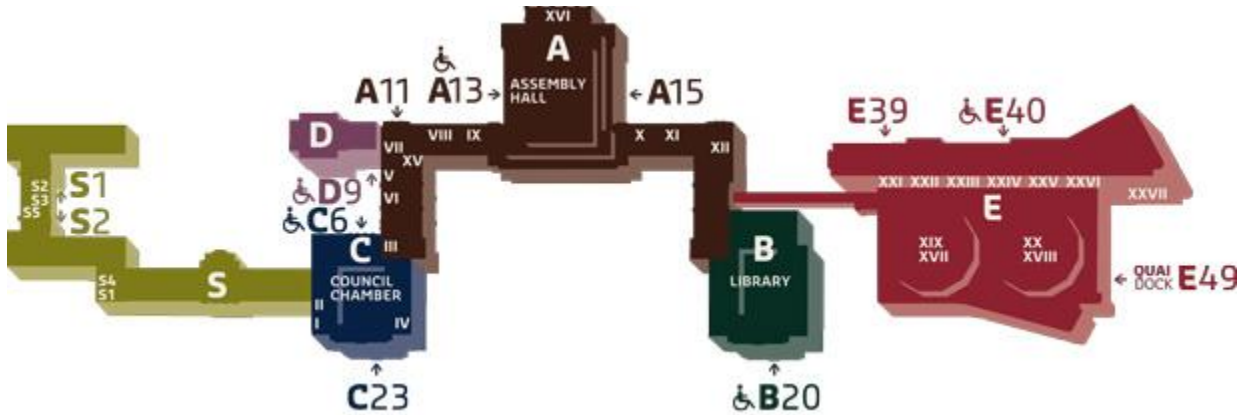


Figure 1.- Plan of the Palais des Nations

To access Room VII, please use entry door A11.



There is no sitting arrangement foreseen, although some seats will have the marking “RESERVED”, please leave those vacant.



GETTING TO THE PALAIS DES NATIONS

Enter the Palais des Nations through the Visitor's entrance at Pregny Gate, on 14 Avenue de la Paix, 1211 Geneva in front of the International Committee of the Red Cross building and next to the Geneva Hotel School.

Public transport:

Transports Publics Genevois
Palais des Nations transit stop are Appia and Nations.

Access from Cornavin railway station:

Bus lines 20, F ("Appia" stop)
Bus line 5 or tram line 15 ("Nations" stop), then a 5 minutes' walk to Pregny Gate

Access from Cointrin airport:

Bus line 5 ("Nations" stop), then a 5 minutes' walk to Pregny Gate
Other bus lines with stop at "Nations": 11 and 22, then a 5 minutes' walk to Pregny Gate

CURRENCY

The currency is the Swiss Franc, please check the exchange rate before arriving to Switzerland.

WEATHER

Please check the weather forecast before departure. You can expect cold weather and potentially rain.

