



# Vascular Physiology and Pharmacology Group

Publications:	<b>18</b>
Impact Factor:	<b>76.<sup>233</sup></b>
Q1:	<b>11</b>



## Research Activity

### Doctoral theses

**Abril Comesaña S.** Novel multitarget chiral  $\alpha 7$ -nAChRs ligands with neuroprotective properties for Alzheimer's Disease treatment [dissertation]. Madrid: UAM: 2019(31/10/2019).

**Directors:** León Martínez R,  
Salaices Sánchez M.

### Publications

- Aller MA, Arias N, Blanco-Rivero J, Arias J. Metabolism in acute-on-chronic Liver Failure: The solution more than the problem. *Arch Med Res.* 2019; 50(5): 271-84. Review. IF: 2.093; Q3
- Aller MA, Arias N, Blanco-Rivero J, Arias JL, Arias J. Hepatic encephalopathy: Sometimes more portal than hepatic. *J Gastroen Hepatol.* 2019; 34(3): 490-4. Review. IF: 3.437; Q2
- Aller MA, Arias N, Blanco-Rivero J, Balfagón G, Arias J. Portal hypertension: The desperate search for the placenta. *Curr Res Transl Med.* 2019; 67(2): 56-61. Article. IF: 2.375; Q3
- Aller MA, Blanco-Rivero J, Arias N, Santamaría L, Arias J. The lymphatic headmaster of the mast cell-related splanchnic inflammation in portal hypertension. *Cells.* 2019; 8(7): 658. Review. IF: 4.366; Q2
- Caracuel L, Sastre E, Llevenes P, Prieto I, Funes T, Aller MA, Arias J, Balfagón G, Blanco-Rivero J. Acute-on-chronic liver disease enhances phenylephrine-induced endothelial nitric oxide release in rat mesenteric resistance arteries through enhanced PKA, PI3K/AKT and cGMP signalling pathways. *Sci Rep-Uk.* 2019; 9: 6993. Article. IF: 3.998; Q1
- de Vega MJP, Fernández-Mendivil C, Martínez RD, González-Rodríguez S, Mullet J, Sala F, Sala S, Criado M, Moreno-Fernández S, Miguel M, Fernández-Carvajal A, Ferrer-Montiel A, López MG, González-Muñiz R. 1-[2',5'-Dihydroxyphenyl]-3-[2-fluoro-4-hydroxyphenyl]-1-propanone [RGM079]: A positive allosteric modulator of alpha 7 nicotinic receptors with analgesic and neuroprotective activity. *ACS Chem Neurosci.* 2019; 10(8): 3900-09. Article. IF: 4.486; Q1
- del Campo L, Sánchez-López A, Salaices M, von Kleefeld RA, Expósito E, González-Gómez C, Cusso L, Guzmán-Martínez G, Ruiz-Cabello J, Desco M, Assoian RK, Briones AM, Andrés V. Vascular smooth muscle cell-specific progerin expression in a mouse model of Hutchinson-Gilford progeria syndrome promotes arterial stiffness: Therapeutic effect of dietary nitrite. *Aging Cell.* 2019; 18(3): e12936. Article. IF: 7.238; D1
- Garcés-Rimón M, González C, Hernanz R, Herradón E, Martín A, Palacios R, Alonso MJ, Uranga JA, López-Miranda V, Miguel M. Egg white hydrolysates improve vascular damage in obese Zucker rats by its antioxidant properties. *J Food Biochem.* 2019; 43(12): e13062. Article. IF: 1.662; Q3
- Lefranc C, Friederich-Persson M, Braud L, Palacios-Ramírez R, Karlsson S, Boujardine N, Mottetlini R, Jaisser F, Cat AND. MR (Mineralocorticoid Receptor) induces adipose tissue senescence and mitochondrial dysfunction leading to vascular dysfunction in obesity. *Hypertension.* 2019; 73(2): 458-68. Article. IF: 7.713; D1
- Martínez CS, Alterman CDC, Vera G, Márquez A, Uranga JA, Pecanha FM, Vassallo DV, Exley C, Mello-Carpes PB, Miguel M, Wiggers GA. Egg white hydrolysate as a functional food ingredient to prevent cognitive dysfunction in rats following long-term exposure to aluminum. *Sci Rep-Uk.* 2019; 9: 1868. Article. IF: 3.998; Q1
- Martínez CS, Piagette JT, Escobar AG, Martín A, Palacios R, Pecanha FM, Vassallo DV, Exley C, Alonso MJ, Salaices M, Miguel M, Wiggers GA. Egg white hydrolysate: A new putative agent to prevent vascular dysfunction in rats following long-term exposure to aluminum. *Food Chem Toxicol.* 2019; 133: 110799. Article. IF: 4.679; Q1
- Martínez-González J, Varona S, Canes L, Galán M, Briones AM, Cachafeiro V, Rodríguez C. Emerging roles of lysyl oxidases in the cardiovascular system: New concepts and therapeutic challenges. *Biomolecules.* 2019; 9(10): 610. Review. IF: 4.082; Q2
- Murga C, Arcones AC, Cruces-Sande M, Briones AM, Salaices M, Mayor F. G Protein-coupled receptor kinase 2 (GRK2) as a potential therapeutic target in cardiovascular and metabolic diseases. *Front Pharmacol.* 2019; 10: 112. Review. IF: 4.225; Q1



