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Expires 06/30/99 OMB 0651-0027	3-19-2002 11111111111 02195497		
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Name (line 1) Jay M. Short			Month Day Year 08 06 02
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Second Party Name (line 1) Gerhard J. Frey			Month Day Year 08 07 02
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Receiving Party	M	ark if additional names of rece	iving parties attached
Name (line 1) Diversa Corporation			If document to be recorded is an assignment and the
Name (line 2)			receiving party is not domiciled in the United States, an appointment
Address (line 1) 4955 Directors Place			of a domestic representative is attached. (Designation must be a
Address (line 2)			separate document from Assignment.)
Address (line 3) San Diego	California State/Country	92121-3829 Zip Code	9
Domestic Representative Name ar	nd Addross	for the first Receiving Party on	ly.
Name Jane M. Love			
Address (line 1) Hale and Dorr LLP			

Address (line 4) United States of America

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Address (line 2) 300 Park Avenue

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PATENT

REEL: 013191 FRAME: 0402

FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Comme Patent and Trademark Offic PATENT
Correspondent Name and Addres	SS Area Code and Telephone Number	212-937-7233
Name Jane M. Love		
Address (line 1) Hale and Dorr LLP		
Address (line 2) 300 Park Avenue		
Address (line 3) New York, NY 10022		
Address (line 4) United States of America		
Pages Enter the total number of including any attachme	of pages of the attached conveyance docur	ment # 5
Application Number(s) or Patent	Number(e)	additional numbers attached
Enter either the Patent Application Number or	the Patent Number (DO NOT ENTER BOTH numbers	for the same property).
Patent Application Number(s	s) Pater	nt Number(s)
09/885,551		
If this document is being filed together with a new signed by the first named executing inventor.	∠ Patent Application, enter the date the patent applicat	ion was Month Day
Patent Cooperation Treaty (PCT)		
Enter PCT application numbe	PCT PCT PCT	PCT
only if a U.S. Application Number has not been assigned.	mber PCT PCT	PCT
Number of Properties Enter the	ne total number of properties involved.	# 1
Fee Amount Fee Amo	ount for Properties Listed (37 CFR 3.41):	\$ 40.00
Method of Payment:	Enclosed Deposit Account	

Statement and Signature To the best of my knowledge and belief, the foregoing information is true and correct and any

(Enter for payment by deposit account or if additional fees can be charged to the account.)

attached copy is a true copy of the original document. Charges to deposit account are authorized, as

08-0219

Yes

indicated herein.

Jane M. Love, Ph.D.

Name of Person Signing

Havem fine Signature

Authorization to charge additional fees:

Deposit Account Number:

No

ASSIGNMENT

WHEREAS, I, Jay M. Short and Gerhard J. Frey employed by DIVERSA CORPORATION, organized and existing under the laws of the State of California, having its principal office at 4955 Directors Place, San Diego, CA 92121-3829, are the inventors of certain new and useful inventions and discoveries, for which application for Letters Patent entitled "END SELECTION IN DIRECTED EVOLUTION" was filed with the United States Patent and Trademark Office as U.S. Application Serial No. 09/885,551 on June 19, 2001; and

WHEREAS, DIVERSA CORPORATION, together with its successors and assigns is hereinafter called "ASSIGNEE," is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited;

NOW, THEREFORE, for good and valuable consideration furnished by ASSIGNEE to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservations:

- 1. Assign, transfer, and convey to ASSIGNEE our entire right, title, and interest in and to said inventions and discoveries, said applications for Letters Patent, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all provisional, nonprovisional, divisional, renewal, substitute, continuation, continuation-in-part, continued prosecution applications, and convention applications based in whole, or in part, upon said inventions or discoveries, or upon said applications, and any and all Letters Patents, reissues, reexaminations, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon, or arise from, said inventions, said discoveries, said applications, and said Letters Patent:
- 2. Authorize ASSIGNEE to file patent applications in any or all countries on any or all of said inventions and discoveries in my name or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable, under International Conventions or otherwise;
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments throughout the world to issue or transfer all said Letters Patents to ASSIGNEE, as assignee of the entire right, title, and interest therein or otherwise as ASSIGNEE may direct;
- 4. Warrant that we have not knowingly conveyed to others any right in said inventions, discoveries, applications, or patents, or any license to use the same, or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; and that we have good right to assign the same to ASSIGNEE without encumbrance;

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Filed: June 19, 2001

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ASSIGNEE's request and at ASSIGNEE's expense, but without additional consideration to us or them, all acts reasonably serving to assure that said inventions and discoveries, said patent applications, and said Letters Patents shall be held and enjoyed by ASSIGNEE as fully and entirely as the same could have been held and enjoyed by us, our heirs, legal representatives, and assigns if this Assignment had not been made; and particularly to execute and deliver to ASSIGNEE all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by ASSIGNEE; and to communicate to ASSIGNEE all facts known to us relating to said inventions and discoveries or the history thereof, and to testify as to the same in any court or proceeding; and to furnish ASSIGNEE any and all documents, photographs, models, samples, and other physical exhibits in my control or in the control of our heirs, legal representatives, or assigns which may be useful for establishing the facts of my conceptions, disclosures, and reduction to practice of said inventions and discoveries.

IN TESTIMONY WHEREOF, we have hereunto set our hand and seal.

Witness printed name Witness signature Witness address

4955 Directors Place, Sun Diego, (A 92121

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RECORDED: 08/15/2002

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