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**Datasheet for the decision  
of 7 July 2010**

**Case Number:** T 0823/09 - 3.3.08

**Application Number:** 97947311.3

**Publication Number:** 0948510

**IPC:** C12N 15/11

**Language of the proceedings:** EN

**Title of invention:**

Immunostimulatory nucleic acid molecules

**Patentee:**

UNIVERSITY OF IOWA RESEARCH FOUNDATION, et al

**Opponents:**

DYNAVAX TECHNOLOGIES CORPORATION  
AstraZeneca AB  
Cytos Biotechnology AG

**Headword:**

Immunostimulatory oligonucleotide/UNIVERSITY OF IOWA

**Relevant legal provisions:**

EPC Art. 123(2)

**Relevant legal provisions (EPC 1973):**

-

**Keyword:**

"Main request and auxiliary requests 1 to 7 - admitted"  
"Added matter (all requests) - yes"

**Decisions cited:**

T 0840/93, T 0390/07, T 1108/08

**Catchword:**

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Case Number: T 0823/09 - 3.3.08

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.08  
of 7 July 2010

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**Decision under appeal:**            **Decision of the Opposition Division of the  
European Patent Office posted on  
5 February 2009 revoking European patent  
No. 0948510 pursuant to Article 101(2), (3) (b)  
EPC.**

**Composition of the Board:**

**Chairman:**            L. Galligani  
**Members:**            M. R. Vega Laso  
                              C. Heath

## Summary of Facts and Submissions

- I. European patent No. 0 948 510 with the title "Immunostimulatory nucleic acid molecules" was granted on European patent application No. 97 947 311.3 (published as WO 1998/018810), which was filed as PCT/US1997/019791 on 30 October 1997. The patent was granted with 32 claims.
- II. Three oppositions were filed against the European patent, based on the grounds for opposition under Article 100(a), (b), and (c) EPC, in particular lack of novelty (Article 54 EPC) and/or inventive step (Article 56 EPC), added matter, and insufficient disclosure of the claimed invention in the patent as granted.
- III. By a decision posted on 5 February 2009, the opposition division revoked the patent under Article 101(2),(3)(b) EPC, on the grounds that claims 1 to 5, 13 and 16 of the set of claims according to the main request - which had been filed as auxiliary request together with a letter dated 16 September 2008 - did not conform to Article 123(2) EPC. The opposition division did not admit into the proceedings the set of claims filed on 9 December 2008 as auxiliary request 2, for the reason that the same objections as for the main request applied.
- IV. The appellants (patent proprietors) lodged an appeal against the decision of the opposition division. Together with their statement of grounds of appeal, the appellants submitted six sets of amended claims, namely a main request and auxiliary requests 1 to 5.

- V. The respondents I to III (opponents 01 to 03, respectively) replied to the grounds of appeal. Together with its reply, respondent III filed additional documentary evidence in support of its line of argument on lack of inventive step. Further documents were filed by respondent III together with its letter dated 8 December 2009.
- VI. With a letter dated 2 February 2010, the appellants submitted additional arguments and requests. Respondent III replied thereto.
- VII. Oral proceedings under Article 116 EPC were requested by each party as a subsidiary request. The representative of respondents I and II requested further that, in the interests of procedural efficiency, the oral proceedings be appointed at the earliest possible opportunity.
- VIII. The parties were summoned to oral proceedings. In a communication under Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA), the board drew the attention of the parties to some of the issues to be discussed during the oral proceedings, in particular issues in connection with Rule 80 and Articles 123(2),(3) and 84 EPC, as well as Article 12(4) of the Rules of Procedure of the Boards of Appeal (RPBA).
- IX. On 26 March 2010, the appellants replied to the board's communication and filed a set of amended claims to replace its earlier main request, and two sets of claims as fresh auxiliary requests 1 to 2. The earlier

auxiliary requests 1 to 5 were renumbered as auxiliary requests 3 to 7.

- X. The representative of respondents I and II filed observations on the fresh requests.
- XI. On 13 April 2010, the appellants corrected the sets of claims according to auxiliary requests 4, 5 and 6, which, purportedly, had been erroneously filed. Respondent III replied to the board's communication and submitted observations on the appellants' submissions.
- XII. In view of the travel disruptions experienced in Europe in April 2010, oral proceedings had to be postponed.
- XIII. The oral proceedings were held on 7 July 2010.
- XIV. The sets of claims according to the main request and auxiliary requests 1 to 7 on file are as follows:

**Main request (claims 1 to 30)**

Independent claims 1 and 3 read:

"1. Use of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide for the preparation of a medicament for the treatment or prevention of an allergy, wherein the immunostimulatory oligonucleotide is not administered in conjunction with an administered allergen and the allergy is bronchial asthma.

