



International One Health Conference in Catania, Italy 27-28, September 2022  
*A systemic approach to manage urban and natural resources*

# International One Health Conference

Catania 27-28, September 2022

A systemic approach to manage urban and natural resources



Università  
di Catania



SDSU  
METABOLISM  
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SOCIETÀ ITALIANA DI MEDICINA AMBIENTALE





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## Scientific Program

### Tuesday, September 27, 2022

OPENING CEREMONY Start 9.00am UTC (7.00am UTC)

Domain 1: One health, antimicrobial resistance, and epidemiological models)

Domain 2: One health in transition cities, big data and urban metabolism

Part 1: Building a new environment under a One-Health Vision

Part 2- Nature-based solutions

Domain 3: One health as part of adaptation and human rights

### Wednesday, September 28 2022

DAILY OPENING 9.00 - 10.00 CEST (UTC +2)

Domain 4: One-health vision on environmental hazards, toxicology and epigenetics

CONCLUSIONS OF THE CONFERENCE

POSTER SESSION

STUDENT CONFERENCE AND AWARDS



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September 27th, 2022

## **OPENING CEREMONY Start 9.00am CEST\* (7.00am UTC\*\*)**

**Chairs:** Margherita Ferrante, Gea Oliveri Conti

<b>Opening Keynotes and Speakers</b>
<b>Francesco Priolo</b> - <i>Dean of Università di Catania</i>
<b>Gaetano Sirna</b> - <i>General Director Policlinico di Catania</i>
<b>Maria Neira</b> - <i>Director of Department of Environment, Climate Change and Health WHO</i>
<b>Pasqualino Rossi</b> - <i>Italian Ministry of Health</i>
<b>Ruggero Razza</b> - <i>Assessor of Health Regione Sicilia</i>
<i>Municipality of Catania Representative</i>
<b>Giuseppe Arcidiacono</b> - <i>Assessor of Health Comune di Catania</i>
<b>Ignazio La Mantia</b> - <i>President of Medical Order</i>
<b>Margherita Ferrante</b> - <i>Conference Organizer, Full Professor of General and Applied Hygiene, University of Catania</i>

\*CEST = Central European Summer Time (UTC+2) \*\*UTC = Universal Time Coordinated (GMT)

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## Domain 1: One health, antimicrobial resistance and epidemiological models

Start: 10.30 CEST (UTC+2) End: 12.15 CEST (UTC+2)

### **Domain topics**

- Infection and antimicrobial resistance
- COVID-19 and long COVID-19
- Vector borne diseases
- Epidemiological models and policies

Keynotes and Guests 10.00 CEST (8.00 UTC)

**Antonella Agodi**, *Director of the Department of Medical, Surgical and Advanced Technologies "GF Ingrassia"*



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## Presenters Session

**From 10.30 - 12.00 CEST (UTC+2)**

*Chairs:* Paolo Lauriola, RIMSA

**Margherita Ferrante**, University of Catania

**Antonio Cristaldi**, University of Catania

Time (min)	#	Authors	Title	Track
00:10 00:05 quest	1022	Gea Oliveri Conti	One-health approach in the ecological transition	Domain 1
00:10 00:05 quest	264	Damas Theobald Msaki and Sigrid Agenäs	Promotion of safe food to consumers of Milk and Dairy Products in Kibaha Town Council (Tanzania)	Domain 1
00:10 00:05 quest	5469	Andrea Falco and Prisco Piscitelli	COVID-19 Epidemic spread and Green Areas Italy and Spain between 2020 and 2021: An observational multi-country retrospective study	Domain 1
00:10 00:05 quest	7766	Gabriela Fernandez, Harrison Yang, Carol Maione, Karenina Zaballa, Norbert Bonnici, Jarai Carter, and Ming-Hsiang Tsou	Covid-19 societal effects and perceptions: The case study of Italy	Domain 1
00:10 00:05 quest	8094	Sheilla Chebore, Jedidh Kahura and David Mungai	Antimicrobial resistance surveillance curriculum development One Health approach: A Kenyan experience	Domain 1
00:10 00:05 quest	3255	Erimma Orie	Climate change, sustainable health and Corona Virus disease (COVID-19 pandemic) in Nigeria: The legal issues in perspective	Domain 4

## CONCLUSIONS of the Domain from Chairs - 12.15 - 12.30

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## **Domain 2: One health in transition cities, big data and urban metabolism**

