Form <b>PTO-1595</b> (Rev. 03-11) OMB No. 0851-0027 (exp. 03/31/2015)	U.S. DEPARTMENT OF C United States Patent and Trad		
RECORDATION FOR	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.	
Name of conveying party(les):	2. Name and address of receiving party(ies)		
Third Millennium Engineering, LLC	Name: SpineCore, Inc.		
	Internal Address:		
Additional name(\$) of conveying party(les) attached?	Street Address:	1.0	
3. Nature of conveyance/Execution Date(s):			
Execution Date(s): January 21, 2003	2 Pearl Court		
X Assignment   Merger   Change of Name			
Security Agreement Joint Research Agreement	City: Allendale		
Government Interest Assignment	State: New Jersey		
Executive Order 9424, Confirmatory License		401	
Other	Additional name(s) & address(es) Yes X	No	
	attached?	<del></del>	
	This document is being filed together with a new applic	ation.	
A. Patent Application No.(s)	B. Patent No.(s)		
10/784,637			
Additional numbers attached			
<ol><li>Name and address to whom correspondence concerning document should be mailed:</li></ol>	6. Total number of applications and patents involved:		
Name: Ryan L. Bergeron			
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.	00	
Internal Address: Atty. Dkt.: SPINE 3.0-437 PPPPPPC II		•	
Street Address: 600 South Avenue West	X Authorized to be charged to deposit account	nt	
	Enclosed		
	None required (government interest not affi	ertina title)	
	Trans radanad (Basemment success for an	uig unv)	
City:Westfield	8. Payment Information		
State: NJ Zip: 07090			
Phone Number: 908-654-5000	Deposit Account Number 12-1095		
Fax Number:         908-654-7866           Email Address:         rncormier@ldlkm.com	Deposit Account Number 12-1095 Authorized User Name Ryan L. Bergeron		
9. Signature:			
V 12	Navambar 2, 20	12	
Signature	November 6, 20		
Ryan L. Bergeron - 66,377	Total number of pages including cover	10	
Name of Person Signing	sheet, attachments, and documents:		

3356211\_1.DOCX

**PATENT REEL: 031662 FRAME: 0322** 

700512344

#### ASSIGNMENT AND ASSUMPTION AGREEMENT

This Assignment and Assumption Agreement (the "Agreement") is effective January 21, 2003 (the "Effective Date") and is among Third Millennium Engineering, LLC., a Delaware limited liability company of Summit, New Jersey ("Millennium"), Third Millennium Enterprises, LLC ("Enterprises") and SpineCore, Inc., a Delaware corporation of Summit New Jersey (the "Company").

Millennium or Enterprises owns or controls certain inventions which are embodied by or encompassed in certain issued patents and pending patent applications, as identified in attached Schedule (collectively, the "Inventions").

For good and sufficient consideration, Millennium and Enterprises hereby irrevocably sells and assigns to the Company, and the Company hereby assumes, Millennium's and Enterprises' entire right, title, and interest in the Inventions throughout the world, and in and to all applications for patent and patents for the Inventions, in all countries of the world, including all divisions, reissues, continuations, substitutions and extensions thereof, and all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property, including rights of priority, resulting from the filing of any of said applications.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date set forth above.

Third Millennium Engineering, LLC	SpineCore, Inc.
By: Joseph P. tarris Esq	By: U Joseph P. Errico
Title: Clansger	Title: <u>CEO</u>
Date: 1 21 03	Date: 1/21/03
	1
Third Millennium Enterprises, LLC	
An-	
By: Joseph P. Evnle Esq	

### Schedule of Patents and Patent Applications

Title	Country	Particulars
Artificial Intervertebral Disc	USA	US Application Serial No.
Having Limited Rotation Using	,	10/256,160
a Captured Ball and Socket		
Joint With a Solid Ball and		Filed 26-Sep-2002
Compression Locking Post		
Artificial Intervertebral Disc	USA	US Application Serial No.
Having a Captured Ball and	· ·	10/294,981
Socket Joint With a Solid Ball		
and Compression Locking Post		Filed 14-Nov-2002
Artificial Intervertebral Disc	USA	US Application Serial No.
Having Limited Rotation Using		10/294,985
a Captured Ball and Socket		
Joint With a Compression		
Locking Post and a Solid Ball		Filed 14-Nov-2002
Having a Protrusion		
Artificial Intervertebral Disc	USA	US Application Serial No.
Having Limited Rotation Using		10/294,986
a Captured Ball and Socket		
Joint with a Solid Ball, a		
Compression Locking Post and		Filed 14-Nov-2002
an Interference Pin		
Artificial Intervertebral Disc	USA	US Application Serial No.
Having Limited Rotation Using		10/294,989
a Captured Ball and Socket		
Joint with a Solid Ball, a		1-1-27 0000
Compression Locking Post and	_	Filed 14-Nov-2002
an Interference Ball Bearing		The state of the s
Artificial Intervertebral Disc	USA	US Application Serial No.
Having a Captured Ball and		10/294,983
Socket Joint With a Solid Ball		777 - 1 1 4 Nove 2002
and Retaining Cap		Filed 14-Nov-2002
Artificial Intervertebral Disc	USA	US Application Serial No.
Having Limited Rotation Using		10/294,982
a Captured Ball and Socket	•	11427 0000
Joint With a Solid Ball and		Filed 14-Nov-2002
Retaining Cap		

