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**Datasheet for the decision  
of 26 June 2014**

**Case Number:** T 0428/12 - 3.3.01

**Application Number:** 04786507.6

**Publication Number:** 1660507

**IPC:** C07F5/02, A61K31/69, A61P35/00

**Language of the proceedings:** EN

**Title of invention:**  
PROTEASOME INHIBITORS AND METHODS OF USING THE SAME

**Patent Proprietor:**  
CEPHALON, INC.

**Opponent:**  
Millennium Pharmaceuticals, Inc.

**Headword:**  
-

**Relevant legal provisions:**  
EPC R. 80  
EPC Art. 123(2), 56

**Keyword:**

Amendment occasioned by ground for opposition -  
amendments allowable (yes)  
Amendments - added subject-matter (no)  
Inventive step - (yes)

**Decisions cited:**

T 1329/04, T 1001/01, T 0902/02, G 0009/92, T 0149/02,  
T 0498/03, T 0401/95, T 0099/04, T 0223/97, T 0937/00,  
T 0610/95, T 0993/07

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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Case Number: T 0428/12 - 3.3.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.01**  
**of 26 June 2014**

**Appellant:** CEPHALON, INC.  
(Patent Proprietor) 41 Moores Road  
Frazer, PA 19355 (US)

**Representative:** Hallybone, Huw George and Oates, Edward  
Christopher  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
14 December 2011 concerning maintenance of the  
European Patent No. 1660507 in amended form.

**Composition of the Board:**

**Chairman** A. Lindner  
**Members:** G. Seufert  
D. Rogers

## Summary of Facts and Submissions

I. The patent proprietor (appellant) lodged an appeal against the interlocutory decision of the opposition division on the amended form in which the European patent No. 1 660 507 could be maintained. The appeal lodged by the opponent, along with its opposition, was subsequently withdrawn (see point VII below).

II. The present decision refers to the following documents:

- (1) WO 03/059898
- (4) R. C. Gardner *et al.*, *Biochem. J.*, vol. 346, 2000, pages 447 to 454
- (5) A. F. Kisselev, A. L. Goldberg, *Chemistry & Biology*, vol. 8, 2001, pages 739 to 758
- (7) C. A. Kettner, A. B. Shenvi, vol. 259, No. 24, 1984, pages 15106 to 15114
- (8) WO 96/14857
- (12) E. Kupperman *et al.*, *Cancer Research*, Vol. 70, No. 5, 2010, pages 1970 to 1980
- (13) WO 2009/020448

III. Notice of opposition was filed by the opponent requesting revocation of the patent in suit in its entirety on the grounds of lack of novelty and inventive step and insufficiency of disclosure (Article 100(a) and (b) EPC). This opposition was subsequently withdrawn (see point VII below).

IV. The decision of the opposition division was based on a main request and first to third auxiliary requests.

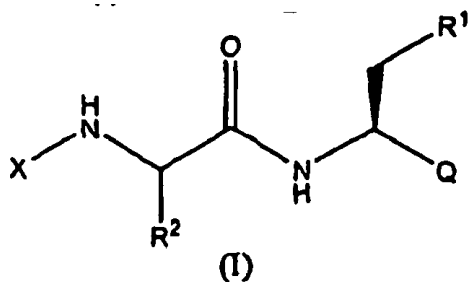
The opposition division held that the subject-matter of claims 1 to 73 of the main request complied with the requirements of the EPC. The subject-matter of

independent claim 74, however, was considered to contravene Article 56 EPC because, according to the opposition division, the purported technical problem had not been solved. The same applied to the first and second auxiliary requests, which included the subject-matter of claim 74 of the main request. The third auxiliary request was restricted to claims 1 to 73 of the main request and was therefore considered to meet the requirements of the EPC. The opposition division also decided not to admit the post-published documents (12) and (13).

