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**Datasheet for the decision  
of 31 August 2010**

**Case Number:** T 2032/07 - 3.3.02

**Application Number:** 00928256.7

**Publication Number:** 1178796

**IPC:** A61K 31/416

**Language of the proceedings:** EN

**Title of invention:**

Salts of aminoimidazole carboxamide useful in the prevention and treatment of liver diseases

**Applicant:**

Savvipharm Inc., et al

**Headword:**

Use of orazamide orotate/SAVVIPHARM

**Relevant legal provisions:**

EPC Art. 123(2), 54, 56

**Relevant legal provisions (EPC 1973):**

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**Keyword:**

"Main request: Novelty and inventive step (yes) after amendments"

**Decisions cited:**

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**Catchword:**

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Case Number: T 2032/07 - 3.3.02

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.02  
of 31 August 2010

**Appellant:** Savvipharm Inc.  
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**Representative:** Hyden, Martin Douglas  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 20 July 2007  
refusing European patent application  
No. 00928256.7 pursuant to Article 97(1) EPC  
1973.

**Composition of the Board:**

**Chairman:** U. Oswald  
**Members:** M. C. Ortega Plaza  
J. Van Moer

## Summary of Facts and Submissions

European patent application No 00 928 256.7, based on international application WO 00/78311, was filed with twenty claims.

I. The following documents have been cited during the examination and appeal proceedings:

(1) US 4 581 348

(2) R. Camatte et al: "Etude thérapeutique de l'Aicamine dans les hépatites virales et les hépatites éthyliques, les cirrhoses et les troubles dyspeptiques", Méditerranée médicale, 1974, vol. 2, no. 26, pages 91-97

(3) WO 97/03668.

II. The appeal lies from the decision of the examining division refusing the patent application under Article 97(1) EPC 1973 pursuant to the requirements of Articles 52(1) and 54(2) EPC for lack of novelty of the main request and pursuant to the requirements of Article 56 EPC, for lack of inventive step of the eight auxiliary requests, all submitted at the oral proceedings before the examining division.

Claim 1 of the main request before the examining division read as follows:

"1. Use of an AICA salt for the manufacture of a medicament for prevention and/or inhibition of tissue damage caused by an agent selected from the group consisting of alcohol; therapeutically useful drugs; and industrial, dietary and environmental toxins in an

individual consuming said alcohol or drugs, or being exposed to the said toxins".

- III. The examining division considered that the main request met the requirements of Article 123(2) EPC.

The examining division was of the opinion that the subject-matter claimed in the main request filed at the oral proceedings before the examining division lacked novelty vis-à-vis document (3).

As regards the eight auxiliary requests filed at the oral proceedings before the examining division, the examining division considered that they met the requirements of novelty vis-à-vis the cited prior art, but that they lacked inventive step (Article 56 EPC). Document (3) was considered as the closest prior art in relation to alleviation of tissue damage caused by therapeutic drugs and document (2) was considered as the closest prior art in relation to alleviation of liver damage caused by alcohol. The examining division considered that the proposed solution was obvious in the light of the cited prior art.

- IV. The appellant lodged an appeal against the said decision and filed with its grounds of appeal a main request and three auxiliary requests.

- V. On 29 March 2010 the board sent a communication expressing its preliminary opinion in relation to the sets of claims of the four requests filed with the grounds of appeal. In particular, the board raised some objections re Articles 84 and 123(2) EPC for these sets

of claims and made some observations in relation to the novelty of the subject-matter claimed therein.

- VI. The appellant filed a response by *epoline* to the board's communication sent on 29 March 2010, with date of receipt 22 July 2010. It filed as appendix thereto a "new" main request and two auxiliary requests (first and second) in order to replace all the requests previously on file. It requested (as a precautionary measure) oral proceedings to be held in case that the board was minded to refuse the application.

Claim 1 of the "new" main request reads as follows:

"1. Use of orazamide orotate for the manufacture of a medicament for prevention of liver damage caused by an agent selected from the group consisting of alcohol or methothrexate in an individual consuming said alcohol or methothrexate."

- VII. The appellant's written arguments submitted during the appeal proceedings may be summarised as follows:

The "new" main request and the two "new" auxiliary requests were filed in order to overcome the board's objections raised with the communication of 29 March 2010.

The amendments were clear and supported by the originally filed description, in particular pages 8, 26 and 27 of the application, together with the results displayed in the figures.

