

Title (en)
ULTRASONIC ENHANCEMENT OF DRUG INJECTION

Title (de)
VERBESSERUNG DER INJEKTION VON MEDIKAMENTEN MITTELS ULTRASCHALL

Title (fr)
AMELIORATIONS PAR ULTRA-SONS DE L'INJECTION DE MEDICAMENTS

Publication
EP 1107702 A4 20021009 (EN)

Application
EP 99937661 A 19990729

Priority

- US 9917305 W 19990729
- US 12601198 A 19980729
- US 25529099 A 19990222

Abstract (en)
[origin: WO0006032A1] The invention is a method of enhancing cellular absorption of a substance delivered into a target region of a patient's body, comprising delivering the substance (21) to the target region (22); and directing vibrational energy (32) to the target region, wherein the vibrational energy is of a type, and in an amount sufficient to enhance absorption into cells (24) of the target region.

IPC 1-7
A61B 17/20; A61M 31/00

IPC 8 full level
C12N 15/09 (2006.01); **A61K 9/08** (2006.01); **A61K 9/10** (2006.01); **A61K 31/711** (2006.01); **A61K 38/00** (2006.01); **A61K 38/22** (2006.01); **A61K 38/27** (2006.01); **A61K 38/43** (2006.01); **A61K 38/48** (2006.01); **A61K 39/00** (2006.01); **A61K 45/00** (2006.01); **A61K 48/00** (2006.01); **A61M 37/00** (2006.01); **A61P 5/00** (2006.01); **A61P 7/02** (2006.01); **A61P 7/04** (2006.01); **A61P 7/06** (2006.01); **A61P 9/00** (2006.01); **A61P 9/04** (2006.01); **A61P 9/08** (2006.01); **A61P 13/10** (2006.01); **A61P 13/12** (2006.01); **A61P 19/00** (2006.01); **A61P 43/00** (2006.01)

CPC (source: EP)
A61M 37/0092 (2013.01); **A61P 5/00** (2017.12); **A61P 7/02** (2017.12); **A61P 7/04** (2017.12); **A61P 7/06** (2017.12); **A61P 9/00** (2017.12); **A61P 9/04** (2017.12); **A61P 9/08** (2017.12); **A61P 13/10** (2017.12); **A61P 13/12** (2017.12); **A61P 19/00** (2017.12); **A61P 43/00** (2017.12)

Citation (search report)

- [A] US 5386837 A 19950207 - STERZER FRED [US]
- [A] US 5016615 A 19910521 - DRILLER JACK [US], et al
- See references of WO 0006032A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0006032 A1 20000210; AU 5245099 A 20000221; AU 754022 B2 20021031; BR 9912587 A 20020611; CA 2338396 A1 20000210; EP 1107702 A1 20010620; EP 1107702 A4 20021009; JP 2002521118 A 20020716

DOCDB simple family (application)
US 9917305 W 19990729; AU 5245099 A 19990729; BR 9912587 A 19990729; CA 2338396 A 19990729; EP 99937661 A 19990729; JP 2000561891 A 19990729