THE GLOBAL THREAT OF ANTIMICROBIAL RESISTANCE:

SCIENCE FOR INTERVENTION

November, 5th, 6th and 7th, 2013
CosmoCaixa. C/ Isaac Newton, 26. Barcelona
B·Debate is an initiative of Biocat with support from “la Caixa” Foundation which aims to drive top-notch international scientific events to foster debate, collaboration and open exchange of knowledge among experts of renowned national and international prestige. The debates are focused on the integration of diverse disciplines of science in order to tackle major scientific and societal challenges.

“B·Debate strives to help position Barcelona as a benchmark in generating knowledge and Catalonia as a country of scientific excellence”
THE GLOBAL THREAT OF ANTIMICROBIAL RESISTANCE
SCIENCE FOR INTERVENTION

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THE GLOBAL THREAT OF ANTIMICROBIAL RESISTANCE
SCIENCE FOR INTERVENTION
November, 5th, 6th and 7th, 2013

WELCOME

Dear invited speakers and participants,

It is our great pleasure to welcome you to the B-Debate “The Global Threat of Antimicrobial Resistance: Science for Intervention”, co-organised by B-Debate international Center for Scientific Debate Barcelona, an initiative of BioCat with the support of “la Caixa” Foundation, and the Barcelona Institute for Global Health, ISGlobal in partnership with the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) and the Red Española de Investigación en Patología Infecciosa (REIPI).

Over the last few decades, antibiotic therapy has been a pillar in the treatment of bacterial infectious diseases. However, widespread use of these drugs by health professionals and the livestock industry has resulted in an alarming global increase in the prevalence of drug-resistant bacterial infections. Moreover, despite the urgent need to find new antibacterial products, the growth in the numbers and novelty of new pipeline antibiotics is insufficient.

The health threats posed by antimicrobial resistance need to be tackled urgently, in a coordinated manner and in many different ways. Therefore we look forward to generating a stimulating debate among the main stakeholders (i.e. public health authorities, regulatory agencies, pharmaceutical companies and the scientific community at large) involved in the prevention and treatment of infections caused by multidrug resistant bacteria that may lead to generating innovative and interdisciplinary approaches and trigger informed actions.

Yours sincerely,

Jordi Vila (Scientific Leader, Director of ISGlobal’s Antimicrobial Resistance Initiative) and B-Debate (Biocat and “la Caixa” Foundation)
PROGRAM

Tuesday, November, 5th, 2013

13:30  Registration

13:45  Welcome
Enric Banda, Director of Science, Research and Environment Area, “la Caixa” Foundation
Laia Arnal, Head of Research and Scientific Debate, Biocat
Antoni Plasencia, Deputy Director of the Barcelona Centre for International Health Research (CRESIB)

14:00  SESSION 1
Chair: Jordi Vila, Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain

Overview of the Current Situation of Antimicrobial Resistance: Factors Affecting Emergence and Dissemination of ARB
Jordi Vila, Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain

14:30  Combating Antimicrobial Resistance – a WHO Perspective
Hilde Kruse, WHO Regional Office for Europe, Copenhagen, Denmark

15:00  Antibiotic Resistance in Developing Countries: An Emerging and Neglected Public Health Problem. Building Scientific Partnerships for Better Health Policy
Betuel Sigauque, Centro de Investigação em Saúde de Manhiça (CISM), Manhiça, Mozambique

15:30  Coffee break

16:00  SESSION 2
Chair: Gunnar Kahlmeter, Dept. of Clinical Microbiology, Växjö, Sweden

Use of Antibiotics in Animals: Control of the Food Chain
Marta Martins, University College Dublin, School of Public Health, Dublin, Ireland

16:30  Role of EFSA in the Control of AR from Animals
Ernesto Liébana, European Food Safety Authority (EFSA), Parma, Italy

17:00  Antibiotic Resistance in the Community
Lorena López-Cerero, Universidad de Sevilla, Spain

17:30  Consumption of Antibiotics in the Community
Samuel Coenen, Vaccine & Infectious Disease Institute, Antwerpen, Belgium

18:00  Visit to CosmoCaixa

18:45  Cocktail at CosmoCaixa
PROGRAM

Wednesday, November, 6th, 2013

9:00  SESSION 3
Chair: Murat Akova, Hacettepe University School of Medicine Sihhiye, Ankara, Turkey

Antimicrobial Resistance in the Hospital
Jesús Rodríguez-Bañó, Hospital Universitario Virgen Macarena, Sevilla, Spain

9:30  Consumption of Antibiotics in the Hospitals. Antibiotic Stewardship
Inge Gyssens, Canisius-Wilhelmina Ziekenhuis Medical Microbiology & Infectious Diseases, Nijmegen, The Netherlands

10:00  Environmental Reservoirs of Antibiotic Resistance Genes
Elizabeth Wellington, University of Warwick, Coventry, United Kingdom

10:30  Coffee break

11:00  SESSION 4
Chair: Fernando Baquero, Hospital Universitario Ramón y Cajal, Madrid, Spain

Infection Control and Antimicrobial Resistance
Evelina Tacconelli, Universitätsklinikum Tübingen, Tübingen, Germany

Jean-Marc Rolain, Faculté de Médecine et de Pharmacie France, Marseille, France

12:00  Antimicrobial Resistance Surveillance - ECDC
Ole Heuer, European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden

12:30  Strategies to Develop New Antimicrobial Agents
Jordi Vila, Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain

13:00  Lunch
PROGRAM

Wednesday, November, 6th, 2013

14:30 SESSION 5
Chair: Jesús Rodríguez-Bañó, Hospital Universitario Virgen Macarena, Sevilla, Spain

