

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**MAILED**

**JUL 26 1996**

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Ex parte MICHAEL A. POSS

**PAT.&T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES**

\_\_\_\_\_  
Appeal No. 94-2552  
Application 07/858,902<sup>1</sup>

\_\_\_\_\_  
ON BRIEF  
\_\_\_\_\_

Before WINTERS, METZ and GRON, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

In the Advisory action mailed September 3, 1993, the examiner indicates that claim 9 stands rejected under 35 U.S.C. § 103. The examiner's answer, however, does not repeat or refer

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<sup>1</sup> Application for patent filed March 27, 1992.

Appeal No. 94-2552  
Application 07/858,902

to that rejection. Accordingly, as a matter of standard procedure, the rejection of claim 9 on prior art grounds has been withdrawn. See Paperless Accounting, Inc. v. Bay Area Rapid Transit System, 804 F.2d 659, 663, 231 USPQ 649, 651 (Fed. Cir. 1986). As expressly stated in the examiner's answer, page 1, Section (1), claims 4, 5, 7, and 8 stand allowed. This leaves claims 1, 2, 3, and 6 on appeal before the Board.

Claims 1 and 6 are representative and are appended to this decision.

The references relied on by the examiner are:

Scarborough et al. (Scarborough)	3,184,462	May 18, 1965
Daneshtalab et al. (Daneshtalab)	5,026,848	June 25, 1991

The issue presented for review is whether the examiner erred in rejecting claims 1, 2, 3 and 6 under 35 U.S.C. § 103 as unpatentable over Scarborough or Daneshtalab.

#### OPINION

We shall not sustain these rejections.

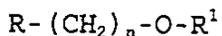
As can be seen from a review of representative claim 1, appellant's claimed compounds have a fused moiety linked to another fused moiety by the group -O-CH<sub>2</sub>-. Specifically, appellant's compounds have a substituted quinoline moiety linked to a substituted indole or benzimidazole moiety. The examiner's

Appeal No. 94-2552  
Application 07/858,902

position to the contrary, notwithstanding, neither Scarborough nor Daneshtalab suggests such a compound. Accordingly, neither Scarborough nor Daneshtalab constitutes sufficient evidence to here support a conclusion of obviousness.

Scarborough discloses compounds having a substituted quinoline group linked to a non-fused pyrrolidine. Clearly, those compounds are not structurally similar to Appellant's compounds. All of the compounds disclosed by Scarborough have a fused moiety linked to a non-fused moiety, and Scarborough does not suggest making the modifications which would be necessary to arrive at appellant's claimed compounds. Having carefully reviewed the Scarborough patent in its entirety, we find that Scarborough does not suggest linking the substituted quinoline moiety to another fused moiety.

Daneshtalab discloses compounds having the formula



where R is a non-fused azole moiety and R<sup>1</sup> is a non-fused or fused substituted azole, azine, furyl, or polycyclic hydrocarbon. Further, the non-fused azole moiety of Daneshtalab is linked by a (CH<sub>2</sub>)<sub>n</sub>-O- group where n is 5, 6, 7, or 8. In our view, Daneshtalab does not suggest making the structural modifications which would have been necessary to arrive at appellant's claimed

Appeal No. 94-2552  
Application 07/858,902

compounds. Specifically, Daneshtalab does not suggest the desirability of converting variable R from a non-fused moiety to a fused moiety. For these reasons, the compounds disclosed by Daneshtalab, like those disclosed by Scarborough, bear little structural relationship to appellant's claimed compounds.

Accordingly, neither Scarborough nor Daneshtalab establishes a prima facie case of obviousness of claims 1, 2, 3, or 6. The examiner states that "[n]o showing of any unobvious or unexpected properties has been forthcoming" (answer, page 3), but a showing is not required where, as here, the examiner has not established a prima facie case of obviousness.

In the answer, paragraph bridging pages 2 and 3, the examiner acknowledges that Scarborough and Daneshtalab each discloses a non-fused ring rather than appellant's indole or benzimidazole moiety. According to the examiner, however, "[t]he claimed fused-ring compounds are so closely related [sic] non-fused ring analogs of the references as to be structurally obvious therefrom" and "it would be not expected that such an interchange of fused and non-fused rings would vary the properties to any significant extent, i.e., the properties would be expected to be the same or virtually the same." See the examiner's answer, page 3. The flaw with the examiner's position is that the legal conclusion of obviousness must be supported by facts. Where the

Appeal No. 94-2552  
Application 07/858,902

legal conclusion is not supported by facts, it cannot stand. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967). On this record, the examiner has not supplied any evidence supporting the assertions that (1) fused-ring compounds are so closely related to non-fused ring analogs as to be structurally obvious, or (2) it would not be expected that interchange of fused and non-fused rings would vary the properties of compounds to any significant extent. Accordingly, on this record, we are constrained to reverse the prior art rejections of claims 1, 2, 3 and 6. In so doing, we observe that the examiner's answer does not contain a section entitled "Response to Arguments", setting forth reasons why the examiner disagrees with appellant's arguments on appeal.



