FORM PTO-1595 RECORD. 10 (Rev. 6-93)	- 05 - 2000 U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
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To the Honorable Commissioner of Patents)1479737d original documents or copy thereof.
1. Name of conveying party(ies): James Joseph BECK and Charles Jason BARNETT \[\begin{align*} \ \ -10 \ \ 0 \ \end{align*}	2. Name and address of receiving party(ies) Name: Novartis AG Internal Address:
Additional name(s) of conveying party(ies) attached?	Street Address: Schwarzwaldallee 215
☐ Security Agreement ☐ Change of Name ☐ Other Execution Date: August 10, 2000	City: Basel State: Switzerland ZIP: 4058 Additional name(s) & address(es) attached?
If this document is being filed together with a new application A. Patent Application No.(s) Additional numbers attached and address of party to whom correspondences.	B. Patent No.(s) ached? □ Yes ☒ No
Name and address of party to whom correspondence concerning document should be mailed: Name:	 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41) \$
Street Address: 3054 Cornwallis Road City: Research Triangle Park State: NC ZIP: 27709	8. Deposit account number: 19-0134 (in the name of Novartis Corporation) (Attach duplicate copy of this page if paying by deposit account) JSE THIS SPACE
:581 40.00 CH . Statement and signature.	information is true and correct and any attached copy is a true August 10, 2000 Signature Date

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

REEL: 011121 FRAME: 0630

ASSIGNMENT

We,

James Joseph Beck residing at 114 Ripley Court

Cary, North Carolina 27513

Jason Barnett residing at 26 Audley Lane

Chapel Hill, North Carolina 27514,

for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, do hereby sell and assign to **Novartis AG**, a company organized under the laws of the Swiss Confederation, having a place of business at Schwarzwaldallee 215, Basel, Switzerland 4058, its successors, assigns and legal representatives, all our right, title and interest, which includes the right to and full benefit of such priorities as may now or hereafter be granted to us by local laws or by treaty, including any international convention for the protection of industrial property, in and for the United States and its territories and possessions in and to the invention entitled:

PCR-BASED DETECTION AND QUANTIFICATION OF TAPESIA YALLUNDAE AND TAPESIA ACUFORMIS

invented by us and described in the application for United States Letters Patent executed on even date herewith including (1) said application for United States Letters Patent and all continuations and divisions thereof (including further continuations and divisions such as, but not limited to, continuations of continuations and divisions of continuations), (2) all United States Letters Patent which may be issued and/or granted on all such applications, (3) all applications for reissues and extensions of and reexamination certificates for all such United States Letters Patent and (4) all reissues and extensions and reexamination certificates issued for all such United States Letters Patent, the said interest being the entire ownership of said invention and all of said applications, United States Letters Patent (including reissue Letters Patent), extensions and reexamination certificates to be held and enjoyed by the said Novartis AG and its successors and assigns to the full end of the terms to which said United States Letters Patent (including reissue Letters Patent), extensions and reexamination certificates may be granted and/or issued, as fully and entirely as the same would have been held and enjoyed by us if this sale, assignment and transfer had not been made;

PATENT REEL: 011121 FRAME: 0631 And we hereby agree to sign and/or execute any further documents and/or instruments which may be necessary, lawful and proper in and/or for the filing and/or prosecution of said applications for United States Letters Patent (including reissue Letters Patent), extensions and reexamination certificates and/or the granting and/or issuance thereof and/or to otherwise secure title to said invention and all of said applications, United States Letters Patent (including reissue Letters Patent), extensions and reexamination certificates in said assignee.

Signed this 10 day of August, 2000
Signed this 10 day of August, 2000