11-14-2003

Form <b>PTO-1595</b> (Rev. 03/ 01)	T U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office	
OMB No. 0651-0027 (exp. 5/31/2002) 102599968		
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof		
1. Name of conveying party(ies):  1) Phillip D. COOK, Ph.D.; 2) Guangyi WANG, Ph.D., 3) Thomas W. BRUICE, M.D., 4) Nicholas A. BOYLE, Ph.D., 5) Janet M. LEEDS, Ph.D., 6) Jennifer L. BROOKS, 7) Marija PRHAVC, Ph.D.; 8) Maria E. ARIZA, M.D.; 9) Patrick C. FAGAN, B.A.; 10) Yi JIN; 11) Vivek K. RAJWANSHI, Ph.D.; and 12) Kathleen D. TUCKER, B.A. Additional name(s) of conveying party(ies)  Yes X No attached?	2. Name and address of receiving party(ies)  Name: BIOTA, INC.  Internal Address:  Street Address:  2232 Rutherford Road	
3. Nature of Conveyance:  X Assignment	City: Carlsbad  State: CA Zip: 92008  Additional name(s) & Address(es) attached: Yes X No	
4. Application number(s) or patent number(s):  If this document is being filed together with a new application, the exe A. Patent Application No.(s):  10/376,654  Additional numbers attached.	B. Patent No.(s):	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	
Name: Emily C. Tongco MORRISON & FOERSTER LLP Internal Address: Atty. Dkt.: 524312000400 Street Address: 3811 Valley Centre Drive, Suite 500	7. Total fee (37 CFR 3.41) \$ 40.00  Enclosed  X Authorized to be charged to deposit account  Authorized to be charged to credit card  (Form 2038 enclosed)	
City: State: Zip: San Diego CA 92130	8. Deposit account number:  03-1952  (Attach duplicate copy of this page if paying by deposit account)	
DO NOT USE THIS SPACE		
9. Statement and signature.  To the best of my knowledge and belief, the foregoing infois a true copy of the original document.  Emily C. Tongco - 46,473  Name of Person Signing	Movember 6, 2003 Date	

Total number of pages including cover sheet, attachments, and documents:

10

## ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, made by Phillip D. COOK, Ph.D.; Guangyi WANG, Ph.D.; Thomas W. BRUICE, M.D.; Nicholas A. BOYLE, Ph.D.; Janet M. LEEDS, Ph.D.; Jennifer L. BROOKS; Marija PRHAVC, Ph.D.; M. E. ARIZA, M.D.; Patrick C. FAGAN, B.A.; Yi JIN; Vivek K. RAJWANSHI, Ph.D.; and Kathleen D. TUCKER, B.A. (hereinafter referred to as Assignors), residing at 5237 Olive Hill Road, Fallbrook, California 92028; 5066 Millay Court, Carlsbad, California 92008; 6880 Shearwaters Drive, Carlsbad, California 92009; 1715 Greentree Road, Encinitas, California 92024; 443 Dunsmore Court, Encinitas, California 92024; 1352 Ahlrich Avenue, Encinitas, California 92024; 1122 Cambria Way, Encinitas, California 92024; 1123 Calistoga Way, San Marcos, California 92078; 714 Calle Montera, Escondido, California 92025; 3643 Barranca Court, Carlsbad, California 92008; 1920 Wellington Lane #159, Vista, California 92983; and 714 Calle Montera, Escondido, California 92025, respectively;

WHEREAS, Assignors have invented certain new and useful improvements in NUCLEOTIDE MIMICS AND THEIR PRODRUGS, set forth in a Patent application for Letters Patent of the United States, already filed on February 28, 2003 as U.S. application No. 10/376,654; and

WHEREAS, BIOTA, INC., a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at 2232 Rutherford Road, Carlsbad, California 92008 (hereinafter referred to as Assignee), is desirous of acquiring 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 of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any

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PATENT REEL: 014678 FRAME: 0389 | and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent abovementioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters

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Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