Title	Country	Particulars
Artificial Intervertebral Disc Having Limited Rotation Using a Captured Ball and Socket	USA	US Application Serial No. 10/294,984
Joint With a Retaining Cap and a Solid Ball Having a Protrusion		Filed14-Nov-2002
Artificial Intervertebral Disc Having Limited Rotation Using	USA	US Application Serial No. 10/294,980
a Captured Ball and Socket Joint with a Solid Ball, a Retaining Cap, and an Interference Pin	,	Filed 14-Nov-2002
Artificial Intervertebral Disc Having Limited Rotation Using a Captured Ball and Socket	USA	US Application Serial No. 10/294,988
Joint with a Solid Ball, a Retaining Cap, and an Interference Ball Bearing		Filed 14-Nov-2002
Intervertebral Spacer Device	USA	United States Patent No. 5,989,291 Issued 23-Nov-1999
		US Application Serial No.
Intervertebral Spacer Device Having a Radially Thinning Belleville Spring	USA	09/968,047
Dougang phase		Filed 1-Oct-2001
Intervertebral Spacer Device Utilizing a Belleville Washer	USA	US Application Serial No. 09/968,046
Having Radially Extending		Filed 1-Oct-2001
Grooves Intervertebral Spacer Device	USA	US Application Serial No.
Having a Radially Thinning Slotted Belleville Spring		09/968,045
Plotten Dette Ame plums		Filed 1-Oct-2001
Intervertebral Spacer Device Utilizing a Spirally Slotted Belleville Washer Having	USA	US Application Serial No. 09/970,479
Radially Extending Grooves		Filed 4-Oct-2001

Title	Country	Particulars
Intervertebral Spacer Device	USA	US Application Serial No.
Utilizing a Belleville Washer		09/974,154
Having Radially Spaced		Filed 11-Oct-2001
Concentric Grooves		Filed 11-Oct-2001
	770	US Application Serial No.
Intervertebral Spacer Device	USA	09/975,471
Utilizing a Spirally Slotted		02.2.2,
Belleville Washer Having		Filed 11-Oct-2001
Radially Spaced Concentric		
Grooves Intervertebral Spacer Device	USA	US Application Serial No.
Utilizing a Spirally Slotted	··· •	10/040,801
Belleville Washer and a		TH 15 T 0000
Rotational Mounting		Filed 7-Jan-2002
		US Application Serial No.
Tension Bearing Artificial Disc	USA	10/151,280
Providing a Centroid of Motion		Aug and angular
Centrally Located Within an		Filed 20-May-2002
Intervertebral Space	USA	US Application Serial No.
Artificial Intervertebral Disc Utilizing a Ball Joint Coupling	COLA	10/175,417
Onnoing a Dan John Couping		110 7 0000
		Filed 19-Jun-2002
Artificial Intervertebral Disc	PCT	PCT Application Serial No. PCT/US02/19660
Having a Slotted Belleville		PC1/0802/19000
Washer Force Restoring		· ·
Element		Filed 19-Jun-2002
1 173	PCT	PCT Application Serial No.
Artificial Intervertebral Disc	FCI	PCT/US02/19654
Having a Grooved Belleville		
Washer Force Restoring Element		
Resulting Element		min 1 10 Free 2002
		Filed 19-Jun-2002
Artificial Intervertebral Disc	USA	US Application Serial No. 10/177,013
Having a Slotted Belleville		10/17/3013
Washer Force Restoring		Filed 21-Jun-2002
Element		US Application Serial No.
Intervertebral Spacer Device	USA	09/982,148
Having Arch Shaped Spring		
Elements		

Title	Country	Particulars
		Filed 18-Oct-2001
Intervertebral Spacer Device Having a Domed Arch Shaped	USA	US Application Serial No. 10/035,640
		Filed 9-Nov-2001
Intervertebral Spacer Device Having a Slotted Domed Arch Strip Spring	UŞA	US Application Serial No. 10/035,614
amp apring		Filed 9-Nov-2001
Intervertebral Spacer Device Having a Slotted Partial Circular Domed Arch Strip	USA	US Application Serial No. 10/035,669
Spring		Filed 9-Nov-2001
Intervertebral Spacer Device Having a Multi-Pronged	USA	US Application Serial No. 10/035,668
Domed Spring		Filed 9-Nov-2001
Artificial Intervertebral Disc Having an Arched Spring Force Restoring Element	PCT	PCT Application Serial No. PCT/US02/19656
		Filed 19-Jun-2002
Intervertebral Spacer Device	USA	US Patent No. 6,468,310
Having a Wave Washer Force		Issued 22-Oct-2002
Restoring Element Intervertebral Spacer Device Having a Spiral Wave Washer Force Restoring Element	USA	US Application Serial No. 09/906,118 (Allowed Claims)
1 0100 1000000		Filed 16-Jul-2001
Artificial Intervertebral Disc Having a Wave Washer Force Restoring Element	PCT	PCT Application Serial No. PCT/US02/19659
•		Filed 19-Jun-2002
Artificial Intervertebral Disc Having a Wave Washer Force	USA	US Application Serial No. 10/177,377
Restoring Element		Filed 21-Jun-2002

