Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
RECORDATION FO	ORM COVER SHEET
	se record the attached documents or the new address(es) below.
Name of conveying party(ies) Donald M. Comwell, Jr. Ruxiang Jin All the conveying party Office Office of the conveying party (ies)	2. Name and address of receiving party(ies) Name: Corvis Corporation
John J. Veselka, Jr. Alistair J. Price Stephen G. Grubb Michael C. Antone Thomas D. Stephens	Internal Address: Office of the General Counsel
Additional name(s) of conveying party(les) attached? Yes ✓ No. 3. Nature of conveyance/Execution Date(s): Execution Date(s) March 31, 2000	Street Address: 1122 Capital of Texas Highway South
✓ Assignment	City: Austin
Joint Research Agreement	State: Texas
Government Interest Assignment Executive Order 9424, Confirmatory License	Country: United States of America Zip: 78746-6426
Other	Additional name(s) & address(es) attached? Yes Vo
A. Patent Application No.(s)	document is being filed together with a new application. B. Patent No.(s) 6,356,383 6,771,413 tached? Yes VNo
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents Involved: Two (2)
Name:Darren E. Wolf	7. Total fee (37 CFR 1.21(h) & 3.41) \$80
Internal Address; Dickie, McCamey & Chilcote, P.C.	Authorized to be charged by credit card Authorized to be charged to deposit account
Street Address: Two PPG Place, Suite 400	Enclosed None required (government interest not affecting title)
City: Pittsburgh	8. Payment Information
State: Pennsylvania Zip:15222-5402	a. Credit Card Last 4 Numbers Expiration Date
Phone Number: <u>412-392-5681</u>	b. Deposit Account Number 50-3198
Fax Number: 412-392-56501	Authorized User Name Darren E. Wolf

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:

PATENT REEL: 019440 FRAME: 0802

June 14, 2007

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

Date

5

Signature

Darren E. Wolf

Name of Person Signing

Email Address: dwolf@#

9. Signature:

ASSIGNMENT OF INVENTION

For:	☑ U.S. and/or ☑ Foreign Rights
For:	U.S. Application or U.S. Provisional Application
For:	U.S. Patent
For:	☐ PCT Application
By;	☑ Inventor(s) or ☐ Present Owner

In consideration of the payment by ASSIGNEE(S) to ASSIGNOR(S) of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNOR(S)

Donaid M. Cornwell, Jr.	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046- 9400	U\$A
name of Assignor	Address	Nationality
John J. Veselka, Jr.	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046-9400	USA
name of Assignor	Address	Nationality
Stephen G. Grubb	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046- 9400	UŞA
name of Assignor	Address	Nationality
Thomas D. Stephens	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046-9400	AUSTRALIAN
name of Assignor	Address	Nationality
Ruxiang Jin	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046-9400	USA
name of Assignor	Address	Nationality
Alistair J. Price	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046- 9400	UK
name of Assignor	Address	Nationality
Michael C. Antone	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046- 9400	USA
name of Assignor	Address	Nationality
Recorded on	Reel Frame	
hereby sells, assigns and	transfers to	
ASSIGNEE(S):		
CORVIS Corporation	7015 Albert Einstein Drive Delaware Corpora PO Box 9400	ation
name of ASSIGNEE)	Columbia, MD 21046-9400 Address Nationality	
	Address Nationality	

			_ PATE	NT
un. <u>15.</u>	<u>2007</u> ·112:02PM _{02DC} 4123925650	No. 8900	P. 5	

and the s	successors, assigns and legal representatives of the ASSIGNEE(S)		
⊠t	the entire right, title and interest for the United States and its territorial possessions		
☐ a te	n undivided percent (%) interest for the United States and its		
⊠ a w	nd in all foreign countries, including all rights to claim priority, in and to any and all improvements		
	Optical Transmission Systems including Optical Amplifiers Apparatuses and Methods		
(a) 🛭	U.S. patent application executed on even date herewith		
(b)	U.S. patent application executed on		
(c) [U.S. provisional application naming the above inventor(s) for the above-entitled invention		
	Express mail label no.: _Mailed:		
(d) 🗌	U.S. application no.:filed on		
(e) 🔲	International application nofiled onand amended on		
(f)	U.S. patent noissued		
	A change of address to which correspondence is to be sent regarding patent maintenance fees is being sent separately.		
(g)	and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any examination thereof,		
400101			

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further covenants that ASSIGNEE(S) will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR(S) and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE(S) or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

P. 6

IN WITNESS WHEREOF, ASSIGNOR(S) have hereunto set hand and seal this:

WARNING: The date of signing must be the same as the date of execution of the declaration, if item (a) was checked above.

