

The Eicosanoid Research Division @ IBGM

– María A. Balboa - Publications List –

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77. **Astudillo, A. M., Balgoma, D., Balboa, M. A. & Balsinde, J.** (2012) Dynamics of arachidonic acid mobilization by inflammatory cells. [Biochim. Biophys. Acta 1821: 249-256.](#)
76. **Astudillo, A. M., Pérez-Chacón, G., Meana, C., Balgoma, D., Pol, A., del Pozo, M. A., Balboa, M. A. & Balsinde, J.** (2011) Altered arachidonate distribution in macrophages from caveolin-1 null mice leading to reduced eicosanoid synthesis. [J. Biol. Chem. 286: 35299-35307.](#)
75. **Valdearcos, M., Esquinas, E., Meana, C., Gil de Gómez, L., Guijas, C., Balsinde, J. & Balboa, M. A.** (2011) Subcellular localization and role of lipin-1 in human macrophages. [J. Immunol. 186: 6004-60013.](#)
74. **Astudillo, A. M., Pérez-Chacón, G., Balgoma, D., Gil de Gómez, L., Ruipérez, V., Guijas, C., Balboa, M. A. & Balsinde, J.** (2011) Influence of cellular arachidonic acid levels on phospholipid remodeling and CoA-independent transacylase activity in human monocytes and U937 cells. [Biochim. Biophys. Acta 1811: 97-103.](#)
73. **Balgoma, D., Montero, O., Balboa, M. A. & Balsinde, J.** (2010) Review - Lipidomic approaches to the study of phospholipase A₂-regulated phospholipid fatty acid incorporation and remodeling. [Biochimie 92: 645-650.](#)
72. **Balgoma, D., Astudillo, A. M., Pérez-Chacón, G., Montero, O., Balboa, M. A. & Balsinde, J.** (2010) Markers of monocyte activation revealed by lipidomic profiling of arachidonic acid-containing phospholipids. [J. Immunol. 184: 3857-3865.](#)
71. **Casas, J., Valdearcos, M., Pindado, J., Balsinde, J. & Balboa, M. A.** (2010) The cationic cluster of group IVA phospholipase A₂ (Lys488/Lys541/Lys543/Lys544) is involved in translocation of the enzyme to phagosomes in human macrophages. [J. Lipid Res. 51: 388-399.](#)
70. **Pérez-Chacón, G., Astudillo, A. M., Ruipérez, V., Balboa, M. A. & Balsinde, J.** (2010) Signaling role for lysophosphatidylcholine acyltransferase 3 in receptor-regulated arachidonic acid reacylation reactions in human monocytes. [J. Immunol. 184: 1071-1078.](#)
69. **Gubern, A., Barceló, M., Barneda, D., López, J. M., Masgrau, R., Picatoste, F., Chalfant, C. E., Balsinde, J., Balboa, M. A. & Claro, E.** (2009) JNK and ceramide kinase govern the biogenesis of lipid droplets through activation of group IVA phospholipase A₂. [J. Biol. Chem. 284: 32359-32369.](#)