Can the Detection of the PK-PD Help in Containing AR?
Alasdair MacGowan, North Bristol NHS Trust | Southmead Hospital, University of Bristol, Bristol, United Kingdom

15:00 International Harmonisation of Breakpoints – Is It Possible?
Gunnar Kahlmeter, Dept. of Clinical Microbiology, Växjö, Sweden

15:30 The Barriers to Investment in Antibacterial R&D: an Industry Perspective
David Findlay, Global Commercial Lead at GlaxoSltmKline, London, United Kingdom

16:00 How Can We Speed the Development and Launch of a New Antibiotic?
Marco Cavaleri, European Medicines Agency (EMA), London, United Kingdom

16:30 Economic Impact of Antimicrobial Resistance
Ramanan Laxminarayan, Center for Disease Dynamics, Economics and Policy, Washington, USA/India

Thursday, November, 7th, 2013

9:00 SESSION 6
Chair: Jonathan Cohen, Brighton & Sussex Medical School, Brighton, United Kingdom

World Alliance Against Antibiotic Resistance: French Initiative
Jean Carlet, World Alliance Against Antibiotic Resistance (WAAR), Creteil, France

9:30 Stimulate Research on Antimicrobial Resistance, Drug Discovery and Development: National Perspective
Carlos Segovia, Instituto de Salud Carlos III, Madrid, Spain

10:00 Coffee break

10:30 Open Debate
Moderated by: Murat Akova, Fernando Baquero, Jonathan Cohen

11:00 Conclusions and Closing Remarks
SCIENTIFIC COMMITTEE

**Jordi Vila**, Director of ISGlobal’s Antimicrobial Resistance Initiative (ISGlobal)

Jordi Vila is the Head of the Department of Clinical Microbiology in the Hospital Clinic and Full Professor in the School of Medicine, University of Barcelona. He leads the Antimicrobial Resistance Initiative at the Barcelona Institute for Global Health, ISGlobal. He obtained the speciality in clinical microbiology in 1984 and the PhD in Biochemistry in 1985. He obtained a post-doctoral position in Dr. Michael Weber’s Laboratory, at University of Virginia, School of Medicine. Jordi Vila has published 238 articles in peer-reviewed journals, 35 book chapters and directed 11 doctoral thesis. Jordi Vila’s research focuses on investigation of the molecular bases of antimicrobial resistance, mainly in multidrug-resistant Gram-negative bacteria; discovery of new drugs against bacteria; development of molecular tools for rapid diagnosis of infectious diseases; and relationship between antimicrobial resistance and virulence in E. coli, *Salmonella spp.*, *Yersinia enterocolitica*, *Pseudomonas aeruginosa* and *Acinetobacter baumannii*.

**Gunnar Kahlmeter**, Head of the Department of Clinical Microbiology at Central Hospital, Växjö, Sweden

Gunnar Kahlmeter, born in 1949, Professor of Clinical Bacteriology, Uppsala University, Head of the Dept of Clinical Microbiology, Central Hospital, Växjö, Sweden; President of ESCMID 2012-14, Chairman of EUCAST 2001 – 2012; Head of the Reference Laboratory for Antimicrobial Susceptibility Testing (responsible for the development of the European disk diffusion method); more than 100 scientific articles between 1973 and 2013.

**Jesús Rodríguez-Baño**, Head of the Infectious Diseases and Clinical Microbiology Interhospital Department at Hospital Universitario Virgen Macarena, Sevilla, Spain

Dr. Jesús Rodríguez-Baño, PhD, MD, is Head of the Infectious Diseases and Clinical Microbiology Interhospital Department at Hospital Universitario Virgen Macarena and Hospital Universitario Virgen del Rocío, and Associate Professor of Medicine at the University of Seville, Spain. He is chair of the Spanish Network for Research in Infectious Diseases (RIEIPI), funded by the Spanish Government, and Education Officer of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID). He is member of ICAAC and of ECCMIDprogram committees. His main areas of interest in research are multi-drug resistance in bacteria (molecular basis, clinical implications, therapy and control), bacteraemia, and healthcare-related infections. He is author of more than 160 peer-reviewed publications.
INVITED SPEAKERS

Tuesday, November, 5th, 2013

Jordi Vila, Director of ISGlobal’s Antimicrobial Resistance Initiative, Barcelona, Spain
Chair of the SESSION 1
(See his CV at the Scientific Committee Section)

Overview of the Current Situation of Antimicrobial Resistance: Factors Affecting Emergence and Dissemination of ARB

Hilde Kruse, Programme Manager Food Safety at WHO Regional Office for Europe, Copenhagen, Denmark

Dr Hilde Kruse graduated as a DVM from the Norwegian College of Veterinary Sciences in 1990. She holds a PhD in microbiology (1994, thesis “Antimicrobial Resistance – Epidemiological Aspects”) from the same university, and has also done post-graduate training in epidemiology. Dr Kruse has dedicated all her professional life to the veterinary public health fields having held different positions in the Norwegian government, working as a guest researcher on antimicrobial resistance at US Centers for Disease Control and Prevention (CDC), being as Fulbright Fellow to the US Food and Drug Administration (FDA) and US Department of Agriculture (USDA) and since 2007, holding the position as Regional Adviser/Programme Manager Food Safety for the WHO Regional Office for Europe. Dr Kruse is a diplomat of the European College of Veterinary Public Health and is a former member of the European Food Safety Authority’s (EFSA) Scientific Panel on Biological Hazards. Dr Kruse has supervised 4 PhD students and 11 master students, several of them in the area of antimicrobial resistance. She is the author of more than 50 scientific articles in peer reviewed journals, and has published more than 100 abstracts to international scientific conference and more than 50 scientific reports to national and international authorities. Dr Kruse has been actively involved in communication activities, and has been giving interviews on food safety, antimicrobial resistance and zoonoses to TV, newspapers, and radio – both nationally and internationally.

