

Form PTO-1595 (Rev. 06/04)
OMB No. 0651-0027 (exp. 6/30/2005)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

Paul S. Keim
James M. Schupp

Execution Date(s) 10-28-03; 10-02-03

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)

Name: ARIZONA BOARD OF REGENTS,

Internal Address: acting for and on behalf of,

Northern Arizona University

Street Address: c/o Arizona Technology

Enterprises, LLC - 699 S. Mill Avenue

City: Brickyard Suite 601, 691AA

State: Tempe, Arizona

Country: United States Zip: 85281

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Government Interest Assignment
- Executive Order 9424, Confirmatory License

Other Record to correct Assignee's address
Reel/Frame_015862/0342

previously recorded at
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)

10/624,714
PCT/US2003/22950

B. Patent No.(s)

Additional numbers attached? Yes No

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

Name: Robert D. Atkins

Internal Address: QUARLES & BRADY STREICH
LANG LLP

Street Address: One Renaissance Square
Two North Central Avenue

City: Phoenix

State: Arizona Zip: 85004

Phone Number: (602) 229-5311

Fax Number: (602) 229-5690

Email Address: rda@quarles.com

6. Total number of applications and patents involved:

2

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 80

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 17-0055

Authorized User Name Robert D. Atkins

9. Signature:



Signature

April 17, 2005

Date

Robert D. Atkins, 34,288

Name of Person Signing

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

6

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Docket Number: 112624.00085

700170181

PATENT
Doc. No. 1891057
REEL: 016057 FRAME: 0945

CH \$80.00 170055 10624714

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Form PTO-1595 (Rev. 08/04)
OMB No. 0951-0027 (Rev. 10/31/2005)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents of the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):
Paul S. Keim
James M. Schupp

2. Name and address of receiving party(ies)
Name: ARIZONA BOARD OF REGENTS,
Internal Address: acting for an on behalf of,
Northern Arizona University

Execution Date(s) 10-28-03; 10-02-03
Additional name(s) of conveying party(ies) attached? Yes No

Street Address: c/o Arizona Technology
Enterprises, LLC - Brickyard Suite 601, 601AA

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Recordation form to correct 'Assignee' name previously recorded at Reel/Frame
Other 015433/0935 on 12/07/04

City: Tempe
State: Arizona
Country: United States Zip: 85281

4. Application or patent number(s):
A. Patent Application No.(s)
10/624,714
PCT/US2003/22960

Additional name(s) & address(es) attached? Yes No
 This document is being filed together with a new application.
B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:
Name: Robert D. Atkins
Internal Address: QUARLES & BRADY STREICH LANG LLP

6. Total number of applications and patents involved: 2

Street Address: One Renaissance Square
Two North Central Avenue

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 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting file)

City: Phoenix
State: Arizona Zip: 85004

8. Payment Information
a. Credit Card Last 4 Numbers _____
Expiration Date _____
b. Deposit Account Number 17-0055
Authorized User Name Robert D. Atkins

Phone Number: (602) 229-5311

Fax Number: (602) 229-5690

Email Address: rda@quarles.com

9. Signature: Robert D. Atkins
Signature

January 20, 2005
Date

Robert D. Atkins, 84,288
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 3

Documents to be recorded (including cover sheet) should be filed in (703) 305-6333, or mailed to Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1469, Alexandria, VA 22313-1469

Docket Number: 112824-00085

Doc. No.: 1891057

FILE \$30.00 170055 10624714

FILE \$80.00 170056 10624714

ASSIGNMENT AND AGREEMENT

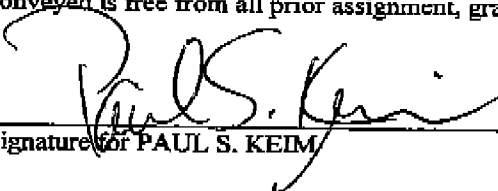
For good and valuable consideration, the receipt of which is hereby acknowledged, I, PAUL S. KEIM of Flagstaff, AZ, have sold, assigned, and transferred, and do hereby sell, assign, and transfer unto ARIZONA BOARD OF REGENTS, acting for and on behalf of, NORTHERN ARIZONA UNIVERSITY (ABR/NAU), a non-profit organization of the State of Arizona, having its principal office in Flagstaff, State of Arizona, United States of America, and its successors, assigns, and legal representatives, my entire right, title, and interest for the United States of America in and to certain invention(s) entitled HIGH RESOLUTION TYPING SYSTEM FOR PATHOGENIC MYCOBACTERIUM TUBERCULOSUM, United States Patent Application Serial No. 10/624,714, filed July 21, 2003, described, illustrated, and claimed in an application for Letters Patent of the United States of America, together with my entire right, title and interest in and to the application(s) for Letters Patent, and upon any continuation, continuation-in-part, division, reissue, reexamination, extension, renewal, or substitute thereof, and in and to any Letters Patent which may be issued upon the application(s).

