UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BUTAMAXTM ADVANCED BIOFUELS LLC

Petitioner

v.

GEVO, INC.

Patent Owner

CASE IPR: Unassigned

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,273,565 B2 UNDER 35 U.S.C. §§ 311-319 and 37 C.F.R. §§ 42.1-.80, 42.100-.123

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VI.		ATEMENT OF THE PRECISE RELIEF REQUESTED AND THE ASONS THEREFOR (37 C.F.R. § 42.104(b))				
	A.	The '565 patent 5				
	B.	Person of ordinary skill in the art				
	C.	Claim construction				
		1. "Inactivated"7				
		 "Engineered" recombinant yeast microorganisms comprising inactivated GRX3 and/or GRX4 protein that "results from the deletion of one or more nucleotides of an endogenous gene encoding said monothiol glutaredoxin, the insertion of one or more nucleotides into an endogenous gene encoding said monothiol glutaredoxin, or combinations thereof"				
		3. Yeast genera/species 10				
		4. DHAD localization				
	D.	Identification of Challenge (37 C.F.R. § 42.104(b)) 11				
		1. Ground 1: claims 1-8 and 11-19 are anticipated by Flint 12				
		 (a) None of claims 1-19 is entitled to the benefit of the filing dates of the '952 or '209 provisional applications				
		 (i) The provisional applications do not describe the full scope of inactivated GRX3 and/or GRX4 of claims 1- 19 of the '565 patent				
		 (ii) The provisional applications do not describe the full genus of nucleotide deletions, insertions, or 				

			combinations of deletions and insertions into endogenous GRX3 and/or GRX4 genes
			(iii) The provisional applications do not describe the broad scope of yeast genera or species of claims 1-16 and 18-19 of the '565 patent, as acknowledged by the PTO 24
			 (iv) The provisional applications do not describe expressing mitochondrially-localized DHAD, as acknowledged by the PTO
		(b)	Flint anticipates claims 1-8 and 11-19
	2.		und 2: claims 1-4, 6-8 and 11-19 would have been obvious over hony in view of Puig and Ojeda
		(a)	The knowledge of a POSA prior to the '565 patent
		(b)	Claims 1-4, 6-8 and 11-19 would have been obvious over Anthony in view of Puig and Ojeda
		(c)	The art does not teach away from modifying a yeast containing recombinantly overexpressed DHAD
	3.		und 3: claim 5 would have been obvious over Anthony in view uig and Ojeda, and further in view of the '376 publication 47
	4.		und 4: claim 9 would have been obvious over Anthony in view uig and Ojeda, and further in view of van Maris
	5.		und 5: claim 10 would have been obvious over Anthony in view uig and Ojeda, and further in view of Overkamp
	6.		o's alleged unexpected results do not rebut the <i>prima facie</i> iousness
		(a)	Increased activity of recombinant overexpressed DHAD in yeast lacking GRX would have been expected
		(b)	Gevo's proffered evidence of unexpected results is not reasonably commensurate with the scope of the claims
VII.	PREVA	AIL V	A REASONABLE LIKELIHOOD THAT PETITIONER WILL WITH RESPECT TO AT LEAST ONE OF THE GED CLAIMS
VIII.	CONC	LUS	ION

1 I. INTRODUCTION

BUTAMAXTM ADVANCED BIOFUELS LLC'S ("Petitioner") Petition for *Inter Partes* Review ("Petition") seeks cancellation of claims 1-19 of U.S. Patent No.
8,273,565 ("the '565 patent") (BMX1001).

5 II. OVERVIEW

Inter partes Review ("IPR") was established to improve patent quality and, 6 if warranted, cancel unpatentable claims. IPR is warranted, presently, because the 7 challenged claims should never have issued in view of the prior art. The limited 8 disclosure in its provisional applications does not support the '565 patent's claim 9 for priority benefit, and claims 1-8 and 11-19 are anticipated by intervening prior 10 art. In addition, the combinations of art identified herein — none of which were 11 before the original Examiner — show that a person of ordinary skill in the art 12 ("POSA") had a reason, and the know-how, to arrive at the recombinant yeast and 13 method, claimed in the '565 patent, with a reasonable expectation of success, 14 regardless of the priority date to which the claims are entitled. 15

During original prosecution, patent owner Gevo, Inc., ("Gevo") overcame prior art rejections by arguing that (i) the art taught away from the claimed yeast, and (ii) the claimed yeast had some alleged unexpected property. But, as shown herein, Gevo's arguments in both respects were directed, not to a *recombinant* yeast as claimed, but instead to a *native* yeast. As explained in detail below and supported by the accompanying declaration of Dr. Dennis J. Thiele, ("Thiele
Dec." BMX1002), the art would not have dissuaded a POSA from arriving at the
claimed *recombinant* yeast. Moreover, a POSA would have expected such a *recombinant* yeast to act in line with Gevo's alleged unexpected property. Thus,
Gevo's arguments in favor of patentability made during original prosecution
should be accorded no weight.

In sum, a further review of the '565 patent claims is necessary because (i) 7 the art presented in the Petition demonstrates that the claims of the '565 patent 8 were either taught in the art or would have been obvious in view of the art 9 combinations presented herein; and (ii) Gevo's alleged teaching away and 10 unexpected property asserted do not relate to the claimed recombinant yeast, but 11 instead relate only to native yeast. There is a reasonable likelihood that Petitioner 12 will prevail with respect to at least one of the challenged claims in view of the 13 prior art discussed herein. IPR of the '565 patent is warranted. 14

15 III. MANDATORY NOTICES

Real party-in-interest (37 C.F.R. § 42.8(b)(1)): BUTAMAX[™] ADVANCED
 BIOFUELS LLC ("Petitioner") is the real party-in-interest.

Related matters (37 C.F.R. § 42.8(b)(2)): <u>Administrative Matters:</u> U.S.
Patent No. 8,273,565 issued from U.S. Patent Appl. No. 13/246,693, filed
September 27, 2011. The '693 application is a division of U.S. Patent Appl. No.

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