Form PTO-1595 (Rev. 09/04) OMB No. 0651-0027 (exp. 6/30/2005)	U.S. Department of COMMER United States Patent and Trademark Of
01-21	7 - 2005 : ::::::::::::::::::::::::::::::::::
	ments or the new address(es) below.
1. Name of conveying party(ies)/Execution parers 1.029	27401 │ 2. Name and address of receiving party(ies)
Mark L. Schirmer - Execution Date 8-23-2004 Ernest A. Benoit - Execution Date 8-17-2004	Name: Cormetech, Inc.
Jeremy T. Freeman - Execution Date 8-20-2004 Thomas W. Hastings - Execution Date 8-20-2004	Internal Address:
James R. Andies - Execution Date 10-3-2004	
Execution Date(s) <u>See Above</u> Additional name of conveying party(ies) attached? ☐ Yes ☒ No	Street Address: 5000 International Drive
3. Nature of conveyance:	
	City: Durham
☐ Security Agreement ☐ Change of Name	State, NC
Government Interest Assignment	State: NC
Executive Order 9424, Confirmatory License	Country: USA Zip: 27712
Other	Additional Name(s) & address(es) attached? ☐ Yes ☒ No
4. Application number(s) or patent number(s):	This document is being filed together with a new application.
A. Patent Application No.(s)	B. Patent No.(s)
10/868,125	JAN 24 PR/FII
Additional numbers at	B. Patent No.(s)
5. Name and address of party to whom correspondence	6. Total number of applications and patents involved?
concerning this document should be mailed:	5
Name: Kilpatrick Stockton LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: J. Clinton Wimbish	☐ Authorized to be charged by credit card
0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Authorized to be charged to deposit account
Street Address: 1001 West Fourth Street	 ☑ Enclosed ☑ None required (government interest not affecting title)
City: Winston-Salem	
State: NC Zip: 27101	8. Payment Information
Phone Number : 336-607-7300	a. Credit Card Last 4 Numbers Expiration Date
Fax Number: 336-607-7500	b. Deposit Account Number
Email Address:	Authorized User Name
9. Signature :	January 24, 2005
Signature Signature	Date Tatal number of pages including cover
J. C. Wimbish Reg. No. 54,545	Total number of pages including cover sheet, attachments, and documents 5

01/27/2005 DBYRNE

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coccounty at the control of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Attorney Docket No: 54673/298799

ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS IN PATENT APPLICATION

Whereas I/we the undersigned inventor(s) have invented certain new and useful innovations as set forth in the patent application entitled

IN-SITU CATALYST REPLACEMENT

for which I (we) have executed an application for a United States Patent which was filed in the U.S. Patent and Trademark Office on June 15, 2004, and which bears the Application No. 10/868,125.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we the undersigned inventor(s) hereby:

- Agree to sell, assign, transfer, and convey, and hereby do sell, assign, transfer, 1) and convey, to Cormetech, Inc., a Delaware corporation having a place of business at 5000 International Drive, Durham, North Carolina, 27712, (hereinafter referred to as "ASSIGNEE"), the entire right, title, and interest in and to (a) any intellectual property (including without limitation any innovation, information, invention, discovery, product, process, work, copyright, or design) disclosed, embodied, affixed, shown, or claimed in the above-referenced patent application, implicitly or explicitly; (b) the above-referenced patent application, any application based in whole or in part upon the above-referenced patent application, and any application claiming priority to the above-referenced patent application (including without limitation any continuation, continuation-in-part, reissue, reexamination, or foreign patent application based in whole or in part on the abovereferenced patent application or claiming priority to the above-referenced patent application); and (c) any Patent (including without limitation domestic and foreign patents, utility models, industrial designs, divisionals, reissues, and reexaminations) that is granted or issued upon, or that claims priority to, any and all applications under (b) of this paragraph or that discloses or claims intellectual property under (a) of this paragraph. in whole or in part.
- Authorize and request the Commissioner of Patents or any other agency, domestic or foreign, to issue any and all Letters or other Patent(s), or other document(s), resulting from patent applications or intellectual property under paragraph 1 (including without limitation any division(s), continuation(s) (in whole or in part), substitute(s), or reissue(s) thereof) to the ASSIGNEE.
- 3) Agree to execute all papers and documents, including without limitation applications, declarations, oaths, petitions, and other papers, and, entirely at the ASSIGNEE'S expense, perform any acts which are necessary in connection with the prosecution of patent applications or intellectual property under paragraph 1 and/or the enforcement of patents or other rights resulting from such applications or intellectual property.

