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Datasheet for the decision of 5 November 2021

Case Number: T 2172/17 - 3.3.08

Application Number: 04776236.4

Publication Number: 1639112

IPC: C12N15/79

Language of the proceedings: EN

Title of invention:
Novel beta-actin and rpS21 promoters and uses thereof

Patent Proprietor:
Genzyme Corporation

Opponent:
White, Nina Louise

Headword:
Beta-actin promoters/GENZYME

Relevant legal provisions:
EPC Art. 54, 56, 84, 114(2)
EPC R. 80

Keyword:
Main request - novelty - (no)
Auxiliary requests 1, 2a, 3a - not admitted - (not occasioned by a ground of opposition)
Auxiliary requests 2, 2b, 3, 3b, 4, 4a, 4b - inventive step - (no)
Auxiliary requests 2c, 2d, 3c, 3d, 4c, 4d - clarity - (no)

Decisions cited:
G 0001/84, T 1018/02, T 0993/07, T 0750/11, T 0058/13, T 0688/14

Catchword:

Europäisches Patentamt
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Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 2172/17 - 3.3.08

D E C I S I O N
of Technical Board of Appeal 3.3.08
of 5 November 2021

Appellant I: (Patent Proprietor)	Genzyme Corporation 50 Binney Street Cambridge, MA 02142 (US)
Representative:	Ford, Hazel Mathys & Squire The Shard 32 London Bridge Street London SE1 9SG (GB)
Appellant II: (Opponent)	White, Nina Louise Boult Wade Tennant Verulam Gardens 70 Gray's Inn Road London WC1X 8BT (GB)
Representative:	White, Nina Louise Boult Wade Tennant LLP Salisbury Square House 8 Salisbury Square London EC4Y 8AP (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 21 July 2017 concerning maintenance of the European Patent No. 1639112 in amended form.**

Composition of the Board:

Chairman	B. Stolz
Members:	M. Montrone
	A. Bacchin

Summary of Facts and Submissions

I. The appeal lies against the decision of an opposition division to maintain the European patent No. 1 639 112 in amended form. The patent was filed under the PCT and published as International patent application WO 2005/000888 ("patent application").

II. The opposition division considered the main request to lack novelty over the disclosure of document D4, while auxiliary request 1 (filed as auxiliary request 2 with letter of 28 April 2017) was held to fulfil the requirements of the EPC. Furthermore, while the opposition division admitted into the proceedings auxiliary requests 1a to 1c, 2, 2a to 2c, 3 and 3a to 3c (filed as auxiliary request 2b to 2d, 3, 3b to 3d, 4 and 4a to 4c, respectively with letter of 28 April 2017), auxiliary requests 1a, 2 and 3a were not admitted (filed as auxiliary request 2a, 1 and 3a with letter of 28 April 2017). Documents D14, D16, D17 and D23 were likewise not admitted into the proceedings.

III. With the statement setting out their grounds of appeal, the patent proprietor ("appellant I") filed auxiliary requests 1, 2, 2a to 2d, 3, 3a to 3d, and 4, 4a to 4d, which correspond to the set of claims submitted during opposition proceedings with the letter dated 28 April 2017.

IV. With the statement setting out their grounds of appeal, the opponent ("appellant II") submitted arguments under added subject-matter and lack of novelty against the main request (claims as granted). Further arguments were submitted under lack of inventive step against

auxiliary request 1 as maintained by the opposition division (auxiliary request 2 in this proceedings).

V. In their replies, both appellants provided counter-arguments for the arguments submitted by the other party.

VI. In a communication in preparation of oral proceedings, the parties were informed of the board's provisional, non-binding opinion.

VII. In reply, appellant I announced that they would not attend the oral proceedings. Appellant II announced their attendance, and requested that the oral proceeding be held by video conference.

VIII. Oral proceedings before the board were held on 5 November 2021 by video conference, in the absence of appellant I as announced.

IX. Claim 1 of the main request reads:

"*1. An isolated β-actin promoter that is chosen from the nucleotide sequences set forth in SEQ ID NOs: 1 or 3, or a variant thereof having promoter activity, wherein said variant is a nucleotide sequence having at least 95% identity to a nucleotide sequence set forth in SEQ ID NO: 1 or 3 over the entire length of that reference sequence*".

X. Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the term "*rodent*" has been added to the β-actin promoter.

XI. Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that the feature "*and wherein the*

variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 or shorter" has been added.

XII. Claim 1 of auxiliary request 2a differs from claim 1 of the main request in that the term "*rodent*" has been added to the β-actin promoter, and in that the feature "*and wherein the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 or shorter"* has been added.

XIII. Claim 1 of auxiliary request 2b differs from claim 1 of the main request in that the feature "*at least 95% identity*" has been replaced by "*at least 98% identity*", and in that the feature "*and wherein said variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 or shorter"* has been added.

XIV. Claim 1 of auxiliary request 2c differs from claim 1 of the main request in that the features "*and wherein said variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 or shorter, so long as it is at least 1250 nucleotides in length"* have been added.

XV. Claim 1 of auxiliary request 2d differs from claim 1 of the main request in that the feature "*at least 95% identity*" has been replaced by "*at least 98% identity*", and in that the features "*and wherein said variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 or shorter, so long as it is at least 1250 nucleotides in length"* have been added.

XVI. Claim 1 of auxiliary request 3 reads:

"*1. An isolated β-actin promoter that is chosen from the nucleotide sequences set forth in SEQ ID NOs: 1 or 3, or a variant thereof having promoter activity, wherein said variant is a nucleotide sequence having at least 95% identity to a nucleotide sequence set forth in SEQ ID NO: 1 over the entire length of SEQ ID NO: 1 or having at least 95% identity to a nucleotide sequence set forth in SEQ ID NO:3 over the entire length of SEQ ID NO:3, and wherein the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 or shorter*".

XVII. Claim 1 of auxiliary request 3a differs from claim 1 of auxiliary request 3 in that the term "*rodent*" has been added to the β-actin promoter.

XVIII. Claim 1 of auxiliary request 3b differs from claim 1 of auxiliary request 3 in that the feature "*at least 95% identity*" has been replaced by "*at least 98% identity*".

XIX. Claim 1 of auxiliary request 3c differs from claim 1 of auxiliary request 3 in that the feature "*so long as it is at least 1250 nucleotides in length*" has been added.