68. **Pérez-Chacón, G., Astudillo, A. M., Balgoma, D., Balboa, M. A. & Balsinde, J.** (2009) Review - Control of free arachidonic acid levels by phospholipases A₂ and lysophospholipid acyltransferases. [Biochim. Biophys. Acta 1791: 1103-1113.](#)
67. **Casas, J., Meana, C., Esquinas, E., Valdearcos, M., Pindado, J., Balsinde, J. & Balboa, M. A.** (2009) Requirement of JNK-mediated phosphorylation for translocation of group IVA phospholipase A₂ to phagosomes in human macrophages. [J. Immunol. 183: 2767-2774.](#)
66. **Ruipérez, V., Astudillo, A. M., Balboa, M. A. & Balsinde, J.** (2009) Coordinate regulation of Toll-like receptor-mediated arachidonic acid mobilization in macrophages by group IVA and group V phospholipase A₂s. [J. Immunol. 182: 3877-3883.](#)
65. **Gubern, A., Barceló, M., Casas, J., Barneda, D., Masgrau, R., Picatoste, F., Balsinde, J., Balboa, M. A., & Claro, E.** (2009) Lipid droplet biogenesis induced by stress involves triacylglycerol synthesis that depends on group VIA phospholipase A₂. [J. Biol. Chem. 284: 5697-5708.](#)
64. **Balgoma, D., Montero, O., Balboa, M. A. & Balsinde, J.** (2008) Calcium-independent phospholipase A₂-mediated formation of 1,2-diarachidonoyl-glycerophosphoinositol in human monocytes. [FEBS J. 275: 6180-6191.](#)
63. **Herrero, A. B., Astudillo, A. M., Balboa, M. A., Cuevas, C., Balsinde, J. & Moreno, S.** (2008) Levels of SCS7/FA2H-mediated fatty acid 2-hydroxylation determine the sensitivity of cells to antitumor PM02734. [Cancer Res. 68: 9779-9787.](#)
62. **Gubern, A., Casas, J., Barceló, M., Barneda, D., de la Rosa, X., Masgrau, R., Picatoste, F., Balsinde, J., Balboa, M. A., & Claro, E.** (2008) Group IVA phospholipase A₂ is necessary for the biogenesis of lipid droplets. [J. Biol. Chem. 283: 27369-27382.](#)
61. **Balboa, M. A., Pérez, R. & Balsinde, J.** (2008) Calcium-independent phospholipase A₂ mediates proliferation of human promonocytic U937 cells. [FEBS J. 275: 1915-1924.](#)
60. **Pindado, J., Balsinde, J. & Balboa, M. A.** (2007) TLR3-dependent induction of nitric oxide synthase in RAW 264.7 macrophage-like cells via a cytosolic phospholipase A₂/cyclooxygenase-2 pathway. [J. Immunol. 179: 4821-4828.](#)
59. **Ruipérez, V., Casas, J., Balboa, M. A. & Balsinde, J.** (2007) Group V phospholipase A₂-derived lysophosphatidylcholine mediates cyclooxygenase-2 induction in lipopolysaccharide-stimulated macrophages. [J. Immunol. 179: 631-638.](#)
58. **Balsinde, J., Pérez, R. & Balboa, M. A.** (2006) Review - Calcium-independent phospholipase A₂ and apoptosis. [Biochim. Biophys. Acta 1761: 1344-1350.](#)
57. **Balboa, M. A. & Balsinde, J.** (2006) Review - Oxidative stress and arachidonic acid mobilization. [Biochim. Biophys. Acta 1761: 385-391.](#)
56. **Pérez, R., Balboa, M. A. & Balsinde, J.** (2006) Involvement of group VIA calcium-independent phospholipase A₂ in macrophage engulfment of hydrogen peroxide-treated U937 cells. [J. Immunol. 176: 2555-2561.](#)