- V. With the statement of grounds of appeal the appellant filed a "Main Request - April 2012", an "Auxiliary Request 1 - April 2012" and an "Auxiliary Request 2 - April 2012". The main request was identical to the main request rejected by the opposition division for lack of inventive step of claim 74. In auxiliary request 1, claim 74 was further amended and auxiliary request 2 was identical to the third auxiliary request, which the division considered to meet the requirement of the EPC.
- VI. In the course of the appeal proceedings, the appellant filed further claim requests.
- VII. With letter of 9 May 2014 the opponent withdrew its opposition and appeal.
- VIII. In response to this procedural change, the appellant filed new auxiliary requests 2 and 3 under cover of a letter dated 18 June 2014. In this letter the appellant reverted to the "Main Request - April 2012" and "Auxiliary Request 1 - April 2012" as its main and auxiliary request 1 before the board.

The main request consists of 74 claims. Independent claim 74 reads as follows:

"74. A compound of Formula (I)



or pharmaceutically acceptable salt, stereoisomeric or tautomeric form thereof, wherein:

$R^1$  is  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl, or  $C_3$ - $C_7$  cycloalkyl;

$R^2$  is H

Q is  $-B(OH)_2$ ,  $-B(OR^{14})_2$ , or a cyclic boronic ester wherein said cyclic boronic ester contains from 2 to 20 carbon atoms, and, optionally, a heteroatom which can be N, S, or O;

$R^{14}$  is H,  $C_1$ - $C_4$  alkyl, cycloalkyl, cycloalkylalkyl, aryl, or aralkyl;

X is  $R^A C(=O)-$ ,

$R^A$  is aryl, optionally substituted with 1-3  $R^{21}$  wherein aryl is substituted with at least one halo,

$R^{21}$  is selected from the group consisting of:  $C_1$ - $C_{20}$  alkyl,  $C_2$ - $C_{20}$  alkenyl,  $C_2$ - $C_{20}$  alkynyl,  $-OR^{21a}$ ,  $-SR^{21a}$ ,  $-CN$ , halo, haloalkyl,  $-NH_2$ ,  $-NH(alkyl)$ ,  $-N(alkyl)_2$ ,  $-NHC(=O)O-alkyl$ ,  $-NHC(=O)alkyl$ ,  $-COOH$ ,  $-C(=O)O-alkyl$ ,  $-C(=O)alkyl$ ,  $-C(O)H$ ,  $-S(=O)-alkyl$ ,  $-S(=O)_2-alkyl$ ,  $-S(=O)-aryl$ ,  $-S(=O)_2-aryl$ , carbocyclyl optionally substituted with 1-5  $R^{22}$ , and heterocarbocyclyl optionally substituted with 1-5  $R^{22}$ ;

R<sup>21a</sup> is H, C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>2</sub>-C<sub>20</sub> alkenyl, C<sub>2</sub>-C<sub>20</sub> alkynyl, carbocyclyl or heterocarbocyclyl;

R<sup>22</sup> is selected from the group consisting of:

C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2</sub>-C<sub>10</sub> alkenyl, C<sub>2</sub>-C<sub>10</sub> alkynyl, phenyl, halo, haloalkyl, alkoxy, thialkoxy, amino, alkylamino, dialkylamino, carboxyl, alkyl-OC(=O)-, alkyl-C(=O)-, aryl-OC(=O)-, alkyl-OC(=O)NH-, aryl-OC(=O)NH-, alkyl-C(=O)NH-, alkyl-C(=O)O-, (alkyl-O)<sub>r</sub>alkyl, HO-(alkyl-O)<sub>r</sub>-alkyl-, -OH, -SH, -CN, -N<sub>3</sub>, -CNO, -CNS, alkyl-S(=O)-, alkyl-S(=O)<sub>2</sub>-, H<sub>2</sub>NS(=O)-, and H<sub>2</sub>NS(=O)<sub>2</sub>-;

r is 1, 2, 3, 4, 5, 6, 7, 8, 9, 10."

IX. The arguments of the appellant with respect to the decisive issues can be summarised as follows:

The matter of Rule 80 and Article 123(2) EPC should not be reconsidered, since these issues had already been positively decided by the opposition division and the patent proprietor was the sole appellant.

