

<b>Fecha del CVA</b>	06/12/2021
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## Parte A. DATOS PERSONALES

Nombre	Jose F.		
Apellidos	Ruiz Pérez		
Sexo	Hombre	Fecha de Nacimiento	20/05/1975
DNI/NIE/Pasaporte	44284357L		
URL Web	<a href="http://www.cabimer.es/web3/en/jose-francisco-ruiz-perez/">http://www.cabimer.es/web3/en/jose-francisco-ruiz-perez/</a>		
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Open Researcher and Contributor ID (ORCID)	0000-0002-0039-3524		

### A.1. Situación profesional actual

Puesto	Profesor Titular		
Fecha inicio	2019		
Organismo / Institución	Universidad de Sevilla		
Departamento / Centro	Bioquímica Vegetal y Biología Molecular / Facultad de Biología		
País	España	Teléfono	
Palabras clave	Ciencias biológicas		

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

Periodo	Puesto / Institución / País
2017 - 2019	Profesor Contratado Doctor / Universidad de Sevilla
2012 - 2017	Investigador Ramón y Cajal / Universidad de Sevilla
2010 - 2012	Investigador Posdoctoral JAE-DOC / Consejo Superior de Investigaciones Científicas
2009 - 2010	Profesor Ayudante Doctor / Universidad de Sevilla
2006 - 2008	Investigador Posdoctoral Juan de la Cierva / Universidad de Sevilla
2004 - 2005	Investigador Posdoctoral / Universidad de Sevilla
1999 - 2004	Estudiante Predoctoral / Centro de Biología Molecular Severo Ochoa

### A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
Biología molecular	Universidad Autónoma de Madrid	2004
Bioquímica	Universidad de Granada	1998

## Parte B. RESUMEN DEL CV

My research career has been mainly focused on understanding how cells maintain their genome stability, investigating the molecular basis of the three R's in DNA metabolism (replication, repair and recombination). During my PhD, I was trained in biochemistry and molecular biology in the laboratory of Prof. L. Blanco (CBM-SO, Madrid) where I contributed to the identification and initial characterization of two novel PolX human DNA repair polymerases. My work gave rise to many original research articles, having special relevance those initially describing these enzymes (EMBO J 2000; JMB 2001) and those uncovering biochemical and functional roles of human Pol mu (NAR 2003 and 2004). During my postdoc, I was trained in Genetics in the laboratory of Prof. A. Aguilera (Universidad de Sevilla, US), where my work was primarily focused on deciphering the molecular basis of genetic instability in eukaryotic cells, with particular attention to mechanisms of DNA double-strand break (DSB) generation and repair. This research allowed us to identify new sources of DSBs (PLoS Gen 2011) and to characterize novel pathways for genome integrity maintenance after this type of DNA lesion (MCB 2009). Afterwards, I combined my previous expertise to identify the

role and regulation of PolX polymerases during NHEJ-mediated repair of DSBs that result in the formation of chromosomal translocations, a particular type of genomic rearrangements with strong oncogenic potential. This research was my first work as a senior PI (PLoS Gen 2013). After obtaining a tenure-track Ramón y Cajal contract in the 2011-2012 call, I joined the Universidad de Sevilla-Cabimer in 2013. Due to the scientific policy of this research center at that time, I had to join a previously established group, with which I started a fluid and productive collaboration. Thanks to the funding I obtained in the R&D program that year (BFU2013-44343-P) I was able to hire a PhD student, Marta Moreno-Oñate, with whom to develop my research line. Unfortunately, our studies were sadly discontinued as we did not get funding in the second call for the national R&D program that we attended, and our thesis had to end abruptly after two years of fruitful work. In spite of this, I have been able to continue with the line of research over the years, although at a slower pace, and I have been able to publish part of our results in two pieces of work in which I am the corresponding author (Sastre-Moreno et al. DNA Repair 2017; Moreno-Oñate et al. JMB 2020). Results from the third objective of my original project are currently being obtained (Ruiz and Moreno-Oñate, in preparation). In addition to these articles, I have collaborated with different laboratories in the consequence of other pieces of work, as can be seen in the attached CV. The results obtained during this period have also generated several new research lines, one of which represents the first objective of this proposal (Uncovering the role of human Polλ in the repair of etoposide-mediated DSBs). In the last calls of the national R&D program I have been trying to recover the funding in order to continue with the initiated research lines, which, in this time, were maintained (although to a minimum) thanks to the humble funding obtained from the Universidad de Sevilla, and punctual support of colleagues. On the other hand, in this period, I have been qualified for PCD (2017) and PTU (2019) in the department of Plant Biochemistry and Molecular Biology to which I belong, and where I teach up to 12 ECTS per year. During the period in which I have had my own funding I have demonstrated high capacity as head of the research group, confirmed by the three publications as a responsible researcher (corresponding author) and by the supervision and training of young master and PhD students. Currently I am trying to regain the vigor of my research with new ideas based on robust preliminary results, a germinal team and with the guarantees offered by my great expertise in the research area and my stabilized position at the university as an associate professor (PTU).

