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**Datasheet for the decision
of 23 July 2015**

Case Number: T 2371/10 - 3.4.01

Application Number: 98960989.6

Publication Number: 1050322

IPC: A61N7/02

Language of the proceedings: EN

Title of invention:

A HIGH INTENSITY FOCUSED ULTRASOUND SYSTEM FOR SCANNING AND
CURING TUMOR

Applicant:

Chongqing Haifu Medical Technology Co., Ltd.

Headword:

Relevant legal provisions:

EPC 1973 Art. 84

Keyword:

lack of clarity (yes)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 2371/10 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 23 July 2015

Appellant: Chongqing Haifu Medical Technology Co., Ltd.
(Applicant) 1 Qingsong Road
Renhe Town
Yubei District
Chongqing 401121 (CN)

Representative: Trinks, Ole
Meissner, Bolte & Partner GbR
P.O. Box 102605
86016 Augsburg (DE)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 2 July 2010 refusing European patent application No. 98960989.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman G. Assi
Members: H. Wolfrum
D. Rogers

Summary of Facts and Submissions

I. The European patent application was refused by a decision of the examining division for reasons of lack of inventive step (Articles 52(1) and 56 EPC 1973) of the subject-matter of claim 1 of each of a main request and three auxiliary requests then on file and of lack of clarity (Article 84 EPC 1973) of claim 1 of the main request.

II. The applicant lodged an appeal against the decision.

The appellant requested that the decision be set aside and that a patent be granted on the basis of a new set of claims 1 to 10 filed with the statement setting out the grounds of appeal.

Furthermore, an auxiliary request for oral proceedings was made.

III. The appellant was summoned to oral proceedings to take place on 23 July 2015.

In a communication pursuant to Article 15(1) RPBA the Board commented on the issues to be addressed during the oral proceedings. In this context, the Board pointed *inter alia* to a variety of clarity problems with the request on file.

IV. The appellant did not reply to the Board's observations nor did it file any further amendments. Instead, the appellant withdrew its request for oral proceedings by letter of 23 June 2015 and informed the Board that it would not attend or be represented at the oral proceedings. In addition, the appellant requested a decision on the state of the file.

V. Oral proceedings were held in the absence of the appellant.

VI. Independent claim 1 of the appellant's request reads as follows :

"1. A high intensity focused ultrasound system for scanning and treating tumor, comprising a combined probe, a high frequency electric power source, a B-mode ultrasound scanner, a multi-dimensional motional apparatus, a vacuum degasser, a therapeutic bed, and a computer operating system, wherein the combined probe comprises:

- a therapeutic head which generates high intensity focused ultrasound; and

- an image-displaying probe of the B-mode ultrasound scanner which is integrated with the therapeutic head,

wherein the combined probe is mounted on the multi-dimensional motional apparatus which comprises a three-dimensional rectangular coordinate and one- or two-dimensional rotational coordinate, the upper end of the combined probe being connected to a central hole of the therapeutic bed through an open water bag; wherein the open water bag is mounted on the central hole;

wherein the lower end of the open water bag (2) is connected to the head of the combined probe (3);

wherein the combined probe (3) is further connected to the high frequency electric power source (6);

wherein the B-mode ultrasound probe is connected to the B-mode ultrasound scanner;

wherein the motional system (4) is connected to the digit-controlled scanning system;

wherein the open water bag (2) is connected to the vacuum degasser (5); wherein the computer operation system (9) is connected separately to the high frequency electric power source (6), B-mode ultrasound scanner (7), digit-controlled scanning system (8) and the vacuum degasser; and wherein the therapeutic head can cause a temperature greater than 70 degrees centigrade in a focal region."

Claims 2 to 10 are dependent claims.

Reasons for the Decision

1. The appeal is admissible.
2. Clarity - Article 84 EPC 1973

In its communication, the Board raised a number of objections concerning the lack of clarity in the definitions of the claims of the request on file.

- 2.1 The claim definitions suffer from an unclear terminology.

For instance, the terms "*multi-dimensional motional apparatus*" and "*digit-controlled scanning system*" in claim 1 on file have no clear meaning.

Other terms, such as the term "*computer operating system*" in claim 1, are misleading. The conventional meaning of the term operating system as referring to the basic software on which a computer operates does not make sense when used for indicating a component of an ultrasound system.

2.2 As regards the feature in claim 1 on file "*wherein the therapeutic head can cause a temperature greater than 70 degrees centigrade in a focal region*", essential features are missing by which the actual temperature level could be verified, so that it is even doubtful whether the claimed ultrasound system could be successfully operated.

2.3 Moreover, present claim 1 does not provide a comprehensible definition of the elements and the structure of the claimed system.

In particular, it is not conceivable how "*an image-displaying probe of the B-mode ultrasound scanner*" can be "*integrated with the therapeutic head*" (and thus be part of the "*combined probe*"), when at the same time the "*combined probe*" and the "*B-mode ultrasound scanner*" are listed as separate system elements. Which structure is intended to be defined in this context by the instruction "*wherein the B-mode ultrasound probe is connected to the B-mode ultrasound scanner*" is not comprehensible.

In the absence of a clear definition of the mutual arrangement of the various system elements, indications such as "*upper*" and "*lower*" remain obscure.

The intended arrangement of the "*open water bag*" when this is "*mounted on the central hole*" is not comprehensible, either.

3. Although having been informed about the above deficiencies by the Board's communication, the appellant did not present any comments nor propose any amendments.

4. Consequently, the appellant's request is not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



R. Schumacher

G. Assi

Decision electronically authenticated