



Theraclion's Echopulse Demonstrates Improved Outcomes Compared to Surgical Treatment of Thyroid Nodules

- **Publication marks first direct comparison of echotherapy with Echopulse® to surgery**
- **Two additional published studies support use of echotherapy for non-invasive treatment of thyroid nodules**

Malakoff - FRANCE, May 23, 2017 - THERACLION (Alternext, FR0010120402 - ALTHE), a company specialized in leading-edge medical equipment for echotherapy, today announced the publication of three studies dating from April and May 2017 in the journal *Radiology* and the *International Journal of Hyperthermia* on the non-invasive treatment of benign thyroid nodules with Echopulse®, including the first direct comparison of echotherapy to surgery. All three studies were led by Dr. Brian Hung-Hin Lang, M.D., Clinical Associate Professor, Department of Surgery, Chief of the Endocrine Surgery Division at the Queen Mary University Hospital in Hong Kong.

The study, *“Single-session high intensity focussed ablation (HIFU) versus open cervical hemithyroidectomy for benign thyroid nodule: analysis on early efficacy, safety and voice quality”* published in the *International Journal of Hyperthermia* compares 43 patients that underwent treatment with high intensity focused ultrasound (HIFU) with echotherapy using Theraclion's Echopulse® and 103 patients who underwent surgical hemithyroidectomy. The results show better outcomes for patients that underwent echotherapy, including:

- Significantly lower incidence of subclinical hypothyroidism
- Significantly better symptoms improvement score
- Significantly shorter length of hospital stay
- Significantly better voice quality at one month follow-up

A second study, *“High-Intensity Focused Ultrasound for Treatment of Symptomatic Benign Thyroid Nodules”*, published in *Radiology*, shows the efficacy of Echopulse® echotherapy in the treatment of symptomatic benign thyroid nodules compared to an observational cohort. A comparison of 12-month follow-up results between the group of patients that underwent echotherapy and the observational witness group showed that echotherapy leads to:

- An overall median volume reduction of 68.87% [47.35 – 94.89]
- A significantly better volume reduction
- A significantly better symptoms reduction (swelling, pressure scores)
- A significant improvement Quality of Life score

The third study published in the *International Journal of Hyperthermia*, entitled *“High-intensity focused ablation (HIFU) of single benign thyroid nodule rarely alters underlying thyroid function,”* demonstrates:

- The preservation of the underlying thyroid function after thyroid nodule ablation with echotherapy Echopulse® in a series of 83 consecutive patients
- After 3 and 6 months follow-up, none of the patients developed hyperthyroidism and only one patient (1.4%), with a past history of lobectomy, developed hypothyroidism

Michel NUTA, MD, Chief Medical Officer of Theraclion, commented, *“These studies demonstrate that HIFU treatment is not only effective in terms of volume reduction of symptomatic benign thyroid nodules but also in relief of symptoms, while being safe. In addition, these results demonstrate a very feasible alternative to conventional thyroid surgery, with significant reduction in nodule volume.”*

David CAUMARTIN, CEO of Theraclion, added, *“These three critical studies will help us accelerate further clinical adoption of echotherapy as the first-line treatment option for thyroid nodules. This marks the first time that echotherapy has been directly compared to surgery, and the results showed patients having shorter hospital stays, less subclinical hypothyroidism, lower cost and better symptom improvement. Collectively, these studies will also specifically support accelerated adoption in China, following the joint-venture in China with our shareholder Inner Mongolia Furui Medical Science Co, Ltd.*

About Theraclion

Theraclion is a French company specializing in high-tech medical equipment using therapeutic ultrasound. Drawing on leading-edge technologies, Theraclion has designed and manufactured an innovative solution for echotherapy, the Echopulse®, allowing non-invasive tumor treatment through ultrasound-guided high-intensity focused ultrasound. Theraclion is ISO 13485 certified and has received the CE mark for non-invasive ablation of breast fibroadenomas and thyroid nodules. Based in Malakoff, near Paris, France Theraclion has brought together a team of 34 people, 50% of whom are dedicated to R&D and clinical trials. For more information, please visit Theraclion’s website: www.theraclion.com.

Theraclion is listed on Alternext Paris

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Mnemonic: ALTHE - ISIN Code: FR0010120402



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