

Hitachi Medical Systems Holding AG

+++ PRESS RELEASE +++

## **Hitachi Real-time Tissue Elastography – proven diagnostic performance in ultrasound imaging for assessment of tissue elasticity**

*Vienna, March 6, 2009* – Hitachi Medical Systems Europe presents Hitachi Real-time Tissue Elastography (HI-RTE) – ultrasound imaging technology for assessment and real-time colour display of tissue elasticity. HI-RTE facilitates detection and visualisation of malignant disease and offers increased accuracy for tissue sampling.

HI-RTE complements conventional B-mode imaging and helps reduce the financial and emotional burden of further investigations for healthcare professionals and their patients. Clinical evaluation has demonstrated that HI-RTE enables lesions to be characterised more rapidly and that operators have a higher degree of confidence in their diagnosis when elastography is incorporated into the ultrasound examination. Additional information gained using HI-RTE can help eliminate unnecessary biopsies and thus avoid the risk and emotional impact associated with invasive procedures. When intervention is indicated, HI-RTE improves accuracy of lesion localisation and precision of needle placement for tissue sampling.

### **HI-RTE – Strain information is key information**

Elasticity is an important characteristic of human tissue which changes under the influence of disease processes such as inflammation, malignancy and ageing. When patients present with an abnormal lump or their physician discovers a focal ‘mass’, an important aspect of the initial clinical examination is physical palpation of the mass to assess its ‘stiffness’. However, manual palpation is an operator-dependent technique and its interpretation is subjective, the technique lacks sensitivity particularly for small and deep tumours. The underlying principle of elastography utilizes the process of tissue compression (stressing force) to produce strain (displacement in response to stress) within the tissue. By measuring the strain induced by tissue compression, it is possible to estimate tissue hardness - harder tissues exhibit less strain than softer tissues. Elasticity imaging is useful in the differentiation of benign and malignant lesions, for example, fatty tissue being more easily

compressed than malignant tumour tissue. Lesion characterization with HI-RTE offers a higher degree of diagnostic confidence and thus reduces anxiety for sonographers and their patients.

### **Quality takes priority**

Special emphasis is placed on ease of use in clinical practice, and with elastography available as a software option on the Hitachi ultrasound systems the only additional hardware required is a standard imaging transducer. Hitachi Medical Systems Europe offers HI-RTE on its existing HI VISION ultrasound range as well as on its new HI VISION Preirus premium platform. Hitachi ultrasound systems offer potential for increased diagnostic accuracy and improved tissue sampling precision in clinical applications including breast, prostate, thyroid, pancreas and many more.

### **HI-RTE update**

The latest findings on HI-RTE were presented during Hitachi's lunchtime symposium at ECR on Saturday, March 7th 2009. The symposium focused on the non-invasive quantitative evaluation of diffuse liver disease and new ultrasound techniques for detection and characterisation of focal breast lesions. Key topics also included recent advances in Hitachi Real-time Tissue Elastography (HI-RTE) in prostate and musculoskeletal applications.

Hitachi is known for its patient-centered philosophy - HI-RTE upholds this tradition and sets a new standard for the medical imaging market. Hitachi Medical Systems Europe is confident it can continue to expand its established customer base of thousands of satisfied users around the world.

---

### **About Hitachi Medical Systems Europe Holding AG**

Hitachi Medical Corporation, a globally active company owned by the Japanese Hitachi Ltd. Group (NYSE: HIT / TSE: 6501) is a leading international electronics company with approximately 390,000 employees worldwide. The Hitachi Medical Corporation is represented in Europe by Hitachi Medical Systems Europe Holding AG, with headquarters in Zug,

Switzerland. The company is a first choice supplier of open and powerful high-field MRI systems, multi-slice CT systems as well as medical ultrasound and optical topography devices. Ultrasound expertise encompasses clinical applications including general radiology, internal medicine, gynaecology, cardiology, gastroenterology, urology and surgery. Hitachi Medical Systems offers a complete range of solutions to address a wide range of medical challenges.

**For more information contact:**

[www.hitachi-medical-systems.com](http://www.hitachi-medical-systems.com)

**Contacts**

Romea Wallnoefer

Hitachi Medical Systems Europe (Holding) AG

Sumpfstrasse 13

CH-6300 Zug

Tel. +41 41 748 63 43

Fax +41 41 748 63 32

E-Mail [r.wallnoefer@hitachi-medical-systems.com](mailto:r.wallnoefer@hitachi-medical-systems.com)

Pleon Publico Public Relations & Lobbying

Mag. Manuela Raidl-Zeller

Neulinggasse 37

A-1030 Wien

Tel. +43 1 717 86 111

E-Mail [manuela.raidl-zeller@pleon-publico.at](mailto:manuela.raidl-zeller@pleon-publico.at)