Combating Antimicrobial Resistance – a WHO Perspective

Betuel Sigauque, Senior clinical researcher at Centro de Investigação em Saúde de Manhiça (CISM), Manhiça, Mozambique

Betuel Sigauque, a senior clinical researcher, has been with the Manhiça Health Research Center (CISM) for more than 12 years after completing a degree in Medicine at Eduardo Mondlane University in Mozambique. Dr. Sigauque has a pediatric degree from Maputo Central Hospital, a diploma in Tropical Medicine and Hygiene from Liverpool University and a PhD from the University of Barcelona, Spain in bacterial infection disease among children. Since joining CISM, Dr. Sigauque has served as a training research fellow, Head of Pediatric Services and the Center Coordinator. His research interest is pneumococcal disease and antimicrobial resistance where his experience has produced more than 31 publications, mostly on severe pneumonia and invasive bacterial infection and antibiotic resistance. Dr. Sigauque is Chair of Mozambique’s Working Group for the Global Antibiotic Resistance Partnership (GARP) and has been coordination a development of multicenter project on antibiotic resistance within INDEPTH network. Currently, Dr Sigauque, is leading research on acute respiratory and invasive bacterial infections including antibiotic resistance, at Manhiça health research center, Mozambique. He is also acting as active member of Immunization Experts Committee in the Ministry of Health, where he contributed significantly in the introduction of the Hib conjugate vaccine in 2009 and Pneumococcal Conjugate Vaccine in 2013 in the Expanded Program on Immunization in Mozambique.

Antibiotic Resistance: An Emerging and Neglected Public Health Problem and Building Scientific Partnership for Better Health Policy
Gunnar Kahlmeter, Head of the Department of Clinical Microbiology at Central Hospital, Växjö, Sweden
Chair of the SESSION 2
(See his CV at the Scientific Committee Section)

Marta Martins, Postdoctoral Research Scientist at University College Dublin, School of Public Health, Dublin, Ireland

Dr. Marta Martins has a Ph.D. in Biomedical Sciences, specialization of Microbiology, conferred by the Institute of Hygiene and Tropical Medicine, New University of Lisbon, Portugal. Currently, her research addresses the study of antibiotic resistance in bacteria of public health importance, along with aspects of the infection biology, using a combination of classical microbiology, biochemistry, cell biology, immunology and functional genomic techniques. She is mainly interested in the way that bacteria adapt to certain environments and respond to the stresses encountered, focusing on the bacteria physiological and molecular mechanisms. In the last few years she has published several papers and book chapters addressing this subject. She is also a member of the European network in antibiotic resistance, COST Action- Antibiotic transport & efflux: new strategies to combat bacterial resistance and also of the Action “Translocation” funded under the Innovative Medicines Initiative - ND4BB (‘New Drugs for Bad Bugs’). She is currently a reviewer, by invitation, of manuscripts submitted for publication to Immunotherapy; Biochemistry and Pharmacology; The Open Microbiology Journal; European Journal of Clinical Microbiology & Infectious Diseases; Journal of Nanobiotechnology, being also a member of the Editorial Board of Conference Papers in Microbiology and a Guest Editor of Frontiers in Microbiology.

Use of Antibiotics in Animals: Control of the Food Chain

Ernesto Liébana, Deputy Head of Unit European Food Safety Authority (EFSA), Parma, Italy

EFSA Activites on AMR in the Food Chain: Data Collection and Risk Assessment

Lorena López-Cerero, Clinical microbiologist and researcher at Universidad de Sevilla, Spain

Lorena López-Cerero, M. D., Ph.D., is currently a clinical microbiologist and a researcher in University Hospital Virgen Macarena in Seville, Spain. She received her M. D. and Ph. D. degree from Faculty of Medicine of Zaragoza, Spain. Following completion of her 4-year residency in clinical microbiology, she joined the Microbiology Institute in Valencia as the Technical Director of this private laboratory. After spending 2 years in Valencia, she moved to Skövde, Sweden, to work as clinical microbiologist in the General Hospital during 3 years. Her research is focused on molecular epidemiology of multi-resistant Enterobacteriaceae in community settings as well as nosocomial infection control. Dr. López-Cerero has published over 30 articles, mainly in antibiotic resistance and epidemiology of ESBL-producing Escherichia coli.

Antibiotic Resistance in the Community

Samuel Coenen, Head of the research team Infectious Diseases, Vaccine & Infectious Disease Institute, University of Geneva, Antwerpen, Belgium

Samuel Coenen is head of the research team Infectious Diseases from the Centre for General Practice and its research team Infectious Diseases, collaborating closely with the Vaccine & Infectious Disease Institute (VAXINFECTIO) and particularly with the Laboratory of Medical Microbiology, headed by Herman Goossens. He was granted several Fellowships by the Research Foundation-Flanders (pre-doctoral 1997-1999, and renewed 1999-2002; post-doctoral 2003-2006, and renewed 2006-2009). His research focuses on the multidisciplinary study of infectious diseases, with particular focus on the management of respiratory tract infections in primary care in the context of antimicrobial resistance, and the etiology, diagnosis, prognosis and treatment of bacterial and viral infections.