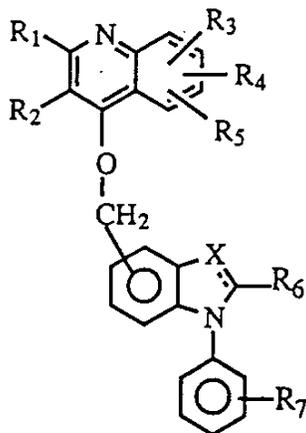
Appeal No. 94-2552  
Application 07/858,902

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CLAIMS 1 and 6

1. A compound of the formula

I.



or a pharmaceutically acceptable salt or prodrug thereof;

wherein X is  $\overset{R_6'}{\underset{|}{-N-}}$  or  $\overset{R_6'}{\underset{|}{-C-}}$ ; the broken line adjacent to the X atom represents the possible presence of a double bond, provided that if X is nitrogen, the double bond must be present;

R<sub>1</sub> is hydrogen, alkyl of 1 to 8 carbon atoms, alkoxy, cycloalkyl, (cycloalkyl)alkyl, haloalkyl, phenyl or arylalkyl;

R<sub>2</sub> is hydrogen, alkyl of 1 to 8 carbon atoms unsubstituted or substituted with one or more fluoro atoms, cycloalkyl, (cycloalkyl)alkyl, carboxy, alkoxy, carbonyl, cyano, nitro, phenyl or arylalkyl;

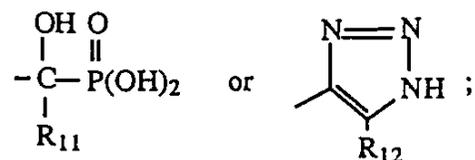
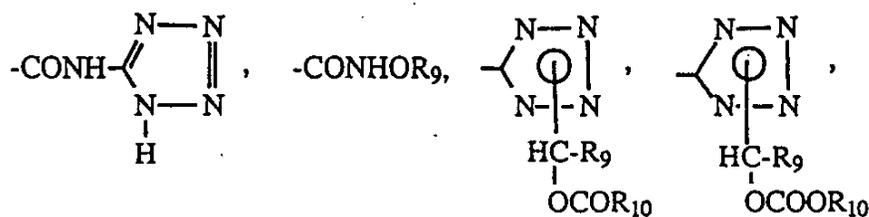
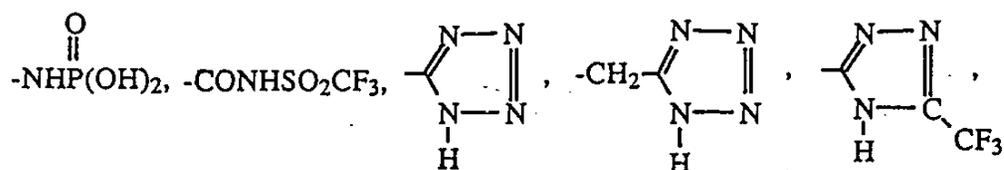
R<sub>3</sub> is hydrogen, alkyl of 1 to 4 carbon atoms unsubstituted or substituted with one or more fluoro atoms, alkoxy of 1 to 4 carbon atoms, halogen, cyano or nitro;

