



## 3.2.4 Vascular Physiology and Pharmacology Group

Publications: 18

Impact Factor: 113.<sup>133</sup>

Q1: 13



### Research Activity

#### Publications

- D Aller MA, Arias J, Blanco-Rivero J. Letter to the Editor: The Porto-Hepatic Spectrum of Cirrhotic Encephalopathy. *Hepatology*. 2020; 71(1): 394-5. Letter. IF: 17.425; D1
- Beck L, Su JJ, Comerma-Steffensen S, Pinilla E, Carlsson R, Hernanz R, Sheykhzade M, Danielson CC, Simonsen U. Endothelial dysfunction and passive changes in the aorta and coronary arteries of diabetic db/db Mice. *Front Physiol*. 2020; 11: 667. Article. IF: 4.566; Q1
- Blanco-Rivero J, Xavier FE. Therapeutic potential of phosphodiesterase inhibitors for endothelial dysfunction-related diseases. *Curr Pharm Design*. 2020; 26(30): 3633-51. Review. IF: 3.116; Q3
- Caracuel L, Sastre E, Callejo M, Rodrigues-Diez R, Garcia-Redondo AB, Prieto I, Nieto C, Salaices M, Aller MA, Arias J, Blanco-Rivero J. Hepatic encephalopathy-associated cerebral vasculopathy in acute-on-chronic liver failure: Alterations on endothelial factor release and influence on cerebrovascular Function. *Front Physiol*. 2020; 11: 593371. Article. IF: 4.566; Q1
- de Vega MJP, Moreno-Fernández S, Pontes-Queiro GM, González-Amor M, Vázquez-Lasa B, Sabater-Muñoz B, Briones AM, Aguilar MR, Miguel M, González-Muniz R. Characterization of novel synthetic polyphenols: Validation of antioxidant and vasculoprotective activities. *Antioxidants*. 2020; 9(9): 787. Article. IF: 6.312; D1
- de Yébenes VG, Briones AM, Martos-Folgado I, Mur SM, Oller J, Bilal F, González-Amor M, Méndez-Barbero N, Silla-Castro JC, Were F, Jiménez-Borreguero LJ, Sánchez-Cabo F, Bueno H, Salaices M, Redondo JM, Ramiro AR. Aging-associated miR-217 aggravates atherosclerosis and promotes cardiovascular dysfunction. *Arterioscl Thromb Vas*. 2020; 40(10): 2408-24. Article. IF: 8.311; Q1
- Escobar AG, Rizzetti DA, Piagette JT, Pecanha FM, Vassallo DV, Miguel M, Wiggers GA. Antioxidant properties of egg white hydrolysate prevent mercury-induced vascular damage in resistance arteries. *Front Physiol*. 2020; 11: 595767. Article. IF: 4.566; Q1
- González-Amor M, Vila-Bedmar R, Rodrigues-Diez R, Moreno-Carriles R, Arcones AC, Cruces-Sande M, Salaices M, Mayor F, Briones AM, Murga C. Myeloid GRK2 regulates obesity-induced endothelial dysfunction by modulating inflammatory responses in perivascular adipose tissue. *Antioxidants*. 2020; 9(10): 953. Article. IF: 6.312; D1
- Isac-Torrente L, Fernández-Gomez B, Miguel M. Coffee capsules: implications in antioxidant activity, bioactive compounds, and aluminum content. *Eur Food Res Technol*. 2020; 246(11): 2335-47. Article. IF: 2.998; Q2
- Llevenes P, Rodrigues-Diez R, Cros-Brunso L, Prieto MI, Casani L, Balfagón G, Blanco-Rivero J. Beneficial effect of a multistrain synbiotic prodefen([R]) plus on the systemic and vascular alterations associated with metabolic syndrome in rats: The role of the neuronal nitric oxide synthase and protein kinase A. *Nutrients*. 2020; 12(1): 117. Article. IF: 5.717; Q1
- López-Moreno M, López MTI, Miguel M, Garcés-Rimón M. Physical and psychological effects related to food habits and lifestyle changes derived from COVID-19 home confinement in the Spanish population. *Nutrients*. 2020; 12(11): 3445. Article. IF: 5.717; Q1
- Miguel M, Vassallo DV, Wiggers GA. Bioactive peptides and hydrolysates from egg proteins as a new tool for protection against cardiovascular problems. *Curr Pharm Design*. 2020; 26(30): 3676-83. Review. IF: 3.116; Q3
- Moreno-Fernández S, Garcés-Rimón M, Miguel M. Egg-derived peptides and hydrolysates: A new bioactive treasure for cardiometabolic diseases. *Trends Food Sci Tech*. 2020; 104: 208-18. Article. IF: 12.563; D1
- Nguyen VT, Farman N, Palacios-Ramírez R, Sbeih M, Behar-Cohen F, Aractingi S, Jaisser F. Cutaneous wound healing in diabetic mice is improved by topical mineralocorticoid receptor blockade. *J Invest Dermatol*. 2020; 140(1): 223-34. Article. IF: 8.551; D1
- Orejudo M, García-Redondo AB, Rodrigues-Diez RR, Rodrigues-Diez R, Santos-Sánchez L, Muñoz AT, Egido J, Selgas R, Salaices M, Briones AM, Ruiz-Ortega M. Interleukin-17A induces vascular remodeling of small arteries and blood pressure elevation. *Clin Sci*. 2020; 134(5): 513-27. Article. IF: 6.124; Q1



