





UNITED NATIONS WORLD HEALTH ORGANIZATION

INTERNATIONAL CONFERENCE ON SPACE AND GLOBAL HEALTH

1 - 3 NOVEMBER

GENEVA SWITZERLAND





Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

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^{*1} Please note that the order of the presenters is in the speaking order of the session.

Introduction









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 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:

- Telemedicine and telehealth;
- 2. Teleepidemiology and environmental health;
- 3. Space life sciences;
- 4. Disaster and health emergency management;

For more information



Details Date: 1, 2, 3 November 2023

Venue: Palais des Nations, Avenue de la Paix 14, 1202 Geneva, Switzerland

Objectives







The main objectives of the Workshop 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
- Make recommendations to better connect health authorities and space authorities at the domestic level
- 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)

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".



Organizing Committee

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Name	Title	
Natália Archinard	Deputy Head of Science, Space and Arctic Section, Federal Department of Foreign Affairs, Switzerland	
Awa Babington-Ashaye	Digital Health Advisor, Geneva Digital Health Hub (gdhub), University of Geneva Community Manager, Space and Global Health Network	
Ekaterina Chernova	Administrative Assistant, United Nations Conference on Trade and Development	
Jorge Del Rio Vera	Scientific Affairs Officer (Space Technology), United Nations Office for Outer Space Affairs (UNOOSA)	
Aygul Duysenhanova	Chief Committee, Policy and Legal Affairs Section, UNOOSA	
Driss El Hadani	Senior Adviser, UNOOSA	
Antoine Geissbuhler	Coordinator, Space and Global Health Network Dean, Faculty of Medicine, University of Geneva	
Stephen MacFeely	Director of Data and Analytics, World Health Organization (WHO)	
Ravi Shankar	GIS lead, WHO Geographic Information Systems (GIS) Centre for Health	5
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Programme



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- Opening Ceremony
- Setting the scene
- Keynotes
- Session 1a: Space Solutions in support of telemedicine and telehealth
- Session 1b: Space and digital Solutions supporting health
- Session 2a: Space Solutions in support of teleepidemiology
- Session 2b: Space Solutions in support of environmental health
- Session 3: Space life sciences
- Session 4: Space Solutions in support of disaster and health emergency management
- Closing Ceremony

Opening Ceremony



Julien Thöni
Ambassador, Deputy Permanent
Representative to the United
Nations Office in Geneva



Driss El HadaniSenior Adviser, UNOOSA



Stefano Ferretti Lead, EO4Health, ESA



Antoine Geissbuhler
Coordinator, Space and Global
Health Network



Stephen MacFeely
Director of Data and Analytics,
WHO

Opening Ceremony: Presente













Presenter: Julien Thöni

Ambassador, Deputy Permanent Representative to the United Nations Office in Geneva

Since 1 August 2023, Julien Thöni has been Deputy Permanent representative of Switzerland to the United Nations and the other international organisations in Geneva and Permanent Representative of Switzerland to the Conference on Disarmament. Until July 2023, he was Consul General of Switzerland in Istanbul. He joined the diplomatic service in 1998. In 2000, Mr. Thöni served as desk officer for the countries of the Commonwealth of Independent States at the FDFA. Between 2003 and 2007 he was Deputy Head of Mission at the Embassy of Switzerland in Saudi Arabia. In 2007 covered euro-Atlantic and European security in the International Security Division at the FDFA. In 2010, he served as head of section on issues related to disarmament and peace promotion also in Bern. Between 2013 and 2023 he was successively posted in Moscow (economic affairs), in Ramallah as Head of Mission and in Istanbul as Consul General. Mr. Thöni has a degree in International Relations from the Geneva Graduate Institute and a Masters' degree in international conflict analysis from the University of Kent (Canterbury).



Presenter: **Driss El Hadani**

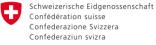
With:

Senior Adviser, United Nations Office for Outer Space Affairs

Currently appointed as Senior Adviser in the United Nations Office for Outer Space Affairs. Dr. El Hadani has 32 years of experience in the development and implementation of programmes and projects within the space sector, he has spent 28 years as the Director-General of Centre Royal de Télédétection Spatiale (CRTS), contributing immensely to the growth of the organisation, including consolidating the CRTS/Morocco cooperation relations with foreign partners and international organisations such as the European Space Agency (ESA), World Bank, the National Centre for Space Studies (CNES), National Aeronautics and Space Administration (NASA), Indian Space Research Organisation (ISRO), Food and Agriculture Organisation (FAO), The United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), among others. Dr Driss El Hadani holds a master's degree in applied Space Technology from Pierre et Marie Curie, Paris, France, a Master of Business Administration – Organisation Management, from the Institue Supérieur du Commerce et Administration des Entreprises (ISCAE), Casablanca, Morocco, an engineering degree from Ecole Mohammadia d'Ingénieurs (EMI), University Mohammed V, Rabat, Morocco, and a Bachelor of Law from Faculté de Droit, University Mohammed V, Rabat, Rabat, Morocco.

Opening Ceremony: Presente













Presenter: **Stephen MacFeely,**

Director of Data and Analytics, World **Health Organization**

Steve MacFeely is the Director of Data and Analytics at the World Health Organization, based in Geneva, Switzerland and Adjunct Professor at the Centre for Policy Studies at University College Cork in Ireland.

He is co-chair of the Committee of the Chief Statisticians of the UN System (CCS-UN) and of the Committee for the Coordination of Statistical Activities (CCSA), chairs the Advisory Boards of the Statistical Journal of the IAOS, and of the International Statistical Literacy Project (ISLP), and is a member of the statistical advisory panels to both the UNDP Human Development Index and UNCTAD's Productive Capacity Index.

Steve is an elected member of the International Statistics Institute and a member of the IAOS Executive Committee.

Before joining WHO, Steve was Chief Statistician at UNCTAD. Prior to joining the UN, he was the Deputy Director-General at the Central Statistics Office (CSO) in Ireland and Programme Director of the joint CSO - Institute of Public Administration 'Professional Diploma in Official Statistics & Policy Evaluation'.



Presenter: **Stefano Ferretti**

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With:

Lead, EO4Health, **European Space Agency**

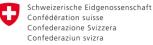
Stefano Ferretti works in the Science, Applications and Climate Department of the Earth Observation Programmes Directorate at the European Space Agency (ESA), where he also leads the EO4Health activity, in cooperation with key stakeholders such as WHO, WOAH, FAO, ECDC. He co-chaired the Earth Observation Living Planet Symposium 2022, and represented the Agency in various international contexts, in the policy and strategy, space applications and commercialization domains.

As fellow of the European Space Policy Institute (ESPI) he published with Springer two books: "Space for Sustainable Development" and "Space Capacity Building in the XXI century", while conducting space policy research (e.g. space governance, innovation and future space-based services), managing the activities towards UNISPACE+50, and addressing high-level policy aspects across several areas with the European Union. He has an interdisciplinary background in engineering, science and policy, holding a PhD from the University of Bologna, a master from the International Space University and having completed executive programs in innovation, space policy and leadership at MIT and at George Washington University.

Opening Ceremony: Presente



With:



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Presenter: **Antoine Geissbuhler**

Coordinator, Space and Global Health Network

Antoine Geissbühler is an internist and specialist in medical informatics. A full professor since 2006, he is also Director of the HUG Innovation Centre and Head of the Division of e-Health and Telemedicine, which has been designed as a WHO collaborating centre. His research focuses on the design and application of new IT tools in the medical field. In particular, he helped implement Switzerland's e-health strategy and developed the RAFT project, a major telemedicine network linking hundreds of healthcare professionals in 20 countries in Africa, Asia and Latin America. Since 2022, he has also been President of BioAlps, the life sciences cluster for Western Switzerland. Antoine Geissbühler, a former vice-dean of the Faculty of Medicine, and is UNIGE's vice-rector in charge of digital strategy and innovation until July 2023. He becomes Dean of the UNIGE Faculty of Medicine on 15 July 2023.

