



3° INF-ACT ANNUAL MEETING 2025 | 17-20 November 2025

Centro Congressi Roma Eventi Piazza di Spagna, Rome, Italy

PROGRAM

DAY 1	17.11.2025
13:30	Registration
14:30-15:30	Welcome and Opening
	<i>Prof. Andrea Lenzi (National Research Council)</i> <i>Prof. Anna Teresa Palamara (Italian National Institute of Health)</i> <i>Prof. Fausto Baldanti (University of Pavia)</i> <i>Prof. Federico Forneris (Fondazione INF-ACT)</i>
15:50 – 16:15	The INF-ACT Extended partnership: past, present and future
	<i>Fausto Baldanti (University of Pavia), Federico Forneris (Fondazione INF-ACT)</i>
16:15 – 17:00	Keynote Lecture Ageing and Non-Communicable Disease Risk: What Does HIV Have To Do With This?
	<i>Peter Reiss (Amsterdam UMC, The Netherlands)</i>
17:00 – 19:00	Welcome drink and networking
DAY 2	18.11.2025
8:30	Registration
9:00 – 13:30	<i>Sessione Istituzionale per la Giornata Mondiale sull'Antimicrobico Resistenza</i> <i>“La Resistenza agli Antimicrobici: dalla sorveglianza alla ricerca”</i> <i>(sessione in ITALIANO)</i> <i>Moderatori: Anna Teresa Palamara (Istituto Superiore di Sanità), Federico Forneris (Fondazione INF-ACT), Stefania Stefani (Università di Catania)</i>
9:00 – 10:00	Apertura lavori e saluti istituzionali <i>Ministro della Salute On. Prof. Orazio Schillaci</i> <i>Presidente dell'Istituto Superiore di Sanità Prof. Rocco Bellantone</i> <i>Direttore Generale dell'Istituto Superiore di Sanità Dr. Andrea Piccioli</i>
10:00 – 10:25	Le iniziative dell'ISS nel quadro del controllo e prevenzione delle infezioni <i>Fortunato “Paolo” D'Ancona (Istituto Superiore di Sanità)</i>
10:25 – 10:50	Presente e futuro delle sorveglianze nazionali dell'antibiotico-resistenza <i>Monica Monaco (Istituto Superiore di Sanità)</i>
10:50 – 11:00	Discussione
11:00 – 12:30	Coffee break
11:30 – 13:00	Tavola Rotonda Istituzionale con Rappresentanti del Ministero e delle Regioni

Tema: Riflessioni e spunti per il futuro PNCAR

Chair: Anna Caraglia (Ministero della Salute), Giuseppe Gambale (Ministero della Salute), Anna Teresa Palamara (Istituto Superiore di Sanità)

Relatori:

Giovanna Laurendi (Ministero della Salute)
Elena Vecchi (Regione Emilia Romagna)
Armando Magrelli (AIFA)
Giuseppe Guaglianone (FOFI)
Florigio Lista (Istituto di Scienze Biomediche della Difesa)
Velia Bruno (ISS)
Luca Lucentini (ISS)
Massimo Andreoni (SIMIT)
Giovanni Delogu (SIM)
Giancarlo Ripabelli (SIMPIOS)
Alessandro Rossi (SIMG)
Simone Ambretti (AMCLI)
Antonia Ricci (IZS Venezia)

Discussione

13:00 – 13:30	Comunicazioni brevi selezionate dagli abstract presentati al meeting INF-ACT
13:00 – 13:10	Italy's progress towards the objectives of the National action plan to contrast antimicrobial resistance: baseline assessment and validation of a standardized tool <i>Costanza Vicentini (Università di Torino)</i>
13:10 – 13:20	Addressing the economic burden of Antibiotic Resistance: an alternative Budget Impact Analysis (BIA) approach for High-Cost Reserve Antibiotics (HCR-ABX) in a University Hospital setting <i>Lorenzo Martellone (Università di Roma La Sapienza)</i>
13:20 – 13:30	Discussione
13:30 – 14:30	Lunch
14:30- 16:00	INF-ACT Session I: Antimicrobial resistance <i>Chair : Stefania Stefani (University of Catania), Cecilia Bonazzetti (University of Bologna)</i>
14:30 – 14:40	Introduction by chair
14:40 – 15:00	AI and predictions in AMR, from diagnosis to clinic <i>Maddalena Giannella (University of Bologna)</i>
15:00 – 15:20	Genome databases, pathogenic lineages and mobile genetic elements associated to antimicrobial resistance <i>Francesco Santoro (University of Siena)</i>
15:20 – 15:40	AntiTOP device: a hyaluronic acid-based hi-tech patch for chronic wound infection <i>Anna Piperno (University of Messina)</i>
15:40 – 15:50	Effectiveness of interventions to reduce MRSA carriage in a pediatric hospital <i>Alfredo De Bellis (Fondazione Bruno Kessler)</i>

