

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION		CV date	January 23rd, 2023
First name	CARMEN MARIA		
Family name	CARMEN MARÍA VÁZQUEZ CUETO		
Gender (*)	FEMALE	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	vazquez@us.es	URLWeb	http://grupo.us.es/fiscava
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-2999-3582		

(*) *Mandatory*

A.1. Current position

Position	Full Professor		
Initial date	March 9, 2009		
Institution	University of Seville		
Department/Center	Physiology		
Country	Spain	Teleph. number	+34 954556777
Key words	Molecular mechanisms of cardiovascular, gestational and ocular diseases; Endothelial dysfunction; Arterial hypertension; Preeclampsia; Tyrosine kinase inhibitors; Cell culture; Functional foods; Health; Molecular Physiology; Research models; Therapeutics		

A.2. Previous positions (research activity interruptions, art. 14.2.b)

Period	University of Seville/Spain
1980-2009/3	FPI Research Fellow/ Associate Professor

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Pharmacy	University of Seville	1983
Licensed in Pharmacy	University of Seville	1980
Pharmacist Specialist in Clinical Biochemistry	Ministry of Education and Science	1988

Part B. CV SUMMARY (max. 5000 characters, including spaces)

Citation metrics:

Publications: 95 (total publications in Q1: 45).

Total Times Cited: 1928 (Web of Science/publons); 2074 (Scopus).

h-index: 24 (Web of Science/publons); 25 (Scopus).

Over 160 scientific communications in national and international meetings.

Research periods (sexenios): 6 (1983-1988, 1989-1994, 1995-2000, 2001-2006, 2007-2012; 2013-2018). **(Thesis supervised (last 10 years): 6** (2 co-supervised with School of Medicine at Pontificia Universidad Católica de Chile (+1 currently in progress)

End-of-Degree/Master projects supervised (last 10 years): 45

Part B. CV SUMMARY (max. 5000 characters, including spaces)

I hold a permanent position as a Full Professor at the University of Seville (US) (Department of Physiology). I have been teaching Human Physiology-related subjects since 1980, including both undergraduate (Bachelor's Degree in Pharmacy; Bachelor's Degree in Optics) and graduate (MS in Physiology and Neuroscience; MS in Biomedical Research;) students. I graduated and earned my PhD (being an FPI research fellow from