- Amendments (Rule 80 EPC)

The amendments had been made to address objections of lack of novelty and inventive step raised in opposition proceedings. They were aimed at delimiting the subject-matter of the claims from the prior art documents that had come to light after grant without unduly restricting the scope of the granted claims. Since the restriction in claim 1 did not cover subject-matter of granted claim 38 and since there was no way seen to restrict claim 1 and keep dependent claim 38, a second independent claim was formulated. Independent claims 1 and 74 were two distinct embodiments of granted claim 1 distinguished from the prior art by different features. This approach

was not in contradiction with Rule 80 EPC, which was intended to prevent the patent proprietor misusing the opposition proceedings to extend the examining proceedings. It was also a legitimate approach for the patent proprietor to attempt to preserve as much of the scope of the granted claims as possible, particularly taking into consideration that the filing of divisionals was no longer available to it. The majority of the decisions of the boards of appeal supported this view. The decisions T 610/95 and T 993/07 were not in fact diverging cases. Rather, they were based on different facts. In T 610/95, no reasoned arguments were provided by the patent proprietor that the new independent claim was indeed necessitated by the grounds for opposition. Furthermore, as confirmed by decision T 1679/09, decision T 610/95 concerned a case where a granted claim was maintained unamended and a new claim was added, which was not presently the case. In decision T 993/07, 19 new independent claims had been filed using different features from the description, which was an unreasonable approach. In the present case, the patent proprietor had not combined granted claim 1 with two separate features of the description, but has restricted claim 1 to two different groups originally covered by claim 1.

- Amendments (Article 123(2) EPC)

Claim 74 finds its basis in original claim 43, which is dependent on claim 40 which is in turn dependent on claim 1, with deletions made to restrict R<sup>2</sup>. Deletions from a single list of qualitative identical alternatives was permissible. In support T 1001/01 and T 902/02 were cited.

- Inventive step



The opposition division incorrectly exercised its discretion not to admit the post-published evidence in documents (12) and (13). It misapplied the principles of decision T 1329/04 and therefore concluded that documents (12) and (13) could not be taken into account. However, in contrast to the case underlying that decision, the present application contained a superior quality and breadth of data and was therefore not one of the speculative application decision T 1329/04 intended to outlaw. Furthermore, the opposition division apparently overlooked examples D.2.7 and D.2.8, which were structurally close to the claimed subject-matter and for which pharmacological data were provided.

Starting from compound ER-805751 of document (1), which was the closest state of the art, and taking into consideration the data provided in documents (12) and (13), the problem was the provision of proteasome inhibitors with improved pharmacological properties, in particular an improvement in the maximum tolerated dose. The proposed solution involved an inventive step, because nothing in the prior art would have prompted the skilled person to modify the compound ER-805751 in such a way as to arrive at the compounds of claim 74.

The subject-matter of claim 74 was also inventive, if post-published evidence shown in documents (12) and (13) was not taken into consideration. According to the problem-solution approach, it would then be necessary to formulate a less ambitious problem, namely the provision of an alternative. Again, starting from ER-805751, the skilled person had no motivation to modify this compound in such a way as to arrive at the compounds of claim 74. The opposition division's decision did not provide any evidence to the contrary nor did the evidence on file.

- X. The appellant requested that the decision under appeal be set aside and the patent be maintained upon the basis of the claims of the "Main Request - April 2012", or alternatively upon the basis of the claims of "Auxiliary Request 1 - April 2012", both filed with the statement of grounds of appeal on 24 April 2012 or further upon the basis of the claims of any of auxiliary Requests 2 to 3, filed under cover of a letter dated 18 June 2014.
- XI. At the end of the oral proceedings, the decision of the board was announced.

