### PATENT ASSIGNMENT

#### SUBMISSION TYPE:
- New Assignment

#### NATURE OF CONVEYANCE:
- Assignment

#### CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
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<tbody>
<tr>
<td>Barry C. Worrell</td>
<td>10/19/2011</td>
</tr>
<tr>
<td>Chad P. Boudreaux</td>
<td>10/06/2011</td>
</tr>
<tr>
<td>Sean P. Conlon</td>
<td>10/13/2011</td>
</tr>
<tr>
<td>Gary W. Knight</td>
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<tr>
<td>Matthew C. Miller</td>
<td>10/06/2011</td>
</tr>
<tr>
<td>Charles J. Scheib</td>
<td>10/06/2011</td>
</tr>
<tr>
<td>Frederick E. Shelton IV</td>
<td>10/03/2011</td>
</tr>
<tr>
<td>Geoffrey S. Strobl</td>
<td>10/18/2011</td>
</tr>
<tr>
<td>Jeffrey S. Swayze</td>
<td>10/13/2011</td>
</tr>
<tr>
<td>Gregory A. Trees</td>
<td>10/18/2011</td>
</tr>
<tr>
<td>Aaron C. Voegele</td>
<td>10/13/2011</td>
</tr>
<tr>
<td>Charles S. Black</td>
<td>10/06/2011</td>
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<tr>
<td>Kreena Modi</td>
<td>10/29/2011</td>
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#### RECEIVING PARTY DATA

<table>
<thead>
<tr>
<th>Name:Ethicon Endo-Surgery, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address: 4545 Creek Road, #97</td>
</tr>
<tr>
<td>City: CINCINNATI</td>
</tr>
<tr>
<td>State/Country: OHIO</td>
</tr>
<tr>
<td>Postal Code: 45242</td>
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</tbody>
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#### PROPERTY NUMBERS Total: 1

<table>
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<tr>
<th>Property Type</th>
<th>Number</th>
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<tbody>
<tr>
<td>Application Number</td>
<td>13235683</td>
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#### CORRESPONDENCE DATA

<table>
<thead>
<tr>
<th>Fax Number: (513)651-6981</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone: 513-651-6800</td>
</tr>
<tr>
<td>Email: <a href="mailto:dattix@fbtiaw.com">dattix@fbtiaw.com</a></td>
</tr>
</tbody>
</table>

501741842  
PATENT  
REEL: 027316 FRAME: 0337
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.

**Correspondent Name:** Andrew B. Ulmer  
**Address Line 1:** 3300 Great American Tower  
**Address Line 2:** 301 East Fourth Street  
**Address Line 4:** CINCINNATI, OHIO 45202

<table>
<thead>
<tr>
<th>ATTORNEY DOCKET NUMBER:</th>
<th>END6889USNP1.0588747</th>
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<tr>
<td>NAME OF SUBMITTER:</td>
<td>Andrew B. Ulmer</td>
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ASSIGNMENT

DOCKET NO. ENA6889USNPI

Serial No. 13/235,683

Filed September 19, 2011

WHEREAS, Barry C. Worrell, a citizen of the United States, residing at 1647 Lago Mar Drive, Centerville 45458, County of Montgomery, and State of Ohio; Chad P. Boudreaux, a citizen of the United States, residing at 10840 Lakehurst Court, Cincinnati 45242, County of Hamilton, and State of Ohio; Sean P. Conlon, a citizen of the United States, residing at 6234C North Shadow Hill Way, Loveland 45140, County of Clermont, and State of Ohio; Gary W. Knight, a citizen of the United States, residing at 8264 Meadowlark Drive, West Chester 45069, County of Butler, and State of Ohio; Matthew C. Miller, a citizen of the United States, residing at 2221 Washington Avenue, Cincinnati 45212, County of Hamilton, and State of Ohio; Charles J. Scheib, a citizen of the United States, residing at 11329 Donwiddle Drive, Loveland 45140, County of Hamilton, and State of Ohio; Frederick E. Shelton, IV, a citizen of the United States, residing at 245 East Main Street, Hillsboro 45133, County of Highland, and State of Ohio; Geoffrey S. Strobl, a citizen of the United States, residing at 15993 Colonial Drive, Williamsburg 45176, County of Clermont, and State of Ohio; Jeffrey S. Swayne, a citizen of the United States, residing at 7074 Birchley Drive, Hamilton 45011, County of Butler, and State of Ohio; Gregory A. Trees, a citizen of the United States, residing at 9265 Hickory Hill Court, Loveland 45140, County of Warren, and State of Ohio; Aaron C. Voegele, a citizen of the United States residing at 143 Shoemaker Drive, Loveland 45140, County of Hamilton, and State of Ohio; Charles S. Black, a citizen of the United States, residing at 3987 Germania Street, Cincinnati 45227, County of Hamilton, and State of Ohio; Kreena R. Avinukta, a citizen of the United States, residing at 3727 Thorngate Drive, Mason 45040, County of Warren, and State of Ohio (hereinafter referred to as “ASSIGNORS”), have made certain new and useful inventions or discoveries relating to a ARTICULATION JOINT FEATURES FOR ARTICULATING SURGICAL DEVICE, for which they have on September 19, 2011 filed an application for Letters Patent of the United States; and

WHEREAS, Ethicon Endo-Surgery, Inc., a corporation formed under the laws of the State of Ohio, (hereinafter referred to as “ASSIGNEE”), is desirous of acquiring Assignors’ entire right, title, and interest therein:

NOW, THEREFORE, BE IT KNOWN that for and in consideration of the sum of One Dollar and other valuable considerations to them moving, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries.
disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United Stated and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that they have a full and unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this _________
day of __________________, 2011

(L.S.)

