

K110739

Entellus Medical

JUN 14 2011



**510(k) Summary**

**Date Prepared:** June 13, 2011  
**Submitter Information:** Entellus Medical, Inc.  
6705 Wedgwood Court, North  
Maple Grove, MN 55311

**Establishment Registration:** 3006345872

**Contact Information:** Karen E. Peterson  
Vice President Clinical, Regulatory and Quality  
(763) 463-7066  
[kpeterson@entellusmedical.com](mailto:kpeterson@entellusmedical.com)

**Device Information:**  
**Trade Name:** Entellus Medical Sinus Guidewire  
**Common Name:** Sinus Guidewire  
**Classification Regulation:** 21 CFR 874.4420  
**Classification Name:** ENT Manual Surgical Instrument  
**Classification Panel:** ENT  
**Device Classification:** Class I  
**Product Code:** LRC

**Predicate Devices:**  
NeoMetrics Selectiva™ SB Guidewire [K033321, K013024]  
Relieva Vigor™ Sinus Guidewire

**Device Description:**  
Entellus Medical Sinus Guidewire is a 0.035” – compatible guidewire with a flexible angled radiopaque distal tip. It is constructed of nickel titanium alloys, stainless steel, and features a polymer coating.

**Indication for Use**  
To provide a means to access the frontal, sphenoid and maxillary sinuses, for diagnostic and therapeutic procedures in adults aged 18 and over.

**Contraindications:**  
None

**Technological Characteristics:**  
The device has the same technological characteristics (i.e., design, function, materials, biocompatibility, packaging and sterilization) as the predicate device [K033321, K013024]. The device has the same technological characteristics (i.e., design, function, principle of operation, and biocompatibility) as the predicate device (Relieva Vigor Sinus Guidewire). The subject and

Entellus Medical

predicate devices are all sterilized using Ethylene Oxide (EtO), validated per ISO 11135-1, and have a Sterility Assurance Level (SAL) of  $10^{-6}$ . All devices are for single use only and are biocompatible per ISO 10993-1.

**Substantial Equivalence:**

The intended use and indications for use of the subject device is the same as the predicate device (Relieva Vigor Sinus Guidewire). The technological characteristics of the subject device are the same as the predicate devices, [K033321, K013024] and/or Relieva Vigor Sinus Guidewire, including: design, function, principle of operation, materials, biocompatibility, packaging and sterilization.

**Performance Data:**

Performance testing of the Entellus Medical Sinus Guidewire consisted of design verification testing and a cadaver study. Design verification testing included simulated use and compatibility testing. A cadaver study was conducted to support the utility of this device in the sinus spaces. Biocompatibility, sterilization, packaging, shelf life testing, animal and clinical data were not submitted. Performance testing showed that the device meets design specifications and performed as intended.

**Conclusion**

In conclusion, the device is substantially equivalent based on a comparison of intended use, indications for use, and technological characteristics. The device is safe and effective for its intended use.



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room -WO66-G609  
Silver Spring, MD 20993-0002

Entellus Medical, Inc.  
c/o Karen E. Peterson  
Vice President, Clinical, Regulatory and Quality  
705 Wedgwood Court North  
Maple Grove, MN 55311 USA

JUN 14 2011

Re: K110739

Trade/Device Name: Entellus Medical Sinus Guidewire  
Regulation Number: 21 CFR 874.4420  
Regulation Name: Ear, Nose and Throat manual surgical instrument  
Regulatory Class: Class I  
Product Code: LRC  
Dated: March 16, 2011  
Received: March 17, 2011

Dear Ms. Peterson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical


Page 2 - Ms. Peterson

device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucml15809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Malvina B. Eydelman, M.D.

Director

Division of Ophthalmic, Neurological,  
and Ear, Nose and Throat Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Entellus Medical

**Indications for Use Statement**

510(k) Number (if known): K110739

**Device Name:** Entellus Medical Sinus Guidewire

**Indications for Use**

To provide a means to access the frontal, sphenoid and maxillary sinuses, for diagnostic and therapeutic procedures in adults aged 18 and over.

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH Office of Device Evaluation (ODE)

Prescription Use X - OR/AND

Over-the-Counter Use \_\_\_\_\_

Susan Rudy CRNP  
(Division Sign-Off)  
Division of Ophthalmic, Neurological and Ear,  
Nose and Throat Devices

510(k) Number K110739



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room - WO66-G609  
Silver Spring, MD 20993-0002

Entellus Medical, Inc.  
c/o Karen E. Peterson  
Vice President, Clinical, Regulatory and Quality  
705 Wedgwood Court North  
Maple Grove, MN 55311 USA

JUN 14 2011

Re: K110739

Trade/Device Name: Entellus Medical Sinus Guidewire  
Regulation Number: 21 CFR 874.4420  
Regulation Name: Ear, Nose and Throat manual surgical instrument  
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Page 2 - Ms. Peterson

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Sincerely yours,



Malvina B. Eydelman, M.D.

Director

Division of Ophthalmic, Neurological,  
and Ear, Nose and Throat Devices

Office of Device Evaluation

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Radiological Health

Entellus Medical

### Indications for Use Statement

510(k) Number (if known): K110739

**Device Name:** Entellus Medical Sinus Guidewire

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Prescription Use  - OR/AND

Over-the-Counter Use

Susan Rudy CRNP  
(Division Sign-Off)  
Division of Ophthalmic, Neurological and Ear,  
Nose and Throat Devices

510(k) Number K110739





U.S. Food and Drug Administration  
Center for Devices and Radiological Health  
Document Control Center WO66-G609  
10903 New Hampshire Avenue  
Silver Spring, MD 20993-0002

March 17, 2011

ENTERNET MEDICAL, INC.  
6705 WEDGEWOOD COURT NORTH  
MAPLE GROVE, MINNESOTA 55311  
ATTN: KAREN E. PETERSON

510k Number: K110739

Received: 3/17/2011

Product: ENTELLUS MEDICAL SINUS GUIDEWI

The Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH), has received the Premarket Notification, (510(k)), you submitted in accordance with Section 510(k) of the Federal Food, Drug, and Cosmetic Act(Act) for the above referenced product and for the above referenced 510(k) submitter. Please note, if the 510(k) submitter is incorrect, please notify the 510(k) Staff immediately. We have assigned your submission a unique 510(k) number that is cited above. Please refer prominently to this 510(k) number in all future correspondence that relates to this submission. We will notify you when the processing of your 510(k) has been completed or if any additional information is required. **YOU MAY NOT PLACE THIS DEVICE INTO COMMERCIAL DISTRIBUTION UNTIL YOU RECEIVE A LETTER FROM FDA ALLOWING YOU TO DO SO.**

Please remember that all correspondence concerning your submission **MUST** be sent to the Document Mail Center (DMC) at the above letterhead address. Correspondence sent to any address other than the one above will not be considered as part of your official 510(k) submission.

On September 27, 2007, the President signed an act reauthorizing medical device user fees for fiscal years 2008 - 2012. The legislation - the Medical Device User Fee Amendments of 2007 is part of a larger bill, the Food and Drug Amendments Act of 2007. Please visit our website at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Overview/MedicalDeviceUserFeeandModernizationActMDUFMA/default.htm> for more information regarding fees and FDA review goals. In addition, effective January 2, 2008, any firm that chooses to use a standard in the review of ANY new 510(k) needs to fill out the new standards form (Form 3654) and submit it with their 510(k). The form may be found at <http://www.fda.gov/AboutFDA/ReportsManualsForms/Forms/default.htm>.

We remind you that Title VIII of the Food and Drug Administration Amendments Act of 2007 (FDAAA) amended the PHS Act by adding new section 402(j) (42 U.S.C. § 282(j)), which expanded the current database known as ClinicalTrials.gov to include mandatory registration and reporting of results for applicable clinical trials of human drugs (including biological products) and devices. Section 402(j) requires that a certification form <http://www.fda.gov/AboutFDA/ReportsManualsForms/Forms/default.htm> accompany 510(k)/HDE/PMA submissions. The agency has issued a draft guidance titled: "Certifications To Accompany Drug, Biological

Product, and Device Applications/Submissions: Compliance with Section 402(j) of The Public Health Service Act, Added By Title VIII of The Food and Drug Administration Amendments Act of 2007”

<http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/PremarketNotification510k/ucm134034.htm>. According to the draft guidance, 510(k) submissions that do not contain clinical data do not need the certification form.

Please note the following documents as they relate to 510(k) review: 1) Guidance for Industry and FDA Staff entitled, “Interactive Review for Medical Device Submissions: 510(k)s, Original PMAs, PMA Supplements, Original BLAs and BLA Supplements”. This guidance can be found at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm089402.htm>. Please refer to this guidance for information on a formalized interactive review process. 2) Guidance for Industry and FDA Staff entitled, “Format for Traditional and Abbreviated 510(k)s”. This guidance can be found at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm084365.htm>. Please refer to this guidance for assistance on how to format an original submission for a Traditional or Abbreviated 510(k).

In all future premarket submissions, we encourage you to provide an electronic copy of your submission. By doing so, you will save FDA resources and may help reviewers navigate through longer documents more easily. Under CDRH's e-Copy Program, you may replace one paper copy of any premarket submission (e.g., 510(k), IDE, PMA, HDE) with an electronic copy. For more information about the program, including the formatting requirements, please visit our web site at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/ucm134508.html>. In addition, the 510(k) Program Video is now available for viewing on line at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/PremarketNotification510k/ucm070201.htm>.

**Please ensure that whether you submit a 510(k) Summary as per 21 CFR 807.92, or a 510(k) Statement as per 21 CFR 807.93, it meets the content and format regulatory requirements.**

Lastly, you should be familiar with the regulatory requirements for medical devices available at Device Advice <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/default.htm>. If you have questions on the status of your submission, please contact DSMICA at (301)796-7100 or the toll-free number (800)638-2041, or at their internet address <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/default.htm>. If you have procedural questions, please contact the 510(k) Staff at (301)796-5640.

Sincerely,

510(k) Staff

Entellus Medical

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K110739



**4. Cover Letter**

March 16, 2011

Food and Drug Administration  
 Center for Devices and Radiological Health  
 Document Mail Center – W066-G609  
 10903 New Hampshire Avenue  
 Silver Spring, Maryland 20993-0002

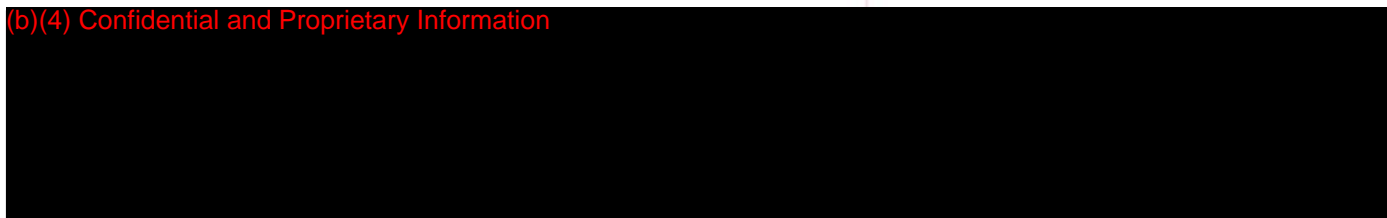
FDA CDRH DMC  
 MAR 17 2011  
 Received K11

Re: Traditional 510(k) Notification for Entellus Medical Sinus Guidewire

Dear Sir or Madam,

Enclosed is a Traditional 510(k) Premarket Notification, submitted in duplicate by Entellus Medical, in accordance with 21CFR Part 807, Subpart E for the Entellus Medical Sinus Guidewire. The Sinus Guidewire is intended to provide a means to access the sinus space for diagnostic and therapeutic procedures.

(b)(4) Confidential and Proprietary Information

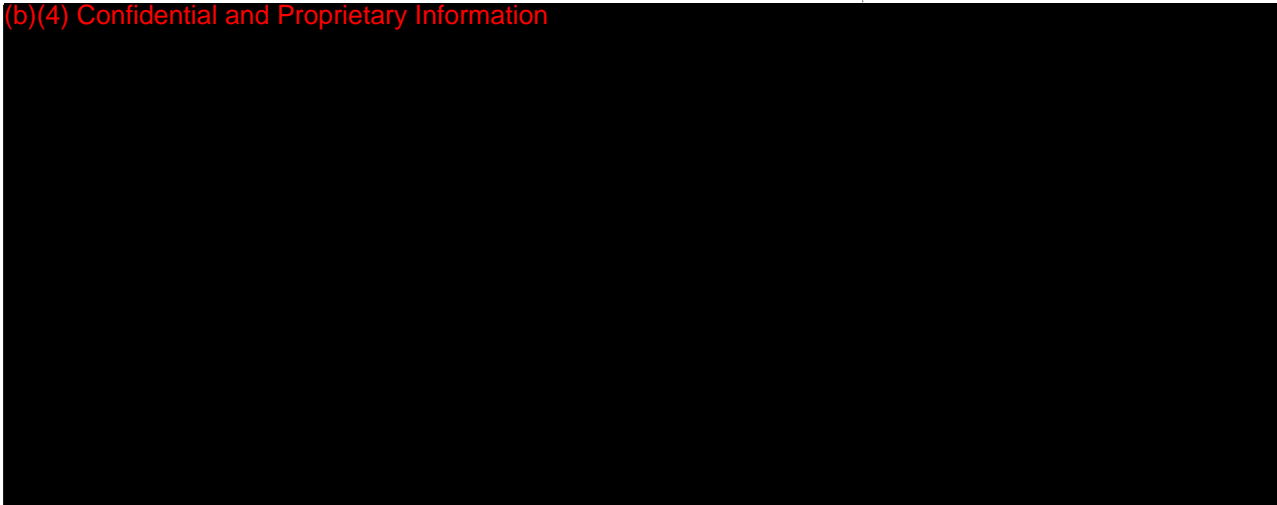


To save FDA resources and facilitate the review, one paper copy and one electronic copy (eCopy) of this submission is provided. The eCopy follows the formatting requirements as per FDA's web instructions and it is an exact duplicate of the paper copy.

**General Information**

Type of Submission	Traditional 510(k)
Basis for Submission	New device
Submitter's name and Address	Entellus Medical 6705 Wedgwood Court North Maple Grove, MN 55311

**Contact Person** Karen E. Peterson  
 Vice President Clinical, Regulatory and Quality  
 Tel: 1- (763) 463-7066  
 Fax: 1- (763) 463-1599  
 Email: kpeterson@entellusmedical.com



**Common / Usual Name** Sinus Guidewire  
**Trade Name** Entellus Medical Sinus Guidewire  
**Classification Regulation** 21CFR 878.4800  
**Classification Name** Manual Surgical Instrument for General Use  
**Classification Panel** General and Plastic Surgery  
**Class** Class I  
**Product Code** KAM  
**Model Number** PTW

**Identification of Predicate Devices** NeoMetrics Selectiva™ SB Guidewire [K033321, K013024]  
 Relieva Vigor™ Sinus Guidewire [K043445]

**Design and Use of Device**

Question	Yes	No
Is the device intended for prescription use (21 CFR 801 Subpart D)?	√	
Is the device intended for over-the-counter use (21 CFR 807 Subpart C)?		√
Does the device contain components derived from a tissue or other biologic source?		√
Is the device provided sterile?	√	
Is the device intended for single use?	√	
Is the device a reprocessed single use device?		√

If yes, does this device type require reprocessed validation data?		√
Does the device contain a drug?		√
Does the device contain a biologic?		√
Does the device use software?		√
Does the submission include clinical information?		√
Is the device implanted?		√

This submission contains confidential commercial and trade secret information. We respectfully request that you give this notification the maximum protection provided by law in accordance with 21 CFR Part 20.

