



# ICAR2018 Conference

PROGRAM OUTLINE

The conference presentations will start on Thursday 24 May at 11:00, although there will be a registration period from 9:30 to 11:00 in the morning. The Conference will finish on Friday 25 May around 15:00.

In any case, attendees will be able to pick up the conference materials at the registration desk at any time during the conference. The conference/registration desk will be placed at the main hall at the conference venue (Torremolinos Congress Center)

ORAL PRESENTATIONS will take place according to the following structure:

<b>Day</b>	<b>Sessions</b>
Thursday, 24 May	<ul style="list-style-type: none"><li>➤ Antimicrobial materials science and surface chemistry. Antimicrobials in consumer products</li><li>➤ Antimicrobial chemistry</li><li>➤ Antimicrobial physics</li></ul>
Friday, 25 May	<ul style="list-style-type: none"><li>➤ Antimicrobial natural products I - Peptides</li><li>➤ Antimicrobial natural products II - Terrestrial and marine organisms</li><li>➤ Bacteriophages</li><li>➤ Biofilms</li><li>➤ Antimicrobial resistance. Mechanisms of action of antimicrobial agents</li></ul>

There will be 2 **POSTER SESSIONS** at the main hall at the conference venue according to the following structure:

Day	Time (tentative)	Sessions
Thursday, 24 May	From 15:30 to 16:15	<ul style="list-style-type: none"> <li>➤ Biocontrol. Biosynthesis of antimicrobials</li> <li>➤ Antimicrobial materials science and surface chemistry. Antimicrobials in consumer products</li> <li>➤ Antimicrobial chemistry</li> <li>➤ Non-antibiotic biocides</li> <li>➤ Clinical and medical microbiology, infectious diseases and antimicrobials. Public health</li> <li>➤ Techniques and Methods</li> </ul>
Friday, 25 May	From 11:00 to 11:45	<ul style="list-style-type: none"> <li>➤ Antimicrobial natural products I - Peptides</li> <li>➤ Antimicrobial natural products II - Terrestrial and marine organisms</li> <li>➤ Antimicrobial resistance. Mechanisms of action of antimicrobial agents</li> <li>➤ Attenuation of virulence as antimicrobial strategy</li> </ul>

Posters are expected to be posted during the whole day assigned. Presenters are expected to be available for discussion of their posters during the corresponding sessions.

## SCIENTIFIC PROGRAM

**Sessions:**  
Antimicrobial physics  
Antimicrobial chemistry

**Chair: Kaplan Kirakci (Czech Academy of Sciences, Czech Republic)**

### REGISTRATION & COFFEE

9:30-11:00 Thursday, 24 May 2018 (At the main hall)  
(Registration can also be done at any time during the Conference)

### ORAL PRESENTATIONS

#### Thursday, 24 May 2018

##### Session:

Antimicrobial materials science and surface chemistry. Antimicrobials in consumer products

**Chair: Cezarina Cela Mardare (Johannes Kepler University Linz, Austria)**

### PLENARY LECTURE

11:00-12:00 Medical devices decorated with stimuli-responsive polymers for contact-killing surfaces and antimicrobial competitive release  
**Carmen Álvarez-Lorenzo**

12:00-12:15 Winery waste as an antimicrobial and antioxidant additive in packaging  
**Charlotte Vandermeer**

12:15-12:30 Bacteria-triggered antimicrobial coatings to maintain drinking water quality  
**Melissa K.L.N Sikosana**

12:30-12:45 Vancomycin loaded superparamagnetic MnFe<sub>2</sub>O<sub>4</sub> nanoparticles coated with PEGylated chitosan to enhance antibacterial activity  
**Akbar Esmaeili**

12:45-13:00 Mo-W-O system: A study on the mechanisms of antibacterial action via protons release  
**Cezarina Cela Mardare**

13:00-14:00 **LUNCH BREAK (Buffet at the main hall)**

14:00-14:15 Photo-inactivation of Gram-positive and Gram-negative bacteria by an octahedral molybdenum cluster complex  
**Kaplan Kirakci**

