

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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

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### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Ex parte ROSARIO DURAN, EVA ZUBIA,  
MARIA J. ORTEGA, JAVIER SALVA,  
JOSE LUIS FERNANDEZ PUENTES,  
DOLORES GARCIA GRAVALOS, and  
SANTIAGO NARANJO LOZANO

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Appeal No. 2006-1397  
Application No. 10/275,377

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ON BRIEF

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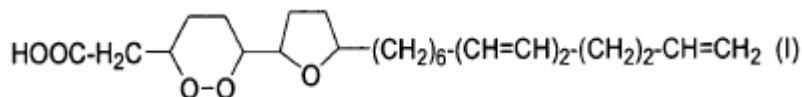
Before ADAMS, GRIMES, and GREEN, Administrative Patent Judges.

GREEN, Administrative Patent Judge.

#### DECISION ON APPEAL

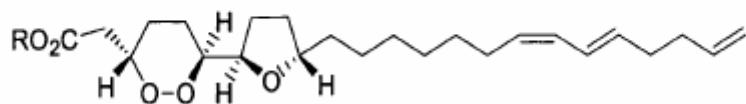
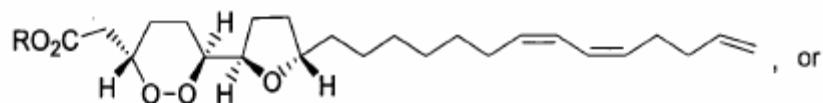
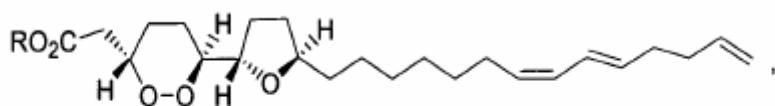
This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 8-11. Claims 8 and 11 are representative of the claims on appeal, and read as follows:

8. A method of treating a mammal affected by cancer, the method comprising administering to the affected mammal a therapeutically effective amount of a stolonoxide compound or a pharmaceutically acceptable composition thereof, the compound having a formula (I):



or a pharmaceutically acceptable salt, ester or amide derivative of the compound.

11. A stolonoxide compound, wherein the compound is:



wherein R is H, or a pharmaceutically acceptable salt, ester, or amide derivative of the compound.

Claims 8-11 stand rejected under 35 U.S.C. § 103(a) as being obvious over Fontana.<sup>1</sup> After careful review of the record and consideration of the issue before us, we reverse.

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<sup>1</sup> Fontana et al., "Structure and absolute stereochemistry of stolonoxide A, a novel cyclic peroxide from the marine tunicate Stolonica socialis," Tetrahedron Letters, Volume 41, pp. 429-432 (2000).

## DISCUSSION

According to the examiner,

Fontana [ ] teach[es] stolonoxide compounds 1 and 1a (cyclic peroxides). Fontana [ ] teach[es] the methods of use of cyclic peroxides for inhibiting tumor cell growth (anti-cancer), as anti-malaria and anti-microbial. Therefore, the Examiner assumes compounds 1 and 1a have anti-cancer activity absent a showing to the contrary. See page 429, paragraph 1.

Final Office Action, mailed 12/23/04, page 2.

The difference between the prior art and the claims, as set forth in the rejection, is that the claimed invention is drawn to a stolonoxide compound (I) and its isomer and their use in methods of treating cancer, and that Fontana fails to teach the claimed isomers and their use in treating cancer. See id. at 3. The rejection concludes:

However, a novel and useful isomer is prima facie obvious absent a showing of new and unexpected utilities. In re Norris, 84 USPQ 458 (1950). Therefore, the instant invention is prima facie obvious from the teaching of Fontana [ ]. One of ordinary skill in the art would have known to claim the compound, its isomers and their utility as anti-cancer at the time the invention was made. The motivation to claim stolonoxide, its isomers and their utility as anti-cancer agents is from the teaching of Fontana [ ], that cyclic peroxides have anti-cancer activities with the expectation that stolonoxide and its isomers being cyclic peroxides would have similar chemical and biological activities.

Id.

“In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant.” In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir.

1993) (citations omitted). The test of obviousness is “whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention.”

In re Gorman, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991).

Fontana teaches that “[s]tolonoxide A, a novel peroxide possessing an unprecedented molecular arrangement, has been isolated as its methyl ester from the marine tunicate Stolonica socialis.” Id., Abstract. Fontana goes on to teach that:

Linear and cyclic peroxides are quite common in marine organisms belonging mainly to the phylum Porifera. Some compounds of this family of natural products show interesting biological activities including inhibition of tumoral cell growth, antimalarial and antimicrobial properties. In search of new biologically active metabolites from marine sources, we have investigated the lipid extract of the Mediterranean tunicate Stolonica socialis (Hartmeyer Styelidae) collected in Tarifa, Straits of Gibraltar, South Spain, in June 1996. In this paper, we describe the structure elucidation of a novel peroxide compound that we have named stolonoxide A [ ].

Id. at 429.

Thus, as noted by Appellants, Fontana does not teach any biological activity for the stolonoxide A. See Appeal Brief, page 5. The Fontana reference merely teaches that some compounds of the family of linear and cyclic peroxides isolated from marine organisms may inhibit tumor growth. The reference, however, does not teach that stolonoxide A possesses any of those activities, and in fact teaches that stoloxinide A has an unprecedented molecular arrangement. Thus, at most, it merely would have obvious to try to use stoloxinide A in the treatment of cancer, “[b]ut, ‘obvious to try’ is not the standard,” and the rejection of claims 8-10 must be reversed. Ecolochem, Inc. v.

Southern California Edison Co., 227 F.3d 1361, 1374, 56 USPQ2d 1065, 1075 (Fed. Cir. 2000).

Claim 11 is not drawn to a method of treatment, but to stereoisomers of stolonoxide A. “When chemical compounds have ‘very close’ structural similarities and similar utilities, without more a prima facie case may be made.”

In re Grabiak, 769 F.2d 729, 731, 226 USPQ 870, 871 (Fed. Cir. 1985). “An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties.”

In re Payne, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). Thus, “a prior art compound may suggest its homologs because homologs often have similar properties and therefore chemists of ordinary skill would ordinarily contemplate making them to try to obtain compounds with improved properties.”

In re Deuel, 51 F.3d 1552, 1558, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995).

In this case, the Fontana provides no motivation to make the claimed compounds as it provides no biological activity for stolonoxide A. The rejection as to claim 11, therefore, must also be reversed.

CONCLUSION

Because the examiner has failed to set forth a prima facie case of obviousness, the rejection is reversed.

REVERSED

Donald E. Adams )  
Administrative Patent Judge )  
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 ) BOARD OF PATENT  
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Eric Grimes ) APPEALS AND  
Administrative Patent Judge )  
 ) INTERFERENCES  
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Lora M. Green )  
Administrative Patent Judge )

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