12-16-1999



U.S. DEPARTMENT OF COMMERC Patent and Trademark Offic

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To The Honorable Commissioner of Pata 101222 thereof.	attached original documents or copy
<ol> <li>Name of conveying party(ies):         Antonello Covacci, Massimo Bugnoli, John Telford, and Rino Rappuoli     </li> </ol>	Name and address of receiving party(ies):  Name: CHIRON, S.p.A.
Additional name(s) of conveying party(ies) attached? () YES (X) NO	Name: CHIRON, S.p.A.  Street Address: Via Florentina, 1 S3100  City: Siena
3. Nature of Conveyance: (X) Assignment () Merger () Security Agreement () Change of Name () Other: Execution Date(s): September 11, 1999, September 11, 1999, September 11, 1999, September 7, 1999	City: Siena  Country: Italy  Additional name(s) & address attached? ( )YES (X)NO
<ol> <li>Application number(s) or patent number(s):</li> <li>If this document is being filed together with a new application</li> </ol>	ation, the execution date of the application is:
A. Patent Application No.(s)	B. Patent No.(s)
08/471,491, filed 6/6/95 08/470,260, filed 6/6/95 08/466,662, filed 6/6/95 09/360,385, filed 7/26/99 and 09/360,934, filed 7/26/99	
Additional numbers at	tached? () YES (X) NO
5. Name and address of party to whom correspondence concerning documents should be mailed: Name: Francis A. Paintin, Esq. Internal Address: WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP One Liberty Place - 46th Floor Philadelphia, Pennsylvania 19103-7301	<ul> <li>6. Total number of applications and patents involved: Five (5)</li> <li>7. Total fee (37 CFR 3.41):\$200.00 (X) Enclosed () Authorized to be charged to Deposit Account Number 23-3050</li> </ul>
Street Address: WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP One Liberty Place - 46th Floor 1650 Market Street Philadelphia, Pennsylvania 19103-7301	8. Please charge any deficiency or credit any overpayment to Deposit Account Number 23-3050
DO NOT US	SE THIS SPACE
Of the original document.  Doreen Y. Trujillo/35,719  Name of Person Signing/Reg. No.  Signing/Reg. No.	nation is true and correct and any attached copy is a true copy  November 30, 199  nature  Date of pages including cover sheet, attachments, and document: 3
ail documents to be recorded with required cover sheet infor /16/1999 DNGUYEN 00000073 08471491	mation to:

Commissioner of Patents and Trademarks

**Box Assignments** Washington, D.C. 20231

> **PATENT REEL: 010434 FRAME: 0934**

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## **ASSIGNMENT**

WHEREAS, we

## Antonello Covacci, Massimo Bugnoli, John Telford, Rino Rappuoli and Giovanni Macchia,

hereinafter referred to as the assignors are the joint inventors of certain inventions or improvements for which we have made applications for Letters Patent to the United States, identified as:

Serial No. 08/471,491, filed June 6, 1995, Serial No. 08/470,260, filed June 6, 1995, Serial No. 08/466,662, filed June 6, 1995, Serial No. 09/360,385, filed July 26, 1999, and

Serial No. 09/360,934, filed July 26, 1999.

WHEREAS, CHIRON S.p.A., of Siena, Italy, a corporation of Italy, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said applications and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all

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**RECORDED: 12/02/1999** 

rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Date: 9/11/1999	May
	Antonello Covacci
Date: 9/11/1999	mBn():
	Massimo Bagnoli
Date: LON QU	The the
	John Telford
Date: 10 7 1991	
,	Rino Rappuoli
Date:	
Date.	Giovanni Macchia