the Ministry of Universities and Research) at the University of Seville in 1980 and 1983, respectively. In 1989, I completed a 9-month research stay in Prof. Maloney's laboratory in the Department of Physiology at Johns Hopkins University (Baltimore, Maryland). During this time, my research interest focused on the study of membrane transporters and their reconstitution in proteoliposomes. In 1994, together with Prof. Ruiz-Gutiérrez (CSIC), I started a research line on arterial hypertension, its effect on membrane transporters, and the effect of a diet enriched with different oils. This opened collaborations with different laboratories, including different research stays at University of Barcelona and Technische Universität München (Munich, Germany). I have also been Head Researcher of the consolidated group CTS584 "Cardiovascular Physiopathology" (Andalusian Research Plan, PAIDI) since 2007. My research group began to study the mechanisms involved in the organic damage produced by arterial hypertension and by the treatment with antineoplastic agent sunitinib, as well as the protective effect of L-carnitine. In 2009, we began to study the beneficial effects of wild olive (acebuchina) oil, highlighting its benefit in cardiovascular diseases. Furthermore, we started a new line of research focused on gestational diseases, specifically pre-eclampsia, thanks to three research projects funded by AECID and developed together with Prof. Sobrevía (Pontificia Universidad Católica de Chile). Currently, we are interested in a new line of research based on the protective action of acebuchina oil (versus standard extra virgin olive oils) against ocular pathologies caused by arterial hypertension, with special emphasis on the analysis of the ocular choroidopathies, retinopathies, and vascular disease. The latter is a 3-year project funded in 2020 by the Ministry of Science and Innovation (Call 2019, R+D+i Projects 2019, PID2019-109002RB-I00). To carry out these studies, we collaborate with Dr. Helder André (Head of the Cell and Molecular Research Center of the St Erik Eye Hospital, Karolinska Institute, Stockholm, Sweden) and have already published 5 scientific papers. Recently, I completed a 1-month research stay in his laboratory thanks to a mobility grant from the Research and Transfer Plan of the University of Seville. Therefore, this stay will allow us to reinforce our collaboration in the study of visual function and learn new techniques to be used in our laboratory. So far, I have participated in 41 competitive research projects (19 of which as Principal Investigator). In addition, I am fully committed with the recruitment of human resources, being responsible for 20 pre-doctoral training contracts. One of them has been awarded with a Margarita Salas grant for the training of young doctoral graduates (Nextgeneration UE) which will be developed in 2 institutions: Karolinska Institute (2022) and in my research group at US (2023). Furthermore, I am a regular evaluator of research projects (ANEP, AEI) and Austrian Science Fund (FWF) and member (president) of different evaluation committees (ANECA, ACSUG, AQUIB, AGAUR, AVAP, ACSUCYL and UNIBASQ).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- 1) Santana-Garrido et al. Oxidative and Inflammatory Imbalance in Placenta and Kidney of sFlt1-Induced Early-Onset Preeclampsia Rat Model. **Antioxidants** (Basel). 2022 Aug 19;11(8):1608. doi: 10.3390/antiox11081608. FI: 7,675; D1.
- 2) Santana-Garrido et al. Hypertension secondary to nitric oxide depletion produces oxidative imbalance and inflammatory/fibrotic outcomes in the cornea of C57BL/6 mice. **J Physiol Biochem**. 2022 Aug 9. doi: 10.1007/s13105-022-00916-2. Online ahead of print. PMID: 35943663. FI: 5,080. Q1.
- 3) Santana-Garrido et al. Anti-Inflammatory Action of Dietary Wild Olive (Acebuche) Oil in the Retina of Hypertensive Mice. **Foods** 2021, 10, 1993. doi.org/10.3390/foods10091993. IF: 4,350; Q1.
- 4) Mate et al. Impact of maternal nutrition in viral infections during pregnancy. **Biochim. Biophys. Acta Mol. Basis Dis**, 2021 Jul 31;1867(11):166231. doi: 10.1016/j.bbadis.2021.166231. IF: 5,187; Q1.
- 5) Santana-Garrido et al. NADPH oxidase-induced oxidative stress in the eye of hypertensive rats. **Mol Vis**. Apr 2;27:161-178. eCollection 2021. IF: 2,367. Q3
- 6) Plastino et al. Echinomycin mitigates ocular angiogenesis by transcriptional inhibition of the hypoxia-inducible factor-1. **Exp. Eye Res**. 2021 May; 206:108518. doi: 10.1016/j.exer.2021.108518. Epub 2021 Feb 25. IF: 3,467; Q2.



