Accepted Manuscript

Cationic lipids as one-component vaccine adjuvants: A promising alternative to alum



Malvina Pizzuto, Pascal Bigey, Anne-Marie Lachagès, Céline Hoffmann, Jean-Marie Ruysschaert, Virginie Escriou, Caroline Lonez

S0168-3659(18)30486-3
doi:10.1016/j.jconrel.2018.08.020
COREL 9429
Journal of Controlled Release
27 February 2018
23 July 2018
10 August 2018

Please cite this article as: Malvina Pizzuto, Pascal Bigey, Anne-Marie Lachagès, Céline Hoffmann, Jean-Marie Ruysschaert, Virginie Escriou, Caroline Lonez, Cationic lipids as one-component vaccine adjuvants: A promising alternative to alum. Corel (2018), doi:10.1016/j.jconrel.2018.08.020

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ACCEPTED MANUSCRIPT

1	Cationic lipids as One-Component Vaccine Adjuvants: a Promising
2	Alternative to Alum
3	Malvina Pizzuto ^{a,*,1} <u>malvina.pizzuto@gmail.com</u> , Pascal Bigey ^{b,c,d,e} , Anne-Marie Lachagès ^{b,c,d,e} , Céline
4	Hoffmann ^{b,c,d,e} , Jean-Marie Ruysschaert ^a , Virginie Escriou ^{b,c,d,e,2} and Caroline Lonez ^{a,f,2}
5	^a Structure and Fonction of Biological Membranes, Université Libre de Bruxelles, Boulevard du
6	Triomphe, 1050 Brussels, Belgium
7	^b CNRS, Unité de Technologies Chimiques et Biologiques pour la Santé (UTCBS) UMR 8258, F-75006
8	Paris, France
9	^c INSERM, UTCBS U 1022, F-75006 Paris, France
10	^d Université Paris Descartes, Sorbonne-Paris-Cité University, UTCBS, F-75006 Paris, France
11	^e Chimie ParisTech, PSL Research University, UTCBS, F-75005 Paris, France
12	^f Department of Veterinary Medicine, University of Cambridge, Madingley Rd, Cambridge CB3 0ES,
13	United Kingdom
14	*Corresponding author.
15	
16	ABSTRACT
17	Effective vaccine formulations consist of several components: an antigen carrier, the antigen, a
18	stimulator of cellular immunity such as a Toll-like Receptors (TLRs) ligand, and a stimulator of
19	humoral response such as an inflammasome activator. Here, we investigated the immunostimulatory
20	and adjuvant properties of lipopolyamines, cationic lipids used as gene carriers. We identified new
21	lipopolyamines able to activate both TLR2 and TLR4 and showed that lipopolyamines interact with
22	TLRs via a mechanism different from the one used by bacterial ligands, activating a strong type-I IFN

23 response, pro-inflammatory cytokines and IL-1β secretion. The TLR and inflammasome stimulations,

¹Present address: Molecular Inflammation Group, Biomedical Research Institute of Murcia (IMIB-Arrixaca), 30120 Murcia, Spain. ²Equal contribution.

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