Some of the material in this application may be trade secret or confidential commercial or financial information within the meaning of 21 C.F.R. § 20.61 and therefore not disclosable under the Freedom of Information Act even after the existence of this application becomes public. We ask that you consult with the Company as provided in 21 C.F.R. § 20.45 before making any part of this submission publicly available.

Thank you for your consideration of the information provided in this 510(k) Notification. If you have any questions or need any additional information during your review, please contact me by telephone at 763-463-7066 or 651-398-4341, or by email at [kpeterson@entellusmedical.com](mailto:kpeterson@entellusmedical.com).

Sincerely,



Karen E. Peterson  
 Vice President Clinical, Regulatory and Quality  
 Entellus Medical  
 Office: 763-463-7066  
 Cell: 651-398-4341  
 Email: [kpeterson@entellusmedical.com](mailto:kpeterson@entellusmedical.com)



## Traditional 510(k) Premarket Notification

### Entellus Medical Sinus Guidewire

Date: March 16, 2011

Submitted by:

A handwritten signature in blue ink, reading "Karen E. Peterson", is written over a horizontal line.

Karen E Peterson  
Vice President Clinical, Regulatory and Quality  
Entellus Medical, Inc.  
6705 Wedgwood Court North  
Maple Grove, MN 55311

Entellus Medical Inc. considers all information within this 510(k) notification pertaining to the design of the Device and testing to be confidential. Entellus Medical requests that the information herein be protected as such.

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### Attachments

Attachment 1	Medical Device User Fee Cover Sheet (Form FDA 3601)
Attachment 2	Indications for Use Statement
Attachment 3	510(k) Summary
Attachment 4	Standards Data Report Forms for 510(k)s – FDA 3654

**(b)(4) Confidential and Proprietary Information**

Attachment 6	Information & IFU on Predicate Device: NeoMetrics Selectiva SB Guidewire [K033321, K013024]
Attachment 7	Information & IFU on Predicate Device: Acclarent Relieva Vigor Guidewire [K043445]
Attachment 8	Packaging Label
Attachment 9	Instructions for Use (IFU)
Attachment 10	Sinus Guidewire Simulated Use and Device Compatibility Design Verification Protocol and Report
Attachment 11	DHF-1311Sinus Guidewire Fluoroscopic Compatibility Report

**(b)(4) Confidential and Proprietary Information**

## **2. Medical Device User Fee Cover Sheet (Form FDA 3601)**

The Medical Device User Fee Cover Sheet is in Attachment 1.



### **3. CDRH Premarket Review Submission Cover Sheet**

The CDRH Premarket Review Submission Cover Sheet is on the following pages.

Entellus Medical

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DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION CDRH PREMARKET REVIEW SUBMISSION COVER SHEET	Form Approval OMB No. 9010-0120
-------------------------------------------------------------------------------------------------------------------------	------------------------------------

Date of Submission <b>March 16, 2011</b>	User Fee Payment ID Number <b>(b) (4)</b>	FDA Submission Document Number (if known)
---------------------------------------------	----------------------------------------------	-------------------------------------------

SECTION A TYPE OF SUBMISSION				
<b>PMA</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Premarket Report <input type="checkbox"/> Modular Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Report <input type="checkbox"/> Report Amendment <input type="checkbox"/> Licensing Agreement	<b>PMA &amp; HDE Supplement</b> <input type="checkbox"/> Regular (180 day) <input type="checkbox"/> Special <input type="checkbox"/> Panel Track (PMA Only) <input type="checkbox"/> 30-day Supplement <input type="checkbox"/> 30-day Notice <input type="checkbox"/> 135-day Supplement <input type="checkbox"/> Real-time Review <input type="checkbox"/> Amendment to PMA & HDE Supplement <input type="checkbox"/> Other	<b>PDP</b> <input type="checkbox"/> Original PDP <input type="checkbox"/> Notice of Completion <input type="checkbox"/> Amendment to PDP	<b>510(k)</b> <input checked="" type="checkbox"/> Original Submission: <input checked="" type="checkbox"/> Traditional <input type="checkbox"/> Special <input type="checkbox"/> Abbreviated (Complete section I, Page 5) <input type="checkbox"/> Additional Information <input type="checkbox"/> Third Party	<b>Meeting</b> <input type="checkbox"/> Pre-510(K) Meeting <input type="checkbox"/> Pre-IDE Meeting <input type="checkbox"/> Pre-PMA Meeting <input type="checkbox"/> Pre-PDP Meeting <input type="checkbox"/> Day 100 Meeting <input type="checkbox"/> Agreement Meeting <input type="checkbox"/> Determination Meeting <input type="checkbox"/> Other ( <i>specify</i> ):
<b>IDE</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Supplement	<b>Humanitarian Device Exemption (HDE)</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Supplement <input type="checkbox"/> Report <input type="checkbox"/> Report Amendment	<b>Class II Exemption Petition</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Additional Information	<b>Evaluation of Automatic Class III Designation (De Novo)</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Additional Information	<b>Other Submission</b> <input type="checkbox"/> 513(g) <input type="checkbox"/> Other ( <i>describe submission</i> ):

Have you used or cited Standards in your submission?  Yes  No (If Yes, please complete Section I, Page 5)

SECTION B SUBMITTER, APPLICANT OR SPONSOR			
Company / Institution Name <b>Entellus Medical, Inc.</b>		Establishment Registration Number (if known) <b>3006345872</b>	
Division Name (if applicable)		Phone Number (including area code) <b>(763) 463-7056</b>	
Street Address <b>6705 Wedgwood Court North</b>		FAX Number (including area code) <b>(763) 463-1599</b>	
City <b>Maple Grove</b>	State / Province <b>MN</b>	ZIP/Postal Code <b>55311</b>	Country <b>USA</b>
Contact Name <b>Karen E. Peterson</b>			
Contact Title <b>Vice President, Clinical, Regulatory and Quality</b>		Contact E-mail Address <b>kpeterson@entellusmedical.com</b>	

SECTION C APPLICATION CORRESPONDENT (e.g., consultant, if different from above)			
Company / Institution Name			
Division Name (if applicable)		Phone Number (including area code)	
Street Address		FAX Number (including area code)	
City	State / Province	ZIP/Postal Code	Country
Contact Name			
Contact Title		Contact E-mail Address	

SECTION D1 REASON FOR APPLICATION - PMA, PDP, OR HDE		
<input type="checkbox"/> Withdrawal <input type="checkbox"/> Additional or Expanded Indications <input type="checkbox"/> Request for Extension <input type="checkbox"/> Post-approval Study Protocol <input type="checkbox"/> Request for Applicant Hold <input type="checkbox"/> Request for Removal of Applicant Hold <input type="checkbox"/> Request to Remove or Add Manufacturing Site	<input type="checkbox"/> Change in design, component, or specification: <input type="checkbox"/> Software / Hardware <input type="checkbox"/> Color Additive <input type="checkbox"/> Material <input type="checkbox"/> Specifications <input type="checkbox"/> Other ( <i>specify below</i> )  Other ( <i>specify below</i> )	<input type="checkbox"/> Location change: <input type="checkbox"/> Manufacturer <input type="checkbox"/> Sterilizer <input type="checkbox"/> Packager
<input type="checkbox"/> Process change: <input type="checkbox"/> Manufacturing <input type="checkbox"/> Sterilization <input type="checkbox"/> Packaging <input type="checkbox"/> Other ( <i>specify below</i> )	<input type="checkbox"/> Labeling change: <input type="checkbox"/> Indications <input type="checkbox"/> Instructions <input type="checkbox"/> Performance <input type="checkbox"/> Shelf Life <input type="checkbox"/> Trade Name <input type="checkbox"/> Other ( <i>specify below</i> )	<input type="checkbox"/> Report Submission: <input type="checkbox"/> Annual or Periodic <input type="checkbox"/> Post-approval Study <input type="checkbox"/> Adverse Reaction <input type="checkbox"/> Device Defect <input type="checkbox"/> Amendment
<input type="checkbox"/> Response to FDA correspondence:		<input type="checkbox"/> Change in Ownership <input type="checkbox"/> Change in Correspondent <input type="checkbox"/> Change of Applicant Address
<input type="checkbox"/> Other Reason ( <i>specify</i> ):		
SECTION D2 REASON FOR APPLICATION - IDE		
<input type="checkbox"/> New Device <input type="checkbox"/> New Indication <input type="checkbox"/> Addition of Institution <input type="checkbox"/> Expansion / Extension of Study <input type="checkbox"/> IRB Certification <input type="checkbox"/> Termination of Study <input type="checkbox"/> Withdrawal of Application <input type="checkbox"/> Unanticipated Adverse Effect <input type="checkbox"/> Notification of Emergency Use <input type="checkbox"/> Compassionate Use Request <input type="checkbox"/> Treatment IDE <input type="checkbox"/> Continued Access Request for Removal of Applicant Hold	<input type="checkbox"/> Change in: <input type="checkbox"/> Correspondent / Applicant <input type="checkbox"/> Design / Device <input type="checkbox"/> Informed Consent <input type="checkbox"/> Manufacturer <input type="checkbox"/> Manufacturing Process <input type="checkbox"/> Protocol - Feasibility <input type="checkbox"/> Protocol - Other <input type="checkbox"/> Sponsor  <input type="checkbox"/> Report submission: <input type="checkbox"/> Current Investigator <input type="checkbox"/> Annual Progress Report <input type="checkbox"/> Site Waiver Report <input type="checkbox"/> Final	<input type="checkbox"/> Repose to FDA Letter Concerning: <input type="checkbox"/> Conditional Approval <input type="checkbox"/> Deemed Approved <input type="checkbox"/> Deficient Final Report <input type="checkbox"/> Deficient Progress Report <input type="checkbox"/> Deficient Investigator Report <input type="checkbox"/> Disapproval <input type="checkbox"/> Request Extension of Time to Respond to FDA <input type="checkbox"/> Request Meeting <input type="checkbox"/> Request Hearing Manufacturer
<input type="checkbox"/> Other Reason ( <i>specify</i> ):		
SECTION D3 REASON FOR SUBMISSION - 510(k)		
<input checked="" type="checkbox"/> New Device	<input type="checkbox"/> Additional or Expanded Indications	<input type="checkbox"/> Change in Technology
<input type="checkbox"/> Other Reason ( <i>specify</i> ):		

**SECTION E ADDITIONAL INFORMATION ON 510(K) SUBMISSIONS**

Product codes of devices to which substantial equivalence is claimed								Summary of, or statement concerning, <b>safety and effectiveness information</b> <input checked="" type="checkbox"/> 510 (k) summary attached <input type="checkbox"/> 510 (k) statement
1	<b>DQX</b>	2	<b>KAM</b>	3		4		
5		6		7		8		

Information on devices to which substantial equivalence is claimed (if known)

	510(k) Number	Trade or Proprietary or Model Name	Manufacturer
1	<b>K033321, K013024</b>	<b>Selectiva™ SB Guidewire</b>	<b>NeoMetrics, Inc.</b>
2	<b>K043445</b>	<b>Relieva Vigor™ Sinus Guidewire</b>	<b>Acclarent, Inc.</b>
3			
4		6	6

**SECTION F PRODUCT INFORMATION - APPLICATION TO ALL APPLICATIONS**

Common or usual name or classification  
**Common name: Sinus Guidewire**  
**Classification name: Manual Surgical Instrument for General Use**

	Trade or Proprietary or Model Name for This Device	Model Number
1	<b>Entellus Medical Sinus Guidewire</b>	<b>1 PTW</b>
2		<b>2</b>

FDA document numbers of all prior related submissions (regardless of outcome)

1	2	3	4	5	6
7	8	9	10	11	12

Data Included in Submission  
 Laboratory Testing     Animal Trials     Human Trials

**SECTION G PRODUCT CLASSIFICATION - APPLICATION TO ALL APPLICATIONS**

Product Code <b>KAM</b>	C.F.R. Section (if applicable) <b>21 CFR 878.4800</b>	Device Class <input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Unclassified
Classification Panel <b>General and Plastic Surgery</b>		

Indications (from labeling)  
  
**To provide a means to access the sinus space for diagnostic and therapeutic procedures.**

Note: Submission of this information does not affect the need to submit a 2891 or 2891a Device Establishment Registration form.

FDA Document Number (if known)

SECTION H MANUFACTURING / PACKAGING / STERILIZATION SITES RELATING TO A SUBMISSION

(b)(4) Confidential and Proprietary Information



**SECTION I UTILIZATION OF STANDARDS**

**Note: Complete this section if your application or submission cites standards or includes a "Declaration of Conformity to a Recognized Standard" statement.**

(b)(4) Confidential and Proprietary Information

8					
9					

Please include any additional standards to be cited on a separate page.

**Public reporting burden for this collection of information** is estimated to average 0.5 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to:

Food and Drug Administration  
CDRH (HFZ-342)  
9200 Corporate Blvd.  
Rockville, MD 20850

*An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control*



#### 4. Cover Letter

March 16, 2011

Food and Drug Administration  
Center for Devices and Radiological Health  
Document Mail Center – W066-G609  
10903 New Hampshire Avenue  
Silver Spring, Maryland 20993-0002

Re: Traditional 510(k) Notification for Entellus Medical Sinus Guidewire

Dear Sir or Madam,

Enclosed is a Traditional 510(k) Premarket Notification, submitted in duplicate by Entellus Medical, in accordance with 21CFR Part 807, Subpart E for the Entellus Medical Sinus Guidewire. The Sinus Guidewire is intended to provide a means to access the sinus space for diagnostic and therapeutic procedures.

(b)(4) Confidential and Proprietary Information

To save FDA resources and facilitate the review, one paper copy and one electronic copy (eCopy) of this submission is provided. The eCopy follows the formatting requirements as per FDA's web instructions and it is an exact duplicate of the paper copy.

#### **General Information**

Type of Submission	Traditional 510(k)
Basis for Submission	New device
Submitter's name and Address	Entellus Medical 6705 Wedgwood Court North Maple Grove, MN 55311

Contact Person                      Karen E. Peterson  
 Vice President Clinical, Regulatory and Quality  
 Tel: 1- (763) 463-7066  
 Fax: 1- (763) 463-1599  
 Email: kpeterson@entellusmedical.com

(b)(4) Confidential and Proprietary Information

Common / Usual Name	Sinus Guidewire
Trade Name	Entellus Medical Sinus Guidewire
Classification Regulation	21CFR 878.4800
Classification Name	Manual Surgical Instrument for General Use
Classification Panel	General and Plastic Surgery
Class	Class I
Product Code	KAM
Model Number	PTW
Identification of Predicate Devices	NeoMetrics Selectiva™ SB Guidewire [K033321, K013024] Relieva Vigor™ Sinus Guidewire [K043445]

### Design and Use of Device

Question	Yes	No
Is the device intended for prescription use (21 CFR 801 Subpart D)?	√	
Is the device intended for over-the-counter use (21 CFR 807 Subpart C)?		√
Does the device contain components derived from a tissue or other biologic source?		√
Is the device provided sterile?	√	
Is the device intended for single use?	√	
Is the device a reprocessed single use device?		√



If yes, does this device type require reprocessed validation data?		√
Does the device contain a drug?		√
Does the device contain a biologic?		√
Does the device use software?		√
Does the submission include clinical information?		√
Is the device implanted?		√

This submission contains confidential commercial and trade secret information. We respectfully request that you give this notification the maximum protection provided by law in accordance with 21 CFR Part 20.