Title	Country	Particulars
Intervertebral Spacer Device Having a Wave Washer Force Restoring Element	UŠA	US Application Serial No. 10/272,580
		Filed 16-Oct-2002
Artificial Intervertebral Disc Having a Spider Spring Force Restoring Element	PCT	PCT Application Serial No. PCT/US02/19651
•		Filed 19-Jun-2002
	USA	US Application Serial No.
Artificial Intervertebral Disc Having a Spider Spring Force	USA.	10/177,378
Restoring Element		Filed 21-Jun-2002
Intervertebral Spacer Having a Flexible Wire Mesh Vertebral	USA	US Application Serial No. 10/128,619
Body Contact Element		Filed 23-Apr-2002
Artificial Intervertebral Disc Having a Flexible Wire Mesh	USA	US Application Serial No. 10/140,153
Vertebral Body Contact Element		Filed 7-May-2002
Artificial Intervertebral Disc	PCT	PCT Application Serial No. PCT/US02/19657
Having a Deformable Wire Mesh Vertebral Body Contact Element		Filed 19-Jun-2002
Instrumentation and Methods For Use In Implanting an	USA	US Application Serial No. 10/282,356
Artificial Disc		Filed 29-Oct-2002
Method of Surgically Treating	USA	US Patent No. 6,447,548
Scoliosis		Issued 10-Sep-2002
Trial Intervertebral Distraction Spacers	USA	US Application Serial No. 09/906,119
		Filed 16-Jul-2001

Title	Country	Particulars
Insertion Tool For Use With Trial Intervertebral Distraction Spacers	USA	US Patent No. 6,428,544  Issued 6-Aug-2002
Insertion Tool For Use With Tapered Trial Intervertebral Distraction Spacers	USA	US Patent No. 6,478,801 Issued 12-Nov-2002
Porous Intervertebral Distraction Spacers	USA	US Patent No. 6,471,725  Issued 29-Oct-2002
Surgical Method of Treating Scoliosis	USA	US Application Serial No. 09/906,124
Method of Distracting Vertebral Bones	USA	Filed 16-Jul-2001 US Patent No. 6,436,102 Issued 20-Aug-2002
Vertebral Bone Distraction Instruments	USA	US Application Serial No. 09/906,126 Filed 16-Jul-2001
Instruments for Reorienting Vertebral Bones for the Treatment of Scoliosis	USA	US Application Serial No. 09/906,134 Filed 16-Jul-2001
Insertion Tool For Use With Intervertebral Spacers	USA	US Application Serial No. 09/906,127 Filed 16-Jul-2001
Insertion Tool For Use With Trial Intervertebral Distraction Spacers	USA	US Application Serial No. 10/115,751 Filed 3-Apr-2002
Method of Distracting Vertebral Bones	USA	US Application Serial No. 10/222,332
Method of Surgically Treating Scoliosis	USA	Filed 16-Aug-2002 US Application Serial No. 10/223,146
		Filed 19-Aug-2002

**PATENT** 

REEL: 031662 FRAME: 0330

Title	Country	Particulars
Porous Intervertebral Distraction Spacers	USA	US Application Serial No. 10/223,148
		Filed 4-Oct-2002
Insertion Tool For Use With Tapered Trial Intervertebral Distraction Spacers	USA	US Application Serial No. 10/223,147
. Distaction operats		Filed 19-Aug-2002
Static Trials and Related Instruments and Methods for Use in Implanting an Artificial	USA	US Application Serial No. 10/309,585
Intervertebral Disc		Filed 4-Dec-2002
Femoral Ring Loader	USA	US Patent No. 6,440,142
		Issued 27-Aug-2002
Distraction Instrument for use in Anterior Cervical Fixation	USA	US Application Serial No. 10/003,000
Surgery		Filed 30-Nov-2001
Spacer Device and Insertion Instrument for use in Anterior	USA	US Application Serial No. 10/001,531
Cervical Fixation Surgery		Filed 30-Nov-2001
Femoral Ring Loader	USA	US Application Serial No. 10/075,688
		Filed 13-Feb-2002

PATENT REEL: 031662 FRAME: 0331

**RECORDED: 11/07/2013**