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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TOSHIFUMI IMADA, SHUZHEN HAO, TATSURO TANAKA, MIKI TOMOE, EIICHIRO KIMURA, HISAYUKI UNEYAMA, and KUNIO TORII[1]

Appeal 2015-002977
Application 12/972,670
Technology Center 1600

Before ERIC B. GRIMES, RICHARD J. SMITH, and RYAN H. FLAX, *Administrative Patent Judges*.

FLAX, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) involving claims directed to a method for suppressing overeating. Claims 1–4, 6–11, and 13–15 are on appeal as rejected under 35 U.S.C. § 103(a). We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] We understand the Real Party in Interest is Ajinimoto Co., Inc. Br. 3.

STATEMENT OF THE CASE

The Specification states, "[t]his invention relates to agents for the inhibition, suppression, or prevention of overeating that have the effect of amplifying a sense of fullness or satiety, or sustaining the effect or of inhibiting appetite stimulation that arises regardless of whether one feels full with respect to sweets or delicacies or one has enough calorie intake for maintaining daily energy expenditure." Spec. ¶ 2. The Specification describes, *inter alia*, the "use of glutamic acid and/or at least one type of its salts for the purpose of manufacturing agents for the prevention of overeating." *Id.* ¶ 15. The Specification also describes "[t]he data indicates that MSG provides a superior effect of satiety,"—MSG, or monosodium glutamate (also known as sodium glutamate), is the sodium salt of glutamic acid. *Id.* ¶ 123.

The Specification explains that an "EDI Section A score" above zero is indicative of a person with "drive for thinness," and, therefore, indicates a suitable target for therapy with the invention. *See, e.g.*, *id.* ¶ 34–35, 132. The Specification explains that EDI stands for "Eating Disorder Inventory" and consists of questionnaires of three sections; section A relates to "Drive for Thinness," and is indicative of excessive concern with dieting, preoccupation with weight, and entrenchment in an extreme pursuit of thinness. *Id.* ¶ 131 (citing Garner et al., *Development and Validation of a Multidimensional Eating Disorder Inventory for Anorexia Nervosa and Bulimia*, 2 INT'L J. EATING DISORDER 15-34 (1983)).

The appealed claims can be found in the Claims Appendix of the Appeal Brief. Claims 1 and 9 are the independent claims.[2] Claim 1 is representative and reads as follows:

> 1. A method for suppressing overeating, said method comprising ingesting at least one substance selected from the group consisting of glutamic acid and a salt thereof, in an amount sufficient to suppress overeating, by a person who needs suppression of overeating, wherein said person is a person who has drive for thinness as indicated by their EDI Section A score.

Br. 17 (Claims App'x).

The following rejection is on appeal:

Claims 1–4, 6–11, and 13–15 stand rejected under 35 U.S.C. § 103(a) over Ferguson.[3] Final Action 3.

DISCUSSION

We adopt the Examiner's findings of fact, reasoning on scope and content of the prior art, and conclusions set out in the Final Action and Answer.

The rejection of claim 1 under 35 U.S.C. § 103(a) over Ferguson.

The Examiner determined that Ferguson disclosed curbing appetite by ingesting glutamic acid and/or a salt thereof, e.g., MSG. Final Action 3. Appellants do not dispute this. *See* Br. 11–14. Rather, in arguing patentability, Appellants focus on the Examiner's concession that "Ferguson

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[2] "Claims 2-4 and 6-8 stand or fall with Claim 1; Claims 10, 11, and 13-15 stand or fall with Claim 9." Br. 6; *see also* 37 C.F.R. § 41.37(c)(1)(iv) (claims argued together, fall together).

[3] U.S. Patent No. 2,631,119 (issued to Edgar A. Ferguson on Mar. 10, 1953) (hereinafter "Ferguson").

does not specifically disclose identifying a person who thinks about dieting (i.e. has a non-zero EDI Section A score), and prescribing a food comprising glutamic acid, wherein the person has a drive for thinness." *See* Final Action 3 and Br. 11. Appellants contend that, prior to the invention, it was understood in the art that MSG, in particular, was an appetite stimulant and that there was no correlation between an EDI score (indicative of drive for thinness) and appetite suppression with MSG. Br. 12–14; *see also* Declaration of Graham Finlayson Under 37 C.F.R. § 1.132 dated Aug. 8, 2013 (hereinafter "Finlayson Decl.") (submitted by Appellants). Appellants' arguments are not persuasive.

Appellants' evidence does not support their contention that it was understood in the art that MSG was an appetite stimulant, rather than suppressant. The references cited in the Finlayson Decl. are not conclusive on the matter. Some indicate that MSG might stimulate appetite. *See, e.g.*, Yeomans[4] at 958 (Abstract). Others are indeterminate. *See, e.g.*, Luscombe[5] at 929 (Abstract) and 935 (right col.); Beyreuther[6] at 307; Yamamoto[7] at

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[4] Martin R. Yeomans et al., *Acquired Flavor acceptance and Intake Facilitated by Monosodium Glutamate in Humans*, 93 PHYSIOLOGY & BEHAVIOR 958–66 (2008) (hereinafter "Yeomans").
[5] Natalie D. Luscombe-Marsh et al., *The Addition of Monosodium Glutamate and Inosine Monophosphate-5 to High-protein Meals: Effects on Satiety, and Energy and Macronutrient Intakes*, 102 BRITISH J. NUTRITION 929–37 (2009) (hereinafter "Luscombe").
[6] K. Beyreuther et al., *Consensus Meeting: Monosodium Glutamate – an Update*, 61 EURO. J. CLIN. NUTRITION 304–13 (2007) (hereinafter "Beyreuther").
[7] Shigeru Yamamoto et al., *Can Dietary Supplementation of Monosodium Glutamate Improve the Health of the Elderly?* 90 AM. J. CLIN. NUTRITION 844S–9S (2009) (hereinafter "Yamamoto").

