PATENT ASSIGNMENT

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| SUBMISSION TYPE: | | NE | NEW ASSIGNMENT | | |
|--|------------------------------------|----------|-----------------|----------------|--|
| NATURE OF CONVEYANCE: | | AS | ASSIGNMENT | | |
| CONVEYING PARTY DATA | | | | | |
| N | | | e | Execution Date | |
| Danisco US Inc. 02/24/2012 | | | | | |
| RECEIVING PARTY DATA | | | | | |
| Name: Th | The Goodyear Tire & Rubber Company | | | | |
| Street Address: 11 | 1144 East Market Street | | | | |
| City: Ak | Akron | | | | |
| State/Country: | ОНЮ | | | | |
| Postal Code: 44 | 44316 | | | | |
| PROPERTY NUMBERS Total: 2 | | | | | |
| Property Type | | Number | | | |
| Application Number: 1 | | 12560390 | | | |
| US | | 0957007 | | | |
| PCT Number: US0957007 CORRESPONDENCE DATA | | | | | |
| Fax Number: (650)845-6504 | | | | | |
| Phone: 650.846.5838 | | | | | |
| Email: cynthia.mcmorrow@danisco.com | | | | | |
| Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail. Correspondent Name: Aric WLL edford | | | | | |
| Correspondent Name: | Aric W. Ledford | | | | |
| Address Line 1: | 925 Page Mill Road | | | | |
| Address Line 2: | Danisco US Inc. | | | | |
| Address Line 4: Palo Alto, CALIFORNIA 94304-1013 | | | | | |
| ATTORNEY DOCKET NUMBER: | | 314 | 314147US-2 | | |
| NAME OF SUBMITTER: | | Ario | Aric W. Ledford | | |
| Total Attachments: 2 source=31417US-2_DaniscoToGdyrAssign#page1.tif source=31417US-2_DaniscoToGdyrAssign#page2.tif | | | | | |

ASSIGNMENT

THIS ASSIGNMENT, by Danisco US Inc. (hereinafter referred to as the "Assignor"), having its principal place of business at 925 Page Mill Road, Palo Alto, California 94304 USA, witnesseth:

WHEREAS, said Assignor, is the sole owner by assignment from Zachary Q. Beck, Anthony R. Calabria, Michael C. Miller, Dmitrii V. Vaviline, and Alex T. Nielsen of

U.S. Patent Application No. 12/560,390, filed on September 15, 2009 entitled INCREASED ISOPRENE PRODUCTION USING THE ARCHAEAL LOWER MELVALONATE PATHWAY, and

PCT Application No. PCT/US2009/057007, filed September 15, 2009 entitled INCREASED ISOPRENE PRODUCTION USING THE ARCHAEAL LOWER MELVALONATE PATHWAY, the inventions described therein; and

WHEREAS, The Goodyear Tire & Rubber Company, a corporation duly organized under and pursuant to the laws of Ohio and having its principal place of business at 1144 East Market Street, Akron, Ohio 44316 (hereinafter referred to as the "Assignee") is desirous of acquiring 50% of the entire right, title and interest in and to said inventions and said application for Letters Patent of the United States, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon:

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, said Assignor has sold, assigned, transferred and set over, and by these presents sells, assigns, transfers and sets over, unto said Assignee, its successors, legal representatives and assigns, 50% of the entire right, title and interest in and to the above-mentioned inventions. in whatsoever countries, including all full utility, divisional, renewal, substitute, continuation, continuations-in-part having the same priority date, Patent Cooperation Treaty, National or Regional, and Paris Convention applications based in whole or in part upon said inventions or upon said Patent Application, all rights under the International Convention for the Protection of Industrial Property arising from said inventions, said Patent Application and said applications, and any and all Letters Patent or Patents in the United States of America and all foreign countries and reissues and extensions of said Letters Patent or Patents granted for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said Patent Application, said applications and said Letters Patents or Patents; the same to be held and enjoyed by said Assignee, for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignor, had this sale and assignment not been made.

AND for the same consideration, said Assignor hereby covenants and agrees to and with said Assignee its successors, legal representatives and assigns, that, to the best of Assignor's knowledge and belief at the time of execution and delivery of these presents, said Assignor is the sole and lawful owner of the entire right, title and interest in and to said inventions and the Patent Application above-mentioned, and that the same are unencumbered and that said

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PATENT REEL: 027800 FRAME: 0586

Client Reference No. 31417US-2

Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND, subject to any other agreements between Assignee and Assignor concerning any proceeding in connection with said inventions, the Patent Application or said applications for Letters Patent or Patents, or any proceeding in connection with said Letters Patents or Patents for said inventions in any country, including interference proceedings, said Assignor hereby agrees to and with said Assignee, its successors, legal representatives and assigns, that said Assignor will, whenever Assignee or its successors, legal representatives or assigns controls such proceeding in connection with said inventions, the Patent Application or said applications for Letters Patent or Patents, or any proceeding in connection with said Letters Patents or Patents for said inventions in any country, including interference proceedings, and counsel of said Assignee, or the counsel of its successors, legal representatives or assigns, shall reasonably advise that such proceedings is lawful and desirable, or that any division, continuation or continuation-in-part having the same priority date of any of said applications for Letters Patent or Patents or any reissue or extension of any Letters Patent or Patents, to be obtained thereon, is lawful and desirable, sign all reasonable papers and reasonable documents, take all reasonable lawful oaths, and do all reasonable acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any of said Letters Patent or Patents for said inventions, at the cost and expense of said Assignee, its successors, legal representatives or assigns, and with reasonable reimbursement to Assignor by Assignee, its successors, legal representatives or assigns, of the reasonable costs and expenses of said Assignor in so doing, but without any further consideration to Assignor by Assignee.

AND said assignor hereby requests the Commissioner of Patents to issue said Letters Patent of the United States to said Assignee as the 50% Assignee of said inventions, said Patent Application, and said applications, and the Letters Patent to be issued thereon for the use of said Assignee, its successors, legal representatives or assigns as a 50% owner, subject to any other agreements between the Assignee and Assignor with respect to said use.

IN TESTIMONY WHEREOF, I undersign as follows:

Signed at Palo Alto, California, this 24 day of February 2012. By:

Soonhee Jang, Vice President, IP Strategy and Chief IP Counsel Industrial Biosciences, Danisco US Inc.

SIGNATURE WITNESSED BY:

Date: February 37,2012 Witness Signature: Achin C. McMorrow Printed Name of Witness: Cynthia C. McMorrow