

RECORDATION FORM COVER SHEET
PATENTS ONLY

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Assistant Commissioner for Patents: Please record the attached original document.

1. Name of conveying party(ies):

Barry E. Rothenberg
Ritsuko Sawada-Hirai
James C. Barton



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

Billups-Rothenberg, Inc.
11526 Sorrento Valley Road, Suite A-1
San Diego, California

Additional name(s) attached? [] Yes [x] No

Additional names/addresses attached? [] Yes [x] No

3. Nature of conveyance:

7-20-99

- [x] Assignment
[] Merger
[] Security Agreement
[] Change of Name
[] Other:

07-23-1999



101099652

Execution Date: March 31, 1999

4. Application number(s) or patent number(s):

If this document is being filed with a new application, the execution date of the application is:

A. Patent Application No.(s):
09/277,457

B. Patent No.(s):

Additional numbers attached? [] Yes [x] No

5. Name/address of party to whom correspondence concerning document should be mailed:

Ingrid A. Beattie, Ph.D.
Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804

6. Total number of applications/patents involved: 1

7. Total fee (37 CFR 3.41): \$40

- [x] Enclosed
[] Authorized to charge deposit account

8. Deposit account number: 06-1050

If the fee above is being charged to deposit account, a duplicate copy of this cover sheet is attached. Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.

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9. Statement and signature: To the best of my knowledge and belief, the foregoing information is true and correct and the attached is the original document.

Ingrid A. Beattie, Ph.D.
Name of Person Signing

Handwritten signature: I A Beattie

Signature

7/16/99
Date

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

07/23/1999 MTHAI1 00000016 09277457

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40.00 DP

Date of Deposit

7/16/99

I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

Handwritten signature: Lisa Kobelane

ASSIGNMENT

For valuable consideration, we, Barry E. Rothenberg, of Delmar, California; Ritsuko Sawada-Hirai of San Diego, California; and James C. Barton of Birmingham, Alabama; hereby assign to Billups-Rothenberg, Inc., a California corporation having a place of business at 11526 Sorrento Valley Road, Suite A-1, San Diego, California, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest, including, without limitation, the right to sue for past infringement, throughout the world in the inventions and improvements, which are subject of an application for United States Patent signed by us, entitled Mutations Associated With Iron Disorders, filed _____, and assigned U.S. Serial Number _____, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, and design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

IN WITNESS WHEREOF, I hereto set my hand and seal at La Jolla, California, this 31st day of MARCH, 1999
Barry E. Rothenberg L.S.
Barry E. Rothenberg

STATE OF _____ :
:ss.
COUNTY OF _____ :

Before me this _____ day of _____, 19____, personally appeared

Barry E. Rothenberg known to me to be the person whose name is subscribed to the foregoing Assignment, and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

Susan Carroel
WITNESS

3/31/99
DATE

Jane M. Lewis
WITNESS

3/31/99
DATE

IN WITNESS WHEREOF, I hereto set my hand and seal at La Jolla, California,

this 31 day of March, 1999

Ritsuko Sawada-Hirai L.S.
Ritsuko Sawada-Hirai

STATE OF _____:

:ss.

COUNTY OF _____:

Before me this _____ day of _____, 19____, personally appeared

Ritsuko Sawada-Hirai known to me to be the person whose name is subscribed to the foregoing Assignment, and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained. ~~see attached acknowledgment~~

Susan Carroll
WITNESS

3/31/99
DATE

Jane M. Lewis
WITNESS

3/31/99
DATE

IN WITNESS WHEREOF, I hereto set my hand and seal at _____,

this _____ day of _____, 19____

James C. Barton L.S.

STATE OF _____:

:ss.

COUNTY OF _____:

Before me this _____ day of _____, 19____, personally appeared

James C. Barton known to me to be the person whose name is subscribed to the foregoing Assignment, and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

WITNESS

DATE

WITNESS

DATE

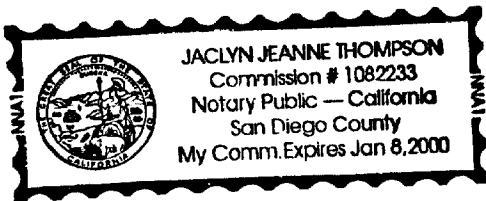
State of California

County of San Diego

On March 31, 1999 before me, Jaclyn Jeanne Thompson
DATE NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared Barry E Rottenberg and Ritsuko Sawada-Hirai
NAME(S) OF SIGNER(S)

personally known to me - OR - 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(s) 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

Jaclyn Jeanne Thompson
SIGNATURE OF NOTARY

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- INDIVIDUAL
- CORPORATE OFFICER

TITLE(S)

- PARTNER(S) LIMITED GENERAL
- ATTORNEY-IN-FACT
- TRUSTEE(S)
- GUARDIAN/CONSERVATOR
- OTHER: _____

DESCRIPTION OF ATTACHED DOCUMENT

Assignment - Patent

Application

TITLE OR TYPE OF DOCUMENT

1
NUMBER OF PAGES

3-31-99
DATE OF DOCUMENT

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

self

James C. Barton

SIGNER(S) OTHER THAN NAMED ABOVE