



Wireless gamma probe for radioguided Sentinel lymph Node (SLN) Localization

WProbe: Exploring new frontiers in radioguided cancer surgery

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Since 2007 **ONCOVISION** has been fully committed to help you improve your high standards in **Minimally Invasive Radio-guided Surgery (MIRS)** with an innovative radioguided technological platform that is revolutionizing the surgical management of malignancies such as breast cancer, melanoma, gynecological, urological and colorectal cancers, and parathyroid diseases. **Sentinella** and **WProbe** provide you the perfect combination, to be used together or independently, to guide you through even the most complex **Sentinel Lymph Node (SLN)** localizations in the management of your cancer patients⁹.

What is radioguided surgery and how does it work?

The concept of the **Sentinel Lymph Node (SLN)** as the first node to have metastatic involvement if there has been lymphatic spread was proposed by Dr. R. Cabañas in 1977.

The first accepted technique to identify the SLN was using blue dye (intraoperative visualization); soon, however, the use of radionuclides and intraoperative gamma probes (intraoperative counting) came on board as a complementary yet more reliable technique³.

The **intraoperative gamma probe technology with WProbe**, is based on the injection in the tumor site of a radiopharmaceutical agent that emits gamma rays while it drains towards the lymphatic system. With the help of the gamma probe, the surgeon expeditiously locates the hot sentinel node(s) or cancerous tissues to be pathologically analyzed as these locations accumulate the radiopharmaceutical agent and have a higher gamma count rate than the background^{1,4,5}. This technique has become widely accepted in surgical oncology.

However, the latest breakthrough in radiosurgery is **Sentinella**, an **intraoperative portable gammacamera** (intraoperative imaging) that brings **real time imaging** and **greater sensitivity** to the OR improving the SNL technique and allowing the surgeon to visualize and reach out even the **most hidden and deep hot nodes in cancer procedures**. The use of Sentinella is quickly expanding to additional sophisticated and complex indications⁶.