## MORRISON & FOERSTER LLP

36,429	Deborah S. Gladstein	43,636	Scott C. Moore	52,047
48,231	Debra J. Glaister	33,888	Philip A. Morin	45,926
35,053	Bruce D. Grant	47,608	Kate H. Murashige	29,959
34,773	Carol Gruppi	37,341	Martin Noonen	44,264
43,318	Alicia J. Hager	44,140	Catherine M. Polizzi	40,130
43,485	Johney U. Han	45,565	Philip D. Reilly	41,415
30,820	Laurie L. Hill	51,804	James Remenick	36,902
45,640	Douglas G. Hodder	41,840	Robert A. Saltzberg	36,910
44,546	Alan S. Hodes	38,185	Debra A. Shetka	33,309
28,055	Charles D. Holland	35,196	Rebecca Shortle	47,083
39,124	Arthur S. Hsieh	48,247	J. David Smith	39,839
39,933	Jill Jacobsen	40,030	Kevin R. Spivak	43,148
31,942	Wayne C. Jaechke	38,503	Shannon Thomas	52,285
43,543	Madeline I. Johnston	36,174	Thomas L. Treffert	48,279
21,013	Parisa Jorjani	46,813	Brenda J. Wallach	45,193
46,631	Ararat Kapouytian	40,044	Michael R. Ward	38,651
42,465	Richard C. Kim	40,046	E. Thomas Wheelock	28,825
36,119	Cameron A. King	41,897	Todd W. Wight	45,218
50,128	Glenn M. Kubota	44,197	Eric H. Witt	44,408
29,684	Kawai Lau	44,461	Frank Wu	41,386
31,506	Otis Littlefield	48,751	David Yang	44,415
48,375	Hugh H. Matsubayashi	43,779	Peter J. Yim	44,417
39,183	Michael J. Mauriel	44,226	Karen Zachow	46,332
28,600	Mika Mayer	47,777	Jie Zhou	52,395
40,614	Gladys H. Monroy	32,430		
	48,231 35,053 34,773 43,318 43,485 30,820 45,640 44,546 28,055 39,124 39,933 31,942 43,543 21,013 46,631 42,465 36,119 50,128 29,684 31,506 48,375 39,183 28,600	48,231 Debra J. Glaister 35,053 Bruce D. Grant 34,773 Carol Gruppi 43,318 Alicia J. Hager 43,485 Johney U. Han 30,820 Laurie L. Hill 45,640 Douglas G. Hodder 44,546 Alan S. Hodes 28,055 Charles D. Holland 39,124 Arthur S. Hsieh 39,933 Jill Jacobsen 31,942 Wayne C. Jaechke 43,543 Madeline I. Johnston 21,013 Parisa Jorjani 46,631 Ararat Kapouytian 42,465 Richard C. Kim 36,119 Cameron A. King 50,128 Glenn M. Kubota 29,684 Kawai Lau 31,506 Otis Littlefield 48,375 Hugh H. Matsubayashi 39,183 Michael J. Mauriel 28,600 Mika Mayer	48,231       Debra J. Glaister       33,888         35,053       Bruce D. Grant       47,608         34,773       Carol Gruppi       37,341         43,318       Alicia J. Hager       44,140         43,485       Johney U. Han       45,565         30,820       Laurie L. Hill       51,804         45,640       Douglas G. Hodder       41,840         44,546       Alan S. Hodes       38,185         28,055       Charles D. Holland       35,196         39,124       Arthur S. Hsieh       48,247         39,933       Jill Jacobsen       40,030         31,942       Wayne C. Jaechke       38,503         43,543       Madeline I. Johnston       36,174         21,013       Parisa Jorjani       46,813         46,631       Ararat Kapouytian       40,044         42,465       Richard C. Kim       40,046         36,119       Cameron A. King       41,897         50,128       Glenn M. Kubota       44,197         29,684       Kawai Lau       44,461         31,506       Otis Littlefield       48,751         48,375       Hugh H. Matsubayashi       43,779         39,183       Michael J. Maurie	48,231 Debra J. Glaister 33,888 Philip A. Morin 35,053 Bruce D. Grant 47,608 Kate H. Murashige 34,773 Carol Gruppi 37,341 Martin Noonen 43,318 Alicia J. Hager 44,140 Catherine M. Polizzi 43,485 Johney U. Han 45,565 Philip D. Reilly 30,820 Laurie L. Hill 51,804 James Remenick 45,640 Douglas G. Hodder 41,840 Robert A. Saltzberg 44,546 Alan S. Hodes 38,185 Debra A. Shetka 28,055 Charles D. Holland 35,196 Rebecca Shortle 39,124 Arthur S. Hsieh 48,247 J. David Smith 39,933 Jill Jacobsen 40,030 Kevin R. Spivak 31,942 Wayne C. Jaechke 38,503 Shannon Thomas 43,543 Madeline I. Johnston 36,174 Thomas L. Treffert 21,013 Parisa Jorjani 46,813 Brenda J. Wallach 46,631 Ararat Kapouytian 40,044 Michael R. Ward 42,465 Richard C. Kim 40,046 E. Thomas Wheelock 36,119 Cameron A. King 41,897 Todd W. Wight 50,128 Glenn M. Kubota 44,197 Eric H. Witt 29,684 Kawai Lau 44,461 Frank Wu 31,506 Otis Littlefield 48,751 David Yang 48,375 Hugh H. Matsubayashi 43,779 Peter J. Yim 39,183 Michael J. Mauriel 44,226 Karen Zachow 28,600 Mika Mayer 47,777 Jie Zhou

