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**Datasheet for the decision
of 26 November 2015**

Case Number: T 1845/11 - 3.3.04

Application Number: 03755981.2

Publication Number: 1509242

IPC: A61K38/21, A61P31/14

Language of the proceedings: EN

Title of invention:

Treatment of hepatitis C in the Asian population with
subcutaneous interferon beta

Applicant:

Merck Serono SA

Headword:

Asian race/MERCK SERONO

Relevant legal provisions:

EPC Art. 84

Keyword:

Main request: clarity (no)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

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Case Number: T 1845/11 - 3.3.04

D E C I S I O N
of Technical Board of Appeal 3.3.04
of 26 November 2015

Appellant: Merck Serono SA
(Applicant) Centre Industriel
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Representative: Merck Serono S.A.
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 12 April 2011
refusing European patent application No.
03755981.2 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairwoman G. Alt
Members: R. Morawetz
M. Blasi

Summary of Facts and Submissions

I. The appeal of the applicant (appellant) lies against the decision of the examining division refusing European patent application No. 03755981.2 entitled "Treatment of hepatitis C in the Asian population with subcutaneous interferon beta" and claiming priority of an earlier application filed on 3 June 2002.

II. The main request before the examining division had one independent claim, which reads as follows:

"1. Use of recombinant interferon-beta-1a (IFN-beta) for the production of a medicament for the treatment of HCV infection by subcutaneous administration to patients of Asian race, who failed to respond to a previous treatment with interferon-alpha (IFN-alpha), in which the dosages and regimens of the treatment are selected in the group consisting of: 12 MIU (44 mcg) recombinant IFN-beta-1a daily, 24 MIU (88 mcg) recombinant IFN-beta-1a three times a week, and 24 MIU (88 mcg) recombinant IFN-beta-1a daily."

III. The sole ground for the refusal of the application was that the subject-matter of claims 1 to 3 lacked clarity (Article 84 EPC). Specifically, the examining division held (see decision under appeal, point 7.4.2) that "the present application does not clearly define "Asian race"."

IV. The following documents are cited in the present decision:

D11 Cavalli-Sforza L.L., Scientific American (1991),
vol. 265, pages 104-110

- D12 Wang M.Y. *et al.*, Journal of Stroke and Cerebrovascular Diseases (2000), vol. 9, pages 64-69
- D13 Walsh S.J. *et al.*, Journal of Forensic Science (2003), vol. 48, pages 1091-1093
- D14 Hirose N. *et al.*, Arthritis and Rheumatism (1999), vol. 42, pages 1655-1661
- D15 ICH Topic E 3, Structure and content of clinical study reports, CPMP/ICH/137/95 European Medicines Agency, July 1996, pages 1-48
- D16 ICH Topic E 5 (R1), Ethnic factors in the acceptability of foreign clinical data, CPMP/ICH/289/95, European Medicines Agency, September 1998, pages 1-14
- D19 Editorial, Nature genetics (2000), vol. 24, pages 97-98
- D20 Freeman H.P., Cancer (1998), vol. 82, pages 219-225
- D21 Rivara F.P. and L. Finberg, Archives of pediatrics and adolescent medicine (2001), vol. 155, page 119
- D22 Guidance for Industry, Collection of Race and Ethnicity Data in Clinical Trials (2005), U.S. Department of Health and Human Services, Food and Drug Administration, pages 1-21

D23 ClinicalTrials.gov Identifier: NCT00912132
(2015); U.S. NIH, pages 1-4

- V. With the statement setting out the grounds of appeal the appellant re-submitted the claims on which the decision under appeal was based as main (sole) request.
- VI. In a communication pursuant to Article 15(1) RPBA, the board introduced three documents, D19 to D21, into the appeal proceedings and informed the appellant of its preliminary opinion.
- VII. In reply to the communication by the board, the appellant submitted two further documents, D22 and D23.
- VIII. Oral proceedings before the board took place on 26 November 2015. At the end of the oral proceedings the chairwoman announced the board's decision.
- IX. The appellant's arguments submitted in writing and during the oral proceedings may be summarised as follows:

Main (sole) request

Clarity (Article 84 EPC): claim 1

The skilled person for the present purpose was a doctor in medical practice or a clinician involved in clinical trials.