### **Reasons for the Decision**

1. The appeal is admissible.
2. Procedural matters
  - 2.1 As the opponent has withdrawn its opposition and appeal (see point VII above), the patent proprietor is the sole appellant in the present case. In accordance with the Enlarged Board of Appeal decision G 9/92 (OJ EPO 1994, 875), if the patentee is the sole appellant against an interlocutory decision maintaining his patent in amended form, the maintenance of the patent as thus amended cannot be challenged.
  - 2.2 The present main request is the request which the opposition division considered allowable (i.e. claims 1 to 73) with an additional claim (i.e. claim 74). In accordance with the above case law, the only issue to be decided is therefore whether or not the subject-matter of claim 74 meets the requirement of the EPC (see

T 149/02, point 2 of the Reasons; T 498/03 point 1.1 of the Reasons).

2.3 Relying on the same principle (i.e. *reformatio in peius*), the appellant questioned the power of the board to reopen and decide on the issues of Rule 80 EPC and Article 123(2) EPC with regard to claim 74, the opposition division having decided these issues in its favour.

2.4 However, the appellant neglects the fact that the opposition division has found that the subject-matter of claim 74 lacked inventive step and therefore rejected all requests containing such a claim. Thus, with regard to additional claim 74, there is nothing the board can refuse the appellant, which the opposition division has not already denied (see T 401/95, point 2 of the Reasons). The doctrine of *reformatio in peius* cannot be extended to apply separately to each matter and each issue. Rather, the board must examine and decide for itself upon the requests made in appeal. The board therefore has the power to reconsider the issues of Rule 80 and Article 123(2) EPC with respect to claim 74 of the main request.

Main request - April 2012

3. Amendments (Rule 80 EPC)

3.1 The main request contains independent claims 1 and 74 directed to two distinct groups of compounds, whereas only one generically defined compound claim of a broader scope was present in the claims as granted. The question that needs to be examined is whether this amendment is an appropriate and necessary response by the appellant,

in the sense that it can fairly be said to be occasioned by grounds for opposition.

- 3.2 In response to objections raised under Article 100 EPC, in particular those raised against novelty, the appellant no longer pursued claim 1 as granted, but filed two independent claims based on granted claim 1 with different amendments aiming at establishing differences between the claimed subject-matter and the prior art. Hence, the amendment as such was occasioned by grounds for opposition.
- 3.3 In the present case, the board also considers the form of the amendment, i.e. the filing of two independent claims, to be an appropriate response to the attack. Since claim 1 as granted could not be maintained in its generic form, the appellant restricted claim 1 to a distinct group of compounds, where R<sup>A</sup> (in the definition of X) was limited to specific heterocarbo-cyclyl groups. As a consequence, other groups of compounds covered by granted claim 1, like those present in dependent claim 38 as granted, were no longer encompassed. Since the appellant saw no appropriate way to restrict claim 1 and to keep dependent claim 38, it pursued the subject-matter of the latter in the form of a second independent claim. Such an approach is not in contradiction with Rule 80 EPC, the purpose of which is to prevent the proprietor from making just any kind of amendments and to prevent opposition proceedings from being used as an extension of the examining procedure.
- 3.4 The board's view in this respect is also supported by the jurisprudence of the boards of appeal. In decision T 99/04 the board considered it "a legitimate reaction for a proprietor who sees no basis for defending a granted independent claim against an opposition to

replace this claim by two or more independent claims, each of which contains a different limiting feature" (point 13 of the Reasons). In decision T 223/97 the board took the view that the replacement of one independent claim as granted by two independent claims directed to specific embodiments covered by the independent claims as granted was admissible under Rule 80 EPC (point 2.2 of the reasons). In decision T 937/00, the board saw "no objection in principle to a patentee amending its claims in response to an opposition so that they comprise several independent claims directed to different objects originally covered by a single generic claim of a given category, when such claim cannot be maintained" (point 2.1 of the reasons). According to decision T 937/00, undue complications and unacceptable delays, which may arise from the filing of an exceptionally high number of independent claims and subsequent further amendments, should be avoided and could reduce the patent proprietor's flexibility to respond to the grounds for opposition (point 2.2 of the Reasons).

