

Part A. PERSONAL INFORMATION

CV date	18-07-2019
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First and Family name	Mercedes Roncel		
Social Security, Passport, ID number	28462109T	Age	59
Researcher numbers	Researcher ID	G-3035-2015	
	Orcid code	0000-0001-8749-7432	

A.1. Current position

Name of University/Institution	University of Seville-CSIC		
Department	Instituto de Bioquímica Vegetal y Fotosíntesis		
Address and Country	IBVF, cicCartuja, Américo Vespucio 49, 41092-Sevilla		
Phone number	+34 954489517	E-mail	mroncel@us.es
Current position	University Professor	From 26-11-2010	
Espec. cód. UNESCO	2302.21	2302.25	3105.13
Palabras clave	Photosynthesis, Primary Productivity. Protein Structure, Photosynthetic Electron Transfer, Oxidative Stress		

A.2. Education

	University	Year
PhD in Chemistry	University of Seville	1988
M.A. Chemistry	University of Seville	1983
Graduate in Chemistry	University of Seville	1982

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

FIVE research *sexenios* granted, all that requested (the last in 2018). **484 TOTAL CITATIONS**, with an average of citation/year of **13.4** and an average of citation/paper of **9.5**. The *JCR* was only initially available since 1997. From this year, **80 %** of my indexed publications are in the Q1 range. According to other alternative indicators, such as the *SCImago Journal & Country Rank*, **85% of my publications since 1997 are in Q1 (59 articles)**. **RG Score of 31.04**.

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

Scientific Activity (36 years). It has consisted mainly in the study of the structure-function relationship in proteins, the transfer of electrons in photosynthesis and the biochemical and metabolic response to oxidative stress, with the final objective of improving photosynthetic primary production. I have participated in **23 funded research projects**, including private contracts (**Solvay and Agroquivir**), and I have been **Principal Investigator of one Projects** (Spanish-French Integrated Action) financed by DGICYT.

I have published **61** papers in specialized journals and books (**42** in ISI journals) and I am co-author of one patent. My present lines of research are:

1. Systems of biotechnological interest, currently related to the use of alternative biofertilizers.
2. Proteins involved in photosynthetic electron transfer and improvement of primary productivity in photosynthesis.
3. Redox mechanisms of the stress response in photosynthetic organisms.

Teaching Experience (33 years). I have taught in different subjects of different courses of the Degree of Biology, Chemistry and Biochemistry. I have also taught in Doctorate and Master Programs. Since 2006, I am a Professor at the University of Seville (Associate Professor, Professor Contracted Doctor and University Professor).

Part C. RELEVANT MERITS (last 5 years)

C.1. Publications (including books)

1. **Artículo científico.** García-Calderón M, Betti M, Márquez AJ, Ortega JM, **Roncel M**. The afterglow thermoluminescence band as an indicator of changes in the photorespiratory metabolism in the model legume *Lotus japonicus*. *Physiologia Plantarum* (2019) 166:240-250.
2. **Artículo científico.** Bernal-Bayard P, Álvarez C, Calvo P, Castell C, **Roncel M**, Hervás M, Navarro JA. The singular properties of photosynthetic cytochrome c_{550} from the diatom *Phaeodactylum tricornutum* suggest new alternative functions. *Physiologia Plantarum* (2019) 166:199-210.
3. **Artículo científico.** Bernal-Bayard P, Puerto-Galán L, Yruela I, García-Rubio I, Castell C, Ortega JM, Alonso PJ, **Roncel M**, Martínez JI, Hervás M, Navarro JA. The photosynthetic cytochrome c_{550} from the diatom *Phaeodactylum tricornutum*. *Photosynthesis Research* (2017) 133:273-287. ISSN: 0166-8595. IF: 3.150 Q1
4. **Artículo científico.** Huang JY, Chiu YF, Ortega JM, Wang HT, Tseng TS, Ke SC, **Roncel M**, Chu HA. Mutations of cytochrome b_{559} and PsbJ on and near the Q_c site in Photosystem II influence the regulation of short-term light response and photosynthetic growth of the cyanobacterium *Synechocystis* sp. PCC 6803. *Biochemistry* (2016) 55:2214–2226. ISSN: 0006-2960. IF: 2.938 Q1
5. **Artículo científico.** **Roncel M**, González-Rodríguez AA, Naranjo B, Bernal-Bayard P, Lindahl AM, Hervás M, Navarro, JA, Ortega JM. Iron-deficiency induces a partial inhibition of the photosynthetic electron transport and a high sensitivity to light in the diatom *Phaeodactylum tricornutum*. *Frontiers in Plant Science* (2016) 7(1050):1-14. ISSN: 1664-462X. IF: 4.291 Q1
6. **Artículo científico.** Luján MA, Martínez JI, Alonso PJ, Torrado A, **Roncel M**, Ortega JM, Sancho J, Picorel R. In vivo reconstitution of α homodimeric cytochrome b_{559} like structure: The role of the N-terminus α -subunit from *Synechocystis* sp. PCC 6803. *Journal of Photochemistry and Photobiology B: Biology* (2015) 152:308–317. ISSN: 1011-1344. IF: 2.673 Q1
7. **Artículo científico.** Repetto G, Zurita JL, **Roncel M**, Ortega JM. Thermoluminescence as a complementary technique for the toxicological evaluation of chemicals in photosynthetic organisms. *Aquatic Toxicology* (2015) 158:88-97. ISSN: 0166-445X. IF: 3.557 Q1
8. **Artículo científico.** Guerrero F, Zurita JL, **Roncel M**, Kirilovsky D, Ortega JM. The role of the high potential form of the cytochrome b_{559} : Study of *Thermosynechococcus elongatus* mutants. *Biochimica et Biophysica Acta, Bioenergetics* (2014) 1837:908-19. ISSN: 0006-3002. IF: 5.353 Q1