Classifications by race were routinely made in clinical trials and used by regulatory authorities like the European Medicines Agency (EMA) or the Food and Drug Administration (FDA), as evidenced by documents D15, D16 or D22. Documents D15 and D16 referred to "race" and

"Asian", respectively, without giving any definition of the terms, which led to the conclusion that the terms were clear by themselves for the skilled person.

That self-identification was routinely used in clinical trials was shown by documents D12, D13 and D23. Assignment by country of origin was shown in documents D14 and D22. No document could be provided showing assignment by a doctor on the basis of somatic traits.

Although documents D19 to D21 advised against using the term "race", it was in fact still commonly used in clinical trials, and assignments were based e.g. on self-declaration.

That different assignment methods provided different results did not change the fact that they were all part of the normal practice of the skilled person.

The term "Asian race" was not only clear by itself, but was also fully described in the application, which on page 11, lines 7 to 13 of the description gave a definition of the term "Asian" as well as guidance on how the race assignment could be done.

The definition of "Asian" given on page 11, lines 7 to 9 of the description was "well aligned" with that given on page 12 in document D22.

In the absence of any standardisation for race assignment based on somatic traits, or in case of any doubt regarding this method, the skilled person reading the application would have relied on the other methods disclosed, i.e. self-identification by the patient or assignment by the doctor based on the country of origin.

- X. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims on which the decision under appeal was based.

Reasons for the Decision

Admission of documents D22 and D23

1. Documents D22 and D23 were submitted by the appellant in direct response to the communication issued by the board under Article 15(1) RPBA (see sections VI and VII above). Accordingly, the board decided to admit them into the appeal proceedings (Article 13(1) and (3) RPBA).

Main (sole) request

Clarity (Article 84 EPC): claim 1

2. The sole issue to be decided in the present case is whether or not claim 1 complies with the requirement of Article 84, second sentence, EPC that the claims shall be clear.
3. Claim 1 is directed to a second medical use wherein the patient group intended to receive the treatment is *inter alia* defined as being of "Asian race" (see section II above for the complete wording of the claim). For the clarity requirement of Article 84 EPC to be met, the skilled person who reads the claim against the background of his common general knowledge must be able to unambiguously distinguish patients which belong to the Asian race from those which do not.

4. The claim itself does not provide a definition of the term "Asian race", or any indication of the parameters to be used for assigning a patient to the Asian race. The question to be decided is thus whether or not there exists a clear i.e. unequivocal and generally accepted meaning for the term "Asian race".
5. The board agrees with the appellant that the skilled person for the present purpose is a doctor in medical practice or a clinician involved in clinical trials. As regards the common general knowledge of the skilled person, the board considers that documents D19, D20 and D21 are of relevance. These documents can be taken to reflect the understanding of the term "race" by persons involved in medical research, including clinical trials, before the priority date of the present application.
6. Document D19 is an editorial published in the year 2000 in the journal *Nature Genetics*. It discloses that in the 2000 census, US residents would be asked to state their race and ethnicity. However, as the author remarks, these terms "mean different things to different people". In a box on page 98, document D19 provides selected dictionary definitions of the term "race" as follows:
 - (i) "a group of genetically related people who share certain physical characteristics";
 - (ii) "a distinct ethnic group characterized by traits that are transmitted through their offspring";
 - (iii) "each of the major divisions of humankind, having distinct physical characteristics"; and
 - (iv) "a group of individuals who are more or less isolated geographically or culturally, who share a common gene pool, and whose allele frequencies at some loci differ from those of other populations".

