

CURRICULUM VITAE ABREVIADO (CVA)

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

Part A. PERSONAL INFORMATION

First name	Carlos Félix		
Family name	Sánchez Ferrer		
Gender (*)	Male	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number		Researcher ID	J-8493- 2014
e-mail	carlosf.sanchezferrer@uam.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		http://orcid.org/0000-0002-7340-3156	

(*) Mandatory

A.1. Current position

Position	Full profesor (Catedrático de Universidad)		
Initial date	13/06/2005		
Institution	Universidad Autónoma de Madrid		
Department/Center	Depto de Farmacología	Facultad de Medicina	
Country	Spain	Teleph. number	
Key words	Diabetic vasculopathy, vascular ageing, obesity, adipokines, vascular inflammation, endothelial dysfunction		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2019-2023	Dean of the Medical School Universidad Autónoma de Madrid
2014-2019	Member of Evaluating Board of Agencia Nacional de Evaluación y Prospectiva (ANEP). Agencia Estatal de Investigación
2013-2019	Chairman of the Department of Pharmacology Medical School, Universidad Autónoma of Madrid
2002-2023	Corresponding member of Real Academia Nacional de Medicina de España
1987-2005	Associate Professor (Profesor Titular)-Universidad Autónoma de Madrid

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed Medicina y Cirugía	Universidad Autónoma de Madrid	1981
PhD Medicina y Cirugía	Universidad Autónoma de Madrid	1984

(Include all the necessary rows)

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

Granted with 6 periods of research evaluation, the last one dated June 6, 2018. Co-adviser of 23 PhD thesis, 6 in the last 10 years, 4 of them with European or International Mention. At present, supervising 3 more in progress. Total publications reached: 17 book chapters, 132 papers cited in the Science Citation Index (61 at Q1) and 47 for science dissemination. Publications in the last 10 years: 32 publications (25 at Q1). Total received citations, 4,562. H index, 38. Invited presentations: to national and international meetings: 42. Principal

researcher in 27 research grants, mostly in competitive concurrence from public and private sources. Collaborator in 37 additional projects.

Since 1996 is leading a research group at the Department of Pharmacology (School of Medicine of Universidad Autónoma de Madrid, UAM), with five to ten members, including professors, pre- and postdoctoral fellows, and technicians. The acronym FARMAVASM (Vascular Pharmacology and Metabolism; <http://www.uam.es/farmavas>) names an official research group in UAM and IdiPAZ, led by Profs. Sánchez Ferrer and Peiró. This group is obtaining continuous private and public funding during the last 30 years, mainly derived from competitive calls from National, Local, or European sources. The of the vascular wall and adipose tissue using different methodological approaches. A clear enrichment of the group follows the incorporation of additional clinical researchers, such as Dr. Jorge Gómez Cerezo (Head of Internal Medicine, HU Infanta Sofía, Madrid), and Dra. Posada (Surgeon at HU Fundación Jiménez Díaz). At present, the research lines are: (1) Vascular damage associated to diabetes mellitus; (2) Human vascular ageing; (3) Obesity, adipokines, and vascular dysfunction; and (4) Role for the angiotensin-(1-7)/Mas receptor axis on vascular function, senescence, and inflammation.

Frequent collaborations with national or international researchers from Spain, Europe, and America. At present, the established collaborations in progress are:

1. Prof. Salvador Moncada, Institute Director of Cancer Sciences, Faculty of Medical and Human Sciences, University of Manchester, UK.
2. Prof. Jorge D. Erusalimsky, Professor of Biomedical Sciences, Cardiff School of Health Sciences, University of Wales Institute, Cardiff, UK.
3. Profs. Ramarason Andriantsitohaina and M^a Carmen Martinez. Physiologie et Médecine Expérimentale du Coeur et Muscles, INSERM U1046, CNRS UMR 9214 Université de Montpellier, France.
4. Prof. Guillermo Díaz Araya. Departamento de Química Farmacológica y Toxicológica Facultad de Ciencias Químicas y Farmacéuticas. Universidad de Chile, Chile.
5. Profs. Carlos Hermenegildo Caudevila and Susana Novella, Departamento de Fisiología, Facultad de Medicina, Universidad de Valencia. España.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