Some of the material in this application may be trade secret or confidential commercial or financial information within the meaning of 21 C.F.R. § 20.61 and therefore not disclosable under the Freedom of Information Act even after the existence of this application becomes public. We ask that you consult with the Company as provided in 21 C.F.R. § 20.45 before making any part of this submission publicly available.

Thank you for your consideration of the information provided in this 510(k) Notification. If you have any questions or need any additional information during your review, please contact me by telephone at 763-463-7066 or 651-398-4341, or by email at [kpeterston@entellusmedical.com](mailto:kpeterston@entellusmedical.com).

Sincerely,



Karen E. Peterson  
Vice President Clinical, Regulatory and Quality  
Entellus Medical  
Office: 763-463-7066  
Cell: 651-398-4341  
Email: [kpeterston@entellusmedical.com](mailto:kpeterston@entellusmedical.com)

**5. 510(k) Screening Checklist****SCREENING CHECKLIST FOR ALL  
PREMARKET NOTIFICATION [510(k)] SUBMISSIONS**

510(k) Number: \_\_\_\_\_

The cover letter clearly identifies the type of 510(k) submission as:

- Special 510(k) - Do Sections 1 and 2
- Abbreviated 510(k) - Do Sections 1, 3 and 4
- Traditional 510(k) or no identification provided Do Sections 1 and 4

**Section 1: Required Elements for All Types of 510(k) submissions:**

	<b>Present or Adequate</b>	<b>Missing or Inadequate</b>
Cover letter, containing the elements listed on page 3-2 of the Premarket Notification [510)] Manual.	Section 4	
Table of Contents.	Section 1	
Truthful and Accurate Statement.	Section 8	
Device's Trade Name, Device's Classification Name and Establishment Registration Number.	Sections 3,4	
Device Classification Regulation Number and Regulatory Status (Class I, Class II, Class III or Unclassified).	Sections 3,4	
Proposed Labeling including the material listed on page 3-4 of the Premarket Notification [510)] Manual.	Section 15	
Statement of Indications for Use that is on a separate page in the premarket submission.	Section 6 & Attachment 2	
Substantial Equivalence Comparison, including comparisons of the new device with the predicate in areas that are listed on page 3-4 of the Premarket Notification [510)] Manual.	Section 14	
510(k) Summary or 510(k) Statement.	Section 7 & Attachment 3	
Description of the device (or modification of the device) including diagrams, engineering drawings, photographs or service manuals.	Section 13	
Identification of legally marketed predicate device. *	Sections 3,4, 7, 14	
Compliance with performance standards. * [See Section 514 of the Act and 21 CFR 807.87 (d).]	NA	
Class III Certification and Summary. **	Section 9	
Financial Certification or Disclosure Statement for 510(k) notifications with a clinical study. * [See 21 CFR 807.87 (i)]	Section 10	
510(k) Kit Certification ***	NA	

**Section 2: Required Elements for a SPECIAL 510(k) submission:**

	<b>Present</b>	<b>Inadequate or Missing</b>
Name and 510(k) number of the submitter's own, unmodified predicate device.	NA	
A description of the modified device and a comparison to the sponsor's predicate device.	NA	
A statement that the intended use(s) and indications of the modified device, as described in its labeling are the same as the intended uses and indications for the submitter's unmodified predicate device.	NA	
Reviewer's confirmation that the modification has not altered the fundamental scientific technology of the submitter's predicate device.	NA	
A Design Control Activities Summary that includes the following elements (a-c):	NA	
a. Identification of Risk Analysis method(s) used to assess the impact of the modification on the device and its components, and the results of the analysis.	NA	
b. Based on the Risk Analysis, an identification of the required verification and validation activities, including the methods or tests used and the acceptance criteria to be applied.	NA	
c. A Declaration of Conformity with design controls that includes the following statements:	NA	
A statement that, as required by the risk analysis, all verification and validation activities were performed by the designated individual(s) and the results of the activities demonstrated that the predetermined acceptance criteria were met. This statement is signed by the individual responsible for those particular activities.	NA	
A statement that the manufacturing facility is in conformance with the design control procedure requirements as specified in 21 CFR 820.30 and the records are available for review. This statement is signed by the individual responsible for those particular activities.	NA	

*Items with checks in the "Present or Adequate" column do not require additional information from the sponsor. Items with checks in the "Missing or Inadequate" column must be submitted before substantive review of the document.*

**Passed Screening** \_\_\_\_\_ **Yes** \_\_\_\_\_ **No**

**Reviewer:** \_\_\_\_\_

**Concurrence by Review Branch:** \_\_\_\_\_

**Date:** \_\_\_\_\_

The deficiencies identified above represent the issues that we believe need to be resolved before our review of your 510(k) submission can be successfully completed. In developing the deficiencies, we carefully considered the statutory criteria as defined in Section 513(i) of the Federal Food, Drug, and Cosmetic Act for determining substantial equivalence of your device. We also considered the burden that may be incurred in your attempt to respond to the deficiencies. We believe that we have considered the least burdensome approach to resolving

these issues. If, however, you believe that information is being requested that is not relevant to the regulatory decision or that there is a less burdensome way to resolve the issues, you should follow the procedures outlined in the “A Suggested Approach to Resolving Least Burdensome Issues” document. It is available on our Center web page at:

<http://www.fda.gov/cdrh/modact/leastburdensome.html>

Required Elements for a Declaration of Conformity to a Recognized Standard  
(SCREENING CHECKLIST FOR ALL PREMARKET NOTIFICATION [510(k)]  
SUBMISSIONS)

Required Element	Present	Inadequate or Missing
a. An identification of the applicable recognized consensus standards that were met.	NA	
b. A statement, for each consensus standard, that all requirements were met, except for inapplicable requirements or deviations noted below.	NA	
c. An identification, for each consensus standard, of any way(s) in which the standard may have been adapted for application to the device under review (e.g. An identification of an alternative series of tests that were performed).	NA	
d. An identification, for each consensus standard, of any requirements that were not applicable to the device.	NA	
e. A specification of any deviations from each applicable standard that were applied.	NA	
f. A specification of the differences that may exist, if any, between the tested device and the device to be marketed and a justification of the test results in these areas of difference.	NA	
g. The name and address of the testing laboratory and/or certification body involved in determining the conformance of the device with applicable consensus standards and a reference to any accreditations for those organizations.	NA	

**Section 4: Additional Requirements for ABBREVIATED and TRADITIONAL 510(k) submissions (If Applicable):**

	<b>Present</b>	<b>Inadequate or Missing</b>
a) Biocompatibility data for all patient-contacting materials, OR certification of identical material/formulation:	Section 17	
b) Sterilization and expiration dating information:	Section 16	
i) sterilization process	Section 16	
ii) validation method of sterilization process	Section 16	
iii) SAL	Section 16	
iv) packaging	Section 16	
v) specify pyrogen free	Section 16	
vi) ETO residues	Section 16	
vii) radiation dose	NA	
c) Software Documentation:	NA	

*Items with checks in the "Present but Deficient" column require additional information from the sponsor. Items with checks in the "Missing" column must be submitted before substantive review of the document.*

Passed Screening \_\_\_\_\_ Yes \_\_\_\_\_ No

Reviewer: \_\_\_\_\_

Concurrence by Review Branch: \_\_\_\_\_

Date: \_\_\_\_\_

The deficiencies identified above represent the issues that we believe need to be resolved before our review of your 510(k) submission can be successfully completed. In developing the deficiencies, we carefully considered the statutory criteria as defined in Section 513(i) of the Federal Food, Drug, and Cosmetic Act for determining substantial equivalence of your device. We also considered the burden that may be incurred in your attempt to respond to the deficiencies. We believe that we have considered the least burdensome approach to resolving these issues. If, however, you believe that information is being requested that is not relevant to the regulatory decision or that there is a less burdensome way to resolve the issues, you should follow the procedures outlined in the "A Suggested Approach to Resolving Least Burdensome Issues" document. It is available on our Center web page at:

<http://www.fda.gov/cdrh/modact/leastburdensome.html>

## **6. Indications for Use Statement**

The Indications for Use Statement is in Attachment 2.

## **7. 510(k) Summary**

The 510(k) Summary is in Attachment 3.

## 8. Truthful and Accuracy Statement

**PREMARKET NOTIFICATION  
TRUTHFUL AND ACCURATE STATEMENT  
[as required by 21 CFR 807.87(j)]**

I certify that, in my capacity as Vice President Clinical, Regulatory and Quality at Entellus Medical, I believe to the best of my knowledge that all data and information submitted in this premarket notification are truthful and accurate and no material fact has been omitted.



Date: 3-16-11

Karen E. Peterson  
Karen E. Peterson  
Vice President Clinical, Regulatory and Quality



## **9. Class III Summary and Certification**

Not applicable. Device is a class I device.

## **10. Financial Certification**

Not applicable, no new clinical data is submitted with this application.

## 11. Declarations of Conformity

Consistent with FDA's guidance documents entitled, "Use of Standards in Substantial Equivalence Determinations" (March 12, 2000) and "Guidance for Industry and FDA Staff - Recognition and Use of Consensus Standards" (September 17, 2007), Entellus Medical is including this statement that the device complies with the following recognized consensus standards and FDA guidance:

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*Standards Data Report Forms for 510(k)s – FDA 3654*, for the standards listed above are provided in Attachment 4.

## 12. Executive Summary

### Device Description

Entellus Medical Sinus Guidewire is a 0.035” – compatible guidewire with a flexible angled radiopaque distal tip. It is constructed of nickel titanium alloys, stainless steel, and features a lubricious coating.

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Refer to *Section 13 Device Description* for a more detailed product description.

### Indication for Use

To provide a means to access the sinus space for diagnostic and therapeutic procedures.

### Substantial Equivalence

The Entellus Medical Sinus Guidewire (subject device) is substantially equivalent to the predicate devices: Selectiva SB Guidewire [K033321, K013024] and Relieva Vigor Sinus Guidewire [K043445].

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The intended use of the subject device is similar to the Selectiva SB Guidewire predicate and identical to the Relieva Vigor Sinus Guidewire predicate.

In summary, we believe that the Entellus Medical Sinus Guidewire described in this submission is substantially equivalent to the predicate devices.

Note: a device comparison table for the subject device and the predicate devices is in *Section 14 Substantial Equivalence Discussion*.

### Performance Specifications & Design Requirements

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(b)(4) Confidential and Proprietary Information

















## 15. Proposed Labeling

Final draft labeling for the device can be found in the following Attachments:

Packaging label: Attachment 8

Instructions for Use (IFU): Attachment 9.

Promotional literature and advertisements have not been developed.





## **18. Software**

Not applicable. The device does not contain any software.

## **19. EMC and Electrical Safety**

Not applicable. The device does not contain any electrical component nor will it be affected by any electromagnetic emission.



## **20. Performance Testing - Bench**

(b)(4) Confidential and Proprietary Information



(b)(4) Confidential and Proprietary Information



(b)(4) Confidential and Proprietary Information



## **21. Performance Testing - Animal**

Not Applicable. No animal testing was conducted on the device.

## **22. Performance Testing - Clinical**

Not Applicable. No clinical studies have been conducted on the device.

## **23. Kit**

(b)(4) Confidential and Proprietary  
Information

Form Approved: OMB No. 0910-511 See Instructions for OMB Statement

DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION <b>MEDICAL DEVICE USER FEE COVER SHEET</b>	PAYMENT IDENTIFICATION NUMBER: (b) (4) Write the Payment Identification number on your check.
-----------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

A completed cover sheet must accompany each original application or supplement subject to fees. If payment is sent by U.S. mail or courier, please include a copy of this completed form with payment. Payment and mailing instructions can be found at: <http://www.fda.gov/oc/mdufma/coversheet.html>

1. COMPANY NAME AND ADDRESS (include name, street address, city state, country, and post office code)  Entellus Medical Inc. 4055 Deerwood Place Eagan MN 55122 US  1.1 EMPLOYER IDENTIFICATION NUMBER (EIN) (b) (4)	2. CONTACT NAME Karen Peterson 2.1 E-MAIL ADDRESS kpeterson@entellusmedical.com 2.2 TELEPHONE NUMBER (include Area code) 763-463-7066 2.3 FACSIMILE (FAX) NUMBER (Include Area code)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3. TYPE OF PREMARKET APPLICATION (Select one of the following in each column; if you are unsure, please refer to the application descriptions at the following web site: <http://www.fda.gov/oc/mdufma>)

Select an application type:

<input checked="" type="checkbox"/> Premarket notification(510(k)); except for third party	3.1 Select a center
<input type="checkbox"/> 513(g) Request for Information	<input checked="" type="checkbox"/> CDRH
<input type="checkbox"/> Biologics License Application (BLA)	<input type="checkbox"/> CBER
<input type="checkbox"/> Premarket Approval Application (PMA)	<u>3.2 Select one of the types below</u>
<input type="checkbox"/> Modular PMA	<input checked="" type="checkbox"/> Original Application
<input type="checkbox"/> Product Development Protocol (PDP)	<u>Supplement Types:</u>
<input type="checkbox"/> Premarket Report (PMR)	<input type="checkbox"/> Efficacy (BLA)
<input type="checkbox"/> Annual Fee for Periodic Reporting (APR)	<input type="checkbox"/> Panel Track (PMA, PMR, PDP)
<input type="checkbox"/> 30-Day Notice	<input type="checkbox"/> Real-Time (PMA, PMR, PDP)
	<input type="checkbox"/> 180-day (PMA, PMR, PDP)

4. ARE YOU A SMALL BUSINESS? (See the instructions for more information on determining this status)  
 (b)(4) Confidential and Proprietary Information

5. FDA WILL NOT ACCEPT YOUR SUBMISSION IF YOUR COMPANY HAS NOT PAID AN ESTABLISHMENT REGISTRATION FEE THAT IS DUE TO FDA. HAS YOUR COMPANY PAID ALL ESTABLISHMENT REGISTRATION FEES THAT ARE DUE TO FDA?

YES (All of our establishments have registered and paid the fee, or this is our first device, and we will register and pay the fee within 30 days of FDA's approval/clearance of this device.)

NO (If "NO," FDA will not accept your submission until you have paid all fees due to FDA. This submission will not be processed; see <http://www.fda.gov/oc/mdufma> for additional information)

6. IS THIS PREMARKET APPLICATION COVERED BY ANY OF THE FOLLOWING USER FEE EXCEPTIONS? IF SO, CHECK THE APPLICABLE EXCEPTION.

<input type="checkbox"/> This application is the first PMA submitted by a qualified small business, including any affiliates	<input type="checkbox"/> The sole purpose of the application is to support conditions of use for a pediatric population
<input type="checkbox"/> This biologics application is submitted under section 351 of the Public Health Service Act for a product licensed for further manufacturing use only	<input type="checkbox"/> The application is submitted by a state or federal government entity for a device that is not to be distributed commercially

7. IS THIS A SUPPLEMENT TO A PREMARKET APPLICATION FOR WHICH FEES WERE WAIVED DUE TO SOLE USE IN A PEDIATRIC POPULATION THAT NOW PROPOSES CONDITION OF USE FOR ANY ADULT POPULATION? (If so, the application is subject to the fee that applies for an original premarket approval application (PMA).)

YES                       NO

**PAPERWORK REDUCTION ACT STATEMENT**  
 Public reporting burden for this collection of information is estimated to average 18 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the address below.