7. Document D19 further discloses (see page 98, second full paragraph) that issues of, for example, race are "often associated with poorly defined lay terminology", and that "this is not just a matter of sloppy language, but reflects the imprecise use of racial and ethnic classification in biomedical research". It is therefore concluded in document D19 (see page 98, third and fourth full paragraphs) that "there is no justification, however, to use race as a substitute for other parameters that can be measured, such as genetic variation or differences in metabolism" and "the laudable objective to find means to improve the health conditions for all or for specific populations must not be compromised by the use of race or ethnicity as pseudo-biological variables."

8. Document D20, entitled "Concerns of Special Populations in the National Cancer Program: The Meaning of Race in Science - Considerations for Cancer Research", summarises the outcome of a meeting held to explore the meaning of the term "race". It reports (see page 220, left hand column, second full paragraph) that: "There is still no international agreement on racial classification." One of the participants of the meeting is cited as emphasising (see page 220, right hand column, second full paragraph) that "race is a social construct that has changed through history, and "when we talk about the concept of race, most people believe that they know it when they see it, but arrive at nothing short of confusion when pressed to define it"." Document D20 concludes (see page 220, left hand column, fourth full paragraph) that "Across all disciplines present, it was agreed that the biologic concept of race is no longer tenable and that race should no longer be considered a valid biological classification."

9. Finally, in document D21, an editorial published in 2001 in the journal *Archives of Pediatrics and Adolescent Medicine*, the editor and an editorial board member advise on the use of the terms "race" and "ethnicity" in articles published in the journal. They state (see page 119, left hand column, third paragraph) that "the use of the terms race and ethnicity [...] can at times be troublesome because of the impreciseness of the definitions, the historical implications of the words, and the lack of any scientific basis for their meaning", and also that "there is no biologic or scientific basis for the term "race" much less the categories commonly used to describe it." The authors conclude (see page 119, right hand column, last paragraph) that "ceasing to analyze data blindly by race or ethnicity is not an attempt to be politically correct, but rather doing so brings us closer to the underlying biological science on which medicine, and our care for patients, is firmly rooted."
10. In the board's view, it is apparent from documents D19, D20, and D21 that at the priority date of the present application the term "race", and hence also the term "Asian race", had no unequivocal and generally accepted meaning for the skilled person. Accordingly, he could also not determine without ambiguity whether or not a patient belonged to the "Asian race".
11. The appellant did not provide a definition of what the person skilled in the art understood by "Asian race" at the priority date. Instead, it submitted that classifications by race were routinely made in clinical trials and that regulatory authorities like the European Medicines Agency (EMA) or the Food and Drug Administration (FDA), referred to "race" and "Asian" without giving any definition of the terms, which

- allowed the inference that the terms were clear in themselves for the skilled person.
12. The board is not persuaded by this argument. The board does not dispute that it was common practice at the priority date of the present application to collect information relating to patient's race as one of the demographic variables considered in clinical studies. Indeed, this is confirmed by documents D19, D20 and D21 (see points 6 to 9 above). However, these documents also highlight the absence of an unequivocal and generally accepted meaning of the term "race". It follows that the mere fact that terms are routinely used does not inevitably mean that they have a clear meaning.
 13. Documents D12, D14, D15 and D16 relied on by the appellant again merely show that the terms "Asian" and "race", individually or together, were used in the context of clinical studies at the priority date of the application and that "race" was a criterion which was used to assign individuals to groups. In documents D12 (see abstract) and D14 (see page 1656, right hand column, fifth paragraph) the assignment of the patients to racial groups is done by self-declaration. Sometimes, in addition, the birthplace is also taken into account (see document D12, abstract). However, none of the documents published before the priority date and available to the board discloses the criteria by which the patients self-declared themselves as belonging to any particular racial group.
 14. That there were indeed no objective or standardised criteria at the priority date of the application for assigning people to any particular race is apparent from document D20 (see also point 8 above), which reports (see page 223, left hand column, third paragraph) that

"By way of demonstration, Dr. [...] showed the Panel how procedures for ascertaining race and ethnicity vary within and among data collection agencies, identified the lack of continuity over the years in defining racial categories, showed how miscounting and misclassification by race occur quite frequently, and indicated how individual self-reporting of racial and ethnic identity can vary based on different indicators, surveys, or times. As a result, statistical counts, rates and ratios that distinguish by race may not be meaningful or accurate."

