

Vascular Physiology and Pharmacology Group



Publications: **17** Impact Factor: **80.763** QI: **17**

Research Activity

DOCTORAL THESES

Martínez Silveira C. Feito do consumo de hidrolisado de clara de ovo sobre as alterações neurológicas, reprodutivas e cardiovasculares promovidas pela exposição ao clorato de alumínio em ratos [dissertation]. Uruguiana, Brasi: Universidade Federal do Pampa (I): 2017(13/12/2017).

Directors: Wiggers G; Miguel M.



Nieto Moral C. Encefalía hepática aguda sobre crónica en la colestasis experimental microquirúrgica experimental: Alteraciones metabólicas y vasculares [dissertation]. Madrid: UCM: 2017(26/06/2017).

Directors: Blanco Rivero J; Aller MA; Higuera Matas A.

BOOKS AND BOOK CHAPTERS

Cat AN, Briones AM. Isolation of mature adipocytes from white adipose tissue and gene expression studies by real-time quantitative RT-PCR. In: Touyz R., Schiffrin E. (eds). Hypertension: Method in molecular biology. Nueva York, US: Humana Press, 2017. p.283-95

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Gutiérrez-Tenorio J, Marín-Royo G, Martínez-Martínez E, Martín R, Miana M, López-Andrés N, Jurado-López R, Gallardo I, Luaces M, Román JAS, González-Amor M, Salaices M, Nieto ML, Cachofeiro V. The role of oxidative stress in the crosstalk between leptin and mineralocorticoid receptor in the cardiac fibrosis associated with obesity. *Sci Rep-Uk*. 2017; 7: 16802. Article. IF: 4.122; Q1

- Martínez CS, Alterman CDC, Pecanha FM, Vassallo DV, Mello-Carpes PB, Miguel M, Wiggers GA. Aluminum exposure at human dietary levels for 60 days reaches a threshold sufficient to promote memory impairment in rats. *Neurotox Res*. 2017; 31(1): 20-30. Article. IF: 3.186; Q2
- Martínez CS, Escobar AG, Uranga-Ocio JA, Pecanha FM, Vassallo DV, Exley C, Miguel M, Wiggers GA. Aluminum exposure for 60 days at human dietary levels impairs spermatogenesis and sperm quality in rats. *Reprod Toxicol*. 2017; 73: 128-41. Article. IF: 2.58; Q2
- Martínez CS, Pecanha FM, Brum DS, Santos FW, Franco JL, Zemolin APP, Anselmo-Franci JA, Junior FB, Alonso MJ, Salaices M, Vassallo DV, Leivas FG, Wiggers GA. Reproductive dysfunction after mercury exposure at low levels: evidence for a role of glutathione peroxidase (GPx) 1 and GPx4 in male rats. *Reprod Fert Develop*. 2017; 29(9): 1803-12. Article. IF: 2.105; Q1
- Martínez CS, Piagette JT, Escobar AG, Martín A, Palacios R, Pecanha FM, Vassallo DV, Exley C, Alonso MJ, Miguel M, Salaices M, Wiggers GA. Aluminum exposure at human dietary levels promotes vascular dysfunction and increases blood pressure in rats: A concerted action of NAD(P)H oxidase and COX-2. *Toxicology*. 2017; 390: 10-21. Article. IF: 3.265; Q2
- Martínez-Revelles S, García-Redondo AB, Avendaño MS, Varona S, Palao T, Orriols M, Roque FR, Fortuno A, Touyz RM, Martínez-González J, Salaices M, Rodríguez C, Briones AM. Lysyl oxidase induces vascular oxidative stress and contributes to arterial stiffness and abnormal elastin structure in hypertension: Role of P38MAPK. *Antioxid Redox Sign*. 2017; 27(7): 379-97. Article. IF: 6.53; D1
- Martín-Ventura JL, Rodrigues-Díez R, Martínez-López D, Salaices M, Blanco-Colio LM, Briones AM. Oxidative stress in human atherosclerosis: Sources, markers and therapeutic targets. *Int J Mol Sci*. 2017; 18(11): 2315. Review. IF: 3.687; Q2
- Millán Longo A, Montero Saiz O, Sarro Fuente C, Aguado Martínez A, Salaices Sánchez M. Mercury exposure induces proinflammatory enzymes in vascular fibroblasts. *Clin Investig Arterioscler*.