3. Use of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide for

the preparation of a medicament for the treatment or prevention of allergy, wherein the immunostimulatory oligonucleotide is not administered in conjunction with an administered allergen."

Dependent claims 2 and 4 to 30 concern specific embodiments of the uses according to claims 1 and/or 3.

**Auxiliary request 1 (claims 1 to 30)**

The sole difference compared to the claims of the main request is that in independent claim 1 the wording "*an allergy*" has been replaced by "*bronchial asthma*" and the wording "*and the allergy is bronchial asthma*" has been deleted.

**Auxiliary request 2 (claims 1 to 30)**

Independent claim 1 differs from the corresponding claim of the preceding request in that the wording "*bronchial asthma*" has been replaced by "*asthma*". The remaining claims are identical to those of the main request.

**Auxiliary request 3 (claims 1 to 30)**

Independent claim 1 reads:

"1. Use of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide for the preparation of a medicament for the treatment or prevention of an allergy, wherein the immunostimulatory oligonucleotide **induces production of Th1 cytokines and** is not administered in conjunction with an administered

allergen, and the allergy is bronchial asthma." [the differences compared to claim 1 of the main request have been highlighted in bold by the board]

**Auxiliary request 4 (claims 1 to 30)**

Independent claim 1 reads:

"1. Use of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide for the preparation of a medicament for the treatment or prevention of an allergy, wherein the immunostimulatory oligonucleotide **is able to redirect a subject's immune response from Th2 to Th1** and is not administered in conjunction with an administered allergen, and the allergy is bronchial asthma." [the differences compared to claim 1 of the main request have been highlighted in bold by the board]

**Auxiliary request 5 (claims 1 to 30)**

Independent claim 1 reads:

"1. Use of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide for the preparation of a medicament for the treatment or prevention of an allergy, wherein the immunostimulatory oligonucleotide **induces production of IL-12 and IFN- $\gamma$**  and is not administered in conjunction with an administered allergen, and the allergy is bronchial asthma." [the differences compared to claim 1 of the main request have been highlighted in bold by the board]



**Auxiliary request 6 (claims 1 to 30)**

Independent claim 1 reads:

"1. Use of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide for the preparation of a medicament for the treatment or prevention of an allergy, wherein the immunostimulatory oligonucleotide **induces production of IL-12, IFN- $\gamma$  and GM-CSF and** is not administered in conjunction with an administered allergen, and the allergy is bronchial asthma." [the differences compared to claims 1 and 3 of the main request have been highlighted in bold by the board]

Independent claim 3 of each of the auxiliary requests 3 to 6 has been amended in a similar manner. Dependent claims 2 and 4 to 30 of each request are identical to the corresponding claims of the main request.

**Auxiliary request 7 (claims 1 to 27)**

Independent claim 1 reads:

"1. Use of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide for the preparation of a medicament for the treatment or prevention of asthma in a human, wherein:

the oligonucleotide has a sequence comprising a CpG motif represented by the formula:



wherein at least one nucleotide separates consecutive CpGs;  $X_1$  is adenine, guanine or thymine;  $X_2$  is cytosine or thymine; N is any nucleotide and  $N_1$  and  $N_2$  is from about 0-26 bases, with the proviso that  $N_1$  and  $N_2$  do not contain a CCGG quadmer or more than one CCG or CGG trimer;

the oligonucleotide is from about 8-30 bases in length;  
and

the oligonucleotide is not administered in conjunction with an administered allergen."

Independent claim 3 has been amended in a similar manner. Dependent claims 2 and 4 to 27 concern specific embodiments of the uses according to claims 1 and/or 3.

- XV. The submissions made by the appellants, as far as they are relevant to this decision, may be summarized as follows:

*Admission of the sets of claims filed in appeal proceedings*

The respondents' allegations of procedural abuse and delaying tactics were totally unfounded. The amended claims filed in appeal proceedings could not have been filed before. It was not clear from the provisional opinion expressed by the opposition division in the communication attached to the summons whether or not it agreed with all the details of the opponents' allegations in connection with Article 123(2) EPC. The rationale behind the opposition division's decision to hold that the claims of the then main request failed to

comply with the provisions of Article 123(2) EPC came as a great surprise.

*Main request*

*Rule 80 EPC*

The amendments introduced into claims 1 and 5 were responsive to the ground for opposition set out in Article 100(c) EPC. Claims 2, 4, 6, 7 and 12 had been amended in response to the ground for opposition of Article 100(a) EPC.