55. **Casas, J., Gijón, M. A., Vigo, A. G., Crespo, M. S., Balsinde, J. & Balboa, M. A.** (2006) Overexpression of cytosolic group IVA phospholipase A₂ protects cells from calcium-dependent death. *J. Biol. Chem.* **281**: 6106-6116.
54. **Pérez, R., Matabosch, X., Llebaria, A., Balboa, M. A. & Balsinde, J.** (2006) Blockade of arachidonic acid incorporation into phospholipids induces apoptosis in U937 promonocytic cells. *J. Lipid Res.* **47**: 484-491.
53. **Casas, J., Gijón, M. A., Vigo, A. G., Crespo, M. S., Balsinde, J. & Balboa, M. A.** (2006) Phosphatidylinositol 4,5-bisphosphate anchors cytosolic group IVA phospholipase A₂ to perinuclear membranes and decreases its calcium requirement for translocation in live cells. *Mol. Biol. Cell* **17**: 155-162.
52. **Balsinde, J., and Balboa, M. A.** (2005) Review - Cellular regulation and proposed biological functions of group VIA calcium-independent phospholipase A₂ in activated cells. *Cell. Signal.* **17**: 1052-1062.
51. **Pérez, R., Melero, R., Balboa, M. A. & Balsinde, J.** (2004) Role of group VIA calcium-independent phospholipase A₂ in arachidonic acid release, phospholipid fatty acid incorporation, and apoptosis in U937 cells responding to hydrogen peroxide. *J. Biol. Chem.* **279**: 40385-40391.
50. **Balboa, M. A., Shirai, Y., Gaietta, G., Ellisman, M. E., Balsinde, J., & Dennis, E. A.** (2003) Localization of group V phospholipase A₂ in caveolin-enriched granules in activated P388D₁ macrophage-like cells. *J. Biol. Chem.* **278**: 48059-48065.
49. **Fuentes, L., Pérez, R., Nieto, M. L., Balsinde, J. & Balboa, M. A.** (2003) Bromoenol lactone promotes cell death by a mechanism involving phosphatidate phosphohydrolase-1 rather than calcium-independent phospholipase A₂. *J. Biol. Chem.* **278**: 44683-44690.
48. **Balboa, M. A., Pérez, R. & Balsinde, J.** (2003) Amplification mechanisms of inflammation: paracrine stimulation of arachidonic acid mobilization by secreted phospholipase A₂ is regulated by cytosolic phospholipase A₂-derived hydroperoxyeicosatetraenoic acid. *J. Immunol.* **171**: 989-994.
47. **Balboa, M. A., Sáez, Y. & Balsinde, J.** (2003) Calcium-independent phospholipase A₂ is required for lysozyme secretion in U937 promonocytes. *J. Immunol.* **170**: 5276-5280.
46. **Balboa, M. A., Varela-Nieto, I., Lucas, K. K. & Dennis, E. A.** (2002) Expression and function of phospholipase A₂ in brain. *FEBS Lett.* **531**: 12-17.
45. **Balboa, M. A. & Balsinde, J.** (2002) Involvement of calcium-independent phospholipase A₂ in hydrogen peroxide-induced accumulation of free fatty acids in human U937 cells. *J. Biol. Chem.* **277**: 40384-40389.
44. **Insel, P. A., Ostrom, R. S., Zambon, A. C., Hughes, R. J., Balboa, M. A., Shehnaz, D., Gregorian, C., Torres, B., Firestein, B.L., Xing, M. and Post, S. R.** (2001) P_{2Y} receptors of MDCK cells: epithelial cell regulation by extracellular nucleotides. *Clin. Exp. Pharmacol. Physiol.* **28**: 351-354.

43. **Balboa, M. A., Balsinde, J. & Dennis, E. A.** (2001) Inflammatory activation of prostaglandin production in microglial cells antagonized by amyloid peptide. [Biochem. Biophys. Res. Commun. 280: 558-560.](#)
42. **Johansen, B., Rakkestad, K., Balboa, M. A. & Dennis, E. A.** (2000) Expression of cytosolic and secreted forms of phospholipase A₂ and cyclooxygenases in human placenta, fetal membranes, and chorionic cell lines. [Prostaglandins Other Lipid Mediat. 60: 119-125.](#)
41. **Balsinde, J., Balboa, M. A. & Dennis, E. A.** (2000) Group IV cytosolic phospholipase A₂ activation by diacylglycerol pyrophosphate in murine P388D₁ macrophages. [Ann. N. Y. Acad. Sci. 905: 11-15.](#)
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36. **Shehnaz, S., Torres, B., Balboa, M.A., and Insel, P.A.** (2000) PPADS, a putative P_{2Y} receptor antagonist, blocks signaling at a site distal to the receptor in MDCK-D₁ cells. [J. Pharmacol. Exp. Ther. 292: 346-350.](#)
35. **Balboa, M. A., Balsinde, J., Johnson, C. A. & Dennis, E. A.** (1999) Regulation of arachidonic acid mobilization in lipopolysaccharide-activated P388D₁ macrophages by adenosine triphosphate. [J. Biol. Chem. 274: 36764-36768.](#)
34. **Johnson, C. A., Balboa, M. A., Balsinde, J. & Dennis, E. A.** (1999) Regulation of cyclooxygenase-2 expression by phosphatidate phosphohydrolase in human amnionic WISH cells. [J. Biol. Chem. 274: 27689-27693.](#)
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27. **Balboa, M. A. & Insel, P. A.** (1998) Stimulation of phospholipase D via α 1-adrenergic receptors in Madin-Darby Canine kidney cells is independent of PKC α and $-\epsilon$ activation. *Mol. Pharmacol.* **53**: 221-227.
26. **Balsinde, J., Balboa, M. A. & Dennis, E. A.** (1997) Antisense inhibition of group VI Ca²⁺-independent phospholipase A₂ blocks phospholipid fatty acid remodeling in murine P388D₁ macrophages. *J. Biol. Chem.* **272**: 29317-29321.
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