- 7) Salsoso et al. Insulin requires A2B adenosine receptors to modulate the Larginine/nitric oxide signalling in the human fetoplacental vascular endothelium from late-onset preeclampsia. **Biochim. Biophys. Acta Mol. Basis Dis** 2021 Jan 1;1867(1):165993. doi: 10.1016/j.bbadis.2020.165993. FI: 5,187; Q1.
- 8) Salsoso et al. Oxidative stress: normal pregnancy versus preeclampsia. **Biochim. Biophys. Acta Mol. Basis Dis**. 2020 Feb 1;1866(2):165354. doi: 10.1016/j.bbadis.2018.12.005. Epub 2018 Dec 24. IF: 5,187; Q1.
- 9) Santana-Garrido et al. Retinoprotective effect of wild olive (acebuche) oil-enriched diet against ocular oxidative stress induced by arterial hypertension. **Antioxidants** 2020;9:885. IF: 6,312; D1.
- 10) Santana-Garrido et al. Sunitib-induced oxidative imbalance and retinotoxic effects in rats. **Life Sci**. 2020; 257:118072. IF: 5,037; Q1.
- 11) Chiarello et al. Foetoplacental communication via extracellular vesicles in normal pregnancy and preeclampsia. **Mol. Aspects Med**. 2018;60:69-80. IF: 8,313; D1.
- 12) Blanca et al. L-Carnitine ameliorates the oxidative stress response to angiotensin II by modulating NADPH oxidase through a reduction in protein kinase c activity and NF- κ B translocation to the nucleus. **Food Chem**. 2017;228:356-366 IF: 4,946; D1.
- 13) Salsoso et al. Adenosine and preeclampsia. **Mol. Aspects Med**. 2017;55:126-139. IF: 7,344; D1.
- 14) Blanca et al. Inflammatory and fibrotic processes are involved in the cardiotoxic effect of sunitinib: Protective role of L-carnitine. **Toxicol. Lett**. 2016;241:9-18. IF: 3,858; Q1.
- 15) Zambrano et al. L-carnitine attenuates the development of kidney fibrosis in hypertensive rats by upregulating PPAR- γ . **Am. J. Hypertens**. 2014;27:460-470. IF: 2,852; Q2.
- 16) Salsoso et al. Reduced L-carnitine transport in aortic endothelial cells from spontaneously hypertensive rats. **PLoS One** 2014;9(2):e90339. IF: 3,234; Q1.
- 17) Salsoso et al. Insulin restores L-arginine transport requiring adenosine receptors activation in umbilical vein endothelium from late-onset preeclampsia. **Placenta**. 2015 Mar;36(3):287-96. doi: 10.1016/j.placenta.2014.12.007. IF: 2,972; Q1.
- C.2. Congress**, indicating the modality of their participation (invited conference, oral presentation, poster)
More than 150 participation among national and international oral and poster presentation and invited conference.
- C.3. Research projects**, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.
1. PROYEXCEL_00516. Expandiendo el potencial nutracéutico del aceite de acebuchina: papel mediador y protector de las vesículas extracelulares en el daño ocular hipertensivo. Proy PAIDI, Junta de Andalucía. 02-12-2022- 31-12-2025. 164.280€. IP: Carmen M. Vázquez Cueto; Co-IP: Alfonso Mate Barrero.
 2. PID2019-109002RB-I00, Recuperación del olivo silvestre en la dieta mediterránea: beneficios del aceite de acebuchina en la patología ocular hipertensiva. Ministerio de Ciencia e Innovación / Ministerio de Universidades. 01-01-2020- 31-12-2022. 100.430 €. IP: Alfonso Mate; Co-IP: Carmen M. Vázquez Cueto 2020/275. Fisiopatología Cardiovascular. Carmen María Vázquez Cueto (Consejería de Economía y Conocimiento, Secretaría General de Universidades, Investigación y Tecnología, Junta de Andalucía). 1/1/2019-31/12/2020. Investigador principal.
 3. PI-0456-2018. Estudio multidisciplinar de potenciales marcadores precoces de preeclampsia: Estudio en muestras de sangre obtenidas en el primer trimestre de gestantes sanas y con preeclampsia, complementado con un estudio en ratas gestantes a las que se le induce preeclampsia con diferentes edades gestacionales. (Consejería de Salud 2018. Proyectos de Investigación en Salud. Junta de Andalucía). 1/1/2019- 31/12/2021. Investigador colaborador.
 4. PI-0060/2012, Papel de la NADPH oxidasa en el efecto modulador de la L Carnitina en la nefropatía hipertensiva. Carmen María Vázquez Cueto. (Universidad de Sevilla). 27/12/2012- 30/04/2015. Investigador principal.
 5. A1/036123/11, Transporte endotelial de L-carnitina en la hipertensión arterial. Agencia Española de Cooperación Internacional para el Desarrollo (Ministerio de Asuntos



Exteriores y de Cooperación). Carmen María Vázquez Cueto. (Universidad de Sevilla. Pontificia Universidad Católica de Chile). 01/01/2012-31/12/2012. Investigador principal.
6. PS09/01395, Efecto modulador de la L-carnitina en el daño cardiaco y renal asociado a la hipertensión arterial. Fondo de Investigación Sanitaria. Instituto de Salud Carlos III. Fondo de Investigación Sanitaria. ISCIII. Carmen María Vázquez Cueto. (Facultad de Farmacia. Universidad de Sevilla). 01/01/2010-31/12/2012. 145.200 €. Investigador principal.

