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File Number: W 3/91 - 3.3.2
Application No.: PCT/US90/02989
Publication No.: W 015159
Title of invention: Nucleic acid probes for the detection of Chlamydia trachomatis

Classification: C12Q 1/68

DECISION
of 21 September 1992

Applicant: Gene-Trak Systems

Headword: Nucleic acid probes/GENE-TRAK SYSTEMS
PCT Article 17(3)(a) and Rules 13 and 40
Keyword: "Non-unity a posteriori - (yes)"
"Partial refund of fees because of request to restrict the search"

Catchword

The request for amendment that six certain embodiments should be deleted from the claims can be understood as a declaration that no search for these particular embodiments should be carried out by the ISA.



Case Number : W 3/91 - 3.3.2
International Application No. PCT/US90/02989

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 21 September 1992

Applicant : Gene-Trak Systems
31 New York Avenue
Framingham, MA 01701 (US)

Representative : A.J. Janiuk
Gene-Trak Systems
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Subject of the Decision : Protest according to Rule 40.2(c) of the Patent
Cooperation Treaty made by the applicants against
the invitation (payment of additional fee) of the
European Patent Office (branch at The Hague)
dated 15 October 1990.

Composition of the Board :

Chairman : P.A.M. Lançon
Members : U. Kinkeldey
C. Holtz

Summary of Facts and Submissions

- I. The Applicants filed international application PCT/US90/02989 with eight claims. Claims 1 and 3 read as follows:

"1. A nucleic acid fragment capable of hybridizing, under predetermined stringency conditions, to rRNA or rDNA of Chlamydia trachomatis and not to rRNA or rDNA of non-Chlamydia bacteria.

3. The nucleic acid fragment of Claim 2, comprising a probe sequence selected from the group consisting of probes 781, 782, 783, 860, 861, 879, 882, 1153, 1203, 1220, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1479 and their complementary sequences."

- II. The European Patent Office, as the competent International Searching Authority (ISA), invited the Applicants to pay 18 additional search fees under Article 17(3)(a) and Rule 40.1 PCT stating that the application did not, in the ISA's view, meet the requirement for unity of invention according to Rule 13.1 PCT.

The reasons given were that the invention taught the use of nucleic acid fragments (or probes) which were complementary to rRNA or rDNA for the detection uniquely of Chlamydia trachomatis. For the invention to conform to a unitary concept, it would have been necessary that the combination of features as detailed should not have been disclosed in the prior art. In this regard, the state of the art search had revealed document EP-A-0 272 009 which taught the use of nucleic acid probes, complementary to selected regions of rRNA for the detection of non-viral organisms. In particular, this document taught the use of rRNA probes for the selective detection of Chlamydia

trachomatis (Example 11, pages 42 to 45), which was substantially the same as the claimed subject-matter. As a result, the combination of features as claimed was regarded as non-unity a posteriori under Article 17(3)(a) and Rule 40.1 PCT and the search had been restricted to the first new feature (topic) only, namely fragment 781 and its use in a method for detecting Chlamydia trachomatis.

Consequently, the ISA formed 19 groups of inventions each being directed to one specific nucleic acid fragment which fulfilled the conditions of that of Claim 1 and is defined by their numbers as claimed in Claim 3.

III. The Applicants paid the additional search fees under protest and submitted essentially the following arguments:

- (a) An amendment of claims and a partial refund of fees was requested. The amendment related to the deletion of references to probes 1153, 1220, 1323, 1324, 1325 and 1475 respectively which were identified as separate items 8, 10, 16, 17, 18 and 19 in the invitation.
- (b) Even if Claims 1 and 2 of the international patent application were to be considered as not novel and not inventive, Claim 3 remained which suggested that the probe sequence was selected from the groups consisting of the 19 probes defined in this claim by their individual numbers. The single unifying concept was the detection of Chlamydia trachomatis through probes directed to ribosomal RNA or rDNA. Rule 13 used the term "single general inventive concept" and not "single general invention" to suggest that the

inventive concept needed not to be patentable or defined in the claims itself.