15:50 16:00 **Temporal trend and individual and hospital characteristics associated to vancomycin-resistant *Enterococcus faecium* bloodstream infections: a retrospective analysis from the national surveillance system, Italy 2015–2023**
Chiara Sacco (Italian National Institute of Health)

16:00 – 17:00 Coffee break and poster session (P001-P070)

17:00- 18:30 INF-ACT Session I: Antimicrobial resistance

Chair: Claudio Maria Mastroianni (La Sapienza University of Rome), Roberta Migliavacca (University of Pavia)

17:00 – 17:10 **Introduction by chair**

17:10 – 17:30 **Molecular and Microbiological Surveillance of Antimicrobial Resistance in Italian Wastewater Treatment Plants within a One Health Framework**

Giuseppina La Rosa (Italian National Institute of Health)

17:30 – 17:50 **Host-species specific disease potential of *Klebsiella pneumoniae* in swine and humans driven by toxicity to splenic macrophages**

Marco R Oggioni (University of Bologna)

17:50 – 18:10 **Beyond Susceptibility: a Unified, One-Health Real-World Diagnostic Strategy against AMR**

Maurizio Sanguinetti (Università Cattolica del Sacro Cuore)

18:10 – 18:20 **Unveiling the Role of Sex as a predictor for KPC-*Klebsiella pneumoniae* and Carbapenem-resistant *Acinetobacter baumannii* Bacteremia in Critically Ill Colonized Patients**

Luca Busani (Italian National Institute of Health)

18:20 – 18:30 **Designing novel *Pseudomonas aeruginosa* probes for ECL-based Infectious Pathogen (bio)sensors**

Raul Cetatean (University of Bologna)

DAY 3 19.11.2025

8:00 Registration

8:30 – 10:35 INF-ACT Session II - Emerging and re-emerging Viruses

Chair – Fausto Baldanti (University of Pavia), Eliana Coccia (Italian National Institute of Health)

8:30 -8:40 **Introduction by chair**

8:40 – 9:25 **Keynote Lecture | Imaging of viruses and virus-infected cells: a tool for anti-viral strategies**

Jacomina Krijnse Locker | Paul-Ehrlich-Institut

9:25 – 9:45 **A standardized in-silico approach to uncover Evolutionary and Mutational Relationships in viral genomes: a SARS-CoV-2 use case**

Bachir Balech (National Research Council)

9:45 – 10:05 **The role of interferons in adaptive humoral immune responses to SARS-CoV-2**

Mirela Kuka (Vita-Salute San Raffaele University)

10:05– 10:15 **Beyond Conventional Diagnostics: The Impact of Early mNGS in Managing Complex Infectious Diseases**

Rossana Scutari (IRCCS Bambino Gesù Children's Hospital)

10:15 – 10:25 **Determinants of Respiratory Syncytial Virus (RSV) infection severity: new insights from in vitro and in vivo models**

Matteo Fracella (La Sapienza University of Rome)

10:25 – 10:35 **Identification of Early Signals Before the First Autochthonous COVID-19 Case in Italy: Analysis of Pneumonia Hospitalizations Between 2014 and 2020**

Daniele Petrone (Italian National Institute of Health)

10:35 – 11:30 **Coffee break and poster session (P071 – P149, even numbers)**

11:30 – 13:00 **INF-ACT Session II - Emerging and re-emerging Viruses**

Chair – Guido Antonelli (La Sapienza University of Rome), Paola Stefanelli (Italian National Institute of Health)

11:30 – 11:40 **Introduction by chair**

11:40 – 12:00 **Enterovirus D68 in wastewater: an early warning of community circulation**

Elena Pariani (University of Milan)

12:00 – 12:20 **Virus-induced redox modulation highlights Nrf2 as key host factor regulating viral replication and inflammatory response across airway compartments**

Marta De Angelis (La Sapienza University of Rome)

12:20 – 12:40 **Investigation of bocaparvoviruses in domestic cats in Italy**

Georgia Diakoudi (University of Bari)

12:40 – 12:50 **Identifying global hotspots of high-priority viral zoonoses to guide spillover risk monitoring**

Andrea Tonelli (La Sapienza University of Rome)

12:50 – 13:00 **From Viruses to Pollutants: Advanced MIP- and Biomolecule-Based SPR-POF Platforms for Multiparametric Sensing and One Health Diagnostics**

Raoul Fioravanti (Italian National Institute of Health)

