The 9th International Conference on Legionella
Rome, 26th - 30th September 2017

Auditorium Antonianum
Viale Manzoni, 1 - 00185
ROME

INFO@LEGIONELLA2017.COM • WWW.LEGIONELLA2017.COM
With the Patronages of
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Dear Participants,

It is our pleasure to welcome you to the 9th International Conference on Legionella in Rome, Italy, from the 26th to 30th of September 2017.

This year we will celebrate forty years since Legionella pneumophila was identified, after the first outbreak of Legionnaires’ disease in Philadelphia in 1976.

Since then, we have learnt a lot about these bacteria, we have improved our capability to conduct appropriate epidemiological investigations, and thanks to geographical information analysis and typing methods, we are now able to better identify the source of infection.

We also have recognised the importance of appropriate risk assessment on water systems in order to rapidly apply the best control measures and adopt different disinfection procedures, being aware that there is not a single recipe. In fact, every situation must be thoroughly studied and every intervention must be tailored.

Knowledge on ecological niches of Legionella has been expanded. Moreover, the recent DNA sequencing technologies to monitor microbial population in water systems appear to be quite promising for a better understanding of behaviours devised by this intriguing bacterium to survive in the environment.

Regarding diagnostic methods, the introduction of urinary antigen detection has given a boost in detecting cases, but the development and validation of other fast and accurate molecular methods are needed.

The number of identified species is increasing day by day, and in addition to traditional procedures, integrated multi “omics” technologies help to clarify the molecular basis of pathogenesis and evolution of most of these species. However, a better understanding of the interaction between the bacterium and the host, with special reference to the population at risk, would be desirable.

We consider this International Conference a great opportunity to define state of the art about all the aspects concerning Legionella spp., and we do hope that new ideas for future researches and collaborative studies in this field will arise.

We warmly welcome you to Rome, the “Eternal” city. Here, the ancient Romans laid the foundations of their empire, leaving spectacular signs in culture, architecture, city planning, politics and laws, which survived to present day, leaving people coming from all over the world astonished.

The Local Organising Committee is willing to offer you the best hospitality in terms of location, accommodation and, last but not least, good food and the opportunity to choose among a number of guided trips in Rome and surroundings for you and your accompanying persons.

On behalf of the Conference organisers we sincerely welcome you to the 9th International Conference on Legionella 2017.

Paola Borella and Maria Luisa Ricci
Chairs, Legionella 2017
ORGANIZING COMMITTEE

Ashbolt Nicholas
University of Alberta, Alberta, Canada

Brandsema Petra
Centre for Infectious Disease Control, National Institute for Public health and the Environment, RIVM, Bilthoven, The Netherlands

De Jong Birgitta
European Centre for Disease Prevention and Control, Stockholm, Sweden

Exner Martin
Institute for Hygiene and Public Health, University of Bonn, Bonn, Germany

Gaia Valeria
Swiss National Reference Centre for Legionella, Bellinzona, Switzerland

Hartland Elizabeth
University of Melbourne, Melbourne, Australia

Jarraud Sophie
National Reference Centre of Legionella, Lyon, France

SCIENTIFIC COMMITTEE

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University of Alberta, Alberta, Canada

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Kura Fumiaki
National Institute of Infectious Diseases, Tokyo, Japan

Lin Yusen Eason
National Kaohsiung Normal University, Kaohsiung City, Taiwan

Moran-Gilad Jacob
National Microbiology Focal Point & Head of Microbiology Cooperation, Jerusalem, Israel

Pelaz Antolin Carmen
Institute of Health Carlos III, Majadahonda, Madrid, Spain

Roy Craig
Yale University of Medicine, New Haven, USA

Stout E. Janet
Special Pathogens Laboratory, Pittsburgh, USA

Uldum Søren Anker
Statens Serum Institut, Copenhagen, Denmark

Zamboni Dario Simões
University of São Paulo, São Paulo, Brazil

SCIENTIFIC COMMITTEE

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University of Alberta, Alberta, Canada

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Special Pathogens Laboratory, Pittsburgh, USA

Uldum Søren Anker
Statens Serum Institut, Copenhagen, Denmark

Zamboni Dario Simões
University of São Paulo, São Paulo, Brazil

INVITED SPEAKERS

Berjeaud Jean-Marc
University of Poitiers, Poitiers, France

Buchrieser Carmen
Institut Pasteur, Paris, France

Cooley Laura
CDC’s National Center for Immunization and Respiratory Diseases, Atlanta, USA

Edelstein Paul Herbert
University of Pennsylvania, Philadelphia, USA

Hadjichristodoulou Christos
University of Thessaly, Larissa, Greece

Hilbi Hubert
Institute of Medical Microbiology, University of Zurich, Zurich, Switzerland

Lee Susanne
Director Leegionella Ltd, United Kingdom

Palusinska-Szysz Marta
Maria Curie-Sklodowska University, Lublin, Poland

Pruden Amy
Virginia Tech, Blacksburg, USA

ORBANED COMMITTEE

Boccia Stefania
Cattolica del Sacro Cuore University, Fondazione Policlinico ‘Agostino Gemelli’ Rome, Italy