Setting the Scene



Aygul Duysenhanova
Chief, Committee, Policy and Legal
Affairs Section UNOOSA



Katherine O'Brien
Director Immunization, Vaccines and
Biological, WHO



Antoine Geissbuhler
Coordinator, Space and Global
Health Network



Martyn Clark
Urban Resilience Coordinator, GEO



Natália Archinard Deputy Head, FDFA

Setting the Scene: Presenter



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<u>Link to</u> <u>Presentation</u>

Presenter: **Aygul Duysenhanova**

Chief, Committee, Policy and Legal Affairs, United Nations Office for Outer Space Affairs

Aygul Duysenhanova is Chief of the Committee, Policy and Legal Affairs Section of the United Nations Office for Outer Space Affairs (UNOOSA), and supports all work of the section. She serves as Secretary of the Committee on the Peaceful Uses of Outer Space (COPUOS), its Scientific and Technical Subcommittee (STSC) and Legal Subcommittee, as well as the STSC Working Group of the Whole, and the former STSC Working Group on Space and Global Health. She also serves as Secretary of the Working Group of the Whole of the Special Political and Decolonization Committee of the United Nations General Assembly convened under the item on international cooperation in the peaceful uses of outer space. Aygul is also Secretary of UN-Space, United Nations inter-agency mechanism for coordination and cooperation in outer space activities.

She holds Master's degree in Public Policy from the University of Minnesota, United States, Master's degree in Economics from the Kazakh Institute of Management, Education and Strategic Research under the President of Kazakhstan, and Bachelor's Degree (with distinction) in International Economic Relations from the Kazakh State Academy of Management.



<u>Link to</u> <u>Presentation</u>

Presenter: **Katherine O'Brien**

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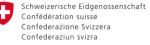
Director Immunization, Vaccines and Biological, World Health Organization

Kate O'Brien is the Director of the Department of Immunization, Vaccines and Biologicals at the World Health Organization (WHO). Previously she was the Executive Director of the International Vaccine Access Center (IVAC), and Professor of International Health and Epidemiology, at the Johns Hopkins Bloomberg School of Public Health. Dr O'Brien served on the WHO Strategic Advisory Group of Experts on Immunization (SAGE) committee from 2012 to 2018. Prior to joining IVAC, she served as the Director of Infectious Disease in the Johns Hopkins Center for American Indian Health. She also served as an Epidemic Intelligence Officer, in the Respiratory Diseases Branch, at the CDC, Atlanta (USA).

Dr O'Brien earned her BSc in Chemistry from the University of Toronto (Canada), her MD (Medicinæ Doctorem) from McGill University, Montreal (Canada), and her Master of Public Health from Johns Hopkins Bloomberg School of Public Health, Baltimore (USA). She completed her paediatric and infectious disease clinical training at Johns Hopkins Medical Institutions, Baltimore (USA).

Setting the Scene: Presenter





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<u>Link to</u> <u>Presentation</u>

Presenter: Antoine Geissbuhler

Coordinator, Space and Global Health Network

Antoine Geissbühler is an internist and specialist in medical informatics. A full professor since 2006, he is also Director of the HUG Innovation Centre and Head of the Division of e-Health and Telemedicine, which has been designed as a WHO collaborating centre. His research focuses on the design and application of new IT tools in the medical field. In particular, he helped implement Switzerland's e-health strategy and developed the RAFT project, a major telemedicine network linking hundreds of healthcare professionals in 20 countries in Africa, Asia and Latin America. Since 2022, he has also been President of BioAlps, the life sciences cluster for Western Switzerland. Antoine Geissbühler, a former vice-dean of the Faculty of Medicine, and is UNIGE's vice-rector in charge of digital strategy and innovation until July 2023. He becomes Dean of the UNIGE Faculty of Medicine on 15 July 2023.



<u>Link to</u> Presentation

Presenter: Martyn Clark

Urban Resilience Coordinator, Group on Earth Observations

Martyn is an urban planning specialist with 15 years' experience in the public and private sector in Africa, Asia and the UK. Martyn has worked with a range of development agencies including UK FCDO (formerly DFID), the Cities Alliance, UNICEF, UN-HABITAT, FAO, WFP, Asian Development Bank, Global Green Growth Initiative, as well as national, sub-national and municipal governments. He has a decade's experience working on urban development programmes in Africa and Asia, much of which has focused on developing low-cost, replicable tools and approaches to managing urbanization. Martyn has extensive experience in providing technical assistance, capacity development support, and research design and implementation on land-use and urban planning issues in developing countries. This advice has covered spatial and land-use planning, climate resilience and adaptation, Strategic Environmental and Social Assessment of plans, policies, and programmes, local economic and industrial development, urban land markets, infrastructure planning and municipal service delivery in rapidly urbanizing contexts in east and west Africa. Martyn joins the GEO secretariat as Urban Resilience Coordinator where he leads on urban-themed activities in the GEO work programme.

Setting the Scene: Presenter

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Presenter: Natália Archinard

Deputy Head of Science, Space and Arctic Section, Federal Department of Foreign Affairs, Switzerland

Dr Natália Archinard holds the space portfolio at the Federal Department of Foreign Affairs of Switzerland. She has been leading the Swiss delegation to the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) since 2007 and served as Chair of COPUOS Scientific and Technical Subcommittee in 2020-2022. She participated in different multilateral processes, such as the development of the Guidelines on the Long-term sustainability of outer space activities (2011-2018), the draft International Code of Conduct for outer space activities (2012-2015) and the Open-Ended Working-Group on reducing space threats (2022-2023). She is also member of the Swiss delegations to the European Space Agency (ESA) and the United Nations General Assembly 1st and 4th Committees. At national level, she is involved in the revision of the Swiss Space Policy 2008 and in the establishment of a national space legislation. She was educated in Mathematics, and obtained her MSc from the University of Geneva (1996) and her PhD from the Swiss Federal Institute of Technology (ETH) in Zurich (2000).

Keynotes



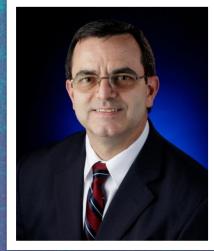
Chair: Natália Archinard
Deputy Head, FDFA



Rapporteur: Valentina Grigoryan
Principal Adviser to Director, SNCO, Armenia



Stefano Ferretti Lead, EO4Health, ESA



James D. Polk
Chief Health and Medical Officer, NASA



Stephen MacFeely
Director of Data and Analytics, WHO

Keynotes: Presenters



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Rapporteur: **Valentina Grigoryan**

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Principal Advisor, Director of "Hydrometeorology and Monitoring Center" SNCO, Republic of Armenia

Valentina Grigoryan is the Principal Advisor to Director of "Hydrometeorology and Monitoring Center" SNCO of the Republic of Armenia. She has worked in the National Hydrometeorological Service for more than 30 years, being in charge of the hydrometeorological, agrometeorological and climate service, international relations activities. She is a nominated expert in the WMO Commission for Weather, Climate, Water and Related Environmental Services and Applications, also Valentina Grigoryan is a core member of the Standing Committee on Services for Agriculture and lead of ET on Agromet Capacity Development and Communications. She also serves as the Focal Point of WMO-INTAD6, GCOS. She is an experienced expert on Agricultural Meteorology and Capacity building. She was an Academic Coordinator with a demonstrated history of working in the higher education industry. Currently, Valentina Grigoryan is involved in various projects collaborating with different international organizations.