Consumption of Antibiotics in the Community
INVITED SPEAKERS

Wednesday, November, 6th, 2013

Murak Akova, Professor of Medicine at Hacettepe University School of Medicine Sihhiye, Ankara, Turkey

Dr. Akova graduated from Istanbul Pertevniyal High School and from Istanbul University Faculty of Medicine. He completed his education on internal diseases in Hacettepe University Faculty of Medicine. He became associate professor in 1991 and professor in 1998. He gained the degree of M.Sc. in the branch of clinical microbiology by studying in the Medical Microbiology Department of the School of Medicine of London Hospital in England between the years of 1988 and 1999. He studied in the Center for Adaptation Genetics and Drug Resistance of the Molecular Biology and Microbiology Department of Tufts University Faculty of Medicine in Boston, USA between the dates of August 2002 and March 2003. He gained the TÜBİTAK (the Turkish Institution for Technical and Scientific Research) AWARD for Encouragement in Science in 1997. He has been a member of the execution board of TÜBİTAK Medical Sciences Research Group since 1999. He has been the Turkish representative in the European Council of the European Society for Clinical Microbiology and Infectious Diseases since 2000. Between the years of 1999 and 2003, he was a member of the research committee of the International Antimicrobial Treatment Group of the European Organization for Cancer Research and Treatment; as of March 2003, he was selected to be a member of executive board of the same organization. He has been the Deputy Dean of Hacettepe University Faculty of Medicine since 2000. His scientific areas of interest comprise of antibiotic resistance, blood-borne infections (especially hepatitis), and infections on cancer patients.

Chair of the SESSION 3

Jesus Rodriguez-Bano, Head of the Infectious Diseases and Clinical Microbiology Interhospital Department at, Sevilla, Spain

(See his CV at the Scientific Committee Section)

Antimicrobial Resistance in the Hospital

Inge Gyssens, Senior Researcher and Professor of Infectious Diseases at Department of Medical Microbiology & Infectious Diseases at Canisius-Wilhelmina Ziekenhuis Nijmegen, The Netherlands

Inge is Professor of Infectious Diseases at Hasselt University and Head of the Department of Infectious Diseases at Jessa Hospital, Hasselt, Belgium. She is also affiliated with the Department of Internal Medicine of Radboud University Medical Centre Nijmegen, The Netherlands. She is Board member of SWAB, the Dutch Working Party on Antibiotic Policy and sits on the guideline subcommittee. She is Antimicrobial Resistance Focal Point of the Netherlands for ECDC. Together with Lynette Wijergangs she is coordinating and conducting the communication activities of SWAB, including the translation of E-bug for the Netherlands.

Consumption of Antibiotics in the Hospitals. Antibiotic Stewardship
Elizabeth Wellington. Professor at School of Life Sciences, University of Warwick, Coventry, United Kingdom

Professor Liz Wellington is an active member of the Environment theme within the School of Life Sciences at the University of Warwick. She holds a personal chair and, with her research group, is involved in the study of bacteria in soil and survival of pathogenic bacteria in the environment. Research work focuses on understanding the ecological roles for specific bacterial activities including antibiotic production, resistance and exoenzyme production and analysing the impact of lateral gene transfer. During the past decade expertise has been developed in the detection, quantification and analysis of soil microbial communities, including the identification of pathogen reservoirs outside of their hosts. Her group was one of the first to report the molecular detection of antibiotic biosynthesis in soil and co-evolution of resistance in non-producers. Subsequent work indicated that waste disposal practices further disseminate antibiotic resistance gene into the environment. Studying the fate of introduced bacteria in the environment has focused on the survival of pathogens such as Salmonella species, MRSA, Dichelobacter nodosus and slow growing mycobacteria including the M. tuberculosis complex. Recent research produced the first non-invasive methods for monitoring shedding in wild life and cattle infected with bTB in order to elucidate the impact of control measures on transmission. Her research interests are focused on antibiotic resistance dissemination, aim to identify reservoirs of drug resistance in the environment, defining environmental reservoirs of pathogenic bacteria in soil and water, biodegradation of recalcitrant compounds and biopolymers in the environment, microbial community analysis and specific expertise in the development of environmental proteomics for extraction and analysis of enzymes from soils and wastes, and in the processing of biopolymers and metagenomics and analyses of microbial gene pools in soil; discovery of novel antibiotic gene clusters.

Environmental Reservoirs of Antibiotic Resistance Genes

Fernando Baquero. Scientific Director of the Ramón y Cajal Institute for Research in Biomedicine at the Ramón y Cajal University Hospital in Madrid, Spain

Fernando Baquero MD, PhD is the founder, former Director, and currently a Research Professor in the Department of Microbiology as well as Scientific Director of the Ramón y Cajal Institute for Research in Biomedicine at the Ramón y Cajal University Hospital in Madrid, Spain. His scientific career has been devoted to the detection and genetic mechanisms involved in the emergence and evolution of antibiotic resistance and virulence in bacteria and its epidemiological and ecological bases and implications. He has become more involved in population biology and evolutionary biology of antibiotic resistance, as well as prediction of evolving trends in microorganisms. In this field, he has been deeply involved in research about the use of antibiotics and their selective effects determining changes in bacterial populations.