1. VILLACAMPA A, SHAMOON L, VALENCIA I, MORALES C, FIGUEIRAS S, DE LA CUESTA F, SÁNCHEZ-NIÑO D, DÍAZ-ARAYA G, SÁNCHEZ-PÉREZ I, LORENZO O, SÁNCHEZ-FERRER CF, PEIRÓ C. SARS-CoV-2 S protein reduces cytoprotective defenses and promotes human endothelial cell senescence. *Aging and Disease*. 2024 (ahead of print). 2024. doi: 10.14336/AD.2024.0405. PMID: 39012668, IF: 7.00 (corresponding 2023), Q1, D1.
2. VALENCIA I, LUMPUY-CASTILLO J, MAGALHAES G, SÁNCHEZ-FERRER CF, LORENZO O, PEIRO C. Mechanisms of endotelial activation, hypercoagulation and thrombosis in Covid-19: a link with diabetes mellitus. *Cardiovascular Diabetology*. 2024 Feb 20;23(1):75. doi.org/10.1186/s12933-023-02097-8. PMID: 38378550, IF: 8.500 (corresponding 2023), Q1, D1
1. VILLACAMPA A, ALFARO E, MORALES C, DÍAZ-GARCÍA E, LÓPEZ-FERNÁNDEZ C, BARTHA JL, LÓPEZ-SÁNCHEZ F, LORENZO O, MONCADA S, SÁNCHEZ-FERRER CF, GARCÍA-RÍO F, CUBILLOS-ZAPATA C, PEIRÓ C. SARS-CoV-2 S protein activates NLRP3 inflammasome and deregulates coagulation factos in endothelial and immune cells. *Cell Communication and Signaling*. 2024; 22: 38. doi.org/10.1186/s12964-023-01397-6. PMID: 38225643, IF: 7.00, Q1.
2. VALENCIA I, LUMPUY-CASTILLO J, MAGALHAES G, SÁNCHEZ-FERRER CF, LORENZO O, PEIRO C. Mechanisms of endotelial activation, hypercoagulation and thrombosis in Covid-19: a link with diabetes mellitus. *Cardiovascular Diabetology*. 2024 Feb 20;23(1):75. doi.org/10.1186/s12933-023-02097-8. PMID: 38378550, IF: 8.500 (corresponding 2023), D1
3. VALENCIA I, VALLEJO S, DONGIL P, ROMERO A, SAN HIPÓLITO-LUENGO A, SHAMOON L, POSADA M, GARCÍA-OLMO D, CARRARO R, ERUSALIMSKY JD, ROMACHO T, PEIRÓ C, SÁNCHEZ-FERRER CF. Dipeptidyl peptidase-4 promotes