Keynotes: Presenters



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Presenter: **Stefano Ferretti**

Lead, EO4Health, **European Space Agency**

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Presenter: James D. Polk

Chief Health and Medical Officer, National Aeronautics and Space Administration

Dr. JD Polk, is the agency chief health and medical officer of the National Aeronautics and Space Administration (NASA) located at NASA Headquarters in Washington since 2016.

Link to Presentation

Dr. Polk is the former dean of medicine for Des Moines University's College of Osteopathic Medicine. Prior to his work at Des Moines University, Dr. Polk was the assistant secretary (acting) for health affairs and chief medical officer of the U.S. Department of Homeland Security (DHS), assuming this post after serving as the principal deputy assistant secretary for health affairs and deputy chief medical officer. Before coming to DHS, Dr. Polk was the chief of space medicine for NASA's Johnson Space Center in Houston. He is the former state emergency medical services medical director for the state of Ohio and former chief of Metro Life Flight in Cleveland, Ohio. Dr. Polk is a fellow of the American College of Osteopathic Emergency Physicians, fellow of the Aerospace Medicine Association, and fellow of Extreme and Wilderness Medicine.

Keynotes: Presenters



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Presenter: **Stephen MacFeely,**

Director of Data and Analytics, World **Health Organization**

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Link to Presentation

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Before joining WHO, Steve was Chief Statistician at UNCTAD. Prior to joining the UN, he was the Deputy Director-General at the Central Statistics Office (CSO) in Ireland and Programme Director of the joint CSO - Institute of Public Administration 'Professional Diploma in Official Statistics & Policy Evaluation'.

Session 1a: Space solutions in support of telemedicine & telehealth



Chair: Ilona Kickbusch
Professor, Graduate Institute, Geneva



Rapporteur: Ismoil Rasulov
Department Head, Space Research and
Technology Agency, Uzbekistan



Thomas Crone
Business Analyst, ESA



Anwesha Pathak Singh
Assistant Professor, University of
Petroleum and Energy Studies, India



Ravi Anand Ragnuth Ministry of Health and Wellness, Mauritius



Monica Ayala Guerrero Director General, ISSS, El Salvador



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Chair: **Ilona Kickbusch**

Professor, Global Health Centre, Graduate Institute of International and Development Studies, Geneva

Professor Ilona Kickbusch is the Founder and Chair of the Global Health Centre at the Graduate Institute of International and Development Studies in Geneva. Professor Kickbusch key interests relate to the political determinants of health, health in all policies and global health. She advises countries and organizations on their global health strategies and trains health specialists and diplomats in global health diplomacy. She continues to advise the WHO.

She is a member of the Global Preparedness Monitoring Board. She acts as Council Chair to the World Health Summit in Berlin and is vice-president of the European Health Forum Gastein. She has been involved in German G7 and G20 activities relating to global health and the global health initiatives of the German EU presidency in 2020. She chaired the international advisory board for the development of the German global health strategy. She publishes widely and serves on various commissions and boards. She initiated

the @wgh300 list of women leaders in global health. She is program chair of the leaders in health network SCIANA. She is cochair of a Lancet FT Commission on "Governing health futures 2030: growing up in a digital world."



Rapporteur: **Ismoil Rasulov**

With:

Head, Department for Innovations and Technology Transfer, Space Research and Technology Agency, Uzbekistan

Ismoil Rasulov was born in Tashkent, Uzbekistan in 1995 and graduated from Tashkent University of Information Technologies in 2017.

He started his career at Scientific-technical and marketing research center "UNICON.UZ" as an engineer in 2017.

In 2020-2021 he joined International Relations Team of the Ministry for Development of Information Technology and Communications of the Republic of Uzbekistan.

From February 2021 till December 2022, he worked as the Head of Department for Coordination of International Cooperation at the Space Research and Technology Agency under the Cabinet of Ministers of the Republic of Uzbekistan.

From January 2023 he is Head of Department for Innovations and Technology Transfer at the Space Research and Technology Agency under the Ministry of Digital Technologies of the Republic of Uzbekistan.



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Presenter: **Thomas Crone**

Business Analyst, **European Space Agency**

Thomas works as a Business analyst for the ESA's Commercialisation Gateway where he supports the team with market analysis and outreach activities regarding commercial oriented space applications for space and non-space sectors, including extensive work on the topic of health. Prior to this Thomas held a similar role within ESA working on the development of downstream application projects as well as experience working in the satellite communications industry.



Link to Presentation

Presenter: **Anwesha Pathak Singh**

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With:

Assistant Professor, University of Petroleum and Energy Studies, India

Anwesha is an accomplished legal professional with a strong academic background and a passion for research. Currently pursuing a PhD from Bharati Vidyapeeth Deemed (To Be University) in the field of Study Concerning the Legal Status of Geostationary Orbit and Space Debris, she is dedicated to exploring the complex legal issues surrounding space and air laws.

Having completed an LLM in Constitutional and Administrative Law, Anwesha received a Silver Medal for academic excellence from New Law College, Bharati Vidyapeeth Deemed (To Be University) in 2019. Prior to that, she obtained a BA LLB (Hons.) degree, further strengthening her legal foundation. Additionally, she holds diplomas in Intellectual Property Rights and Cyber Laws, reflecting her expertise in these specialized areas.

With a diverse range of research interests, including Space Laws and Air Laws, Media and Entertainment Laws, Sports Laws, and Intellectual Property Rights, Anwesha is committed to pushing the boundaries of legal knowledge. Anwesha has contributed to numerous publications, presented insightful papers at conferences and published in reputable journals. 21



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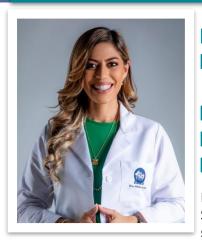
Presenter: **Ravi Anand Ragnuth**

Ministry of Health and Wellness, **Mauritius**

Ravi Anand Ragnuth has worked in the field of healthcare and public health for over 15 years. He is an active member of the Medical Council of Mauritius, where he contributes to promote and regulate good practice of medicine commensurate with highest international quality and standards, with the objective of safeguarding the interests and expectations of patients, the medical profession and the public at large.

He is also the Duty Manager at Dr. Bruno Cheong Hospital since 2016. There he oversees the daily operations of the Accidents and Emergency department, collaborating closely with the Medical Superintendent to ensure optimal patient care and efficient resource utilization. He also plays a key role in implementing Primary Health Care initiatives, working alongside the Regional Public Health Supervisor to conduct health surveillance and control communicable diseases within the community.

Dr Ragnuth holds a Doctor of Medicine (MD) from Kharkiv State Medical University, Ukraine.



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Presenter: **Monica Ayala Guerrero**

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Director General, Instituto Salvadoreño del Seguro Social, **El Salvador**

Monica Guerrero is since 2020 the Director General of the Instituto Salvadoreño del Seguro Social (ISSS) in El Salvador. Prior to this position she was the National Director of Medicine (DNM). She has also been in charge of Pharmacovigilance for anti-obesity treatment as the COFEPRIS Mexico-DNM liaison and has served as a Medical Advisor to the General Directorate, ISSS.

Monica holds a Master's Degree in Social Security Administration from the Inter-American Center for Social Security Studies in Mexico. She also holds a Master's Degree in Organizational Administration from the Universidad Nueva Autonóma de México. She obtained a Doctor of Medicine from the Evangelical University of El Salvador.