7. Adquisición e instalación de un equipo HPLC (con detectores de Diodos Array y Fluorescencia) y un sistema de cromatografía iónica (con detectores amperométrico y UV/VIS). Ayudas A Infraestructuras y equipamiento Científico-Técnico Subprograma Estatal De Infraestructuras Científicas Y Equipamiento. Ministerio de Economía y competitividad. Investigador colaborador. Desde 01/01/2013. 139.093 €.

8. D/031187/10. Transporte endotelial de L-carnitina en la hipertensión arterial. Agencia Española de Cooperación Internacional para el Desarrollo (Ministerio de Asunto Exteriores y de Cooperación). Carmen María Vázquez Cueto. (Universidad de Sevilla. Pontificia Universidad Católica de Chile). 01/01/2011-31/12/2011. Investigador principal.

9. C/024225/09. Ayudas para acción preparatoria proyectos de investigación. Transporte endotelial de L-carnitina en la hipertensión arterial. Agencia Española de Cooperación Internacional para el Desarrollo (Ministerio de Asunto Exteriores y de Cooperación). Carmen María Vázquez Cueto. (Universidad de Sevilla. Pontificia Universidad Católica de Chile). 01/01/2010-31/12/2010. Investigador principal.

10. PI-0034/2008. Acción protectora de la L-carnitina en la cardiopatía y nefropatía hipertensiva. (Consejería de Salud. Junta de Andalucía). 1/1/2009-31/12/2011. Investigador principal.

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

Carmen M. Vázquez. P202230081. Aceite de acebuchina para uso como hipotensor ocular. 3/02/22. Universidad de Sevilla.

Carmen M. Vázquez. P202030625. Uso del aceite de acebuchina u olivo salvaje en el daño retiniano asociado a la hipertensión arterial y patologías retinianas asociadas a la misma. 23/06/2020. Universidad de Sevilla.

Carmen M. Vázquez. P201201199- PCT/ES2013/000258. Use of L-carnitine in dermatological cosmetic products for the treatment of stretch marks and scars. 24/03/2015. Universidad de Sevilla.

Carmen M. Vázquez. P201201151. Uso de L-carnitina para proteger a los peces de la intoxicación por cilindrospermopsinas. España. 02/02/2015. Universidad de Sevilla.

Carmen M. Vázquez. P201100709. Uso de la L-carnitina y sus composiciones para el tratamiento y la prevención de la fibrosis renal. España. 02/12/2013. Universidad de Sevilla.

Carmen M. Vázquez. P201130900. - PCT/ES2012/070405. Combined compositions and preparations of Sunitinib and L-carnitine. 22/10/2013. Servicio Andaluz de Salud / Universidad de Sevilla.

Carmen M. Vázquez Cueto. P201031914- PCT/ES2011/070895. Use of L-carnitine and compositions thereof for treating and preventing renal damage. 11/09/2013. Servicio Andaluz de Salud / Universidad de Sevilla.

Carmen M. Vázquez. P200901543- PCT/ES2010/000290. Use of L-carnitine for preventing inflammatory cardiac damage associated with arterial hypertension. 02/12/2013. Universidad de Sevilla. 19/09/2011. Universidad de Sevilla.

Carmen M. Vázquez. P200901567- PCT/ES2010/000294. Use of captopril as a cardioprotector and anti-inflammatory for heart trouble associated with arterial hypertension. España. 19/09/2011. Universidad de Sevilla.

Carmen M. Vázquez. P200701091 - PCT/ES2008/000249. Use of L-carnitine for treating arterial hypertension. 19/09/2011. Universidad de Sevilla.