9. **Capítulo de libro.** Picorel R, Lujan MA, Martínez JI, Alonso PJ, Torrado A, **Roncel M**, Ortega JM, Sancho J
In vivo reconstitution of a cytochrome b(559) like structure with a truncated N-terminus alpha-subunit.
FEBS Journal, (2015) 282: 202-202. ISSN: 1742-464X.
10. **Publicaciones científicas no indexadas.** Crespo Martín E, Gallego Sánchez LM, Gámez Arcas S, Mozo Mulero M, Nevado Berzosa MP, Pérez Camacho I, Soriano Bermúdez JJ, Téllez Pueblas EA, Molina-Heredia FP, **Roncel M**, Pérez-Castiñeira JR
Hongos entomopatógenos: de la agricultura a la conservación del patrimonio histórico.
Revista PH (2018) 94, 352-367. ISSN: 2340-7565

C.2. Research projects and grants

Scientific Researcher. *Rutas alternativas de transferencia de electrones en fotosíntesis y mejora de la productividad primaria bajo condiciones limitantes.*
BIO2015-64169-P. Plan Nacional I+D, convocatoria 2015. 2016-2018 (166.012 €).

Scientific Researcher. *Caracterización y mejora del transporte electrónico fotosintético en diatomeas para la optimización de su productividad en condiciones de estrés por metales.* BIO2012-35271. Plan Nacional I+D, convocatoria 2012. 2013-2015 (146.250 €).

C.5. Teaching Experience (last 5 years)

Biology Degree. University of Seville (Studies Plan 2009)

Theoretical and Practical classes of "Structure and Biosynthesis of Macromolecules" (4^o course)

Courses: 2014-15; 2015-16; 2016-17; 2017-18; 2018-19

Practical Laboratory Classes of "Biochemistry II" (2^o course)

Courses: 2014-15; 2015-16; 2016-17

Master in Advanced Biology: Research and Application. University of Seville (Studies Plan 2009)

Theoretical Classes of "Techniques of Biochemistry and Molecular Biology used in the Industry"

Courses: 2014-15; 2015-16

Theoretical Classes of "Industrial Biotechnology"

Courses: 2016-17; 2017-18; 2018-19

Master in Molecular Genetics and Biotechnology. International Graduate School. University of Seville

Theoretical Classes of "Enzymatic Technology"

Courses: 2015-2016; 2016-2017; 2017-18; 2018-19

Course Coordinator

Structure and Biosynthesis of Macromolecules

Courses: 2014-15; 2015-16; 2016-17; 2017-18; 2018-19

C.6. Tutor Final Degree Projects (last 5 years)

1. Title of TFG: El pirenoide de diatomeas: composición, estructura y función

Entity of realization: Faculty of Biology

Student: Carmen Nogueira Rojas

Date of defense: 09/2018

2. Title of TFG: Fijación de CO₂ en diatomeas

Entity of realization: Faculty of Biology

Student: Isabel Subías Gragera

Date of defense: 09/2018

3. Title of TFG: Fluorescencia modulada de la clorofila: conceptos básicos y aplicación al estudio de organismos fotosintéticos

Entity of realization: Faculty of Biology

Student: José David García Quesada

Date of defense: 12/2017

4. Title of TFG: Caracterización de la transferencia electrónica fotosintética en la diatomea *Phaeodactylum tricornutum*. Adaptaciones a las condiciones de deficiencia en hierro

Entity of realization: Faculty of Biology

Student: Antonio Alfonso González Rodríguez

Date of defense: 12/2016

5. Title of TFG: Citocromo c550 fotosintético: estructura y función

Entity of realization: Faculty of Biology

Student: Adrián López Galera

Date of defense: 12/2015

6. Title of TFG: Fotosíntesis en diatomeas oceánicas. Adaptaciones a las condiciones de deficiencia en hierro

Entity of realization: Faculty of Biology

Student: Dulce Nombre de María del Saz Navarro

Date of defense: 09/2014

C.7. Publications Summary:

Total Publications:	62
<i>Papers in ISI Journals:</i>	40
<i>Index h:</i>	15
<i>Patents:</i>	1

Total Scientific Congresses Participations

<i>National Congresses:</i>	30
<i>International Congresses:</i>	61