Chair of the SESSION 4

Evelina Tacconelli, Universitätssklinikum Tübingen, Tübingen, Germany

Evelina Tacconelli studied medicine and infectious diseases at the Università Cattolica del Sacro Cuore (UCSC), Rome, Italy. From 1999 she held a position as an assistant professor in the Division of Infectious Diseases of the UCSC. From 2003 to 2007 she was "Lecturer on Medicine" at the Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, USA. Prof. Tacconelli was the ESCMID (European Society of Clinical Microbiology and Infectious Diseases) awarded in 2004 with the ESCMID prize for the area of nosocomial infections. Since 2012 she has been head of the Department of Internal Medicine I. Focus of her clinical work are severe bacterial infections, and fungal infections of implants. Her scientific interests are focused on epidemiological aspects of bacterial and fungal infections associated with medical therapy, and clinical aspects of resistant infectious diseases and the improvement of antibiotic therapy in hospitals. She was appointed to the ESCMID "Professional Affair Officer" for infectious diseases and is a consultant for many international organizations regarding antibiotic-resistant infections. In addition, she is the editor of The Lancet Infectious Diseases, Clinical Microbiology and Infection and Journal of Antimicrobial Chemotherapy.

Infection Control and Antimicrobial Resistance
Jean-Marc Rolain, Full Professor of Microbiology, Faculté de Médecine et de Pharmacie France, Marseille, France

Jean-Marc Rolain (258 publications, H 32) has an international expertise on Antibiotic Resistance (AR) in multidrug resistant emerging bacteria, especially for the detection and characterization of mechanisms of AR including genome sequencing and analysis using bioinformatic tools. Pr. Jean-Marc Rolain is the Director of Valorization and Transfer in IHU Méditerranée Infection since 2011. He is Head of Microbiology unit teaching at Pharmacy school, Marseille and clinical microbiologist at Timone hospital. He and his team are interested in the description and characterization of new and/or emerging AR genes in general as well as genome evolution in the context of resistance to antibiotics (Diene SM et al, Mol Biol Evol. 2013; 30(2):369-383). He has developed a unique pipeline for automatic annotation of AR genes from bacterial genome sequences called ARG-ANNOT that has been accepted for publication this year (Gupta et al, Antimicrob Agents Chemother. 2013, in press).


Ole Heuer, Senior Expert at the European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden

Dr Heuer’s main areas of expertise are epidemiology and microbiology, coordination of surveillance of antimicrobial resistance and antimicrobial consumption, scientific advice and decision support. Dr Heuer is responsible for coordination and integration of existing EU networks on surveillance of antimicrobial resistance and antimicrobial consumption, into an EU wide surveillance system run by the European Centre for Disease Prevention and Control.

Antimicrobial Resistance Surveillance - ECDC

Jordi Vila, Director of ISGlobal's Antimicrobial Resistance Initiative, Barcelona, Spain

(See his CV at the Scientific Committee Section)

Strategies to Develop New Antimicrobial Agents

Jesús Rodríguez-Baño, Head of the Infectious Diseases and Clinical Microbiology Interhospital Department at Hospital Universitario Virgen Macarena, Sevilla, Spain

See his CV at the Scientific Committee Section

Chair of SESSION 5

Alasdair MacGowan, Professor at the North Bristol NHS Trust Southern Hospital, University of Bristol, Bristol, United Kingdom

Alasdair MacGowan is Professor of Antimicrobial Therapeutics at the University of Bristol and Head of the Research, Specialist and Reference Services offered by the Department of Microbiology. He is the Trust lead of antibiotic stewardship and has a clinical interest in antimicrobial chemotherapy, and treatment of blood stream and bone infection.

Can Detection of the PK-PD Help in Containing AR?
International Harmonisation of Breakpoints – Is It Possible?

David Findlay, Global Commercial Lead at GlaxoSmithKline, London, United Kingdom

David Findlay has held a number of country and global commercial roles in GSK. He has been involved in the infectious disease area for the past 12 years working alongside R&D colleagues in strategy development as well as providing commercial input on new pipeline antibiotics. Recently, David has been working with other industry stakeholders to look at a new commercial model for incentivising investment in antibacterial R&D, including acting as deputy industry co-ordinator for EFPIA on the IMI ND4BB initiative Topic 4: Driving re-investment in R&D and the responsible use of new antibiotics.

The Barriers to Investment in Antibacterial R&D: an Industry Perspective

Marco Cavalieri, Head of Anti-infectives and Vaccines at the European Medicines Agency (EMA), London, United Kingdom

Dr Marco Cavalieri joined European Medicine Agency in 2008 as Group Leader Anti-infectives in the Safety & Efficacy Sector, Pre-Authorisation Human Unit. In 2009 he was appointed as Head of Section for Anti-infectives and vaccines in the Safety & Efficacy Sector, Human Medicines Development and Evaluation Unit, being responsible for the management of pre- and post-authorisation activities of centralised applications/marketing authorisations, and particularly the Safety and Efficacy part, related to medicinal products in the above-mentioned therapeutic areas. Marco Cavalieri is PhD Pharmacologist who spent several years in industry in R&D mainly in the area of anti-infectives covering different positions in preclinical and clinical development. In 2005 he joined the EMEA as Scientific Administrator in the Scientific Advice and Orphan Drugs Sector, specifically being in charge of anti-infectives and vaccines scientific advice procedures. He returned to the Agency in 2008 following a short period in industry leading clinical and preclinical development in the area of Gastroenterology and Infectious Diseases.

How can we speed the Development and Launch of a New Antibiotic?