Department of Health and Human Services, Food and Drug Administration, Office of Chief Information Officer, 1350 Piccard Drive, 4th Floor Rockville, MD 20850  
 [Please do NOT return this form to the above address, except as it pertains to comments on the burden estimate.]

8. USER FEE PAYMENT AMOUNT SUBMITTED FOR THIS PREMARKET APPLICATION  
 (b) (4)

23-Feb-2011

Form FDA 3601 (01/2007)

["Close Window"](#)   [Print Cover sheet](#)

Questions? Contact FDA/CDRH/OCE/DID at CDRH-FOISTATUS@fda.hhs.gov or call 301-796-8118.

Entellus Medical

## Indications for Use Statement

510(k) Number (if known): \_\_\_\_\_

**Device Name:** Entellus Medical Sinus Guidewire

## Indications for Use

To provide a means to access the sinus space for diagnostic and therapeutic procedures.

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

---

Concurrence of CDRH Office of Device Evaluation (ODE)

Prescription Use   X   - OR/AND Over-the-Counter Use



Entellus Medical



## 510(k) Summary

**Date Prepared:** March 16, 2011  
**Submitter Information:** Entellus Medical, Inc.  
6705 Wedgwood Court, North  
Maple Grove, MN 55311

**Establishment Registration:** 3006345872

**Contact Information:** Karen E. Peterson  
Vice President Clinical, Regulatory and Quality  
(763) 463-7066  
[kpeterson@entellusmedical.com](mailto:kpeterson@entellusmedical.com)

**Device Information:**

<b>Trade Name:</b>	Entellus Medical Sinus Guidewire
<b>Common Name:</b>	Sinus Guidewire
<b>Classification Regulation:</b>	21 CFR 878.4800
<b>Classification Name:</b>	Manual Surgical Instrument for General Use
<b>Classification Panel:</b>	General and Plastic Surgery
<b>Device Classification:</b>	Class I
<b>Product Code:</b>	KAM

### Predicate Devices:

NeoMetrics Selectiva™ SB Guidewire [K033321, K013024]  
Relieva Vigor™ Sinus Guidewire [K043445]

### Device Description:

Entellus Medical Sinus Guidewire is a 0.035" – compatible guidewire with a flexible angled radiopaque distal tip. It is constructed of nickel titanium alloys, stainless steel, and features a lubricious coating.

### Indication for Use

To provide a means to access the sinus space for diagnostic and therapeutic procedures.

### Contraindications:

None

### Technological Characteristics:

The device has the same technological characteristics (i.e., design, function, materials, biocompatibility, packaging and sterilization) as the predicate device [K033321, K013024]. The device has the same technological characteristics (i.e., design, function, principle of operation, biocompatibility and sterilization) as the predicate device [K043445]. The subject and predicate devices are all sterilized using Ethylene Oxide (EtO), validated per ISO 11135-1, and have a

Entellus Medical

Sterility Assurance Level (SAL) of  $10^{-6}$ . All devices are for single use only and are biocompatible per ISO 10993-1.

**Substantial Equivalence:**

The intended use and indications for use of the subject device is the same as the predicate device [K043445]. The technological characteristics of the subject device are the same as the predicate devices, [K033321, K013024] and/or [K043445], including: design, function, principle of operation, materials, biocompatibility, packaging and sterilization.

**Performance Data:**

Performance testing of the Entellus Medical Sinus Guidewire consisted of design verification testing and a cadaver study. Design verification testing included simulated use and compatibility testing. A cadaver study was conducted to support the utility of this device in the sinus spaces. Biocompatibility, sterilization, packaging, shelf life testing, animal and clinical data were not submitted. Performance testing showed that the device meets design specifications and performed as intended.

**Conclusion**

In conclusion, the device is substantially equivalent based on a comparison of intended use, indications for use, and technological characteristics. The device is safe and effective for its intended use.



































**INSTRUCTIONS FOR USE**

**Selectiva™ GUIDEWIRES**

**GUIDES Selectiva™**

**ALAMBRES GUÍA Selectiva™**

**GUIDE Selectiva™**

**Selectiva™ FÜHRUNGSDRÄHTE**

**INSTRUCTIONS FOR USE**

**Selectiva™ GUIDEWIRES**

**Caution:**

- Federal law (USA) restricts this device for sale by or on the order of physician.
- Disposable. For Single Patient Use Only
- Ethylene Oxide (EO) Sterilization. Non-Pyrogenic
- Read all directions prior to use
- Store in a cool, dry place

**Warning:**

This device is not intended for use in the coronary arteries or the neurovasculature.

**Description:**

Selectiva Guidewires are constructed of nickel titanium alloys, stainless steel, platinum/tungsten alloys, and feature a lubricious coating.

**Indications:**

To facilitate the placement of devices for diagnostic and interventional procedures.  
NOTE: These guidewires are not intended for PTCA use.

**Directions:**

- Inspect the guidewire prior to use for tip shape, bends, kinks or coil separation. Do not use if damaged.
- Using sterile technique, localize and puncture the vessel with a needle cannula.
- Remove the needle, leaving the cannula in place.
- Insert distal end of the guidewire through the cannula and into the vessel.
- Remove cannula, leaving guidewire within the lumen of the vessel.
- Pass the catheter over the guidewire within the lumen of the vessel under fluoroscope guidance to the desired position.
- Carefully remove the guidewire from the catheter.

**Cautions:**

- Single use only, do not re-sterilize.
- Do not advance Selectiva Guidewires against resistance until the cause of the resistance has been determined.
- Excessive force against resistance may result in damage to guidewire and catheter or vessel perforation.
- Guidewires, by nature of their construction, will collect blood and other foreign matter in lumen. No type of cleaning will completely remove this material. Therefore, they are intended for single patient use only.
- NeoMetrics, Inc. does not recommend a particular technique for the use of this device. The steps contained in the preceding directions discuss the Selinger Technique for percutaneous entry and are for information purposes only. Each physician should evaluate their appropriateness according to individual patient conditions and his or her medical training and experience.

**NeoMetrics, Inc.**

14800 28th Avenue North, Suite 150  
Plymouth, MN 55447  
Phone: 763 559-4440  
Fax: 763 559-7676



Authorized Representative in Europe

**Emergo Europe**

Molenstraat 15  
2513 BH, The Hague  
The Netherlands  
Phone: +31.70.345.8570  
Fax: +31.70.346.7299

SP-2189 Rev A

SP-3025 Rev C

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## 510(k) Premarket Notification



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<b>Device Classification Name</b>	<a href="#">Wire, Guide, Catheter</a>
<b>510(K) Number</b>	K033321
<b>Device Name</b>	SELECTIVA SB GUIDEWIRE
<b>Applicant</b>	NEO METRICS, INC. 14800 28th Avenue North Suite 150 Plymouth, MN 55447
<b>Contact</b>	Mark Pederson
<b>Regulation Number</b>	<a href="#">870.1330</a>
<b>Classification Product Code</b>	<a href="#">DQX</a>
<b>Date Received</b>	10/21/2003
<b>Decision Date</b>	11/05/2003
<b>Decision</b>	Substantially Equivalent (SE)
<b>Classification Advisory Committee</b>	Cardiovascular
<b>Review Advisory Committee</b>	Cardiovascular
<b>Summary</b>	<a href="#">Summary</a>
<b>Type</b>	Special
<b>Reviewed By Third Party</b>	No
<b>Expedited Review</b>	No

NOV - 5 2003

**Section 9**  
**510(k) Summary**

<b>Submitter:</b>	NeoMetrics, Inc. 14800 28 <sup>th</sup> Avenue South, Suite 150 Plymouth, MN 55447 Telephone: 763-559-4440 Fax: 763-559-7676
<b>Contact Person:</b>	Mark Pederson Product Development Engineer Telephone: 763-559-4440 Fax: 763-559-7676 pedersonm@qwest.net
<b>Date Prepared:</b>	October 14, 2003
<b>Trade Name:</b>	Selectiva SB Guidewire
<b>Classification Name and Number:</b>	Wire, Guide, Catheter 870.1330
<b>Product Code:</b>	DQX
<b>Predicate Device(s):</b>	NeoMetrics <i>Selectiva</i> <sup>™</sup> Guidewire (K013024) FlexMedics FlexFinder Guidewire (K943390)
<b>Device Description:</b>	The Selectiva SB Guidewires are constructed of a nickel-titanium alloy with a PTFE polymer jacket. Devices are available in a diameter of 0.035 inches and in lengths ranging from 40 to 300 cm.
<b>Intended Use:</b>	The NeoMetrics Selectiva SB Guidewire is intended to facilitate the placement of devices for diagnostic and interventional procedures. NOTE: These guidewires are not intended for PTCA use.
<b>Functional and Safety Testing:</b>	Representative samples of the device underwent bench testing to demonstrate appropriate functional and performance characteristics compared to the predicate device(s).
<b>Conclusion:</b>	The NeoMetrics Selectiva SB Guidewire modified as proposed in this submission, is substantially equivalent to the predicate devices.  This conclusion is based upon the similarity in design, principles of operation, materials, and performance of the modified device compared to the originally, cleared device.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

NOV - 5 2003

NeoMetrics, Inc.  
c/o Mr. Mark Pederson  
Product Development Engineer  
14800 28<sup>th</sup> Avenue South, Suite 150  
Plymouth, MN 55447

Re: K033321  
Selectiva SB Guidewire  
Regulation Number: 21 CFR 870.1330  
Regulation Name: Catheter guide wire  
Regulatory Class: Class II  
Product Code: DQX  
Dated: October 14, 2003  
Received: October 21, 2003

Dear Mr. Pederson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

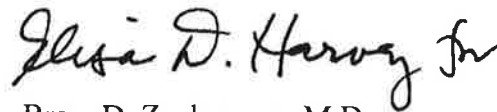
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Page 2 – Mr. Mark Pederson

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050. This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4648. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

K033321

**Section 3**  
**Indications for Use**

The NeoMetrics Selectiva SB Guidewire is intended to facilitate the placement of devices for diagnostic and interventional procedures.

NOTE: These guidewires are not intended for PTCA use.

Prescription Use   
(Per 21 CFR 801.109)

*Elson D. H. Sr.*  
*Bran Z. J. J.*  
*11/4/15*

Division of Cardiovascular & Respiratory Devices  
510(k) Number K033321

*Shaw B. J.*

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<b>Device Classification Name</b>	<a href="#">Wire, Guide, Catheter</a>
<b>510(K) Number</b>	K013024
<b>Device Name</b>	SELECTIVA GUIDEWIRE
<b>Applicant</b>	NEO METRICS, INC. 15301 Highway 55 West Minneapolis, MN 55447
<b>Contact</b>	Gene Champeau
<b>Regulation Number</b>	<a href="#">870.1330</a>
<b>Classification Product Code</b>	<a href="#">DQX</a>
<b>Date Received</b>	09/07/2001
<b>Decision Date</b>	12/04/2001
<b>Decision</b>	Substantially Equivalent (SE)
<b>Classification Advisory Committee</b>	Cardiovascular
<b>Review Advisory Committee</b>	Cardiovascular
<b>Summary</b>	<a href="#">Summary</a>
<b>Type</b>	Traditional
<b>Reviewed By Third Party</b>	No
<b>Expedited Review</b>	No



**Section 8**  
**Summary of Safety and Effectiveness**

K013024

**Submitter**

NeoMetrics, Inc.  
15301 Highway 55 West  
Plymouth, MN 55447  
Telephone: (763) 559-4440  
Fax: (763) 559-7676  
Contact Person: Gene Champeau, President  
Date: August 31, 2001

DEC 04 2001

**Product**

Classification Name: Catheter Guidewire (21 CFR 870.1330)  
Common Name: Guidewire, catheter guidewire, and wire guide  
Trade/Proprietary Name: *Selectiva*<sup>TM</sup> Guidewire

**Substantially Equivalent Product**

Lake Region Manufacturing Mandrel Guidewire Assembly (K011084).

**Description**

The *Selectiva*<sup>TM</sup> Guidewire is used to facilitate the placement of devices for diagnostic and interventional procedures. The shaft of the device is constructed of PES (polyethersulfone) coated Nitinol or stainless steel with a tapered distal end secured to a platinum or stainless steel helical coil. A selection of distal tapers imparts different tip flexibilities. The guidewire is coated with silicone fluid to improve lubricity. The *Selectiva*<sup>TM</sup> Guidewire will be offered in diameters of 0.018" – 0.035" and lengths of 60 cm – 260 cm. It will be supplied sterile, intended for one-time use.

**Indications for Use**

To facilitate the placement of devices for diagnostic and interventional procedures.

NOTE: These guidewires are not intended for PTCA use.

**Physical Characteristics**

The *Selectiva*<sup>TM</sup> Guidewire and the predicate device were compared in all functional and safety tests including dimensional, visual, tip flexibility, tensile strength, torqueability, and coating durability, to demonstrate equivalency in terms of safety and effectiveness. Biocompatibility testing of finished devices has been successfully completed in addition to the independent laboratory testing demonstrating equivalence of materials.

**Conclusion**

Based on performance data and comparisons of intended use, labeling, and design, the *Selectiva*<sup>TM</sup> Guidewire is considered substantially equivalent to the currently marketed predicate device.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Mr. Gene Champeau  
President  
NeoMetrics, Inc.  
15301 Highway 55 West  
Plymouth, MN 55447

DEC 04 2001

Re: K013024  
*Seletiva*<sup>TM</sup> Guidewire  
Regulation Number: 870.1330  
Regulation Name: Catheter Guidewire  
Regulatory Class: Class II  
Product Code: DQX  
Dated: September 6, 2001  
Received: September 7, 2001

Dear Mr. Champeau:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

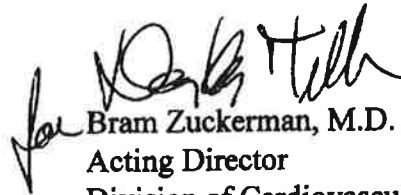
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

**Page 2 - Mr. Gene Champeau**

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4586. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



Bram Zuckerman, M.D.  
Acting Director  
Division of Cardiovascular and  
Respiratory Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

**Section 3  
Indications for Use**

K013074

The NeoMetrics *Selectiva*<sup>™</sup> Guidewire is intended to facilitate the placement of devices for diagnostic and interventional procedures.

NOTE: These guidewires are not intended for PTCA use.

  
Division of Cardiovascular & Respiratory Devices  
510(k) Number K013074

Prescription Use   
(Per 21 CFR 801.109)



**Instructions for Use**

*Relieva Vigor™*

Sinus Guidewire

IFU005031 Rev A      Effective Date 4/13/2009



## Instructions for Use

Relieva Vigor™ Sinus Guidewire

### CAREFULLY READ ALL INSTRUCTIONS PRIOR TO USE.

**CAUTION:** Federal (U.S.A.) law restricts this device to sale by or on the order of a physician.

**STERILITY:** The *Relieva Vigor* Sinus Guidewire is sterilized with ethylene oxide gas.

**SINGLE USE:** The *Relieva Vigor* Sinus Guidewire is intended for single patient use only. DO NOT resterilize and/or reuse.

**STORAGE:** Store in a cool, dry place.

### DESCRIPTION

The *Relieva Vigor* Sinus Guidewire is a 0.035"- compatible Sinus Guidewire with a pre-shaped radiopaque distal tip and lubricious coating. The *Relieva Vigor* Sinus Guidewire may also have one or more shaft marker bands.

