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Datasheet for the decision of 9 January 2023

Case Number: T 2902/19 - 3.3.02

Application Number: 13864376.2

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Language of the proceedings: EN

Title of invention:
8'-HYDROXY-DIHYDROERGOTAMINE COMPOUNDS AND COMPOSITIONS

Applicant:
MAP PHARMACEUTICALS, INC.

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step

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Case Number: T 2902/19 - 3.3.02

D E C I S I O N
of Technical Board of Appeal 3.3.02
of 9 January 2023

Appellant: (Applicant)	MAP PHARMACEUTICALS, INC. 2525 Dupont Drive, Irvine CA 92612 (US)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 25 April 2019 refusing European patent application No. 13864376.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. O. Müller
Members:	A. Lenzen
	R. Romandini

Summary of Facts and Submissions

I. This decision concerns the appeal filed by the patent applicant (appellant) against the decision of the examining division (decision under appeal) to refuse European patent application No. 13 864 376.2 (application).

II. The decision under appeal is based on a single request (main request), the set of claims of which was filed by letter dated 9 August 2018. The examining division decided, *inter alia*, that the claimed subject-matter of the main request was not based on an inventive step over the following document as the closest prior art:

D2 US 2010/0081663 A1

III. In preparation for the oral proceedings, scheduled at the appellant's request, the board issued a communication pursuant to Article 15(1) RPBA 2020 in which it observed, *inter alia*, that the main request does not meet the requirements of Article 56 EPC starting from D2 (example 4) as the closest prior art.

IV. By letter dated 26 October 2022, the appellant withdrew its request for oral proceedings and informed the board that neither the appellant nor its representative would attend the oral proceedings. The board then cancelled the oral proceedings.

V. The appellant's appeal case relevant for this decision can be summarised as follows.

The subject-matter of claim 1 of the main request was distinguished over the closest prior art D2 (i) in that 8'-OH DHE was used instead of DHE and (ii) in that 8'-OH DHE was used in crystalline form. The technical effect was a higher stability of the composition used. The objective technical problem was to provide an improved migraine treatment. The solution to this problem was not obvious based on D2 because this document did not propose actively using 8'-OH DHE in the treatment of migraine.

VI. The appellant requested that the decision under appeal be set aside and that a patent be granted based on the main request.

Reasons for the Decision

Main request - inventive step

1. The set of claims of the main request consists of ten claims. Independent claim 1 reads as follows:

> "*A composition for use in a method for treating, preventing or ameliorating one or more symptoms of a migraine disease, condition or disorder, said method comprising administering a therapeutically effective dose of said composition to a subject in need of migraine treatment,*
>
> *wherein said composition is administered using a dry powder inhaler (DPI) device, a metered dose inhaler (MDI) device, or a pressurized metered dose inhaler (PMDI),*
>
> *wherein said composition comprises, in the form of crystalline particles, 8'-Hydroxy-Dihydroergotamine (8'-OH DHE) or pharmaceutically*

acceptable salt, solvate, ester or hydrate thereof."

2. The board agrees with the choice by the examining division of D2 as the closest prior art. The appellant did not challenge this choice.

3. D2 (paragraph [0014]) relates to a method for administering dihydroergotamine (DHE) or its salts, hydrates, polymorphs, prodrugs, ion pairs and metabolites to a patient in need of it in an amount of DHE sufficient to reduce a migraine symptom within a 2 hour period, without inducing side-effects.

In a preferred mode, the method of administration is by pulmonary inhalation using aerosols, dry powder inhalers, nebulisers, vaporisers, pressurised metered dose inhalers (PMDIs) and the like. In a more preferred embodiment, a PMDI such as a breath activated metered dose inhaler (for example, TEMPO™ Inhaler from Map Pharmaceuticals, Mountain View, Calif.) is used to administer DHE (paragraph [0028]).

The embodiment of example 4 can be considered to represent such a preferred mode. It represents a reasonable starting point for the assessment of inventive step.

Example 4 relates to the pulmonary administration of DHE formulations using a TEMPO™ inhaler, i.e. a PMDI. The aerosol composition administered to the patients contained microcrystals of DHE in addition to a mixture of two propellants.

4. The subject-matter of claim 1 differs from example 4 of D2 in that the composition comprises 8'-OH DHE instead of DHE.

The board does not share the appellant's view that the crystallinity of the active pharmaceutical ingredient is an additional distinguishing feature. As set out above, the composition used in example 4 contains microcrystals of DHE, and thus the example discloses the feature of claim 1 "*in the form of crystalline particles*".

5. In its communication pursuant to Article 15(1) RPBA 2020, the board had stated, with reference to point 1.2 on page 4 of the decision under appeal, that this difference (i.e. 8'-OH DHE vs. DHE) is not associated with a technical effect. This was not disputed by the appellant in the further course of the appeal proceedings.

The objective technical problem, therefore, is to provide an alternative active pharmaceutical ingredient for treating migraine.

6. As summarised above, D2 (paragraph [0014]) relates to a method for the treatment of migraine in which, *inter alia*, metabolites of DHE are administered to a patient. Furthermore, D2 discloses 8'-OH DHE to be an active metabolite of DHE (paragraph [0112] last sentence). Paragraphs [0122] and [0123] even report on the determination of peak plasma concentrations of both DHE and its primary metabolite 8'-OH DHE and mention that these concentrations were selected for receptor-binding investigations for both DHE and 8'-OH DHE. It would therefore have been obvious for the skilled person looking for an alternative active pharmaceutical

ingredient for treating migraine to simply replace DHE in example 4 of D2 with 8'-OH DHE. Thus, the subject-matter of claim 1 does not involve an inventive step over D2. Consequently, the main and only request is not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

N. Maslin M. O. Müller

Decision electronically authenticated