

Fecha del CVA	22/07/2022
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Parte A. DATOS PERSONALES

Nombre	Jose Manuel		
Apellidos	Ortiz de la Rosa		
Sexo	Hombre	Fecha de Nacimiento	13/09/1993
DNI/NIE/Pasaporte	47394793G		
URL Web			
Dirección Email	ortiz_dela_8@hotmail.com		
Open Researcher and Contributor ID (ORCID)	0000-0002-2899-7207		

A.1. Situación profesional actual

Puesto	PostDoc Sara Borrell		
Fecha inicio	2022		
Organismo / Institución	FISEVI		
Departamento / Centro			
País		Teléfono	
Palabras clave	Microbiología médica		

A.2. Situación profesional anterior (incluye interrupciones en la carrera investigadora - indicar meses totales, según texto convocatoria-)

Periodo	Puesto / Institución / País
2020 - 2021	PostDoc / University of Fribourg
2017 - 2020	PhD student / University of Fribourg
2016 - 2017	Master intership / INSTITUTO DE BIOMEDICINA DE SEVILLA

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
Medical Sciences	University of Fribourg / Suiza	2020
Environment, Industrial and Food Biotechnology	University Pablo of Olavide	2017
Biochemistry	University of Seville	2015

Parte B. RESUMEN DEL CV

My research career began in 2016 with a one-year internship as a Master student in the Institute of Biomedicine of Seville (IBiS) (Department of Infectious Diseases). Then, I joined the Medical and Molecular Microbiology Unit (University of Fribourg, Switzerland) in 2017 as PhD student, and in 2020 I defended my doctoral thesis acquiring the doctoral degree in Medical Sciences. After this, I continue my research as postdoctoral researcher for one year more in the Medical and Molecular Microbiology Unit (University of Fribourg, Switzerland), an internationally reference research group in the field of Microbiology. Currently, I am working in the section of Microbiology of the Hospital Virgen del Rocío as a researcher.

My research career has focused on the study of the Gram-negative bacteria as a microorganism prone to acquire resistance mechanism to broad-spectrum β -lactams, as well as the characterization of those resistance mechanisms and strategies to control their spread. As a result of my research, **I have published 20 scientific articles** in indexed journals, among them I am the first author of 7 high-standard articles (one in the Journal of Antimicrobial Chemotherapy, one in the Journal of Clinical Microbiology, one in the Journal of Global Antimicrobial Resistances, one in the Diagnostic Microbiology and Infectious Diseases, and three in the Antimicrobial Agents and Chemotherapy), the second author of 9 articles (one in the Journal of Antimicrobial Chemotherapy, six in the Antimicrobial Agents and Chemotherapy, one in the Emerging Infectious Diseases, and one in Food Microbiology), the third author of

3 articles (one in the **Lancet Infectious Diseases**, one in the Journal of Clinical Microbiology and one in the Journal of Clinical Medicine), and the sixth author of 1 article in the Antimicrobial Agents and Chemotherapy. Five of these articles are published in journals classified in the first decil and another 13 articles in the first quartile, and 2 in the second quartile. I attended 12 congresses encompassing a total of 18 communications.

Regarding the academic part of my career, I have supervised 3 international students coming from France and Turkey. I transferred to them all my knowledge in Microbiology, and I showed them how to be independent in the laboratories, and how to develop their own ideas. From these 3 stages which I supervised, one study was published in high impact journal (AAC), and the other two are under submission process in international journals too.

In addition, I have collaborated in four funded projects, one European project funded by the Joint Programming Initiative on Antimicrobial Resistance (JPIAMR), one Swiss project funded by the Swiss National Science Foundation, and two Spanish projects funded by the Instituto de Salud Carlos III. During COVID-19 lock-down, I worked in the National Reference Center for Emerging Antibiotic Resistance (NARA). This center was created as a part of the Medical and Molecular Microbiology Unit with the aim to analyze and study epidemiologically the emerging resistant pathogens from Switzerland. Moreover, I participated as a member of a committee in a Swiss workshop aiming the implementation of Swiss-wide reporting guidelines for NGS-based bacterial typing and resistance/virulence prediction.