Session 1b: Space and digital Solutions supporting health



Chair: Ilona Kickbusch Professor, Graduate Institute, Geneva



Rapporteur: Ismoil Rasulov
Department Head, Space Research and
Technology Agency, Uzbekistan



Kerstin Denecke
Professor, Bern University of
Applied Sciences



Britt Wiseman

Medical student, University of

Alberta



Marie-Louise Hohenbühel
MSc in International Law and
Security, NOVA School of Law



Rochelle Schneider
Artificial Intelligence
Applications Lead, ESA

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Chair: **Ilona Kickbusch**

Professor, Global Health Centre, Graduate Institute of International and Development Studies, Geneva

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Rapporteur: **Ismoil Rasulov**

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Presenter: **Kerstin Denecke**

Professor, Bern University of Applied Sciences

Dr. Kerstin Denecke is an expert in the field of medical informatics. She works as a professor and researcher at the Bern University of Applied Sciences, Switzerland. Her major research interests include artificial intelligence and (clinical) natural language processing in general and more specifically, information extraction, sentiment analysis and conversational agents. Her work concentrates on use cases in the healthcare domain. She completed a doctoral degree at the Technical University of Braunschweig, Germany. She is leading several projects in the field of natural language processing and artificial intelligence and co-chairs the working group on participatory health informatics and social media or the International Medical Informatics Association.



Link to Presentation

Presenter: **Britt Wiseman**

With:

Medical student. University of Alberta

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Britt (she/her) is currently a medical student at the University of Alberta in Canada. She has previously completed an honours BSc in Molecular Genetics and Cellular Biology, and has done research on a wide array of topics including molecular genetics, cellular biology, gender, ethics, biochemistry, and currently- on the use of large language models in emergency medicine, and on uses of the Metaverse (VR/AR) for healthcare, particularly in remote environments such as space. She is also a private pilot, and is currently enrolled in flight school to complete her commercial pilots license, while also working towards her PADI divemaster certification. She is particularly interested in pursuing aerospace and space medicine, and is currently the lead for International Outreach for North America for the Aerospace Medicine Student and Resident Organization (AMSRO), a medical student representative for the Canadian Society of Aerospace Medicine (CSAM), the mentorship coordinator for Zenith Canada Pathways, and a team member on the Aerospace Medicine Podcast. Additionally, Britt was selected as a scholarship recipient by the European Space Agency to attend the International Space Universities Space Studies Course (SSP23) in Brazil during the summer of 2023, and has since began projects with other professionals working in the space sector from around the world.

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Presenter: Marie-Louise Hohenbühel

MSc in International Law and Security, **NOVA School of Law**

Marie-Louise Hohenbühel, currently pursuing an MSc in International Law and Security at NOVA School of Law (NSL), recently completed the 'Summer Space Program 2023' (SSP23) at the International Space University. She earned her bachelor's degree in Economics and Business Economics with a specialization in strategy from Maastricht University. Alongside her academic endeavors, Ms. Hohenbühel actively contributes to research at the Space Law Research Centre (SPARC) and focuses on exploring the applications of the Metaverse, particularly in Healthcare and Telemedicine.

Prior to her current role, Ms. Hohenbühel served as a Diplomatic Advisor for the Permanent Observer Mission of the Sovereign Order of Malta to the United Nations in New York, where she specialised on humanitarian and environmental affairs, as well as security issues. She is a member of the 'Space Generation Advisory Council' and spend two months as a policy and law guest researcher at the Austrian Space Forum (OeWF)



Link to Presentation

Presenter: Rochelle Schneider

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Artificial Intelligence Applications Lead, **European Space Agency**

Dr Schneider is the AI Applications Lead for the European Commission's Destination Earth Initiative at the European Space Agency (ESA). She is passionate about Earth observation missions and an advocate of building opportunities to introduce the benefits of satellite technologies into public health. Dr Schneider is a geospatial data scientist focused on developing AI4EO technologies for public health applications, leading projects in the fields of infectious diseases modelling and reconstruction of human exposure to environmental stressors (extreme temperatures and air pollution). She collaborates with world-leading universities, industrial partners, and NGOs to introduce the benefits of EO satellite products and Digital Twins engines to society, unlocking and ensuring a global impact.

Session 2a: Space Solutions in support of tele-epidemiology



Chair: Martin Hilljegerdes
Officer, UN-SPIDER



Rapporteur: Firuza Rahmatulloeva Professor, National Academy of Sciences, Tajikistan



Ana Cristina Rosa Founder, Dipteron



Tatiana Loboda
Professor, University of
Maryland



Elisa Solano-Villarreal
PhD Candidate, University of Liège



Ximena Porcasi Researcher, CONAE



Aliya Kashif
Deputy Chief Manager,
SUPARCO



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Chair: **Martin Hilljegerdes**

Information Management and Media Officer, **UN-SPIDER**

Martin Hilljegerdes is an Associate Information Management Officer at the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), a platform within the United Nations Office for Outer Space Affairs (UNOOSA), where he oversees the programme's knowledge management and communications activities. Before joining the UN through the German Junior Professional Officer (JPO) Programme, Martin worked at the German Federal Office of Civil Protection and Disaster Assistance (BBK). He holds an M.Sc. degree in Cartography from the Technical University of Munich and a B.Sc. degree in Geography from the University of Bonn, with a focus on and expertise in remote sensing and the use of geospatial technologies for disaster management.



Rapporteur: Firuza Rahmatulloeva

Professor. Institute of Astrophysics, National Academy of Sciences of Tajikistan

Dr. Firuza Rahmatulloeva is a research professor at the Institute of Astrophysics of the National Academy of Sciences of Tajikistan. Her main research interests include conducting optical observations of active objects - Main belt asteroids, comets (short-period comets and comets at long heliocentric distances), determining their dynamic and physical characteristics based on observational data, establishing reliable mechanisms for the sudden appearance of cometary activity in asteroids, manifested in in the form of dust ejection and the formation of typical cometary tails, and the identification of their connection with other bodies of the solar system and them. She also participates in the international program for observing variable stars (Variable Stars Net) at the Sanglokh Observatory, Tajikistan and the Crimean Astrophysical Observatory of the Russian Academy of Sciences. She is a member of the Scientific Working Group "ERASMUS+2019-1FRO-KA 107-061818" supported by Byurakan Astronomical Observatory, Republic of Armenia and of OVSQ Observatory an LATMOS Laboratory, France. Currently position she is Deputy Director of the Institute of Astrophysics, National Academy of Sciences of Tajikistan.



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Presenter: **Ana Cristina Rosa**

Founder & CEO, Dipteron

Ana Cristina Rosa is a lawyer with background and knowledge in the space sector and working experience in international organisations. Since 2008, she has been working as an observer and legal advisor for the Brazilian delegation during the Legal Subcommittee meetings of the United Nations Committee on the Peaceful Use of Outer Space (COPUOS) in Vienna. She is also an expert member of the Brazilian Association of Air and Space Law (SBDA). Besides a degree in law from São Paulo Catholic University, Brazil, she also holds a postgraduate in international law and international trade law from Lisbon University, Portugal. In addition, she completed a Masters in air and space law at the International Institute of Air and Space Law at Leiden University, the Netherlands, and in 2014, the Space Studies Program of the International Space University (ISU) in Montreal, Canada.

Dipteron is a mobile application for the detection of Aedes mosquito risk areas based on a specially developed algorithm that combines satellite data (derived climatic variables, landscape structure, among others) and ground data (biological and epidemiological data).



Link to Presentation

Presenter: **Tatiana Loboda**

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With:

Professor, Department of Geographical Sciences, University of Maryland, College Park

Tatiana Loboda is a Professor in the Department of Geographical Sciences at the University of Maryland, College Park. She received her B.A. degree in 1995 from the Moscow Pedagogical State University (Moscow, Russia), and her M.A. (2004) and Ph.D. (2008) degrees from the University of Maryland, College Park. Tatiana's research interests include wildland fire, biodiversity, climate change, public health and their interactions with other human and physical factors on the landscape.

Her work incorporates satellite observations of land surface conditions and change to study a variety of science questions ranging from impacts of wildfire on ecosystems and climate to assessing the impacts of conservation policies on poor rural communities to forecasting malaria outbreaks in the tropics. Geographically, her research is mostly focused on boreal forest and tundra biomes, although she has also been involved in studies of temperate and tropical ecosystems.