- 3.5 The board is aware of decision T 610/95 (point 2 of the Reasons) and T 993/07 (point 1 of the Reasons) where the addition of further independent claims has been considered to contravene Rule 80 EPC (former Rule 57a). The board, however, takes the view that it depends on the facts and circumstances of each individual case whether such an amendment is reasonable and appropriate. In the present case, as set out in points 3.3 above, the board considers that the amendment is appropriately framed without causing undue complications or delays.
- 3.6 The board also notes that in decisions T 610/95 the patent proprietor did not provide a reasoned argument that the filing of the new independent claim was

necessitated by a ground for opposition and that the amendment was appropriate and necessary. Furthermore, in said decision, the board considered that "the incorporation of an additional new independent claim, which as such has no counterpart in the granted claim and, accordingly, was neither the subject of substantive examination in the examination procedure nor open to opposition owing to its non-existence in the granted patent" was not admissible. In the present case, however, each of claims 1 and 74 relate to a restricted version of the subject-matter already present in the granted claim 1.

3.7 In decision T 993/07, the patent proprietor filed requests with numerous independent claims, including claims with different additional features taken from the description. The board considered this approach as an attempt to fix shortcomings in the patent, such as an insufficient number of independent or dependent claims, which was not in agreement with the nature of the opposition proceedings. In contrast, as explained above, in the present case the appellant filed only two claims directed to particular groups covered by the broader granted claim 1.

3.8 For the aforementioned reasons, the board concludes that the main request complies with the requirement of Rule 80 EPC.

#### 4. Amendments (Article 123(2) EPC)

4.1 The subject-matter of claim 74 is based on original claim 43, which by reference to original claim 40 and ultimately original claim 1 discloses a generically defined group of compounds wherein the substituent X is aryl(C=O) with aryl optionally substituted with 1 to 3

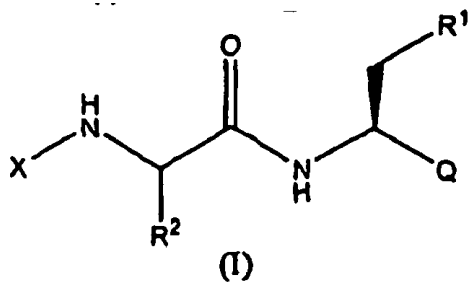
R<sup>21</sup> wherein aryl is substituted by at least one halogen. The restriction of R<sup>2</sup> to hydrogen is considered to be an admissible restriction within a single list of equivalent alternatives. It does not create a new generic class of compounds, but rather amounts to a limitation of possibilities already disclosed in the application as filed.

4.2 Hence, the board concludes that the subject-matter of claim 74 meets the requirements of Article 123(2) EPC.

5. Inventive step

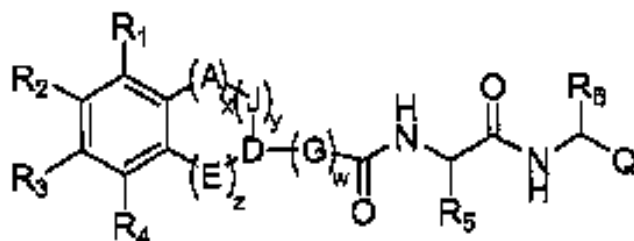
5.1 The appellant challenged the finding of the opposition division that the subject-matter of claim 74 lacked inventive step.

5.2 Claim 74 of the main request is directed to compounds of general formula I,



wherein the substituent R<sup>2</sup> is hydrogen, Q is a boronic acid or ester group, X is R<sup>A</sup>C(=O)- and R<sup>A</sup> is aryl with one to three substituents at least one being halogen (see point VIII above). According to the patent in suit, these compounds are proteasome inhibitors useful in the treatment of disorders or diseases associated with proteasomes, for example cancer, tumours and other proliferative disorders (paragraphs [0001] and [0015]).

5.3 Similar compounds are already known from document (1), which discloses compounds having the structure:



wherein Q is an O-containing heteroaliphatic or heterocyclic moiety, including boronic acid or ester group, R<sub>5</sub> is an aliphatic, alicyclic, heteroaliphatic, heterocyclic, aryl or heteroaryl group, A, J, D, E and G can be absent (see claim 1; pages 106 to 109 of the description). The compounds are proteasome inhibitors (see paragraph [0005]).