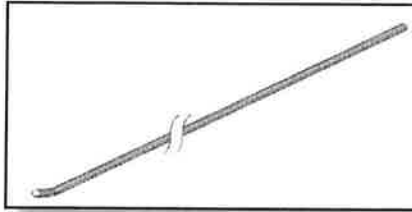


Figure 1

### INDICATIONS FOR USE

The *Relieva Vigor* Sinus Guidewire is intended to provide a means to access the sinus space for diagnostic and therapeutic procedures.

### CONTRAINDICATIONS

Not for use during any other procedures than indicated.

### WARNINGS

- Do not use a device where the integrity of the sterile packaging has been compromised or if the device appears damaged.
- Never advance or retract a Sinus Guidewire against unknown resistance as this could cause tissue trauma or device damage.

### PRECAUTIONS

Do not attempt to alter the pre-shaped distal tip of the *Relieva Vigor* Sinus Guidewire, as this may result in device damage.

### COMPATIBILITY

The *Relieva Vigor* Sinus Guidewire is compatible with the *Balloon Sinuplasty™* System *Relieva®* devices.

### INSTRUCTIONS FOR USE

- Flush the protective hoop with sterile saline or water.
- Remove the *Relieva Vigor* Sinus Guidewire from the protective hoop.

*If used in conjunction with a Sinus Guide Catheter:*

- Insert the *Relieva Vigor* Sinus Guidewire through the Sinus Guide Catheter and advance into the target sinus until some light resistance is felt. **DO NOT USE EXCESSIVE FORCE.**
- If significant resistance is encountered, retract the *Relieva Vigor* Sinus Guidewire and slightly change the position (rotate in either direction). Again advance the *Relieva Vigor* Sinus Guidewire in a gentle, probing motion.
- Confirm placement and position of the *Relieva Vigor* Sinus Guidewire with endoscopic and/or fluoroscopic visualization.

### GRAPHIC SYMBOLS CONTAINED ON DEVICE LABELING

LOT	Batch Code	Rx ONLY	On Order of Physician Only
STERILE EO	Sterilized Using Ethylene Oxide		Date of Manufacture
	Use By		Consult Instructions For Use
	Do Not Re-Use		Diameter Compatibility
	Length		Tip Shape
	Keep dry		Maximum Temperature
	Keep Away from Sunlight		0123 CE Mark
EC REP	European Authorized Representative		Manufactured By

### Product Information Disclosure

Acclarent, Inc. has exercised reasonable care in the manufacture of this device. Acclarent, Inc. excludes all warranties, whether expressed or implied, by operation of law or otherwise, including but not limited to, any implied warranties of merchantability or fitness, since handling and storage of this device, as well as factors relating to the patient, diagnosis, treatment, surgical procedures and other matters beyond Acclarent, Inc.'s control, directly affect this device and the results obtained from its use. Acclarent, Inc. shall not be liable for any incidental or consequential loss, damage or expense, directly or indirectly arising from the use of this device. Acclarent, Inc. neither **assumes, nor authorizes any** other person to assume for it, any other or additional liability or **responsibility** in connection with this device.

©2009 Acclarent, Inc. All rights reserved.

U.S. Patent Nos. 7,500,971 and 7,462,174 and other U.S. and foreign patents pending.

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[New Search](#)

No records were found with  
**KNumber:** **K043445**



~~SEP 28 2007~~

### APPENDIX A: 510(k) SUMMARY

**Sponsor/Submitter:** Acclarent, Inc.  
1525-B O'Brien Drive  
Menlo Park, California 94025

**Contact Person:** Keri Yen  
Regulatory Affairs Specialist  
Phone: (650) 687-5874  
Fax: (650) 687-4449

**Date of Submission:** July 3, 2007

**Device Trade Name:** *Relieva Luma*™ Sinus Illumination System

**Common Name:** Sinus Guidewire

**Device Classification:** Class I

**Regulation Number:** 21 CFR 878.4800

**Classification Name:** Manual surgical instrument for general use

**Product Code:** KAM

**Predicate Device:** *Relieva*™ Sinus Guidewire (K043445)

**Device Description:** The *Relieva Luma*™ Sinus Illumination System is a flexible device that transmits light at the distal tip. The system also contains two accessories: a light cable and an adapter.

**Indications for Use:** The *Relieva Luma*™ Sinus Illumination System is intended to provide means to access the sinus space for diagnostic and therapeutic procedures in conjunction with other nasal and sinus products. It is also intended to illuminate within and transilluminate across nasal and sinus structures.

**Technological Characteristics:** The *Relieva Luma*™ Sinus Illumination System is a device that allows for access to the desired sinus space. Light from the distal tip of the device can be seen via transillumination. The device is connected to any standard light source via a light cable and an adapter.

**Performance Data:** The *Relieva Luma*™ Sinus Illumination System met all performance testing acceptance criteria.

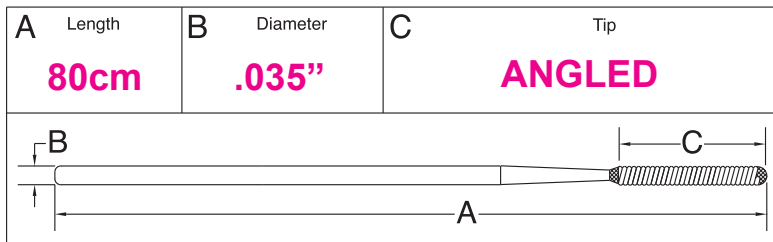
**Summary of Substantial Equivalence:** The *Relieva Luma*™ Sinus Illumination System is substantially equivalent to the predicate device as confirmed through relevant performance tests.



# entellus

M E D I C A L™

## Sinus Guidewire



REF **SGW-100** MODEL# **PTW** LOT **XXXXX**

See Instructions For Use

Store In Cool Dry Place

Non-pyrogenic  
Do Not Autoclave

Keep Dry **STERILE EO**

Single Use

Manufactured in the U.S.A.

Use By:

Quantity:

Caution: Federal (U.S.A.) law restricts this device to sale by or on the order of a physician.



Manufactured By:

**Entellus Medical**

6705 Wedgwood Court North

Maple Grove, MN 55311

866-620-7615

Fax: 866-620-7616

SP-3461 Rev. A



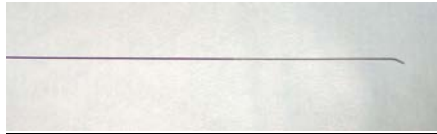
## INSTRUCTIONS FOR USE Entellus Medical Sinus Guidewire

*Read all Instructions prior to use*

- Caution:** Federal (USA) law restricts this device to sale by or on the order of a physician.
- Sterility:** Provided Sterile, Ethylene Oxide (EO) Sterilization, Non-Pyrogenic
- Single Use:** Disposable, For Single Patient Use Only, Do Not Resterilize and/or Reuse
- Storage:** Store in a cool, dry place

### Description

Entellus Medical Sinus Guidewire is a 0.035" – compatible guidewire with a flexible angled radiopaque distal tip. It is constructed of nickel titanium alloys, stainless steel, and features a lubricious coating.



### Indication For Use

To provide a means to access the sinus space for diagnostic and therapeutic procedures.

### Contraindications

None known

### Warnings

- Do not use breached or damaged packages, since the sterility and functionality of the device may be compromised.
- Single use only. Do not re-sterilize or re-use, as it may result in compromised device performance and risk improper sterilization and cross contamination.
- Only surgeons trained in the use of sinus guidewires should use this device.
- Never advance or withdraw the device against unknown resistances as this can cause tissue trauma or device damage.

### Precautions

- Due to the variability of sinus anatomy, review radiographic imaging (CT scan) prior to the procedure to understand anatomy.
- If fluoroscopy is used, minimize radiation dose to the lens of the eye and other proliferating tissues due to the potential of cataract formation or injury to the surrounding tissue.

### Adverse Effects

Possible adverse effects include, but are not limited to, the following:

- Cerebrospinal fluid leak
- Damage of the orbital wall or other structures of the eye
- Tissue inflammation or trauma

### Compatibility

The Entellus Medical Sinus Guidewire is compatible with instruments (malleable suctions, guide catheters, sinus cannulas) having OD  $\geq$  2mm and with balloon catheters having an internal lumen with a diameter of  $\geq$  0.035".













**Instructions for Use**

1. Remove the sinus guidewire from the protective hoop.
2. Under endoscopic visualization:
  - a. Place a guide (or curved suction or sinus cannula) into the desired anatomy.
  - b. Track the sinus guidewire through the guide into the target sinus space until light resistance is felt. Do not use excessive force.
  - c. If significant resistance is encountered, retract the sinus guidewire. Change the position of the guide or rotate the angled tip in either direction and advance again in a gentle motion.
3. Confirm guidewire is located in target sinus space with endoscopic and/or fluoroscopic visualization.
4. After procedure, dispose of device according to appropriate environmental health safety guidelines.

**Limited Warranty**

Entellus Medical, Inc. warrants that reasonable care has been used in the design and manufacture of this device. Entellus Medical, Inc. excludes all warranties, whether expressed or implied, by operation of law or otherwise including, but not limited to, any implied warranties of merchantability or fitness since handling and storage as well as other factors relating to the patient, diagnosis, treatment, medical procedures, and other matters beyond Entellus Medical, Inc.'s control, directly affect the device and the results obtained from its use. Entellus Medical, Inc. shall not be liable for any incidental or consequential loss, damage or expense, directly or indirectly arising from the use of this device. Entellus Medical, Inc. neither assumes, nor authorizes any other person to assume for it, any other or additional liability or responsibility in connection with this device.

Graphic Symbols Contained on Device labeling

 Reorder Number	 Lot Number	 Model Number
 See Instructions For Use	 Keep Dry	 Do Not Reuse
 Sterilization with Ethylene Oxide Gas	 Use By	 Prescription Use Only
 Quantity	 Manufacturer	 Store in Cool Dry Place



Manufactured by:  
**Entellus Medical Inc.**  
 6705 Wedgwood Court North  
 Maple Grove, MN 55311  
 (763) 463-1595  
[www.entellusmedical.com](http://www.entellusmedical.com)



























































































































































































































































**COVER SHEET MEMORANDUM**

**From:** Reviewer Name \_\_\_\_\_ Susan Rudy, CRNP \_\_\_\_\_  
**Subject:** 510(k) Number \_\_\_\_\_ K110739 \_\_\_\_\_  
**To:** The Record

Please list CTS decision code SE

- Refused to accept (Note: this is considered the first review cycle, See Screening Checklist [http://eroom.fda.gov/eRoomReq/Files/CDRH3/CDRHPremarketNotification510kProgram/0\\_5631/Screening%20Checklist%207%202%2007.doc](http://eroom.fda.gov/eRoomReq/Files/CDRH3/CDRHPremarketNotification510kProgram/0_5631/Screening%20Checklist%207%202%2007.doc))
- Hold (Additional Information or Telephone Hold).
- Final Decision (**SE**, SE with Limitations, NSE (select code below), Withdrawn, etc.).

Not Substantially Equivalent (NSE) Codes

- NO NSE for lack of predicate
- NI NSE for new intended use
- NQ NSE for new technology that raises new questions of safety and effectiveness
- NP NSE for lack of performance data
- NC NSE call for PMAs
- NS NSE no response
- NH NSE for another reason

Please complete the following for a final clearance decision (i.e., SE, SE with Limitations, etc.):		YES	NO
Indications for Use Page	<i>Attach IFU</i>	X	
510(k) Summary /510(k) Statement	<i>Attach Summary</i>	X	
Truthful and Accurate Statement.	<i>Must be present for a Final Decision</i>	X	
Is the device Class III? If yes, does firm include Class III Summary?	<i>Must be present for a Final Decision</i>		X
Does firm reference standards? (If yes, please attach form from <a href="http://www.fda.gov/opacom/morechoices/fdaforms/FDA-3654.pdf">http://www.fda.gov/opacom/morechoices/fdaforms/FDA-3654.pdf</a> )		X	
Is this a combination product? (Please specify category _____, see <a href="http://eroom.fda.gov/eRoomReq/Files/CDRH3/CDRHPremarketNotification510kProgram/0_413b/COMBINATION%20PRODUCT%20ALGORITHM%20(REVISED%203-12-03).DOC">http://eroom.fda.gov/eRoomReq/Files/CDRH3/CDRHPremarketNotification510kProgram/0_413b/COMBINATION%20PRODUCT%20ALGORITHM%20(REVISED%203-12-03).DOC</a> )			X
Is this a reprocessed single use device? (Guidance for Industry and FDA Staff – MDUFMA - Validation Data in 510(k)s for Reprocessed Single-Use Medical Devices, <a href="http://www.fda.gov/cdrh/ode/guidance/1216.html">http://www.fda.gov/cdrh/ode/guidance/1216.html</a> )			X
Is this device intended for pediatric use only?			X
Is this a prescription device? (If both prescription & OTC, check both boxes.)		X	
Did the application include a completed FORM FDA 3674, Certification with Requirements of ClinicalTrials.gov Data Bank?			X
Is clinical data necessary to support the review of this 510(k)? Did the application include a completed FORM FDA 3674, Certification with Requirements of ClinicalTrials.gov Data Bank? (If not, then applicant must be contacted to obtain completed form.)			X
Does this device include an Animal Tissue Source?			X
All Pediatric Patients age<=21			

Neonate/Newborn (Birth to 28 days)		X
Infant (29 days -< 2 years old)		X
Child (2 years -< 12 years old)		X
Adolescent (12 years -< 18 years old)		X
Transitional Adolescent A (18 - <21 years old) Special considerations are being given to this group, different from adults age ≥ 21 (different device design or testing, different protocol procedures, etc.)		
Transitional Adolescent B (18 -<= 21; No special considerations compared to adults => 21 years old)	X	
Nanotechnology		X
Is this device subject to the Tracking Regulation? (Medical Device Tracking Guidance, <a href="http://www.fda.gov/cdrh/comp/guidance/169.html">http://www.fda.gov/cdrh/comp/guidance/169.html</a> )	Contact OC.	X

**Regulation Number** 21 CFR 874.4420      **Class\*** Class I      **Product Code** LRC

(\*If unclassified, see 510(k) Staff)

**Additional Product Codes:** \_\_\_\_\_

**Review:** *[Signature]* ENTB 6/13/11  
 (Branch Chief) (Branch Code) (Date)

**Final Review:** *[Signature]* 6/14/11  
 (Division Director) (Date)



**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**MEMORANDUM**

Food and Drug Administration  
Office of Device Evaluation  
9200 Corporate Boulevard  
Rockville, MD 20850

**Premarket Notification [510(k)] Review  
Traditional/Abbreviated**

**K110739 / A002**

Date: 6/1/2011

To: The Record

From: Susan Rudy, MSN, CRNP, CORLN

Office: ODE

Division: DONED / ENTB

510(k) Holder: Entellus Medical, Inc.