Donald M. Cornwell, Jr.	(b) DOM (Of 1	2/2/2
Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Signature of Assignor or Person entitled to sign on behalf of Assignor	3/31/00 Date /
John J. Veselka, Jr. Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Sygnature of Assignor or Person entitled to sign on behalf of Assignor	3/31/00 Date/
Stephen G, Grubb Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Signature of Assignor or Person entitled to sign on behalf of Assignor	$\frac{3/3//c_7}{\text{Date}}$
Thomas D. Stephens Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Signature of Assignor or Person entitled to sign on behalf of Assignor	3/31/2000 Date
Ruxiang Jin Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Signature of Assignor or Person entitled to sign on behalf of Assignor	3/3/7600 Date
Alistair J. Price Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Signature of Assignor or Person entitled to sign on behalf of Assignor	- <u>\$73+73ರರ</u> ವ Date
Michael C. Antone Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Signature of Assignor or Person entitled to sign on behalf of Assignor	
Place of signing of assignment		
City/County : Columbia/Howard State : Maryland Country : USA	et	

this 31st day of March 2000, Donald M. Cornwell, Jr., John J. Veselka, Jr., Stephen G. Grubb, Thomas D. Stephens, Ruxlang Jin, Alistair J. Price, and Michael C. Antone, to me known to be the persons who are described in and who executed the foregoing assignment instrument and acknowledged its contents of their own free will for the purpose therein expressed,

Notary Public or Consular Officer of the United States of America

Notarization of this document is only prima facie evidence of execution, 35 USC 261.

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FACSIMILE



PLEASE HAND DELIVER, AS SOON AS POSSIBLE, THE FOLLOWING FACSIMILE TRANSMISSION TO:

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June 15, 2007

COMPANY:

U.S. Patent and Trademark

PHONE NO.:

Office.

FAX NO.:

571-273-0140

RE:

Assignment Recordation for U.S.

Patent Numbers 6,356,383 and

6,771,413

FILE NO .:

0283171

FROM:

Darren E. Wolf

CLIENT NO.:

0051764

TOTAL NUMBER OF PAGES (including cover sheet): 6

MESSAGE:

Assignment Recordation

Patent Numbers: 6,356,383 and 6,771,413

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the following papers and their attachments are being transmitted by facsimile to the United States Patent and Trademark Office at the fax number and on the date indicated above.

Recordation Form Coversheet (2 copies); 1.

ree (3) pages of Assignment documents. 2.

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Name:

IF YOU HAVE ANY PROBLEMS RÉCEIVING THIS TRANSMISSION,

PLEASE CONTACT: Darren E. Wolf

PHONE NO.: 412-392-5681

FAX NO.: 412-392-5650

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING THE MESSAGE TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION, OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU.

RECORDED: 06/15/2007

Form PTO-1595 (Rev. 07/05) DMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office	
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PATENT	· · · · · · · · · · · · · · · · · · ·	
	e record the attached documents or the new address(es) below.	
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)	
Donald M. Cornwell, Jr. John J. Veselka, Jr. Stephen G. Grubb Thomas D. Stephens Ruxiang Jin Alistair J. Price Michael C. Antone	Name: Corvis Corporation Internal Address: Office of the General Counsel	
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3. Nature of conveyance/Execution Date(s):	Street Address: 1122 Capital of Texas Highway South	
Execution Date(s) March 31, 2000		
✓ Assignment	City: Austin	
Security Agreement Change of Name	City. Ausuit	
Joint Research Agreement	State: Texas	
Government Interest Assignment	Country: United States of America Zip:78746-6426	
Executive Order 9424, Confirmatory License		
Other	Additional name(s) & address(es) attached? Yes No	
4. Application or patent number(s): This document is being filed together with a new application.		
A. Patent Application No.(s) B. Patent No.(s) 6,356,383		
	6,771,413	
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5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: Two (2)	
Name:Darren E. Wolf	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 80	
Internal Address: Dickie, McCamey & Chilcote, P.C.	Authorized to be charged by credit card	
	Authorized to be charged to deposit account	
Street Address: Two PPG Place, Suite 400	Enclosed	
	None required (government interest not affecting title	
City: Plttsburgh	8. Payment Information	
•	a. Credit Card Last 4 Numbers	
	Expiration Date	
Phone Number: 412-392-5681	b. Deposit Account Number <u>50-3198</u>	
Fax Number: 412-392-56501	Authorized User Name Darren E. Wolf	
Email Address: dwolf@ffmdiaw.com	<u> </u>	
9. Signature: WWW Wolf	June 14, 2007	
Signature	Total number of pages including cover	
Darren E. Wolf // Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:	
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