Page 1 of 2

PATENT REEL: 016169 FRAME: 0377 Application No. 10/868,125 Filed: June 15, 2004

- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the ASSIGNEE, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives, and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into, any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date	s) jindicated	beside my	(our)	signature (s).
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1) Signature: Mulh V—
Typed Name: Mark L. Schirmer

Date: 3-23-04

2) Signature:

Signature: Typed Name: Ernest A. Benoit

Date: 8-17-04

3) Signature:_

Typed Name: Jeremy T. Freeman

Date: 8-20-2004

4) Signature: Arr

Typed Name: Thomas W. Hasting

Date: 8/20/2004

Attorney Docket No: 54673/298799

ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS IN PATENT APPLICATION

Whereas I the undersigned inventor have invented certain new and useful innovations as set forth in the patent application entitled

IN-SITU CATALYST REPLACEMENT

for which I have executed an application for a United States Patent which was filed in the U.S. Patent and Trademark Office on June 15, 2004, and which bears the Application No. 10/868,125.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I the undersigned inventor hereby:

- 1) Agree to sell, assign, transfer, and convey, and hereby do sell, assign, transfer, and convey, to Cormetech, Inc., a Delaware corporation having a place of business at 5000 International Drive, Durham, North Carolina, 27712, (hereinafter referred to as "ASSIGNEE"), the entire right, title, and interest in and to (a) any intellectual property (including without limitation any innovation, information, invention, discovery, product, process, work, copyright, or design) disclosed, embodied, affixed, shown, or claimed in the above-referenced patent application, implicitly or explicitly; (b) the above-referenced patent application, any application based in whole or in part upon the above-referenced patent application, and any application claiming priority to the above-referenced patent application (including without limitation any continuation, continuation-in-part, reissue, reexamination, or foreign patent application based in whole or in part on the abovereferenced patent application or claiming priority to the above-referenced patent application); and (c) any Patent (including without limitation domestic and foreign patents, utility models, industrial designs, divisionals, reissues, and reexaminations) that is granted or issued upon, or that claims priority to, any and all applications under (b) of this paragraph or that discloses or claims intellectual property under (a) of this paragraph, in whole or in part.
- Authorize and request the Commissioner of Patents or any other agency, domestic or foreign, to issue any and all Letters or other Patent(s), or other document(s), resulting from patent applications or intellectual property under paragraph 1 (including without limitation any division(s), continuation(s) (in whole or in part), substitute(s), or reissue(s) thereof) to the ASSIGNEE.
- 3) Agree to execute all papers and documents, including without limitation applications, declarations, oaths, petitions, and other papers, and, entirely at the ASSIGNEE'S expense, perform any acts which are necessary in connection with the prosecution of patent applications or intellectual property under paragraph 1 and/or the enforcement of patents or other rights resulting from such applications or intellectual property.

Page 1 of 2

PATENT REEL: 016169 FRAME: 0379

- Agree that the terms, covenants and conditions of this assignment shall inure to 4) the benefit of the ASSIGNEE, its successors, assigns and other legal representative, and shall be binding upon the inventor, as well as the inventor's heirs, legal representatives, and assigns.
- 5) Warrant and represent that I have not entered, and will not enter into, any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date indicated beside my signature.

1) Signature!