Start: 13.45 CEST (UTC+2) End: 17.00 CEST (UTC+2)

### ***PART 1- Building a new environment under a One-Health Vision***

#### ***Domain topics***

- Net Zero, Decarbonization, and healthy cities
- C40 Network Connection and Ren21
- Big data analytics for epidemiology and environmental monitoring
- Citizen science

**Keynotes and Guests 14.00 CEST (12.00 UTC)**

**Introduction: Prisco Piscitelli**, Vice President of the Italian Society of Environmental Medicine (SIMA)

**Carlos Dora**, *President International Society for Urban Health (ISUH)*

**Mark Nieuwenhuijsen**, Institute for Global Health (ISGlobal)



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## Presenters Session

**From 14.30 to 15.30 CEST (UTC+2)**

Chairs:

**Prisco Piscitelli**, *SIMA*

**Gabriela Fernandez**, *Metabolism of Cities Living Lab, San Diego State University*

Time (min)	#	Authors	Title	Track
00:10 00:05 quest	2683	Antonina Torrisi, Margherita Ferrante, Alessia Anna Di Prima, Domenica Niglio, Fiorella Paderni, Domiziana Giordano and Rosalia Ragusa	BENCHISTA project: Benchmarking of population-based childhood cancer survival by Toronto stage	Domain 2
00:10 00:05 quest	2867	Francisco Guachalla	Embracing the SDG-2030 for Monitoring and Learning in Emergency and Developing Projects	Domain 2
00:10 00:05 quest	3357	Paolo Fidelbo, Rosalia Ragusa, Carmelo Ettore Viscosi, Andrea Benedetto, Eleonora Salamone, Angelo Pisano and Margherita Ferrante	Lean six sigma: application of the methodology in data processing for Cancer Registry	Domain 2
00:10 00:05 quest	6976	Kamran Khan and Thomas Henschel	A Life Cycle Thinking Based Framework for the Assessment of Sustainability: From the Perspective of Literature Review	Domain 2

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## **PART 2- *Nature Based solutions* - 15.30 - 17.00**

### ***Domain Topics:***

- Nature-based solutions (multidimensional approach)
- Air quality and healthier cities
- Metabolism of cities and implications on health

### **Keynotes and Guests 15.30 CEST (13.30 UTC)**

**Ingrid Coetzee**, *Director: Biodiversity, Nature & Health, ICLEI - Local Governments for Sustainability Africa Secretariat & Global Cities Biodiversity Center*

**Francesco Petracchini**, *Director CNR-IIA*





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## Presenters Session

**From 16.00 to 17.00 CEST**

Chairs:

**Stefania Romano**, *ICLEI - Local Governments for Sustainability*

**Gabriela Fernandez**, *Metabolism of Cities Living Lab, San Diego State University*

**Valerio Paolini**, *CNR-IIA*

Time (min)	#	Authors	Title	Track
00:10 00:05 quest	1317	Julia Nawaro, Lorenzo Gianquintieri, Andrea Pagliosa, Alessandra Silvaroli, Giuseppe Maria Sechi and Enrico G. Caiani	Heat waves and cardiovascular events in Milan, Italy: a geospatial case-crossover approach using data from emergency medical services	Domain 2
00:10 00:05 quest	4232	Antonio Cristaldi, Rosalia Pellitteri, Paola Dell'Albani, Gea Oliveri Conti, Chiara Copat, Alfina Grasso, Maria Fiore, Giuseppa Milletari, Sebastiano Cavallaro and Margherita Ferrante	Preliminary data on the effects of PM2,5 on Olfactory Ensheathing Cells (OECs)	Domain 2
00:10 00:05 quest	6976	Kamran Khan and Thomas Henschel	A Life Cycle Thinking Based Framework for the Assessment of Sustainability: From the Perspective of Literature Review	Domain 2

## CONCLUSIONS of The Domain from Chairs

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## Domain 3: One health as part of adaptation and human rights

### **Domain topics**

- Health as a part of adaptation
- Resilient health care systems
- Community health and resilience
- Child and maternal health as element of resilience
- Human rights and health (Vaccine and immunization)
- Health strategies and application for minorities and disadvantaged people
- SDG 3 and related SDGs

Keynotes and Guests - 17.00 CEST (15.00 UTC)