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Link to Presentation

Presenter: Elisa Solano-Villarreal

PhD Candidate, University of Liège

Elisa Solano-Villarreal is a Geog. Engineer working on Peruvian public health since 1999, beginning as a practitioner in the Health Services Program at (MoH) and subsequently in various health institutions such as the Center for Epidemiology, Disease Prevention, and Control (CDC-MoH), the National Institute of Health (NIH) and malaria PAMAFRO program. To deepen her understanding of health issues and geographic techniques, she obtained a master in epidemiology and spatial applications. She combines research with teaching geo-tools in public health applications.

She is currently finishing her PhD in Biomedical Sciences and pharmaceutical at the University of Liege (ULg) in cooperation with University Catholique Louvain (UCL) and Peruvian University Cayetano Heredia (UPCH). Yearly she teaches Geographic Information Systems at Peruvian University Cayetano Heredia (UPCH).

In her latest project, she was involved in training services in disaster risk management processes to strengthen management capacity within the institutional objectives and purposes of the General Directorate of Disaster Risk Management and National Defense in Health (DIGERD).



Link to Presentation

Presenter: Ximena Porcasi

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With:

Researcher, National Space Activities Commission, Argentina

Ximena Porcasi has a PhD in Biological Sciences and has been working since 2009 in CONAE as a researcher and advisor of Spatial Applications in Health. Associate Professor at the National University of Cordoba, she teaches courses associated with the use of remote sensing in health areas. She has more than 20 publications on specific topics related to remote sensing, geographic distribution models, epidemiology and disease control, among others. She also performs institutional management tasks at the Gulich Institute.



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Presenter: **Aliya Kashif**

Deputy Chief Manager, Space and Upper Atmosphere Research Commission, Pakistan

Link to **Presentation**

Session 2b: Space Solutions in support of environmental health



Chair: Martin Hilljegerdes
Officer, UN-SPIDER



Rapporteur: Firuza Rahmatulloeva Professor, National Academy of Sciences,

Tajikistan



Chanika Sukawattanavijit
Geo-Informatics Officer, GISTDA



John P. Wilson Professor, USC



Jordi Pons CEO, UhDa Health



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Chair: **Martin Hilljegerdes**

Information Management and Media Officer, **UN-SPIDER**

Martin Hilljegerdes is an Associate Information Management Officer at the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), a platform within the United Nations Office for Outer Space Affairs (UNOOSA), where he oversees the programme's knowledge management and communications activities. Before joining the UN through the German Junior Professional Officer (JPO) Programme, Martin worked at the German Federal Office of Civil Protection and Disaster Assistance (BBK). He holds an M.Sc. degree in Cartography from the Technical University of Munich and a B.Sc. degree in Geography from the University of Bonn, with a focus on and expertise in remote sensing and the use of geospatial technologies for disaster management.



Rapporteur: Firuza Rahmatulloeva

Professor. Institute of Astrophysics, National Academy of Sciences of Tajikistan

Dr. Firuza Rahmatulloeva is a research professor at the Institute of Astrophysics of the National Academy of Sciences of Tajikistan. Her main research interests include conducting optical observations of active objects - Main belt asteroids, comets (short-period comets and comets at long heliocentric distances), determining their dynamic and physical characteristics based on observational data, establishing reliable mechanisms for the sudden appearance of cometary activity in asteroids, manifested in in the form of dust ejection and the formation of typical cometary tails, and the identification of their connection with other bodies of the solar system and them. She also participates in the international program for observing variable stars (Variable Stars Net) at the Sanglokh Observatory, Tajikistan and the Crimean Astrophysical Observatory of the Russian Academy of Sciences. She is a member of the Scientific Working Group "ERASMUS+2019-1FRO-KA 107-061818" supported by Byurakan Astronomical Observatory, Republic of Armenia and of OVSQ Observatory an LATMOS Laboratory, France. Currently position she is Deputy Director of the Institute of Astrophysics, National Academy of Sciences of Tajikistan.



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Presenter: **Chanika Sukawattanavijit**

Geo-Informatics Scientist, Geo-Informatics & Space Technology Development Agency, Thailand

Chanika Sukawattanavijit is a senior professional level of Geo-Informatics at Geo-Informatics & Space Technology Development Agency (GISTDA), Ministry of Higher Education, Science, Research and Innovation, Thailand. GISTDA is the national focal point for the implementation of remote sensing, GIS, and satellite development programs for Thailand. GISTDA's mission is to conduct technological research, development and applications of remote sensing satellites, GIS, and related technologies, aiming to provide relevant services to Thai society as well as the international community. There Sukawattanavijit specialises in designing and developing Geo-Informatics data for application to public health, aging, agriculture, climate change, air pollution, and more.

Dr. Sukawattanavijit holds a BA in geography from Prince of Songkla University, a MSc in settlement planning geography from Kasetsart University, and a PhD from Beihang University.



Link to Presentation

Presenter: John P. Wilson

With:

Professor, University of Southern California

John P. Wilson, Ph.D., is Professor of Spatial Sciences and Sociology in the Dana and David Dornsife College of Letters, Arts and Sciences at the University of Southern California (USC) where he is founding director of the Spatial Sciences Institute. He also holds adjunct appointments as Professor in the School of Architecture, the Keck School of Medicine of USC's Department of Population and Public Health Sciences, and the Viterbi School of Engineering's Departments of Computer Science and Civil & Environmental Engineering.

His research focuses on the modeling of environmental systems and makes extensive use of GIS software tools, fieldwork, spatial analysis techniques and computer models.

Wilson has published numerous books and articles on these topics, including two edited volumes, Terrain Analysis: Principles and Applications (John Wiley and Sons, 2000) and the Handbook of Geographic Information Science (Blackwell Publishers, 2007), and Environmental Applications of Digital Terrain Modeling (John Wiley and Sons, 2018). Much of this work is collaborative and cross-disciplinary with the goal of improving knowledge and understanding of the factors linking society, the environment and human health.



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Presenter: **Jordi Pons**

CEO, Universal Health Digital Access

Dr. Jordi Serrano Pons is a Medical Doctor and the Founder of UniversalDoctor: The Digital Global Health Company and also now since the last year of UhDa Health.

Link to Presentation

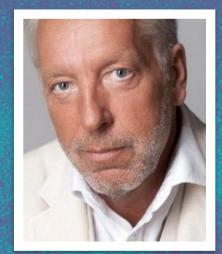
UniversalDoctor (UD) was launched more than 10 years. The Company expanded its initial reach of improving multilingual medical communication and broadened it to foster better health outcomes through the creation and use of Innovative Digital Health tools in the Global Health space. UD won the United Nations World Summit Award for Global Champion of the mHealth category in 2015.

At the beginning of 2020, UniversalDoctor together with a group of enthusiastic supporters has created and launched EpidemiXs, a project that wants to secure the dissemination of validated and curated content for the Covid crisis and the collection of validated data from citizens . The recent launch of EpidemiXs TV and EpidemiXs Studies shows the total commitment of UniversalDoctor team and supporters in this Global Health project.