13:00 -13:30 **Fabrizio Cobis, Ministry of Research and University**

13:30 – 14:30 **Lunch**

14:30 – 16:00 **INF-ACT Session III - Arthropod vectors and vector-borne diseases**

Chair – Alessandra Della Torre (La Sapienza University of Rome), Giorgio Guzzetta (Fondazione Bruno Kessler)

14:30 – 14:40 **Intro by chair**

14:40 – 15:00 **Fever of Unknown Origin (FUO) in Italy: Epidemiological Analysis, Diagnostic Strategies, and the Potential Role of Arboviruses**

Alessandra Mistral De Pascali (University of Bologna)

15:00 – 15:20 **Mosquito-borne arbovirus epidemiology, surveillance and entomological evidence: key results and collaborative achievements**

Mattia Manica (Fondazione Bruno Kessler)

15:20 – 15:40 **Variability of the interferon response in the pathogenesis of emerging arboviruses**

Federica Frasca (La Sapienza University of Rome)

15:40 – 15:50 **Serological testing to Flavivirus diagnosis in paucisymptomatic patients**

Josè Camilla Sammartino (University of Pavia)

15:50 16:00 **Spatiotemporal dynamics of West Nile virus diffusion in Italy: a Bayesian phylogeographic approach**
Luca Tassoni (IZS Venezia)

16:00 – 17:00 Coffee break and poster session (P071 – P149, odd numbers)

17:00- 18:30 INF-ACT Session III: Arthropod vectors and vector-borne diseases
Chair – Ignazio Castagliuolo (University of Padua), Sara Epis (University of Milan)

17:00 – 17:10 **Introduction by chair**

17:10 – 17:30 **Four genomes in one tick: towards an integrated approach for population genomics of Ixodes Ricinus**
Davide Sassera (University of Pavia)

17:30 – 17:50 **Unveiling the Ixodes ricinus microbiota across the Veneto region through an optimized Nanopore full-length 16S sequencing protocol**
Enrico Lavezzo (University of Padova)

17:50 – 18:10 **A Transdisciplinary framework for eco-friendly and community-based vector management: the STOPTIGRE experience on the Mediterranean island of Procida**
Marco Salvemini (University of Naples – Federico II)

18:10 – 18:20 **Novel experimental approaches to investigate the interaction of Leishmania parasites with the mammalian host**
Ilaria Varotto Boccazzi (University of Milan)

18:20 – 18:30 **Investigation on pyrethroid resistance mechanisms in main Italian arboviral disease vectors, Culex pipiens and Aedes albopictus**
Verena Pichler (Unicamillus - Saint Camillus International University of Health Science - La Sapienza University of Rome)

DAY 4 20.11.2025

8:00 Registration

8:30 – 10:00 INF-ACT Session IV – Innovation, Research Network and Infrastructure
Chair : Anna Teresa Palamara (Italian National Institute of Health), Vittorio Sambri (University of Bologna)

8:30 -8:40 **Introduction by chair**

8:40 – 9:00 **From novel resources and infrastructures within RN2 to a wider and permanent network on Arthropods and arthropod-borne diseases"**
Alessandra della Torre (La Sapienza University of Rome)

9:00 – 9:15 **Artificial Intelligence for entomological research/surveillance on mosquitoes including vectors of transmission borne pathogens: the MOSAICO project**
Noemi Sarleti (Italian National Institute of Health)

9:15 -9:30 **Severe infections and sepsis network for identification of clinical and diagnostic markers, immunological monitoring and therapies: preliminary data from the SIS-NET ICU study**
Giulia Catalisano (University of Palermo)

9:30 – 9:45 **Integrating Behavioural Insights into Public Health Surveillance: the Behavemod platform**
Virginia Casigliani (University of Pisa)