Device Name: Entellus Medical Sinus Guide (Model PTW)

Contact: Karen Peterson, Vice President, Clinical, Regulatory and Quality

Phone: 763 463 7056

Fax: 763 463 1599

Email: Kpeterson@entellusmedical.com

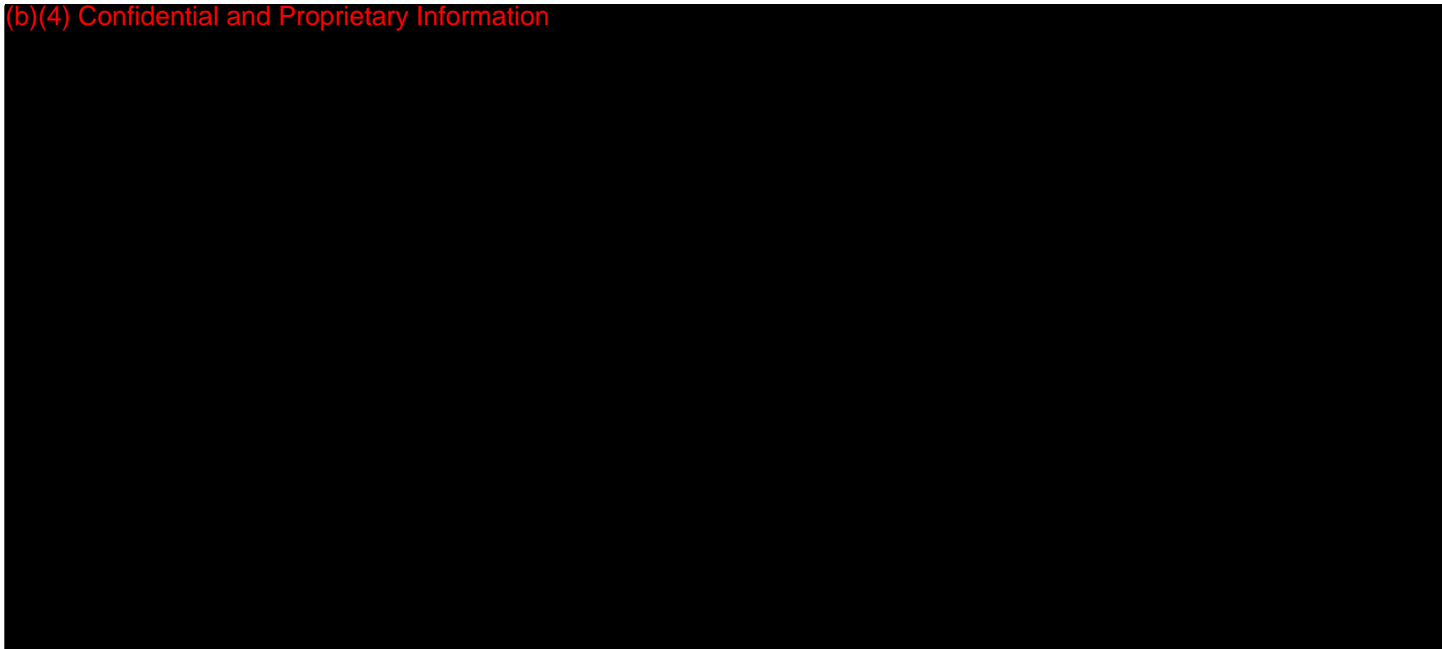
**I. Purpose and Submission Summary:**

The 510(k) holder would like to introduce Entellus Medical Sinus Guide (Model PTW) into interstate commerce.

(b)(4) Confidential and Proprietary Information



(b)(4) Confidential and Proprietary Information



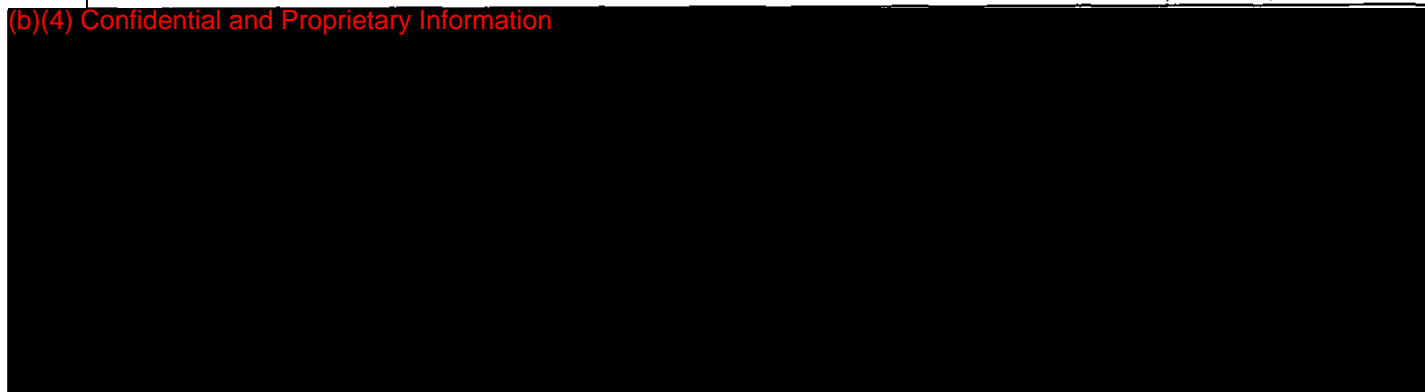
**II. Administrative Requirements**

	Yes	No	N/A
Indications for Use page (Indicate if: Prescription or OTC)	√		
Truthful and Accuracy Statement	√		
510(k) Summary or 510(k) Statement	√		
Standards Form	√		

**III. Device Description**

	Yes	No	N/A
Is the device life-supporting or life sustaining?		√	
Is the device an implant (implanted longer than 30 days)?		√	
Does the device design use software?		√	
Is the device sterile?	√		
Is the device reusable (not reprocessed single use)?		√√	
Are "cleaning" instructions included for the end user?			

(b)(4) Confidential and Proprietary Information



(b)(4) Confidential and Proprietary Information



(b)(4) Confidential and Proprietary Information



9





















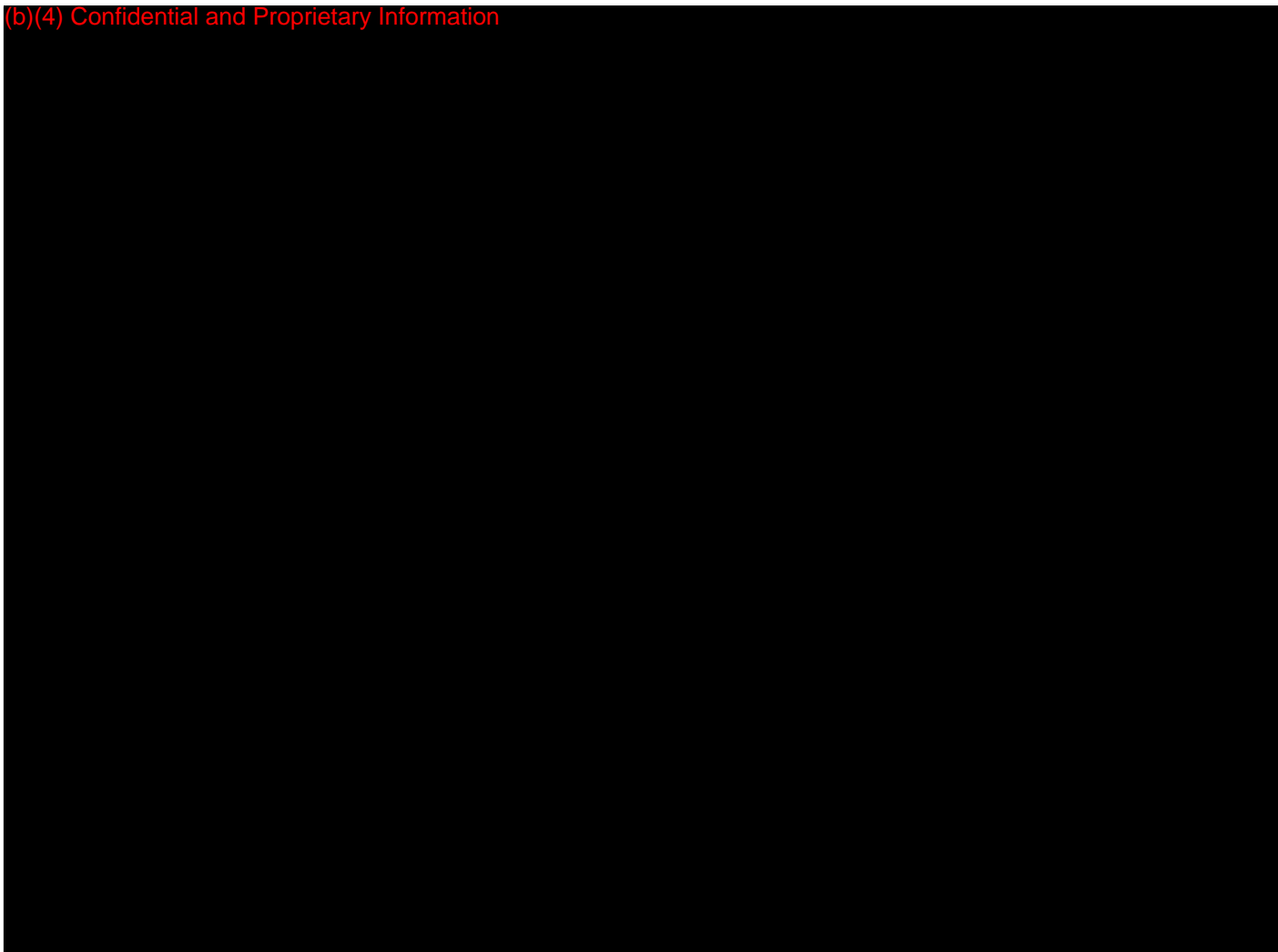








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**XIV. Substantial Equivalence Discussion**

	Yes	No	
1. Same Indication Statement?	X		If YES = Go To 3
2. Do Differences Alter The Effect Or Raise New Issues of Safety Or Effectiveness?		X	If YES = Stop NSE
3. Same Technological Characteristics?	X		If YES = Go To 5
4. Could The New Characteristics Affect Safety Or Effectiveness?			If YES = Go To 6
5. Descriptive Characteristics Precise Enough?	X		If NO = Go To 8 If YES = Stop SE
6. New Types Of Safety Or Effectiveness Questions?		X	If YES = Stop NSE
7. Accepted Scientific Methods Exist?	X		If NO = Stop NSE
8. Performance Data Available?	X		If NO = Request Data
9. Data Demonstrate Equivalence?	X		Final Decision: SE

Note: See

[http://eroom.fda.gov/eRoomReg/Files/CDRH3/CDRHPreMarketNotification510kProgram/0\\_4148/FLOWC](http://eroom.fda.gov/eRoomReg/Files/CDRH3/CDRHPreMarketNotification510kProgram/0_4148/FLOWC)



**XVII. Recommendation – SE**

Regulation Number: 21 CFR 874.4420  
Regulation Name: Ear, Nose, and Throat manual surgical instrument  
Regulatory Class: Class I  
Product Code: LRC

Susan Rudy CRNP  
Susan F. Rudy, MSN, CRNP, CORLN

Srinivas Nandkumar  
Srinivas Nandkumar, PhD., ENTB Chief

6/2/2011  
Date

6/12/11  
Date

Entellus Medical Sinus Guidewire

K-110739 /A001

Entellus Medical

**510 (k) Clinical Review (K- 110739)**

**Date:** 05-31-2011

**TO:** Susan Rudy, MSN, CRNP, CORLN, OCN  
Nurse Consultant & Family Nurse Practitioner  
ENTB/ODE/DONED

**From:** Anjum Khan, M.D., MPH  
Medical Officer, ENTB/DONED/ODE

**Cc:** Srinivas Nandkumar, Ph.D.  
Branch Chief, ENTB/DONED/ODE

**Subject:** Entellus Medical Sinus Guidewire

(b)(4) Confidential and Proprietary Information































































































## 510(k) Summary

**Date Prepared:** May 14, 2011  
**Submitter Information:** Entellus Medical, Inc.  
6705 Wedgwood Court, North  
Maple Grove, MN 55311

**Establishment Registration:** 3006345872

**Contact Information:** Karen E. Peterson  
Vice President Clinical, Regulatory and Quality  
(763) 463-7066  
[kpeterson@entellusmedical.com](mailto:kpeterson@entellusmedical.com)

**Device Information:**  
**Trade Name:** Entellus Medical Sinus Guidewire  
**Common Name:** Sinus Guidewire  
**Classification Regulation:** 21 CFR 874.4420  
**Classification Name:** ENT Manual Surgical Instrument  
**Classification Panel:** ENT  
**Device Classification:** Class I  
**Product Code:** LRC

### Predicate Devices:

NeoMetrics Selectiva™ SB Guidewire [K033321, K013024]  
Relieva Vigor™ Sinus Guidewire [K043445]

### Device Description:

Entellus Medical Sinus Guidewire is a 0.035" – compatible guidewire with a flexible angled radiopaque distal tip. It is constructed of nickel titanium alloys, stainless steel, and features a polymer coating.

### Indication for Use

To provide a means to access the frontal, sphenoid and maxillary sinuses, for diagnostic and therapeutic procedures in adults aged 18 and over.

### Contraindications:

None

### Technological Characteristics:

The device has the same technological characteristics (i.e., design, function, materials, biocompatibility, packaging and sterilization) as the predicate device [K033321, K013024]. The device has the same technological characteristics (i.e., design, function, principle of operation, and biocompatibility) as the predicate device [K043445]. The subject and predicate devices are



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K110739/A002

all sterilized using Ethylene Oxide (EtO), validated per ISO 11135-1, and have a Sterility Assurance Level (SAL) of  $10^{-6}$ . All devices are for single use only and are biocompatible per ISO 10993-1.

**Substantial Equivalence:**

The intended use and indications for use of the subject device is the same as the predicate device [K043445]. The technological characteristics of the subject device are the same as the predicate devices, [K033321, K013024] and/or [K043445], including: design, function, principle of operation, materials, biocompatibility, packaging and sterilization.

**Performance Data:**

Performance testing of the Entellus Medical Sinus Guidewire consisted of design verification testing and a cadaver study. Design verification testing included simulated use and compatibility testing. A cadaver study was conducted to support the utility of this device in the sinus spaces. Biocompatibility, sterilization, packaging, shelf life testing, animal and clinical data were not submitted. Performance testing showed that the device meets design specifications and performed as intended.

**Conclusion**

In conclusion, the device is substantially equivalent based on a comparison of intended use, indications for use, and technological characteristics. The device is safe and effective for its intended use.







K110739/A002

**Instructions for Use**

1. Remove the sinus guidewire from the protective hoop.
2. Under endoscopic visualization:
  - a. Place a guide (or curved suction or sinus cannula) into the desired anatomy.
  - b. Track the sinus guidewire through the guide into the target sinus space until light resistance is felt. Do not use excessive force.













**NOTE:** If significant resistance is encountered while advancing or withdrawing the guidewire, change the position of the guide or rotate the angled tip of the guidewire in either direction, then advance or withdraw the guidewire in a gentle motion.

3. Confirm guidewire is located in target sinus space with endoscopic and/or fluoroscopic visualization.
4. After procedure, dispose of device according to appropriate environmental health safety guidelines.

**Limited Warranty**

Entellus Medical, Inc. warrants that reasonable care has been used in the design and manufacture of this device. Entellus Medical, Inc. excludes all other warranties, whether expressed or implied, by operation of law or otherwise including, but not limited to, any implied warranties of merchantability or fitness since handling and storage as well as other factors relating to the patient, diagnosis, treatment, medical procedures, and other matters beyond Entellus Medical, Inc.'s control, directly affect the device and the results obtained from its use. Entellus Medical, Inc. shall not be liable for any incidental or consequential loss, damage or expense, directly or indirectly arising from the use of this device. Entellus Medical, Inc. neither assumes, nor authorizes any other person to assume for it, any other or additional liability or responsibility in connection with this device. Refer to *Entellus Medical, Inc. Standard Terms and Conditions*.