Session 3: Space life sciences



Chair: Awa Babington-Ashaye
Digital Health Advisor, University
of Geneva



Hanns-Christian Gunga
Professor, Charite University
Medicine, Berlin



Micol Bellucci Research Assistant, ISA



Scott Ritter
Engineer, German Aerospace
Center



Fatma Shakarchi
International Committee of
the Red Cross



Alessandro Bartoloni Senior Researcher, INFN



Georgina ChávezResearch Coordinator, UCB
San Pablo



Loredana Santo
Professor, University of
Rome Tor Vergata



Ivan D'Souza CEO, Bioviser



Mary Cull
Director of Operations, Institute
of Space Commerce



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Chair: **Awa Babington-Ashaye**

Digital Health Advisor, Geneva Digital Health Hub, University of Geneva

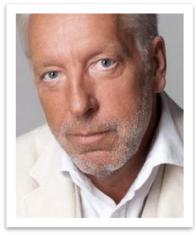
Awa Babington-Ashaye is a biochemist specialized in virology and molecular biochemistry and she holds a PhD in Biomedical Sciences. She has an extensive experience in public health and also in the treatment development for various therapeutic areas such as respiratory (COPD, Asthma, Allergy). She led several public health initiatives related to the prevention and diagnosis of various infectious disease (Zika, Dengue, Chikungunya) and also malaria in different regions of the world and in West-Africa in particular. Her activities include the implementation and management of disease awareness programmes on chronic diseases (diabetes) and infectious diseases as well as the design of educational programmes for patients. She is also the Head of Initiatives and Partnerships for Health of a Swiss-based NGO, United People Global, which joined global efforts to limit the spread of the SARS-CoV-2 by supporting local communities through knowledge dissemination and prevention and by helping other organisations to take positive action. Her research focuses on the design, the development of E-health solutions for chronic diseases and health communication.

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Presenter: **Hanns-Christian Gunga**

Professor, Center for Space Medicine, Charité University Medicine, Berlin

Hanns-Christian Gunga is an emeritus professor of space medicine and extreme environments at the Center for Space Medicine at Charité, a member of the Freie Universität Berlin and the Humboldt-Universität zu Berlin. From 2015 to 2016, he was acting director of the Institute of Physiology at Charité – Universitätsmedizin Berlin, Carité Cross Over (CCO). Most recently, he served as deputy director of the institute, and since October 2022 he has been a senior professor. Since 2012, he has also been a visiting professor at Northwestern Polytechnical University in Xi'an, China, and since 2014 a visiting professor at the State Key Laboratory of Space Medicine Fundamentals and Application, China Astronaut Center, Beijing, China. In 2015, 2017 and 2018, he was also a DAAD visiting professor at the University of Antofagasta in Chile. He was Chairman of the Life Science Working Group of the European Space Agency (ESA).



Link to Presentation

Presenter: **Micol Bellucci**

With:

Research Assistant, Agenzia Spaziale Italiana

network

Dr. Bellucci graduated in Biological Sciences (Biotechnology) at the University of Rome "La Sapienza" in 2005. In 2010 she obtained a PhD in Environmental Engineering at Newcastle University (UK). Since then, she had been working as a researcher on biological processes (nitrification, anaerobic digestion, anammox and microalgae) for the treatment and resource recovery in municipal and industrial wastewaters, ecotoxicology and environmental risk assessment in several international universities and research institutes (Italian Institute for Environmental Protection and Research, Polytechnic of Milano, University of Foggia, LBE-INRA, Tokyo University of Agriculture and Technology, Newcastle University). Currently, she is a technologist at the Italian Space Agency, where she focuses on programs and research projects in life and health sciences, space microbiology and astrobiology. She is co-author of 37 scientific papers published in peerreviewed international journals and of about 50 presentations/posters to scientific congresses.



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Presenter: **Scott Ritter**

Engineer,
German Aerospace Center

Scott is a scientist / engineer at the German Aerospace Center (DLR) in Cologne, Germany. He supports ongoing human health monitoring studies during spaceflight, in collaboration with the European Astronaut Center (EAC). Prior to this, Scott worked for the United Nations Office for Outer Space Affairs (UNOOSA) in Vienne, Austria, and for the University of Pennsylvania in Philadelphia, USA.

Within the space community, Scott has served the International Space University (ISU) as a guest workshop instructor for the Masters in Space Studies (MSS) and Space Studies Programs (SSP), and as a Space Applications Associate Chair for the Interactive Space Program (ISP). Scott also serves as an instructor for the International Institute for Astronautical Sciences (IIAS).

Scott holds masters degrees for the International Space University (ISU) in Strasbourg, France and from Stanford University in California. He is a licensed professional engineer and a certified scuba diver.



Presenter: Fatma Shakarchi

International Committee of the Red Cross

Fatma Shakarchi is a medical doctor from Iraq. With experience and formal training in public health, policy and computer science, she is focused on enabling health equity on a global scale.

<u>Link to</u> Presentation Fatma is based with the International Committee of the Red Cross (ICRC) headquarters, in Geneva, facilitating the health activities to people affected by conflict, and also serves as an Advisor to the Red Cross Red Crescent Climate Centre based in The Hague.

Her previous roles included being elected as the youngest Council Member of the London School of Hygiene and Tropical Medicine (LSHTM), and serving as a medical doctor on the frontlines of the Covid-19 pandemic in Baghdad.



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Presenter: Alessandro Bartoloni

Senior Applied Researcher, Italian Institute of nuclear Physics

Alessandro Bartoloni has participated in international research collaborations in the high energy fields, mostly based at CERN. Most of the activities focused on design, development, and commissioning of electronics systems for space and hostile environments (International Space Station, LCH Collider at CERN). Since 2016 he focused his research activities to the study of the assessment of the health hazard of astronauts due to the exposure ionizing radiation in exploratory space missions using the measurements of cosmic rays' properties done by the high energy physics experiments.



Link to Presentation

Presenter: **Georgina Chávez**

Research Coordinator, Universidad Catolica Boliviana San Pablo Regional La Paz, Bolivia

Georgina Chávez holds a PhD in Chemical Engineering from Lund University and is currently the Research Coordinator at Universidad Católica Boliviana "San Pablo" in La Paz Bolivia where she is also is a lecturer in Molecular and Cellular Biology in the Biomedical Engineering career. She and her research team has recently been awarded in the second call of the HyperGES program funded by UNOOSA and ESA to study the effects of hypergravity in the osmotic fragility in red blood cells.



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Presenter: **Loredana Santo**

Head, Department of Industrial Engineering, University of Rome Tor Vergata, Italy

Prof. Loredana Santo, PhD, is full Professor and Director of the Department of Industrial Engineering of the University of Rome Tor Vergata. She is graduated with honors in Aeronautic Engineering in 1994. Since 2005, she has been an associate professor in the Department of Industrial Engineering of University of Rome "Tor Vergata," Italy. She teaches courses on manufacturing technologies and industrial sustainability. She is coordinator and co-organizer of international mini-symposia, member of scientific committee of international conferences, and member of editorial board of international journals. Her scientific activity has been mainly focused on the following topics: non-conventional processes, micromachining, innovative materials, and processes. She is author of more than 120 scientific papers.



Link to Presentation

Presenter: Ivan D'Souza

CEO, **Bioviser**

Over the years, Ivan has built a solid multifunctional foundation in the healthcare and space health industry, working at various leadership positions. He has lent his expertise to strategy, business and product offering expansion, team building, sales, delivery, client servicing, training and development, and recruitment. With over 17 years of experience in business, Ivan has been a significant contributor to the growth of numerous businesses. He has consulted clients for clinical research solutions in India and has continued to grow such services in major markets like the USA, EU, and Japan along with growing business regions such as China, Taiwan, South Korea, and India.

Beyond BIOVISER, Ivan maintains an active presence in the industry ecosystem by being a member on numerous forums. He loves supporting and encouraging entrepreneurship. He also serves as a member of a few clinical research ventures' advisory boards and helps accelerate their journey to commercial success. Despite several work commitments, Ivan loves to carve out time to share a wealth of knowledge with his industry peers and is a guest lecturer at various leading clinical research institutes. Additionally, he is a speaker at industry conferences on space health and clinical research.