848S (left col.). Others indicate that MSG may suppress appetite. *See, e.g.*, Essed[8] at 149; Rogers[9] at 801 (Abstract), 802 (right col.), 803 (right col.); Bellisle 1[10] at 434 (right col.); Bellisle 2[11] at 106 (Fig. 1); and Bellisle 3[12] at 870–72 (*see* data tables regarding intake). None of the references take a definitive position on the matter and because of their inconsistency, we do not find that Appellants' alleged evidence that "nearly six decades of research and disclosures [would] uniformly guide those of ordinary skill in the art directly away from the claimed combinations" (*see* Br. 14) to be persuasive.

Further, the evidence presented by Appellants is not commensurate with the scope of the claims, which encompasses glutamic acid (and its salts), generally, and is not limited to MSG. Even were the evidence to indicate that those of ordinary skill in the art as of the invention date

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[8] Natasja H. Essed et al., *No Effect on Intake and Liking of Soup Enhanced with Mono-sodium Glutamate and Celery Powder Among Elderly People with Olfactory and/or Gustatory loss*, 60 INT'L J. FOOD SCI. AND NUTRITION 143–54 (2009) (hereinafter "Essed").

[9] Peter J. Rogers and John E. Blundell, *Umami and Appetite: Effects of Monosodium Glutamate on Hunger and Food Intake in Human Subjects*, 48 PHYSIOLOGY & BEHAVIOR 801–04 (1990) (hereinafter "Rogers").

[10] France Bellisle, *Glutamate and the UMAMI Taste: Sensory, Metabolic, Nutritional and Behavioural Considerations. A Review of the Literature Published In the Last 10 Years*, 23 NEUROSCIENCE AND BIOBEHAVIORAL REV. 423–38 (1999) (hereinafter "Bellisle 1").

[11] France Bellisle et al., *Monosodium Glutamate and the Acquisition of Food Preferences in a European Context*, 1 FOOD QUALITY AND PREFERENCE 103–08 (1989) (hereinafter "Bellisle 2").

[12] F. Bellisle et al., *Monosodium Glutamate as a Palatability Enhancer in the European Diet*, 49 PHYSIOLOGY & BEHAVIOR 869–73 (1991) (hereinafter "Bellisle 3").

understood MSG to be an appetite stimulant, this would not be determinative with respect to claims directed to glutamic acid, generally. Appellants' evidence is also not commensurate with the breadth of the Ferguson disclosure, which indicates its appetite-suppressing "invention includes sodium glutamate, salt, a protein hydrolysate, and glutamic acid," together, which is within the scope of appealed claim 1 and also not limited to only MSG. For these reasons, the evidence is not persuasive.

Further, claim 1 recites, "said person [who needs suppression of overeating] is a person who has drive for thinness as indicated by their EDI Section A score," which is not expressly disclosed by Ferguson, but would, nonetheless have been obvious in view thereof. *See* Final Action 3–4. The Specification indicates that a "non-zero EDI Section A [drive for thinness] score" exemplifies a person who has "drive for thinness" and is, therefore, suitable for treatment by the method of the invention. Spec. ¶¶ 34–35. Appellants argue, citing the Finlayson Decl., "a non-zero EDI score is not indicative of a drive for thinness," but the Specification contradicts this attorney argument, as identified above.

Moreover, the Finlayson Decl. states both that "I agree it is self-evident that the original patent by Ferguson, U.S. Patent No. 2,631,119, describing an appetite-suppressing application for glutamate would be applicable to a person who 'thinks about dieting' (also contributing part of the psychometric EDI trait named 'Drive for thinness')," and also, "[t]herefore, a 'non-zero score' on the EDI drive for thinness subscale would not be very discriminatory as it would apply to the great majority of the general population and would be an [sic] clear extension to the patent filed

by Ferguson." Finlayson Decl. ¶ 4. These statements are not consistent with Appellants' arguments, but indicate that almost anyone would achieve an EDI drive for thinness score to place them within the scope of the claims. A non-zero score is all claim 1 requires, in view of the Specification (*see* Spec. ¶¶ 34–35 and 131–132; *see also* claim 6). Based on the above, the preponderance of evidence supports the Examiner's determination that it would have been obvious to give the appetite suppressing glutamic acid (or its salt, MSG) to a person who thinks about dieting, who would also be someone that would score above "zero" on the EDI Drive for thinness questionnaire subscale.

For the reasons above, we affirm the obviousness rejection of claim 1 and its depending claims.

The rejection of claim 9 under 35 U.S.C. § 103(a) over Ferguson.

Claim 9 is similar to claim 1 and is directed to a method of suppressing overeating by prescribing glutamic acid (or a salt thereof) or a food or drink having glutamic acid (or a salt thereof) added to it, and the patient has an EDI Section A score indicating a drive for thinness. For the same reasons as set forth above regarding the obviousness of claim 1 and its depending claims, claim 9 would likewise have been obvious over Ferguson and we affirm the rejection of claim 9 and its depending claims.

SUMMARY

The rejection of claims 1–4, 6–11, and 13–15 under 35 U.S.C. § 103(a) over Ferguson is affirmed. Claims 2–4 and 6–8 fall with claim 1 and claims 10, 11, and 13–15 fall with claim 9. 37 C.F.R. § 41.37(c)(1)(iv).

TIME PERIOD FOR RESPONSE

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

AFFIRMED