Indus Date: 10/3/04 Typed Name://James R. Andies

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork' Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

EFF TO ANOMITTAL	Complete if Known				
FEE TRANSMITTAL	Application Number	10/868,125			
for FY 2005	Filing Date	June 15, 2004			
	First Named Inventor	Schirmer et al.			
Effective 10/01/2004. Patent fees are subject to annual revision.	Examiner Name	To Be Assigned			
Applicant claims small entity status. See 37 CFR 1.27	Art Unit	1764			
TOTAL AMOUNT OF PAYMENT (\$) 40	Attorney Docket No.	54673-298799			

MET	HOD OF PAYMENT (check all the	at apply)	FEE CALCULATION (continued)					
	redit card		3. ADDITIONAL FEES					
M Check L C	Order	□ Mone			Smail E	Entity		
Deposit Accou	ınt:				Fee Fee S. D.			
Deposit			Code	(\$)	Code	(\$)	Fee Description Fee	Paid
Account	16-1435		1051	130	2051	65	Surcharge - late filing fee or oath	
Number			1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
Deposit	Kilpatrick Stockton LLP		1053	130	1053	130	Non-English specification	
Account Name	Klipatrick Stockton LEP		1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
The Director is a	uthorized to: (check all that apply		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
☐ Charge fee(s) indicated below ☐ Credit any overpayments ☐ Charge any additional fee(s) or any underpayment of fee(s) ☐ Charge fee(s) indicated below, except for the filing fee		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		
to the above-ident	ified deposit account.		1251	110	2251	55	Extension for reply within first month	
	FEE CALCULATION		1252	430	2252	215	Extension for reply within second month	
1. BASIC,F	ILING FEE		1253	980	2253	490	Extension for reply within third month	
Large Entity	Small Entity		1254	1,530	2254	765	Extension for reply within fourth month	
	Fee Fee <u>Fee Description</u> Code (\$)	Fee Paid	1255	2.080	2255	1,040	Extension for reply within fifth month	
(*,	Code (\$) 2001 395 Utility filing fee	ree raid	1401	340	2401	170	Notice of Appeal	
i i	2002 175 Design filing fee		1402	340	2402	170	Filing a brief in support of an appeal	
	2003 275 Plant filing fee		1403	300	2403	150	Request for oral hearing	
1004 790 2	2004 395 Reissue filing fee		1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1005 160 2	2005 80 Provisional filling fe	e	1452	110	2452	55	Petition to revive - unavoidable	
' '	DUDTOTAL (4)	(6) 0	1453	1,370	2453	685	Petition to revive – unintentional	
	SUBTOTAL (1) (\$) 0		1501	1,370	2501	685	Utility issue fee (or reissue)	
2. EXTRA CLA	IM FEES FOR UTILITY AND	REISSUE	1502 490 2502 245 Design issue fee			Design issue fee		
		from low Fee Paid	1503	660	2503	330	Plant issue fee	
Total Claims	Extra Claims be	= 0	1460	130	1460	130	Petitions to the Commissioner	
Independent			1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
Claims	-3 ** = 0 X	= 0	1806	180	1806	180	Submission of Information Disclosure Stmt	
Multiple Dependent	×	= 0	8021	40	8021	4 0	Recording each patent assignment per property (times number of properties)	40
Large Entity Fee Fee	Small Entity		1809	790	2809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
Code (\$)	Code (\$) Fee Description	_	1810	790	2810	395	For each additional invention to be	
1202 18	2202 9 Claims in exces		1				examined (37 CFR § 1.129(b))	
1201 88 1203 300	l ·	ims in excess of 3 ent claim, if not paid	1801	790	2801	395	Request for Continued Examination (RCE)	
1203 300	** Reissue inde	pendent claims over	1802	900	1802	900	Request for expedited examination	
1204 68	original patent	- 1					of a design application	
1205 18	2205 9 ** Reissue claim over original pat	is in excess of 20 and ent	Other f	ee (speci	f _v)			
	SUBTOTAL (2)	(\$) 0	1	ced by B			aid	
**or number previo	ously paid, if greater, For Reissues, s	ee above					SUBTOTAL (3) (\$) 40	
SUBMITTED BY							Complete (if applicable)	

SUBMITTED BY Complete (if applicable)								
Name (Print/Type)	J. Clinton Wimbish	Registration No. (Attorney/Agent)	54,545	Telephone	336.607.7300			
Signature	Salate	7		Date	1/24/05			

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

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PATENT REEL: 016169 FRAME: 0381