

Department: Agriculture and Food

Group name: *Antibiotic Resistance, Food Safety and Public Health*

Acronym: *OneHealth-UR*

Group Coordinator: Torres Manrique, Carmen

ANEP Area/s: Food science and technology; Biomedicine

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RESEARCH TEAM

No. of researchers: 8

<u>Researcher</u>	<u>Department</u>	<u>Professional Category</u>
Torres Manrique, Carmen	Agriculture and Food	Full Professor
Fernández Fernández, Rosa	Agriculture and Food	Pre-doctoral
Lozano Fernández, Carmen	Agriculture and Food	Temporary Associate Professor
Olarte Martínez, Maria del Carmen	Agriculture and Food	Associate Professor
Robredo Valgañón, Beatriz	Agriculture and Food	Temporary Associate Professor
Ruiz Ripa, Laura	Agriculture and Food	Pre-doctoral
Sanz Cervera, Susana A.	Agriculture and Food	Full Professor
Zarazaga Chamorro, Miriam	Agriculture and Food	Associate Professor

COLLABORATORS

No. of collaborators: 6

<u>Collaborators</u>	<u>Department</u>	<u>Professional Category</u>
García Vela, Sara	Agriculture and Food	
Gómez Villaescusa, Paula	Agriculture and Food	Part-time Hire
Martínez Álvarez, Sandra	Agriculture and Food	

Olouwafemi Mistourath, Mama	Agriculture and Food
Pino Hurtado, Mario Sergio	Agriculture and Food
Rodríguez Medina, Ohiana	Agriculture and Food

Research areas

Molecular characterisation and ecology of antimicrobial resistance in bacteria of human, animal, food and environmental origin. "One Health" perspective
Role of the food chain in the transfer of antibiotic-resistant bacteria with virulence factors. Impact on Food Safety and Public Health.
Epidemiology of antibiotic resistance, and molecular characterisation of bacteria in the animal-man-environmental ecosystem "interface".
Ecology of the intestinal microbiota of people and animals. Influence of diet and health implications.
New antimicrobials and new therapeutic strategies
Characterisation of antimicrobial peptides secreted by bacteria of different origin and their applications.
Genetic characterisation and propagation paths of pathogenic microorganisms, altering and beneficial in food.
Molecular traceability.
Processing technologies, food preservation and packaging: quality control of agri-food processes, shelf life studies.
Dissemination of the problem of antibiotic resistance to the specialised/non-specialised public.

Scientific and technological offer

Identification, characterisation and quantification of microorganisms of interest in the food industry, both altering microorganisms and pathogens, and beneficial microorganisms.
Identification and characterisation of microorganisms of interest in human and animal health using molecular biology techniques and MALDI-TOF mass spectrometry.
Genetic characterisation of resistance mechanisms to antimicrobial agents.
Genetic and biochemical characterisation of antimicrobial peptides of bacterial origin.
Characterisation of genes, study of mutations and genetic markers of health and food interest.
Clonal characterisation of microorganisms of interest in food and in human and animal health for epidemiological or technological purposes.
Study of new antimicrobials and new therapeutic strategies
Molecular traceability.
Availability of pilot food product processing plant and sensory analysis room.
Shelf life studies and innovation of food processing and preservation technologies.

National and International Relations

International:

University of Notre Dame, Department of Chemistry and Biochemistry, Notre Dame, IN, USA (Prof. S. Mobasheri and Dr. M. Chang).

Department of Veterinary Medicine, Freie Universität, Berlin, Germany (Dr. S. Schwarz).

Faculty of Veterinary, University of Trás-os-Montes e Alto Douro (UTAD), Vila Real, Portugal (Dr. P. Poeta, Dr. G. Igrejas).

University of Laval, Quebec, Canada (Dr. Ismail Fliss).

Department of Clinical Veterinary Medicine, University of Cambridge, UK (Dr. M. A. Holmes).

Faculty of Pharmacy, University of Porto, Portugal (Dr. L. Peixe)

Department of Medical Microbiology, University Medical Center Utrecht, Utrecht, The Netherlands (Dr. R.J.L. Willems).

Institute of Basic Medical Sciences. Faculty of Medicine. University of Oslo, Norway (Dr. J. Corander).

University of Buenos Aires, Buenos Aires, Argentina (Dr D. Centrón; Dr. P. Quiroga).

Université de Limoges, Faculté de Médecine, Limoges, France (Dr M.C. Ploy).

Centre Hospitalo-Universitaire d'Amiens, Faculté de Médecine d'Amiens, Université de Picardie Jules Verne, Amiens, France (Dr. H. Mammeri).

National Institute of Health Dr. Ricardo Jorge (INSA), Lisbon, Portugal (Dr. M. Canica).

National Veterinary Institute, Sweden. (Dr S. Börjesson).

Institute of Microbiology and Epizootics, Veterinary Faculty, Berlin, Germany (Dr S. Gunther).

Department of Microbiology, Faculty of Sciences, University El Manar of Tunis, Tunisia (Prof. A. Boudabous, Dr K. Ben Slama, Dr. N. Klibi).