- human endothelial cell senescence and dysfunction via PAR2-COX-2-TP axis and NLRP3 inflammasome activation. *Hypertension*. 2022. doi: 10.1161/HYPERTENSIONAHA.121.1847. PMID: 35477273, IF: 8.300. Q1, D1, 7 citations.
4. SHAMOON L, ESPITIA-CORREDOR JA, DONGIL P, MENENDEZ-RIBES M, ROMERO A, VALENCIA I, DÍAZ-ARAYA G, SÁNCHEZ-FERRER CF, PEIRÓ C. Resolvin e1 attenuates doxorubicin-induced endothelial senescence by modulating NLRP3 inflammasome activation. *Biochem Pharmacol*. 2022 May 9:115078. doi: 10.1016/j.bcp.2022.115078. PMID: 35551917, IF: 5.800. Q1
 5. ROMERO A, DONGIL P, VALENCIA I, VALLEJO S, PHD^{1,2}, HIPÓLITO-LUENGO S, DÍAZ-ARAYA G, BARTHA JL, GONZÁLEZ MM, RIVILLA F, DE LA CUESTA F, SÁNCHEZ-FERRER CF, CONCEPCIÓN PEIRÓ C. Pharmacological blockade of NLRP3 inflammasome/IL-1 β positive loop mitigates endothelial cell senescence and dysfunction. *Aging and Disease*. 2022; 13: 284-297. doi: 10.14336/AD.2021.0617. eCollection 2022 Feb. PMID: 35111374, IF: 7.400. Q1, D1.
 6. OLIVARES-SILVA F, DE GREGORIO N, ESPITIA-CORREDOR J, ESPINOZA C, VIVAR R, SILVA D, OSORIO JM, LAVANDERO S, PEIRÓ C, SÁNCHEZ-FERRER C, DÍAZ-ARAYA G. Resolvin-D1 attenuation of angiotensin II-induced cardiac inflammation in mice is associated with prevention of cardiac remodeling and hypertension. *Biochim Biophys Acta Mol Basis Dis*. 2021;1867(12): 166241. doi: 10.1016/j.bbadis.2021.166241. PMID: 34400298. IF: 6.633, Q1, D1.
 7. SALAS-HERNÁNDEZ A, RUZ-CORTÉS F, BRUGGENDIECK F, ESPINOZA-PEREZ C, ESPITIA-CORREDOR J, VARELA NM, QUIÑONES LA, SÁNCHEZ-FERRER C, PEIRÓ C, DÍAZ-ARAYA G. Resolvin D1 reduces expression and secretion of cytokines and monocyte adhesion triggered by Angiotensin II, in rat cardiac fibroblasts. *Biomed Pharmacother*. 2021;141: 111947. doi: 10.1016/j.biopha.2021.111947. PMID: 34328122. IF: 7.419, Q1, D1.
 8. ROMACHO T, VALENCIA I, RAMOS-GONZÁLEZ M, VALLEJO S, LÓPEZ-ESTEBAN M, LORENZO O, CANNATA P, ROMERO A, SAN HIPÓLITO-LUENGO A, GÓMEZ-CEREZO JF, PEIRÓ C, SÁNCHEZ-FERRER CF. Visfatin/eNamtpt induces endothelial dysfunction in vivo: a role for Toll-Like Receptor 4 and NLRP3 inflammasome. *Sci Rep*, 2020 Mar 25; 10: 5386. doi: 10.1038/s41598-020-62190-w. IF: 4.379, Q1.
 9. ROMERO A, SAN HIPOLITO-LUENGO A, VILLALOBOS L, VALLEJO S, MICHALSKA P, LEON R, BARTHA JL, SANZ MJ, ERUSALIMSKY J, SANCHEZ-FERRER CF, ROMACHO T, PEIRO C. The angiotensin-(1-7)/Mas receptor axis protects from endothelial cell senescence via klotho and Nrf2 activation. *Aging Cell*: e12913, 2019. doi: 10.1111/accel.12913. IF: 7.238, Q1, D1
 10. ESPINOSA C, MIGUEL V, VALLEJO S, SANCHEZ FJ, SANDOVAL E, BLANCO E, CANNATA P, PEIRO C, SANCHEZ-FERRER CF, LAMAS S. Role of glutathione biosynthesis in endothelial dysfunction and fibrosis. *Redox Biology* 14: 88-99, 2017. doi: 10.1016/j.redox.2017.08.019. IF: 7.793. Q1, D1
 11. PEIRO C, ROMACHO T, AZCUTIA V, VILLALOBOS L, FERNANDEZ E, BOLAÑOS JP, MONCADA S, SANCHEZ-FERRER CF. Inflammation, glucose, and vascular damage: the role of pentose phosphate pathway. *Cardiovasc Diabetol*. 1;15: 82, 2016. doi: 10.1186/s12933-016-0397-2. PMID: 27245224. IF: 4.752. Q1.
 12. ROMACHO T, VALLEJO S, VILLALOBOS LA, WRONKOWITZ N, INDRAKUSUMA I, SELL H, ECKEL J, SANCHEZ-FERRER CF, PEIRO C. Soluble dipeptidyl peptidase 4 induces microvascular endothelial dysfunction through protease-activated receptor-2 and thromboxane A₂ release. *J Hypertens*. 34: 869-76, 2016. doi: 10.1097/HJH.0000000000000886. PMID: 26895560. IF: 4.085. Q1.

C.2. Congress (invited conferences)

1. SÁNCHEZ-FERRER CF. Interacción entre envejecimiento y disfunción endotelial con hipertensión arterial e inflamación. (Ponencia) XXX Congreso Argentino de Hipertensión Arterial SAHA 2024, Córdoba, Argentina, 19 de Abril de 2024 (N)
2. SÁNCHEZ-FERRER CF. Cardiometabolic diseases and vascular dysfunction: in search of pharmacological targets (Lecture). XLIV Congreso Anual de la Sociedad Chilena de Farmacología. Antofagasta, Chile, December 5, 2023

