01-17-2001 **FGRM PTO-1595** (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94) Tab settings ⇒⇒⇒ 101585323 To the Honorable Commissioner of Patents and Trademarks: Please record and .dd original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies) Duane E. Ruffner, Michael L. Pierce and Name: University of Utah **Zhidong Chen** Internal Address: 421 Wakara Way, #170 Additional name(s) of conveying party(ies) attached? ☐ Yes ☑ No Salt Lake City, Utah 84108 3. Nature of conveyance: **⊠**Assignment □ Merger Street Address: _____ ☐ Security Agreement ☐ Change of Name □ Other City:_____ State: ____ ZIP:___ Execution Date: September 29, 2000 Additional Name(s) & address(es) attached? ☐ Yes ☑ No Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) 09/647,344 Additional numbers attached? ☐ Yes ☒ No 5. Name/and address of party to whom correspondence 6. Total number of applications and patents involved: One concerning document should be mailed: Name: Alan J. Howarth (Customer No. 20450) 7. Total fee (37 CFR 3.41).....\$ 40.00 Internal Address: <u>CLAYTON, HOWARTH &</u> CANNON, P.C. ☐ Authorized to be charged to deposit account Street Address: P.O. Box 1909 8. Deposit account number: 50-0836 City: **Sandy** State: **Utah** ZIP: **84091-1909** (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 information is true and correct and any attached copy is a true copy of the original document. Alan J. Howarth December 4, 2000 Name of Person Signing Signature

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

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

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PATENT

REEL: 011421 FRAME: 0980

ASSIGNMENT

WHEREAS, we, Duane E. RUFFNER, Michael L. PIERCE, and Zhidong CHEN, residents of Utah, have invented a certain new and useful improvement in a DIRECTED ANTISENSE LIBRARIES, for which an application for United States Letters Patent was filed on September 28, 2000 and received Serial Number 09/647,344

(I hereby authorize the attorneys of Clayton, Howarth & Cannon, P.C. to insert said serial number and filing date when known); and

WHEREAS, the University of Utah, a university of higher education and a nonprofit corporation, organized and existing under the State of Utah, located at 421 Wakara Way, #170, Salt Lake City, Utah 84108; is desirous of acquiring our entire right, title and interest in the same;

NOW, THEREFORE, in consideration of one dollar (\$1.00), the receipt and sufficiency whereof is hereby acknowledged, and other good and valuable consideration, we, the said Duane E. RUFFNER, Michael L. PIERCE, and Zhidong CHEN, by these presents do sell, assign and transfer unto said University of Utah, our full and

WHEN RECORDED RETURN TO:

Alan J. Howarth Clayton, Howarth & Cannon, P.C. P.O. Box 1909 Sandy, Utah 84091

> PATENT REEL: 011421 FRAME: 0981

exclusive right to the said invention and in and to said application and any and all divisions and continuations, substitutes and reissues of said application and the entire right, title and interest in, to and under any and all Letters Patent of the United States and foreign countries that may issue or be granted on said invention.

The Commissioner of Patents is hereby authorized and requested to issue said Letters Patent to said University of Utah, as the assignee of the entire right, title, and interest in and to the same, for its sole use and behoof; and for the use and behoof of its legal representatives, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment and sale not been made.

Executed this <u>18th</u> day of <u>Auplember</u>, 2000, at Salt Lake City, Utah.

Duane E. RUFFNER

STATE OF UTAH

SS

WHEN RECORDED RETURN TO:

Alan J. Howarth Clayton, Howarth & Cannon, P.C. P.O. Box 1909 Sandy, Utah 84091

County of Salt Lake

Before me personally appeared said Duane E. RUFFNER, Michael

L. PIERCE, and Zhidong CHEN and acknowledged the foregoing instrument to be their free act and deed this 28th day of Lentunger, 2000.

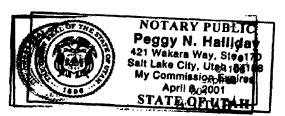
Notary Public Halledeny

My commission expires:

Residing at:

April 8 2001

Salt Lake Cety, Utah



Michael L. PIERCE

STATE OF UTAH

: ss

County of Salt Lake

Before me personally appeared said Duane E. RUFFNER, Michael L. PIERCE, and Zhidong CHEN and acknowledged the foregoing instrument to be their free act and deed this 29th day of September, 2000.

Notary Public

WHEN RECORDED RETURN TO:

Alan J. Howarth Clayton, Howarth & Cannon, P.C. P.O. Box 1909 Sandy, Utah 84091



My commission expires: Residing at: 4/23/2004 Salt Lake City, Utah
Zhidong CHEN
STATE OF UTAH) : ss
County of Salt Lake) Before me personally appeared said Duane E. RUFFNER, Michael
L . PIERCE, and Zhidong CHEN and acknowledged the foregoing
instrument to be their free act and deed this 144 day or
Sogtembres, 2000.
Notary Public Halleday
My commission expires: Residing at:
April 8, 2001 Jult (ake Cety 11tal)

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NOTARY PUBLIC Peggy N. Halliday 421 Wakara Way, Ste. 170 Salt Lake City, Utah 84108 My Commission Expires April 8, 2001 STATE OF UTAH

WHEN RECORDED RETURN TO:

Alan J. Howarth Clayton, Howarth & Cannon, P.C. P.O. Box 1909 Sandy, Utah 84091

RECORDED: 12/04/2000

PATENT REEL: 011421 FRAME: 0984