Moreover I have reviewed three articles submitted Journal of Antimicrobial Chemotherapy, Antimicrobial Agents and Chemotherapy, and African Journal of Laboratory Medicine. Finally, in 2019, I have been awarded by the Swiss Society for Microbiology. Annual meeting (Zurich, Switzerland) for the best oral presentation of the section "Clinical Microbiology".

Parte C. LISTADO DE APORTACIONES MÁS RELEVANTES

C.1. Publicaciones más importantes en libros y revistas con "peer review" y conferencias

AC: Autor de correspondencia; (n° x / n° y); posición firma solicitante / total autores. Si aplica, indique el número de citaciones

- 1 Artículo científico.** Laurent Poirel; Jose Manuel Ortiz de la Rosa; Mustafa Sadek; Patrice Nordmann. (2/4). 2022. Impact of acquired broad-spectrum β -lactamases on susceptibility to cefiderocol and newly-developed β -lactam/ β -lactamase inhibitor combinations in *Escherichia coli* and *Pseudomonas aeruginosa* Antimicrobial Agents and Chemotherapy. American Society for Microbiology.
- 2 Artículo científico.** Jose Manuel Ortiz de la Rosa; Patrice Nordmann; Laurent Poirel. (1/3). 2021. Antioxidant Molecules as a Source of Mitigation of Antibiotic Resistance Gene Dissemination Antimicrobial Agents and Chemotherapy. American Society for Microbiology. 65-6, pp.e02658-20. <https://doi.org/10.1128/AAC.02658-20>
- 3 Artículo científico.** Laurent Poirel; Jose Manuel Ortiz de la Rosa; Zeynep Sakaoglu; Ayda Kusaksizoglu; Mustafa Sadek; Patrice Nordmann. (2/6). 2022. NDM-35-Producing ST167 *Escherichia coli* Highly Resistant to β -Lactams Including Cefiderocol Antimicrobial Agents and Chemotherapy. American Society for Microbiology. pp.e00311-22.
- 4 Artículo científico.** Jose Manuel Ortiz de la Rosa; Maxime Bouvier; Laurent Poirel; Gilbert Greub; Dominique Blanc; Patrice Nordmann. (1/6). 2022. Cross-reaction of naturally-produced β -lactamases from *Citrobacter farmeri* and *Citrobacter amalonaticus* with immunological detection of CTX-M enzymes Diagnostic Microbiology and Infectious Disease. Elsevier. pp.115760.
- 5 Artículo científico.** Jose Manuel Ortiz de la Rosa; Patrice Nordmann; Zhiyong Zong; Laurent Poirel. (1/4). 2022. *Aliidiomarina shirensis* as possible source of the integron- and plasmid-mediated fosfomycin resistance gene *fosC2* Antimicrobial Agents and Chemotherapy. American Society for Microbiology.