**Giulia Bosi**, *PhD.candidate in Public International Law (PhD. programme in Human Rights and Global Politics)*

**Cristoforo Pomara**, *Full Professor of Forensic Medicine at the University of Catania, SIMA*

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## Presenters Session

**From 17.30 to 19.00 CEST (UTC)**

*Chairs:*

**Melissa Jiménez Gómez Tagle**, *Technical University of Munich (TUM)*

**Maria Grazia Elfio**, *Journalist Biomedicine and Health*

**Graziella Machado**, *Federal University of Health Sciences of Porto Alegre (UFCSA)*

Time (min)	#	Authors	Title	Track
00:10 00:05 quest	3677	Sara Simeone, Severino Romano, Mauro Viccaro, Frans Sijtsma, Maria Consiglia D'Angelo and Mario Cozzi	Understanding the role of nature in urban-rural linkages: identifying the potential role of rural nature-based attractive clusters that serve human well-being	Domain 3
00:10 00:05 quest	9883	Laura Kadile and Marina Loseviča	Healthcare quality indicators as a tool for safeguarding patient with limited capacity and physician rights	Domain 3
00:10 00:05 quest	3841	Rachel Koshy, Nazrila Hairizan Nasir, Samsiah Awang and Kamaliah Mohamad Noh	Primary health care assessment: Vital signs profile for Malaysia	Domain 3
00:10 00:05 quest	7148	Antonietta Alfia Maria Torrisi, Rosalia Ragusa, Carlo Sciacchitano, Antonella Ippolito, Eleonora Irato, Alessia Anna Di Prima, Antonello Marras and Margherita Ferrante	A growing problem: incidence of cancer in foreign citizens residing in the provinces of CT-ME-SR-EN (2003-2017)	Domain 3
00:10 00:05 quest	8168	Elena Alonzo, Carmelo D'Urso, Rosanna La Carrubba, Fabrizia Minciullo, Simona Santa Trillè and Maristella Fardella	Schoolchildren empowerment and resilience through "Active Breaks"	Domain 3

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Time (min)	#	Authors	Title	Track
00:10 00:05 quest	4476	Ioannis Adamopoulos and Niki Syrou	Workplace environment and burn-out in public health workforce inspection services in Greece during COVID-19 pandemic	Domain 4

## **CONCLUSIONS of The Domain from the chairs**



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**DAILY OPENING 9.00 - 10.00 CEST (UTC +2)**

**Chairs:** Margherita Ferrante, Gea Oliveri Conti

Opening Keynotes speakers and institutional guests
<p><b>Alessandra Stefani</b> - Forestry Branch General Manager Ministry of Agricultural and Forestry Policies</p> <p><b>Davide De Laurentis</b> - Deputy Commander of the Forestry Carabinieri</p> <p><b>Giovanni Salerno</b> - Director of the Sicily "Corpo Forestale" Regione Sicilia</p> <p><b>Luca Ferlito</b> - Commander of "Corpo Forestale" Provincia Catania</p>
<p><b>Marina Romanello</b> - The Lancet Countdown</p>
<p><b>Marco Ricceri</b> - EURISPES</p> <p><b>Walter Pollina</b> - DASOE Regione Sicilia</p>
<p><i>One-Health 22 - Partners Associations representatives</i></p> <p><b>Rocco Chiriaco</b> - Movimento Azzurro</p> <p><b>Giovanni Barbagallo</b> - Ecosezione Frigia</p> <p><b>Monica Marchese</b> - Plastic-free</p>
<p>"La Consulta Giovanile di Catania" Council of Youths of Catania - Piersalvo Catania, Giuseppe Melita Youth Students Associations - Simone Scalia</p>

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## **Domain 4: One-health vision on environmental hazards, toxicology and epigenetics**

Start: 10.00 CEST (UTC+2) End: 14.00 CEST (UTC+2)

### **PART 1 - Human effects on environmental hazards**

#### ***Domain topics***

- Toxicology and Microplastic, Dioxins
- Nanotoxicology
- Analysis and monitoring microplastic

Keynotes and Guests h 10.00 CEST (8.00 UTC)

