FORM PTO-1619A Expires 06/30/99 OMB 0651-0027 OCT 2 5 2004	U.S. Department of Commerce Patent and Trademark Office PATENT	
RECO	102871245	
	PATENTS ONLY	
TO: The Commissioner of Patents and Trademarks Submission Type	s: Please record the attached original document(s) or copy(ies). Conveyance Type	
✓ New	Assignment Security Agreement	
Resubmission (Non-Recordation) Document ID#	License Change of Name	
Correction of PTO Error Reel # Frame #	Merger	
Corrective Document	U.S. Government (For Use ONLY by U.S. Government Agencies)	
Reel # Frame #	Departmental File Secret File	
Conveying Party(ies)	Mark if additional names of conveying parties attached Execution Date Month Day Year	
Name (line 1) BROOKHAVEN SCIENCE ASSOCIA		
Name (line 2)	For each of Both	
Second Party	Execution Date Month Day Year	
Name (line 1)		
Name (line 2)		
Receiving Party	Mark if additional names of receiving parties attached	
Name (line 1) UNITED STATES DEPARTMENT O	is an assignment and the	
Name (line 2)	receiving party is not domiciled in the United States, an appointment	
Address (line 1) 1000 INDEPENDENCE AVENUE	of a domestic representative is attached. (Designation must be a	
Address (line 2)	separate document from Assignment.)	
Address (line 3) WASHINGTON	DC 20585	
City	State/Country Zip Code	
Domestic Representative Name and Address Enter for the first Receiving Party only.		
Name UNITED STATES DEPARTMENT O	DF ENERGY	
Address (line 1) 1000 INDEPENDENCE AVENUE		
Address (line 2)		
Address (line 3)		
Address (line 4)		

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Mail documents to be recorded with required cover sheet(s) information to:

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

FOR OFFICE USE ONLY

FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
Correspondent Name and	Address Area Code and Telephone Number	630-252-2042
Name ROBERT J. FISHER		
Address (line 1) U.S. DEPARTMENT	OF ENERGY	
Address (line 2) INTELLECTUAL PI	ROPERTY LAW DIVISION	
Address (line 3) 9800 SOUTH CASS A	AVENUE	
Address (line 4) ARGONNE, ILLINO	IS 60439	
Pages Enter the total nu including any at	umber of pages of the attached conveyance docur	ment # 01
Application Number(s) or F		if additional numbers attached
Enter either the Patent Application I Patent Application N	Number or the Patent Number (DO NOT ENTER BOTH number	, , , , ,
10/822,370		ent Number(s)
If this document is being filed together was	with a new Patent Application, enter the date the patent applic	eation Month Day Year
Patent Cooperation Treaty		
Enter PCT application		PCT
only if a U.S. Applicati has not been assigne		PCT
Number of Properties Enter the total number of properties involved. #		
Fee Amount	Fee Amount for Properties Listed (37 CFR 3.41):	\$
Method of Payment: Deposit Account	Enclosed Deposit Account	
(Enter for payment by deposit a	ccount or if additional fees can be charged to the Deposit Account Number:	#
	Authorization to charge additional fees:	Yes No
Statement and Signature		
To the best of my knowle attached copy is a true of indicated herein.	edge and belief, the foregoing information is true copy of the original document. Charges to deposit	and correct and any t account are authorized, as
BRIAN J. LALLY		1
Name of Person Signin	g Signature 7	OC7 2 1 2004
J		Date

PATENT REEL: 015925 FRAME: 0775



CONFIRMATORY LICENSE

DOE Docket No.:

S-Unassigned S 105, 866

Application for:

Mutant Fatty Acid Desaturase and Methods for Directed

Mutagenesis

Inventor(s):

Shanklin, John, et al.

Serial No.:

10/822,370

Filing Date (U.S.):

04-12-2004

Contractor No.:

DE-AC02-98CH-10886

Contractor:

Brookhaven Science Associates

The invention identified above is a "Subject Invention" under the above-numbered contract. A copy of the provisions of the above-numbered contract (executed on January 5, 1998) governing patent rights in the Subject Invention at the time the invention was made has been submitted to the U.S. Department of Energy.

The Contractor hereby confirms that under the provisions of the above-numbered contract governing patent rights, it has granted to the Government a nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for on behalf of the United States the subject invention throughout the world. This license applies to the invention in the above-identified patent application and any and all divisions or continuations thereof and any resulting patent or reissue patent which may be granted thereon.

It is understood and agreed that this document does not preclude the Government from asserting rights under the provisions of said contract or any other agreement between the Government and the Contractor, or any other rights of the Government with respect to the above-identified invention.

The Contractor hereby grants the Government an irrevocable power to inspect and make copies of the above-identified application.

Signed this 24 day of aug

, 2004.

BROOKHAVEN SCIENCE ASSOCIATES/ BROOKHAVEN NATIONAL LABORATORY

Bv

Margaret C. Bogosian

Manager, Office of Intellectual Property

And Sponsored Research

Brookhaven National Laboratory

Bldg. 475D - P.O. Box 5000

Upton, New York 11973-5000

PATENT REEL: 015925 FRAME: 0776

RECORDED: 10/25/2004