

**Part A. PERSONAL INFORMATION**

Part A. PERSONAL INFORMATION			CV date		01/09/2019
First and Family name	Jesús de la Cruz Díaz				
Social Security, Passport, ID number	52261521R		Age	53	
Researcher numbers	Researcher ID		A-7309-2013		
	Orcid code		0000-0001-5870-650X		

A.1. Current position

Name of University/Institution	University of Seville			
Department	Institute of Biomedicine of Seville (IBiS)			
Address and Country	Avda Manuel Siurot s/n; E-41013, Seville			
Phone number	+34 955923126	E-mail	jdldc@us.es	
Current position	Full professor ("Catedrático Universidad")		From	10/10/2011
Espec. cód. UNESCO	2415.01 / 2409.99 / 2302.21 / 2302.23			
Palabras clave	Ribosome, pre-rRNA processing, ribosome assembly, nucleolus, RNA helicases, <i>Saccharomyces</i> . Hepatocellular carcinoma, HepG2 cell line, Sorafenib.			

A.2. Education

PhD	University	Year
Degree in Biology ("Licenciado")	Faculty of Biology, University of Seville	1989
PhD in Biology	Faculty of Biology, University of Seville	1994

A.3. JCR articles, h Index, thesis supervised...

- Number of 6-year-period research awards from the Spanish Government ("sexenios de investigación"): 4, last one ending on 2013. New application 2014-2019 this December.
- Doctoral Theses supervised: 5 in last 10 years; other 5 in progress.
- JCR publications: 62
- Total citation number: 3282. Average citation/year: 54.7. Total number of publications in Q1: 44 (*Web of Science*).
- H index: 32

Part B. CV SUMMARY (max. 3500 characters, including spaces)

Jesús de la Cruz obtained the degree in Biology in 1989 and the PhD in 1994 from the University of Seville. From 1995 to 1998, he carried out a post-doctoral work at the University Medical Center of Geneva, Switzerland, under the supervision of Prof P. Linder and at the Prof D. Tollervey's laboratory at the Institute of Molecular and Cellular Biology from the University of Edinburgh, United Kingdom. During these years, he specialized in the biochemical, genetic and molecular analysis of the processes of ribosome synthesis and protein translation in the yeast *Saccharomyces cerevisiae*. He returned to the laboratory of Prof A. Vioque (Institute of Plant Biochemistry and Photosynthesis, CSIC-University of Seville) to work on the characterisation of ribonucleoproteic complexes from microalgae with a Reintegration Contract for Doctors and Technologists. In 2001, he obtained a position of associate professor in the Dept of Genetics of the University of Seville, in 2005 one of the first three places of the National Qualification to access the body of professors and from 2006 to 2011, he has been professor ("Profesor Titular"). Since October 2011, he is a full professor ("Catedrático Universidad").

J. de la Cruz teaches subjects related to Genetics and Human Genetics in the Degree of Biology and subjects related to Gene Expression and Cancer in the Masters of Molecular Genetics and Biotechnology and Biomedicine of the University of Seville. He is also the researcher responsible for the group "Synthesis and Function of Ribosomes", located in the Biomedicine Institute of Seville (IBiS). His research focuses on the functional study of the cytoplasmic ribosome assembly process and protein translation in eukaryotes, using *S. cerevisiae* and human cell lines as working models. This field of study has academic interest given the universal importance of the process of protein synthesis but also biomedical interest given the existence of human diseases known as ribosomopathies. Always as Principal

Investigator, his group has received continued funding from the Spanish National System and the Andalusian Government since its formation in 2001. J. de la Cruz has directed 5 Doctoral Theses, has another 5 in progress. He is the author of about 60 international publications, the vast majority located in the first quartile of the JCR impact rank. These add more than 350 impact points, have globally received more than 3200 citations and generate an H-index of 32. J. de la Cruz has an international reputation as evidenced by the fact that two of his reviews published in *Mol. Cell Biol.* and in *Trends Biochem. Sci.* have received more than 290 and 380 citations, respectively, and the fact of having recently published in the prestigious journal *Annu. Rev. Biochem.* (100 citations since the end of 2015). His group has presented about 100 communications to National and International Conferences and he has been invited to give seminars at different universities and research centres not only in Spain but also in Italy, France, the United Kingdom and Switzerland, among others. Finally, he is a member of the European COST Proteostasis Network, a regular reviewer of renowned international journals and grant applications, and academic editor of the *Microbial Cell* journal. More information: <http://personal.us.es/jdlcd/ribosome/Home.html>.