De Giusti Maria
Sapienza University, Rome, Italy

Mansi Antonella
Occupational and Environmental Medicine, INAIL, Rome, Italy

Marchesi Isabella
University of Modena and Reggio Emilia, Modena, Italy

Paduano Stefania
University of Modena and Reggio Emilia, Modena, Italy

Rota Maria Cristina
National Health Institute, Rome, Italy

Scaturro Maria
National Health Institute, Rome, Italy

Visca Paolo
Roma III University, Rome, Italy
SOCIAL EVENTS

WELCOME COCKTAIL AT THE “STITUTO NAZIONALE DI STUDI ROMANI”

The Welcome Cocktail will be held on 26th of September, from 7.30 p.m. to 9 p.m., at The Institut degli Studi Romani. The institute has its location in the former convent of Saints Bonifacio and Alessio, at the top of the hill Aventino, one of the most impressive hills of Rome. The walk (about 2.7 km), that divides the Auditorium Antonianum from the Cocktail venue, shows a view of the best monuments of the Eternal city. It begins from the Colosseum, it runs along the Palatine Hill to finally reach the Circus Maximus. Therefore, the journey from the Conference venue to the Institut degli Studi Romani offers a precious and unique opportunity to immerse yourself in Roman history.

The Institut degli Studi Romani is in Piazza dei Cavalieri di Malta, 2, 00153 Rome.

http://www.studiromani.it/html/sede.htm

GUIDED TOUR AT “VILLA DEI QUINTILI” AND GALA DINNER AT “VILLA DINO”

On September 28th at 6.30 pm it will be held a guided tour of Villa dei Quintili and afterwards the Gala Dinner at Villa Dino. Villa Dino, set within one of the most important archaeological parks in the world, including Villa dei Quintili and the Seneca Mausoleum, is among the largest and most prestigious villa of Rome. Embellished with a huge park, enriched with palm, olive and lemon trees and ancient monuments, Villa Dino offers a reality out of the ordinary.

Villa dei Quintili is in Via Appia Nuova 1092, 00178 Roma
Villa Dino is in Via Appia Antica 249/B, 00178 Roma.
TUESDAY, SEPTEMBER 26TH, 2017

13:00-19:00  Registration and exhibition
16:15-17:00  Welcome address and conference opening  
Paola Borella, Maria Luisa Ricci  
Chairs, Legionella 2017 Organizing Committee
17:00-18:30  SESSION 1 - GLOBAL TREND OF LEGIONNAIRES’ DISEASE  
Chairs: Valeria Gaia, Giovanni Rezza
17:00-17:45  Legionnaires’ Disease, a Brief History  
Paul H. Edelstein  
University of Pennsylvania, Philadelphia, USA  
Lectio Magistralis
17:45-18:05  Legionnaires’ Disease from a European Perspective  
Birgitta De Jong (Invited speaker)  
European Centre for Disease Prevention and Control, Stockholm, Sweden
18:05-18:30  A Watershed Moment: The Increasing Challenge of Legionnaires’ Disease in the United States  
Laura A. Cooley (Invited speaker)  
Center for Disease Control, Atlanta, USA
19:30-21:00  Welcome Cocktail at the “Istituto Nazionale di Studi Romani”  
http://www.studiromani.it/html/sede.htm

WEDNESDAY, SEPTEMBER 27TH, 2017

08:30-10:30  SESSION 2 - PATHOGENESIS, IMMUNOLOGY AND HOST CELL INTERACTIONS  
Chairs: Carmen Buchrieser, Dario S. Zamboni
08:30-09:00  Modulation of Membrane Dynamics and Cell Migration by Legionella  
Hubert Hilbi (Invited speaker)  
University of Zurich, Zurich, Switzerland
09:00-09:30  A New Approach to Identify Legionella pneumophila Effector Mutants with Distinct Virulence Phenotypes  
Craig Roy (Invited speaker)  
Yale University of Medicine, New Haven, USA
09:30-09:45  The Dot/Icm Type IV Secretion System Effector LtpM Defines a New Family of Modular Glycosyltransferases  
Gunnar Neels Schroeder  
Queen’s University Belfast, Belfast, Northern Ireland
09:45-10:00  New Insights Into the Legionella Type 1 Secretion System  
Hussein Kanaan  
University of Lyon, Lyon, France
10:00-10:15  Legionella pneumophila Modulates Mitochondrial Dynamics To Trigger Metabolic Repurposing of Infected Macrophages  
Pedro Escoll  
Institute Pasteur, Paris, France
10:15-10:30  Manipulation of Host Metabolism by Legionella pneumophila Effectors that Activate and Inhibit mTORC1  
Justin A. De Leon  
University of California, Berkeley, USA
10:30-11:00  Coffee Break
SESSION 2 - PATHOGENESIS, IMMUNOLOGY AND HOST CELL INTERACTION (CONTINUED)

Chairs: Craig Roy, Carmen Buchrieser

11:00-11:30 Recognition of *Legionella* by Intracellular Receptors in Macrophages
*Dario S. Zamboni (Invited speaker)*
University of São Paulo, São Paulo, Brazil

11:30-12:00 The Role of Lipids in *Legionella*-Host Interaction
*Marta Palusinska-Szysz (Invited speaker)*
Maria Curie-Sklodowska University, Lublin, Poland