14:15-14:30 Designer polymeric biocides  
**Simon Swift**

14:30-14:45 New antibiotic leads targeting bacterial RNA polymerase holoenzyme assembly identified with a BRET drug discovery platform  
**Sara Sartini**

14:45-15:00 A new look into an old natural biopolyester - the antimicrobial activity and chemistry of suberin  
**Rúben Miguel Lopes Rodrigues**

15:00-15:15 Evaluation of antibacterial properties of copper alloys surfaces in long-term geriatric care facilities  
**Marius Colin**

15:15-15:30 Advancing a new class of methionyl-tRNA synthetase (MetRS) antibiotics  
**Mansour Bassiri**

15:30-16:15 **POSTER SESSION & COFFEE BREAK (at the main hall)**

## Friday, 25 May 2018

### Sessions:

Antimicrobial resistance. Mechanisms of action of antimicrobial agents  
Biofilms

**Chair: Giuseppe Celenza (University of l'Aquila, Italy)**

09:00-09:15	Effects of cerium oxide nanoparticles on bacterial outer membrane permeability and their potential application as antibiotic adjuvant in MDR pathogenic bacteria <b>Giuseppe Celenza</b>
09:15-09:30	Antibiotic resistance ABCF proteins reset the peptidyl transferase center of the ribosome to counter translational arrest <b>Marje Kasari</b>
09:30-09:45	$\Phi$ 1207.3 of <i>Streptococcus pyogenes</i> is a Functional Bacteriophage carrying the macrolide efflux gene pair <i>mef(A)/msr(D)</i> <b>Gianni Pozzi</b>
09:45-10:00	Effect of an organic acids based feed additive and enrofloxacin on the prevalence of antibiotic-resistant <i>E. coli</i> in broilers <b>Nataliya Roth</b>
10:00-10:15	Investigating levels of evolved Arg <sub>10</sub> -teixobactin resistance in methicillin-resistant <i>Staphylococcus aureus</i> <b>Edward John Taylor</b>
10:15-10:30	Antimicrobial effect of lysozyme in serum in patients with ventilation-associated pneumonia <b>Viktoryia Ziamko</b>
10:30-10:45	Biofilm formation in clinical isolates in ICU <b>Viktoryia Ziamko</b>
10:45-11:00	Copper alloys door handles: weapons against biofilms formation? <b>Gaelle Carré</b>
11:00-11:45	<b>POSTER SESSION &amp; COFFEE BREAK (at the main hall)</b>

### Sessions:

Antimicrobial natural products I - Peptides  
Antimicrobial natural products II - Terrestrial and marine organisms  
Bacteriophages

**Chair: Goutam Gupta (New Mexico Consortium, USA)**

11:45-12:00	Engineering of Next-Generation Antimicrobial Peptides (AMPs) I: mechanisms behind how AMPs act and how bacteria develop resistance against them <b>Goutam Gupta</b>
12:00-12:15	Engineering of Next-Generation Antimicrobial Peptides (AMPs) II: next generation AMPs with high bactericidal activity and low susceptibility to bacterial resistance <b>Goutam Gupta</b>
12:15-12:30	Antibiotic potential of defense peptides from wild cereals <b>Eugene Rogozhin</b>
12:30-12:45	Insects – novel source for antimicrobial natural products <b>Nathalie Berezina</b>
12:45-13:00	Bark beetles, a source of <i>Pseudomonas</i> strains with antimicrobial activity <b>Paula García-Fraile</b>
13:00-13:15	Allyl isothiocyanate and cinnamaldehyde against mycotoxigenic fungi <i>in vitro</i> and their combined use in stored corn <b>Karla Carolina Paiva Bocate</b>
13:15-13:30	Biological and molecular characterization of South African bacteriophages infective against <i>Streptococcus uberis</i> , a predominant causal agent of bovine mastitis <b>Caleb Pillay</b>
13:30-13:45	Assessment of the lytic ability of bacteriophages specific for <i>Staphylococcus aureus</i> , associated with bovine mastitis in South Africa <b>Caleb Pillay</b>
13:45-14:45	<b>LUNCH BREAK (Buffet at the main hall)</b>