**Antonio Moreda Piñeiro**, *Santiago de Compostela - USC-nanoparticelle metalliche*

**Mohamed Banni**, *University of Sousse - microplastiche*



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## Presenters Session

**From 10.30 to 11.45 CEST**

*Chairs:*

**Carol Maione**, *Politecnico di Milano*

**Gea Oliveri Conti**, *University of Catania*

**Chiara Copat**, *University of Catania*

	#	Authors	Title	Track
00:10 00:05 quest	181	Filippo Vaccari, Leilei Zhang, Gianluca Giuberti, Alfina Grasso, Francesca Bandini, Pascual García-Pérez, Chiara Copat, Luigi Lucini, Margherita Ferrante and Edoardo Puglisi	Exposure to metallic nanoparticles can modulate gut metabolome and microbiome in in-vitro digestion model	Domain 4
00:10 00:05 quest	2097	Chongshan Dai, Shusheng Tang and Zhanhui Wang	Cadmium triggers apoptotic and ferroptotic cell death in human L02 cells by inhibiting ATF-5-mediated mitochondrial unfolded protein response	Domain 4
00:10 00:05 quest	4994	Pauline Owiti, Rahmina Paullete and Miriam Kinuthia	Local Solutions available on Marine Litter and Plastic Pollution in Lake Victoria	Domain 4
00:10 00:05 quest	7061	Ramiro Schiavo	New Diagnosis and Population Monitoring	Domain 4
00:10 00:05 quest	6357	Antonio Carlo Barbera and Rosario Iacono	Emerging evidence on rice ( <i>Oryza sativa</i> L.) irrigated with water contaminated by residual pharmaceutical chemicals	Domain 4
00:10 00:05 quest	4755	Giuseppe De Marco, Margherita Ferrante, Mariachiara Galati, Tiziana Cappello, Gea Oliveri Conti and Maria Maisano	Short-term exposure to polystyrene microplastics (PS-MPs) in marine mussels: does it induce pro-oxidant and neurotoxic effects?	Domain 4

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00:10 00:05 quest	3934	Ioannis Adamopoulos and Niki Syrou	Occupational Hazards Associated with quality and training needs in Public Health Inspectors in Greece	Domain 4
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## **PART 2 - Ecosystemic effects of environmental hazards**

### ***Domain topics***

- Effects on animals and fauna [fish, bovines] (biomagnification, food chain)
- Microplastic accumulation in dunes
- Exposomic
- Epigenomics (epigenetici, rumore città non controllo sul rumore)

Keynotes and Guests 11.45 CEST (9.45 UTC)

**Peter Van Den Hazel**, *ISDE International*

**Alberto Izzotti**, *Full Professor School of Medicine, Universita' di Genova*





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## Presenters Session

**From 12.15 to 14.00 CEST**

*Chairs:*

**Margherita Ferrante**, *University of Catania*

**Paolo Lauriola**, *RIMSA*

**Alfina Grasso**, *University of Catania*

	#	Authors	Title	Track
00:10 00:05 quest	9654	Carol Maione	Standard Operating Procedure for the Analysis of Microplastics in Larval Fish Diets	Domain 4
00:10 00:05 quest	3170	Siwar Abouda, Tiziana Cappello, Mohamed Banni, Maria Maisano, Omayma Missawi, Giuseppe De Marco and Iteb Boughattas	Impact of environmental microplastics and Benzo[a]pyrene on cellular and molecular responses of <i>Hediste diversicolor</i>	Domain 4
00:10 00:05 quest	4559	Francesco Tiralongo, Ioannis Giovos, Maria Violetta Brundo, Nikolaos Doumpas, Sara Ignoto, Zoi Kazlari, Dimitrios Loukovitis, Dimitrios Moutopoulos, Roxani Naasan Aga Spyridopoulou, Athina Papadopoulou, Maria Papapetrou, Alfina Grasso, Margherita Ferrante and Chiara Copat	Potential risks from consumption of fishes: A trace elements study in edible tissue of elasmobranchs from the Aegean Sea	Domain 4
00:10 00:05 quest	6092	Sebahattin Ergun, Arya Vazirzadeh, Murat Yigit, Sevdan Yilmaz, Murat Erdem, Bilge Erdem and Yesim Buyukates	Evaluation of Microplastic in Caged Fish from Turkish and Iranian Waters with Health Risk Assessment for Human Consumers	Domain 4

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00:10 00:05 quest	7717	Tiziana Cappello, Gea Oliveri Conti, Giuseppe De Marco, Margherita Ferrante and Angela Mauceri	Early mechanisms of polystyrene microplastics (PS-MPs) cytotoxicity assessed in marine mussels after short-term exposure	Domain 4
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## CONCLUSIONS OF THE CONFERENCE



