wiley

ALERT

Federal Circuit Patent Bulletin: *Butamax™ Advanced Biofuels LLC v. Gevo, Inc.*

February 18, 2014

"To act as its own lexicographer, a patentee must 'clearly set forth a definition of the disputed claim term' other than its plain and ordinary meaning." "It is not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments, the patentee must 'clearly express an intent' to redefine the term."

On February 18, 2014, in *Butamax™ Advanced Biofuels LLC v. Gevo, Inc.*, the U.S. Court of Appeals for the Federal Circuit (Rader, Linn,* Wallach) reversed-in-part, vacated-in-part and remanded, inter alia, the district court's summary judgment that Gevo did not infringe U.S. Patents No. 7,851,188 and No. 7,993,889, which related to a recombinant microbial host cell that uses a particular biosynthetic pathway to produce isobutanol for use as a fuel or fuel additive. The Federal Circuit stated:

Generally, claim terms are: given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history. There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution. "To act as its own lexicographer, a patentee must 'clearly set forth a definition of the disputed claim term' other than its plain and ordinary meaning." "It is not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments, the patentee must 'clearly express an intent' to redefine the term."

The initial inquiry is whether the plain meaning of KARI [or keto-acid reductoisomerase] indicates that the enzyme is NADPH-dependent. While the district court found that "the scientific references almost exclusively characterize KARI enzymes as NADPH-dependent," there is nothing in the record to indicate that persons of ordinary skill in the art in 2005 understood the plain meaning to be limited to dependence on NADPH as a cofactor. . . . It cannot be disputed that the patentees offered a definition of KARI. It is disputed, however, whether this definition "clearly expresses an intent" to redefine KARI in a way that differs from the plain and ordinary meaning [and] if so, the extent of any such difference.

[We] find no reason to constrict the phrase "using NADPH" to mean "only use NADPH" or "NADPH-dependent." . . . The patents' definition at least excludes as-yet-undiscovered KARI enzymes that could catalyze the conversion of AL [acetolactate] to DHIV [2,3-dihydroxyisovalerate] without using NADPH [nicotinamide adenine dinucleotide phosphate + hydrogen] at all. Moreover, the description of specific types of KARI as NADPH-dependent does not clearly express an intent to redefine all KARI "using NADPH" as KARI that must be NADPH-dependent. . . . [T]he references to other enzymes as either using NAD+ or using NADH and/or NADPH do not imply that the patentees intended to limit KARI's use of NADH. . . .

The '188 patent's claim 1 explicitly states that the enzyme in question is "acetohydroxy acid isomeroreductase having the EC number 1.1.1.86" [which] identifies NADP+ as the cofactor, but does not itself mention NAD+ or NADH. The EC rules provide that for an enzyme "using" both NADH and NADPH, the entry should "always" name both cofactors. [But] the EC nomenclature was drafted to categorize naturally-occurring enzymes [and] new EC numbers generally are not created for modified forms of enzymes that might rely on different cofactors. . . . Other aspects of the patents raise further doubt of any express intent to redefine KARI in the limited way adopted by the district court. . . . The district court's claim construction, without justification, excludes a preferred embodiment, which in this case also is the subject of dependent claim 15, and this court "normally do[es] not interpret claim terms in a way that excludes embodiments disclosed in the specification." [In addition,] the court does not consider the prosecution history to warrant any limitation of the claimed KARI as being NADPH-dependent. . . . For all of the foregoing reasons, the term "acetohydroxy acid reductoisomerase" is construed as "an enzyme, whether naturally occurring or otherwise, known by the EC number 1.1.1.86 that catalyzes the conversion of acetolactate to 2,3-dihydroxyisovalerate." . . . The court accordingly vacates the district court's denial of Butamax's motion for summary judgment of infringement of claims 1, 2–4, 13–15, 17–25, and 34–36 of the '188 patent and claims 1, 2–14, and 16 –19 of the '889 patent and directs the district court to reconsider the question under this court's new claim construction. . . .

When determining whether a specification contains adequate written description, one must make an "objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." Because the specification is viewed from the perspective of one of skill, in some circumstances, a patentee may rely on information that is "well-known in the art" for purposes of meeting the written description requirement.

The district court concluded that while the patent's specification "may be interpreted as identifying both the[ ] problem and the solution, it does not even begin to describe how to put into practice the solution." . . . Butamax contends that irrespective of what is explicitly taught in the specification itself, it was well-known in the art how to deactivate the genes that express the pathway. . . . Butamax has identified sufficient evidence that at least creates a genuine dispute of material fact . . . with respect to whether in 2005 it was generally well-known in the art how to deactivate the genetic pathway such that a person of ordinary skill in the art reading the '889 patent would understand the patentees to have possessed the invention claimed in claims

12 and 13. For these reasons, the district court's grant of Gevo's motion for summary judgment of invalidity of claims 12 and 13 for lack of adequate written description is reversed.