The invitation to pay 18 additional search fees was excessive and did not represent an accurate assessment of the search necessary for the present application. The search conducted for the first probe mentioned in Claim 3, namely probe 781 would be applied to each and every other probe composition of the present application. The probes were all closed, related and intended to be used together. The Search Authority had not contended, in any manner, that its ability to search for the other probe compositions would at all be impaired or different from the search already conducted with respect to probe 781. In that the search conducted for probe 781 would be applied to each probe composition, reflected upon the unity of invention of the present claims. The charging of such fees were excessive and were contrary to the intent of Rule 13 PCT.

- (c) As a main request, full refund was requested. As an auxiliary request, partial refund was requested.

Reasons for the Decision

1. The protest is admissible.
2. The request for amendment of the claims cannot be considered in the present proceedings because according to Article 19(1) PCT any amendments of the claims after receiving the International Search Report can only be filed with the International Bureau within a prescribed time limit. This leaves no room for the ISA or the Board to accept amendments. However, the Board believes that the

request for amendment, that six certain probes should be deleted from Claim 3, can be understood as a declaration that no search for these particular probes should be carried out by the ISA. The Board considers this request to be in an auxiliary relationship to the request of full refund of the fees.

3. Under Rule 13.1 PCT an international application must relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. A lack of unity may become evident a posteriori in the light of the prior art, and in view of the decision G 1/89 (OJ EPO 1991, 155), the ISA is allowed to raise this objection, but should only consider the unity requirement with a view to giving the Applicant fair treatment and only charge additional search fees in clear cases.
4. In the present case the ISA cited document EP-A-272 009 and considered Claim 1 not to be novel in the light of the disclosure of this document. The Board examined novelty of Claim 1 as to this document and agrees with this position.

Main request

5. It remained to be examined whether the 19 embodiments listed in Claim 3 (see paragraph I above), still may belong to a single general inventive concept within the meaning of Rule 13.1 PCT.

To decide on this question it would be necessary to define, on the basis of the disclosure of document EP-A-272 009, the technical problem to be solved by the provision of all separate probes as claimed in Claim 3. It would further be necessary to examine whether there are, for example, any structural features or effects of the 19

probes which may then form a common link as compared to the disclosure of document EP-A-272 009 so that a single inventive concept could be acknowledged for the remaining 19 probes. For that purpose each of the ten particular DNA sequences disclosed as such in document EP-A-272 009 has to be compared with each of the 19 DNA sequences defining the probes claimed in Claim 3 and possibly common structures have to be defined and analysed as to possibly form a common inventive concept.

6. In the Board's opinion an investigation of that kind is not to be carried out for the first time by the Boards of Appeal. According to Rule 40.1 PCT, the invitation to pay additional fees shall specify the reasons for which the international application is not considered as complying with the requirements of unity of invention and shall indicate the amount to be paid.

In the present case, the ISA specified the reasons for which it considered the international application to lack unity of invention a posteriori in a way sufficient for the Board to review the justification of the invitation (see for example decision W 4/85, OJ EPO 1987, 63).

By the mere allegation submitted by the Applicants in their protest that the different probes claimed in Claim 3 are closely related and were intended to be used together the applicants did no more than to state that all probes claimed could possibly be the object of one single search within one single class of search. However, only the ISA is competent to carry out the search and in the situation to decide what has to be searched (see decision W 15/91 of 27 January 1992, to be published in the OJ of the EPO). As far as the protest is concerned, the argument of the Applicants that the probes of Claim 3 are interchangeable, may very well indicate that each of them is an independent

alternative of a problem already solved by the teaching of EP-A-272 009, whereby each of them could represent an independent invention. In particular, because the claimed probes are also interchangeable with those of the prior art, the Board cannot agree to the Applicant's statement that interchangeability of the probes of Claim 3 establishes unity.

Thus, on the basis of the facts and submissions on file at this stage of the proceedings a prima facie non-unity of the 19 single DNA probes is to be assumed.

Auxiliary request

7. When considering the request for amendment of Claim 3 by deleting six particular probes as an auxiliary request such that the mentioned six probes shall not be searched, there remains still the question of unity of the remaining 13 probes. For these probes, however, the above reasons for a prima facie assumption of non-unity apply. Therefore, a refund of six search fees is justified relating to the six items which the Applicants requested not to be searched.

Order

For these reasons, it is decided that:

Refund of six additional search fees is ordered.

The Registrar:

The Chairman:

P. Martorana

P. Lançon