Part C. RELEVANT MERITS

C.1. Publications (including books)

- Publications in last ten years: 30 publications, 19 as corresponding author, 25 in Q1.
- Publications in last five years: 19 publications, 13 as corresponding author (*), 13 in Q1. Only those publications in last five years are shown, for further details see <http://personal.us.es/jdlcd/ribosome/Home.html>.

1*) Ramos-Sáenz, A., González-Álvarez, D., Rodríguez-Galán, O., Rodríguez-Gil, A., Gaspar, S.G., Villalobo, E., Dosil, M. and **de la Cruz, J.** Pol5 is an essential ribosome biogenesis factor required for 60S ribosomal subunit maturation in *Saccharomyces cerevisiae*. **RNA**, in the press, 2019. *IF*: 3.949 (2018); Q2.

2*) Martín-Villanueva, S., Fernández-Pevida, A., Kressler, D., and **de la Cruz J.** The ubiquitin moiety of Ubi1 is required for productive expression of ribosomal protein eL40 in *Saccharomyces cerevisiae*. **Cells**, in the press, 2019. *IF*: 5.656 (2018). Q1.

3*) Martín-Villanueva, S., Fernández-Pevida, A., Fernández-Fernández, J., Kressler, D., and de la Cruz J. Ubiquitin release from eL40 is required for cytoplasmic maturation and function of 60S ribosomal subunits in *Saccharomyces cerevisiae*. **FEBS J.**, in the press, 2019. *IF*: 4.739 (2018). Q1.

4) Rodríguez-Hernández, M.A., González, R., de la Rosa, A.J., Gallego, P. Ordóñez, R., Navarro-Villarán, E., Contreras, L., Rodríguez-Arribas, M., González-Gallego, J., Álamo-Martínez, J.M., Quiles, J.L., Fuentes, J.M., **de la Cruz, J.**, Mauriz, J.L., Padillo, F.J., and Muntané, J. Molecular characterization of autophagic and apoptotic signaling induced by Sorafenib in liver cancer cells. **J. Cell. Physiol.** 234: 692-708, 2018. *IF*: 4.522; Q1.

5*) Espinar-Marchena, F., Rodríguez-Galán, O., Fernández-Fernández, J., Linnemann, J., and **de la Cruz, J.** Ribosomal protein L14 contributes to the early assembly of 60S ribosomal subunits in *Saccharomyces cerevisiae*. **Nucleic Acids Res.** 46: 4715-4732, 2018. *IF*: 11.147; Q1.

6) Martínez-Fernández, V., Garrido-Godino, A.I., Mirón-García, M.C., Begley, V., Fernández-Pevida, A., **de la Cruz, J.**, Chávez, S. and Navarro, F. Rpb5 modulates the RNA polymerase II transition from initiation to elongation by influencing Spt5 association and backtracking. **Biochim. Biophys. Acta.** 1861: 1-13, 2018. *IF*: 4.599, Q1.

7*) **de la Cruz, J.**, Gómez-Herreros, F., Rodríguez-Galán, O., Begley, V., Muñoz-Centeno, M.C. and Chávez, S. Feedback regulation of ribosome assembly. **Curr. Genet.** 64, 9302-9318, 2018. *IF*: 3.464, Q2.

8) Gómez-Herreros, F., Margaritis, T., Rodríguez-Galán, O., Pelechano, V., Begley, V., Millán-Zambrano, G., Morillo-Huesca, M., Muñoz-Centeno, M.C., Pérez-Ortín, J. E., **de la Cruz, J.**, Holstege, F., Chávez, S. The ribosome assembly gene network is controlled by the feedback regulation of transcription elongation. **Nucleic Acids Res.** 45: 9302-9318, 2017. *IF*: 11.561, Q1.