XX. Claim 1 of auxiliary request 3d differs from claim 1 of auxiliary request 3 in that the term feature "*at least 95% identity*" has been replaced by "*at least 98% identity*", and in that the feature "*so long as it is at least 1250 nucleotides in length*" has been added.

XXI. Claim 1 of auxiliary request 4 reads:

"*1. An isolated β-actin promoter that is the nucleotide sequence set forth in SEQ ID NO: 1, or a variant thereof having promoter activity, wherein said variant is a nucleotide sequence having at least 95% identity*

to the nucleotide sequence set forth in SEQ ID NO: 1 over the entire length of SEQ ID NO: 1".

XXII. Claim 1 of auxiliary request 4a differs from claim 1 of auxiliary request 4 in that the feature "*and wherein the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or shorter*" has been added.

XXIII. Claim 1 of auxiliary request 4b differs from claim 1 of auxiliary request 4 in that the feature "*at least 95% identity*" has been replaced by "*at least 98% identity*", and in that the feature "*and wherein the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or shorter*" has been added.

XXIV. Claim 1 of auxiliary request 4c differs from claim 1 of auxiliary request 4 in that the features "*and wherein the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or shorter, so long as it is at least 1250 nucleotides in length*" have been added.

XXV. Claim 1 of auxiliary request 4d differs from claim 1 of auxiliary request 4 in that the term "*at least 95% identity*" has been replaced by "*at least 98% identity*", and in that the features "*and wherein the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or shorter, so long as it is at least 1250 nucleotides in length*" have been added.

XXVI. The following documents are referred to in this decision:

D1: EMBL database entry with the accession no.:U20114, Version 2, publicly available 4 March 2000;

D2: Sun-Yu N.G. *et al.*, Nucleic Acids Research, 1989, Vol. 17(2), 601-615;

D4: Elder P.K. *et al.*, Molecular and Cellular Biology, 1988, Vol. 8(1), 480-485;

D12: Parker Ponder K. *et al.*, Human Gene Therapy, 1991, Vol. 2, 41-52;

D14: Stoflet E.S. *et al.*, Molecular Biology of the Cell, 1992, Vol. 3, 1073-1083;

D15: Foster D.N. *et al.*, PNAS, 1982, Vol. 79, 7317-7321;

D16: Danilition S.L. *et al.*, Nucleic Acids Research, 1991, Vol. 19(24), 6913-6922;

D17: Frederickson R.M. *et al.*, Nucleic Acids Research, 1989, Vol. 17(1), 253-270,

D18: Qin J.Y. *et al.*, PloS ONE, 2010, Vol. 5(5), el0611, 1-4;

D19: Page M.J. and Sydenham M.A., Nature Biotechnology, 1991, Vol. 9, 64-68;

D20: Declaration of Prof. David James, dated 28 April 2017;

D21: Maniatis T. *et al.*, Cell, 1978, Vol. 15, 687-701;

D22: Declaration of Dr. Christine DeMaria, dated 7 June 2017, including Exhibits A and B;

D23: Representation of hamster β-actin promoter fragments referred to in Example 2, paragraph [0081] of the patent;

D24: Extract from Maniatis T. *et al.*, Molecular Cloning: A Laboratory Manual, 1982, 282-285, Cold Spring Harbor Laboratory, US;

Annex 1: Schematic illustration of mammalian β-actin promoter fragments, submitted with the notice of opposition on 23 December 2015.

XXVII. Appellant I's written submissions, insofar as relevant to the present decision, may be summarised as follows:

Admission into the appeal proceedings of auxiliary requests 1, 2a and 3a, and of documents D14, D16 to D20, and D23

Auxiliary requests 1, 2a and 3a complied with the requirements of Rule 80 EPC, and were thus admissible. Their submission was occasioned by an objection under Article 100(c) EPC raised by the opponent during the oral proceedings before the opposition division against the deletion of the term "*rodent*" from claim 1 as filed (see decision under appeal, point 3.1).

Documents D14, D16 and D17 were not admitted by the opposition division into the proceedings, since they lacked relevance. Accordingly, they should not be admitted into the appeal proceedings too. Furthermore, documents D18 to D20 lacked relevance and should not be admitted into the proceedings as well. Document D23 was a visual representation of the hamster β-actin promoter fragments referred to in paragraph [0081] of the patent. The document showed that a 2.8kb promoter

fragment tested in the patent exhibited 0% activity, despite the presence of the CAAT and TATA boxes. Thus, the mere presence of these elements was not sufficient to obtain a functional β-actin promoter, which directly addressed an issue set out in point 10.1 of the decision under appeal.

Main request

Novelty

The disclosure of document D4 did not anticipate the claimed β-actin promoters, because (i) the document did not provide an enabling disclosure of the promoter fragments described therein, and (ii) claim 1 did not encompass the fragments disclosed in this document.

The teaching in document D4 was not reproducible as regards the production of the 4.5kb fragment encoding a mouse β-actin promoter. The document was silent on how in a first step the genomic DNA was fragmented to obtain a 11kb fragment in preparing a phage library. The skilled person was therefore required to turn to another document cited therein (D15), which mentioned a partial EcoRI restriction digest. These digests, however, were not reproducible because the resulting pattern of fragments varied each time the digestion was performed. Moreover, the required 11kb fragment might have been contained in another fragment that was too large to be cloned into a phage. Thus, following the teaching of document D4 there was no guarantee for obtaining the 11kb EcoRI fragment required for a library preparation. Document D21 in combination with document D15 provided also no details on performing a genomic fragmentation, and was thus of no assistance too. Since document D4 was silent on the details of the

partial genomic digest for obtaining a library, the skilled person would not have adjusted the EcoRI digest for obtaining the 11kb fragment to the conditions shown in Figure 1 of document D4 either. The 11 kb EcoRI fragments shown in Figure 1 did not result from the partial genomic digest used in the cloning procedure. Instead it was the product of a separate experiment used to determine the fragment's presence in various mouse strains. Lastly, document D4 did not disclose all the probes required for detecting the 11 kb fragment in the cloning process. The NcoI fragment used as a probe in Figure 1 of document D4, for example, was not available.

The promoter variants of claim 1 were of a limited size as derivable from paragraph [0026] of the patent. Thus, claim 1 did not encompass the 4.5kb fragment of document D4.