It was shown in the application as filed that orazamide orotate resulted in the prevention of liver damage caused by alcohol or methothrexate. Novelty was given vis-à-vis the prior art documents (2) and (3) since they did not disclose orazamide orotate for preventing liver damage caused by alcohol or methothrexate.

The problems addressed by the application were how to prevent liver damage induced by alcohol or methothrexate in a person consuming alcohol or methothrexate. These problems were solved by providing orazamide orotate to the person consuming alcohol or methothrexate before damage begins.

The application disclosed the tests carried out to determine the effects of orazamide orotate in rats that were also consuming the alcohol or were treated with methothrexate. The tests results showed that the problem had been solved.

The proposed solution was not obvious in the light of the cited prior art. In particular, document (2) was directed to finding a solution to treat liver injury which had occurred as a consequence of liver damage, and had no hint to prevent the patient developing liver damage in the first place.

- VIII. The appellant requested that the decision under appeal be set aside and a patent be granted on the basis of the main request filed on 22 July 2010, or, on the basis of the first or the second auxiliary requests filed on the same day.

## Reasons for the Decision

### 1. *Admissibility*

1.1 The appeal is admissible.

1.2 The sets of claims filed on 22 July 2010 were filed in a fair attempt to overcome the objections raised by the board in the communication sent on 29 March 2010. Therefore they are admissible.

### 2. *"New" main request*

2.1 The appellant has amended claim 1 in order to address the objections raised by the board in the board's communication mentioned above.

In particular, the condition to be treated has been now specified as "for prevention of liver damage caused by an agent selected from the group consisting of alcohol or methothrexate" and the product for which the use is claimed has been clarified to be "orazamide orotate". Thus, the conditions set out in Article 84 EPC have been met.

As regards the requirements of Article 123(2) EPC, a thorough inspection of the application as filed shows sufficient basis for the preventive treatment of liver damage caused by alcohol and methothrexate by using orazamide orotate. In particular, pages 7, 8, 26 and 27. The originally filed disclosure addressed both the preventive and the curative treatment, but claim 1 has been now restricted to the preventive treatment. This

restriction is allowable under Article 123(2) EPC (deletion in one direction).

2.2 None of the cited documents discloses the preventive treatment of liver damage caused by alcohol or methothrexate by using orazamide orotate. Hence, the subject-matter claimed in the main request is novel (Articles 52(4) and 54(2) EPC).

2.3 Document (2) represents the closest prior art for the case of alcohol damage of the liver and document (3) represents the closest prior art for the case of methothrexate damage of the liver.

In the light of the closest prior art the problem to be solved lies in the provision of an alternative treatment to either alcohol damage or methothrexate damage to the liver in subjects consuming alcohol or methothrexate.

The solution as defined by claim 1 of the main request relates to the **prevention** of the liver damage by using orazamide orotate.

The tests results contained in the description concerning experiments undertaken in rats show that the problem has been solved.

As regards the assessment of the obviousness of the proposed solution it has to be said that the general passage appearing on page 12 of document (3) expresses in generic terms a suitability "for preventing immunosuppression and toxicity induced by anticancer chemotherapeutic agents or for inducing



immunostimulation in a patient suffering from cancer, which involves using an effective dose of AICA salt or a salt of 5-amino or a substituted amino 1,2,3-triazole compound". In fact document (3) discloses as preferred mode of the invention the treatment of cancer using AICA salts or a salt of 5-amino or a substituted amino 1,2,3-triazole compound but does not contain any particular information in relation to the prevention of methothrexate liver damage.

Document (2) discloses the alleviation of (severe) liver damage already present such as hepatitis or cirrhosis, but there is a clear medical distinction between the curative treatment of these conditions and the preventive treatment addressed by claim 1 of the main request, which amounts to a form of antidote-like effect on the liver achieved by orazamide orotate, as it has been shown in the tests results.

Having regard for the fact that none of the cited documents gives any hint in relation to the prevention of liver damage caused by alcohol or methothrexate, the skilled person is not in a position to derive the proposed solution without involving its inventive skills.

Therefore the subject-matter claimed in the main request meets the requirements of Article 56 EPC.

**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 grant a patent on the basis of claims 1 and 2 of the main request filed on 22 July 2010, and a description still to be adapted thereto.

The Registrar

The Chairman

N. Maslin

U. Oswald