## POSTER PRESENTATIONS

**Thursday, 24 May 2018 | Main Hall**  
**From 15:30 to 16:15**

### Sessions:

Biocontrol. Biosynthesis of antimicrobials  
 Antimicrobial materials science and surface chemistry. Antimicrobials in consumer products  
 Antimicrobial chemistry  
 Non-antibiotic biocides  
 Clinical and medical microbiology, infectious diseases and antimicrobials. Public health  
 Techniques and Methods

Code	Title	Presenter(s)
T27	Comparison of antimycotic efficacy of biosynthesized selenium and tellurium nanoparticles against grapevine ( <i>Vitis vinifera</i> ) pathogenic fungi	Marco Andreolli
T28	Antimicrobial Functionalization of Copper Surfaces by Ultrashort Pulsed Direct Laser Interference Patterning	Daniel Wyn Müller
T29	Antiviral, antimicrobial and biocompatible polymer-based coatings with natural bioactive substances	Christoph Gneupel
T30	Coating of titanium surface with Ag <sub>2</sub> WO <sub>4</sub> inhibits methicillin-resistant <i>Staphylococcus aureus</i> adhesion	Juan Andrés
T31	Ag–Bi nanoalloys: Synthesis by femtosecond laser irradiation and antibacterial activity against MRSA and MSSA	Juan Andrés
T32	Antifungal properties of silver tungstate (Ag <sub>2</sub> WO <sub>4</sub> ) irradiated by electron and femtosecond laser	Elson Longo
T33	Antibacterial activity of α-Ag <sub>2</sub> -2xMxWO <sub>4</sub> (M = Cu <sup>2+</sup> ) Solid Solutions Obtained by Coprecipitation Method	Elson Longo
T34	Synthesis and in-vitro biological activity of some novel 2-pyrazinecarboxylic acid derivatives	Hossein Mostafavi
T35	Insight into the metabolomics inventory and exploring metabolic adaptation of <i>Streptococcus pneumoniae</i> to antibiotic stresses	Anne Karla Leonard
T36	An innovative, electrochemical in situ ozone generator	Barbara Behrendt-Fryda

T37	Development of novel disinfectants against pathogens occur in the hospital environment	Jan Marek
T38	How different sterols contribute to cytotoxic action of sea cucumber saponins	Lins Laurence
T39	Methicillin resistant <i>Staphylococcus aureus</i> (MRSA) in raw buffalo milk from Italy: preliminary results	Elisa Spinelli
T40	MRSA in horses and humans working in contact with them	Elisa Spinelli
T41	Microorganisms in nurses' hands, clinical uniforms, and pocket medical devices	Susana Alarico
T42	Detection of marker proteins for bacteria antimicrobial resistance by mass spectrometry	Yingdi Zhu
T43	Antimicrobial activity assay of <i>Pseudomonas luteola</i> VFB122	Brian Morales Segovia
T44	Comparison of sporulation and germination between clinical and hospital environment strains of <i>Clostridium difficile</i> and <i>Clostridium perfringens</i>	Krzysztof Sacha

**Friday, 25 May 2018 | Main Hall**  
**From 11:00 to 11:45**

**Session:**

Antimicrobial natural products I - Peptides  
 Antimicrobial natural products II - Terrestrial and marine organisms  
 Antimicrobial resistance. Mechanisms of action of antimicrobial agents  
 Attenuation of virulence as antimicrobial strategy