Hence, the board, in agreement with the appellant, considers document (1) as a suitable starting point for the assessment of inventive step.

5.4 According to the opposition division no technical problem - neither the provision of improved nor further proteasome inhibitors - was solved by the invention and, consequently, the requirements of Article 56 EPC were not met. The post-published evidence (documents (12) and (13)) provided by the appellant in support of inventive step was not taken into consideration. In this context, the opposition division referred to decision T 1329/04 (erroneously cited as T 329/04), according to which it had to be at least made plausible by the disclosure in the application that the problem the application purports to solve was indeed solved. Supplementary post-published evidence could not serve as a sole basis for establishing that the problem was indeed solved. In view



of the absence of examples falling within the scope of claim 74 and the absence of pharmacological data for the structurally closest compounds (D.2.7 and D.2.8), the opposition division was of the opinion that it had not been made plausible that the subject-matter of claim 74 solved the purported problem.

5.5 The board does not agree.

5.5.1 In decision T 1329/04 the board had to decide on a case concerning a polypeptide factor (i.e. GDF-9) which was claimed to belong to the TGF- $\beta$  superfamily, i.e. a group of polypeptide factors identified on the basis of their functional and structural relationship to the transforming growth factor  $\beta$ . Since said polypeptide, lacked the most striking structural feature common to all members of this family and since it had not been shown that, despite the difference in structure, it was functionally equivalent to those members, the board concluded that the application did not sufficiently identify the polypeptide as a member of TGF- $\beta$  superfamily, i.e. there was not enough evidence in the application to make it at least plausible that a solution was found to the problem which was purportedly solved, namely the provision of a further member of said family.

5.5.2 In the present case, the problem to be solved according to the application as filed is the provision of proteasome inhibitors (see paragraph [0015]). The proposed solution are boron compounds of the general formula  $X-NH-CHR^2-C(=O)-NH-CH(CH_2R^1)-Q$ , which encompasses those of claim 74 having the formula  $X-NH-CH_2-C(=O)-NH-CH(CH_2R^1)-Q$  and X equal to aryl-C(=O)- wherein aryl is substituted by at least one halogen atom. It is uncontested that the particular subgroup

reflected in present claim 74 is not represented by an explicit example. However, in the present case, it is the board's view that the absence of such an explicit example alone does not mean that it has not been at least plausibly demonstrated that the technical problem of providing further proteasome inhibitors was solved by the claimed subgroup. The reasons are as follows:

5.5.3 The application as filed discloses a large number of compounds with a common basic structure (i.e. X-NH-CHR<sup>2</sup>-C(=O)-NH-CH(CH<sub>2</sub>R<sup>1</sup>)-Q) and considerable variation in the substituents X and R<sup>2</sup> (see examples on pages 76 to 211). Particularly, noticeable is the structural variety of the substituent X. Table F-1 (pages 242 to 249) provides data demonstrating the ability to inhibit proteasome activity for a large number of those compounds (i.e. compounds reflecting the structural variety of X and R<sup>2</sup>) using the assay in examples C and E. Merely to illustrate this point, reference is made to compounds D.3.1, D.3.11, D.3.24 (i.e. compounds with R<sup>2</sup> = (CH<sub>2</sub>)<sub>3</sub>-NH-C(=NH)-NH-NO<sub>2</sub> and varying X), E.1.25, E.3.2, F.2.1 (compounds with R<sup>2</sup> = CH(OH)-CH<sub>3</sub> and varying X), E.5.1, E.5.8 (compounds R<sup>2</sup> = CH<sub>2</sub>-NH-C(=O)-CH<sub>3</sub> and varying X). The substituent X in these compounds includes structurally rather varied groups, such as long chain alkyl(C=O)- groups, aryl(C=O)- groups, alkyl(C=O)- groups substituted by functional groups, cycloalkyl(C=O)- groups. Table F-1 also includes compounds with R<sup>2</sup> equal to hydrogen as in present claim 74 (see compound D.2.7 and D.2.8 on page 242 and the corresponding structural information on page 85). Thus, contrary to the opposition division's view, the application as filed contains pharmacological data for compounds structurally closest to the subject-matter of claim 74. Although the substituent X in compounds D.2.7 and D.2.8 is different (a long chain alkyl group versus

