

Accepted Manuscript

Title: Antibacterial Effect and DNA Delivery Using a Combination of an Arsonium-Containing Lipophosphoramidate with an *N*-Heterocyclic Carbene-Silver Complex – Potential Benefits for Cystic Fibrosis Lung Gene Therapy

Authors: Angélique Mottais, Mathieu Berchel, Yann Sibiril, Véronique Laurent, Deborah Gill, Stephen Hyde, Paul-Alain Jaffrès, Tristan Montier, Tony Le Gall

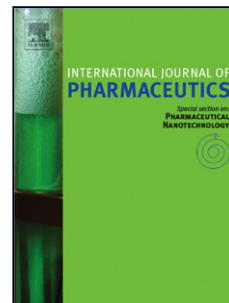
PII: S0378-5173(17)31077-3
DOI: <https://doi.org/10.1016/j.ijpharm.2017.11.022>
Reference: IJP 17142

To appear in: *International Journal of Pharmaceutics*

Received date: 8-6-2017
Revised date: 1-10-2017
Accepted date: 10-11-2017

Please cite this article as: Mottais A, Berchel M, Sibiril Y, Laurent V, Gill D, Hyde S, Jaffrès P-A, Montier T, Le Gall T, Antibacterial Effect and DNA Delivery Using a Combination of an Arsonium-Containing Lipophosphoramidate with an *N*-Heterocyclic Carbene-Silver Complex – Potential Benefits for Cystic Fibrosis Lung Gene Therapy, *International Journal of Pharmaceutics* (2010), <https://doi.org/10.1016/j.ijpharm.2017.11.022>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Antibacterial Effect and DNA Delivery Using a Combination of an Arsonium-Containing Lipophosphoramidate with an N-Heterocyclic Carbene-Silver Complex – Potential Benefits for Cystic Fibrosis Lung Gene Therapy

Angélique Mottais^a, Mathieu Berchel^b, Yann Sibiril^a, Véronique Laurent^a, Deborah Gill^c, Stephen Hyde^c, Paul-Alain Jaffrès^b, Tristan Montier^{a*}, and Tony Le Gall^{a*}

^a "Gene Transfer and Gene Therapy Team", INSERM UMR 1078; IBSAM; Laboratoire de Génétique Moléculaire et Histocompatibilité; UFR Médecine et Sciences de la Santé, CHRU Brest, 22 avenue Camille Desmoulins, 29238 Brest (France)

^b CEMCA, UMR CNRS 6521, IBSAM, UFR Sciences, 6 avenue Victor Le Gorgeu, 29238 Brest (France)

^c "Gene Medicine Group", Radcliffe Department of Medicine (Clinical Laboratory Sciences), John Radcliffe Hospital, University of Oxford, OX3 9DU (United Kingdom)

The last two authors equally contributed to this work.

Corresponding authors: UFR Médecine et Sciences de la Santé, CHRU Brest, 22 avenue Camille Desmoulins, 29238 Brest (France); Tel: (+33) 2 98 01 80 80; Fax: (+33) 2 98 46 79 10; E-mail addresses: tony.legall@univ-brest.fr (T. Le Gall); tristan.montier@univ-brest.fr (T. Montier).

Abbreviations: AgI, silver iodide; ALI, air-liquid interface; AN, after nebulization; BN, before nebulization; BSV, Brest Synthetic Vector; CF, cystic fibrosis; CFTR, cystic fibrosis transmembrane conductance regulator; CR, charge ratio; DDYSA, 1,3-Dimethyl-4,5-Dichloroimidazole-2-Ylidene)-Silver(I) Acetate; DS, dextran sulfate; Ec, *Escherichia coli*; EtB, ethidium bromide; GTA, gene transfer agent; LB, Luria Bertani broth; MBC, minimal bactericidal concentration; MIC, minimal inhibitory concentration; MRSA, methicillin-resistant *Staphylococcus aureus*; NHC, N-heterocyclic carbene; Pa, *Pseudomonas aeruginosa*; Pdl, polydispersity index; RLU, relative light unit; RPM, rotation per minute; RT, room temperature; Sa, *Staphylococcus aureus*; TE, transfection efficiency.

Download English Version:

<https://daneshyari.com/en/article/8520562>

Download Persian Version:

<https://daneshyari.com/article/8520562>

[Daneshyari.com](https://daneshyari.com)