12:00-12:15 ER Remodeling by the Large GTPase Atlastin (Sey1/Atl3) Promotes Vacuolar Growth of *Legionella pneumophila*
*Bernhard Steiner*
University of Zurich, Zurich, Switzerland

12:15-12:30 SnpL, a Nucleomodulin Effector Protein of *Legionella pneumophila* Targets Host Transcription Elongation Machinery
*Shivani Pasricha*
University of Melbourne, Melbourne, Australia

12:30-12:45 Structural Insights Into *Legionella* RidL-Vps29 Retromer Subunit Interaction Reveal Displacement of the Regulator TBC1D5
*Kevin Bärlocher*
University of Zurich, Zurich, Switzerland

12:45-13:00 When Life Gives You Lemons in the Form of Oxidants…: A Peek Into the Molecular Underpinnings of How *Legionella* Copes with Oxidative Stress in Water
*Nissanka Mendis*
McGill University, Montreal, Canada

13:00-14:00 Lunch

14:00-15:30 POSTER SESSION 1 - ROOMS EXHIBITION AREA
● PATHOGENESIS AND IMMUNOLOGY ● GENETICS AND GENOMICS

15:30-16:45 SESSION 3 - GENETICS AND GENOMICS
Chairs: Hubert Hilbi, Sophie Jarraud

15:30-16:00 Molecular Mimicry of Eukaryotic Proteins, a Main Virulence Strategy of *Legionella*
*Carmen Buchrieser (Invited speaker)*
Institute Pasteur, Paris, France

16:00-16:15 Retroelement-Guided Protein Diversification in *Legionella pneumophila*
*Diego Arambula*
University of California, Los Angeles, USA

16:15-16:30 Genetics of Widely Distributed Natural Transformability in *Legionella pneumophila* Clinical Isolates
*Pierre-Alexandre Juan*
INSERM, Lyon, France

16:30-16:45 Evolution of Host-Adaptation in the Bacterial Order *Legionellales*
*Eric Hugson*
Uppsala University, Uppsala, Sweden

16:45-17:15 Coffee Break
SESSION 3 - GENETICS AND GENOMICS (CONTINUED)
Chairs: Jacob Moran-Gilad, Christopher Ginevra

17:15-17:30 Genomic Evolutionary History of Legionnaires’ Disease in Scotland
Bryan Wee
University of Edinburgh, Edinburgh, United Kingdom

17:30-17:45 The Legionella Genus Genome: a Global View of the Genus Evolution
Laura Gomez-Valero
Institute Pasteur, Paris, France

17:45-18:00 Whole Genome Sequence Analysis of the Legionella pneumophila Population Within the Water System of a Large Occupational Building
Vicky Chalker
Public Health England, London, United Kingdom

THURSDAY, SEPTEMBER 28TH, 2017

SESSION 4 - CLINICAL ASPECTS, TREATMENT, ROUTE OF EXPOSURE AND HOST RELATIONSHIP
Chairs: Laura A. Cooley, Carmen Pelaz Antolin

08:15-08:45 Clinical Characteristics of Legionella Infection
Paul H. Edelstein (invited speaker)
University of Pennsylvania, Philadelphia, USA

08:45-09:00 Route of Exposure to Aerosol and Legionnaires’ Disease or Pontiac Fever
Richard Bentham
Flinders University, Adelaide, Australia

09:00-09:15 Legionella Aerosols from Shower to an Ex Vivo Human-Porcine Respiratory Model
Severine Allegra
University of Lyon, Lyon, France

09:15-09:30 The Trans-Translation Inhibitor KKL-35 Exhibits Potent Antibiotic Activity Against Legionella Species
Romain Brunel
University Lyon, Lyon, France

09:30-10:00 Coffee Break

SESSION 5 - DIAGNOSIS AND TYPING
Chairs: Søren Anker Uldum, Christian Luck

10:00-10:30 Diagnosis and Legionella Typing of Atypical Forms of Legionellosis
Sophie Jarraud (invited speaker)
National Reference Centre of Legionella, Lyon, France

10:30-11:00 The Future of Legionella Typing in the Genomics Era
Jacob Moran-Gilad (invited speaker)
National Microbiology Focal Point & Head of Microbiology Cooperation, Jerusalem, Israel

11:00-11:15 LegioTyper: a Fully Automated and Rapid Detection Method for Serotyping of Legionella pneumophila
Anne Gründel
Dresden University of Technology, Dresden, Germany