- 6 **Artículo científico.** 2022. Molecular Characterization of Extended-Spectrum β -lactamase Producers, Carbapenemase Producers, Polymyxin-Resistant, and Fosfomycin-Resistant Enterobacterales Among Pigs from Egypt
- 7 **Artículo científico.** Patrice Nordmann; Mustafa Sadek; Jose Manuel Ortiz de la Rosa; Stefan Pfister; Claudine Fournier; Laurent Poirel. (3/6). 2021. Selective screening culture medium for fosfomycin resistance in Enterobacterales Journal of Clinical Microbiology. American Society for Microbiology. pp.02063-21.
- 8 **Artículo científico.** Guilhem Royer; Jose-Manuel Ortiz de la Rosa; Xavier Vuillemin; et al;. (2/12). 2021. Chlorhexidine reduced susceptibility associated to tetracycline resistance in clinical isolates of Escherichia coli Antimicrobial Agents and Chemotherapy. American Society of Microbiology.
- 9 **Artículo científico.** Mustafa Sadek; Jose Manuel Ortiz de la Rosa; Mohamed Abdelfattah Maky; Mohamed Korashe Dandrawy; Patrice Nordmann; Laurent Poirel. (2/6). 2021. Genomic Features of MCR-1 and Extended-Spectrum β -Lactamase-Producing Enterobacterales from Retail Raw Chicken in Egypt Microorganisms. MDPI. 9, pp.195. ISSN 2076-2607. <https://doi.org/10.3390/microorganisms9010195>
- 10 **Artículo científico.** Jose Manuel Ortiz de la Rosa; Patrice Nordmann; Laurent Poirel. (1/3). 2020. Pathogenicity Genomic Island-Associated CrpP-Like Fluoroquinolone-Modifying Enzymes among Pseudomonas aeruginosa Clinical Isolates in Europe. Antimicrobial Agents and Chemotherapy. American Society for Microbiology. 64, pp.e00489-20. ISSN 0066-4804. <https://doi.org/10.1128/AAC.00489-20>
- 11 **Artículo científico.** Marta Aires-de-Sousa; Jose Manuel Ortiz de la Rosa; Maria Luísa Goncalves; Augusto Costa; Patrice Nordmann; Laurent Poirel. (2/6). 2020. Occurrence of NDM-1-producing Morganella morganii and Proteus mirabilis in a single patient in Portugal: probable in vivo transfer by conjugation. Journal of Antimicrobial Chemotherapy. Oxford Academic. 75, pp.903-906. ISSN 0305-7453. <https://doi.org/10.1093/jac/dkz542>
- 12 **Artículo científico.** Ángel Rodríguez Villodres; Rémy A Bonnin; Jose Manuel Ortiz de la Rosa; et al;. (3/9). 2019. Phylogeny, Resistome, and Virulome of Escherichia coli Causing Biliary Tract Infections. Journal of Clinical Medicine. MDPI. 8-12, pp.2118. ISSN 2077-0383. <https://doi.org/10.3390/jcm8122118>
- 13 **Artículo científico.** Nicolas Kieffer; Guilhem Royer; Jean-Winoc Decousser; et al; ;. (6/10). 2019. Erratum for Kieffer et al., "mcr-9, an Inducible Gene Encoding an Acquired Phosphoethanolamine Transferase in Escherichia coli, and Its Origin". Antimicrobial Agents and Chemotherapy. American Society for Microbiology. 63-11, pp.e01866-19. ISSN 0066-4804. <https://doi.org/10.1128/AAC.01866-19>
- 14 **Artículo científico.** Laurent Poirel; Jose Manuel Ortiz de la Rosa; Anaïs Richard; Marta Aires-de-Sousa; Patrice Nordmann. (2/5). 2019. CTX-M-33, a CTX-M-15 derivative conferring reduced susceptibility to carbapenems. Antimicrobial Agents and Chemotherapy. American Society for Microbiology. 63-12, pp.e01515-19. ISSN 0066-4804. <https://doi.org/10.1128/AAC.01515-19>
- 15 **Artículo científico.** Marta Aires-de-Sousa; Jose Manuel Ortiz de la Rosa; Maria Luísa Gonçalves; Ana Luísa Pereira; Patrice Nordmann; Laurent Poirel. (2/6). 2019. Epidemiology of Carbapenemase-Producing Klebsiella pneumoniae in a Hospital, Portugal. Emerging Infectious Diseases. Centers for Diseases Control and Prevention. 25-9, pp.1632-1638. ISSN 1080-6040. <https://doi.org/10.3201/eid2509.190656>
- 16 **Artículo científico.** Nicolas Kieffer; Guilhem Royer; Jean-Winoc Decousser; et al; ;. (6/10). 2019. mcr-9, an Inducible Gene Encoding an Acquired Phosphoethanolamine Transferase in Escherichia coli, and Its Origin. Antimicrobial Agents and Chemotherapy. American Society for Microbiology. 63-9, pp.e00965-19. ISSN 0066-4804. <https://doi.org/10.1128/AAC.00965-19>
- 17 **Artículo científico.** Jose Manuel Ortiz de la Rosa; Patrice Nordmann; Laurent Poirel. (1/3). 2019. ESBLs and resistance to ceftazidime/avibactam and ceftolozane/tazobactam combinations in Escherichia coli and Pseudomonas aeruginosa. Journal of Antimicrobial and Chemotherapy. Oxford Academic. 74-7, pp.1934-1939. ISSN 0305-7453. <https://doi.org/10.1093/jac/dkz149>

