09-15-1998



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U.S. Department of Commerce Patent and Trademark Office

Attorney Docket No.: UH-03238

Form PTO-1595

100831757

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

> Richard Arakaki Xiangjun Zhou

> > nal name(s) of conveying party(ies) attached? No

e of conveyance:

Ssignment

Execution Date: 06/19/98; 06/30/98

Name and address of receiving party(ies):

University of Hawaii 2800 Woodlawn Drive, Suite 280 Honolulu, Hawaii 96822

Additional name(s) & address(es) attached? No

4. Title of Invention:

Cell-Free Protein Synthesis System With Protein

Translocation And Processing

Application number(s) or patent number(s):

A. Patent Application No.(s):

09/045,083

B. Patent No.(s):

Additional numbers attached? No

5. Name and address of party to whom correspondence concerning document should be mailed:

6. Total number of applications and patents involved: 1

7. Total fee(s):

Peter G. Carroll 00000000 59045002 MEDLEN & CARROLE, LLP 220 Montgomery Street Spite 2200 San Francisco, California 94104

Check(s) in the amount of \$305.00 enclosed (\$65.00 for filing missing parts,\$40.00 recordation fee and \$200.00 to cover the second month extension fee).

2 FC:581 40.00 0P

Deposit Account Authorization:

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 08-1290. An originally executed duplicate of this transmittal is enclosed for this purpose.

DO NOT USE THIS SPACE

9. Statement and Signature:

> To the best of my knowledge and belief, the foregoing information is true and forrest and any attached copy is a true copy of the original document.

Date: August 6, 1998

03-FC-216

Signature:

Name: Pet

Reg. No.: 32,837

Total number of pages including cover sheet, attachments, and document: 4

PATENT REEL: 9441 FRAME: 0862

PATENT

Attorney Docket No.: UH-03238

ASSIGNMENT

WHEREAS, WE, Richard Arakaki and Xiangjun Zhou, hereinafter referred to as "ASSIGNOR", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

Cell-Free Protein Synthesis System With Protein

Translocation And Processing

Filing Date:

SEAL

03/20/98

Serial No.:

09/045,083

WHEREAS, University of Hawaii, a Hawaii corporation, 2800 Woodlawn Drive, Suite 280, Honolulu, Hawaii 96822, hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in said invention and application and in any Letters Patent which may be granted on the same;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for and in consideration of the sum of One Dollar (\$1.00) lawful money paid to ASSIGNOR by ASSIGNEE and other good and valuable consideration, receipt of which is hereby acknowledged, ASSIGNOR has sold, assigned and transferred, and by these presents does sell, assign and transfer unto said ASSIGNEE, and ASSIGNEE's successors and assigns, all right, title and interest in and to said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, said interest to be held and enjoyed by said ASSIGNEE as fully and exclusively as it would have been held and enjoyed by said ASSIGNOR had this assignment and transfer not been made, to the full end and term of any Letters Patent.

ASSIGNOR further agrees that ASSIGNOR will, without charge to said ASSIGNEE, but at ASSIGNEE's expense, cooperate with ASSIGNEE in the prosecution of said application and/or applications; execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof; and will perform such other acts as ASSIGNEE lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said ASSIGNEE, or ASSIGNEE's successors and assigns.

IN TESTIMONY WHEREOF, ASSIGNOR has hereunto signed ASSIGNOR's names to this assignment on the date indicated below.

a all		_				
Richard Arakaki						
STATE OF Hawaii						
COUNTY OF <u>Honolulu</u>)	SS.					
On this 19th day of	ASSIGNOR, kn	nown to me (or prov	red to me on the	basis of satisfa	actory evidence)	
		!	Mildred	R. Fran	K	

NOTARY PUBLIC, First Circuit

State of Hawaii

My commission expires: May 22, 2000

PATENT REEL: 9441 FRAME: 0863

Attorney Docket No.: UH-03238

ASSIGNMENT

WHEREAS, WE, Richard Arakaki and Xiangjun Zhou, hereinafter referred to as "ASSIGNOR", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

Cell-Free Protein Synthesis System With Protein

Translocation And Processing

Filing Date:

03/20/98

Serial No.:

09/045,083

WHEREAS, University of Hawaii, a Hawaii corporation, 2800 Woodlawn Drive, Suite 280, Honolulu, Hawaii 96822, hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in said invention and application and in any Letters Patent which may be granted on the same;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for and in consideration of the sum of One Dollar (\$1.00) lawful money paid to ASSIGNOR by ASSIGNEE and other good and valuable consideration, receipt of which is hereby acknowledged, ASSIGNOR has sold, assigned and transferred, and by these presents does sell, assign and transfer unto said ASSIGNEE, and ASSIGNEE's successors and assigns, all right, title and interest in and to said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, said interest to be held and enjoyed by said ASSIGNEE as fully and exclusively as it would have been held and enjoyed by said ASSIGNOR had this assignment and transfer not been made, to the full end and term of any Letters Patent.

ASSIGNOR further agrees that ASSIGNOR will, without charge to said ASSIGNEE, but at ASSIGNEE's expense, cooperate with ASSIGNEE in the prosecution of said application and/or applications; execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof; and will perform such other acts as ASSIGNEE lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said ASSIGNEE, or ASSIGNEE's successors and assigns.

IN TESTIMONY WHEREOF, ASSIGNOR has hereunto signed ASSIGNOR's names to this assignment on the date indicated below.

country of Santa Clara

RECORDED: 08/10/1998

On this 30 day of ______, in the year of ______, before me, the undersigned notary public, personally appeared the above-named ASSIGNOR, known to me (or proved to me on the basis of satisfactory evidence) to be

the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same.

SEAL

DOUG M. SHON

PATENT REEL: 9441 FRAME: 0864