11:15-11:30 The Average Nucleotide Identity Index is a Taxonomic Tool That Can Also Be Useful for Determining the Epidemiological Relationship Between Legionella pneumophila Genomes
Maria Jose Figueras
University Rovira i Virgili, Reus, Spain
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<th>Time</th>
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| 11:30-11:45  | Utility of Rapid Techniques in the Legionnaires’ Disease Outbreak in Manzanares, Spain, December 2015-February 2016  
Juan Carlos Montero  
Regional Public Health Laboratory - Health Sciences Institute Talavera de la Reina, Spain |
| 11:45-12:00  | Could Legionnaires’ Disease diagnosis Criteria Be Improved?  
Evidence from Two Independent Real Time PCR Assays  
Maria Scaturro  
Italian National Institute of Health Rome, Rome, Italy |
| 12:00-13:00  | SPONSORED SESSION-IDEXX                                                  |
| 13:00-14:00  | Lunch                                                                   |
| 14:00-15:00  | POSTER SESSION 2 - ROOMS EXHIBITION AREA                                  |
|              | EPIDEMIOLOGY AND SURVEILLANCE • OUTBREAKS INVESTIGATION AND CASE REPORT  |
|              | CLINICAL ASPECTS AND TREATMENTS • DIAGNOSIS AND TYPING                   |
| 15:00-16:45  | SESSION 6 - SURVEILLANCE AND OUTBREAKS INVESTIGATIONS                   |
|              | Chairs: Pedra Brandsema, Maria Cristina Rota                            |
| 15:00-15:15  | Legionnaires’ Disease from the Other Side of the World: the New Zealand Perspective  
David R. Murdoch  
University of Otago, Christchurch, New Zealand |
| 15:15-15:30  | A National Cross-Sectional Study to Uncover the Hidden Burden of Legionnaires’ Disease: The LegiNZ Study  
David R. Murdoch  
University of Otago, Christchurch, New Zealand |
| 15:30-15:45  | Community-Acquired Cases of Legionnaires’ Disease:  
the Proportion Technically Preventable by Applying the German Drinking Water Ordinance?  
Udo Buchholz  
Robert Koch Institute, Berlin, Germany |
| 15:45-16:00  | Legionella pneumophila in the Flint Water Supply: A Molecular Epidemiology and Virulence Assessment  
Michele Swanson  
University of Michigan, Ann Arbor, USA |
| 16:00-16:15  | Spatial Distribution of Legionellosis at the Small Area Level in the City of Barcelona: 2000-2016  
P. Galles  
Public Health Agency of Barcelona, Barcelona, Spain |
| 16:15-16:30  | Factors Associated With the Occurrence of Further Cases in Accommodations Associated With a Cluster of Travel-Associated Legionnaires’ Disease Cases After Implementation of Control Measures  
Julien Beauté  
European Centre for Disease Prevention and Control, Stockholm, Sweden |
| 16:30-16:45  | Epidemiology and Microbiology of Recurrent Accommodation Sites Implications for Surveillance and Prevention  
Sebastian Crespi  
Biolinea Int., Palma de Mallorca, Spain |
| 17:30-23:00  | Tour of the Ancient Roman Street “Appia Antica” and Gala Dinner at “Villa Dino”  |
FRIDAY, SEPTEMBER 29TH, 2017

08:15-10:00  SESSION 7 - ECOLOGY OF LEGIONELLA AND INTERACTION WITH ENVIRONMENTAL RESERVOIRS
Chairs: Alexander Kirschner, David R. Murdoch

08:15-08:45  The Original Cat and Mouse Interplay: With Picky Amoebae and Persistent Legionella pneumophila
Nicholas J. Ashbolt (Invited speaker)
University of Alberta, Edmonton, Canada

08:45-09:15  Natural Antimicrobial Substances to Control Proliferation of Legionella pneumophila
Jean Marc Berjeaud (Invited speaker)
University of Poitiers, Poitiers, France

09:15-09:30  Survival Patterns and Virulence of Viable but Non-Culturable Legionellae Induced by Starvation
Barbara Schrammel
Medical University of Vienna, Vienna, Austria

09:30-09:45  Legionella pneumophila Prevents Cell Division and DNA Replication of Acanthamoeba castellanii
Ascel Samba-Louaka
University of Poitiers, Poitiers, France

09:45-10:00  Temperature Induced Viable but Non-Culturable Legionella pneumophila
Cells are Virulent Against Amoebae and Macrophage-Like Cells
Silvia Cervero-Aragó
Medical University of Vienna, Vienna, Austria

10:00-10:30  Coffee break

10:30-12:00  SESSION 8 - LEGIONELLA DETECTION AND DIFFUSION IN THE ARTIFICIAL THE RESERVOIRS
Chairs: Nicholas J. Ashbolt, Susanne Lee

10:30-11:00  Legionella Colonization of Water Systems Aboard Passenger Ships and Differences with Accommodation Sites (Hotels Etc)
Christos Hadjichristodoulou (Invited speaker)
University of Thessaly, Larissa, Greece

11:00-11:30  Legionella Detection in Environments and Their Impacts on the Occurrence of Legionellosis in Japan
Kura Fumiaki (Invited speaker)
National Institute of Infectious Diseases Tokyo, Japan

11:30-11:45  Prevalence and Diversity of Legionella in US Cooling Towers
Brian H. Raphael
Centers for Disease Control and Prevention, Atlanta, USA

11:45-12:00  Identification of Cooling Tower Microbiota Supporting the Growth of Legionella pneumophila
Sebastien P. Faucher
McGill University, Montréal, Canada

