

UNITED STATES PATENT AND TRADEMARK OFFICE

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

Ex parte KNOX VAN DYKE

Appeal No. 1999-2523
Application No. 08/475,791

ON BRIEF

Before WILLIAM F. SMITH, ADAMS and MILLS, Administrative Patent Judges.
ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 57-62 and 64-67, which are all the claims pending in the application.

Claim 57 is illustrative of the subject matter on appeal and is reproduced below:

57. One of a pharmaceutical composition and kit comprising:
- (i) an agent in an amount effective to cause blood glutathione levels to increase, selected from the group consisting of glutathione, N-acetyl cysteine, 2-oxo-4 thiazolidine carboxylic acid, ebselen, oltipraz, L-cysteine, N-acetyl cysteine ethyl ester, N-acetyl cysteine methyl ester, cystamine, cysteamine, penicillamine, 2,3 dimercapto-1-propanol, L-2-oxothiazolidone-4-carboxylate, dimethyl maleate, glutathione ethyl ester, glutathione methyl ester,

- glutathione isopropyl ester, oxazolidone, and combinations thereof;
- (ii) an amount of one or more additional antioxidants at a dose higher than the recommended daily minimum requirement; and
 - (iii) an NFkB induction inhibitor in an amount effective to inhibit nuclear factor kappa B, said NFkB induction inhibitor being selected from the group consisting of anti-inflammatory steroids and nonglucocorticoid lazardoids.

The references relied upon by the examiner are:

Malfroy-Camine et al. (Malfroy-Camine)	5,403,834	Apr. 4, 1995
Muller	5,463,063	Oct. 31, 1995

GROUND OF REJECTION

Claims 57-62 and 64-67 stand rejected under 35 U.S.C. § 103 as being unpatentable over Malfroy-Camine alone or in combination with Muller.

We reverse.

DISCUSSION

According to the specification (page 7), "NFkB is a gene transcription factor that switches on the production of the HIV virus of a virally infected cell." Appellant discloses (Specification, pages 7-8), that the oxidant peroxy nitrite, produced from lipopolysaccharide or interferon activated hybridoma macrophages, activates NFkB and causes the HIV virus and other latent viruses in an infected cell to replicate. Appellant suggests (Specification, page 8), "the inhibition of the oxidation mechanism could stop the replication of the virus." In addition, appellant discloses (id.), "[r]educed glutathione reacts with peroxy nitrite to reduce it to NO₂⁺." Accordingly, appellant discloses (page 5), "[t]he present invention provides methods and pharmaceutical compositions for repressing reproduction of latent viruses, such as HIV, in humans and animals, by generally

concurrent administration of 1) a glutathione agent; 2) at least one additional antioxidant; and 3) at least one NFkB induction inhibitor.” Appellant discloses (specification, page 6), “by using this combination of ingredients, the reproduction of latent viruses in animals can be repressed.”

THE REJECTION UNDER 35 U.S.C. § 103:

According to the examiner (Answer, page 3) Malfroy-Camine teaches “a composition containing N-acetylcysteine^[1], tocopherol (fat soluble vitamine), ascorbate (water soluble vitamine), 21 aminosteroids (lazaroids) and cortisone (note col. 26, lines 45-51).” However, the examiner finds (id.), that while Malfroy-Camine does not exemplify the claimed composition, the reference “teaches the functions of lazaroids, steroids and various antioxidants and the rationale for preparing compositions containing these ingredients for the treatment of various diseases including AIDS[]([]note columns 1-7, and 26-27).” Therefore, the examiner concludes (Answer, bridging sentence, pages 3-4) that it would have been obvious “to one of ordinary skill in the art [at the time the invention was made] to prepare compositions containing [the] instant components” based on the teachings of Malfroy-Camine alone.

Notwithstanding the above conclusion, the examiner finds (Answer, page 4) that “Malfroy-Camine does not use the term, NFkB inhibitors.” However, the examiner finds (id.) Muller discloses “that TNF is inflammatory and activates NFkB and a potential activator for HIV and other retroviruses.” The examiner also finds (id.) Muller discloses “that the suppression of TNF effects was

¹ We note the specification discloses (page 8) that “N-acetyl cysteine, L-cysteine or 2-oxo-4-thiazolidene carboxylic acid, as well as other substances, can act as glutathione precursors.”

attempted in the art by steroids such as dexamethasone and prednisolone and then advocates the use of cyclic imides in combination with steroids.” Based on this evidence the examiner concludes (id.) that the “inclusion of NFkB inhibitors such as dexamethasone and prednisolone in the teachings of Malfroy-Camine, with the expectation of obtaining at least an additional effect, ... would have been obvious to an artisan [at the time the invention was made], if the disease to be treated is a retro[-]viral infection.”