3. SÁNCHEZ-FERRER CF. Adipoquinas, inflamación y complicaciones vasculares en enfermedades metabólicas (Lecture). X Congreso Mesoamericano de Ciencias Biomédicas. Ciudad de Panamá, Panamá, October 12, 2023
4. SÁNCHEZ-FERRER CF. Diabetes, glucose and vascular damage: The challenge of inflammation. The Harvard Chan PharmacoEpi Student Club Seminar. (Invited Webinar). Harvard T.H. Chan School of Public Health. Online. March 23rd, 2022, USA.
5. SÁNCHEZ-FERRER CF. Adipoquinas y envejecimiento vascular. XLII Congreso Annual de la Sociedad de Farmacología de Chile (Invited Webinar). December 1, 2021, Chile.
6. SANCHEZ-FERRER CF: Envejecimiento, inflamación y disfunción endotelial. 35 Congreso Nacional de la Sociedad Española de Farmacología, Madrid, 2017
7. SANCHEZ-FERRER CF: Vascular ageing: pro-inflammatory and pro-senescent mechanisms. (Lecture) XXXIX Congreso de la Sociedad Chilena de Farmacología (SOFARCHI), 22-25 de Noviembre de 2017, Puerto Varas, Chile.
8. SANCHEZ-FERRER CF, ROMACHO T, VALLEJO S, VILLALOBOS LA, WRONKOWITZ N, INDRAKUSUMA I, SELL H, ECKEL J, PEIRO C. Soluble dipeptidyl peptidase-4 impairs vasodilatation via proteinase-activated receptor-2 and thromboxane A₂. (Lecture) Mechanisms of Vasodilatation 12th International Symposium. Rochester MN, USA, November 6-9, 2016, Rochester MN, USA

C.3. Research projects.

As principal researcher (IP):

1. NLRP3 inflammasome at the crossroad of vascular inflammageing: a novel target for senomorphic drugs. PID2023-147378OB-I00. 293.750,00 €. Ministerio de Ciencia, Innovación y Universidades. Proyectos de Generación de Conocimiento 2023. 2024-2027.
2. Identifying pharmacological targets for the prevention of cardiometabolic vascular inflammageing. PID2020-115590RB-I00. 166.375,00 €. Ministerio de Ciencia y Innovación. Plan Estatal de I+D+I, 2021-2024.
3. Adquisición de Equipamiento Científico-Técnico. Subprograma Estatal de Infraestructuras de Investigación y Equipamiento Científico-Técnico. Citómetro Separador Sorter. EQC2018-005059-P. 306.250 €. Ministerio de Ciencia, Innovación y Universidades. Plan Estatal de I+D+I, 2017-2020.
4. Adipokines: new pharmacological targets for preventing vascular ageing. SAF2017-84776-R. 181.500 €. Ministerio de Economía y Competitividad, Plan Nacional de I+D+i, 2018-2020.
5. Proinflammatory cell mechanisms in cardiovascular diseases: targets for pharmacological interference. CEAL-AL72017-22, 12.570 €. 10^a Convocatoria de Proyectos de Cooperación Interuniversitaria UAM-Santander con América Latina 2017-2018, España, 2017-18.
6. Adipokines and vascular ageing: mechanistic insights and pharmacological modulation. SAF2014-52762-R. 193.600 €. Ministerio de Economía y Competitividad, Plan Nacional de I+D+i, 2015-2017.

As associate researcher:

1. National Institute of Science and Technology on Nanobiopharmaceutics (INCT). Conselho Nacional de Pesquisas (CNPq), Brasil. IP: Robson dos Santos, Universidad Federal de Minas Gerais, 2023-28.
2. Network for implementing multiomics approaches in atherosclerotic cardiovascular disease prevention and research (ATHERONET)". European Cooperation in Science and Technology (COST) Action, CA21153, Member of WG 1 & 5. Chair: Paolo Magni. 2022-2026. Active.
3. Senolytic and senostatic drugs for the treatment of angiotensin II-induced reactive cardiac fibrosis. Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT), Chile. REGULAT 1210627. PI: Guillermo Díaz Araya (Universidad de Chile). 2021-2025 (48 months). Active.
4. Viral S protein-ACE2 interactions: cell damage, protection and prognosis in the cardiovascular complications of COVID-19 (SPACE2-CV-COVID-CM)". PI2: Oscar Lorenzo. European REACT-EU-Comunidad de Madrid. 2020-22, 1.260.000 €.