Auxiliary request 2

Inventive step

Document D12 represented the closest prior art, and not documents D4 or D1. Solely document D12 disclosed a comparison between the cytomegalovirus ("CMV") promoter and a mouse β-actin promoter for identifying a strong promoter in primary rat hepatocytes (see page 46, column 1, last paragraph and Figure 5, including its Legend). Likewise the patent defined as its purpose the provision of a hamster or mouse promoter of optimal strength when compared to the CMV promoter as gold standard (see paragraphs [0002], [0011] and [0035]). The working examples of the patent disclosed that this purpose was achieved by selecting a promoter showing the highest gene expression levels and a high mRNA

stability, followed by comparative tests with a CMV promoter (see Examples 1, 3, 4 and 7, paragraph [0099]).

Starting from document D4 as closest prior art, the skilled person had to decipher the mouse β-actin promoter sequence, because it was not disclosed therein. This promoter of document D4 had extra sequences at its 5'- and 3'-ends compared to the mouse promoter of claim 1.

The claimed promoters differed from those in document D12 by a deletion of about 1kb at their 5'-end, and the addition of the first exon at their 3'-end, and from those in document D4 by a deletion of about 1.5kb at their 5'-end, and a deletion of 33 nucleotides at their 3'-end. These distinguishing features resulted in the provision of promoters of optimal strength compared to the CMV promoter (see Examples 1 to 7 of the patent). The objective technical problem was thus the provision of a promoter outperforming the CMV promoter in at least some cell types.

This problem was solved by the promoters referred to in claim 1 either in light of the experimental data reported in the patent (hamster promoter and its variants), or at least plausibly solved due to the promoters' high sequence identity and the sharing of common regulatory elements (mouse promoter and its variants compared to hamster).

The claimed promoters were no obvious solution to this problem. None of the prior art documents would have guided the skilled person to the claimed promoter sequences, nor could these promoters including their activity have been predicted at the effective date of

the patent by any of these documents. The teaching of documents D12/D4 did not disclose an incentive for the skilled person to modify the mouse promoter mentioned therein. In particular, the skilled person would not have combined the teaching of documents D12 or D4 with document D2, in view of the very low level of sequence homology between the human β-actin promoter disclosed in document D2 and its relevant promoter elements compared to the claimed hamster and mouse promoters.

XXVIII. Appellant II's submissions, insofar as relevant to the present decision, may be summarised as follows:

Admission into the appeal proceedings of auxiliary requests 1, 2a and 3a, and of documents D14, D16 to D20, and D23

The submission of auxiliary requests 1, 2a and 3a was not occasioned by a ground of opposition as specified in Rule 80 EPC. Thus, the opposition division took the correct decision in not admitting these requests into the proceedings.

Documents D14, D16 and D17 provided additional evidence on what was known in the art regarding the structure-activity relationships of mammalian β-actin promoters. In particular, document D17 provided evidence on the functional importance of the promoter element IVS 1.

Document D23 should not be admitted into the proceedings. The document provided allegedly a graphical summary of the β-actin promoter fragments of SEQ ID NO: 1 mentioned in paragraph [0081] of the patent. However, the identity of some of these fragments, in particular that of "*Actin-P(2.8 kb)*" was not revealed in the patent. Thus it could not be

established how this fragment compared in terms of sequence and promoter elements to SEQ ID NO: 1.

Main request

Novelty

The subject-matter of claim 1 lacked novelty over the disclosure of document D4.

This document provided an enabling disclosure of the 4.5kb EcoRI-SalI fragment of the mouse β-actin promoter shown in Figure 2. The skilled person by applying routine skills would have obtained this fragment (i) by performing a partial EcoRI restriction digest of mouse genomic DNA, (ii) by cloning the fragments into a lambda phage vector to prepare a genomic library and (iii) by identifying clones that contained the desired insert using the probes mentioned on page 480, column 2). Lastly, (iv) the skilled person would have sub-cloned the desired 4.5kb fragment and tested it for promoter activity.

This 4.5kb fragment was encompassed by the subject-matter of claim 1, because the claim did not define an upper length limit of the promoter variants referred to therein.

Auxiliary request 2

Inventive step

Documents D1 or D4 represented the closest prior art for the hamster β-actin promoters of claim 1.

The hamster β-actin promoter of SEQ ID NO: 1 of claim 1 differed from the 4.5kb mouse β-actin promoter in document D4 in that it was about 1.5kb shorter at its 5'-, and 3'-ends. Moreover, the claimed promoter differed by 20% of the nucleotides in its sequence. These structural difference did not result in any advantageous effects. Claim 1 solely required that the β-actin promoter was active, while there was no evidence on file that this promoter was better or stronger than the mouse β-actin promoter disclosed in document D4. Thus, the difference resulted merely in the provision of an active β-actin promoter from a different mammalian species.

The technical problem was thus the provision of an alternative β-actin promoter. The provision of the hamster β-actin promoter in claim 1 was an obvious solution to this problem.

The skilled person seeking an alternative β-actin promoter would have looked for a species homolog thereof, in particular in another rodent. It was common general knowledge that the β-actin gene was highly conserved across species. Document D4 even mentioned this conservation between human, rats and mice. By searching available sequence databases for finding homologous sequences, it was standard practise to use probes directed against conserved sequence promoter elements as disclosed in document D4. By applying this standard approach the skilled person would have obtained the sequence disclosed in document D1 as a matter of routine. The sequence of document D1 mentioned explicitly the core promoter elements in addition to the β-actin structural gene. This sequence although shorter than the sequence of SEQ ID NO: 1 was functional, and the difference in length was merely

arbitrary since no technical effect could be ascribed to this additional sequence. The skilled person did also not encounter any technical problems, since the sequence in document D1 was obtained from a commercial hamster genomic library. This library was identical to that disclosed in the patent for cloning the fragment encoding the sequence of SEQ ID NO: 1.

Auxiliary requests 2c, 2d, 3c, 3d, 4c, and 4d

Clarity

Claim 1 of all of these requests lacked clarity due to the presence of the feature "*so long as it is at least 1250 nucleotides in length*". This was so because the calculation of a % identity over the entire length of a reference sequence combined with the minimum length of 1250 nucleotides as required in claim 1 resulted in promoter variants that were shorter than the reference sequence.