- 9*) Espinar-Marchena, F.J., Babiano, R. and de la Cruz, J. Placeholder factors in ribosome biogenesis: please, pave my way. **Microbial Cell** 4: 144-168, 2017. *IF: in progress.*
- 10*) Fernández-Pevida, A., Martín-Villanueva, S., Murat, G., Lacombe, T., Kressler, D. and **de la Cruz, J.** The eukaryote-specific N-terminal extension of ribosomal protein S31 contributes to the assembly and function of 40S ribosomal subunits. **Nucleic Acids Res.** 44: 7777-7791, 2016. *IF: 10.162, Q1.*
- 11*) Espinar-Marchena, F.J., Fernández-Fernández, J., Rodríguez-Galán, O., Fernández-Pevida, Babiano, R. and **de la Cruz, J.** Role of the yeast ribosomal protein L16 in ribosome biogenesis. **FEBS J.** 283: 2968-2985, 2016. *IF: 3.902, Q2.*
- 12) Wegrecki, M., Rodríguez-Galán, O., **de la Cruz, J.** and Bravo, J. The structure of Erb1-Ytm1 complex reveals the functional importance of a high-affinity binding between two β -propellers during the assembly of large ribosomal subunits in Eukaryotes. **Nucleic Acids Res.** 43: 11017-11030, 2015. *IF: 9.202, Q1.*
- 13) Pillet, B., García-Gómez, J.J., Pausch, P., Falquet, L., Bange, G., **de la Cruz, J.** and Kressler, D. The dedicated chaperone Acl4 escorts ribosomal protein Rpl4 to its nuclear pre-60S assembly site. **PLoS Genet.** 11: e1005565, 2015. *IF: 6.661, Q1.*
- 14*) Rodríguez-Galán, O., García-Gómez, J.J., Kressler, D. and **de la Cruz, J.** Immature large ribosomal subunits containing the 7S pre-rRNA can engage in translation in *Saccharomyces cerevisiae*. **RNA Biol.** 12: 838-846, 2015. *IF: 4.076, Q1.*
- 15*) **de la Cruz, J.**, Karbstein, K. and Woolford, J.L., Jr Functions of ribosomal proteins in assembly of eukaryotic ribosomes *in vivo*. **Annu. Rev. Biochem.** 84: 93-129, 2015. *IF: 21.047, Q1.*
- 16*) García-Gómez, J.J., Lebaron, S., Henry, Y., Rosado, I.V. and **de la Cruz, J.** Dynamics of the Spb4 interactome monitored by affinity purification. **Methods Mol. Biol.** 1259: 49-67, 2015. *Book chapter.*
- 17*) Fernández-Pevida, A., Kressler, D. and **de la Cruz, J.** Processing of pre-ribosomal RNA in *Saccharomyces cerevisiae*. **Wiley Interdiscip. Rev. RNA** 6: 191-209, 2015. *IF: 4.519, Q2.*
- 18) Mirón-García, M.C., Garrido-Godino, A., Martínez-Fernández, V., Fernández-Pevida, A., Cuevas-Bermúdez, A., Martín-Exposito, M., Chávez, S., **de la Cruz, J.** and Navarro, F. The yeast prefoldin-like URI-orthologue Bud27 associates with the RSC nucleosome remodeler and modulates transcription. **Nucleic Acids Res.** 42: 9666-9676, 2014. *IF: 8.808, Q1.*
- 19*) García-Gómez, J.J., Fernández-Pevida, A., Lebaron, S., Rosado, I.V., Tollervey, D., Kressler, D. and **de la Cruz, J.** Final pre-40S maturation depends on the functional integrity of the 60S ribosomal subunit protein L3. **PLoS Genet.** 10: e1004205, 2014. *IF: 8.167, Q1.*

C.2. Research projects and grants

- Only grants during the last 5 years are shown:

