

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte SETH D. ROSE, SCOTT R. LEFLER,
STEVEN R. OTTERSBERG, ANN Y. KIM,
KARL J. OKOLOTOWICZ, and ROSEMARIE F. HARTMAN

Appeal No. 2005-0978
Application No. 09/983,232

HEARD: July 12, 2005

Before MILLS, GRIMES, and GREEN Administrative Patent Judges.

MILLS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the examiner's final rejection of claims 51-56, which are all of the claims on appeal in this application. Claims 57-59 have been indicated to contain allowable subject matter by the examiner.

Claims 51 and 54 are illustrative of the claims on appeal and appear in the attached appendix to the Brief.

The prior art references cited by the examiner are:

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Eilon et al. (Eilon)	5,773,911	Mar. 31, 1998
Pettersen et al (Pettersen)	6,166,074	Dec. 26, 2000

Grounds of Rejection

Claims 51-53 stand rejected under 35 U.S.C. §102(b), as anticipated by Eilon.

Claims 54-56 stand rejected under 35 U.S.C. §103(a), as unpatentable over
Pettersen.

We reverse these rejections.

DISCUSSION

35 U.S.C. §102(b)

Claims 51-53 stand rejected under 35 U.S.C. §102(b), as anticipated by Eilon.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”

Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “It is also an elementary principle of patent law that when, as by a recitation of ranges or otherwise, a claim covers several compositions, the claim is ‘anticipated’ if one of them is in the prior art.” Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 782, 227 USPQ 773, 779 (Fed. Cir. 1985).

According to the examiner, “Eilon et al. disclose a method for inducing cell death

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in neoplastic cells such as inter-alia, colon and prostate cancer cells with compounds encompassed by Formula I of the present claim 1, or a pharmaceutically acceptable salt thereof (see Summary of Invention; Figs. 20 and 25 and description thereof in Col. 8; Col. 18, lines 3-8; and Experiment 1). Since Eilon et al. disclose the presently claimed anti-cancer compounds and cancer cell treatment dosage (concentration), encompassed by that which is presently claimed, it would be expected that growth inhibition of the cancer cell(s) would also be realized.” Answer, page 3.

Appellants argue that “the Final Office Action fails to recognize that the Eilon structure does not fall within the specification’s definition of ‘amido’ as it is defined in the specification.” Brief, page 7. Appellant argues that, “[a]lthough the Eilon structure contains an amido (-NH-) linkage, the Eilon structure includes additional structure which removes it from Appellants’ definition of amido. If A₄ were an unsubstituted amido group, the scenario on the which the Final Office Action apparently relies, the resulting compound would terminate with the amido radical...” Brief, pages 7-8. “Eilon, however, does not describe or suggest such a compound.” *Id.* at 8.

Moreover, appellants argue (Brief, pages 8-9)

Included among the remaining A₄ substituents in claim 51 are, ... alkanoylamido, substituted amino (-NHR), and substituted amido (-NR’-). None of the permitted A₄ substituents in claim 51 reads on the Eilon structure... The term “substituted amino” is defined in ¶ 0044 of the specification as follows:

The term “substituted amino,” as used alone or in combination herein, embraces both a mono and di-substituted amino. These terms, alone or in combination, mean a radical of the formula -NR’R”, where in the case of mono-substitution, one of R’ and R” is a hydrogen and the other is selected from alkyl, cycloalkyl, aryl, heterocyclo, (aryl)alkyl, (heterocyclo)alkyl, heteroaryl and hetero(aryl)alkyl; in the case of di-substitution, R’

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and R” are independently selected from alkyl, cycloalkyl, aryl, heterocyclo, and heteroaryl, or R’ and R” together with the nitrogen atom to which they are both attached form a three to eight-membered heterocyclo or heteroaryl radical....

As shown above, the Eilon structure has a piperazinyl-alkanoyl moiety attached to the amino group, which does not fall within the permissible substituents for “amino,” “substituted amino,” “amido,” or “substituted amido” as they are defined in the specification.

More particularly, appellants argue that “[a]lkanoylamido is defined in paragraph 46 of the specification as having the following structure:

–NH-C(O)–R, where R can be heterocyclo, which would encompass piperazine (note definition at paragraph 34). However, a comparison of the structures shows that the Eilon structure has an additional methylene (carbon) linkage not present in the alkanoylamido...” Brief, page 9. Thus, the Eilon structure does not meet the definition of “alkanoylamido” as defined in the specification. Nor does the Eilon structure meet any definition of any of the remaining A4 substituents. Brief, page 10.

In response the examiner argues that “Appellants’ definition of an ‘amido’ group (on page 14 of the specification) encompasses the heterocyclic substituted carboxamide moiety contained in the generic formula (I) disclosed by Eilon et al.” Answer, page 5.