Ramanan Laxminarayan, Director of the Centre for Disease Dynamics, Economics and Policy, Washington DC, USA/India

Ramanan Laxminarayan directs the Center for Disease Dynamics, Economics & Policy. He is also a Research Scholar and Lecturer at Princeton University. His research deals with the integration of epidemiological models of infectious diseases and drug resistance into the economic analysis of public health problems. He has worked to improve understanding of drug resistance as a problem of managing a shared global resource. Laxminarayan has worked with the World Health Organization (WHO) and the World Bank on evaluating malaria treatment policy, vaccination strategies, the economic burden of tuberculosis, and control of non-communicable diseases. He has served on a number of advisory committees at WHO, Centers for Disease Control and Prevention, and the Institute of Medicine. In 2003-04, he served on the National Academy of Science/Institute of Medicine Committee on the Economics of Antimalarial Drugs and subsequently helped create the Affordable Medicines Facility for malaria, a novel financing mechanism for antimalarials. His work has been covered in major media outlets including Associated Press, BBC, CNN, the Economist, LA Times, NBC, NPR, Reuters, Science, Wall Street Journal, and National Journal.

Economic Impact of Antimicrobial Resistance
INVITED SPEAKERS

Thursday, November, 7th, 2013

Jonathan Cohen, Professor of Infectious Diseases and Dean of the Brighton & Sussex Medical School, Brighton, United Kingdom

Professor Jon Cohen was appointed in January 2002 as the founding Dean of the Brighton and Sussex Medical School when it was created and launched in 2003 as part of a new generation of medical schools developed in the UK. Brighton and Sussex Medical School is an equal partnership between the Universities of Sussex and Brighton together with NHS organisations throughout the southeast. In 2014, Professor Cohen will assume the Presidency of the International Society of Infectious Diseases and he will continue his academic roles with the Lister Institute and Arthritis Research UK and as Chair of the British Medical & Dental Students Trust, among other bodies.

Jean Carlet, President of the World Alliance Against Antibiotic Resistance (WAAR), Intensive Care Unit, Hospital Saint-Joseph, France

Jean Carlet has been trained in internal medicine, and medical intensive care at the Paris University, in France. Until January 2008 he was Head of the Intensive Care Unit and the Infectious Diseases Department, as well as President of the Infectious Control Committee, all at the Groupe Hospitalier Saint-Joseph in Paris. From January 2008 to January 2010, he has been medical director and Head of the Research and Safety Programme at the French Authority for Health (HAS). He is, since that time consultant, in particular for WHO. Dr. Carlet served as the past President of the National Committee for the Prevention of Nosocomial Infections (for the Ministry of Health), from 1992 to 2004. He has been President of the European Society of Intensive Care Medicine (ESICM) from 1996 to 1998. He is a member of several working groups in the French Ministry of Health in the areas of proper usage of antibiotics, prevention of health care associated infections, hepatitis B and C, and emergent viral diseases. He is member of numerous scientific societies. Currently, Jean Carlet is the president of the World Alliance Against Antibiotic Resistance (WAAAR), gathering 500 people from 42 different countries. WAAAR is aiming at protecting antibiotics, and raising awareness of health care professionals, consumers, public health decision and politicians. Waar is willing to put antibiotics in the list of the world heritage of the UNESCO. He also serves on the editorial boards of several journals, including Current Opinion in Critical Care Medicine, Journal of Critical Care, Hygiene, and Sepsis. In the past 30 years, Dr. Carlet has participated in more than 50 clinical trials on the use of both antibiotic and anti-inflammatory agents during severe infections, severe sepsis, and septic shock. His research has also dealt with quality improvement, safety and ethical issues in particular in the intensive care unit. He published 201 papers in peer reviewed journals, as well as numerous book chapters. His hobbies are ski and lyric singing.

World Alliance Against Antibiotic Resistance: French Initiative

Carlos Segovia, Instituto de Salud Carlos III, Madrid, Spain

Carlos Segovia MD, MPH, is head of the accreditation unit for Health Research Institutes at the national Institute of Health Carlos III, Spain. He currently coordinates JPIs To Co-Work, a FP7 project on framework conditions of Joint Programming Initiatives (JPI). He has been vice-chair of the JPI on Antimicrobial Resistance. He has been Deputy Director for International Research Programmes 2009-2013, being involved on health related Joint Programming Initiatives, European infrastructures (of ESFRI), and several ERA-nets. He was coordinator of EU LAC Health, a project to design a roadmap for collaboration between the EU and Latin-America and the Caribbean on health research. He has experience FP7 projects, and in the community health programme 2008-2013. He has been structural trainee at the European Commission. Carlos Segovia is physician, specialized in family medicine, and master of public health from Harvard University.

Stimulate Research on Antimicrobial Resistance, Drug Discovery and Development: National Perspective
SUGGESTED READING

Additional information

Antimicrobial Resistance Initiative at Barcelona Institute of Global Health (ISGlobal)
http://www.isglobal.org/en/web/guest/initiative/-/asset_publisher/S6tUWEKm6F8B/content/resistencias-a-antibioticos
7 Facts on Antibiotic Resistance 7 datos sobre la resistencia a los antibióticos

ESCMID. European Society for Clinical Microbiology and Infectious Diseases
www.escmid.org

REIPI. Red Española de Investigación en Patología Infecciosa
www.reipi.org

WHO. World Health Organization
www.who.int/mediacentre/factsheets/fs194/en/

ECDC. European Centre for Diseases Prevention and Control

GLOBAL ANTIBIOTIC RESISTANCE PARTNERSHIP
www.cddep.org/projects/global_antibiotic_resistance_partnership

Resistance map
www.cddep.org/map

Agència Catalana de Seguretat Alimentària (ACSA)- Generalitat de Catalunya

COMBACTE - Combating Bacterial Resistance in Europe
www.imi.europa.eu/content/combacte

Saturn
www.saturn-project.eu/

Magic bullet
www.magicbullet7fp.eu/

Antipathogen
www.antipathogen.eu/

Rafael Cantón, Juan Pablo Horcajada, Antonio Oliver, Patricia Ruiz Garbajosa, Jordi Vila

Vila-Farrés X, Giralt E, Vila J.

