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Datasheet for the decision of 10 June 2026

Case Number: T 0133/25 - 3.3.07

Application Number: 21191390.0

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IPC: A61K31/485, A61K31/137, A61P25/00, A61P25/24, A61P25/28, A61K9/20

Language of the proceedings: EN

Title of invention:
COMPOSITIONS AND METHODS COMPRISING BUPROPION OR RELATED COMPOUNDS AND DEXTROMETHORPHAN

Applicant:
Antecip Bioventures II LLC

Headword:
Bupropion and dextromethorphan II/ANTECIPP

Relevant legal provisions:
EPC Art. 56, 76(1), 123(2)

Keyword:
Inventive step - auxiliary request 5 (yes)
Amendments - auxiliary request 5 - added subject-matter (no)

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Boards of Appeal

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Case Number: T 0133/25 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 10 June 2026

Appellant: (Applicant)	Antecip Bioventures II LLC 630 Fifth Avenue, Suite 2000 New York, NY 10111 (US)
Representative:	Murgitroyd & Company 165-169 Scotland Street Glasgow G5 8PL (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted/electronically transmitted on 19 August 2024 refusing European patent application No. 21191390.0 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	A. Usuelli
Members:	M. Steendijk
	A. Jimenez

Summary of Facts and Submissions

I. The appeal was filed by the applicant (appellant) against the decision of the examining division to refuse European patent application EP 21 191 390.0, filed as a divisional application of the parent application EP 14 859 589.5.

II. The appealed decision was based on the claims of the main request and auxiliary requests 1-3 filed on 18 March 2024 and auxiliary request 4 filed during the oral proceedings held on 18 April 2024.

The examining division cited *inter alia* the following documents:

D1: Journal of Clinical Psychopharmacology (2005), 25(3), 226-229
D4: WO2009/006194 A1
D6: WO2012/118562 A1
D8: Clinical Pharmacokinetics (2011), 50(8), 519-530.

The examining division arrived at the following conclusions:

(a) Claim 1 of the main request defined a combination of bupropion and dextromethorphan for use in treating major depressive disorder wherein the bupropion and dextromethorphan are administered at least once a day for at least eight days.

The difference with the closest prior art represented by document D4 concerned the dosage regimen of at least once a day for at least 8 days. The substitution of quinidine by bupropion was also

taken into account as a difference between the claimed subject-matter and the closest prior art.

The comparison between the 60-fold increase of dextromethorphan plasma levels (AUC) observed with bupropion in Figures 5 and 6 of the application and the 43-fold increase by quinidine derivable from Table III of document D4 did not establish any improvement resulting from the substitution of quinidine by bupropion due to the difference in the doses used, the difference in the baseline levels, and the error margins reported in document D4. Moreover, the therapeutically beneficial effect depended on the absolute plasma levels of dextromethorphan, rather than on its fold increase. The objective technical problem was therefore the provision of an alternative treatment.

Documents D1 and D8 already described bupropion as an alternative CYP2D6 inhibitor which is suitable to increase dextromethorphan plasma levels. Document D8 indicated, in Figure 3, generally similar fold increases in plasma levels of victim drugs in the presence of quinidine and bupropion. The higher increase in plasma levels of dextromethorphan from quinidine than from bupropion predicted in Figure 3 of document D8 was speculative and did not deter the skilled person from using bupropion instead of quinidine to increase dextromethorphan plasma levels. As bupropion was itself already known for the treatment of depression from document D6, it was obvious to combine bupropion with dextromethorphan as a solution to the problem of providing alternative treatment. The main request therefore

did not comply with the requirement of inventive step.

(b) The additional feature in claim 1 of auxiliary request 1, that the plasma levels of dextromethorphan are increased compared to treatment without bupropion, did not represent a further distinction with the prior art. Data indicating an improved efficacy of the combination dextromethorphan and bupropion as compared to bupropion alone in the treatment of depression did not demonstrate a technical effect over the treatment with the combination of quinidine and dextromethorphan as described in document D4.

The additional feature in claim 1 of auxiliary request 2, that the treatment concerns a human who is an extensive metabolizer of dextromethorphan, also did not represent a further distinction with the prior art.

Claim 1 of auxiliary request 3 merely combined the additional features of auxiliary requests 1 and 2.

Auxiliary requests 1-3 therefore also did not comply with the requirement of inventive step.

(c) Claim 1 of auxiliary request 4 defined an oral sustained release delivery system for dextromethorphan comprising 45 mg dextromethorphan and 105 mg bupropion and a water soluble vehicle for use in treating major depressive disorder wherein the bupropion and dextromethorphan are administered at least once a day for at least 8 days.

Document D4 already mentioned sustained release forms. No unexpected effect from the defined dosage and dosage regimen had been presented.

Auxiliary request 4 did therefore also not comply with the requirement of inventive step.

III. With the statement of grounds of appeal the appellant filed a main request and auxiliary requests 1-4, which correspond to the main request and auxiliary requests 1-4 on which the decision under appeal was based.

The appellant cited the following additional documents in its statement of grounds of appeal:

D10: "Consolidated Financial Results for the Third Quarter of the Fiscal Year Ending December 31, 2016" issued by Otsuka Holdings Company Limited
D11: "Consolidated Financial Results FY2016 Q3 (Nine Months Ended September 30, 2016)"
D12: "Otsuka Group Pipeline Information" (as of 30 September 2016)
D13: Wellbutrin - Bupropion HCI product information
D14: Nuedexta - Patient Information Leaflet
D15: Extended data set for trials disclosed in the application as filed
D16: Declaration of Michael Chen, PhD
D16a: Bioavailability Studies Submitted in NDAs or IND
D16b: Cicali et al 2020
D17: Psychiatric News: https://psychnews.psychiatryonline.org/doi/10.1176/appi.pn.2022.11.11.13
D18: WO2016/081027 A1.

