Title: BENEFICIAL EFFECTS OF INCREASING LOCAL BLOOD FLOW

Abstract: The present invention generally relates to the improvement of tissue health by increasing local blood flow. In some aspects of the invention, increased local blood flow is effected by the transdermal delivery of the nitric oxide precursor L-arginine and/or its derivatives alone, or optionally in conjunction with an adjunct such as theophylline. The transdermal delivery is effected, in certain embodiments through the means of a hostile biophysical environment, such as that created by a high ionic strength environment. Various pathological states caused by, or occurring in conjunction with, insufficient blood flow, can be treated using the systems and methods of the invention as described herein. In other embodiments, increased blood flow using the systems and methods of the invention may result in enhanced healing, for example, through greater availability of the constituents of the blood. Examples of conditions which may benefit from increased blood flow include, but are not limited to, erectile dysfunction, hair loss, female sexual dissatisfaction, sagging facial or other body tissue, peripheral vascular disease including claudication, neuropathy, skin ulcers, bone healing, wound healing, viral and bacterial infection, and skin grafting.
INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US05/13230

A. CLASSIFICATION OF SUBJECT MATTER 
IPC(7) : A61K 37/48, 31/195, 6/00  
US Cl. : 514/565; 424/401, 439, 450  
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) 
U.S. : 514/565; 424/401, 439, 450

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) 
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US6458841 B2 (FOSSEL) 01 October 2002 (01.10.2002), see full text.</td>
<td>1-40</td>
</tr>
<tr>
<td>X</td>
<td>US5,576,351 A (YOSHIMURA et al) 19 November 1996 (19.11.1996), see col. 9, table 4.</td>
<td>1, 5, 10-11</td>
</tr>
<tr>
<td>X</td>
<td>US5,922,332 A (FOSSEL) 13 July 1999 (13.07.1999), see full text.</td>
<td>1, 10-11, 16-18,</td>
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<td>2-9, 12-15, 19-40</td>
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<tr>
<td>X</td>
<td>US 6,207, 713 B1 (FOSSEL) 27 March 2001 (27.03.2001), see full text.</td>
<td>1-40</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:
  "A" document defining the general state of the art which is not considered to be of particular relevance
  "B" earlier application or patent published on or after the international filing date
  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  "O" document referring to an oral disclosure, use, exhibition or other means
  "P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search: 08 August 2005 (08.08.2005)

Date of mailing of the international search report: 28 OCT 2009

Authorized officer: Jane Doe

Name and mailing address of the ISA/US  
Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Telephone No. 571-272-1600

Telephone No. (703) 305-2230

Form PCT/ISA/210 (second sheet) (January 2004)
Continuation of B. FIELDS SEARCHED Item 3:
USPATFUL, WEST, CAPLUS, MEDLINE, REGISTRY
Term searched: L-arginine, ionic salts (e.g. sod. chloride), carbohydrate, urea, pH, etc.