Barry C. Worrell

STATE OF Ohio )
COUNTY OF Hamilton ) ss:

BE IT REMEMBERED, That on this _________ day of October, 2011, before me, a Notary
Public, personally appeared Barry C. Worrell, who I am satisfied is the person named in and who
executed the foregoing instrument in my presence, and I having first made known to him/her the
contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as
his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
RECORDED IN
Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this ___ day of October, 2011

(L.S.)

Chad P. Boudreaux

STATE OF OHIO )
COUNTY OF Hamilton ) ss:

BE IT REMEMBERED, That on this ___ day of October, 2011, before me, a Notary Public, personally appeared Chad P. Boudreaux, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded In
Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this __/____ day of October, 2011

(L.S.)

Sean P. Conlon

STATE OF Ohio )
COUNTY OF Hamilton ) ss:

BE IT REMEMBERED, That on this 13th day of October, 2011, before me, a Notary Public, personally appeared Sean P. Conlon, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in
Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 13th
day of October, 2011

(L.S.)

Gary W. Knight

STATE OF Ohio )
COUNTY OF Hamilton ) ss:

BE IT REMEMBERED, That on this 13th day of October, 2011, before me, a Notary
Public, personally appeared Gary W. Knight, who I am satisfied is the person named in and who
executed the foregoing instrument in my presence, and I having first made known to him/her the
contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as
his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in
Hamilton County
My Comm. Exp. 5/31/14

6 of 15
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 6th day of October, 2011

(L.S.)

Matthew C. Miller

STATE OF OHIO )
COUNTY OF Hamilton )

BE IT REMEMBERED, That on this 6th day of October, 2011, before me, a Notary Public, personally appeared Matthew C. Miller, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 6th day of October, 2011

(L.S.)

Charles J. Scheib

STATE OF Ohio )
COUNTY OF Hamilton ) ss:

BE IT REMEMBERED, That on this 6th day of October, 2011, before me, a Notary Public, personally appeared Charles J. Scheib, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this ___ day of ___ , 2011

(L.S.)

Frederick E. Shelton, IV

STATE OF Ohio )
COUNTY OF Hamilton ) ss:

BE IT REMEMBERED, That on this 3rd day of October , 2011, before me, a Notary Public, personally appeared Frederick E. Shelton, IV, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in
Hamilton County
My Comm. Exp. 05/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 18th day of October, 2011

(L.S.)

Geoffrey S. Strobl

STATE OF Ohio )
COUNTY OF Hamilton ) ss:

BE IT REMEMBERED, That on this 18th day of October, 2011, before me, a Notary Public, personally appeared Geoffrey S. Strobl, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 13th day of OCTOBER, 2011.

(L.S.)

Jeffrey S. Swayze

STATE OF OHIO )
COUNTY OF HAMILTON )

BE IT REMEMBERED, That on this 13th day of October, 2011, before me, a Notary Public, personally appeared Jeffrey S. Swayze, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this __________ day of October, 2011

(L.S.)

Gregory A. Trees

STATE OF Ohio )
COUNTY OF Hamilton) ss:

BE IT REMEMBERED, That on this 18th day of October, 2011, before me, a Notary Public, personally appeared Gregory A. Trees, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public

KARA N. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 13th
day of ______________, 2011

(L.S.)

Aaron C. Voegele

STATE OF Ohio )
COUNTY OF Hamilton )

BE IT REMEMBERED, That on this 13th day of October, 2011, before me, a Notary
Public, personally appeared Aaron C. Voegele, who I am satisfied is the person named in and
who executed the foregoing instrument in my presence, and I having first made known to
him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered
the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara N. Tulanko
Notary Public
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 6th day of October, 2011

(L.S.)

Charles S. Black

STATE OF OHIO

COUNTY OF Hamilton

BE IT REMEMBERED, That on this 6th day of October, 2011, before me, a Notary Public, personally appeared Charles S. Black, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Kara M. Tulanko
Notary Public

KARA M. TULANKO
NOTARY PUBLIC
STATE OF OHIO
Recorded in Hamilton County
My Comm. Exp. 5/31/14
IN TESTIMONY WHEREOF, Assignor has hereunto set his/her hand and seal this 29th day of October, 2011

(L.S.)

STATE OF Ohio  
COUNTY OF Medina  

BE IT REMEMBERED, That on this 29th day of October, 2011, before me, a Notary Public, personally appeared Kreena B. Avimukta, who I am satisfied is the person named in and who executed the foregoing instrument in my presence, and I having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed, and delivered the same as his/her voluntary act and deed for the uses and purposes therein expressed.

Notary Public

RYAN J. LEHUTA  
Notary Public, State of Ohio  
My Comm. Expires 12-01-2014