- Orejudo M, Rodrigues-Díez RR, Rodríguez-Díez R, García-Redondo A, Santos-Sánchez L, Rández-Garbayo J, Cannata-Ortiz P, Ramos AM, Ortiz A, Selgas R, Mezzano S, Lavoz C, Ruiz-Ortega M. Interleukin 17A participates in renal inflammation associated to experimental and human hypertension. *Front Pharmacol.* 2019; 10: 1015. Article. IF: 4.225; Q1
- Palacios-Ramírez R, Hernanz R, Martín A, Pérez-Girn JV, Barrus MT, González-Carnicero Z, Aguado A, Jaisser F, Briones AM, Salaices M, Alonso MJ. Pioglitazone modulates the vascular contractility in hypertension by interference with ET-1 pathway. *Sci Rep-Uk.* 2019; 9: 16461. Article. IF: 3.998; Q1
- Rizzetti DA, Corrales P, Piagette JT, Uranga-Ocio JA, Medina-Gómez G, Pecanha FM, Vassallo DV, Miguel M, Wiggers GA. Chronic mercury at low doses impairs white adipose tissue plasticity. *Toxicology.* 2019; 418: 41-50. Article. IF: 4.099; Q1
- Sanz-Morejón A, García-Redondo AB, Reuter H, Marqués IJ, Bates T, Galardi-Castilla MPA, Grosse A, Manig S, Langa X, Ernst A, Piragyte I, Botos MA, González-Rosa JM, Ruiz-Ortega M, Briones AM, Salaices M, Englert C, Mercader N. Wilms tumor 1b expression defines a pro-regenerative macrophage subtype and is required for organ regeneration in the zebrafish. *Cell Rep.* 2019; 28(5): 1296-306. Article. IF: 8.109; Q1
- Vassallo DV, Simoes MR, Giuberti K, Azevedo BF, Ribeiro RF, Salaices M, Stefanon I. Effects of chronic exposure to mercury on angiotensin-converting enzyme activity and oxidative stress in normotensive and hypertensive rats. *Arq Bras Cardiol.* 2019; 112(4): 374-80. Article. IF: 1.45; Q4

## Research projects

**Alonos Gordo MJ.** Modulación por NFR2 del daño vascular asociado a la patología hipertensiva. Relación con TLR4 [SAF2015-69294-R]. MINECO. 2016-2019.

Management centre: URJC

**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

**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. 2017-2020.

Management centre: UAM

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

Management centre: UAM

**Blanco Rivero J.** Beneficio de la suplementación con agentes simbióticos en la prevención y mejora de las alteraciones de la innervación perivascular asociadas a la ingesta de una dieta rica en grasas. Italfármaco S.A. 2018-2019.

Management centre: FUAM

**Rodríguez Díez R.** Contrato Sara Borrell [CD15/00003]. ISCIII. 2016-2019.

Management centre: FIBHULP

**Rodríguez Díez R.** Contrato Juan de la Cierva [IJC1-2017-31399]. MINECO. 2019-2021.

Management centre: UAM

## Cibers and Retics

**López-Sendón JL.** Networked Biomedical Research Center for Cardiovascular Diseases. [CIBERcv]. ISCIII. [31/12/2022].

Management centre: FIBHULP

## Patents and trademarks

**Garcés Rimón M, Miguel Castro M, López-Alonso Fandiño R, López-Miranda González V, Uranga Ocío 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. PCT/ES2017/070179, 28 de Marzo de 2017

**González-Muñiz R, Pérez de Vega MJ, Miguel M, Balsera-Paredes B, Moreno S,** inventors; CSIC, assignee. Triazolyl polyphenols with antioxidant activity and uses thereof; P201531450; 2015 November 08 .

**León Martínez R, Abril Comesaña S, Duarte Florez P, Michalska P, Crisman Vigil E, Salaices Sánchez M, Menéndez Ramos JC, García López M.** inventors; UAM, 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; UAM, assignees. Compuestos derivados de 2-iodo-7-[[[2-[5-metoxi-1h-indol-3-il]etil]amino]metil]-1-alquil/aryl-6,7a,8-tetrahidro-3h-pirrol[2,1j]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, Ra-**

**mos 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 M, Garcés-Rimón M.** inventors; CSIC, Universidad Francisco de Vitoria, assignees; Obtención de hidrolizados vegetales para la elaboración de productos alimentarios análogos a la carne. P201931133; 2019 December 19

**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.