- 1) Title: Assembly of eukaryotic ribosomal subunits: analysis of assembly factors and ribosomal proteins (BFU2016-75352-P). Entity: MINECO. Principal investigator (PI): **J. de la Cruz**. From 30/12/2016 to 30/06/2020. Amount: 180000 €. Role: **PI**.
- 2) Title: Secretion of extracellular vesicles and its relationship with the evolution of the hepatocellular carcinoma, co-morbidities and response to treatments: clinic and experimental studies (PI-0198-2016). Entity: Junta de Andalucía. PI: R. González. From 01/01/2017 to 31/12/2019. Amount: 49969,87 €. Role: **Research team**.
- 3) Title: European Network to integrate research on intracellular proteolysis pathways in health and disease: Proteostasis (COST Action BM1307). Entity: EU framework programme. PI: R. Barrio. From 25/04/2014 to 24/04/2018. Amount: 173996,15 €. Role: **Research team**.
- 4) Title: Analysis of the principles governing the assembly of eukaryotic ribosomes (BFU2013-42958-P). Entity: MINECO. PI: **J. de la Cruz**. From 01/01/2014 to 31/12/2016. Amount: 180000 €. Role: **PI**.

5) Title: Infection latency of HIV-1: molecular mechanisms and strategies for genetic therapy by targeting nanoparticles (P12-BIO-1938). Entity: Junta de Andalucía. PI: S. Chávez. From 01/01/2014 to 31/12/2017. Amount: 273894 €. Role: **Research team**.

C.3. Contracts

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C.4. Patents

- M. Rey, A. Soler, H. Ait-Lahsen, J. de la Cruz, E. Monte y A. Llobell. Protein with antifungal activity. Application number: P9901746 and PCT/ES00/00292. Priority country: Spain. Priority date: 31/07/1999. Entity: University of Seville and New Biotechnic, S.A. Countries where it has been extended: USA. Companies using it: New Biotechnic, S.A.

C.5. Other research remarks

- 1) About 100 presentations to National and International meetings, some as an invited speaker.
- 2) Attendance to 2 EMBO practical courses and 4 workshops (Juan March and UNIA). Invited for seminars in different international research institutions (Toulouse, Roma, Geneva, Edinburgh, etc).
- 3) Membership to the following National and International Scientific Societies: SEBBM, SEG, Red Española de Levaduras, RiboRed, RNA Society and ASM.

C.6. Organization of R&D activities

- 1) Organizer of the Spanish Congress of Biotechnology BIOTEC2002 (Sevilla), From 2 to 5/07/2002
- 2) Organizer of the IV Meeting of the Spanish RNA Network (RIBORED) (Sevilla), From 13 to 14/05/2010.
- 3) Chair in the "6th Ribosome synthesis 2003. International Conference on Ribosome Synthesis" (Arcachon, Francia), From 6 to 10/06/2003.

C.7. Peer-reviewing

- 1) Reviewer of scientific manuscripts: *EMBO J.*, *Mol. Cell. Biol.*, *Mol. Genet. Genomics*, *Arch. Microbiol.*, *BBA-Mol. Cell Research*, *FEBS Lett.*, *FEBS J.*, *RNA*, *Nucleic Acids Res.*, *Plant Physiol.*, *Curr. Genet.*, *Mol. Microbiol.*, *Yeast*, *PLoS Genet*, *PLoS One*, *J. Bacteriol.*, *J. Biol. Chem.*, etc
- 2) Academic editor of *Microbial Cell* (<http://microbialcell.com/>)
- 3) External evaluator of research grants: AVAP (Spain), Agencia Nacional de Evaluación y Prospectiva (Spain), *Agence Nationale de la Recherche* (France), *Austrian Science Fund* (Austria), *Telethon Foundation* (Italy), *Université Libre de Bruxelles* (Belgium), Agropolis (France), Swiss National Science Foundation (Switzerland) and MRC (UK).

C.8. Academic positions

- 1) Advisor of the Associated Dean of Teaching and Innovation ("Vicedecano de Docencia e Innovación") from the Faculty of Biology, University of Seville. From 2011 to date.
- 2) Member of the Board of the Faculty of Biology, University of Seville, From 2013 to date.