*Article 123(2) EPC*

The feature "*the immunostimulatory oligonucleotide is not administered in conjunction with an administered allergen*" had a basis in the application as filed. At the priority date, a skilled reader of the passage on page 65, lines 23-28 in the original application, would have understood its comparison of the use of an immunostimulatory nucleic acid alone with its use in conjunction with an allergen simply as a disclosure of the use of the nucleic acid both in conjunction with and in the absence of an allergen. The suggestion that a skilled reader of the original application would have interpreted the term "*alone*" in a strict sense, as meaning in the absence of anything else, was clearly wrong and simply would never have occurred to a person skilled in the art.

This interpretation of "*alone*" was reinforced by, and was consistent with, the subsequent passage in the original application. Nowhere in the passage which

extended between line 29, on page 65, and line 4, on page 66, of the document, was there any mention of co-administering an allergen. Nor was there in the passage on page 67, lines 2-4 of the original application, which dealt with the treatment of asthma, a suggestion of the administration of an allergen in conjunction with the nucleic acid molecule.

A further basis for the feature could be found on page 10 of the application as filed. While the sentence on lines 21 to 23 concerned the administration in conjunction with a particular allergen, the sentence on lines 19 and 20 referred to the use of the nucleic acid molecules alone.

XVI. The submissions made by respondents I and II, as far as they are relevant to this decision, may be summarized as follows:

*Admission of the sets of claims filed in appeal proceedings*

The fresh requests should not be admitted into the proceedings because they were a further attempt to obfuscate the proceedings. Analysing the requests at such a late stage before the oral proceedings put an undue burden on the respondents, and amounted to an abuse of procedure. Article 13(1) RPBA clearly stated that any amendment to a party's case after it had filed its grounds of appeal or reply could be admitted and considered only at the board's discretion. In view of the state of the proceedings and the need for procedural economy, this appeared to be an instance where such discretion should not be exercised.

*Main request - Article 123(2) EPC*

The passage on page 65, line 14ff of the application as filed did not provide a basis for claim 1 or 3. The term "alone" in this passage had not the same meaning as the wording "not administered in conjunction with" in the claims. None of the passages cited by the appellants provided adequate basis for the feature in claim 1 or 3. The appellant had selected certain features from the passage on page 65 and from the definition of allergy given on page 16, and unallowably combined the features in claim 1. This combination of features was not disclosed together in the application as filed, but it was pieced together by selecting from different lists.

- XVII. The submissions made by respondent III may be summarized as follows:

*Admission of the sets of claims filed in appeal proceedings*

In its preliminary opinion before the oral proceedings, the opposition division stated that it did not consider the claims then on file to meet the requirement of Article 123(2) EPC. Nevertheless, the patent proprietor chose not to file a request taking into account the view of the opposition division, either in advance of or during the oral proceedings before the opposition division. All the requests filed in appeal proceedings could have been filed in opposition proceedings, and should therefore be refused under Article 12(4) RPBA.

The appellants' behaviour amounted to an abuse of procedure.

*Main request - Article 123(2) EPC*

Claims 1 and 3 violated Article 123(2) EPC because the application as filed did not provide a clear and unambiguous disclosure of the feature "not administered in conjunction with an administered allergen". The term "alone" in the passage on page 65 of the application as filed had to be understood to mean without any additional agent. However, in claim 1 or 3 only the administration of an allergen was excluded, but not of other agents or components. Thus, in the context of the present case, the word "alone" was not an unambiguous disclosure for the feature "not in conjunction with an allergen".

XVIII. The appellants (patent proprietors) requested that the decision under appeal be set aside and that the patent be maintained on the basis of either the main request or one of auxiliary requests 1 to 3 or 7, all filed on 26 March 2010, or auxiliary requests 4 to 6 filed on 13 April 2010.

XIX. The respondents (opponents) requested that the appeal be dismissed.

## **Reasons for the Decision**

### *Admission of the sets of claims filed in appeal proceedings*

1. The set of claims according to the main request as presently on file was filed in response to an objection of lack of clarity to claims 23 and 24 of the earlier main request, which was raised by the board in its communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA). Except for claims 23 and 24, which have been amended by deleting some of the dependencies from preceding claims in order to remedy the clarity deficiencies, all other claims are essentially identical to those of the earlier main request submitted with the statement of grounds of appeal and, except for claim 1, identical also to claims included in the set of claims according to the main request underlying the decision under appeal.
  
2. As concerns claim 1 of the main request, the amendments introduced are relatively simple and - at first sight - did not appear to raise further issues beyond those discussed in opposition proceedings. Since the respondents had ample time for studying the claims and submitting their comments, and the procedure has not been delayed, the board is unable to see how the fresh claims could have represented an undue burden to them.
  
