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<th>APPLICATION NO.</th>
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<th>FIRST NAMED INVENTOR</th>
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<td>Anne Eichinger</td>
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Please find below and/or attached an Office communication concerning this application or proceeding.

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This appeal involves claims directed to a method of promoting increased muscle protein formation and/or amelioration of loss of muscle protein in a human or an animal. The Examiner finally rejected the claims as obvious under 35 U.S.C. § 103(a). We have jurisdiction under 35 U.S.C. § 134. The obviousness rejection is affirmed.
STATEMENT OF CASE

Appellants appeal from the Examiner’s rejection of claims 18, 24–26, 28, and 30–32 under 35 U.S.C. § 103(a) (pre-AIA) as obvious in view of Wagner and Yamaguchi.

The Examiner withdrew rejections of the claims based on 35 U.S.C. § 112, first and second paragraphs. Claim 18, the only independent claim on appeal, reads as follows:

18. A method for promoting an increased muscle protein formation and/or amelioration of loss of muscle protein in a human or an animal which comprises:
   a) administering to said human or animal experiencing an adverse health condition, involved in sports or workouts, convalescing, or, if a non-human animal in need of enhancement of growth and performance a composition consisting of a muscle protein forming effective amount of β-cryptoxanthin and a galenical carrier for 7 days; and
   b) observing muscle protein formation and/or amelioration of loss of muscle protein.

REJECTION

The Examiner found that Wagner describes administering vitamin supplements to a population of elderly people engaged in aerobic endurance training. The Examiner acknowledged that Wagner does not describe administering β-cryptoxanthin. However, the Examiner found that Wagner reported that plasma levels of β-cryptoxanthin

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significantly increased in the treated elderly population. *Id.* at 6. Based on this result, the Examiner found that it would have been obvious to administer a supplement comprising β-cryptoxanthin. The Examiner found that Yamaguchi describes such a supplement. *Id.* at 7.

**DISCUSSION**

The Examiner found that Yamaguchi describes administering a supplement comprising β-cryptoxanthin to patients to prevent or treat bone disease. Final Act. 17 (*see* Yamaguchi 1:7–14; 7:18–26). The Examiner found that the amount of β-cryptoxanthin in Yamaguchi’s supplement (see Yamaguchi 18:10–13) overlaps with the effective amounts described in the ’618 Application involved in this appeal (*see* ’618 Application 2:29–33; 3:30 to 4:3). *Id.* at 18. The Examiner also found that Yamaguchi describes administering an amount of β-cryptoxanthin within the range of rejected claim 31, i.e., 7 mg. *Id.* The Examiner concluded:

> Therefore, the amounts administered by Yamaguchi are taken to satisfy the required “amount” limitation of claim 18. The administration of the required composition containing the required amount of β-cryptoxanthin to an animal meets the required step of claim 18. Yamaguchi establishes that the same β-cryptoxanthin active compound taught by Wagner, in amounts required by claims 28 & 30–31, has an additional benefit of as an osteogenesis promoter, to prevent and treat bone diseases. Thus, use of β-cryptoxanthin would have been expected not only to increase strength, but also benefit the bones, providing an additional motivation to administer this compound over the 7 days in the Yamaguchi example. *Id.* at 18–19; *see also* Yamaguchi at 18:10–13 (*disclosing* β-cryptoxanthin at 10, 25 and 60 µg/ml corn oil orally administered to rats in an amount /100 g body weight with a probe once a day for 7 days).
In other words, the Examiner made express findings that Yamaguchi describes administering β-cryptoxanthin to a “human . . . experiencing an adverse health condition” (i.e., with a bone disease) in the same amounts required by the claims. *Id.* Because the amounts of β-cryptoxanthin are the same, it would have reasonably expected that Yamaguchi would have achieved the claimed increase in muscle protein or amelioration of loss of muscle protein. The Examiner further stated that there would have been an expectation that Yamaguchi’s composition would “increase strength” which we understand to refer to “muscle strength” and a purpose of claim 18 (“enhancement of growth and performance”). Final Act. 4 (last sentence).

Appellants did not identify an error in the Examiner’s findings regarding Yamaguchi’s teaching of administering amounts of β-cryptoxanthin which would accomplish the claimed requirement that of “increased muscle protein formation and/or amelioration of loss of muscle protein.”

Appellants state that Yamaguchi “is silent as to its use in increasing muscle synthesis.” Appeal Br. 13. However, it is not necessary that Yamaguchi have recognized that administering β-cryptoxanthin increased muscle protein formation because Yamaguchi carried out the same step as recited in claim 18 and thus would have been reasonably expected to achieve the same result. It is well-established that merely recognizing something that was not known before is insufficient to render an old process again patentable. *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1351 (Fed. Cir. 2002). *See also In re Woodruff*, 919 F.2d 1575 (Fed. Cir. 1990); *In re Omeprazole Patent Litig.*, 483 F.3d 1364, 1373 (Fed. Cir. 2007). The recitation of “b) observing muscle protein formation and/or amelioration of loss of muscle protein” as recited in claim 18, does not distinguish the
claimed method over Yamaguchi because merely *recognizing* that the claimed \( \beta \)-cryptoxanthin affects muscle protein formation and loss does not change how the process is performed. The only difference is that Appellants have recognized an inherent result of an old process.

Because Appellants did not identify a reversible error in the Examiner’s rejection, we affirm the rejection of claims 18 as obvious. It is unnecessary for us to address the teachings in Wagner because Yamaguchi, alone, is sufficient to render the claims unpatentable. Claims 24–26, 28, 30, 31, and 32 fall with claim 18 because separate reasons for their patentability were not provided. 37 C.F.R. § 41.37(c)(1)(iv).

**DECISION**

We affirm the Examiner’s decision rejecting claims 18, 24–26, 28, and 30–32.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

**AFFIRMED**