Institut Pasteur, Tunis, Tunisia (Dr. A. Jouini).

Institute of Veterinary Research of Tunis, Tunisia (Prof. MS Abbassi).

Charles Nicolle Hospital, Laboratory of Microbiology, Tunis, Tunisia (Dr. I. Boutiba-Ben Boubaker).

Faculty of Veterinary Medicine, Utrecht University. Department of Farm Animal Health Utrecht, The Netherlands (Dr. Gerrit Koop).

General Hospital of Massachusetts, Boston, USA (Dr. L. Vinué).

Department of Microbiology and Infection Control. Statens Serum Institut, Copenhagen, Denmark (Dr. J. Larsen, M. Stegger, R. Skov).

Faculty of Science and Technology, Universidade Nova de Lisboa, Portugal (Dr. J.L. Capelo, C. Lodeiro).

Dept. of Medical Microbiology, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands (Dr. J. M. van Dijk).

Meritorious Autonomous University of Puebla, Mexico (Dr. R. Rocha, Dr. P. Lozano).

Department of Microbiology and Immunology, UNESP, Botucatu, SP, Brazil (Dr. N. Cirone, Dr. Vera Rall).

Environmental Genomics and Systems Biology Research Group, Institute of Natural Resource Sciences, Zurich University of Applied Sciences, Switzerland (Dr. E. Gómez-Sanz).

Faculty of Biological Sciences, University of Sciences and Technology Houari Boumediene, Algiers, Algeria (Dr. R. Bakour).

Division of Infectious Diseases, Department of Biochemistry and Molecular Biology, Wayne State University, Detroit, USA (Dr. S.A. Lerner).

Department of Veterinary Pathology and Microbiology, University of Nigeria, Nasukka (Dr. K. Chah).

University of Djelfa, Algeria (Dr. A. Hackem).

National:

Biomedical Research Center (CIBIR), Logroño (Dr Y. Sáenz/ Dr. B. Rojo/ Dr. M. de Toro/ Dr. M. López)

Microbiology Laboratory, San Pedro Hospital, Logroño (Dr. J.M. Azcona; Dr. C. A. Alonso).

Meat Industry Technological Centre (CTIC), La Rioja. (L. Navarro, E. Romero).

BioRioja Clean-Biotec Group (Dr. N. Beaucourt).

Mushroom Research Technological Centre (CTICH)- M. Fernández.

Regional Laboratory of La Grajera, Logroño.

Microbiology Service, Ramón y Cajal Hospital, Madrid (Dr. F. Baquero, Dr. R. Canton, Dr. T. Coque, Dr. R. Del Campo).

Microbiology Laboratory, Royo-Villanova Hospital, Zaragoza (Dr. C. Aspiroz).

Microbiology Service, Lozano Blesa Clinical University Hospital, Zaragoza (Dr. J. Castillo, Dr. C. Seral).

Microbiology Service, Miguel Servet Hospital, Zaragoza (Dr. A. Rezusta).
Animal Pathology Department. Faculty of Veterinary Medicine, University of Zaragoza (Dr. C. Simón).
Department of Animal Production and Food Technology. University of Zaragoza (Dr. L. Sánchez).
Microbiology Service, Gregorio Marañón University Hospital, Madrid (Dr. E. Cercenado).
Microbiology Service. Virgen Macarena Hospital (Dr. L. López Cerero).
Barcelona Centre for International Health Research (CRESIB) and the Microbiology Service at the Clínic Hospital of Barcelona (Dr. J. Vila, Dr. J. Ruiz, Dr. F. Marco).
National Biotechnology Centre, Madrid (Dr. J.L. Martínez).
Institute of Biomedicine and Biotechnology of Cantabria, University of Cantabria (Dr. F. de la Cruz).
E. coli. reference laboratory (University of Santiago de Compostela, Lugo) (Dr. J. Blanco, Dr. A. Mora).
Hunting Resources Research Institute (IREC), CSIC Centre, Ciudad Real (U. Höffle, F. Ruiz-Fons, C. Cortázar, D. González-Barrio).
Department of Biodiversity and Evolutionary Biology, National Museum of Natural Sciences in Madrid (CSIC) (Dr. Alfonso Navas).
Faculty of Veterinary Medicine, Complutense University of Madrid (Dr. J. M. Rodríguez).
Animal Pathology Department, Faculty of Veterinary Medicine. Complutense University, Madrid (Dr M.A. Moreno).
Son Dureta Hospital, Palma de Mallorca (Dr. A. Oliver, Dr. J. Juan).
Arnau de Vilanova University Hospital, Lleida (Dr Alba Belles).
Department of Internal Medicine, University Consortium of Vic, Barcelona (Dr. E. Reynaga).
Microbiology Service, Pontevedra General Hospital (Dr. M. García-Campello).
Virgen de la Cinta Hospital (Tortosa) (Dr. M.O. Pérez).
Microbiology Service, Getafe Hospital (Dr. J.I. Alós).