I hereby also sell, assign, and transfer unto ABR/NAU, my entire right, title, and interest in and to the invention(s), application(s) for patent, and any patent which may be issued upon the application(s), in all countries foreign to the United States of America, including all rights under any and all international conventions and treaties in respect of the invention(s), application(s) for patent, and issued patent(s) in foreign countries. I authorize ABR/NAU to apply for patent in foreign countries directly in its own name, and to claim the priority of the filing date of any application for patent in any country under the provisions of any and all international conventions and treaties.

I hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America to issue Letters Patent upon the aforesaid application, continuation, continuation-in-part, division, reissue, reexamination, extension, renewal, or substitute, to ABR/NAU, for the sole use and behalf of ABR/NAU, its successors, assigns, and legal representatives, for the full term for which the Letters Patent may be granted, the same as would have been held and enjoyed by me had this assignment not been made. I authorize and request the equivalent authorities in foreign countries to issue the patents of their respective countries to and in the name of ABR/NAU.

I agree that, when requested, I will, without charge to ABR/NAU, but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, and convenient for applying, securing, and maintaining patent(s) for the invention(s) in any and all countries and for vesting title thereto in ABR/NAU, its successors, assigns, and legal representatives or nominees.

I covenant with ABR/NAU, its successors, assigns, and legal representatives, that the interest and property hereby conveyed is free from all prior assignment, grant, mortgage, license, or other encumbrance.



Signature of PAUL S. KEIM


STATE OF Arizona)
COUNTY OF Maricopa)

I, Diane Eline, a Notary Public in and for the County and State aforesaid, do hereby certify that PAUL S. KEIM, whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he/she signed, sealed and delivered the instrument as his/her free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 28th day of October, 2003.



Signature of Notary

 Notary Public State of Arizona
Maricopa County
Diane M Eline
Expires August 20, 2006

ASSIGNMENT AND AGREEMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, JAMES M. SCHUPP of Flagstaff, AZ, have sold, assigned, and transferred, and do hereby sell, assign, and transfer unto ARIZONA BOARD OF REGENTS, acting for and on behalf of, NORTHERN ARIZONA UNIVERSITY (ABR/NAU), a non-profit organization of the State of Arizona, having its principal office in Flagstaff, State of Arizona, United States of America, and its successors, assigns, and legal representatives, my entire right, title, and interest for the United States of America in and to certain invention(s) entitled HIGH RESOLUTION TYPING SYSTEM FOR PATHOGENIC MICROBACTERIUM TUBERCULOSUM, United States Patent Application Serial No. 10/624,714, filed July 21, 2003, described, illustrated, and claimed in an application for Letters Patent of the United States of America, together with my entire right, title and interest in and to the application(s) for Letters Patent, and upon any continuation, continuation-in-part, division, reissue, reexamination, extension, renewal, or substitute thereof, and in and to any Letters Patent which may be issued upon the application(s).

I hereby also sell, assign, and transfer unto ABR/NAU, my entire right, title, and interest in and to the invention(s), application(s) for patent, and any patent which may be issued upon the application(s), in all countries foreign to the United States of America, including all rights under any and all international conventions and treaties in respect of the invention(s), application(s) for patent, and issued patent(s) in foreign countries. I authorize ABR/NAU to apply for patent in foreign countries directly in its own name, and to claim the priority of the filing date of any application for patent in any country under the provisions of any and all international conventions and treaties.

I hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America to issue Letters Patent upon the aforesaid application, continuation, continuation-in-part, division, reissue, reexamination, extension, renewal, or substitute, to ABR/NAU, for the sole use and behalf of ABR/NAU, its successors, assigns, and legal representatives, for the full term for which the Letters Patent may be granted, the same as would have been held and enjoyed by me had this assignment not been made. I authorize and request the equivalent authorities in foreign countries to issue the patents of their respective countries to and in the name of ABR/NAU.

I agree that, when requested, I will, without charge to ABR/NAU, but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, and convenient for applying, securing, and maintaining patent(s) for the invention(s) in any and all countries and for vesting title thereto in ABR/NAU, its successors, assigns, and legal representatives or nominees.

I covenant with ABR/NAU, its successors, assigns, and legal representatives, that the interest and property hereby conveyed is free from all prior assignment, grant, mortgage, license, or other encumbrance.

James M. Schupp
Signature for JAMES M. SCHUPP



STATE OF ARIZONA
COUNTY OF COCONINO

Donna L. Zimmerman, a Notary Public in and for the County and State aforesaid, do hereby certify that JAMES M. SCHUPP, whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he/she signed, sealed and delivered the instrument as his/her free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 2 day of October - 2003.

Donna L. Zimmerman
Signature of Notary