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

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PATENT REEL: 014678 FRAME: 0391

Phillip D. Cook, Ph.D. APRIL 10, 2003, before me, CAROK CHRISTY personally known to me to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the CAROL CHRISTY COMM. #1344924 ary Public-California SAN DIEGO COUNTY Comm. Exp. March 1, 2006

State of California County of SAN SIEGO ) ss. APRI/10, 2003, before me, On Guangyi Wang, Ph.D. appeared personally known to me to me on the basis of satisfactory evidence, to be the person(x) whose name(x) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity() and that by his/her/their signature on the

instrument the person(x), or the entity upon behalf of which the person(x) acted, executed the

) ss.

Phillip D. Cook, Ph.D.

WITNESS my hand and official seal.

Paral Carrity

State of California

appeared

instrument.

County of SAN DIEGO

WITNESS my hand and official seal.

Carac Christy

CAROL CHRIST SAN DIEGO COUNTY My Comm. Exp. March 1, 2006

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instrument.

Thomas W. Bruice, M.D.

State of California )	
County of $SANDIEGO$ ) ss.	
On <u>APRI/10, 200</u> 3before me,	CAROL CARISTY, personally
appeared Thomas W. Bruice, M.D.	personally known to me proved
to me on the basis of satisfactory evidence, to be	the person whose name is is/are
subscribed to the within instrument and acknowle	· ·
same in his/her/their authorized capacity(iea), and	
instrument the person(s), or the entity upon behal instrument.	f of which the person is acted, executed the
instrument.	CAROL CHRISTY
WITNESS my hand and official seal.	COMM. #1344924 m
	SAN DIEGO COUNTY  My Comm. Exp. March 1, 2006
Veral Christy	P30-
_ Crowny	
	Nicholas A. Boyle, Ph.D.
State of California )	
County of SAN SIEGO ) ss.	
On APR/h 10, 200 3, before me,	CAROL CARISTY, personally
appeared Nicholas A. Boyle, Ph.D.	personally known to me proved
to me on the basis of satisfactory evidence, to be	the person(s) whose name(s) is/are-
subscribed to the within instrument and acknowled	
same in his/her/their authorized capacity(ies), and instrument the paragraphs of the antity when held	
instrument the person(s), or the entity upon behal instrument.	1 of which the persones) acted, executed the
	****
WITNESS my hand and official seal.	CAROL CHRISTY
Carll Christy	COMM. #1344924  Notary Public-California SAN DIEGO COUNTY
- Carre Cycley	My Comm. Exp. March 1, 2006
<i>"</i>	