XXIX. Appellant I requested that the decision under appeal be set aside and that the patent be maintained as granted (main request), or alternatively on the basis of one of the auxiliary requests on file (auxiliary requests 1, 2, 2a to 2d, 3, 3a to 3d, 4, and 4a to 4d). Further appellant I requested that the decision on the non-admission of auxiliary requests 1, 2a and 3a (corresponding to auxiliary requests 1a, 2 and 3a in the decision under appeal) be overturned, and that documents D14, and D16 to D20 not be admitted, while documents D15 and D21 to D23 should be admitted into the proceedings.

XXX. Appellant II requested that the decision under appeal be set aside and that the patent be revoked. Further

appellant II requested that documents D14 to D20 be admitted into the proceedings, and that auxiliary requests 1, 2a and 3a, and document D23 not be admitted into the proceedings.

Reasons for the Decision

Admission into the appeal proceedings of auxiliary requests 1, 2a and 3a, and of documents D14, D16 to D23

1. Auxiliary requests 1, 2a and 3a are identical to auxiliary requests 1a, 2 and 3a, which were not admitted into the proceedings by the opposition division. The opposition division held that the introduction of the feature "*rodent*" in the context of the β-actin promoters cited in claim 1 of these requests was not occasioned by a ground of opposition under Rule 80 EPC (see decision under appeal, point 11.5.1).

1.1 Rule 80 EPC sets out that a patent proprietor may react to the opponent's objections by amending the description, claims and drawings, provided that the amendments are occasioned by the grounds for opposition specified in Article 100 EPC, even if the respective ground has not been invoked by the opponent.

1.2 Appellant I submitted that the contested amendment in claim 1 of auxiliary requests 1, 2a and 3a was occasioned by an objection under Article 100(c) EPC raised by the opponent during the oral proceedings before the opposition division against the deletion of the term "*rodent*" from claim 1 as filed (see decision under appeal, point 3.1).

1.3 All auxiliary requests on file, including auxiliary requests 1, 2a and 3a, were submitted during the written phase of the opposition proceedings within the period for making written submissions in preparation of oral proceedings under Rule 116(1) EPC. The term "*rodent*" was already introduced into claims 1 of auxiliary requests 1 and 2 filed in reply to appellant II's notice of opposition. Although Article 100(c) EPC was invoked by appellant II in their notice of opposition against claim 1 as granted, no such objection was raised against the omission of the term "*rodent*" in claim 1 as granted. Likewise the opposition division did not raise such an objection on its own motion in the preliminary opinion attached to the summons.

1.4 Thus at the time auxiliary requests 1, 2a and 3a were submitted, the introduction of the feature "*rodent*" into claim 1 was not an attempt to overcome an objection raised under Article 100(c) EPC. However, as set out above, Rule 80 EPC amendments can be made by a patent proprietor too, even if the respective ground of opposition has not been invoked by the opponent. It suffices that the amendments can be regarded as a serious attempt to overcome a ground for opposition (see decision T 750/11, Reasons, point 2.3.2).

1.5 The opposition division held in the decision under appeal that the omission of "*rodent*" in claim 1 as granted did not contravene Article 123(2) EPC, since this term was considered to be inherent in the β-actin promoters defined by the sequences indicated as SEQ ID NO: 1 or 3 of claim 1, which relate to a hamster or a mouse-derived β-actin promoter, respectively, i.e. of two rodents. This finding of the opposition division was not challenged by appellant II in the appeal

proceedings, neither in their statement of grounds, nor in their reply to appellant I's statement of grounds.

1.6 The case law as regards Rule 80 EPC has also held that in opposition proceedings the patent proprietor's right to amend the patent, e.g. the claims as granted, is limited to making amendments in order to overcome an objection based on a ground for opposition as specified in Article 100 EPC, thereby possibly avoiding revocation of the patent. This interpretation of Rule 80 EPC is in line with the general principle set out by the Enlarged Board of Appeal in G 1/84, that an opposition procedure is not designed to be, and is not to be misused as, an extension of examination procedure (OJ 1985, 299, Reasons, point 9). In particular, opposition proceedings are not to be understood as an opportunity for the patent proprietor to fix any potential shortcomings in the patent, or for proposing amendments to the text of a patent for purposes which are not clearly related to meeting a ground of opposition raised under Article 100 EPC (see decision T 993/07, Reasons, points 1.7 and 1.8).

1.7 The board therefore agrees with the opposition division's finding that the introduction of the feature "*rodent*" in amended auxiliary requests 1, 2a and 3a is neither appropriate nor necessary to overcome an objection under Article 100(c) EPC. Accordingly, auxiliary requests 1, 2a and 3a are not admitted into the proceedings.

2. Appellant I requested the non-admission of documents D14, and D16 to D20 into the proceedings, appellant II the non-admission of document D23. The opposition division found that documents D14, D16, D17 and D23 lacked *prima facie* relevance since these documents did

not disclose any teaching that went beyond the basic knowledge in molecular biology, and hence, did not admit them into the proceedings (see decision under appeal, point 10.2, minutes, point 16).

2.1 Documents D14 to D20 were submitted by appellant II with the letter dated 28 April 2017, i.e. within the period specified in Rule 116(1) EPC for making submissions in preparation of oral proceedings. Documents D21 to D23 were filed by appellant I in a submission dated 9 June 2017 only, i.e. after the expiry of the period specified in Rule 116(1) EPC. Since documents D14 to D23 were not submitted by the appellants either with their notice of opposition or in reply thereto, Article 114(2) EPC gives the opposition division a discretion to admit these documents into the proceedings.

2.2 The board is thus requested to review the discretionary decision of the opposition division for not admitting documents D14, D16, D17 and D23 into the proceedings. According to the established case law, when a decision is taken by a department of first instance in the exercise of its discretion, it is not for the board to review all the facts and circumstances of the case as if it were in the department's place and decide whether or not would have exercised the discretion in the same way. The board should overrule the way in which the department of first instance exercised its discretion in reaching a decision only, if it concludes that the department of first instance did so without taking the right principles into account, or in an arbitrary or unreasonable way, thereby exceeding the proper limits of its discretion (see Case Law of the Boards of Appeal of the EPO, 9th edition 2019, ("Case Law"), IV.C.4.5.2, 1092; and V.A.3.5.1.b), 1198).