## 3.2 Cardiovascular Area

- Pinheiro JEG, Martínez CS, Moraes PZ, Stasiaki JE, Trost ME, Vassallo DV, Barbosa F, Pecanha FM, Cibin FWS, Miguel M, Wiggers GA. Egg white hydrolysate prevents reproductive impairments induced by cadmium in rats. *J Funct Foods*. 2020; 67: 103823. Article. IF: 4.451; Q1
- Pinheiro JEG, Moraes PZ, Rodríguez MD, Simoes MR, Cibin F, Pinton S, Barbosa F, Pecanha FM, Vassallo DV, Miguel M, Wiggers GA. Cadmium exposure activates NADPH oxidase, renin-angiotensin system and cyclooxygenase 2 pathways in arteries, inducing hypertension and vascular damage. *Toxicol Lett*. 2020; 333: 80-9. Article. IF: 4.372; Q2
- Piotrowicz IBB, Garcés-Rimón M, Moreno-Fernández S, Aleixandre A, Salas-Mellado M, Miguel-Castro M. Antioxidant, angiotensin-converting enzyme inhibitory properties and blood-pressure-lowering effect of rice bran protein hydrolysates. *Foods*. 2020; 9(6): 812. Article. IF: 4.35; Q2

### Research projects

**Alonso Gordo MJ.** Modulación por NRF2 del daño vascular asociado a la patología hipertensiva. Relación con TLR4 [SAF2015-69294-R]. MINECO. 2016-2020.

Management centre: URJC

**Briones Alonso AM.** Interferon stimulated gene 15 (ISG15) as a novel mediator of cardiovascular damage. Bayer Grants4Targets. 2020-2021.

Management centre: UAM

**García-Redondo AB.** Interferon stimulated gene 15 (ISG15) as a new mediator of aortic aneurysms [SI1-PJI-2019-321]. CAM-UAM. 2020-2022.

Management centre: UAM

**Miguel Castro M.** Hidrólisis de proteínas vegetales de alto valor biológico: obtención de péptidos antioxidantes y nuevas texturas culinarias para la elaboración de productos sin gluten [AGL-2017-89213]. MINECO. 2018-2021.

Management centre: CSIC

**Rodríguez Díez R.** Contrato Juan de la Cierva (IJCI-2017-31399). MINECO. 2019-2021.

Management centre: UAM

**Salaices Sánchez M,** Briones Alonso AM. Novel inflammatory mechanisms of vascular damage in hypertension and obesity. Role of pro-resolving lipid mediators as possible therapeutic strategy. [SAF2016-80305-P]. MINECO. 2017-2021.

Management centre: UAM

**Salaices Sánchez M.** Mediadores y mecanismos moleculares de patologías aórticas y valvulares [B2017/BMD-3676]. CAM. 2018-2021.

Management centre: UAM

### Cibers and Retics

**Salaices Sánchez M.** Networked Biomedical Research Center for Cardiovascular Diseases CIBERCV [CB16/11/00286]. ISCIII. [31/12/2022]

### Patents and trademarks

**Garcés Rimón M, Miguel Castro M, López-Alonso Fandiño R, López-Miranda González V, Uranga Ocio J,** inventors; CSIC, Universidad Rey Juan Carlos, assignees; Use of multifunctional bioactive products derived from the enzymatic hydrolysis of egg white proteins for treating metabolic syndrome. P201331767, PCT/ES2014/070880; 2013 December 04.