In response, appellant argues (Brief, page 6) that Malfroy-Camine “merely provide a list of ingredients, any of which may or may not be administered in combination, with at least one species of antioxidant salen-metal complex.”

Appellant finds (Brief, pages 6-7) that following the disclosure of Malfroy-Camine “one may try” eight different categories of compositions of which only two:

may contain one of the recited agents for raising blood glutathione levels, an additional antioxidant, and an NFkB induction inhibitor, but only if the selected one or more free radical scavengers include an agent selected from the group of compounds listed under (i) of [appellant’s] claim 57 and only if the selected one or more oxyradical inhibitors includes an anti-inflammatory steroid or a nonglucocorticoid lazardid.

Appellant finds (Brief, page 8), that since Malfroy-Camine’s specification provides no guidance in the selection of appropriate or suitable active ingredients for compositions useful in the treatment of disease, “it would only be by chance that one having ordinary skill in the art would select a composition containing a free radical scavenger which increases blood glutathione levels and an oxyradical inhibitor which is an anti-inflammatory steroid or a nonglucocorticoid

lazaroid.” Therefore, appellant finds (Answer, page 10) “that the Malfroy-Camine et al. patent does not suggest the subject matter of claim 57.”

With regard to Muller, appellant finds (Answer, page 11) the disclosure of attempts “to use steroids to suppress the effects of TNF α , and that steroids can be co-administered with cyclic imides to suppress the effects of TNF α do not suggest that steroids should be used in combination with the salen-metal complexes described by Malfroy-Camine et al. for treating free radical-associated diseases[²].” Therefore, appellant concludes (*id.*), “Muller does not provide the guidance which Malfroy-Camine et al. lack, and therefore, is of little, if any, relevance with respect to claim 57.”

Appellant argues (Reply Brief, page 3) “[t]he question is always whether the prior art teaches or suggests the claimed combination, not whether a reference lists all of the ingredients. Without disclosure of specific combinations or guidance as to how one selects specific ingredients, a listing of ingredients is merely a suggestion to try various combinations.” With reference to In re Deuel, 51 F.3d, 1552, 1558-59, 34 USPQ2d 1210, 1215, appellant finds (Reply Brief, page 6) that “[m]otivation to select the claimed combinations must be taught by the prior art.”

In response, the examiner argues (Answer, page 4), “motivation for one to arrive at a specific combination need not be the same as applicants’.” According to the examiner (Answer, page 5) “selecting compounds from the combinations

² We note the abstract of Malfroy-Camine discloses that “[t]he invention provides antioxidant salen-metal complexes ... to treat or prevent a disease associated with cell or tissue damage produced by free radicals such as superoxide.”

taught by the reference and finding that the combination is effective against certain viruses ... is to be expected and not unexpected in nature.” With regard to Muller, the examiner agrees with appellant (id.) that “Muller does not teach or suggest that steroids would be expected to provide a beneficial effect when used in combination with antioxidants generally or in combination with specific antioxidant salen-metal complexes described by Malfroy-Camine.” However, the examiner argues (id.):

Muller is relied upon for its teachings of the knowledge in the art of TNF’s inflammatory nature and its activation of NFkB and thus, a potential activator for HIV and other retro[-]viruses inhibition, and for its’ teachings of the knowledge in the art of the suppression []of the effects of TNF by the steroids, dexamethasone and prednisolone.

As set forth in In re Kotzab, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000):

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. ... Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one “to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.” ...

Most if not all inventions arise from a combination of old elements. ... Thus, every element of a claimed invention may often be found in the prior art. ... However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. ... Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. [citations omitted]

In other words, “there still must be evidence that ‘a skilled artisan, ... with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.’” Ecolochem Inc. v. Southern California Edison, 227 F.3d 1361, 1375, 56 USPQ2d 1065, 1075-76 (Fed. Cir. 2000).

At best, the statement of the rejection establishes that individual parts of the claimed invention were known in the prior art, however, as appellant points out (Reply Brief, page 3) “[t]he question is always whether the prior art teaches or suggest the claimed combination, not whether a reference [or combination of references] lists all of the ingredients.” On this record, we agree with appellant that the prior art relied upon by the examiner fails to suggest appellant’s claimed invention. Accordingly, we reverse the rejection of claims 57-62 and 64-67 under 35 U.S.C. § 103 as being unpatentable over Malfroy-Camine alone or in combination with Muller.

Having determined that the examiner has not established a prima facie case of obviousness, we find it unnecessary to discuss the unexpected results relied on by appellants (Brief, page 12) to rebut any such prima facie case.

REVERSED

William F. Smith)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
Donald E. Adams)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
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Demetra J. Mills)	
Administrative Patent Judge)	

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PRICE HENEVELD COOPER
DEWITT & LITTON
695 KENMOORE SE
POST OFFICE BOX 2567
GRAND RAPIDS, MI 49501

DEA/jlb