2.3 Although both appellants contested the decision of the opposition division on the non-admission of documents D14, D16, D17 and D23, there is no reference in their statements of grounds of appeals, that the opposition division used its discretion in accordance with wrong principles, in an arbitrary or in an unreasonable way. Nor is the board's opinion that this was the case, since the opposition division in reaching its decision applied the *prima facie* relevance criterion, which is an appropriate and established criterion for admitting late-filed documents (see Case Law, IV.C.4.5.3, 1093).

2.4 Documents D14, D16, D17 and D23 are thus not admitted into the appeal proceedings.

2.5 As regards documents D15 and D18 to D22, this decision relies on documents D15, and D21 only. Document D15 is cited in document D4 and provides further technical details on how the phage genomic library mentioned in document D4 was prepared. In this context, document D15 refers also to document D21 (see below, the enablement issue under novelty, points 7 and 9.1). The board considers that the disclosure of documents D15 and D21 therefore belongs to the disclosure of document D4. Accordingly, documents D15 and D21 were admitted into the proceedings. Since the other contested documents are irrelevant for the outcome of this case, no decision on their admission into the proceedings needs to be taken.

Main request (claims as granted)

Construction of claim 1

3. Claim 1 relates to an isolated β-actin promoter encoded by SEQ ID NOs: 1 or 3, or a variant thereof having promoter activity. These variants are further characterised by a minimum sequence identity ("*at least 95%*") "*over the entire length of*" their respective reference sequences.

4. Therefore, claim 1 encompasses four embodiments:

4.1 Embodiments one and two relate to isolated β-actin promoters structurally characterised by the nucleotide sequences of SEQ ID NOs: 1 and 3, having a hamster or mouse origin, respectively, with a length of either 3007 or 2953 nucleotides (NT) (see paragraph [0013], and page 11, lines 6 to 16 of the patent application). These two embodiments in claim 1 are thus directed to a hamster and mouse β-actin promoter consisting of the exact sequences identified by SEQ ID NOs: 1 and 3.

4.2 The patent application discloses that the "*Avr(1)-3*" fragment, i.e. the fragment encoded by SEQ ID NO: 1, shows promoter activity (see paragraphs [0081] and [0082]). Activity data for the mouse promoter encoded by SEQ ID NO: 3 are not disclosed in the patent application (see Example 6, paragraphs [0096] and [0097]). However, due to its significant sequence homology with the hamster promoter (80% sequence identity over the entire length, see paragraph [0094] of the patent application), the board considers it plausible that the mouse-derived sequence has promoter activity as well.

4.3 Embodiments three and four of claim 1 relate to an undefined number of variants of the hamster and mouse β-actin promoter sequences indicated above. These variants are defined (i) functionally in that they must have promoter activity, and (ii) structurally by having at least 95% identity over the entire length of the SEQ ID NO: 1 or 3 sequences. Since the term "*promoter activity*" is not defined, claim 1 encompasses any promoter variant showing at least some activity, i.e. "weak" and "strong" hamster and mouse β-actin promoter variants.

4.4 The board agrees with the opposition division's view that the requirement in claim 1 for variants to show at least 95% identity over the entire length of sequences of SEQ ID NO: 1 or 3 imposes certain length restrictions on these variants.

4.5 The lower length limit of variants falling within the scope of claim 1 is defined by the length of the two reference sequences minus 5% (i.e. 100% - 95%). According to this construction, a claimed variant of SEQ ID NO: 1 has a minimum length of 3007 NT minus 150 NT (i.e. 5% of 3007 NT) = 2857 NT, while a claimed variant of SEQ ID NO: 3 has a minimum length of 2805 NT (2953 NT - 147,65 NT).

4.6 However, the claimed promoter variants are not limited by a maximum length, except for the whole genomic hamster or mouse chromosomal sequences comprising either SEQ ID NO: 1 or 3, due to the use of the term "*isolated*" in claim 1.

4.7 Appellant I submitted that the term variant "*must be interpreted in light of the description, in particular paragraph [0026] of the patent, which teaches a size*

limitation of "variant" promoter sequences, specifically to exclude substantially longer sequences" (see statement of grounds of appeal, point 2.1.3.2 on page 8).

4.8 The board does not agree. It is established case law that terms used in patent documents should be given their normal and broadest technically sensible meaning in the relevant art. If these terms impart a clear, credible technical teaching to the skilled reader, the description can not be used to give them a different or more restrictive meaning (see Case Law, II.A.6.3.4, T 58/13, Reasons 3.2 and T 1018/02, Reasons 3.8). Since the definition of the term "*variant*" in claim 1 as having "*at least 95% identity to a nucleotide sequence set forth in SEQ ID NO: 1 or 3 over the entire length of that reference sequence*" is clear to the skilled person, the claimed promoter variants are not limited by a maximal length, except for whole chromosomes.

Novelty

5. Appellant I submitted that the β-actin promoters of claim 1 were novel over the disclosure of document D4, because firstly, this document provided no enabling disclosure for the fragments mentioned therein, and secondly, since claim 1 defined an upper length restriction on the promoter variants too, the fragments of document D4 did not fall within the scope of claim 1. Since as set out above, the board is not convinced that the promoter variants falling within claim 1 are restricted by an upper length limit, in the following the issue of an enabling disclosure of document D4 will be assessed only.

6. It is established case law that a disclosure of a prior art document destroys novelty only if the teaching it contains is reproducible, i.e. can be carried out by the skilled person, taking into account the general knowledge at that time in the technical field (see Case Law, I.C.4.11).

7. Document D4 discloses that a functional β-actin gene in mice is associated with a promoter sequence located at its 5'-end (see title and abstract). The cloning of the mouse β-actin gene is stated to have been "*facilitated by knowledge of the nucleotide sequence of both the human and rat β-actin genes and the discovery of conserved sequence elements in both 5'-upstream and intervening sequence DNA (16-18). An AKR-2B cell genomic library constructed in λ Charon 4A (5)* [reference 5 is document D15 in these proceedings, comment added by the board] *was initially screened by the unmodified protocols of Benton and Davis (1) by using an isotype-specific subclone representative of the 3' end of human β-actin mRNA (19). A number of strongly hybridizing clones were selected, plaque purified, and tested for homology to several synthetic oligonucleotide probes. These included a 54-mer corresponding to a conserved sequence located between the CAAT and TATA boxes upstream of the rat β-actin gene (5'-CAGCGCCCGCCGTTCCGAAATTGCCTTTTATGGCTCGAGTGGCCGC TGTGGCGT-3') and a 43-mer representative of sequences associated with the large first intron of the rat β-actin gene(5'-TCAGGCGTTACAATCACGCTTTGATGGCCTATGGGTC TTTGTC-3')*" (see page 480, bridging paragraph of columns 1 and 2).