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<u>Link to</u> Presentation

Presenter: Mary Cull

Director of Operations, Institute of Space Commerce

Mary Cull presented at the UNOOSA/WHO International Conference on Space and Global Health on behalf of the Project to Create a Human Research Program for Civilians in Spaceflight and Space Habitation (HRP – C). This organization is an international group of spaceflight, medical, and behavioral experts, who are developing a comprehensive program plan aimed at solving the mysteries of how space travel might affect the health, performance, and well-being of average civilian, spaceflight participants.

Mary is the Director of Operations for the Institute of Space Commerce where she oversees the institutes development, finance staffing and administrative activities. Mary was a former Special Assistant at the U.S. Department of Commerce, Office of Space Commerce.

Mary is Partner and Co-Founder of Connect Strategies LLC, a bespoke lobbying and consulting firm based in Washington, D.C.

Session 4: Space Solutions in support of disaster and health emergency management



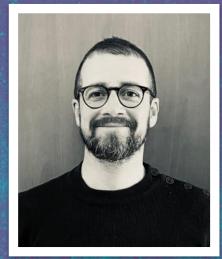
Chair: Stefano Ferretti Lead, EO4Health, ESA



Rapporteur: Ruby Ann King



Ravi Shanthana GIS lead, WHO GIS Centre for Health



Samuel Petragallo HeRAMS Lead, WHO



Anil Kumar Roy
Associate Professor, CEPT Univ.



Martin Hilljegerdes
Information Officer, UN-SPIDER



Martyn Clark
Urban Resilience Coordinator, GEO



Anubhav Prakash Business Manager, SIA



Teresa Zakaria 43
Health Emergency Officer, WHO



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Chair: **Stefano Ferretti**

Lead, EO4Health, **European Space Agency**

Stefano Ferretti works in the Science, Applications and Climate Department of the Earth Observation Programmes Directorate at the European Space Agency (ESA), where he also leads the EO4Health activity, in cooperation with key stakeholders such as WHO, WOAH, FAO, ECDC. He co-chaired the Earth Observation Living Planet Symposium 2022, and represented the Agency in various international contexts, in the policy and strategy, space applications and commercialization domains.

As fellow of the European Space Policy Institute (ESPI) he published with Springer two books: "Space for Sustainable Development" and "Space Capacity Building in the XXI century", while conducting space policy research (e.g. space governance, innovation and future space-based services), managing the activities towards UNISPACE+50, and addressing high-level policy aspects across several areas with the European Union. He has an interdisciplinary background in engineering, science and policy, holding a PhD from the University of Bologna, a master from the International Space University and having completed executive programs in innovation, space policy and leadership at MIT and at George Washington University.



Rapporteur: **Ruby Ann King**

Assistant Scientist. Department of Science and Technology, Philippines

Ruby Anne King is a health researcher and currently an Assistant Scientist at the Department of Science and Technology Philippines. She obtained her MD-PhD in Molecular Medicine from the University of the Philippines Manila. Having a keen interest in molecular medicine and immunology, she has worked on research projects investigating human host profiles, biomarkers, and immune-related responses in different disease states and outcomes for diseases such as cancer, COVID-19 and tuberculosis, and plans to pursue similar research in the context of different environmental conditions, using the principles of One Health and Global Health.

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Presenter: **Ravi Shankar**

GIS lead, World Health Organization GIS Centre for Health

Ravi Shankar is the GIS lead for the WHO GIS Centre for Health in the Data, Analytics, and Impact for Delivery unit of the World Health Organization after serving for many years as the GIS Technical Office at the Global Polio Eradication Initiative (GPEI). Previously, he was involved in the Ebola response where he played a key role in the creation of a Global Mapping platform for WHO to portray the situational update of the outbreak.

Before joining WHO, as a GIS Analyst in UNOSAT, he was involved in Emergency Response mapping, situational awareness, capacity building & training.

He also designed a Master's level Course on GIS for the Disaster Management Degree Programme at Copenhagen University. The Haiti earthquake, the Thailand floods, the Syrian Crisis, and the Libyan War are a few of the projects he worked on during his career.

He started his career as an Architect-Urban Planner involved in supporting the creation of the master plan of Libya and Port Blair.



Link to Presentation

Presenter: **Samuel Petragallo**

Health Information Systems Specialist, **World Health Organization**

Samuel holds a BSc in Environmental Health (King's College London), an MSc in Fisheries Sciences (University of Hull) and an MSc in Ecosystems Management (University of Corsica). Before joining WHO, he worked as an environmental scientist and engineer with NGOs and academic Institutions in Greece Madagascar and France with a focus on the development of multi-sectoral decision support systems in the area of environmental management and protection.

In 2006, he joins WHO's Emergency department and designs, develops and implements a large number of information systems to support decision-makers engaged in the area of public health emergencies. In order to address the recurrent gaps in core data on the availability of essential health resources and services he also initiates the HeRAMS Initiative that he has been leading since 2011.

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Presenter: **Anil Kumar Roy**

Associate Professor, Faculty of Planning, CEPT University, India

Anil is an Associate Professor with the Faculty of Planning, CEPT University, Ahmedabad. Previously, he was the National Coordinator for Indian Heritage Cities Network, UNESCO.

Link to Presentation

Anil has to his credit extensive research and consultancy work in the fields of socio-economic analysis, impact assessment and evaluation, focusing on urban and regional planning, environment and development, urban poverty, industry and environment interface. Currently, he is working on education planning in India and big data analytics in urban and regional planning.

His research papers have been published in national and international journals. He holds a PhD degree in Urban Geography from JNU, New Delhi. He was awarded Canadian Studies Doctoral Fellowship for his PhD and was affiliated with Dalhousie University, Halifax, Canada.



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Chair: **Martin Hilljegerdes**

Information Management and Media Officer, **UN-SPIDER**

Martin Hilljegerdes is an Associate Information Management Officer at the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), a platform within the United Nations Office for Outer Space Affairs (UNOOSA), where he oversees the programme's knowledge management and communications activities. Before joining the UN through the German Junior Professional Officer (JPO) Programme, Martin worked at the German Federal Office of Civil Protection and Disaster Assistance (BBK). He holds an M.Sc. degree in Cartography from the Technical University of Munich and a B.Sc. degree in Geography from the University of Bonn, with a focus on and expertise in remote sensing and the use of geospatial technologies for disaster management.











Link to Presentation

Presenter: **Martyn Clark**

Urban Resilience Coordinator, **Group on Earth Observations**

Martyn is an urban planning specialist with 15 years' experience in the public and private sector in Africa, Asia and the UK. Martyn has worked with a range of development agencies including UK FCDO (formerly DFID), the Cities Alliance, UNICEF, UN-HABITAT, FAO, WFP, Asian Development Bank, Global Green Growth Initiative, as well as national, sub-national and municipal governments. He has a decade's experience working on urban development programmes in Africa and Asia, much of which has focused on developing lowcost, replicable tools and approaches to managing urbanization. Martyn has extensive experience in providing technical assistance, capacity development support, and research design and implementation on land-use and urban planning issues in developing countries. This advice has covered spatial and land-use planning, climate resilience and adaptation, Strategic Environmental and Social Assessment of plans, policies, and programmes, local economic and industrial development, urban land markets, infrastructure planning and municipal service delivery in rapidly urbanizing contexts in east and west Africa. Martyn joins the GEO secretariat as Urban Resilience Coordinator where he leads on urban-themed activities in the GEO work programme.