- 18 Artículo científico.** Laurent Poirel; Jose Manuel Ortiz de la Rosa; Nicolas Kieffer; Véronique Dubois; Aurélie Jayol; Patrice Nordmann. (2/6). 2018. Acquisition of Extended-Spectrum β -Lactamase GES-6 Leading to Resistance to Ceftolozane-Tazobactam Combination in *Pseudomonas aeruginosa*. *Antimicrobial Agents and Chemotherapy*. American Society for Microbiology. 63-1, pp.e01809-18. ISSN 0066-4804. <https://doi.org/10.1128/AAC.01809-18>
- 19 Carta científica.** José Manuel Ortiz de la Rosa; Anthony Demord; Laurent Poirel; Gilbert Greub; Dominique Blanc; Patrice Nordmann. (1/6). 2021. False immunological detection of CTX-M enzymes in *Klebsiella oxytoca* *Journal of Clinical Microbiology*. American Society for Microbiology. 59-6, pp.e00609-21.
- 20 Carta científica.** Laurent Poirel; Patrice Nordmann; Jose Manuel Ortiz de la Rosa; Mzia Kutateladze; Sören Gatermann; Mario Corbellino. (3/6). 2020. A phage-based decolonisation strategy against pan-resistant enterobacterial strains. *The Lancet Infectious Diseases*. The Lancet. 20-5, pp.525-526. ISSN 1473-3099. [https://doi.org/10.1016/S1473-3099\(20\)30140-7](https://doi.org/10.1016/S1473-3099(20)30140-7)
- 21 Carta científica.** Ángel Rodríguez Villodres; Jose Manuel Ortiz de la Rosa; Rocío Álvarez Marín; Jerónimo Pachón; Javier Aznar; José Antonio Lepe; Younes Smani. (2/7). 2017. Heteroresistance to Piperacillin-Tazobactam in Clinical Isolates of *Escherichia coli* Sequence Type 131. *Antimicrobial Agents and Chemotherapy*. American Society for Microbiology. 62-1, pp.e01923-17. ISSN 0066-4804. <https://doi.org/10.1128/AAC.01923-17>

C.3. Proyectos o líneas de investigación

- 1 Proyecto.** Emerging antibiotic resistance in Gram-negative bacilli; deciphering acquired resistance mechanisms to β -lactam/ β -lactamase inhibitor combinations and to fosfomicin. Nordmann Professor. (University of Fribourg). 01/03/2020-28/02/2023. 474.000 €.
- 2 Proyecto.** *Escherichia coli* ST131: a model for high-risk transmission dynamics of antimicrobial resistance. Joint Programming Initiative on Antimicrobial Resistance (JPIAMR). Johann Pitout. (University of Fribourg). 01/09/2017-30/09/2020. 1.392.694 €. Miembro de equipo.
- 3 Proyecto.** PI16/01378, Eficacia terapéutica de la oxiclozanida como terapia combinada con colistina in vitro y en modelos experimentales murinos de infecciones graves. Instituto de Salud Carlos III. Younes Smani. (INSTITUTO DE BIOMEDICINA DE SEVILLA). 01/01/2017-31/12/2019. 64.735 €. Miembro de equipo.
- 4 Proyecto.** CP15/00135, Overexpression of outer membrane protein A (OmpA) as a risk factor for mortality in bacteremia by *Escherichia coli* and *Klebsiella pneumoniae*. Instituto de Salud Carlos III. (INSTITUTO DE BIOMEDICINA DE SEVILLA). 01/01/2016-31/12/2018. 121.000 €. Miembro de equipo.