

K981756

AUG 5 1998

**Class II 510(K) Summary**  
**Shelhigh *No-React*® Pericardial Patch**

This summary of the 510(k) information is being submitted as required by section 807.92(a).

**I. Proprietary and Common Name:**

Proprietary name: Shelhigh *No-React*® *PneumoPledgets*

Common name: Pledget (pericardial Strips)

**II. Regulatory Class:**

Class II device

**III. Intended Use**

To reinforce the soft tissue of the lung, thereby sealing or reducing air leak that occurs during pulmonary surgery.

**IV. Product Description**

The Shelhigh *No-React*® *PneumoPledgets strips* are glutaraldehyde fixed sheet of bovine pericardium. They are held on the stapler by a unique design of a loop on the anterior part of the *PneumoPledgets*. It holds the strip by inserting the pointed edge of the staple into the loop. The posterior part (if needed) is held by an "O" ring made of pericardium as well. The *PneumoPledgets* strips are customized to fit all sizes and types of staples. The device is provided sterile in a 2% benzyl alcohol solution, packaged in a glass jar.

The material exhibits good tensile strength, shrink temperature excellent biocompatibility and suture retention. It is soft and pliable making it convenient to implant.

Bovine pericardial material has been used successfully as a tissue patch for pericardial closure. Glutaraldehyde processed bovine pericardium has a long history of success as a permanently implanted material.

## V. Substantial Equivalence

The Shelhigh *No-React*<sup>®</sup> *PneumoPledgets*. is equivalent to the Peri-Strips<sup>®</sup> manufactured by Bio-Vascular K940205 and the Shelhigh *No-React*<sup>®</sup> pericardial patch K974914 and #K964467 currently manufactured by Shelhigh Inc.

## VI. Comparison with Predicate Device

The Shelhigh *No-React*<sup>®</sup> *PneumoPledgets*. like the Shelhigh pericardial patch is a glutaraldehyde cross-linked bovine pericardium membrane which exhibits substantially equivalent physical/mechanical properties as measured by suture retention, tensile strength, and shrink temperature. They both have identical flexibility wall thickness shapes and sizes and both are stored in benzyl alcohol. The only difference is the addition of the detoxification process *No-React*<sup>®</sup>.

Extensive validation of the effectiveness of the Patch with the detoxification process, *No-React*<sup>®</sup> indicates that these differences do not pose new questions of safety and effectiveness.

## VII. Nonclinical / Animal Tests

Physical/Mechanical test information is discussed above. An animal study was conducted to evaluate Shelhigh *No-React*<sup>®</sup> vs. the conventional glutaraldehyde treated patch, the Shelhigh *No-React*<sup>®</sup> patch shows higher level of biocompatibility.

## VIII. Conclusions

The non clinical /Animal testing data showed that the Shelhigh *No-React*<sup>®</sup> *PneumoPledgets*. has high level of cytocompatibility when compared with the conventional glutaraldehyde treated and storage. The Shelhigh *No-React*<sup>®</sup> performance in a substantially equivalent to the predicate device and there were no significant differences between the two devices which pose new questions of safety and effectiveness.



AUG 5 1998

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Shlomo Gabbay, M.D.  
Chief Scientific Officer  
Shelhigh, Inc.  
67-71 East Willow Street  
Millburn, New Jersey 07041

Re: K981756  
Trade Name: Shelhigh No-React Pneumopledgets  
Regulatory Class: II  
Product Code: FTL  
Dated: May 12, 1998  
Received: May 18, 1998

Dear Dr. Gabbay:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to 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). 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.

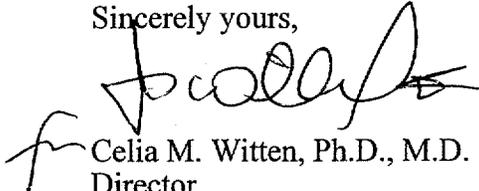
If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 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.

Page 2 - Dr. Shlomo Gabbay

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4595. 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" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,

A handwritten signature in black ink, appearing to read "C. Witten", with a stylized flourish at the end.

Celia M. Witten, Ph.D., M.D.  
Director  
Division of General and  
Restorative Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

510(k) Number (if known): K981756

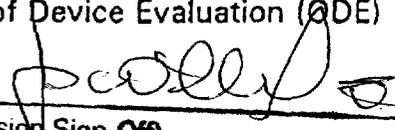
Device Name: Shelhigh No-React® PneumoPledgets.

Indications For Use:

The device is intended for use to reinforced the soft tissue of the lung, thereby sealing or reducing air leak that occur during pulmonary surgery.

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

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Concurrence of CDRH, Office of Device Evaluation (ODE)



(Division Sign-Off)  
Division of General Restorative Devices  
510(k) Number \_\_\_\_\_

K981756

Prescription Use X  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use \_\_\_\_\_

(Optional Format 1-2-96)