

# *The Eicosanoid Research Division @ IBGM*

## *-- María A. Balboa - Publications List --*

(Last revised January 9, 2010)

72. **Balgoma, D., Montero, O., Balboa, M. A. & Balsinde, J.** (2010) Review - Lipidomic approaches to the study of phospholipase A<sub>2</sub>-regulated phospholipid fatty acid incorporation and remodeling. [Biochimie \(in press\)](#).
71. **Casas, J., Valdearcos, M., Pindado, J., Balsinde, J. & Balboa, M. A.** (2010) The cationic cluster of group IVA phospholipase A<sub>2</sub> (Lys488/Lys541/Lys543/Lys544) is involved in translocation of the enzyme to phagosomes in human macrophages. [J. Lipid Res. \(in press\)](#).
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 A<sub>2</sub>. [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 A<sub>2</sub> 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 A<sub>2</sub> 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 A<sub>2</sub>s. [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 A<sub>2</sub>. [J. Biol. Chem. 284: 5697-5708](#).
64. **Balgoma, D., Montero, O., Balboa, M. A. & Balsinde, J.** (2008) Calcium-independent phospholipase A<sub>2</sub>-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 A<sub>2</sub> 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 A<sub>2</sub> 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 A<sub>2</sub>/cyclooxygenase-2 pathway. *J. Immunol.* **179**: 4821-4828.
59. **Ruipérez, V., Casas, J., Balboa, M. A. & Balsinde, J.** (2007) Group V phospholipase A<sub>2</sub>-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 A<sub>2</sub> 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 A<sub>2</sub> 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 A<sub>2</sub> 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 A<sub>2</sub> 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 A<sub>2</sub> 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 A<sub>2</sub> 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 A<sub>2</sub> in caveolin-enriched granules in activated P388D<sub>1</sub> 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 A<sub>2</sub>. *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 A<sub>2</sub> is regulated by cytosolic phospholipase A<sub>2</sub>-derived hydroperoxyeicosatetraenoic acid. *J. Immunol.* **171**: 989-994.
47. **Balboa, M. A., Sáez, Y. & Balsinde, J.** (2003) Calcium-independent phospholipase A<sub>2</sub> 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 A<sub>2</sub> in brain. *FEBS Lett.* **531**: 12-17.
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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<sub>2Y</sub> 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 A<sub>2</sub> 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 A<sub>2</sub> activation by diacylglycerol pyrophosphate in murine P388D<sub>1</sub> macrophages. *Ann. N. Y. Acad. Sci.* **905**: 11-15.
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38. **Balsinde, J., Balboa, M. A., Yedgar, S. & Dennis, E. A.** (2000) Group V phospholipase A<sub>2</sub>-mediated oleic acid mobilization in lipopolysaccharide-stimulated P388D<sub>1</sub> macrophages. *J. Biol. Chem.* **275**: 4783-4786.

37. **Balboa, M. A., Balsinde, J. & Dennis, E. A.** (2000) Phosphorylation of cytosolic group IV phospholipase A<sub>2</sub> is necessary but not sufficient for arachidonic acid release in P388D<sub>1</sub> macrophages. [Biochem. Biophys. Res. Commun. 267: 145-148.](#)
36. **Shehnaz, S., Torres, B., Balboa, M.A., and Insel, P.A.** (2000) PPADS, a putative P<sub>2Y</sub> receptor antagonist, blocks signaling at a site distal to the receptor in MDCK-D<sub>1</sub> cells. [J. Pharmacol. Exp. Ther. 292: 346-350.](#)
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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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