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Datasheet for the decision of 8 May 2015

Case Number: T 1506/13 - 3.3.08

Application Number: 08780008.2

Publication Number: 2167679

IPC: C12Q1/68, G01N33/48, C12M1/34

Language of the proceedings: EN

Title of invention:
COMPOSITIONS AND METHODS FOR DIAGNOSING AND ASSESSING INFLAMMATORY MYOPATHIES

Applicant:
The Brigham and Women's Hospital, Inc.

Headword:
Markers dermatomyositis polymyositis microarray/BRIGHAM

Relevant legal provisions:
EPC Art. 123(2)
RPBA Art. 12(4)

Keyword:
Main Request, Auxiliary Requests 1 and 2 - added subject-matter (yes)

Decisions cited:
T 0948/02, T 1374/07

Catchword:

Beschwerdekammern
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Chambres de recours

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Case Number: T 1506/13 - 3.3.08

D E C I S I O N
of Technical Board of Appeal 3.3.08
of 8 May 2015

Appellant: (Applicant)	The Brigham and Women's Hospital, Inc. 75 Francis Street Boston MA 02115 (US)
Representative:	Jappy, John William Graham Gill Jennings & Every LLP The Broadgate Tower 20 Primrose Street London EC2A 2ES (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 22 January 2013 refusing European patent application No. 08780008.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Wieser
Members:	P. Julià
	D. Rogers

Summary of Facts and Submissions

I. In a decision dated 22 January 2013, the examining division refused to grant a patent on the European patent application no. 08 780 008.2, published as International patent application WO 2009/011770 (hereinafter "*the application as filed*"). The examining division considered the Main Request and Auxiliary Request 1 to contravene Article 123(2) EPC.

Claims 1 and 5 of the **Main Request** before the examining division read as follows:

"1. A method of determining whether a subject exhibits a gene expression pattern characteristic of dermatomyositis, comprising:

a) assaying a test biological sample from said subject containing peripheral blood mononuclear cells, for the expression of the genes interferon alpha-inducible protein 27, interferon-induced protein 44-like and radical S-adenosyl domain/CIG5;

b) concluding that said subject has a gene expression profile characteristic of dermatomyositis if the results determined in the assaying indicate that the genes are expressed more highly in said test sample than in one or more control samples.

5. The method of any preceding claim, wherein the genes additionally include epithelial stromal interaction gene 1."

II. The applicant (appellant) lodged an appeal against this decision. In the statement setting out its Grounds of Appeal, the appellant filed a Main Request, identical

to that before the examining division, and new Auxiliary Requests 1 and 2. Oral proceedings were requested as an auxiliary measure.

Claim 1 of **Auxiliary Requests 1 and 2** was essentially identical to claim 1 of the Main Request, except for step (a) which read as follows:

"1. ... a) assaying a test biological sample from said subject containing peripheral blood mononuclear cells, for the expression of the gene interferon-induced protein 44-like or the gene radical S-adenosyl domain/ CIG5; ..." (Auxiliary Request 1),

"1. ... a) assaying a test biological sample from said subject containing peripheral blood mononuclear cells, for the expression of the gene interferon-induced protein 44-like; ... ." (Auxiliary Request 2).

Claim 5, identically contained in both Auxiliary Requests, read as follows:

"5. The method of any preceding claim, further comprising assaying the test sample for the expression of epithelial stromal interaction gene 1."

III. In a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RBA) annexed to the summons to oral proceedings, the appellant was informed of the board's preliminary, non-binding opinion on the issues of the case. In particular, the board considered the Main Request and Auxiliary Requests 1 and 2 to contravene Article 123(2) EPC. The board further referred to the issue of admissibility of Auxiliary Requests 1 and 2 into the appeal proceedings.

IV. In reply to the board's communication, the appellant informed the board that it intended not to attend the oral proceedings. The appellant did not file any further substantive submissions.

V. Oral proceedings were held on 8 May 2015 in the absence of the appellant.

VI. Appellant's arguments presented in writing, insofar as they are relevant to the present decision, may be summarized as follows:

Main Request - Article 123(2) EPC

The disclosure on page 3, line 17 to page 4, line 2 and in Table 2 on page 17 of the application as filed provided a formal basis for the claimed subject-matter. Assays "*performed on at least 3 genes*" were identified as preferred embodiments. The most preferred genes, namely "*those exhibiting the greatest difference in expression level in disease carrying individuals relative to controls*", were listed in Table 2. They were ordered according to their fold-ratio of differential expression in dermatomyositis (DM). Therefore, since the application as filed also stated that "(t)*he more genes exhibiting differences and the greater the magnitude of the differences, the greater the risk of a subject being positive for disease*", the combination of the three specific genes, first mentioned in Table 2, namely the genes IF27, IF44L and RSAD2, was directly and unambiguously disclosed in the application as filed, albeit in an implicit manner, as being the most preferred combination.