7.1 One of the clones containing an 11kb EcoRI insert that hybridised "*to all probes tested*" is used to construct a plasmid containing a 4.5kb EcoRI-SalI fragment. This

4.5kb fragment contains 3kb of 5'-flanking DNA, plus a complete 5'-untranslated region of the murine β-actin gene, including the first intron and a portion of the second exon including the amino terminus of β-actin (i.e. the ATG start codon). Document D4 further mentions that "*The complete nucleotide sequence of this region will be presented elsewhere*" (see page 480, column 2, second paragraph and Figure 2). In other words, document D4 is silent on the sequence of the mouse β-actin promoter located in the 4.5kb EcoRI-SalI fragment.

7.2 The cloned 4.5kb mouse β-actin fragment is shown to have "*high levels of CAT activity*", i.e. it has a strong promoter activity as determined in a chloramphenicol acetyltransferase reporter gene assay (see page 481, column 2, third paragraph, Figure 3).

7.3 Document D4 further discloses that the 11kb EcoRI fragment containing the mouse β-actin is conserved in various mouse strains, whose genomic DNA has been digested by EcoRI and labelled with a "*human β-actin probe 3'-untranslated sequence probe*" and a "*900-base-pair (bp) NcoI fragment derived from the large first intron (IVS1)*" of the cloned mouse β-actin gene (see page 480, column 2, last paragraph to page 481, column 2, first paragraph, Figure 1 and its legend). It is uncontested that the human β-actin probe used for Southern hybridisation mentioned in document D4 is publicly available, contrary to the NcoI probe.

8. Since the sequence of the mouse β-actin promoter is not disclosed in document D4 (see above), the question arises whether at the publication date of document D4 a skilled person could have obtained the 4.5kb EcoRI-SalI fragment of the mouse β-actin gene containing the

promoter without undue burden, based on the document's technical disclosure in conjunction with common general knowledge.

9. The board agrees with the opposition division that document D4 provides an enabling disclosure for the skilled person trying to obtain the respective mouse β-actin promoter by applying standard methods in the art.

9.1 Even if the AKB-2B mouse library cited in document D4 above was not publicly availably, the board has no doubts that a skilled person generating a mouse library in lambda phages, such as Charon 4A (see document D4, page 480, column 2, line 3), following a standard EcoRI partial digest of mouse genomic DNA obtains a complete library that comprises multiple copies of all chromosomes in the form of overlapping fragments of a pre-selected size (see document D15, abstract and page 7317, column 2, fifth paragraph citing document "*(18)*", i.e. document D21 in the present proceedings, and document D24, pages 282 to 285). Document D21 discloses, for example, that fragments in the range of 8.2 to 22.2kb can be inserted into the Charon 4A phage (see page 687, column 2, third and last paragraphs). Protocols for establishing a partial genomic digest of a pre-selected size are disclosed in document D24, page 282, second paragraph to page 283, second paragraph.

9.2 Document D4 further discloses all the necessary probes to screen such a library, i.e. a 54-mer and a 45-mer rat β-actin gene-derived probe, including a human 3'-untranslated (3'-UTR) β-actin gene probe. The respective 11kb fragment seems also consistently obtainable from an EcoRI digest of cultured mouse AKR-2B fibroblasts of various mouse strains using the human 3'-UTR β-actin gene probe alone (see Legend of

Figure 1, right panel, and page 481, column 2, first paragraph).

9.3 Therefore, document D4 teaches that a larger 11kb EcoRI fragment comprises the smaller 4.5kb EcoRI-SalI fragment showing a mouse β-actin promoter activity. The larger fragment is consistently found in EcoRI-digested mouse DNA and can be detected by hybridisation with a human and two rat β-actin gene-derived probes. Furthermore, it is uncontested that the mouse AKR-2B fibroblast cell line, the EcoRI and SalI restriction enzymes, the Charon 4A lambda phage, and the hybridisation probes indicated above are all available to the skilled person.

9.4 Appellant I submitted that a partial EcoRI-digest was not reproducible because the fragment pattern obtained varied, and fragments containing the respective 11kb fragment could be too large to be cloned. However, a partial genomic DNA digest for generating a phage library was standard practise when document D4 was published (see document D24, page 282 to 285; D24 is a standard textbook in the field of molecular biology). Moreover, the skilled person knows from document D4 that the probes mentioned above hybridise with a 11kb fragment. The board has thus no doubts that the skilled person reliably obtains phage clones with 11kb genomic inserts after optimising the conditions for a partial EcoRI digestion and selecting fragments of 11kb for insertion into a lambda vector of choice, e.g. Charon 4A (see document D24 on page 283, and point 9.1 above).

9.5 Appellant I further submitted that document D4 did not disclose all probes required for detecting the 11kb EcoRI fragment. Evidence for this assertion has not been submitted, and the board sees no reasons why the

three probes indicated above (point 9.2) are not sufficient for this purpose. Figure 1 of document D4 indicates that even one of these probes (human 3'-UTR β-actin probe) is sufficient.

10. Consequently, claim 1 lacks novelty and, hence, the main request contravenes Article 54 EPC.

Auxiliary request 2 (identical to auxiliary request 1 maintained by the opposition division)

11. Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that the feature "*the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 or shorter*" has been added.

Construction of claim 1

12. The board shares the opposition division's view in the decision under appeal that amended claim 1 sets an upper length limit for the claimed variants of SEQ ID NOs: 1 and 3. Their maximum length is now identical to the length of the sequence of SEQ ID NOs: 1 and 3, i.e. 3007 NT or 2953 NT respectively. Furthermore the claimed variants of SEQ ID NOs: 1 and 3 are characterised, as indicated above, by a minimum length that is defined by the 95% sequence identity over the entire length to their respective reference sequences, i.e. 2857 NT and 2805 NT, respectively.

Inventive step

Closest prior art and technical problem

13. Appellant I and the opposition division selected document D12 as closest prior art, appellant II

selected document D1 for the hamster promoter including its variants encoded in SEQ ID NO: 1, and document D4 for the mouse promoter including its variants as encoded in SEQ ID NO: 3.

