## Author's Accepted Manuscript

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www.elsevier.com/locate/ejphar

PII: S0014-2999(18)30214-0

DOI: https://doi.org/10.1016/j.ejphar.2018.04.004

Reference: EJP71753

To appear in: European Journal of Pharmacology

Received date: 23 December 2017

Revised date: 3 April 2018 Accepted date: 4 April 2018

Cite this article as: Patrik Kagebeck, Violetta Nikiforova, Lars Brunken, Arrabi Easwaranathan, Joelle Ruegg, Ian Cotgreave and Vesna Munic Kos, Lysosomotropic cationic amphiphilic drugs inhibit adipocyte differentiation in 3T3-L1K cells via accumulation in cells and phospholipid membranes, and inhibition of autophagy, *European Journal of Pharmacology*, https://doi.org/10.1016/j.ejphar.2018.04.004

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### **ACCEPTED MANUSCRIPT**

Lysosomotropic cationic amphiphilic drugs inhibit adipocyte differentiation in 3T3-L1K cells via accumulation in cells and phospholipid membranes, and inhibition of autophagy

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#### **Abstract**

Some cationic amphiphilic drugs (CADs) have been individually reported to interfere with the differentiation of immune system cells, such as macrophages and dendritic cells. To investigate the possible generic nature of this process, in this study we aimed to see whether these drugs are capable of interfering with the differentiation of adipocytes. Further, we investigated whether this feature might be connected to the lysosomotropic character of these drugs, and their disturbance of intracellular membrane trafficking rather than to the individual

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