12:00-13:00  SPONSORED SESSION-PALL

13:00-14:00  Lunch

14:00-14:30  ESGLI BUSINESS MEETING

14:30-15:30  POSTER SESSION 3 - ROOMS EXHIBITION AREA
• MISCELLANEUS • MICROBIAL ECOLOGY • PREVENTION AND CONTROL
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<th>Speaker(s)</th>
<th>Institution(s)</th>
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<tr>
<td>15:30-17:15</td>
<td>SESSION 9 - PREVENTIVE AND CONTROL STRATEGIES</td>
<td>Chairs: Paola Borella, Sebastian Crespi</td>
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<tr>
<td>15:30-16:00</td>
<td>The Evaluation of Mandatory <em>Legionella</em> Environmental Surveillance in Healthcare Facilities in Taiwan: Clinical and Environmental Perspectives</td>
<td>Yusen E. Lin <em>(Invited speaker)</em></td>
<td>National Kaohsiung Normal University, Kaohsiung City, Taiwan</td>
</tr>
<tr>
<td>16:00-16:30</td>
<td>Controlling <em>Legionella</em> in Building Water Systems: How Does Monochloramine Measure Up?</td>
<td>Janet E. Stout</td>
<td>Special Pathogens Laboratory, Pittsburgh, USA</td>
</tr>
<tr>
<td>16:30-16:45</td>
<td>Controlling Effect on Various Pipe Materials Following Different Treatments for <em>Legionella</em> Spp Control in Hospital Water Systems</td>
<td>Isabella Marchesi</td>
<td>University of Modena and Reggio Emilia, Modena, Italy</td>
</tr>
<tr>
<td>16:45-17:15</td>
<td>Sponsored presentation (Grundfos) Experiences in-situ Prepared Chlorine Dioxide in <em>Legionella</em> Treatment</td>
<td>Michael Skovgaard</td>
<td>Senior Manager, Global Programs GPMA Dosing &amp; Disinfection</td>
</tr>
<tr>
<td>17:15-17:45</td>
<td>Coffee Break</td>
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<tr>
<td>17:45-19:00</td>
<td>SESSION 9 - PREVENTIVE AND CONTROL STRATEGIES (CONTINUED)</td>
<td>Chairs: Janet E. Stout, Yusen E. Lin</td>
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</tr>
<tr>
<td>17:45-18:00</td>
<td>A Multicenter Study on <em>Legionella</em> Air Contamination in Italian Healthcare Facilities: Comparison of Different Sampling Methods</td>
<td>Osvalda De Giglio</td>
<td>University of Bari, Bari, Italy</td>
</tr>
<tr>
<td>18:00-18:15</td>
<td>Maxi Impact of Temperature, Copper and Silver Exposure on the Viability and Recovery of Clinical and Environmental Strains of <em>Legionella pneumophila</em></td>
<td>Michèle Prévost</td>
<td>Polytechnique Montréal, Montréal, Canada</td>
</tr>
<tr>
<td>18:15-18:30</td>
<td>Prevention and Control of <em>Legionella</em> spp. Colonization in Dental Units</td>
<td>Beatrice Casini</td>
<td>University of Pisa, Pisa, Italy</td>
</tr>
<tr>
<td>18:30-18:45</td>
<td><em>Legionella</em> Colonization Of Hotel Water Supply Systems In Tourist Places Of Greece: Associations With System Characteristics and Physicochemical Parameters</td>
<td>Varvara Mouchtouri</td>
<td>Department of Medicine University of Tessaly, Larissa, Greece</td>
</tr>
<tr>
<td>18:45-19:00</td>
<td>Risk Assessment of <em>Legionella</em> in Hospital Washbasins: Water and Aerosol</td>
<td>Pasqualina Laganà</td>
<td>University of Messina, Messina, Italy</td>
</tr>
<tr>
<td>19:00-19:30</td>
<td>ROUND TABLE:</td>
<td>discussion on the topics (critical aspects, pros and cons, etc.) presented in the session of the day</td>
<td></td>
</tr>
</tbody>
</table>
**SESSION 10 - LEGIONELLA GUIDELINES IN DIFFERENT COUNTRIES**

**Chairs:** Birgitta De Jong, Maria Luisa Ricci

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08:30-09:00  **European Legionella Guidelines**  
Susanne Lee *(Invited speaker)*  
Legionella LTD., United Kingdom

09:00-09:20  **U.S. Guidance and Standards**  
Janet E. Stout *(Invited speaker)*  
Special Pathogens Laboratory, Pittsburgh, USA

09:20-09:40  **The German Experiences with Legionella Risk Regulation**  
Martin Exner *(Invited speaker)*  
University of Bonn, Bonn, Germany

09:40-10:00  **Legionella Guidelines in the Russian Federation: Harmonization in Accordance to International Standards**  
Igor Tartakovskiy  
Gamaleya Research Center of Epidemiology and Microbiology, Moscow, Russia

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10:00-10:30  **Coffee break**

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**SESSION 10 - LEGIONELLA GUIDELINES IN DIFFERENT COUNTRIES (CONTINUED)**

10:30-10:45  **Legionella Regulation in Australia**  
Richard Bentham  
Flinders University, Adelaide, Australia

10:45-11:00  **Italian Legionella Guidelines: a Special Focus on Dental Unit Waterlines**  
Maria Luisa Ricci  
National Health Institute Rome, Rome, Italy

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**SESSION 11 - CHALLENGES OF LEGIONELLA AND FUTURE PERSPECTIVES**

**Chairs:** Paul H. Edelstein, Janet E. Stout

11:00-11:30  **Advancing a Framework for Prebiotic/Probiotic Control of Legionella in Distribution Systems and Plumbing**  
Amy Pruden *(Invited speaker)*  
Virginia Tech in Blacksburg, Virginia, USA