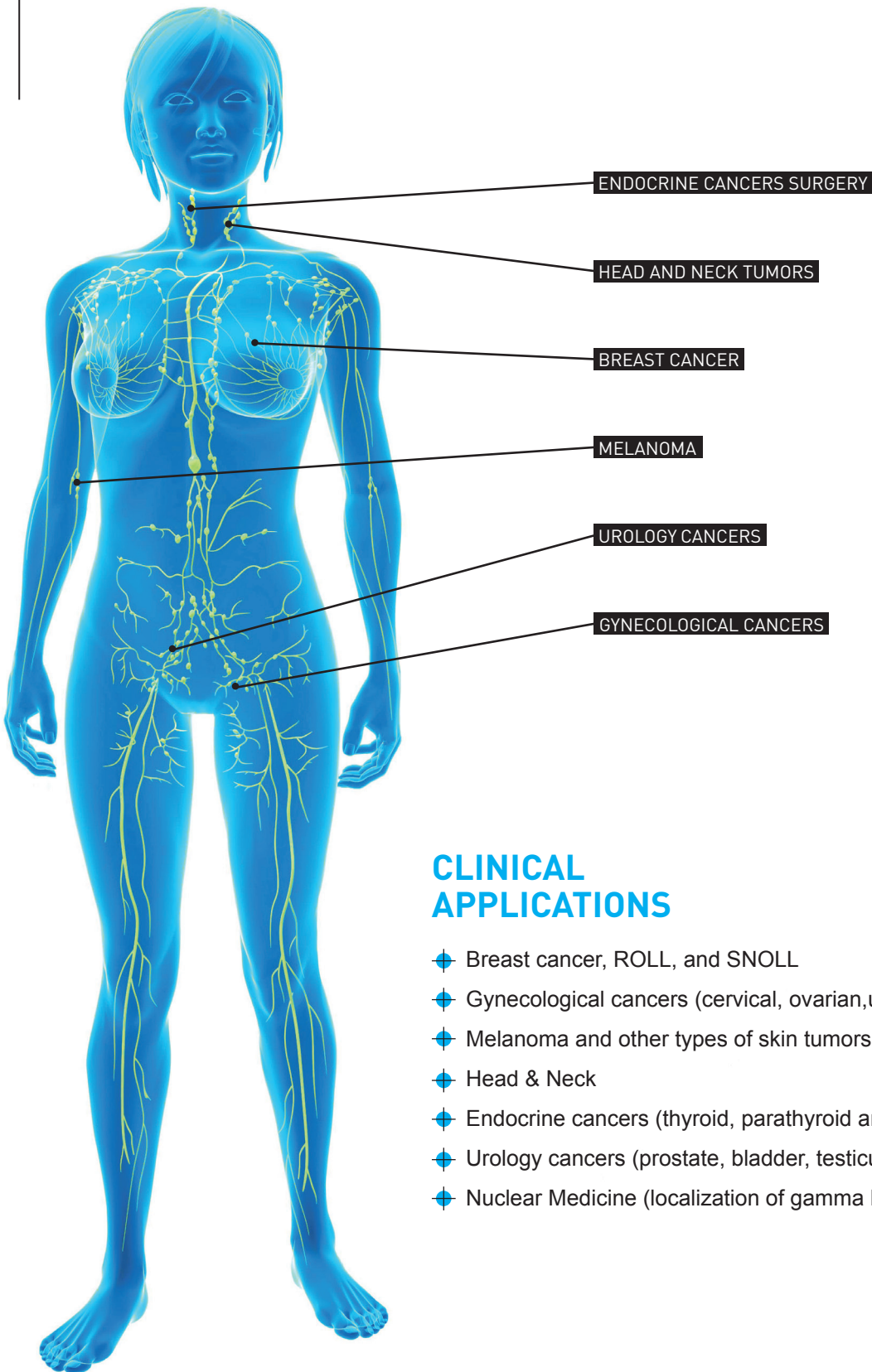


What are the main benefits of performing radioguided surgery on cancer patients?

1. Provides vital and **real time information** to the surgeon regarding the location and extent of disease and resection margins¹

2. Helps **decrease the surgical time**, the patient morbidity and improves the staging accuracy²

3. Allows the surgeon to **minimize the surgical invasiveness** of many diagnostic and therapeutic procedures, whilst maintaining the maximum benefit to the cancer patient¹



CLINICAL APPLICATIONS

- ◆ Breast cancer, ROLL, and SNOLL
- ◆ Gynecological cancers (cervical, ovarian, uterine, vaginal and vulvar)
- ◆ Melanoma and other types of skin tumors
- ◆ Head & Neck
- ◆ Endocrine cancers (thyroid, parathyroid and gastrinomas)
- ◆ Urology cancers (prostate, bladder, testicular, kidney and penile)
- ◆ Nuclear Medicine (localization of gamma labeled areas)



WProbe gamma probe main advantages:

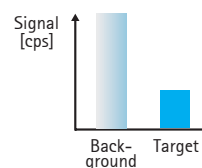
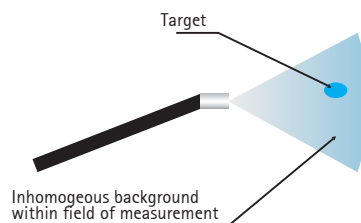
- 1. Wireless, ergonomic and light.** Comfortable to maneuver during intra-incision manipulation, with no cables interrupting your field of view.
- 2. Friendly audible signal.** Ensures no distractions from other activities in the surgical field.
- 3. One probe, multiple uses.** Compact probes that fit all surgical procedures without the hassle of extra removable parts.
- 4. Waterproof.** It can be immersed in water and safely cleaned in a disinfecting solution not needing a sterile cover.
- 5. Available for open surgery and laparoscopy.**

WProbe Technical Specifications^{7,8,10}

Aperture angle	Spatial resolution @ 1 cm	Sensitivity @ 1 cm	Maximum sensitivity	Shielding	Diameter
40°	8.65 mm	> 100 cps/uCi	> 450 cps/uCi	1%	10.5 mm

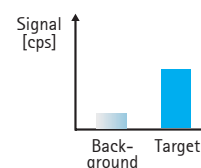
The superb technical design of **WProbe** has been optimized after merging the best in class specifications of existing gamma probes and evaluating the feedback gathered from healthcare professionals and published technical data. The balance achieved by all the performance variables provides the **best contrast during the surgical procedure**, in other words, that is the ability of the gamma probe to **distinguish activity within the target tissue and discriminate it from the lower background activity** within the surrounding of the non-target tissue¹.

Broad radial sensitivity distribution



Broad radial sensitivity distribution

Narrow radial sensitivity distribution



Target detectable

Probe Specifications

Energy range: 85-200 keVs
Standard probe length: 112 mm.
Laparoscopic probe length: 370 mm.
Laparoscopic probe diameter: 10,5 mm.
Probe tip material: Ti6Al4V titanium alloy + CsI (TI) crystal
Battery Life 150 hrs. in continuous operative mode
Battery 3.6V DC single-use Lithium
Weights: 260 gr. (STD) to 400 gr. (LAP)

Control Unit Specifications

Connection via secure Bluetooth
Large bright display of values
Automatic detection of probe
No calibration required
Maximum counts: 25,000 cps.
Battery life lasts up to 3 hrs.
Volume control



Product Description	Reference
Wprobe wireless gamma probe STD (Open Surgery) and LAP (Laparoscopic Surgery)*	FP-0048
Wprobe wireless gamma probe STD for Open Surgery*	FP-0046
Wprobe wireless gamma probe LAP for Laparoscopic Surgery*	FP-0047

*Includes Control Unit Table

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10. Data on file

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Manufactured by:

ONCOVISION

General Equipment for Medical Imaging S.A.

Centro de Investigación Príncipe Felipe
Av. Autopista Saler, 16-3
Valencia 46012, Spain
Telf. +34 96 372 24 72
Email: info@oncovision.es

www.oncovision.es

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