3. The same applies to the sets of claims according to auxiliary request 1 or 2, which were filed more than three months before the oral proceedings and did not differ much in substance from the main request. As concerns requests 3 to 7, which in fact included new amendments not discussed in opposition proceedings, the

board regards them as a legitimate attempt to remedy deficiencies under Article 123(2) EPC which may not have been fully recognised by the appellants' during opposition proceedings.

4. As regards the decisions of this board of appeal in different compositions which were cited by the respondents in support of their objection to the admission of the fresh sets of claims into the proceedings (T 840/93, OJ EPO 1996, 335; T 1108/08 of 11 May 2009; and T 390/07 of 20 November 2008), the board observes that decisions on the admission of fresh requests must always take into account the specific circumstances of each case. Since the circumstances of the cases underlying the cited decisions differ from the very specific circumstances of the present case, the conclusions reached in those cases cannot prejudice the admission into the proceedings of the fresh sets of claims filed by the appellants in the present case.
5. For these reasons, the sets of claims according to the main request and auxiliary requests 1 to 7 are admitted into the proceedings.

*Main request*

*Rule 80 EPC*

6. The board is satisfied that the amendments introduced into the claims have been occasioned by a ground for opposition under Article 100 EPC.



Article 123(2) EPC

7. In the decision under appeal, the opposition division found that the feature "*the immunostimulatory oligonucleotide is not administered in conjunction with an administered allergen*" in claims 1 and 3 had a basis on page 65, lines 16 to 28 of the application as filed, in particular in the last sentence of this passage, in which it is stated that the immunostimulatory nucleic acid molecules can be administered to a subject "*alone or in conjunction with an allergen*" to treat or prevent an allergy. The opposition division nevertheless observed that the meaning given to the negative feature in claims 1 and 3 ("*the immunostimulatory oligonucleotide being administered alone*") did not seem to make any technical sense in the context of treating allergy and thus the claims would be objectable under Article 84 EPC, which was, however, not a ground for opposition.
  
8. The board agrees with the opposition division in that the wording "*alone or in conjunction with an allergen*" on page 65, lines 16 to 28 of the application as filed has to be interpreted as "[administered] with or without an allergen". However, the contested feature in claims 1 and 3 reads "... *not administered in conjunction with an **administered** allergen*" (emphasis added), which means that, in a use as claimed an allergen may be administered, but not together with the immunostimulatory oligonucleotide or as part of the preparation containing the oligonucleotide (i.e. "not in conjunction with").

9. In the board's view, this specific possibility is not directly and unambiguously derivable from the passage on page 65, lines 16 to 28. Nor is it derivable from the further passages to which the appellants pointed. In particular, neither the passage from page 65, line 29 to page 66, line 4, which concerns the treatment of asthma, nor the passage on page 67, lines 2 to 4, in which the term "effective amount" is defined, describe administering immunostimulatory nucleic acid molecules either with or without an allergen. As regards the passage on page 66, lines 11 to 17, in which different routes of administration for the immunostimulatory nucleic acid molecule "*alone or formulated as a delivery complex*" are described, there is no disclosure whatsoever as concerns administering the immunostimulatory nucleic acid molecules not in conjunction with an **administered** allergen. The same is true for the passage on page 66, lines 18 to 25 which describes administering the nucleic acid alone or as a nucleic acid delivery complex in conjunction with a pharmaceutically acceptable carrier.
10. Moreover, the board cannot accept the passage on page 10, lines 19 to 23 of the application as filed, which reads "*In addition, the claimed nucleic acid molecules can be administered to a subject in conjunction with a particular allergen as a type of desensitization therapy to treat or prevent the occurrence of an allergic reaction associated with an asthmatic disorder*", as a basis for the contested feature in claims 1 and 3. In the board's view, this passage of the application teaches the skilled person that allergic reactions may be treated or prevented by administering the nucleic acid molecules described in

the application in conjunction with a particular allergen. However, it does not disclose, either explicitly or implicitly, the use of certain immunostimulatory oligonucleotides "not administered in conjunction with an administered allergen" to treat or prevent an allergy (see claim 3) or bronchial asthma (see claim 1).

11. The board thus concludes that, since there is no basis in the application as filed for the subject-matter of claims 1 and 3, in particular for the feature "*not administered in conjunction with an administered allergen*", Article 123(2) EPC is contravened.

*Auxiliary requests 1 to 7*

12. The objected feature is present in claims 1 and 3 of each of the sets of claims according to auxiliary requests 1 to 7. The findings above (see paragraphs 3 to 7) apply, *mutatis mutandis*, also to the claims of the auxiliary requests.
13. In the absence of a set of claims which complies with Article 123(2) EPC, the appeal cannot be allowed.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

A. Wolinski

L. Galligani