9:45 -10:00	Impact of specific Pathogens, Age, Comorbidities, and Coinfections on the Severity of Viral Respiratory Infections: A Comprehensive Analysis from the Pediatric INF-ACT Network <i>Cristina Moracas (University of Naples – Federico II)</i>
10:00 – 11:00	Coffee break and poster session (P150 – P221)
11:00 -12:10	INF-ACT Session IV – Innovation, Research Network and Infrastructure <i>Chair: Vincenzo Summa (University of Naples -Federico II), Alessandro Giuffrè (National Research Council)</i>
11:00 – 11:10	Introduction by chair
11:10 – 11:30	A single cell transcriptomics platform to select therapeutic monoclonal antibodies against emerging pathogens <i>Renata Grifantini (INGM)</i>
11:30 – 11:40	A biomimetic model combining 3D muscle-like tissue, stromal and immune cells for recapitulating the rapid immune signature predictive of mRNA vaccine immunogenicity <i>Marilena Paola Etna (Italian National Institute of Health)</i>
11:40-11:50	Phenotypic characterization of emerging neurotropic viruses using embryonic stem cell-derived neuronal cells and brain organoids <i>Stefania Vogiatzis (University of Padova)</i>
11:50 – 12:00	Comprehensive PBMC Transcriptomic Analysis Reveals Profound SARS-CoV-2–Driven Remodelling of Immune Gene Expression and HERV Activation <i>Marta Maria Cara (University of Cagliari)</i>
12:00 – 12:10	PHAGe therapy cOmbined with CutiMED Sorbact for the treatment of infected skin ulcers: an epidemiological and in vitro study <i>Matteo Passerini (University of Milan)</i>
12:10 – 12:20	Science Communicator Award “Prof. Carlo De Bac” <i>Award Committee: Maria Emilia Bonaccorso, Margherita De Bac, Pier David Malloni, Mirella Taranto</i>
12:20 – 12:30	Wrap up and conclusion
12:30– 14:00	Light lunch and departure
12:30 -13:00	Board Meeting (restricted meeting INF-ACT Board and International Scientific reviewers)

BEST SCIENCE COMMUNICATOR AWARD “Prof. CARLO DE BAC”

The **Best Science Communicator Award in Memory of Prof. Carlo De Bac** celebrates excellence in the art of making science accessible, engaging, and meaningful to society. In remembering Prof. De Bac's remarkable contribution to public health and scientific culture, the award aims to uphold the values he championed: intellectual integrity, compassionate communication, and the belief that knowledge shared openly is a powerful force for collective well-being.

The award will be assigned to the best poster presented during the 3° INF-ACT Annual Meeting with the aim to celebrate the ability to “communicate science with precision, transparency, and a spirit of sharing” principles that Prof. De Bac instilled in generations of students, researchers, and colleagues.

Award Committee

Emilia Bonaccorso, Margherita De Bac, Pier David Malloni, Mirella Taranto



Professor Carlo De Bac (1928 - 2024) was an eminent figure in the Italian medical and academic landscape, recognized for his contributions in the field of infectious diseases. He was Professor Emeritus of Infectious Diseases at the “Sapienza” University of Rome, where he dedicated his career to teaching and research. In addition to his academic activity, he was active on the clinical front, collaborating with prestigious institutions such as the “Lazzaro Spallanzani” National Institute for Infectious Diseases in Rome. Author of numerous scientific publications and textbooks, including “Infectious diseases of temperate and tropical zones” (Malattie infettive delle zone temperate e tropicali), Prof. De Bac trained generations of doctors.

His contributions to medicine and the nation earned him the honor of Commander of the Order of Merit of the Italian Republic (Commendatore Ordine al Merito della Repubblica Italiana). He passed away in October 2024 at the age of 96, leaving a lasting legacy in the field of Italian infectiology medicine.

3° INF ACT ANNUAL MEETING SCIENTIFIC COMMITTEE

Sergio Abrignani (University of Milan), **Guido Antonelli** (Sapienza University of Rome), **Fausto Baldanti** (University of Pavia), **Claudio Bandi** (University of Milan), **Cecilia Bonazzetti** (University of Bologna), **Dafne Bongiorno** (University of Catania), **Giuseppe Campiani** (University of Siena), **Ignazio Castagliuolo** (University of Padua), **Valeria Cento** (Humanitas University), **Nicola Clementi** (San Raffaele University), **Eliana Coccia** (National Health Institute), **Alessandra Della Torre** (Sapienza University of Rome), **Sara Epis** (University of Milan), **Cecilia Garlanda** (Humanitas University), **Sandra Gemma** (University of Siena), **Alessandro Giuffrè** (National Research Center), **Giorgio Guzzetta** (Foundation Bruno Kessler), **Federica Marasca** (National Institute of Molecular Genetics), **Claudio Maria Mastroianni** (Sapienza University of Rome), **Stefano Merler** (Foundation Bruno Kessler), **Valeria Napolitano** (National Research Center), **Anna Teresa Palamara** (National Health Institute), **Antonia Ricci** (Istituto Zooprofilattico Sperimentale delle Venezie), **Vittorio Sambri** (University of Bologna), **Martina Severa** (National Health Institute), **Stefania Stefani** (University of Catania), **Vincenzo Summa** (University of Naples Federico II), **Giulietta Venturi** (National Health Institute), **Pierluigi Viale** (University of Bologna).

3° INF ACT ANNUAL MEETING ORGANIZING COMMITTEE

Federico Forneris (Foundation INF-ACT), **Anna Teresa Palamara** (National Health Institute), **Alessia Caratelli** (National Health Institute), **Giorgia Napolitani** (National Health Institute), **Federica Zacchini** (Foundation INF-ACT)

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