Geli, P., R.Laxminarayan, M.Dunne, Smith DL,
OUTCOMES

B·Debateca

On the website of B·Debate, you will find all the information related with the celebration of the meeting that includes reports, conclusions, scientific documents, interviews with the experts, speaker’s CVs, presentations, videos, images, press documentation and other related materials. We invite you to visit the section B·Debateca on www.bdebate.org!

Contents of the meeting "THE GLOBAL THREAT OF ANTIMICROBIAL RESISTANCE: SCIENCE FOR INTERVENTION"

FOLLOW UP ON SOCIAL MEDIA

#BDebate
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PRACTICAL INFORMATION

B·Debate venue and Cocktail (November 5th)

CosmoCaixa Barcelona
C/ Isaac Newton, 26  08022 Barcelona, Spain
http://obrasocial.lacaixa.es/laCaixaFoundation/home_en.html

Speakers’ hotel

Hotel Balmoral Barcelona
Via Augusta, 5
08006 Barcelona, Spain
Phone: +34 932178700
http://www.hotelbalmoral.com/

Contact person during the event

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Anna Lucas  ISGlobal
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<table>
<thead>
<tr>
<th>Name</th>
<th>Institution/Position</th>
<th>Location</th>
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<tbody>
<tr>
<td>Murat Akova</td>
<td>Hacettepe University School of Medicine Sihhiye, Ankara, Turkey</td>
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<tr>
<td>Angels Alfonso</td>
<td>ISGLOBAL, Barcelona, Spain</td>
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<tr>
<td>Laia Arnal</td>
<td>Biocat (B-Debate), Barcelona, Spain</td>
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<td>Fernando Baquero</td>
<td>Hospital Universitario Ramón y Cajal, Madrid, Spain</td>
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<td>Dàmaris Berbel</td>
<td>Hospital Universitari de Bellvitge, Barcelona, Spain</td>
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<td>Jordi Cámara</td>
<td>Hospital Universitari de Bellvitge, Barcelona, Spain</td>
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<td>Mariana Camoz</td>
<td>Hospital Universitari de Bellvitge, Barcelona, Spain</td>
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<tr>
<td>Jean Carlet</td>
<td>World Alliance Against Antibiotic Resistance (WAAR), Paris, France</td>
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<td>Eva Casamitjana</td>
<td>CRESIB, Barcelona, Spain</td>
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<td>M. Victòria Castell</td>
<td>Agència Catalana de Seguretat Alimentaria, Barcelona, Spain</td>
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<tr>
<td>Marco Cavalieri</td>
<td>European Medicines Agency (EMA), London, UK</td>
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<tr>
<td>Samuel Coen</td>
<td>Vaccine &amp; Infectious Disease Institute, Antwerpen, Belgium</td>
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<tr>
<td>Jonathan Cohen</td>
<td>Brighton &amp; Sussex Medical School, Brighton, UK</td>
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<td>Clara Cosgaya</td>
<td>CRESIB, Barcelona, Spain</td>
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<td>Meritxell Cubero</td>
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<td>Arnau Domenech</td>
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<td>Paula Espinal</td>
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<td>Anna Fàbrega</td>
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<td>Dietmar Fernández</td>
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<td>Beatriz Fiestas</td>
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<td>David Findlay</td>
<td>GlaxoSmithKline, London, UK</td>
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<td>Domingo Gargallo</td>
<td>Ferrer Internacional, Barcelona, Spain</td>
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<td>Clàudia Gomes</td>
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<td>Inge Gyssens</td>
<td>C-Kziekenhuis Medical Microbiology &amp; Infectious Diseases, The Netherlands</td>
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<tr>
<td>Ole Heuer</td>
<td>European Centre for Disease Prevention and Control, Stockholm, Sweden</td>
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<td>Gertrudis Horna</td>
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<td>Silvie Huíllben</td>
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<tr>
<td>Gunnar Kahlmeter</td>
<td>European Society for Clinical Microbiology and Infectious Diseases, Sweden</td>
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<tr>
<td>Hilde Kruse</td>
<td>Antimicrobial Resistance, WHO/Europe, Copenhagen, Denmark</td>
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<tr>
<td>Ramanan Laxminarayan</td>
<td>Center for Disease Dynamics, Economics &amp; Policy, Washington, USA/India</td>
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<tr>
<td>Ernesto Liébana</td>
<td>European Food Safety Agency, Parma, Italy</td>
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<tr>
<td>Lorena López-Gerero</td>
<td>Universidad de Sevilla, Sevilla, Spain</td>
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<td>Anna Lucas</td>
<td>ISGLOBAL, Barcelona, Spain</td>
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<td>Alisdair MacGowan</td>
<td>University of Bristol, Bristol, UK</td>
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<td>Sandra Martínez</td>
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<tr>
<td>Marta Martins</td>
<td>University College Dublin, School of Public Health, Dublin, Ireland</td>
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<td>Laura Muñoz</td>
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<td>Golbahar Pahlavan</td>
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*Intived speakers and chairs in purple*
# LIST OF ATTENDEES*