In our view, the response by the examiner fails to rebut appellants’ arguments that Eilon does not disclose a compound within the generic formula, as claimed. The examiner has pointed to no compound or specific substituent of Eilon which anticipates a compound falling within the scope of claim 51. The rejection of claims 51-53 for anticipation over Eilon is reversed.

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35 U.S.C. § 103

Claims 54-56 stand rejected under 35 U.S.C. §103(a), as unpatentable over Petterson.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). It is well-established that the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

According to the examiner (Answer, page 4):

Pettersen et al. teach a method of inhibiting the growth of a cancer cell (e.g. lung carcinoma) in which the method comprises contacting the cancer cell with a pharmaceutical composition comprised of compounds defined by formula I (see Col. 2, lines 40-67; Col. 3 thru Col. 4, lines 1-29; Col. 16 and 17). The difference between the presently claimed invention and what is taught by the Petterson et al. reference is that the Pettersen et al. reference does not specifically recite compounds according to Formula II A of the present claims. However, Pettersen et al. do generally teach a group of compounds, represented by their formula I, in which some of the presently claimed species are encompassed.

The examiner concludes “[i]t would have been prima facie obvious to one having ordinary skill in the art, in view of the Pettersen et al. reference, to arrive at the presently claimed invention because Pettersen et al. teach a similar method of inhibiting the growth of a cancer cell with a group of compounds is [sic, in] which some of the possible

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compounds, represented by formula I in the reference, correspond to some of the compounds presently claimed by Appellants.” Answer, pages 4-5.

The examiner, continues, “[o]ne having ordinary skill in the art would have been motivated to arrive at the presently claimed invention because one would have been motivated to develop other art recognizable methods for inhibiting growth of cancer [sic] cells by using any or all possible compounds derived from the formula I taught by Pettersen et al. The presently claimed invention would therefore have been obvious to one having ordinary skill in the art.” Answer, page 5.

Appellants respond, arguing (Brief, pages 13-14):

Out of all these thousands of possibilities for Pettersen’s Y substituent, the only selection that would yield a $CX_1X_2X_3$ group as defined in Formula IIA of claim 54 under appeal would be mono-, di-, or tri-substituted methyl (C_1 -alkyl). Thus even if C_1 - C_{20} alkyl were judiciously selected from one of the myriad of choices presented in Pettersen, methyl (C_1) is but one of twenty. And even assuming the skilled worker would have selected methyl from all of these available choices, this still would not be enough because at least one of the methyl hydrogen atoms would need to be replaced with a non-hydrogen “X” substituent defined in Appellants’ claim 54 There simply is no direction, motivation, or incentive for the skilled worker to make these selections based on the generic formula in Pettersen.

Furthermore, appellants argue that “[i]n addition to the above described differences between the ‘Y’ portion of the Pettersen generic formula and Appellants’ $CX_1X_2X_3$ group in claim 54 ... the Pettersen generic structure also contains additional variables Ar, L, and Z. Many of the combinations of Ar, L, and Z as defined in Pettersen do not correspond to the ‘A’ moiety of Appellants’ claimed Formula IIA.” Brief, page 14.

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We agree with appellants that the examiner has failed to establish a prima facie case of obviousness on the facts before us. It is well settled that the “fact that a claimed compound and/or subgenus may be encompassed by a disclosed generic formula does not by itself render that compound or subgenus obvious”. In re Baird, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994). In Baird, a generic diphenol formula of a reference patent encompassed the bisphenol A of the claimed invention. In that set of facts the Baird court found that the fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious. The court in Baird also cited In re Jones, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992). Jones involved an obviousness rejection of a claim to a specific compound, the 2-(2'-aminoethoxy)ethanol salt of 2-methoxy-3,6-dichlorobenzoic acid (dicamba), as obvious in view of, a prior art reference disclosing a genus which admittedly encompassed the claimed salt. The court reasoned that the prior art reference encompassed a "potentially infinite genus" of salts of dicamba and listed several such salts, but that it did not disclose or suggest the claimed salt.

In our view, the examiner has not established by a preponderance of the evidence why one of ordinary skill in the art, with knowledge of Petterson, would have been motivated to select the particular substituents required for Formula IIA of claim 54. We agree with appellants that the examiner has failed to establish a prima facie case of obviousness on the facts before us.

In view of the above, the rejection of claims 54-56 under 35 U.S.C. §103(a), as unpatentable over Petterson is reversed.

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CONCLUSION

The rejection of claims 51-53 under 35 U.S.C. §102(b), as anticipated by Eilon is reversed. The rejection of claims 54-56 under 35 U.S.C. §103(a), as unpatentable over Petterson is reversed.

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No time period for taking any subsequent action in connection with this appeal
may be extended under 37 CFR § 1.136(a).

REVERSED

DEMETRA J. MILLS
Administrative Patent Judge

ERIC GRIMES
Administrative Patent Judge

LORA M. GREEN
Administrative Patent Judge

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