Graphic Symbols Contained on Device Labeling

 Reorder Number	 Lot Number	 Model Number
 See Instructions For Use	 Keep Dry	 Do Not Reuse
 Sterilization with Ethylene Oxide Gas	 Use By	 Prescription Use Only
 Quantity	 Manufacturer	 Store in Cool Dry Place

Solo Pro is a trademark of Acclarent, Inc.  
 Xpress is a trademark of Entellus Medical, Inc.

  
 Manufactured by:  
**Entellus Medical Inc.**  
 6705 Wedgwood Court North  
 Maple Grove, MN 55311  
 (763) 463-1595  
 www.entellusmedical.com

Entellus Medical

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K110739/A001

**3. CDRH Premarket Review Submission Cover Sheet**

The CDRH Premarket Review Submission Cover Sheet is on the following pages.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES  
 FOOD AND DRUG ADMINISTRATION  
 DRUG PREMARKET REVIEW SUBMISSION COVER SHEET

Form Approval  
 OMB No. 9010-0120

Date of Submission <b>March 16, 2011</b>	User Fee Payment ID Number <b>(b) (4)</b>	FDA Submission Document Number (if known)
---------------------------------------------	----------------------------------------------	-------------------------------------------

SECTION A TYPE OF SUBMISSION				
<b>PMA</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Premarket Report <input type="checkbox"/> Modular Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Report <input type="checkbox"/> Report Amendment <input type="checkbox"/> Licensing Agreement	<b>PMA &amp; HDE Supplement</b> <input type="checkbox"/> Regular (180 day) <input type="checkbox"/> Special <input type="checkbox"/> Panel Track (PMA Only) <input type="checkbox"/> 30-day Supplement <input type="checkbox"/> 30-day Notice <input type="checkbox"/> 135-day Supplement <input type="checkbox"/> Real-time Review <input type="checkbox"/> Amendment to PMA & HDE Supplement <input type="checkbox"/> Other	<b>PDP</b> <input type="checkbox"/> Original PDP <input type="checkbox"/> Notice of Completion <input type="checkbox"/> Amendment to PDP	<b>510(k)</b> <input checked="" type="checkbox"/> Original Submission: <input checked="" type="checkbox"/> Traditional <input type="checkbox"/> Special <input type="checkbox"/> Abbreviated (Complete section I, Page 5) <input type="checkbox"/> Additional Information <input type="checkbox"/> Third Party	<b>Meeting</b> <input type="checkbox"/> Pre-510(K) Meeting <input type="checkbox"/> Pre-IDE Meeting <input type="checkbox"/> Pre-PMA Meeting <input type="checkbox"/> Pre-PDP Meeting <input type="checkbox"/> Day 100 Meeting <input type="checkbox"/> Agreement Meeting <input type="checkbox"/> Determination Meeting <input type="checkbox"/> Other (specify):
<b>IDE</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Supplement	<b>Humanitarian Device Exemption (HDE)</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Amendment <input type="checkbox"/> Supplement <input type="checkbox"/> Report <input type="checkbox"/> Report Amendment	<b>Class II Exemption Petition</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Additional Information	<b>Evaluation of Automatic Class III Designation (De Novo)</b> <input type="checkbox"/> Original Submission <input type="checkbox"/> Additional Information	<b>Other Submission</b> <input type="checkbox"/> 513(g) <input type="checkbox"/> Other (describe submission):

Have you used or cited Standards in your submission?  Yes  No (If Yes, please complete Section I, Page 5)

SECTION B SUBMITTER, APPLICANT OR SPONSOR			
Company / Institution Name <b>Entellus Medical, Inc.</b>		Establishment Registration Number (if known) <b>3006345872</b>	
Division Name (if applicable)		Phone Number (including area code) <b>(763) 463-7056</b>	
Street Address <b>6705 Wedgwood Court North</b>		FAX Number (including area code) <b>(763) 463-1599</b>	
City <b>Maple Grove</b>	State / Province <b>MN</b>	ZIP/Postal Code <b>55311</b>	Country <b>USA</b>
Contact Name <b>Karen E. Peterson</b>			
Contact Title <b>Vice President, Clinical, Regulatory and Quality</b>		Contact E-mail Address <b>kpeterson@entellusmedical.com</b>	

SECTION C APPLICATION CORRESPONDENT (e.g., consultant, if different from above)			
Company / Institution Name			
Division Name (if applicable)		Phone Number (including area code)	
Street Address		FAX Number (including area code)	
City	State / Province	ZIP/Postal Code	Country
Contact Name			
Contact Title		Contact E-mail Address	

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SECTION D1 REASON FOR APPLICATION - PMA, PDP, OR HIDE		
<input type="checkbox"/> Withdrawal <input type="checkbox"/> Additional or Expanded Indications <input type="checkbox"/> Request for Extension <input type="checkbox"/> Post-approval Study Protocol <input type="checkbox"/> Request for Applicant Hold <input type="checkbox"/> Request for Removal of Applicant Hold <input type="checkbox"/> Request to Remove or Add Manufacturing Site	<input type="checkbox"/> Change in design, component, or specification: <input type="checkbox"/> Software / Hardware <input type="checkbox"/> Color Additive <input type="checkbox"/> Material <input type="checkbox"/> Specifications <input type="checkbox"/> Other (specify below)  Other (specify below)	<input type="checkbox"/> Location change: <input type="checkbox"/> Manufacturer <input type="checkbox"/> Sterilizer <input type="checkbox"/> Packager
<input type="checkbox"/> Process change: <input type="checkbox"/> Manufacturing <input type="checkbox"/> Sterilization <input type="checkbox"/> Packaging <input type="checkbox"/> Other (specify below)	<input type="checkbox"/> Labeling change: <input type="checkbox"/> Indications <input type="checkbox"/> Instructions <input type="checkbox"/> Performance <input type="checkbox"/> Shelf Life <input type="checkbox"/> Trade Name <input type="checkbox"/> Other (specify below)	<input type="checkbox"/> Report Submission: <input type="checkbox"/> Annual or Periodic <input type="checkbox"/> Post-approval Study <input type="checkbox"/> Adverse Reaction <input type="checkbox"/> Device Defect <input type="checkbox"/> Amendment
<input type="checkbox"/> Response to FDA correspondence:		<input type="checkbox"/> Change in Ownership <input type="checkbox"/> Change in Correspondent <input type="checkbox"/> Change of Applicant Address
<input type="checkbox"/> Other Reason (specify):		

SECTION D2 REASON FOR APPLICATION - IDE		
<input type="checkbox"/> New Device <input type="checkbox"/> New Indication <input type="checkbox"/> Addition of Institution <input type="checkbox"/> Expansion / Extension of Study <input type="checkbox"/> IRB Certification <input type="checkbox"/> Termination of Study <input type="checkbox"/> Withdrawal of Application <input type="checkbox"/> Unanticipated Adverse Effect <input type="checkbox"/> Notification of Emergency Use <input type="checkbox"/> Compassionate Use Request <input type="checkbox"/> Treatment IDE <input type="checkbox"/> Continued Access <input type="checkbox"/> Request for Removal of Applicant Hold	<input type="checkbox"/> Change in: <input type="checkbox"/> Correspondent / Applicant <input type="checkbox"/> Design / Device <input type="checkbox"/> Informed Consent <input type="checkbox"/> Manufacturer <input type="checkbox"/> Manufacturing Process <input type="checkbox"/> Protocol - Feasibility <input type="checkbox"/> Protocol - Other <input type="checkbox"/> Sponsor  <input type="checkbox"/> Report submission: <input type="checkbox"/> Current Investigator <input type="checkbox"/> Annual Progress Report <input type="checkbox"/> Site Waiver Report <input type="checkbox"/> Final	<input type="checkbox"/> Repose to FDA Letter Concerning: <input type="checkbox"/> Conditional Approval <input type="checkbox"/> Deemed Approved <input type="checkbox"/> Deficient Final Report <input type="checkbox"/> Deficient Progress Report <input type="checkbox"/> Deficient Investigator Report <input type="checkbox"/> Disapproval <input type="checkbox"/> Request Extension of Time to Respond to FDA <input type="checkbox"/> Request Meeting <input type="checkbox"/> Request Hearing Manufacturer
<input type="checkbox"/> Other Reason (specify):		

SECTION D3 REASON FOR SUBMISSION - 510(k)		
<input type="checkbox"/> New Device	<input checked="" type="checkbox"/> Additional or Expanded Indications	<input type="checkbox"/> Change in Technology
<input type="checkbox"/> Other Reason (specify):		



**SECTION E ADDITIONAL INFORMATION ON 510(K) SUBMISSIONS**

Product codes of devices to which substantial equivalence is claimed				Summary of, or statement concerning, safety and effectiveness information <input checked="" type="checkbox"/> 510 (k) summary attached <input type="checkbox"/> 510 (k) statement					
1	DQX	2	KAM			3		4	
5		6				7		8	
Information on devices to which substantial equivalence is claimed (if known)									
	510(k) Number		Trade or Proprietary or Model Name		Manufacturer				
1	K033321, K013024		Selectiva™ SB Guidewire		NeoMetrics, Inc.				
2	K043445		Relieva Vigor™ Sinus Guidewire		Acclarent, Inc.				
3									
4		6			6				

**SECTION F PRODUCT INFORMATION - APPLICATION TO ALL APPLICATIONS**

Common or usual name or classification  
**Common name: Sinus Guidewire**  
**Classification name: Manual Surgical Instrument for General Use**

	Trade or Proprietary or Model Name for This Device		Model Number
1	Entellus Medical Sinus Guidewire	1	PTW
2		2	

FDA document numbers of all prior related submissions (regardless of outcome)

1	2	3	4	5	6
7	8	9	10	11	12

Data Included in Submission  
 Laboratory Testing     Animal Trials     Human Trials

**SECTION G PRODUCT CLASSIFICATION - APPLICATION TO ALL APPLICATIONS**

Product Code <b>LRC</b>	C.F.R. Section (if applicable) <b>21 CFR 874.4420</b>	Device Class <input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Unclassified
Classification Panel <b>ENT</b>		
Indications (from labeling)  <b>To provide a means to access the sinus space for diagnostic and therapeutic procedures in adults aged 18 and over.</b>		

Note: Submission of this information does not affect the need to submit a 2891 or 2891a Device Establishment Registration form.

FDA Document Number (if known)

SECTION H MANUFACTURING / PACKAGING / STERILIZATION SITES RELATING TO A SUBMISSION

(b)(4) Confidential and Proprietary Information



**SECTION 1 UTILIZATION OF STANDARDS**

Note: Complete this section if your application or submission cites standards or includes a "Declaration of Conformity to a Recognized Standard" statement.

(b)(4) Confidential and Proprietary Information



Please include any additional standards to be cited on a separate page.

**Public reporting burden for this collection of information** is estimated to average 0.5 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to:

Food and Drug Administration  
CDRH (HFZ-342)  
9200 Corporate Blvd.  
Rockville, MD 20850

*An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control*





Entellus Medical

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K110739/A001

TO: Susan Rudy, FDA ENTB team leader  
FROM: Karen Peterson, Entellus Medical  
RE: Response to K110739 interactive review deficiencies of 5-13-11  
DATE: 5-16-11

(b)(4) Confidential and Proprietary Information and (b)(5)















(b)(4) Confidential and Proprietary Information and (b)(5)



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Entellus Medical

**Indications for Use Statement**

510(k) Number (if known): \_\_\_\_\_

**Device Name:** Entellus Medical Sinus Guidewire

**Indications for Use**

To provide a means to access the sinus space for diagnostic and therapeutic procedures in adults aged 18 and over.

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

\_\_\_\_\_  
Concurrence of CDRH Office of Device Evaluation (ODE)

Prescription Use   X   - OR/AND Over-the-Counter Use \_\_\_\_\_



## 510(k) Summary

**Date Prepared:** May 14, 2011  
**Submitter Information:** Entellus Medical, Inc.  
6705 Wedgwood Court, North  
Maple Grove, MN 55311

**Establishment Registration:** 3006345872

**Contact Information:** Karen E. Peterson  
Vice President Clinical, Regulatory and Quality  
(763) 463-7066  
[kpeterson@entellusmedical.com](mailto:kpeterson@entellusmedical.com)

**Device Information:**

<b>Trade Name:</b>	Entellus Medical Sinus Guidewire
<b>Common Name:</b>	Sinus Guidewire
<b>Classification Regulation:</b>	21 CFR 874.4420
<b>Classification Name:</b>	ENT Manual Surgical Instrument
<b>Classification Panel:</b>	ENT
<b>Device Classification:</b>	Class I
<b>Product Code:</b>	LRC

### Predicate Devices:

NeoMetrics Selectiva™ SB Guidewire [K033321, K013024]  
Relieva Vigor™ Sinus Guidewire [K043445]

### Device Description:

Entellus Medical Sinus Guidewire is a 0.035" – compatible guidewire with a flexible angled radiopaque distal tip. It is constructed of nickel titanium alloys, stainless steel, and features a lubricious coating.

### Indication for Use

To provide a means to access the sinus space for diagnostic and therapeutic procedures in adults aged 18 years and over.

### Contraindications:

None

### Technological Characteristics:

The device has the same technological characteristics (i.e., design, function, materials, biocompatibility, packaging and sterilization) as the predicate device [K033321, K013024]. The device has the same technological characteristics (i.e., design, function, principle of operation, and biocompatibility) as the predicate device [K043445]. The subject and predicate devices are

Entellus Medical

all sterilized using Ethylene Oxide (EtO), validated per ISO 11135-1, and have a Sterility Assurance Level (SAL) of  $10^{-6}$ . All devices are for single use only and are biocompatible per ISO 10993-1.

**Substantial Equivalence:**

The intended use and indications for use of the subject device is the same as the predicate device [K043445]. The technological characteristics of the subject device are the same as the predicate devices, [K033321, K013024] and/or [K043445], including: design, function, principle of operation, materials, biocompatibility, packaging and sterilization.

**Performance Data:**

Performance testing of the Entellus Medical Sinus Guidewire consisted of design verification testing and a cadaver study. Design verification testing included simulated use and compatibility testing. A cadaver study was conducted to support the utility of this device in the sinus spaces. Biocompatibility, sterilization, packaging, shelf life testing, animal and clinical data were not submitted. Performance testing showed that the device meets design specifications and performed as intended.

**Conclusion**

In conclusion, the device is substantially equivalent based on a comparison of intended use, indications for use, and technological characteristics. The device is safe and effective for its intended use.









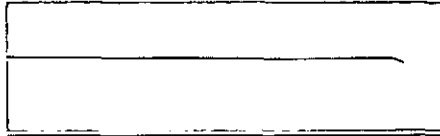
## INSTRUCTIONS FOR USE Entellus Medical Sinus Guidewire

*Read all Instructions prior to use*

- Caution:** Federal (USA) law restricts this device to sale by or on the order of a physician.
- Sterility:** Provided Sterile, Ethylene Oxide (EO) Sterilization, Non-Pyrogenic
- Single Use:** Disposable, For Single Patient Use Only, Do Not Resterilize and/or Reuse
- Storage:** Store in a cool, dry place

### Description

Entellus Medical Sinus Guidewire is a 0.035" – compatible guidewire with a flexible angled radiopaque distal tip. It is constructed of nickel titanium alloys, stainless steel, and features a lubricious coating.