3.2 Cardiovascular Area

2017; 29(6): 231-8. Article. Not Indexed

- Oller J, Méndez-Barbero N, Ruiz EJ, Villahoz S, Renard M, Canelas LI, Briones AM, Alberca R, Lozano-Vidal N, Hurlé MA, Milewicz D, Evangelista A, Salaices M, Nistal JF, Jiménez-Borreguero LJ, de Backer J, Campanero MR, Redondo JM. Nitric oxide mediates aortic disease in mice deficient in the metalloprotease Adamts1 and in a mouse model of Marfan syndrome. *Nat Med.* 2017; 23(2): 200-12. Article. IF: 32.621; D1
- Requena T, Miguel M, Garcés-Rimón M, Martínez-Cuesta MC, López-Fandino R, Peláez C. Pepsin egg white hydrolysate modulates gut microbiota in Zucker obese rats. *Food Funct.* 2017; 8(1): 437-43. Article. IF: 3.289; Q1
- Rizzetti DA, Martín A, Corrales P, Fernández F, Simoes MR, Pecanha FM, Vassallo DV, Miguel M, Wiggers GA. Egg white-derived peptides prevent cardiovascular disorders induced by mercury in rats: Role of angiotensin-converting enzyme (ACE) and NADPH oxidase. *Toxicol Lett.* 2017; 281: 158-74. Article. IF: 3.166; Q2
- Rizzetti DA, Martínez CS, Escobar AG, da Silva TM, Uranga-Ocio JA, Pecanha FM, Vassallo DV, Castro MM, Wiggers GA. Egg white-derived peptides prevent male reproductive dysfunction induced by mercury in rats. *Food Chem Toxicol.* 2017; 100: 253-64. Article. IF: 3.977; D1
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- Varona S, García-Redondo AB, Martínez-González J, Salaices M, Briones AM, Rodríguez C. Vascular lysyl oxidase over-expression alters extracellular matrix structure and induces oxidative stress. *Clin Investig Arterioscler.* 2017; 29(4): 157-65. Article. Not Indexed

PUBLIC PROJECTS

Briones Alonso AM. Relación entre postanoides, especies reactivas de oxígeno y aldosterona del tejido adiposo y su papel en las alteraciones cardiovasculares asociadas a hipertensión y obesidad (PI13/01488). ISCIII. 2014-2017.

Management centre: FIBHULP

Salaices Sánchez M. Red de Investigación Cardiovascular (RIC) (RD12/0042/0024). ISCIII. 2013-2017.

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PRIVATE PROJECTS

Briones Alonso AM. Relación entre postranoides, especies reactivas de oxígeno y aldosterona del tejido adiposo y su papel en las alteraciones cardiovasculares asociadas a hipertensión y obesidad. Roche Farma S.A. 2014-Ongoing.

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Miguel Castro M. Estudio de los procesos de proteólisis en el desarrollo de aromas y sabores en el jamón puro ibérico de bellota y caracterización de péptidos bioactivos. Arturo Sánchez E Hijos. 2016-2017.

Management centre: CSIC

Miguel Castro M. Participación en comité de expertos y asesoramiento científico en materia de alimentación y bebidas: cerveza 0,0% isotónica. Farfara Lab. 2016-2017.

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INTERNATIONAL PROJECTS

Briones Alonso AM. ADMIRE - aldosterone and mineralocorticoid receptor: pathophysiology, clinical implication and therapeutic innovations (COST BM1301). European Union. 2014-2017.

Management centre: UAM

Miguel Castro M. Egg white hydrolysates as functional food ingredients to control the cardiometabolic complications associated to oxidative stress induced by heavy metals exposure. (406715/2013-0). Conselho Nacional de Desenvolvimento Científico e Tecnológico del Gobierno de Brasil. 2014-2017.

Management centre: Universidad Federal do Espiritu Santo

PATENTS AND TRADEMARKS

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

González-Muñiz R, Miguel Castro M, Pérez de Vega MJ, Balseira-Paredes B, Moreno S, inventors; CSIC, assignee. Compounds with antioxidant activity and uses thereof. P201630362; 2016 March 29. PCT/ES2017/070179, 28 de Marzo de 2017