15. Indeed, the appellant acknowledged that, depending on the method chosen for assignment, e.g. self-declaration, birthplace or somatic traits, one and the same patient might be assigned to the Asian race or a different racial group.

16. Document D22, also relied on by the appellant, provides (see page 12) a definition of the term "Asian" as follows: "Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam." However, as this document was published after the priority date of the present application, the information it discloses was not part of the common general knowledge of the skilled person at the priority date. Moreover, the board considers that the feature "having origins in any of the original peoples" is in any case unclear (see point 20 below). Documents D13 and D23, also relied on by the appellant, were likewise both published after the priority date of the present application and for that reason alone are of no relevance for the issue to be

decided.

17. The board concludes from the above that there did not exist a clear i.e. unequivocal and generally accepted meaning for the term "Asian race" at the priority date of the present application, and that the skilled person is unable to unambiguously distinguish patients which belong to the Asian race from those which do not.
18. The board is also not persuaded by the appellant's second line of argument that in the description of the application (i) the term "Asian race" is fully described and (ii) guidance provided on how race assignment can be done.
19. The board notes that the application (see page 11, lines 7 to 9) defines the term "Asian" as follows: "According to the present invention "Asian" means any person having origins in any of the original peoples of China, Mongolia, Taiwan, Singapore, Korea, Japan, Vietnam, Cambodia, Laos, Burma, Thailand, Malaysia, Indonesia and Philippines."
20. The expression "having origins" (see point 19 above) neither excludes mixed origins nor in particular limits the degree of separation from the ancestor providing those origins. Indeed, it would appear that all Europeans have "origins" in the "original peoples" of Asia (see document D11, page 107, middle column, first paragraph). However, Europeans are not normally considered to belong to the "Asian race". Therefore, the use of the feature "having origins" without properly defining the circumstances in which a patient is to be regarded as having those origins gives rise to ambiguity in the definition of "Asian race" provided by the

description.

21. In this context the board also notes that contrary to the submission by the appellant, the definition of Asian given on page 5 of document D22 (see point 16 above) includes the Indian sub-continent and is thus not "well aligned" with that of the application under consideration, which classifies the Indian sub-continent rather as "non-Asian".
22. As regards the guidance on how race assignment of a patient is to be done, the application stipulates (see page 11, lines 12 and 13) that "patients normally are requested to self-identify by "race", or the doctor on the basis of their somatic traits and/or the country of origin assigns the race." However, the application is silent as regards which somatic traits would be characteristic for the Asian race.
23. In this context the appellant submitted that the skilled person reading the present application would have relied on other methods disclosed, e.g. self-declaration by the patient or assignment by the doctor based on the country of origin.
24. The board considers that both self-declaration by the patient and assignment by the doctor based on the country of origin require a clear definition of the criteria to be used for assigning patients to particular races, in the present case the "Asian race". However, it has been established that clearly defined objective criteria for patient assignment into racial groups were not available to the skilled person at the priority date of the present application, neither from his common general knowledge (see point 14 above) nor from the

description (see points 19 to 21 above).

25. To summarise, the description neither provides a clear definition of the term "Asian race" nor guidance on how to assign a patient to the "Asian race". Accordingly, it is not necessary in the present case to decide whether or not it would have been sufficient, in order to meet the requirements of Article 84 EPC, that a person skilled in the art could resolve any lack of clarity of claim 1 by referring to the description.

26. For the reasons set out above, the board concludes that the term "Asian race" in claim 1 is not clear. Consequently, claim 1 does not comply with the clarity requirement of Article 84 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairwoman:



P. Cremona

G. Alt

Decision electronically authenticated