a polyether group), this has practically no influence on the proteasome inhibitory activity. This is in good agreement with the observation that the substituent X can vary considerably without the proteasome activity being particularly affected (see examples on pages 47 to 162 and the corresponding results in table F-1). In summary, the application as filed demonstrates that compounds of the basic structure as mentioned above with  $R^2$  equal to hydrogen act as proteasome inhibitors. The application also demonstrates that the substituent X within a group of compounds defined by a particular  $R^2$  can vary considerably without loss of the inhibitory activity. In these circumstances, it is the board's view that, contrary to decision T 1329/04, it has at least been made plausible by the disclosure in the application as filed that the compounds of present claim 74 indeed solve the problem the application purports to solve, namely the provision of (further) proteasome inhibitors.

5.5.4 The board also notes that there is no evidence on file that could cast substantiated doubt on the plausibility that the claimed compounds have proteasome inhibitory activity. In addition, the opposition division did not provide any convincing reasons as to why the compounds of claim 74 sharing a common basic structure with those prepared and tested, could not reasonably be assumed to act as proteasome inhibitors.

5.6 It follows from the above that the problem to be solved in the light of document (1) can be seen in the provision of further proteasome inhibitors and that the board is satisfied that this problem has been plausibly solved by the compounds according to claim 74. The question whether the opposition division correctly exercised its discretion by not admitting the post-

published document (12) and (13) as supportive evidence can therefore be left undecided.

- 5.7 It remains to be decided whether the proposed solution was obvious in view of the state of the art.
- 5.7.1 According to document (1), the substituent  $R_5$ , which corresponds to the substituent  $R^2$  of the compounds of claim 74 cannot be hydrogen. Document (1) alone can therefore not render the claimed subject-matter obvious. The board is also not aware of any other document relevant in this respect. In particular, documents (4), (5) and (8), which have been mentioned in the decision under appeal in the examination of inventive step of the compounds of claim 1, do not provide the skilled person with a motivation to modify the compounds of document (1) in such a way as to arrive at the subject-matter of claim 74. They, like document (1), disclose compounds wherein the substituent corresponding to  $R^2$  cannot be equal to hydrogen. The same applies to document (7), which in addition is concerned with certain proteases, not proteasome inhibitors.
- 5.7.2 The opposition division having decided that no technical problem was solved, did not discuss whether or not the prior art would have motivated the skilled person to modify the compounds of document (1). Neither is there any evidence on file which could convince the board that the aforementioned modification was obvious for the skilled person. In fact, no statement with respect to obviousness of the subject-matter of claim 74 is present, as the former opponent/appellant concurred with the opposition division that no technical problem had been solved. For the reasons set out in paragraph 5.5.3 above, the board does not agree with this position. The experimental data on file with respect to the maximal

tolerated dose are of no relevance in the present context. They were submitted to support an alleged lack of improvement associated with the compounds of claim 74. The problem to be solved was, however, the less ambitious problem of providing further proteasome inhibitors (see point 5.6 above). No experimental evidence was provided that this problem was not solved by the claimed subject-matter.

- 5.8 For the reasons set out above, the board concludes that the subject-matter of claim 74 involves an inventive step pursuant to Article 56 EPC.

*Auxiliary requests 1-3*

6. In view of the above conclusion, there is no need for the board to decide on auxiliary requests 1 to 3.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent with the following claims and a description to be adapted:

Claims 1 to 74 of the Main Request - April 2012, filed with the Statement of Grounds of Appeal on 24 April 2012.

The Registrar:

The Chairman:



M. Schalow

A. Lindner

Decision electronically authenticated