### Indication For Use

To provide a means to access the sinus space for diagnostic and therapeutic procedures in adults aged 18 and over.

### Contraindications

None known

### Warnings

- Do not use breached or damaged packages, since the sterility and functionality of the device may be compromised.
- Single use only. Do not re-sterilize or re-use, as it may result in compromised device performance and risk improper sterilization and cross contamination.
- Never advance or withdraw the device against unknown resistances as this can cause tissue trauma or device damage.

### Precautions

- Due to the variability of sinus anatomy, review radiographic imaging (CT scan) prior to the procedure to understand anatomy.
- If fluoroscopy is used, follow standard hospital guidelines and requirements for proper fluoroscopic use.
- Do not attempt to alter the angulation of the guidewire tip as this may result in device damage.

### Adverse Effects

Possible adverse effects include, but are not limited to, the following:

- Cerebrospinal fluid leak
- Damage of the orbital wall or other structures of the eye
- Tissue inflammation or trauma

### Compatibility

The Entellus Medical Sinus Guidewire is compatible with instruments (malleable suction, guide catheters, sinus cannulas) having OD  $\geq$  2mm and with balloon catheters having an internal lumen with a diameter of  $\geq$  0.035". Examples of devices that meet these requirements include Xpress™ Multi-Sinus Dilation Tool, Solo Pro™ Sinus Balloon Catheter, and Medtronic, Inc. MCSK5 Suction Tube.

**Instructions for Use**

1. Remove the sinus guidewire from the protective hoop.
2. Under endoscopic visualization:
  - a. Place a guide (or curved suction or sinus cannula) into the desired anatomy.
  - b. Track the sinus guidewire through the guide into the target sinus space until light resistance is felt. Do not use excessive force.













**NOTE:** If significant resistance is encountered while advancing or withdrawing the guidewire, change the position of the guide or rotate the angled tip of the guidewire in either direction, then advance or withdraw the guidewire in a gentle motion.

3. Confirm guidewire is located in target sinus space with endoscopic and/or fluoroscopic visualization.
4. After procedure, dispose of device according to appropriate environmental health safety guidelines.

**Limited Warranty**

Entellus Medical, Inc. warrants that reasonable care has been used in the design and manufacture of this device. Entellus Medical, Inc. excludes all other warranties, whether expressed or implied, by operation of law or otherwise including, but not limited to, any implied warranties of merchantability or fitness since handling and storage as well as other factors relating to the patient, diagnosis, treatment, medical procedures, and other matters beyond Entellus Medical, Inc.'s control, directly affect the device and the results obtained from its use. Entellus Medical, Inc. shall not be liable for any incidental or consequential loss, damage or expense, directly or indirectly arising from the use of this device. Entellus Medical, Inc. neither assumes, nor authorizes any other person to assume for it, any other or additional liability or responsibility in connection with this device. Refer to *Entellus Medical, Inc. Standard Terms and Conditions*.

Graphic Symbols Contained on Device labeling

 Reorder Number	 Lot Number	 Model Number
 See Instructions For Use	 Keep Dry	 Do Not Reuse
 Sterilization with Ethylene Oxide Gas	 Use By	 Prescription Use Only
 Quantity	 Manufacturer	 Store in Cool Dry Place

Solo Pro is a trademark of Acclarent, Inc.  
Xpress is a trademark of Entellus Medical, Inc.

  
Manufactured by:  
**Entellus Medical Inc.**  
6705 Wedgwood Court North  
Maple Grove, MN 55311  
(763) 463-1595  
www.entellusmedical.com

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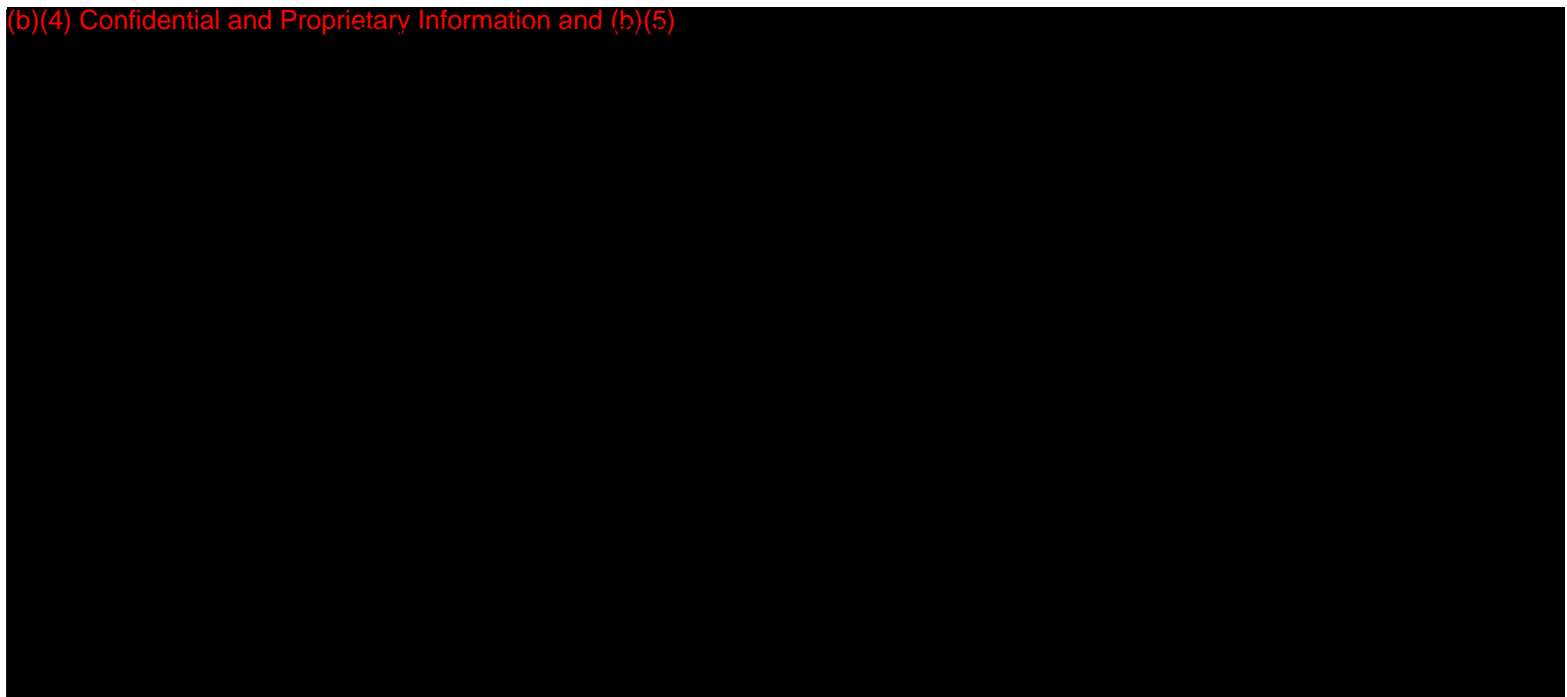






















K061903

**APPENDIX A: 510(k) SUMMARY**

**Sponsor/Submitter:** Acclarent, Inc.  
1525-B O'Brien Drive  
Menlo Park, California 94025

**Contact Person:** Keri Yen  
Quality Engineer  
Phone: (650) 687-5874  
Fax: (650) 687-5889

**Date of Submission:** June 30, 2006

**Device Trade Name:** To be determined

**Common Name:** Sinus Balloon Catheter—Integrated Wire

**Device Classification:** Class I

**Regulation Number:** 21 CFR 874.4420

**Classification Name:** ENT Manual Surgical Instrument

**Product Code:** LRC

**Predicate Device:** Relieva Sinus Balloon Catheter (K043527)  
Relieva Sinus Guidewire (K043445)

**Device Description:** The Sinus Balloon Catheter—Integrated Wire is a sinus balloon catheter that has an integrated guidewire. The Sinus Balloon Catheter—Integrated Wire allows access to and dilation of the sinus ostia and paranasal spaces with a single device.

**Indications for Use:** To provide a means to access the sinus space and to dilate the sinus ostia and spaces within the paranasal sinus cavities for diagnostic and therapeutic procedures.

**Technological Characteristics:** The Sinus Balloon Catheter—Integrated Wire is a device that allows for the capability to access and to dilate the sinus ostia with the same device.

**Performance Data:** The Sinus Balloon Catheter—Integrated Wire met all performance testing acceptance criteria.

**Summary of Substantial Equivalence:** The Sinus Balloon Catheter—Integrated Wire is substantially equivalent to the predicate devices as confirmed through relevant performance tests.

AUG 18 2006

K071815

Acclarent

SEP 28 2007

**APPENDIX A: 510(k) SUMMARY**

**Sponsor/Submitter:** Acclarent, Inc.  
1525-B O'Brien Drive  
Menlo Park, California 94025

**Contact Person:** Keri Yen  
Regulatory Affairs Specialist  
Phone: (650) 687-5874  
Fax: (650) 687-4449

**Date of Submission:** July 3, 2007

**Device Trade Name:** *Relieva Luma*<sup>TM</sup> Sinus Illumination System

**Common Name:** Sinus Guidewire

**Device Classification:** Class I

**Regulation Number:** 21 CFR 878.4800

**Classification Name:** Manual surgical instrument for general use

**Product Code:** KAM

**Predicate Device:** *Relieva*<sup>TM</sup> Sinus Guidewire (K043445)

**Device Description:** The *Relieva Luma*<sup>TM</sup> Sinus Illumination System is a flexible device that transmits light at the distal tip. The system also contains two accessories: a light cable and an adapter.

**Indications for Use:** The *Relieva Luma*<sup>TM</sup> Sinus Illumination System is intended to provide means to access the sinus space for diagnostic and therapeutic procedures in conjunction with other nasal and sinus products. It is also intended to illuminate within and transilluminate across nasal and sinus structures.

**Technological Characteristics** The *Relieva Luma*<sup>TM</sup> Sinus Illumination System is a device that allows for access to the desired sinus space. Light from the distal tip of the device can be seen via transillumination. The device is connected to any standard light source via a light cable and an adapter.

**Performance Data** The *Relieva Luma*<sup>TM</sup> Sinus Illumination System met all performance testing acceptance criteria.

**Summary of Substantial Equivalence:** The *Relieva Luma*<sup>TM</sup> Sinus Illumination System is substantially equivalent to the predicate device as confirmed through relevant performance tests.

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Click Image to Enlarge

**Relieva Vigor® Sinus Guidewire**

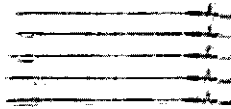
The *Relieva Vigor*® Sinus Guidewire - the latest addition to the *Relieva*® Sinus Guidewire family - delivers the consistent, *precise steering* required to navigate unique and tortuous anatomy in multi-sinus cases. This latest advance in Sinus Guidewire technology is engineered for resilient and responsive performance throughout each case, from the first sinus to the last.



Click Image to Enlarge

**Relieva Luma® Sinus Illumination System**

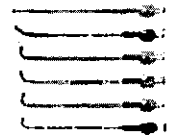
The *Relieva Luma*® Sinus Illumination System presents an innovative option for confirming sinus access for ostial dilation. Harnessing unique trans-sinus illumination technology, the *Relieva Luma*® Sinus Illumination System delivers a remarkable combination of full-strength, targeted fiberoptic light transmission and agile device handling. The *Relieva Luma*® Sinus Illumination System is compatible with all existing *Relieva*® products.



Click Image to Enlarge

**Relieva Solo™ Sinus Balloon Catheter\***

The *Relieva Solo*™ is the latest-generation Sinus Balloon Catheter from Acclarent, bringing a new level of performance and precision to sinus dilation. The advanced, compact design fuses the flexibility of a catheter for navigating tortuous sinus anatomy with the balance and responsive feel of a traditional surgical instrument.



Click Image to Enlarge

**Relieva® Sinus Guide Catheter\***

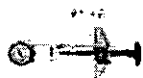
The *Relieva*® Sinus Guide Catheter is a semi-flexible tube with a malleable shaft that is placed near a sinus ostium. Under endoscopic guidance, it facilitates placement of other devices into or near the sinus.



Click Image to Enlarge

**Relieva® Extension Tubing (High Pressure)**

*Relieva*® Extension Tubing provides a high-pressure connection between the *Acclarent*™ Balloon Inflation Device and Balloon Catheters for those desiring additional working freedom.



Click Image to Enlarge

**Acclarent™ Balloon Inflation Device**

The *Acclarent*™ Balloon Inflation Device is used to control the inflation and deflation of the various *Acclarent*™ Balloon Catheters.

\* Not available for sale in the US



- Overview
- Sinusitis
- Airway Stenosis

- Products
  - Balloon Sinuplasty System
  - Inspira AIR System
  - Product Catalog
  - Instructions For Use

## Solutions

Home > Solutions > Products > Balloon Sinuplasty System

### Balloon Sinuplasty™ System

#### The Balloon Sinuplasty™ System

Using endoscopic techniques, the *Balloon Sinuplasty™* system enables qualified otolaryngologists to dilate obstructed sinus ostia in patients suffering from sinusitis. The system is based on flexible catheter and wire technology specifically designed to navigate the tortuous sinus anatomy with minimal trauma. All 510(k) products have been cleared by the U.S. Food and Drug Administration.

OPEN FOR  
BETTER™



View the *Balloon Sinuplasty™* technology animation.

WATCH ■

Locate a qualified surgeon using the *Balloon Sinuplasty™* system.

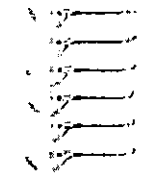
FIND ■



#### Relieva Luma Sentry™ Sinus Illumination System & Accessories

The *Relieva Luma Sentry™* Sinus Illumination System provides confident direct visual confirmation of sinus access via transcutaneous illumination. The new *Relieva Luma Sentry™* Sinus Illumination System improves product ease of use and drives procedural efficiencies enabling fast and easy sinus access, dilation and irrigation. The *Relieva Luma Sentry™* Sinus Illumination System is compatible with all existing *Relieva* Balloon Sinuplasty™ Products.

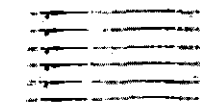
[Learn More](#)



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#### Relieva Flex™ Sinus Guide Catheter

The *Relieva Flex™* Sinus Guide Catheter is designed to enable faster, easier, and less traumatic sinus access by incorporating suction and a softer distal tip.



Click image to Enlarge

#### Relieva Solo Pro™ Sinus Balloon Catheter

*Relieva Solo Pro™* is the next generation Sinus Balloon Catheter, incorporating the latest technology advancements from Acclarent. Combining proven balloon catheter technology with recent innovation, *Relieva Solo Pro™* takes performance and precision to the next level.



Click image to Enlarge

#### Relieva Vortex® Sinus Irrigation Catheter

The *Relieva Vortex®* Sinus Irrigation Catheter is a uniquely designed catheter for the challenges associated with flushing tenacious sinus contents. With its flexible yet durable construction and advanced side-jet delivery, the *Relieva Vortex®* Sinus Irrigation Catheter combines the power of deep intra-sinus delivery and strong shear flows to empty sinus contents.



Click image to Enlarge

#### Relieva Sidekick Low Profile™ and Relieva Sidekick™ Sinus Guide Catheter Handles

The *Relieva Sidekick™* Low Profile Sinus Guide Catheter Handle and *Relieva Sidekick™* Sinus Guide Catheter Handle enable continuous, direct visualization as you use *Relieva®* Balloon Sinuplasty™ devices, delivering a means for easy handling of endoscope and instruments in tandem.