Code	Title	Presenter(s)
F22	Fmoc Chemical Synthesis of a Cyclotide with Antibacterial Activity against Aquaculture Pathogens	Claudio Andrés Álvarez Álvarez
F23	Analogous derived from C-terminal salmonids IL-8 as potential antimicrobial agents for infectious diseases	Paula Santana Sepúlveda
F24	Bactericidal activity of AP-CECT7121 combined with colistin against biofilmproducers <i>Escherichia coli</i> and <i>Pseudomonas aeruginosa</i> from catheters	Gastón Delpech
F25	Low-molecular amphiphilic compounds regulation of pore-forming activity of cecropins	Svetlana S. Efimova
F26	Involvement of Oligopeptidase B in Bacterial Resistance against the Antimicrobial Peptide Bac7	Irene Wuethrich
F27	A novel <i>Pseudomonas</i> strain capable to produce antifungal substances	Zaki Saati-Santamaría
F28	<i>Arthrobacter globiformis</i> as a source of bioactive compounds for pharmaceutical applications	Zaki Saati-Santamaría
F29	Bark beetles, a novel source of strains capable to inhibit <i>Candida</i> sp.	Paula García-Fraile
F30	New antimicrobial compounds from microorganisms	Paula Sanguineto De Bellis
F31	Identification of compound with microbial activity extracted from the cyanobacteria <i>Arthrospira maxima</i>	Roxana Olvera Ramírez
F32	Antimicrobial activity of a methanolic extract of <i>Pinguicula moranensis</i> Kunth	Roxana Olvera Ramírez

F33	Garlic essential oil as an antimicrobial agent towards mycotoxigenic fungi	Karla Carolina Paiva Bocate
F34	Typing <i>Burkholderia cepacia</i> complex isolated from non-cystic fibrosis patients in Kuwait	Ali A Dashti
F35	Extensive drug resistant (XDR) <i>Acinetobacter baumannii</i> in coronary care units of a hospital in Kuwait	Ali A Dashti
F36	High prevalence of extended-spectrum $\beta$ -lactamase producing Enterobacteriaceae among clinical isolates from cats and dogs in Switzerland	Magdalena Nüesch-Inderbinen
F37	Synergistic antibacterial activity of phenolic compounds with commercial antibiotics	JeongWoo Kang
F38	Effect of Isothiocyanates on cholera toxin's gene expression	Klaudyna Krause
F39	Determining the rate and cost of <i>in vitro</i> resistance development in Methicillin Resistant <i>Staphylococcus aureus</i> against moenomycin A	Daniel George Lloyd
F40	Antimicrobial resistance in rare mycobacteria from hospital environment and diabetic foot ulcers	Susana Alarico
F41	Antibiotic resistance mediated by integrons in <i>Pseudomonas</i> spp. genus	Marina Robas Mora
F42	<i>Quorum sensing</i> and <i>Quorum quenching</i> in <i>Pseudomonas</i> spp.: role of antibiotics as quorum quenchers at subclinical concentrations	Pedro A Jimenez Gómez

## VIRTUAL PRESENTATIONS

(available at the online platform on the conference website from 17 to 25 May)

Title	Presenter(s)
Bioinformatics study on multi-resistant bacteria that express $\beta$ -lactamases	Carlos Polanco
Use of marine and freshwater cyanobacteria as biological control agents in agriculture	Francisca Suárez-Estrella
In vitro Efficacy of <i>Ocimum Basilicum</i> Essential oil extracted by Supercritical Carbon Dioxide on <i>Lactococcus garviae</i> . Preliminary Results	Raffaella Barbero
Remineralization effect of hydroxyapatite and its potential for substituting fluoride in dentifrice	Ivana Sutej
Effects on cell viability, growth and morphology of <i>C. albicans</i> SC5314 biofilms after kINPen <sup>®</sup> 09 plasma treatment	Oliver Handorf
Ureolytic and arginolytic activity of dental plaque and saliva and the influence over the bacteria abundance in samples taken from children with or without caries	Gustavo Moncada
Antimicrobial effect of cinnamaldehyde, carvacrol and thymol and their combined effect with penicillin and trimethoprim-sulfamethoxazole against resistant <i>Streptococcus suis</i> strains	Belén Huerta Lorenzo