### **General indicators of quality of scientific production**

Research productivity (sexenios): **3** (2000-2005, 2006-2013, 2016-2021)

H-index: **13**

Total number of publications with IF: **20**

Total number of book chapters: **1**

Corresponding author: **3**

Total number of citations: **1.003** (Scopus)

Teaching (quinquenos): **1** (2012-2017; next in 2022)

Doctoral theses directed: **1**

TFM-Master supervised: **3**

TFG supervised: **8**

## **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; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

- 1 **Artículo científico.** María García-Rubio; Paula Aguilera; Juan Lafuente-Barquero; Jose F. Ruiz; MN Simon; Vincent Geli; Ana G. Rondon; Andrés Aguilera. (4/8). 2018. Yra1-bound RNA–DNA hybrids cause orientation-independent transcription–replication collisions and telomere instability *Genes and Development*. 32, pp.965-977. SCOPUS (13)
- 2 **Artículo científico.** Almudena Serrano-Benítez; Felipe Cortes-Ledesma; Jose F. Ruiz. (3/3). 2020. An End to a Means: How DNA-End Structure Shapes the Double-Strand Break Repair Process *Frontiers in Molecular Biosciences*. Frontiers Editorial. 6-153, pp.1-9.
- 3 **Artículo científico.** Sandra Muñoz-Galván; María García-Rubio; Pedro Ortega; Jose F. Ruiz; Sonia Jimeno; Benjamín Pardo; Belén Gómez-González; Andrés Aguilera. (4/8). 2017. A role for Rrm3 in sister chromatid recombination upon replication-born DNA breakage *PLoS Genetics*. 13-5, pp.e1006781. SCOPUS (9)
- 4 **Artículo científico.** Guillermo Sastre-Moreno; John M. Pryor; Alberto Díaz-Talavera; Jose F. Ruiz; Dale A. Ramsden; Luis Blanco. (4/6). 2017. Polmu tumour variants decrease the efficiency and accuracy of NHEJ *Nucleic Acids Research*. Oxford Press. 45-17, pp.10018-10031. SCOPUS (2)
- 5 **Artículo científico.** Guillermo Sastre-Moreno; John M. Pryor; Marta Moreno-Oñate; Andrés M. Herrero-Ruiz; Felipe Cortes-Ledesma; Luis Blanco; Dale A. Ramsden; (AC). (8/8). 2017. Regulation of human Pol lambda by ATM-mediated phosphorylation during Non-Homologous End Joining *DNA Repair*. 51, pp.31-45. SCOPUS (4)
- 6 **Artículo científico.** Co-corresponding author (AC); Benjamin Pardo; Guillermo Sastre-Moreno; Co-corresponding author; Co-corresponding author. (1/5). 2013. Yeast Pol4 Promotes Tel1-Regulated Chromosomal Translocations *PLoS Genetics*. Public Library of Science. 9-7, pp.e1003656-1-e1003656-14. SCOPUS (6)
- 7 **Artículo científico.** Jose F. Ruiz; Belén Gómez-González; Corresponding. (1/3). 2011. AID induces double-strand breaks at immunoglobulin switch regions and c-MYC causing chromosomal translocations in yeast THO mutants *PLoS Genetics*. Public Library of Science. 7-2, pp.e1002009-1-e1002009-9. SCOPUS (33)
- 8 **Artículo científico.** Belen Gómez-González; José F. Ruiz; Corresponding. (2/3). 2011. Genetic and Molecular Analysis of Mitotic Recombination in *Saccharomyces cerevisiae* *Methods in Molecular Biology* (Clifton N.J.). Humana Press. 745, pp.151-172. SCOPUS (9)
- 9 **Artículo científico.** Jose F. Ruiz; Belén Gómez-González; Corresponding. (1/3). 2009. Chromosomal Translocations Caused by Either Pol32-Dependent or Pol32-Independent Triparental Break-Induced Replication *Molecular and Cellular Biology*. American Society for Microbiology. 29-20, pp.5441-5454. SCOPUS (39)

### C.3. Proyectos o líneas de investigación

- 1 **Proyecto.** Ayudas a Proyectos de Investigación Precompetitivos 2019 Plan Propio US. Jose F. Ruiz Perez. (Universidad de Sevilla). 01/01/2019-31/12/2019. 5.000 €.
- 2 **Proyecto.** Ayudas a Proyectos de Investigación Precompetitivos 2018 Plan Propio US. Jose F. Ruiz. (Universidad de Sevilla). 01/06/2018-31/12/2018. 4.000 €.
- 3 **Proyecto.** Ayudas a Proyectos de Investigación Precompetitivos 2017 Plan Propio US. Jose F. Ruiz. (Universidad de Sevilla). 02/01/2017-31/12/2017. 5.000 €.
- 4 **Proyecto.** BFU2013-44343-P, Bases moleculares de la formación de translocaciones cromosómicas potencialmente oncogénicas por NHEJ. Papel y regulación de las POLX humanas. Ministerios de Economía y competitividad (MINECO). Jose F. Ruiz Pérez. (Universidad de Sevilla). 01/01/2014-31/12/2016. 108.900 €. Investigador principal.
- 5 **Proyecto.** Bases moleculares de enfermedades neurodegenerativas ligadas a acumulación proteica: papel de la reparación de roturas en el ADN. Felipe Cortes Ledesma. (Universidad de Sevilla). 23/03/2013-30/09/2016. 112.349,07 €.
- 6 **Proyecto.** Role of human PolX DNA polymerases in the generation of chromosomal rearrangements by alternative-NHEJ. Ministerio de Ciencia y Tecnología. Programa Ramón y Cajal 2011. Jose F. Ruiz Pérez. (Universidad de Sevilla-CABIMER). 01/08/2012-31/08/2014. 15.000 €.