	It m. heeds
	Janet M. Leeds, Ph.D.
State of California ) ss.	
County of SAN 01860 ) ss.	
On <i>APRI 10, 2003</i> , before me,	AROL CARIST, personally
o me on the basis of satisfactory evidence, to be	- ','
subscribed to the within instrument and acknowled arms in his/her/their authorized capacity () and nstrument the person (x), or the entity upon behal	d that by <del>his/</del> her/ <del>their</del> signature on the
nstrument.	CAROL CHRISTY
WITNESS my hand and official seal.	COMM. #1344924 Notary Public-California SAN DIEGO COUNTY
Caral Christy	My Comm. Exp. March 1, 2006
	Jennifer L. Brooks
State of California )	
County of SAN S1860) ss.	
County of SAN SIEGO ) ss.  On APRIL 10, 2003, before me,	CAROL CARISTY personally
ppeared Jennifer L. Brooks	personally known to me proved
o me on the basis of satisfactory evidence, to be subscribed to the within instrument and acknowle	
ame in his/her/their authorized capacity(teg), and nstrument the person(s), or the entity upon behal	
nstrument.	*****
WITNESS my hand and official seal.	CAROL CHRISTY COMM. #1344924 Notary Public-California SAN DIEGO COUNTY
Cardl Christy	My Comm. Exp. March 1, 2006
7	

	Marija Prhavc, Ph.D.
	/
State of California )	
County of SANDALEGO, ss.	
On ARI 10, 200 , before me, appeared Marija Prhave, Ph.D. to me on the basis of satisfactory evidence, to be to subscribed to the within instrument and acknowle same in his/her/their authorized capacity(ies), and instrument the person(x), or the entity upon behalf instrument.	dged to me that he/she/they-executed the that by his/her/their signature on the
	CAROL CHRISTY
WITNESS my hand and official seal.	COMM. #1344924  Notary Public-California SAN DIEGO COUNTY  My Comm. Exp. March 1, 2006
Carol Chruty	Sapramatics 1, 2000
	<del>-</del>
	M. E. Ariza, M.D.
$\ell$	
State of California ) ss.	
County of SANSIEGO ) ss.	į
On ARI/10, 2003, before me,	CAROL CARISTY, personally
appeared M. E. Ariza, M.D.	personally known to me proved
to me on the basis of satisfactory evidence, to be t	
subscribed to the within instrument and acknowled	<u>.</u>
same in his/her/their authorized capacity(hst), and	•
instrument the person (s), or the entity upon behalf	of which the person(x) acted, executed the
instrument.	***
WITNESS my hand and official seal.	CAROL CHRISTY
•	COMM. #1344924 Notary Public-California
and alling	SAN DIEGO COUNTY

Patrick C. Fagan, B.A.

State of California )	
County of $SAN \Delta 1860$ ) ss.	
On APRIL 10, 2003, before me, appeared Patrick C. Fagan, B.A. to me on the basis of satisfactory evidence, to be subscribed to the within instrument and acknowle same in his/her/their authorized capacity(sies), and instrument the person(s), or the entity upon behalinstrument.  WITNESS my hand and official seal.  Callel Carrety	personally known to me proved the person(s) whose name(s) is/are edged to me that he/she/they executed the d that by his/her/their signature on the
	J. Carry Vi lin
	Y1 Jin
State of California )  County of SAU 1/26 ) ss.	
County of SAL A/EGO ) ss.  On APELLO, SOO 3, before me, appeared Yi Jin  to me on the basis of satisfactory evidence, to be subscribed to the within instrument and acknowle same in his/her/their authorized capacity(bes), and instrument the person(c), or the entity upon behalf instrument.	edged to me that he/she/they executed the d that by his/her/their signature on the
WITNESS my hand and official seal.  Audi Ahraty	CAROL CHRISTY COMM. #1344924 Motary Public-California SAN DIEGO COUNTY My Comm. Exp. March 1, 2006

Vivek K. Rajwanshi, Ph.D. State of California County of SAN \$1860 ) ss. APRI/10,2003, before me, appeared Vivek K. Rajwanshi, Ph.D. personally known to me | proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the person(x), or the entity upon behalf of which the person(x) acted, executed the instrument. CAROL CHRISTY COMM, #1344924 WITNESS my hand and official seal. Hotary Public-California SAN DIEGO COUNTY Jaral Christy My Comm. Exp. March 1, 2006 athleen D. Tucker, B.A. State of California County of SAN DIEGO AR1/10, 2003, before me, , personally appeared Kathleen D. Tucker, B.A. personally known to me to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal. CAROL CHRISTY COMM. #1344924 tary Public-California

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**RECORDED: 11/06/2003** 

SAN DIEGO COUNTY