**González-Muñiz R, Miguel Castro M, Pérez de Vega MJ, Balsera-Paredes B, S Moreno,** inventors; CSIC, assignee. Compounds with antioxidant activity and uses thereof. P201630362; 2016 March 29.

**González-Muñiz R, Pérez de Vega MJ, Miguel M, Balsera-Paredes B, Moreno S,** inven-

tors; CSIC, assignee. Triazolyl polyphenols with antioxidant activity and uses thereof; P201531450; 2015 November 08.

**León Martínez R, Abril Comesaña S, Duarte Flórez P, Crisman Vigil E, Michalska P, Salaices Sánchez M, Menéndez Ramos JC,** inventors; Fundación para la Investigación Biomédica del Hospital Universitario de la Princesa, UAM, UCM, assignees. Compuestos agonistas nicotínicos y antioxidantes para el tratamiento de enfermedades neurodegenerativas. P201930908. 2019 October 14.

**León Martínez R, Abril Comesaña S, Michalska P, Buendía Abaitua I, Salaices Sánchez M, Menéndez Ramos JC, García López M;** inventors; Fundación para la Investigación Biomédica del Hospital Universitario de la Princesa, UAM, UCM, assignees. Compuestos derivados de 2-iodo-7-[[[2-(5-metoxi-1H-indol-3-il)etil]amino]metil]-1-alquil/ aril-6,7,7a,8-tetrahidro-3H-pirrol[2,1-j]quinolina-3,9(5H)-diona como agentes antioxidantes, inductores de NRF2 y moduladores nicotínicos para el tratamiento de enfermedades neurodegenerativas. P201930190. 2019 March 01.

**Miguel Castro M, Garcés Rimón M, López-Alonso Fandiño R, Sandoval Huertas M,** inventors; CSIC, Mario Sandoval Huertas, assignees. Healthy food compositions having gel or foam textures and comprising hydrolyzed egg products. P201331886, PCT/ES2014/070902, EP3106042, US9648897, AR098685, JP2015130856, MX2014015135; 2013 December 20.

**Miguel Castro M, López-Alonso Fandiño R, Ramos González MM, Aleixandre de Artiñano A,** inventors; CSIC, assignee. Production of and antihypertensive properties of peptides derived from egg white proteins. P200501246 PCT/ES2006/070067; 2005

May 23.

**Miguel Castro M, López-Alonso Fandiño R, Recio Sánchez MI, Ramos González MM, Aleixandre de Artiñano A,** inventors; CSIC, assignee. Bioactive peptides derived from the proteins of egg white by means of enzymatic hydrolysis. P200301829, PCT/ES2004/070059, EP1661913, US8227207, AT388166, DE602004012289, DK1661913, JP2007523045; 2003 July 31.

**Miguel Castro M, Garcés Rimón M,** authors; Miguel Castro M, Garcés Rimón M, assignee. Brand name: leggie. ESM4044711; 2019 November 22.

**Pérez Girón JV, Ruiz-Castellanos MJ, de Luis Jiménez O, Pérez Boto V, Sanz González R, Hernández Vélez MC, Mas Gutiérrez JA, Alonso Gordo MJ, Salaices Sánchez M, Ros Pérez M, Coloma Jerez A, Asenjo Barahona A, Sanz Montaña JL, Puente Prieto J, Jensen J,** inventors; NANOATE, S.L., assignee. Method for producing biosensors. P201031224, PCT/ES2011/070536; 2010 August 05.

**Recio Sánchez MI; Quirós del Bosque A, Hernández Ledesma B, Gómez Ruiz JA, Miguel Castro M, Amigo Garrido L, López Expósito I, Ramos González MM, Aleixandre de Artiñano A, (Contreras Gómez M),** inventors; CSIC, assignee. Bioactive peptides identified in enzymatic hydrolyzates of milk caseins and method of obtaining same. P200501373, PCT/ES2006/070079, EP1905779, EP2495250, US8354502, AU2006256720, BRPI0611729, CA2611416, CN101305017, CN103254278, JP2008545774, KR20080045108, MX2007015528, NO20080103; 2005 June 08.