Auxiliary Requests 1 and 2 - Admissibility into the appeal proceedings

No arguments and no submissions were filed in reply to the board's communication pursuant to Article 15(1) RPBA, wherein the appellant was informed of the board's preliminary opinion that these Auxiliary Requests should not be admitted into the appeal procedure (cf. points III and IV *supra*).

Auxiliary Requests 1 and 2 - Article 123(2) EPC

Claim 1 of these Auxiliary Requests referred to a method comprising assaying for the expression of either IFI44L or RSAD2 (Auxiliary Request 1), or of IFI44L (Auxiliary Request 2). Basis for this amendment could be found on page 2, lines 19 to 22 of the application as filed. Claim 5 of these requests was based on claim 5 of the Main Request but had been amended to recite that the method further comprised assaying the test sample for the expression of epithelial stromal interaction gene 1.

VII. The appellant (applicant) requested in writing in its letter of 21 May 2013 that:

"... the decision of the Examining Division dated 22 January 2013, refusing the application, be set aside. It is also requested that a patent be granted on the basis of the Main Request.

Alternatively, it is requested that the Board of Appeal maintains the Main Request and the application is remitted back to the Examining Division so that any remaining issues can be resolved in written procedure.

If the Main Request is found to fail to meet the requirements of Article 123(2) EPC, we request that the Appeal Board considers the First Auxiliary Request. If the First Auxiliary Request is also found to fail to meet the requirements of Article 123(2) EPC, we request that the Appeal Board considers the Second Auxiliary Request.

In the event that the Appeal Board intends not to maintain the Main Request, oral proceedings are requested."

Reasons for the Decision

Main Request

1. This request is identical to the Main Request underlying the decision under appeal.

2. Step 1(a) of claim 1 refers to "*assaying a test biological sample ... for the expression of the genes interferon alpha-inducible protein 27, interferon induced protein 44-like and radical S-adenosyl domain/ CIG5*" (cf. point I *supra*). The corresponding step in claim 1 as originally filed refers to "*assaying said sample for the expression of one or more genes selected from the group consisting of*" 25 specific genes.

3. It is not disputed that the application as filed does not explicitly disclose an assay for a gene expression pattern of these three specific genes. Thus, it has to be assessed whether the gene expression pattern cited in claim 1 is directly and unambiguously disclosed in the application as filed in an implicit manner (cf.

"Case Law of the Boards of Appeal of the EPO", 7th edition 2013, II.E.1.1.1, page 362, second paragraph).

4. According to the case law of the Boards of Appeal (cf. "Case Law", *supra*, II.E.1.1.5, page 371), the selection of two components from one list is in fact equivalent to a twofold selection from two identical lists (cf. *inter alia*, T 1374/07 of 13 January 2009, points 2.1 and 2.2 of the Reasons).

4.1 In the present case, as stated by the examining division (cf. page 6, first full paragraph of the decision under appeal), the selection of the three specific components is equivalent to a threefold selection from three identical lists.

4.2 The selection of these three specific genes is equivalent to a deletion of the other 22 genes from the original list of specific genes. According to the established case law (cf. *inter alia*, T 948/02 of 5 April 2005, points 2.4.1 and 2.4.2 of the Reasons), such a deletion is allowable if it fulfils two conditions:

First, the deletion must not result in singling out any hitherto not specifically mentioned individual compound or group of compounds, but maintains the remaining subject-matter as a generic group of compounds differing from the original group only by its smaller size.

Second, the deletion does not lead to a particular combination of a specific meaning which was not disclosed originally, i.e. it does not generate another invention, or in other words it merely restricts the required protection but does not provide any technical

contribution to the originally disclosed subject-matter.

5. The application as filed is concerned with assays for the expression of one or more genes selected from a list of 25 specific genes. This disclosure includes an assay for the expression of all 25 specific genes and 25 assays for the expression of each of the 25 specific genes listed in the application as filed. In-between, there is a (generic) disclosure of a huge number of assays for the expression of all possible combinations of two, three, four, etc. genes selected from the list of 25 specific genes.

