

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

U.S. DEPARTMENT OF COMMERCE  
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## 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

**3. Nature of conveyance:**

- ☐ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☒ Recordation form to correct Assignee's name previously recorded at Reel/Frame  
☒ Other 015433/0935 on 12/07/04

**2. Name and address of receiving party(ies)**

Name: ARIZONA BOARD OF REGENTS,

Internal Address: acting for an on behalf of,

Northern Arizona University

Street Address: c/o Arizona Technology

Enterprises, LLC - Brickyard Suite 601, 691AA

City: Tempe

State: Arizona

Country: United States Zip: 85281

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)

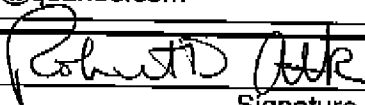
**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
 Expiration Date \_\_\_\_\_

b. Deposit Account Number 17-0055

Authorized User Name Robert D. Atkins

**9. Signature:**



Signature

January 20, 2005

Date

Robert D. Atkins, 34,288

Name of Person Signing

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

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

Docket Number: 112624.00085  
700147367

**PATENT**  
 REEL: 015611 FRAME: 0134

CH \$80.00 170055 10624714

ASSIGNMENT AND AGREEMENT

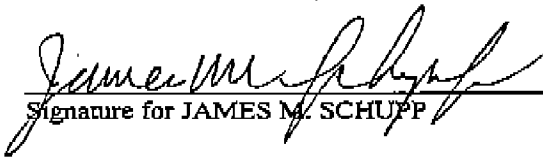
For good and valuable consideration, the receipt of which is hereby acknowledged, I, JAMES M. SCHUPP of Flagstaff, AZ, have sold, assigned, and transferred, and do hereby sell, assign, and transfer unto ARIZONA BOARD OF REGENTS, acting for and on behalf of, NORTHERN ARIZONA UNIVERSITY (ABR/NAU), a non-profit 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).

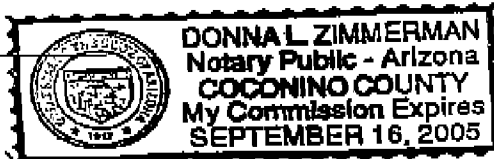
I hereby also sell, assign, and transfer unto ABR/NAU, my entire right, title, and interest in and to the invention(s), application(s) for patent, and any patent which may be issued upon the application(s), in all countries foreign to the United States of America, including all rights under any and all 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.

  
Signature for JAMES M. SCHUPP



STATE OF ARIZONA  
COUNTY OF COCONINO

I, 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.

  
Signature of Notary

ASSIGNMENT AND AGREEMENT

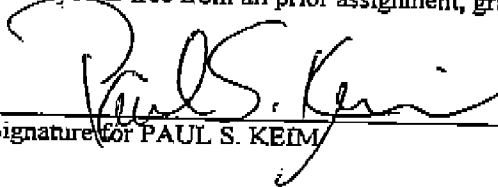
For good and valuable consideration, the receipt of which is hereby acknowledged, I, PAUL S. KEIM of Flagstaff, AZ, have sold, assigned, and transferred, and do hereby sell, assign, and transfer unto ARIZONA BOARD OF REGENTS, acting for and on behalf of, NORTHERN ARIZONA UNIVERSITY (ABR/NAU), a non-profit 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 for PAUL S. KEIM

STATE OF Arizona  
COUNTY OF Marcopa )

I, Diane Elaine, 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.



Notary Public State of Arizona  
Marcopa County  
Diane M Elaine  
Expires August 20, 2006

  
Signature of Notary

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PATENT

RECORDED: 01/20/2005

REEL: 015611 FRAME: 0136