

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SUMEDHA D. JAYASENA and
BRIAN H. JOHNSTON

Appeal No. 95-2611
Application 07/808,452¹

ON BRIEF

Before WILLIAM F. SMITH, ELLIS, and ROBINSON, Administrative Patent Judges.

WILLIAM F. SMITH, Administrative Patent Judge.

¹ Application for patent filed December 13, 1991.

Appeal No. 1995-2611
Application 07/808,452

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 1 through 7, all the claims in the application.

Claim 1 is illustrative of the subject matter on appeal and reads as follows:

1. A viral polypeptide having site-specific viral-RNA binding, where said polypeptide is modified to contain a moiety capable of cleaving an RNA backbone.

The references relied upon by the examiner are:

Corey et al. (Corey), "Generation of a hybrid sequence-specific single-stranded deoxyribonuclease," Science, Vol. 238, pp. 1401-03 (1987)

Malim et al. (Malim), "Functional dissection of the HIV-1 Rev trans-activator-derivation of a trans-dominant repressor or Rev function," Cell, Vol. 58, pp. 205-14 (1989)

Ebright et al. (Ebright), "Conversion of a helix-turn-helix motif sequence-specific DNA binding protein into a site-specific DNA cleavage agent," Proc. Nat'l Acad. Sci., Vol. 87, pp. 2882-86 (1990)

Weeks et al. (Weeks), "Fragments of the HIV-1 Tat protein specifically bind Tar RNA," Science, Vol. 249, pp. 1281-85 (1990)

Claims 1 and 3 stand rejected under 35 U.S.C. § 112, first paragraph, as being non-enabled. The examiner does not rely upon any evidence in support of this rejection.

Claims 1 through 7 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Weeks, Malim, Ebright, and Corey. We reverse both rejections.

Enablement

In view of its brevity, we reproduce the examiner's statement of the rejection as it appears in the paragraph bridging pages 3-4 of the Answer:

The enablement of modified mature tat or rev with the listed cleaving agents such as Zn(II) or staphylococcal nuclease has not been demonstrated in the specification. Only tat₂₄-phen has been enabled. It would require undue experimentation to make and test these modified binding proteins for RNA cleavage because site-directed Cys substitutions and chemical alkylation of the binding protein to the agents would have unpredictable results and unpredictable activity.

As observed by appellants at page 6 of the Appeal Brief, the examiner is concerned that one skilled in the art could not make and use the claimed invention throughout its scope without undue experimentation.

As explained in PPG Indus., Inc. v. Guardian Indus. Corp., 75 F.3d 1558, 1564, 37 USPQ2d 1618, 1623 (Fed. Cir. 1996):

In unpredictable art areas, this court has refused to find broad generic claims enabled by specifications that demonstrate the enablement of only one or a few embodiments and do not demonstrate with reasonable specificity how to make and use other potential embodiments across the full scope of the claim. See, e.g., In re Goodman, 11 F.3d 1046, 1050-52, 29 USPQ2d 2010, 2013-15 (Fed. Cir. 1993); Amgen, Inc. v. Chugai Pharmaceutical Co., 927 F.2d 1200, 1212-14, 18 USPQ2d 1016, 1026-28 (Fed. Cir.), cert. denied, 502 U.S. 856 (1991); In re Vaeck, 947 F.2d at 496, 20 USPQ2d at 1445. Enablement is lacking in those cases, the court has explained, because the undescribed embodiments cannot be made, based on the disclosure in the specification, without undue experimentation. But the question of undue experimentation is a matter of degree. The fact that some experimentation is necessary does not preclude enablement; what is

Appeal No. 1995-2611
Application 07/808,452

required is that the amount of experimentation “must not be unduly extensive.” Atlas Powder Co., v. E.I. DuPont De Nemours & Co., 750 F.2d 1569, 1576, 224 USPQ 409, 413 (Fed. Cir. 1984). The Patent and Trademark Office Board of Appeals summarized the point well when it stated:

The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed to enable the determination of how to practice a desired embodiment of the invention claimed.

Ex parte Jackson, 217 USPQ 804, 807 (1982).

Here, all we have is the examiner’s assertion that one skilled in the art can only make and use the claimed invention throughout its scope through undue experimentation. Clearly, the fact finding needed in order to support this assertion has not been done by the examiner. Accordingly, we must reverse this rejection.

Obviousness

As stated in Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629, (Fed. Cir. 1996) (citation omitted):

It is well-established that before a conclusion of obviousness may be made based on a combination of references, there must have been a reason, suggestion, or motivation to lead an inventor to combine those references.

The examiner sets forth at page 4 of the Final Rejection (Paper No. 13, April 22, 1993), that the reason for combining the references was "to cleave RNA." The examiner distanced herself from this statement in the paragraph bridging pages 9-10 stating "The

cleaving of RNA encoding HIV proteins is beneficial [sic] to the prevention of viral replication." By this statement, we assume the examiner believes that the four references, relied upon, teach or suggest to one of ordinary skill in the art to make the claimed modified viral peptide with the expectation that it would work in vivo to prevent viral replication. However, the examiner has not pointed to any disclosure in the references in support of this conclusion. We remind the examiner that a conclusion of obviousness must be based upon facts, not generalities. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968); In re Freed, 425 F.2d 785, 788, 165 USPQ 570, 571 (CCPA 1970). Absent a more fact-based explanation from the examiner as to why the four references relied upon would have rendered the subject matter claimed obvious to one of ordinary skill in the art, we must reverse the rejection.

The decision of the examiner is reversed.

REVERSED

William F. Smith)
Administrative Patent Judge)
)
)
)
) BOARD OF PATENT
Joan Ellis)
Administrative Patent Judge) APPEALS AND
)
) INTERFERENCES
)

Appeal No. 1995-2611
Application 07/808,452

Douglas W. Robinson)
Administrative Patent Judge)

Law Offices of Peter J. Dehlinger
P.O. Box 60850
Palo Alto, CA 94306

dem