Link to Presentation

Presenter: **Anubhay Prakash**

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With:

Government Relations and Business Manager, Satcom Industry Association, India

Anubhav Prakash is an expert in Government Relations with over 12 years of specialized experience in the Telecommunication and Satellite Communication sectors for Government Relations, particularly within the vibrant landscape of the Indian Satellite Communication Industry. Currently holding the position of Manager of Government Relations at SatCom Industry Association - India, Anubhav plays a pivotal role in shaping and implementing comprehensive strategies that directly influence policies and regulations in this dynamic industry. His expertise extends to building and nurturing strong relationships with influential government figures, regulatory bodies, and industry stakeholders, thereby advancing the association's agenda in the context of the Indian Satellite Communication Industry. Anubhav has an impressive track record of monitoring legislative changes specific to satellite communication, providing expert analysis, and offering strategic recommendations tailored along with the Policy and Regulatory team to the unique needs of the Indian market. His advocacy efforts extend to representing the association's interests in various forums and industry events, emphasizing the crucial role of satellite communication in India's technological advancement. His dedication and expertise significantly contribute to the growth and positive transformation of the Indian Satellite Communication Industry.



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<u>Link to</u> <u>Presentation</u> Presenter: **Teresa Zakaria**

Health Emergency Officer, World Health Organization

Dr. Teresa Zakaria is a medical doctor and public health practitioner with over 10 years of experience working in response to humanitarian and public health emergencies. Dr. Zakaria is currently a Health Emergency Officer at WHO's Headquarters, where she provides technical and operational support to WHO country operations in fragile and vulnerable settings. Prior to joining WHO, Dr. Zakaria worked with IOM, where she led the development of technical guidance and tools on mapping population movement as it relates to the potential risk of spread of diseases. Dr. Zakaria is an Indonesian national. She obtained her medical and public health degrees in Indonesia and Australia respectively.

Closing Ceremony



Julien Thöni
Ambassador, Deputy Permanent
Representative to the United
Nations Office in Geneva



Driss El HadaniSenior Adviser, UNOOSA



Stefano Ferretti Lead, EO4Health, ESA



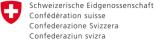
Antoine Geissbuhler Coordinator, Space and Global Health Network



Stephen MacFeely
Director of Data and Analytics,
WHO

Closing Ceremony: Presenters





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Presenter: Julien Thöni

Ambassador, Deputy Permanent Representative to the United Nations Office in Geneva

Since 1 August 2023, Julien Thöni has been Deputy Permanent representative of Switzerland to the United Nations and the other organisations in Geneva and international Permanent Representative of Switzerland to the Conference on Disarmament. Until July 2023, he was Consul General of Switzerland in Istanbul. He joined the diplomatic service in 1998. In 2000, Mr. Thöni served as desk officer for the countries of the Commonwealth of Independent States at the FDFA. Between 2003 and 2007 he was Deputy Head of Mission at the Embassy of Switzerland in Saudi Arabia. In 2007 covered euro-Atlantic and European security in the International Security Division at the FDFA. In 2010, he served as head of section on issues related to disarmament and peace promotion also in Bern. Between 2013 and 2023 he was successively posted in Moscow (economic affairs), in Ramallah as Head of Mission and in Istanbul as Consul General. Mr. Thöni has a degree in International Relations from the Geneva Graduate Institute and a Masters' degree in international conflict analysis from the University of Kent (Canterbury).



Presenter: **Driss El Hadani**

With:

Senior Adviser, United Nations Office for Outer Space Affairs

With 32 years of experience in the development and implementation of programmes and projects within the space sector, Dr Driss El Hadani has spent 28 years as the Director-General of Centre Royal de Télédétection Spatiale (CRTS), contributing immensely to the growth of the organisation, including consolidating the CRTS/Morocco cooperation relations with foreign partners and international organisations such as the European Space Agency (ESA), World Bank, the National Centre for Space Studies (CNES), National Aeronautics and Space Administration (NASA), Indian Space Research Organisation (ISRO), Food and Agriculture Organisation (FAO), The United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), among others.

Driss El Hadani holds a master's degree in applied Space Technology from Pierre et Marie Curie, Paris, France, a Master of Business Administration – Organisation Management, from the Institue Supérieur du Commerce et Administration des Entreprises (ISCAE), Casablanca, Morocco, an engineering degree from Ecole Mohammadia d'Ingénieurs (EMI), University Mohammed V, Rabat, Morocco, and a Bachelor of Law from Faculté de Droit, University Mohammed V, Rabat, Rabat, Morocco.

Closing Ceremony: Presenters

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Presenter: **Stephen MacFeely,**

Director of Data and Analytics, World **Health Organization**

Steve MacFeely is the Director of Data and Analytics at the World Health Organization, based in Geneva, Switzerland and Adjunct Professor at the Centre for Policy Studies at University College Cork in Ireland.

He is co-chair of the Committee of the Chief Statisticians of the UN System (CCS-UN) and of the Committee for the Coordination of Statistical Activities (CCSA), chairs the Advisory Boards of the Statistical Journal of the IAOS, and of the International Statistical Literacy Project (ISLP), and is a member of the statistical advisory panels to both the UNDP Human Development Index and UNCTAD's Productive Capacity Index.

Steve is an elected member of the International Statistics Institute and a member of the IAOS Executive Committee.

Before joining WHO, Steve was Chief Statistician at UNCTAD. Prior to joining the UN, he was the Deputy Director-General at the Central Statistics Office (CSO) in Ireland and Programme Director of the joint CSO - Institute of Public Administration 'Professional Diploma in Official Statistics & Policy Evaluation'.



Presenter: **Stefano Ferretti**

With:

Lead, EO4Health, **European Space Agency**

Stefano Ferretti works in the Science, Applications and Climate Department of the Earth Observation Programmes Directorate at the European Space Agency (ESA), where he also leads the EO4Health activity, in cooperation with key stakeholders such as WHO, WOAH, FAO, ECDC. He co-chaired the Earth Observation Living Planet Symposium 2022, and represented the Agency in various international contexts, in the policy and strategy, space applications and commercialization domains.

As fellow of the European Space Policy Institute (ESPI) he published with Springer two books: "Space for Sustainable Development" and "Space Capacity Building in the XXI century", while conducting space policy research (e.g. space governance, innovation and future space-based services), managing the activities towards UNISPACE+50, and addressing high-level policy aspects across several areas with the European Union. He has an interdisciplinary background in engineering, science and policy, holding a PhD from the University of Bologna, a master from the International Space University and having completed executive programs in innovation, space policy and leadership at MIT and at George Washington University.

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Presenter: **Antoine Geissbuhler**

Coordinator, Space and Global Health Network

Antoine Geissbühler is an internist and specialist in medical informatics. A full professor since 2006, he is also Director of the HUG Innovation Centre and Head of the Division of e-Health and Telemedicine, which has been designed as a WHO collaborating centre. His research focuses on the design and application of new IT tools in the medical field. In particular, he helped implement Switzerland's e-health strategy and developed the RAFT project, a major telemedicine network linking hundreds of healthcare professionals in 20 countries in Africa, Asia and Latin America. Since 2022, he has also been President of BioAlps, the life sciences cluster for Western Switzerland. Antoine Geissbühler, a former vice-dean of the Faculty of Medicine, and is UNIGE's vice-rector in charge of digital strategy and innovation until July 2023. He becomes Dean of the UNIGE Faculty of Medicine on 15 July 2023.

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Satellites for health: academia, public, and private parties unite through telemedicine for enhanced outcomes

Alma Okpalefe World Space Week Association

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From EO to luna

Sara Khan European Space Agency – KBR

Link to poster

Posters



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Space and Global Health Network Platform

Caroline Perrin
Geneva Digital Health Hub

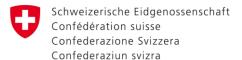
Use of the Geographical Information System (GIS) in epidemiology: Systematic review

Bouati El Arbi The Moroccan Kingdom's Royal Armed Forces Health Service 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

Orbital Overload: Space Debris and its Implications for Global Health

Sophie Goguichvili
The Wilson Center (Woodrow Wilson
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Conference Programme