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<tr>
<th>Name</th>
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<tr>
<td>Noemi</td>
<td>Palma CRESIB, Barcelona, Spain</td>
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<td>Albert</td>
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<td>Albert</td>
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<td>Cristina</td>
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<td>Antoni</td>
<td>Plasencia CRESIB, Barcelona, Spain</td>
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<td>Mª Jesus</td>
<td>Pons CRESIB, Barcelona, Spain</td>
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<td>Carmen</td>
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<td>Ignasi</td>
<td>Roca ISGLOBAL, Barcelona, Spain</td>
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<td>Jesús Rodriguez-Bañó</td>
<td>Hospital Universitario Virgen Macarena, Sevilla, Spain</td>
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<td>Jean-Marc</td>
<td>Rolain Aix-Marseille Université, Marseille, France</td>
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<td>Dora R</td>
<td>Rolo CRESIB, Barcelona, Spain</td>
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<td>Lidia</td>
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<td>Emma</td>
<td>Sáez CRESIB, Barcelona, Spain</td>
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<td>Anna</td>
<td>San Gil Hospital Univ. Mutua Terrassa, Barcelona, Spain</td>
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<td>Amanda</td>
<td>Sans Barcelona, Spain</td>
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<td>Carlos</td>
<td>Segovia Instituto de Salud Carlos III, Madrid, Spain</td>
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<tr>
<td>Betuel</td>
<td>Sigauque Centro de Investigação em Saúde de Manhiça (CISM), Manhiça, Mozambique</td>
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<td>Mar</td>
<td>Solé CRESIB, Barcelona, Spain</td>
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<td>Sara</td>
<td>Soto CRESIB, Barcelona, Spain</td>
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<td>Evelina</td>
<td>Tacconelli Universitätsklinikum Tübingen, Tübingen, Germany</td>
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<td>Raúl</td>
<td>Toran ISGLOBAL, Barcelona, Spain</td>
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<td>Cristina</td>
<td>Villanueva CREAL, Barcelona, Spain</td>
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<tr>
<td>Elizabeth</td>
<td>Wellington University of Warwick, Coventry, UK</td>
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ORGANIZERS

B-Debate International Center for Scientific Debate Barcelona is a Biocat initiative with support from “la Caixa” Foundation. It drives first-rate international scientific debates, to foster dialogue, collaboration and open exchange of knowledge with prestigious national and international experts, to approach complex challenges of high social interest in life sciences. B-Debate seeks debate as a powerful, effective way to generate knowledge and strives to help position Barcelona as a benchmark in generating knowledge and Catalonia as a country of scientific excellence.

B-Debate sees debate as a powerful, effective way to generate new knowledge. The debates are top-notch international scientific meetings featuring a selection of experts of renowned international prestige and scientists that work in Barcelona and Catalonia, moderated by scientific leaders. Since 2009 B-Debate has invited about 800 recognized speakers and over 4,000 attendees. B-Debate seeks out answers to the challenges and needs of society in the field of life sciences, taking into account the complex, ever-changing conditions of this global world.

The debates foster the integration of different disciplines of science and deal with such diverse topics as ageing, new therapeutic approaches to various diseases, innovative technology to improve knowledge of the human genome, food resources, new tools to integrate knowledge management, clinical genomics, neurosciences, climate change, and new energy sources, among others. The knowledge and results obtained through these events is spread throughout both the scientific community and general society through the various B-Debate channels and instruments.

More info: www.bdebate.org

The Barcelona Institute for Global Health (ISGlobal) is the fruit of an innovative public-private alliance between academic, government, and philanthropic institutions to tackle health problems affecting the world’s most vulnerable populations, with the ultimate vision of closing gaps in health disparities between and within different regions of the world.

ISGlobal takes a broad approach to global health issues, carrying out activities all along the value chain of knowledge – knowledge generation through research, knowledge management through the Think Tank, knowledge transmission through training and education and knowledge application through cooperation and technical assistance.

More info: www.isglobal.org
COLLABORATORS

CosmoCaixa

CosmoCaixa offers interactive, enjoyable science and an open door for anyone who is eager to learn and understand and who never stops wondering why things are the way they are. CosmoCaixa Barcelona boasts the Geological Wall and the Amazon Flooded Forest, which features more than 100 plant and animal species that convince visitors they have been transported from the Mediterranean to the very heart of the tropical jungle. In addition to its permanent facilities—Bubble Planetarium, digital Planetarium, Click and Flash, Touch, touch! and Explore your five senses—and its open areas, CosmoCaixa offers a scientific and educational programme that includes exhibitions, workshops, conferences, courses and debates involving experts from all over the world.

More info: http://obrasocial.lacaixa.es/laCaixaFoundation

ESCMID

Since its founding in Germany in 1983, the European Society of Clinical Microbiology and Infectious Diseases, ESCMID, has evolved to become Europe’s leading society in clinical microbiology and infectious diseases with members from all European countries and all continents. ESCMID is a non-profit organization whose mission is to improve the diagnosis, treatment and prevention of infection-related diseases. This is achieved by promoting and supporting research, education, training, and good medical practice. For more than 25 years, ESCMID has been an influential component in the professional lives of microbiologists and infectious disease specialists and now reaches more than 33,000 members and affiliated members around the world.

More info: www.escmid.org

REIPI

The Spanish Research Network in Infectious Diseases (REIPI, Red Española de Investigación en Patología Infecciosa), is formed by 16 Spanish leading research groups REIPI whose aim is to improve high quality basic, translational and clinical research in the area of clinical microbiology and infectious diseases. REIPI is funded by Ministerio de Economía y Competitividad, Instituto de Salud Carlos III, and co-financed by the European Development Regional Fund “A way to achieve Europe” (ERDF).

More info: www.reipi.org