IV. In the communication pursuant to Article 15(1) RPBA the Board expressed *inter alia* the preliminary opinion that:

- claim 1 of the main request complies with Articles 76(1) and 123(2) EPC,

- dependent claims 2-7 and claim 8 of the main request do not comply with Articles 76(1) and 123(2) EPC, and

- the efficacy of bupropion in co-administration with dextromethorphan in the treatment of major depressive disorder was unexpected.

V. With its submission of 8 May 2026, the appellant filed a new auxiliary request 5 comprising a single claim and an adapted description. The claim of this request defines:

"Bupropion and dextromethorphan for use in treating major depressive disorder in a human being, wherein the bupropion and dextromethorphan are administered at least once a day for at least eight consecutive days."

This claim corresponds to claim 1 of the main request. The subsequent claims 2-8 of the main request are deleted in auxiliary request 5.

VI. The appellant's arguments can be summarized as follows:

Auxiliary request 5 was filed in response to the observations in the Board's communication under Article 15(1) RPBA, in which the Board expressed a partially positive assessment of the allowability of the subject-matter of the main request. Auxiliary request 5

rendered the remaining objections raised in the communication moot.

VII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the single claim and the amended description of auxiliary request 5. The main request and auxiliary requests 1-4 were withdrawn on the condition that the Board allow auxiliary request 5.

Reasons for the Decision

1. Admittance of documents D10-D18

In the grounds of appeal, the appellant relied on additional documents D10–D18 to support its case. These submissions directly address the issues underlying the appealed decision without giving rise to complications. The introduction of this new evidence can therefore be regarded as a justified response to the appealed decision. Accordingly, the Board admits documents D10–D18 into the appeal proceedings under Article 12(4) RPBA.

2. Auxiliary request 5

2.1 Admittance of auxiliary request 5

In its communication pursuant to Article 15(1) RPBA, the Board questioned whether the dependent claims of the main request found their basis in the original disclosure. Auxiliary request 5 addresses this new issue raised in the Board's communication by deleting the dependent claims. In the exercise of its discretion under Article 13(2) RPBA, the Board admits auxiliary

request 5 into the appeal proceedings, as it clearly overcomes the issues raised by the Board and does not give rise to new objections. Auxiliary request 5 is therefore *prima facie* allowable, which constitutes exceptional circumstances for admitting it at this late stage of the appeal proceedings.

2.2 Allowability of auxiliary request 5

2.2.1 The parent application as originally filed and published as WO 2015/069809 discloses in claim 105 and paragraph [0061] the treatment of a neurological disorder by administering the combination of bupropion and dextromethorphan for at least 8 days. In addition, paragraph [0093] expressly identifies "major depression" as an example of an affective disorder treatable with such a combination. The skilled person would understand this reference to "major depression" as corresponding to the clinical indication of major depressive disorder, which is the therapeutic indication specified in auxiliary request 5. The parent application thus provides a direct and unambiguous basis for the combination of features defining auxiliary request 5. The same relevant disclosure is present in the divisional application as originally filed. Consequently, the subject-matter of auxiliary request 5 is derivable from the parent application as filed and the divisional application as originally filed. Accordingly, auxiliary request 5 complies with Articles 76(1) and 123(2) EPC.

2.2.2 The subject-matter of auxiliary request 5 is directed to the combination of bupropion and dextromethorphan for use in treating major depressive disorder. Document D4 and document D6 each represent suitable starting points for the assessment of inventive step. Document

D4 discloses the co-administration of dextromethorphan with the CYP2D6 inhibitor quinidine for treating various disorders, including depression (see D4, page 48). The distinguishing feature over document D4 lies in the replacement of quinidine by bupropion or one of the defined metabolites thereof. Document D6 describes the therapeutic utility of bupropion in the treatment of depression. The distinguishing feature over document D6 lies in the co-administration with dextromethorphan.

The development of the quinidine/dextromethorphan combination for the treatment of major depressive disorder was discontinued for lack of sufficient evidence of efficacy (see D10, page 7; D11, page 19; D12, page 4). By contrast, the efficacy data reported for the bupropion/dextromethorphan combination in major depressive disorder show an improvement over bupropion alone, as reflected by greater reductions in MADRS scores (see D17, page 2, ASCEND trial).

In view of the level of efficacy demonstrated in document D17 for the bupropion/dextromethorphan combination, the objective technical problem may be formulated as the provision of an improved treatment of major depressive disorder. Starting from either document D4 or document D6, the skilled person had no reason to expect that replacing quinidine with bupropion, or adding dextromethorphan to bupropion therapy, would result in the observed improvement. The subject-matter of auxiliary request 5 is therefore not obvious and involves an inventive step.

2.2.3 The description, as amended according to auxiliary request 5, is adapted to the subject-matter claimed.

3. The Board concludes that the patent application as amended according to auxiliary request 5 meets the requirements of the EPC. In accordance with the appellant's request, no decision on the main request and auxiliary requests 1-4 is therefore required.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Examining Division with the order to grant a patent in the following version:

   Description: pages 1-47 as filed on 8 May 2026

   Claim: claim 1 of auxiliary request 5 as filed on 8 May 2026

   Drawings: Sheets 1/11-11/11 as originally filed.

The Registrar: The Chairman:

A. Vottner A. Usuelli

Decision electronically authenticated