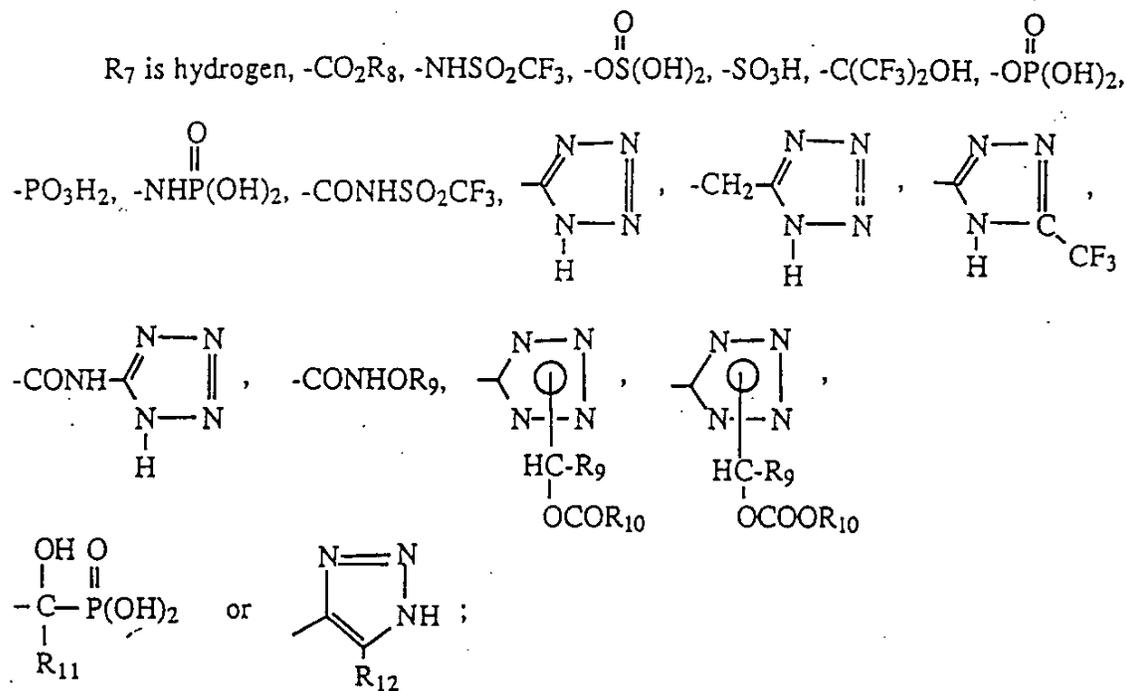
R<sub>4</sub> and R<sub>5</sub> are independently selected from hydrogen; alkyl of 1 to 4 carbon atoms, unsubstituted or substituted with amino, hydroxy or alkoxy of 1 to 4 carbon atoms; alkoxy of 1 to 4 carbon atoms unsubstituted or substituted with halogen; halogen; hydroxy; haloalkyl; cyano, nitro; amino; alkanoylamino of 1 to 4 carbon atoms; alkylamino or dialkylamino of up to 6 carbon atoms; (dialkylamino)alkyl of 3 to 8 carbon atoms; alkanoyl of 1 to 4 carbon atoms; carbamoyl; N-alkylcarbamoyl or di-(N-alkyl)carbamoyl of up to 7 carbon atoms; carboxy; alkoxycarbonyl of 1 to 4 carbon atoms; alkylthio of 1 to 6 carbon atoms; alkylsulphinyl of 1 to 6 carbon atoms; or alkylsulphonyl of 1 to 6 carbon atoms; or

R<sub>4</sub> and R<sub>5</sub> together form an alkylenedioxy of 1 to 4 carbon atoms, when bonded to adjacent carbon atoms;

R<sub>6</sub> and R<sub>6'</sub> are independently selected from hydrogen, alkyl, aryl, cycloalkyl, arylalkyl,

haloalkyl, -CO<sub>2</sub>R<sub>8</sub>, -NHSO<sub>2</sub>CF<sub>3</sub>, -OS(OH)<sub>2</sub>, -SO<sub>3</sub>H, -C(CF<sub>3</sub>)<sub>2</sub>OH, -OP(OH)<sub>2</sub>, -PO<sub>3</sub>H<sub>2</sub>,





$R_8$  is hydrogen, alkyl, perfluoroalkyl of 1 to 8 carbon atoms, cycloalkyl of 3 to 6 carbon atoms, phenyl, benzyl,  $-\underset{\text{R}_9}{\text{CH}}-\text{O}-\text{COR}_{10}$  or  $-\underset{\text{R}_9}{\text{CH}}-\text{O}-\text{COOR}_{10}$ ;

$R_9$  is hydrogen, alkyl, aryl, alkylaryl, arylalkyl, or cycloalkyl;

$R_{10}$  is alkyl, aryl, alkylaryl, arylalkyl or cycloalkyl;

$R_{11}$  is hydrogen, alkyl of 1 to 5 carbon atoms or phenyl; and

$R_{12}$   $-\text{CN}$ ,  $-\text{NO}_2$  or  $-\text{CO}_2R_8$ .

6. A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutically acceptable carrier.