11:30-12:00  **Technology Advancement Supporting Legionella Control in Dubai**  
Redha H. Salman  
Health and Safety Department-Dubai Municipality, Dubai UAE

12:00-12:30  **The European Perspectives of Legionella Surveillance and Control**  
Valeria Gaia *(Invited speaker)*  
Swiss National Reference Centre for Legionella, Bellinzona, Switzerland

12:30-13:00  **Presentation of Legionella 2021**

Closing remarks: Paola Borella and Maria Luisa Ricci
GENERAL INFORMATION

CONGRESS DETAILS

DATES
26th - 30th September 2017

CONGRESS VENUE
Auditorium Antonianum
Viale Manzoni, 1 - 00185 - Rome

LANGUAGE
The official language of the Congress is English.

BADGES AND CONFERENCE MATERIALS
Name badges and conference material will be provided on-site to all registered delegates at the conference registration, from 26th - 30th September 2017. Badges are to be worn at all times, for reasons of security and identification. You will not be permitted to enter any building or room without your badges.

CERTIFICATE OF ATTENDANCE
All register delegates are entitled to a certificate of attendance. Certificates can be collected from the conference secretariat on the last day of the Conference.

LIABILITY AND INSURANCE
Delegates and exhibitors are advised to take out adequate insurance cover against any risk of loss, damage, injury or liability before travelling to the Conference. Neither the Conference Organisers nor its contractors shall accept liability for personal injury or loss/damage to property and belongings of delegates during the Conference or their stay in Rome.

MOBILE PHONES
Delegates are kindly requested to switch off their mobile phones during the Conference sessions.

PROGRAMME CHANGES
Due to circumstances beyond the control of the Congress Organisers, last-minute changes to the programme may be unavoidable.

REGISTRATION FEE (IN EURO)
Registration types and fees

<table>
<thead>
<tr>
<th>REGISTRATION Fee Categories</th>
<th>ON SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full rate</td>
<td>€ 770</td>
</tr>
<tr>
<td>Italian Scientific Societies</td>
<td>€ 693</td>
</tr>
<tr>
<td>Student</td>
<td>€ 500</td>
</tr>
<tr>
<td>Low income Countries</td>
<td>€ 560</td>
</tr>
<tr>
<td>Gala Dinner</td>
<td>€ 105</td>
</tr>
</tbody>
</table>

ALL PRICES INCLUDE VAT 22%. PLEASE, VERIFY IF REDUCTION OR NO VAT ARE DUE IN YOUR POSITION (for example, no VAT is due by the Italian Public Health Operators. For further information, please contact registration@legionella2017.com or +39 06 36381573 / +39 0637513142 before the registration)

STUDENT: this voice includes students attending degree, PhD course, Specialization School. Students must please bring Student ID to the Conference.

SEE LOW INCOME COUNTRIES

Afghanistan
Albania
Algeria
American Samoa
Angola
Argentina
Armenia
Azerbaijan
Bangladesh
Belarus
Belize
Benin
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Brazil
Bulgaria
Burkina Faso
Burundi
Cambodia
Cameroon
Cape Verde
Central African Republic
Chad
China
Colombia
Comoros
Congo, Rep.
Costa Rica
Côte d’Ivoire
Croatia
Cuba
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt, Arab Rep.
El Salvador
Equatorial Guinea
Eritrea
Ethiopia
Fiji
Gabon
Gambia
Georgia
Ghana
Grenada
Guatemala
Guinea
Guinea-Bissau
Guyana
Haïti
Honduras
Hungary
India
Indonesia
Iran, Islamic Rep.
Iraq
Jamaica
Jordan
Kazakhstan
Kenya
Kiribati
Korea, Dem Rep.
Kosovo
Kyrgyz Republic
Lao PDR
Lebanon
Lesotho
Liberia
Libya
Macedonia, FYR
Madagascar
Malawi
Malaysia
Maldive
Mali
Marshall Islands
Mauritania
Mauritius
Mexico
Moldova
Mongolia
Montenegro
Morocco
Mozambique
Myanmar
Namibia
Nepal
Nicaragua
Niger
Nigeria
Pakistan
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Romania
Rwanda
Samoa
São Tomé and Príncipe
Senegal
Serbia
Seychelles
Sierra Leone
Solomon Islands
Somalia
South Africa
Sri Lanka
St. Lucia
St. Vincent and the Grenadines
Sudan
Suriname
Swaziland
Syrian Arab Republic
Tajikistan
Tanzania
Thailand
Timor-Leste
Togo
Tonga
Tunisia
Turkey
Turkmenistan
Uganda
Ukraine
Uzbekistan
Vanuatu
Venezuela, RB
Vietnam
West Bank and Gaza
Yemen, Rep.
Zambia
Zimbabwe
GENERAL INFORMATION

THE REGISTRATION INCLUDES
- Participation in the congress activities
- Congress Kit
- E.C.M.
- Opening cocktail (26th September 2017)
- Congress lunches (27th - 29th September 2017)
- Coffee breaks (27th - 30th September 2017)
- Certificate of attendance

SUBSTITUTIONS/NAME CHANGES
All participant substitutions who are already registered should be sent with a written request to the Organising Secretariat, specifying the name of the substituted person. Every name change will be charged of 40,00 s + 22% VAT.