14. The aim or purpose of the claimed invention is contested between the parties. Appellant I and the opposition division considered that this resided in the identification of a hamster or mouse promoter of optimal promoter strength compared to a CMV promoter that represented the "gold standard" promoter at the time the claimed invention was developed. Appellant II submitted that the invention as defined in claim 1 solely concerned the provision of active murine or hamster β-actin promoters.

15. The board agrees with appellant II. As set out above, the claimed promoters and their variants are not defined by any promoter strength (see point 4.3), either relative to each other, or in relation to a CMV promoter, or a particular cell type.

15.1 While it may be argued that based on the experimental data in Examples 3 and 4 of the patent the hamster promoter of SEQ ID NO: 1 has a stronger activity than the CMV promoter in BHK-21 cells, it has certainly a weaker activity than the CMV promoter in HEK293 cells (see Table 3 on page 14 of the patent; as regards BHK-21 cells, it may be doubtful whether a sound conclusion can be drawn from an activity of 121 +/-99.8 (standard deviation) for the hamster β-actin promoter compared to 8.3 +/- 0.4 for the CMV promoter). Therefore based on the experimental data in the patent, the board is not convinced that the claimed hamster β-actin promoter is stronger than the CMV promoter in an absolute sense over the whole range claimed. Rather,

and if at all, this depends on the cell type used for the gene expression studies.

15.2 Furthermore, no conclusions about promoter strength (absolute or relative) can be drawn for the claimed variants of the hamster promoter, or the mouse promoter including its variants. As set out above, the mouse promoter shares 80% sequence identity with the hamster promoter only. In the board's view a 20% difference in sequence identity in the absence of any experimental data in the patent allows no conclusion about its relative promoter strength compared to the CMV or the hamster promoter, let alone its absolute strength. The same holds true for all of the claimed promoter variants (hamster and mouse), since modifications in essential promoter elements of the reference sequences SEQ ID NOs: 1 and 3, for example, in the CAAT or TATA boxes may have dramatic effects on the promoter activity. As set out above, claim 1 solely requires that the variants have promoter activity, which includes weak and strong promoter variants compared to their respective "wild-type" promoters, or any other promoter, including CMV.

16. Therefore, the general aim or purpose underlying the claimed invention has to be seen as the provision of active hamster or murine β-actin promoters.

17. Since claim 1 of all auxiliary requests on file encompasses as embodiment variants of an active hamster β-actin promoter encoded by SEQ ID NO: 1 with a defined sequence identity over the entire length of SEQ ID NO: 1 ("*at least 95%*", or "*at least 98%*"), this embodiment will be assessed in the following.

18. As set out above, document D4 discloses a mouse 4.5kb fragment that contains a β-actin promoter sequence with strong activity (see above). Accordingly, since hamster and mouse are both rodents, document D4 is directed at a similar purpose as the claimed embodiment under consideration.

19. It is uncontested that document D12 too discloses a mouse-derived genomic 3kb fragment that contains an active β-actin promoter (see Figure 5 and its Legend). Although document D12 refers in this Legend to "*β-actin-CAT contains a 3-kb fragment of the mouse β-actin promoter, as well as the first exon* (*Elder et al., 1988)*" (i.e. document D4 in the present proceedings), the fragment disclosed is shorter than that in document D4, i.e. 3kb (= 3000 NT) instead of 4.5kb (= 4500 NT). This shorter fragment is stated to be one of the "*strongest of those tested for expression in primary hepatocytes*", and as "*well expressed*" (see document D12, page 46, column 1, last two lines, page 48, column 2, third paragraph). Document D12 therefore is likewise directed at a similar purpose as the claimed embodiment under consideration. However, like document D4 (see above), document D12 does not provide any sequence information on the 3kb fragment encoding an active mouse β-actin promoter.

20. Since documents D4 and D12 relate both to a similar purpose as the claimed embodiment under consideration, the question arises which of the two mouse β-actin promoters disclosed in these documents shares more of the relevant technical features with the hamster β-actin promoter variant embodiment cited in claim 1.

21. In the board's opinion, the mouse 4.5kb fragment of document D4 shares more structural features with the

hamster β-actin promoter variant under consideration than the 3kb mouse β-actin promoter of document D12. Annex 1 of the submission dated 23 December 2015 ("Annex 1") discloses that the 4.5kb fragment of document D4 contains the complete sequence of SEQ ID NO: 1 cited in claim 1. Whereas the graphical representation in point 3.27 on page 9 of appellant I's submission dated 16 April 2018 shows that the 3kb fragment of document D12 lacks the first intron ("*IVS 1*") at the 3'-end of SEQ ID NO: 1, i.e. one of the promoter elements.

22. Thus, taking account of the overall similarity of the technical problem, the technical field and the technical features in common with the embodiment under consideration (see Case Law, I.D.3.1.), document D4 and not document D12 represents the most promising starting point for assessing inventive step of the promoter sequence of claim 1.

23. The hamster promoter variant under consideration differs from the mouse 4.5kb fragment of document D4 in that it is about 1.5kb shorter. The deleted sequences are located at the 5'-end of SEQ ID NO: 1, but also at its 3'-end (see Annex 1). Furthermore, the claimed hamster promoter variant has a sequence that is at least 15% different over the entire length of SEQ ID NO: 1 from the mouse 4.5kb sequence of document D4 (the identity between both sequences is maximally 85% due to the 80% sequence identity of mouse and hamster β-actin promoters, and a 5% sequence deviation between the variant (at least 95% identity) and SEQ ID NO: 1). Consequently, the hamster promoter variant under consideration differs structurally from the mouse promoter of document D4 in (i) the length, and (ii) the

overall sequence identity, due to its origin from another rodent species.

24. These structural differences do not provide promoters "*outperforming the CMV promoter in at least some cell types*" as stated by appellant I over the whole scope of claim 1, because for the reasons given above, the hamster promoter variant under consideration encompasses weak and strong promoters. Therefore, the objective technical problem must be formulated in less ambitious terms (see Case Law, I.D.4.4.1), i.e. as the provision of further active rodent β-actin promoters.

25. The embodiment under consideration solves this problem because claim 1 requires that the variants show a "*promoter activity*", and the patent provides experimental evidence thereof (see e.g. Example 3).

Obviousness

26. It remains to be assessed whether or not the skilled person, starting from document D4 and faced with the problem defined above, would have arrived at the embodiment under consideration in an obvious manner.