Although the application as filed refers to assays performed on "*at least 3 genes*" as a preferred embodiment of the invention, it also states in the same sentence that "*assays will be performed on ..., more preferably, at least 5, 10 or 15 genes*". This sentence is fully in line with the sentence immediately preceding which states that "(t)*he more genes exhibiting the differences ..., the greater the risk of a subject being positive for disease*" (cf. page 3, lines 19 to 22 of the application as filed). This generic teaching is mirrored by dependent claims 4-6 and 11-13 as originally filed, which refer to assays for expression of "*at least*" 5, 10 and 15 genes. These references, however, are all of a generic nature and none of them discloses a combination of specific genes.

Thus, in the present case, the deletion of the other 22 genes from the original list of specific genes singles out an individual group of compounds (the combination of the three remaining specific genes) which was hitherto not mentioned as such in the application as filed.

6. The specific genes listed in Table 2 of the application as filed are ordered, as the appellant argues (cf. point VI *supra*), according to their fold-ratios of differential expression in dermatomyositis (DM) (cf. column "B" in Table 2 of the application as filed). It may well be obvious to select the first two, three, four, five, six or seven genes of this Table 2 as well as all possible combinations of the first two, three, four, five, six or seven specific genes of this list, since they are described as the genes with the highest differential expression and, at least four of them (IFI27, RSAD2, IFI44L, EPSTI1), were known in the art to be "*excellent choices for a single gene based test*" (cf. page 2, lines 19-22 of the application as filed). However, it still requires a selection among all these possible combinations in order to arrive at the individual combination present in claim 1 of the Main Request.

As stated in the case law, a clear distinction has to be made between the question whether a particular embodiment is disclosed in the application, be it explicitly or implicitly, or whether that embodiment is merely rendered obvious by the application's disclosure (cf. "Case Law", *supra*, II.E.1.7.1, page 405). Appellant's argument with regard to Table 2 is rather related to the question of obviousness than to the question of a direct and unambiguous disclosure of a particular subgroup of specific genes.

7. In the light of these considerations, the board does not see any reason to deviate from the decision of the examining division as regards Article 123(2) EPC. Thus, the Main Request does not fulfil the requirements of Article 123(2) EPC.

Auxiliary Requests 1 and 2

8. Auxiliary Requests 1 and 2 are new in the proceedings. According to Article 12(4) RPBA, the board has the power to hold inadmissible requests that could have been presented in the first instance proceedings. According to page 1, point 5 of the Minutes of the oral proceedings at first instance, the appellant was given an opportunity to file further requests but did not do so. In its Grounds of Appeal, the appellant did not give any reasons to explain why Auxiliary Requests 1 and 2 could not have been filed before the first instance. Although the appellant was made aware of this fact in the board's communication pursuant to Article 15(1) RPBA, no submissions and/or arguments have been filed by the appellant in reply thereto (cf. points III and IV *supra*).

9. However, for the following reasons, the board does not see a reason to enter into a detailed analysis of the admissibility of the Auxiliary Requests 1 and 2 into the appeal proceedings:

9.1 Whereas claim 1 of Auxiliary Request 1 requires to assay for the gene expression pattern of "*the gene interferon-induced protein 44-like* ***or*** *the gene radical S-adenosyl domain/CIG5*" (emphasis added by the board), the assay in claim 1 of Auxiliary Request 2 is limited to "*the gene interferon-induced protein 44-like*" only (cf. point II *supra*). As stated in point 2 *supra*, claim 1 of the application as filed refers to *"one* ***or*** *more genes selected from the group consisting of*" (emphasis added by the board) 25 specific genes.

The disclosure of a separate assay for each of the 25 specific genes listed in the application as filed is clearly and unambiguously derivable from the application as filed (cf. point 5 *supra*). A claim directed to such an assay merely restricts the required protection but it does not provide any additional contribution to the originally disclosed subject-matter (cf. point 4.2 *supra*).

9.2 However, dependent claim 5 of each of Auxiliary Requests 1 and 2 refers to the assay of claim 1, respectively, and contains the phrase: "*further comprising assaying the test sample for the expression of epithelial stromal interaction gene 1*" (cf. point II *supra*). Thus, claim 5 (including the subject-matter of claim 1) is directed to assays for the expression pattern of a combination of two specific genes (IFI44L and EPSTI1 or RSAD2 and EPSTI1) which, for the same reasons as given for the Main Request (cf. points 5-6 *supra*), is not directly and unambiguously derivable from the application as filed.

9.3 Therefore, appellant's Auxiliary Requests do not overcome the objection raised under Article 123(2) EPC with regard to the Main Request. They do not fulfil the requirements of Article 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Wolinski M. Wieser

Decision electronically authenticated