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## POSTER SESSION

Poster Session will held into a Virtual Room

#	Authors	Title	Track
415	Zeinabou Maman Noura, Mamane Daou, Laminou Ibrahim Mamane, Maman Bachir Alasan Goni, Haboubacar Maman Manzo, Eric Omar Adéhossi and Boubacar Kaouge	Study of malaria morbi-mortality variation associated to climate change from 2010 to 2019 in Niger	Domain 1
906	Elena Maria Scalisi, Roberta Pecoraro, Antonio Salvaggio, Giuliana Impellizzeri, Maria Violetta Brundo.	Effects of TiO <sub>2</sub> -NPs on Gallus gallus domesticus Chorioallantoic Membrane (CAM)	Domain 4
1460	Paola Rapisarda, Antonio Cristaldi, Claudia Favara, Maria Fiore, Maria Castrogiovanni, Gea Oliveri Conti, Margherita Ferrante and Eloise Pulvirenti	Ecotoxicity analysis on the urban WWTPs water sam-ples for the monitoring of wastewater quality released in sea water	Domain 2
2520	Olajumoke Joseph and Olatunde Dahunsi	Identification of circulating non - SARS – CoV2 coronaviruses: An important tool for prevention and control of future coronavirus disease outbreaks	Domain 1
2808	Martina Contino, Greta Ferruggia, Roberta Pecoraro, Elena Maria Scalisi, Gianfranco Cavallaro, Carmela Bonaccorso, Cosimo Gianluca Fortuna, Antonio Salvaggio, Fabiano Capparrucci, Teresa Bottari and Maria Violetta Brundo	Toxicological effects of Polystyrene nanoplastics on the early life stages of Danio rerio: an in vivo and in silico approach.	Domain 4
3922	Silvia Bonetta, Ileana Federigi, Marina Tesauro, Francesco Bagordo, Sara Bonetta, Michela Consonni, Gea Oliveri Conti, Osvalda De Giglio, Giusy Diella, Margherita Ferrante, Alfina Grasso, Manuela Macrì, Maria Teresa Montagna, Marco Verani and Annalaura Carducci	Antimicrobial resistance in water used for human consumption: a literature review	Domain 1
5013	Gabriela Fernandez, Arash Jahangiri, Sahar Ghanipoor Machiani, Ming-Hsiang Tsou, Bitā Etaati and Christian Mejia	Pedestrian and Bicycle Safety Visualization in Chula Vista, California	Domain 2
5127	Imad Krikech, Eloise Pulvirenti, Gaël Le Pennec, Mohammed Ezziyyani, Gea Oliveri Conti, Margherita Ferrante and Tiziana Cappello	Occurrence and distribution of microplastics (≤ 10 µm) in marine sponges from the southern Mediterranean coasts	Domain 4
5872	Claudia Favara, Gea Oliveri Conti, Eloise Pulvirenti, Antonio Cristaldi, Chiara Copat, Alfina Grasso, Paola Rapisarda, Maria Castrogiovanni, Mimmo Scollo, Luciano Falqui and Margherita Ferrante	The ShazzAn project for the One Health approach implementation through the biochemical decarbonization.	Domain 2

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7216	Hongrui Zhao, Ileana Federigi, Marco Verani and Annalaura Carducci	Emerging organic pollutants adsorbed to plastic debris in marine environment: a systematic review of analytical methods, occurrence, and characteristics	Domain 4
7897	Xiaonan Wang, Kai Wen and Zhanhui Wang	Preparation of a broad-specificity monoclonal antibody for Aristolochic acids and development of Indirect competitive enzyme-linked immunosorbent assay in flour and soil samples	Domain 4
9357	Marina Tesauro, Michela Consonni, Giovanni Lodi and Roberto Mattina	Antibiotic resistance in <i>Pseudomonas aeruginosa</i> and <i>Pseudomonas</i> spp. in dental unit water (POSTER)	Domain 1



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## STUDENT CONFERENCE AND AWARDS

h16.00 CEST (UTC+2) aula 1 comparto 10 - Via S. Sofia, 87, 95123 Catania CT

Time	Topic
16.00 CEST (UTC+2)	Introduction
16.15 CEST (UTC+2)	Presentation of the Students associations
16.45 CEST (UTC+2)	The youth council "Consulta dei Giovani" of Catania
17.00 CEST (UTC+2)	A call for strengthening climate change education for all health professionals
17.15 CEST (UTC+2)	One-Health World Cafe Session
18.30 CEST (UTC+2)	Awards Best Paper and Poster

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## Organizing Partners



## Supporting Partners

