

Title (en)  
CELL TRANSPORT COMPOSITIONS AND USES THEREOF

Title (de)  
ZELLTRANSPORT-ZUSAMMENSETZUNGEN UND IHRE VERWENDUNGEN

Title (fr)  
COMPOSITIONS DE TRANSPORT CELLULAIRE ET UTILISATIONS

Publication  
**EP 1545457 A4 20090701 (EN)**

Application  
**EP 03767137 A 20030801**

Priority  

- US 0324323 W 20030801
- US 40015902 P 20020801
- US 40652502 P 20020828
- US 42738802 P 20021118
- US 48919103 P 20030722

Abstract (en)  
[origin: WO2004012672A2] Compositions and methods have been developed for transporting compounds across membranes with little or no toxicity and, when targeted through the appropriate routes of administration (i.e., lung, gastrointestinal (GI) tract), little or no immune stimulation. The compositions can mediate cellular delivery of compounds that would otherwise not enter cells and enhance the intracellular delivery of compounds that would otherwise enter cells inefficiently. The methods are carried out by contacting a proximal face of a lipid bilayer or membrane (e.g. the surface of an intact cell) with a complex containing a compound (e.g., a therapeutic agent) and a diketopiperazine (DKP). DKP and the compound are non-covalently associated with each other or covalently bound to each other .

IPC 1-7  
**A61K 9/12**; **A61K 9/14**; **A61K 47/48**

IPC 8 full level  
**A61K 9/00** (2006.01); **A61K 9/16** (2006.01)

CPC (source: EP)  
**A61K 9/0075** (2013.01); **A61K 9/1641** (2013.01); **A61K 9/167** (2013.01); **A61K 9/1676** (2013.01); **A61K 47/545** (2017.07); **A61K 47/6927** (2017.07); **A61P 3/10** (2017.12); **A61P 5/10** (2017.12); **A61P 43/00** (2017.12)

Citation (search report)  

- [X] WO 0100654 A2 20010104 - PHARMACEUTICAL DISCOVERY CORP [US]
- [X] WO 9318754 A1 19930930 - PHARMACEUTICAL DISCOVERY CORP [US]
- [A] PEZRON ISABELLE ET AL: "Insulin aggregation and asymmetric transport across human bronchial epithelial cell monolayers (Calu-3).", JOURNAL OF PHARMACEUTICAL SCIENCES APR 2002, vol. 91, no. 4, April 2002 (2002-04-01), pages 1135 - 1146, XP002528202, ISSN: 0022-3549
- See references of WO 2004012672A2

Citation (examination)  

- LIM F ET AL: "MICROENCAPSULATION OF LIVING CELLS AND TISSUES", JOURNAL OF PHARMACEUTICAL SCIENCES, AMERICAN PHARMACEUTICAL ASSOCIATION, WASHINGTON, US, vol. 70, no. 4, 1 April 1981 (1981-04-01), pages 351 - 354, XP009003613, ISSN: 0022-3549, DOI: 10.1002/JPS.2600700402
- STEINER S ET AL: "TechnosphereTM/Insulin: Proof of concept study with a new insulin formulation for pulmonary delivery", EXPERIMENTAL AND CLINICAL ENDOCRINOLOGY AND DIABETES., vol. 110, no. 1, 1 January 2002 (2002-01-01), pages 17 - 21, XP009161970

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2004012672 A2 20040212**; **WO 2004012672 A3 20040805**; AU 2003257156 A1 20040223; AU 2003257156 B2 20070830; CA 2493478 A1 20040212; CA 2493478 C 20141118; EP 1545457 A2 20050629; EP 1545457 A4 20090701; EP 2409686 A1 20120125; JP 2006500961 A 20060112; JP 2011105730 A 20110602; JP 2014074038 A 20140424; JP 4828940 B2 20111130

DOCDB simple family (application)  
**US 0324323 W 20030801**; AU 2003257156 A 20030801; CA 2493478 A 20030801; EP 03767137 A 20030801; EP 11180288 A 20030801; JP 2005506094 A 20030801; JP 2010287479 A 20101224; JP 2013243399 A 20131125