REGISTRATION PACKAGE
Registration packages can be tailored with the Organising Secretariat.

CME ACCREDITATION
This event gives right to: Nr. 6 CME credits to Physician Ref. (555 - 202428)
Educational aims: Main Guides, Protocols, Procedures for the categories: Physician, Biologist, Nurse, Biomedical Laboratory Technologist, Occupational Health and Safety Officer.
Discipline: Hematology, Gastro-enterology, Medical Genetics, Geriatrics, Respiratory diseases, Contagious diseases, Clinical and Toxicology Pharmacology, Medical Genetic Laboratory, Microbiology and Virology, Hygiene, Epidemiology and Public Health, Occupational Medicine and workplace safety, General Medicine (family doctor), Epidemiology.

OBTAINING TRAINING CREDITS
To obtain training credits, participants need to participate in the congress scientific activities planned for every day; once the congress is over, they will hand in their personal data, together with the scientific self-evaluation and approval questionnaires, fully filled out.

PARTICIPATION CERTIFICATE AND E.C.M. CERTIFICATE
At the end of the congress, all regularly registered participants will be issued a certificate of participation, while the E.C.M. certificate will be available on-line 90 days after the end of the event (subject to attribution by the Ministry of Health). Participants will be able to download their Italian certificates with the credits obtained, by connecting to the website www.ideacpa.com and following the simple procedures.
European certificates will be sent by email to the address written on the approval questionnaire after 90 days of the end of the congress.

PROGRAMME ON LINE
The programme will be available on line only on the official congress web site:
www.legionella2017.com
CONGRESS VENUE

The 9th International Conference on Legionella will be held at the Auditorium Antonianum, viale Manzoni, 1 Rome.

http://www.auditoriumantonianum.it/en/

The congress venue is located in a strategic and central area of Rome, just 1400 metres far from the principal train and underground station, Termini.

HOW TO GET THERE

From both the international airport of Rome you can reach the centre of Rome quickly by train, buses or private coaches.

• TO/FROM FIUMICINO AIRPORT

TRAINS FROM/TO THE FIUMICINO AIRPORT

From the railway station, located in the airport, near the Arrivals and Departures terminals, you can reach the city centre in many, frequent Trenitalia’s connections:

- Leonardo Express, a non-stop service exclusively for airport passengers to/from Rome Termini railway station leaving every 15 minutes* with a journey time of 32 minutes
- Regional FL1 trains to/from other stations in Rome, including Rome Tiburtina, with departures every 15 minutes on weekdays and every 30 minutes on weekends and holidays
  - departures every 30’ from Fiumicino Airport before 07.08 and after 21.08 and between 10.08/10.38 and 14.08/14.38
  - departures every 30’ from Rome Termini before 06.20 and after 20.20 and between 09.50/10.20 and 13.50/14.20

BUSES FROM/TO THE AIRPORT

A lots of buses companies are available from/to the city from “Leonardo da Vinci” Airport:

COTRAL

- The scheduled bus stops are opposite Terminal 2, Arrivals. To reach them follow the “Regional Bus Station” signs.
- Information on the service: tickets can be purchased at the authorized sales point (news stands, tobacconists, etc.) or, with a surcharge, on-board the bus.
- It takes about an hour.

SIT BUS SHUTTLE

- The buses stop at the BUS hub adjacent to the Terminal 3 exits - Arrivals, bus rank no. 1. To reach them follow the “Regional Bus Station” signs.
- Information on the service: the service operates every day, from Monday to Sunday. Tickets can be purchased online or directly on board the bus. The journey is about 55 minutes and buses leave about every 30 minutes. http://www.sitbusshuttle.com/en/

T.A.M. S.R.L.

- The buses stop at the BUS hub adjacent to the Terminal 3 exits, Arrivals, bus rank no. 4. To reach them follow the “Bus Station” signs
- Information on the service: the service operates every day, from Monday to Sunday. Tickets can be purchased directly on board the bus. The journey is about 45 minutes - leaving every 30 minutes http://www.tambus.it

TERRAVISION

- The buses stop at the BUS hub adjacent to the Terminal 3 exits, Arrivals, bus rank no. 3. To reach them follow the “Bus Station” signs.
- Information on the service: the service operates every day, from Monday to Sunday. Tickets can be purchased online or on board the bus. The journey is about 55 minutes and buses leave about every 30 minutes. www.terravision.eu

ATRAL - SCHIAFFINI

- The buses stop at the BUS hub adjacent to the Terminal 3 exits, Arrivals, bus rank no. 4. To reach them follow the “Bus Station” signs.
- The service operates every day, from Monday to Sunday.
- Tickets can be purchased online, directly on board the bus or at the authorized agents in the Arrivals hall, Terminal 3 http://www.romeairportbus.com

TO/FROM CIAMPINO AIRPORT

TRAINS From/to CIAMPINO AIRPORT

The nearest train station to the Giovan Battista Pastine Airport is in the town of Ciampino, connected to the airport by COTRAL/SCHIAFFINI buses every 30 minutes. The journey time is, on average, 5 minutes. The cost of the ticket, for sale both on board and from the ground staff is 1 euro.

