



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 366 779 A8**

(12) **CORRECTED EUROPEAN PATENT APPLICATION**

Note: Bibliography reflects the latest situation

(15) Correction information:

Corrected version no 1 (W1 A1)
INID code(s) 22

(51) Int Cl.:

A61M 16/00 (1968.09) A61B 5/0488 (1990.01)

(48) Corrigendum issued on:

27.09.2006 Bulletin 2006/39

(43) Date of publication:

03.12.2003 Bulletin 2003/49

(21) Application number: **03102703.0**

(22) Date of filing: **04.06.1999**

(84) Designated Contracting States:

**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**

(30) Priority: **04.06.1998 CA 2239673**

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:

99924617.6 / 1 082 158

(71) Applicant: **UNIVERSITE DE MONTREAL**

**Montreal,
Quebec H3C 3J7 (CA)**

(72) Inventors:

- **SINDERBY, Christer**
Montreal, Quebec H1E 1Z9 (CA)
- **BECK, Jennifer**
Montreal, Quebec H1E 1Z9 (CA)

(74) Representative: **Poulin, Gérard**

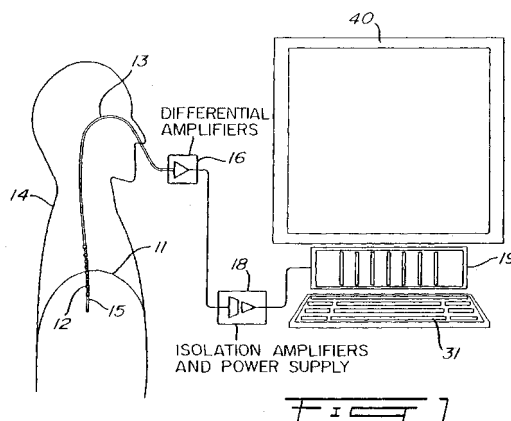
BREVALEX
3, rue du Docteur Lancereaux
75008 Paris (FR)

Remarks:

This application was filed on 04 - 09 - 2003 as a
divisional application to the application mentioned
under INID code 62.

(54) **Proportional pressure assist ventilation controlled by a diaphragm electromyographic signal**

(57) A closed loop system uses (a) the intensity of the diaphragm electromyogram (EMG) for a given inspiratory volume ; (b) the inspiratory volume for a given EMG intensity ; or (c) a combination of (a) and (b) ; in view of controlling the level of gas flow, gas volume or gas pressure delivered by a mechanical (lung) ventilator. The closed loop ventilator system enables for automatic or manual adjustment of the level of inspiratory support in proportion to changes in the neuro-ventilatory efficiency such that the neural drive remains stable at a desired target level. An alarm can also be used to detect changes in neuro-ventilatory efficiency in view of performing manual adjustments.



EP 1 366 779 A8