27. This assessment usually starts by posing the question whether a skilled person would do something, for example, in light of a motivation or incentive and, if this can be positively answered, to assess then the skilled person's expectations of success for doing so.

28. It is established case law that furthering the existing state of the art belongs to the normal tasks of the skilled person, and that routine adaptations as well as the use of known alternatives does not go beyond what may be normally expected from an average skilled person

(see Case Law, I.D.9.6, and e.g. T 688/14, Reasons, point 25.1).

29. Document D4 does not mention β-actin promoters from hamster. Instead the document discloses that functional β-actin promoters are known from *inter alia* mouse and rats, i.e. other rodents (see title, abstract, the bridging paragraph of columns 1 and 2 on page 480, and Figure 3). Document D4 further reports that "*the β and γ* [actin] *isoforms, are expressed in all* [warm-blooded vertebrate] *cells irrespective of embryonic origin*" (see page 480, column 1, first paragraph).

30. Thus, starting from document D4, the skilled person was well aware that active β-actin promoters existed in rodents, and, hence, was motivated to look for more rodent-derived β-actin promoters. Document D4 teaches in this context further that β-actin promoters contain "*conserved sequence elements*" in regions located 5'-upstream and in the first intron sequence of the β-actin gene, including corresponding oligonucleotide probes (see bridging paragraph of columns 1 and 2 on page 480). In the board's opinion, the skilled person would have as a routine search approach submitted the sequence information of these conserved oligo probes to available public sequence databases, such as EMBL. As a result, the skilled person would have retrieved database entries of homologous rodent β-actin genes and promoters, for example, that disclosed in document D1. Reasons are not apparent that would have prevented the skilled person from following this route, such as technical problems or any prejudice.

31. Document D1 identifies the nucleotide sequence of the hamster β-actin gene, including elements of the β-actin core promoter, i.e. the CAAT and TATA box at position

106 to 109 and 167 to 170, respectively. These promoter elements are located about 1100 NT 5'-upstream of the first coding sequence ("*CDS*" or exon 1) of the structural gene starting at position 1233 with the start codon ATG (see page 3, lines 5 to 10). The overlapping region between the 1232 NTs located upstream of exon 1 of the sequence disclosed in document D1 and SEQ ID NO: 1 contains the entire first intron (IVS 1), a first untranslated exon and the CAAT and the TATA boxes of SEQ ID NO: 1 (see Annex 1). In other words, document D1 discloses a hamster β-actin promoter fragment of 1232 NT in length.

32. Appellant I submitted that the shorter hamster β-actin promoter of document D1 would not be functional, since significant sequence parts (about 1.6kb) were lacking at its 5'-end compared to SEQ ID NO: 1 of 3007 NT. Evidence for this assertion cannot be found in the available documents. Since the hamster promoter fragment of document D1 contains the core promoter elements (CAAT and TATA), as well as the IVS 1 promoter element, the board is not convinced by this argument.

33. The claimed hamster β-actin promoter variants under consideration are about 1.6kb longer at the 5'-end than the promoter of document D1. This difference in length however, is arbitrary since it amounts solely to the provision of another active hamster β-actin promoter. However, in the board's view no inventive merit can be derived from an arbitrary technical feature (here the presence of about 1.6kb additional nucleotides).

34. Thus, the embodiment of claim 1 under consideration lacks an inventive step and, hence, auxiliary request 2 as a whole contravenes Article 56 EPC.

Auxiliary requests 2b, 3, 3b, 4, 4a and 4b

Inventive step

35. As mentioned above, claims 1 of auxiliary requests 2b, 3, 3b, 4, 4a and 4b all encompass the embodiment considered above in claim 1 of auxiliary request 2, or an embodiment that is very closely related thereto.

35.1 The corresponding embodiments in claims 1 of auxiliary requests 3 and 4a are identical to that of claim 1 of auxiliary request 2 considered above.

35.2 The corresponding embodiment in claim 1 of auxiliary request 4 is identical to that considered in claim 1 of auxiliary request 2, except that the feature "*and wherein the variant is the same length as the nucleotide sequence set forth in SEQ ID NO: 1 or shorter*" has been deleted. Accordingly, like in claim 1 of the main request (see point 4.6 above), the considered embodiment is not restricted by a maximum upper length except for a whole genomic hamster chromosomal sequence comprising SEQ ID NO: 1.

35.3 In claims 1 of auxiliary requests 2b, 3b, and 4b, the considered embodiment is identical to that in claim 1 of auxiliary request 2, except that the feature "*at least 95% identity*" has been replaced by "*at least 98% identity*". The hamster promoter variants of these requests are thus further limited by a higher sequence identity and a more limited minimal length: i.e. 2947 NT, instead of 2857 NT for a minimal 95% sequence identity. In other words, in the claimed variants a maximum of 60 NT out of 3007 NT can be exchanged or deleted, instead of 150 NT.

36. None of the amendments in claim 1 of the auxiliary requests identified above has the effect that the corresponding embodiments no longer encompass weak and strong hamster β-actin promoter variants. Thus, the considerations on lack of inventive step (Article 56 EPC) provided above for the embodiment of claim 1 of auxiliary request 2 apply *mutatis mutandis* to the hamster promoter variants of claim 1 of auxiliary requests 2b, 3, 3b, 4, 4a and 4b too.

Auxiliary requests 2c, 2d, 3c, 3d, 4c, and 4d

Article 84 EPC

37. In its communication (see points 44 and 45), the board considered the proposed amendment "*and wherein said variant **is the same length** as the nucleotide sequence set forth in SEQ ID NO: 1 or 3 **or shorter**, so long as it is **at least 1250 nucleotides in length***" to contradict the length requirement imposed by "*said variant ... having **at least 95% identity ... over the entire length** of SEQ ID NO: 1 or having **at least 95% identity ... over the entire length** of SEQ ID NO:3" (emphasis added by the board).*

38. Appellant I has not replied to this objection of lack of clarity (Article 84 EPC). In these circumstances, the board has no reason to deviate from its preliminary opinion that the subject-matter of claim 1 of auxiliary requests 2c, 2d, 3c, 3d, 4c, and 4d contravenes Article 84 EPC.

39. Since no further auxiliary requests are on file, the the decision under appeal is set aside.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

L. Malécot-Grob B. Stolz

Decision electronically authenticated