BUSES FROM/TO THE CIAMPINO AIRPORT

A daily connection between the airport and Rome Termini railway station is provided by these companies:

ATRAL - COTRAL - SIT - TERRAVISION - SCHIAFFINI

All the bus stops are opposite International Departures. For information on timetables, routes, and the cost of tickets see the websites of the various bus companies

ARRIVING FROM TERMINI STATION

- By foot, 1400 metres (about 15 minutes)
- By underground, line A (direction Anagnina), MANZONI station (100 metres)
- By bus, line 714, MERULANA/LABICANA stop

For more information consult the Local public transport website http://www.atac.roma.it/page.asp?p=52
ABOUT ROME

VISA
Some participants may need a visa to travel to Italy. Participants are invited to check with the Italian consulate in their country. The Organising Secretariat is not responsible for obtaining visas and does not provide financial support for them.

CURRENCY
Italy is a part of the European Currency Unit and the official currency is Euro (€). Banks in Italy are usually open Monday to Friday 9:00 AM - 15:30 PM.

CLIMATE
The climate in Rome is generally mild and continental. The average temperature in Rome in September ranges from 15°C to 25°C.

LANGUAGE
Italian is the first language. The most common foreign language is English.

TIME
Italy is GMT+1. Rome 12:00 - London 11:00 - New York 12:00 - Sidney 22:00.

TELECOMMUNICATIONS
The area code for Italy from abroad is: +39.

EMERGENCY NUMBERS
- Breakdown Service ACI - 803116
- Police - 113
- Carabinieri - 112
- FireBrigade - 115
- Local Police - 0667691
- Customs - 117
- Police Station - 064686
- First Aid - 118
- Italian Red Cross Ambulance - 06 5510
- Chemist’s Open On A Holiday - 06 228941
- Urgent Blood Transfusion - Policlinico Umberto I - 06 49970860 - 06 49970861
- Urgent Blood Transfusion - S. Giovanni Hospital - 06 77055563
- Permanent First Aid Station - 06 4826741 - 06 58201030
- Roman Green Cross Ambulance - 06 24302222

ELECTRICITY
The voltage in Rome for private homes (and thus for hotels) is 220/240 Volts.

TRANSPORTATION
During the day, buses and trams start the service at 5:30 am and run all day until Midnight in all directions. Night buses start the service at 00:30 am until 5:30 am. Buses leave from Piazza dei Cinquecento (Termini Train Station) and Venice Square (Piazza Venezia) every 30 minutes in all directions. You can buy tickets for 1 euro on board. For more information about all routes, check the official Rome Public Transportation Agency, ATAC. There you’ll find all the up-to-date information on routes, tickets, underground and urban railways, public transport maps, wait times, and all information to get around Rome. On the ATAC website there is also an useful services: route planner that allows you to enter your starting point and the destination addresses and it will provide a map of the route you should take including the buses necessary to get there.

BY TAXI
Taxis can be called by phone or can be caught directly from the appropriate reserved taxi points, located in various parts of the city centre and in other suburban areas. Otherwise you can call one these phone taxi numbers (remember, the meter starts from the time you call, not when you get in!)
- Ph. 06 3570
- Ph. 06 4994
- Ph. 06 6645
- Ph. 06 5551
- Ph. 06 8822
CONGRESS INFORMATION

AUDIOVISUAL EQUIPMENT / SPEAKER’S READY ROOM
A Speaker’s Ready Room will be operating throughout the duration of the congress. Speakers are kindly requested to hand in their presentation (USB-key, CD-ROM, DVD) at least three (3) hours before their scheduled presentation time. If your presentation is scheduled early in the morning, you are kindly requested to check your presentation at the Speaker’s Ready Room the day before. All version of MS Power Point are accepted, including Mac. If you are using embedded video clips in your presentation, please remember to submit video files separately. The following equipment will be available.
- PC
- Data video Projector (Power Point presentations)
- Laser Pointer
- Microphones

ORAL COMUNICATIONS
If you are presenting a free comunication, you are kindly requested to observe the following points:
- Please declare any relevant link to industry or other conflicts of interest at the beginning of your presentation
- Please speak slowly and clearly. English is a working language of the congress, but not necessarily the native language of the delegates

POSTER PRESENTATION
For Posters to be exhibited, please note the following:
- The necessary material for displayed will be available in the poster area
- Posters panel numbers will be displayed at the top of the panel
- The corresponding poster panel number for each poster presented has been provided by the Congress Organizers, along with abstract presentation guidelines
- Please note the posters should be 70 cm (width) x 100 cm (height) maximum
- As a courtesy to other presenters, participants are kindly requested not to move or remove posters numbers or change the order of the assigned poster boards
- It is essential that presenters clear their poster board promptly and within the scheduled time. Material left on a poster board after to removal deadline will be discarded
- The Congress Organizers are not responsible for materials left behind that are stolen or damaged

MOUNTING AND DISMANTLING OF POSTERS
Poster Aerea:
Mounting Sept 26th, 2017 H. 14:00
Dismantiling Sept 30th, 2017 H. 13:00
OUR SUPPORTERS & EXHIBITORS

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