

UNITED STATES PATENT AND TRADEMARK OFFICE

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

Ex parte SANDRA L. GOULD,
DANIEL J. DISTEFANO,
DAVID K. ROBINSON, and
T. CRAIG SEAMANS

Appeal No. 2002-2284
Application No. 09/176,492

ON BRIEF

Before ADAMS, MILLS, and GRIMES, 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 1 and 3, which are all the claims pending in the application.

Claims 1 and 3 are reproduced below:

1. A Serum-free media for the production of rotavirus selected from the group consisting of LPKM-1, LPKM-2 and LPKM-3^[1].
3. A method of producing a vaccine against rotavirus comprising,
 - a) growing Vero cells in a media of Claim 1;

¹ The ingredients of each of LPKM-1, LPKM-2 and LPKM-3 are set forth in Table 1 of the specification.

make up for the deficiency in Taub, the examiner relies on Bettger. The examiner finds (Answer, page 4), Bettger “disclose serum-free medium supplemented with the peptide hormone insulin, the peptide growth factor EGF ... and the steroid hormone dexamethasone, among others. Based on this evidence, the examiner finds (id.):

It would have been obvious to one of ordinary skill in the art at the time of [sic] the invention was made to have added the serum-free medium supplements EGF and dexamethasone of Bettger et al. to the serum-free medium of Taub et al. because both Taub and Bettger teach that the growth-supporting properties of serum-free media are improved by addition and optimization of growth factors and peptide and steroid hormones.

In response appellants argue (Brief, page 4), with reference to Freshney² “that the use of serum-free media ‘is not as straightforward as it seems. Each cell type appears to require a different recipe....’” In this regard appellants point out that “Bettger used human fetal lung fibroblasts and Taub used dog kidney cells....” Id. In addition, appellants note (id.) that Taub states that no effect on growth was seen when adding EGF to K1 medium and that it was not routinely added.

Responding to appellants’ arguments, the examiner finds (Answer, page 7), “[c]ontrary to [a]ppellant’s [sic] assertion, Taub et al[.] indicate that the main

² CULTURE OF ANIMAL CELLS A Manual of Basic Technique, pp. 93-94 (3rd ed., R. Ian Freshney ed., Wiley-Liss, NY, NY, 1994).

components of Medium K-1 may very well support the growth of kidney cell lines other than canine kidney. Additionally, Taub et al. disclose that EGF increases the MDCK cell growth.” Upon review of Taub, it is our opinion that the examiner has misapprehended the facts in evidence. According to Taub (page 407), “Medium K-1 consists of serum-free medium (SFFD) supplemented with insulin, transferrin, prostaglandin E₁ (PGE₂), triiodothyronine (T₃), and hydrocortisone.” At page 408, Taub state “Norepinephrine, epidermal growth factor (EGF), and fibroblast growth factor (FGF) also increased MDCK cell growth.... However, the growth stimulatory effects of these factors were only observed in SFFD supplemented with insulin and transferrin, but not in Medium K-1.” Therefore, we cannot agree with the examiner’s statement (Answer, page 7) that Taub “through their disclosed use of EGF to promote MDCK cell growth would provide motivation for incorporating the teachings of Bettger et al.”

Prima facie obviousness based on a combination of references requires that the prior art provide “a reason, suggestion, or motivation to lead an inventor to combine those references.” Pro-Mold and Tool Co. v. Great Lakes Plastics Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996).

[E]vidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. . . . The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular.

In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (citations omitted). The suggestion to combine prior art references must come from the cited references, not from the application’s disclosure. See In re Dow

Chem. Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988).

On this record, we find that Taub teach that the stimulatory effect of, inter alia, EGF was not observed in Medium K-1. As a result, we find no suggestion in the combination of prior art relied upon to add EGF to Medium K-1. Therefore, it is our opinion that the examiner failed to provide the evidence necessary to meet his burden³ of establishing a prima facie case of obviousness.

Accordingly we reverse the rejection of claims 1 and 3 under 35 U.S.C. § 103 as obvious over Taub in view of Bettger.

Almeida in view of Taub, Bettger and Zhaolie:

The examiner relies on Almeida (Answer, page 4), to teach the production of rotavirus in Vero kidney cell cultures in serum-free medium. However, the examiner finds that Almeida differs from the claimed invention “by not propagating the Vero cell cultures in the absence of serum before the cells are infected with rotavirus.” Id. Therefore, the examiner relies on Zhaolie (Answer, pages 4-5), to teach the desirability of growing “Vero cell lines in the absence of serum in order to prevent contamination of adventitious agents....” In addition, the examiner relies on Taub and Bettger, as set forth above, to teach the claimed media.

Almedia and Zhaolie, however, fail to teach the claimed media. As explained above, Taub and Bettger fail to make up for the deficiency in Almedia and Zhaolie. Therefore, it is our opinion that the examiner failed to provide the

³ The initial burden of presenting a prima facie case of obviousness rests on the examiner. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

evidence necessary to meet his burden of establishing a prima facie case of obviousness.

Accordingly we reverse the rejection of claim 3 under 35 U.S.C. § 103 as obvious over Almeida in view of Taub, Bettger and Zhaolie.

REVERSED

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Donald E. Adams)	
Administrative Patent Judge)	
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Demetra J. Mills)	
Administrative Patent Judge)	APPEALS AND
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Eric Grimes)	
Administrative Patent Judge)	

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Merck and Co., Inc.
P.O. Box 2000
Rahway, NJ 07065-0907

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