

ATP38®

### **PHOTOBIOMODULATION (PBM)**

or Low-Level Laser Therapy (LLLT)

Initially used by NASA to accelerate the healing of astronauts' wounds, photobiomodulation has been validated by multiple clinical studies. Its anti-inflammatory, analgesic and healing properties have propelled it into all medical fields.

Photobiomodulation is a non-invasive technique based on the exploitation of specific wavelengths, targeting distinct biological processes. These photons are captured by our cells, inducing a natural biochemical response.

The 7 wavelengths of radiation emitted by ATP38 are carefully adjusted to match the absorption frequencies of mitochondrial receptors. This concordance intensifies cell stimulation and generates a stimulating effect on ATP (adenosine triphosphate).

The wavelengths used by ATP38 are subjected to a calibrated dosimeter in accordance with the defined protocol in order to induce bio stimulation. This will reactivate cellular activity promoting cell regeneration.





## ATP38<sup>®</sup> Accurate, non-invasive & painless treatment

A concentrate of new technologies combined with the best techniques acting on the principle of photobiostimulation.

ATP38® favors power density, i.e. a high concentration of Photons to quickly deliver the total dose of energy expected. The practitioner can set up his own protocols for treatment.

ATP38® makes it possible to treat large surfaces with more precision by scientifically guaranteeing the dose of energy on the treated surface.

Diversification of the care offered

Saving time on all types of care

Optimization of care & quick benefits

Complementary supportive care without side effects







450 nm to 470 nm

BLUE

GREEN

510 nm à 540 nm

**AMBER** 580 nm to 600 nm

RED

610 nm to 635 nm

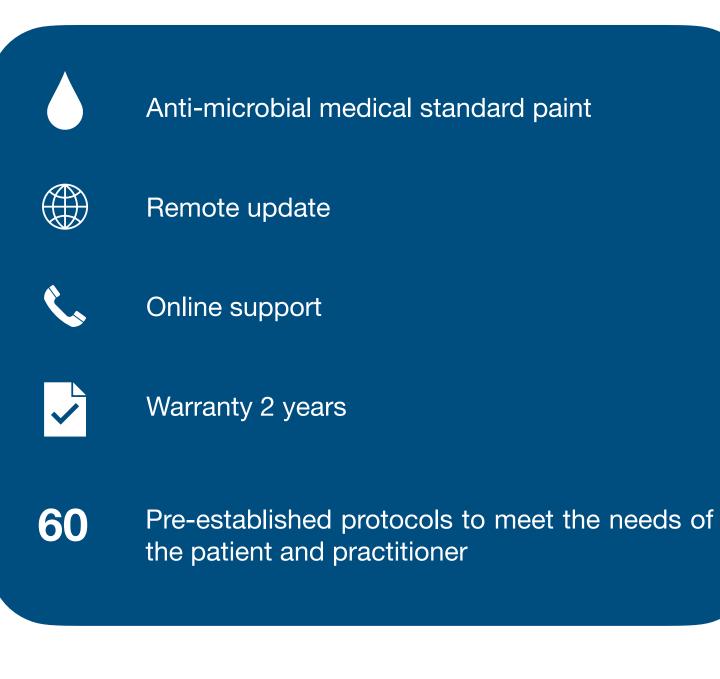


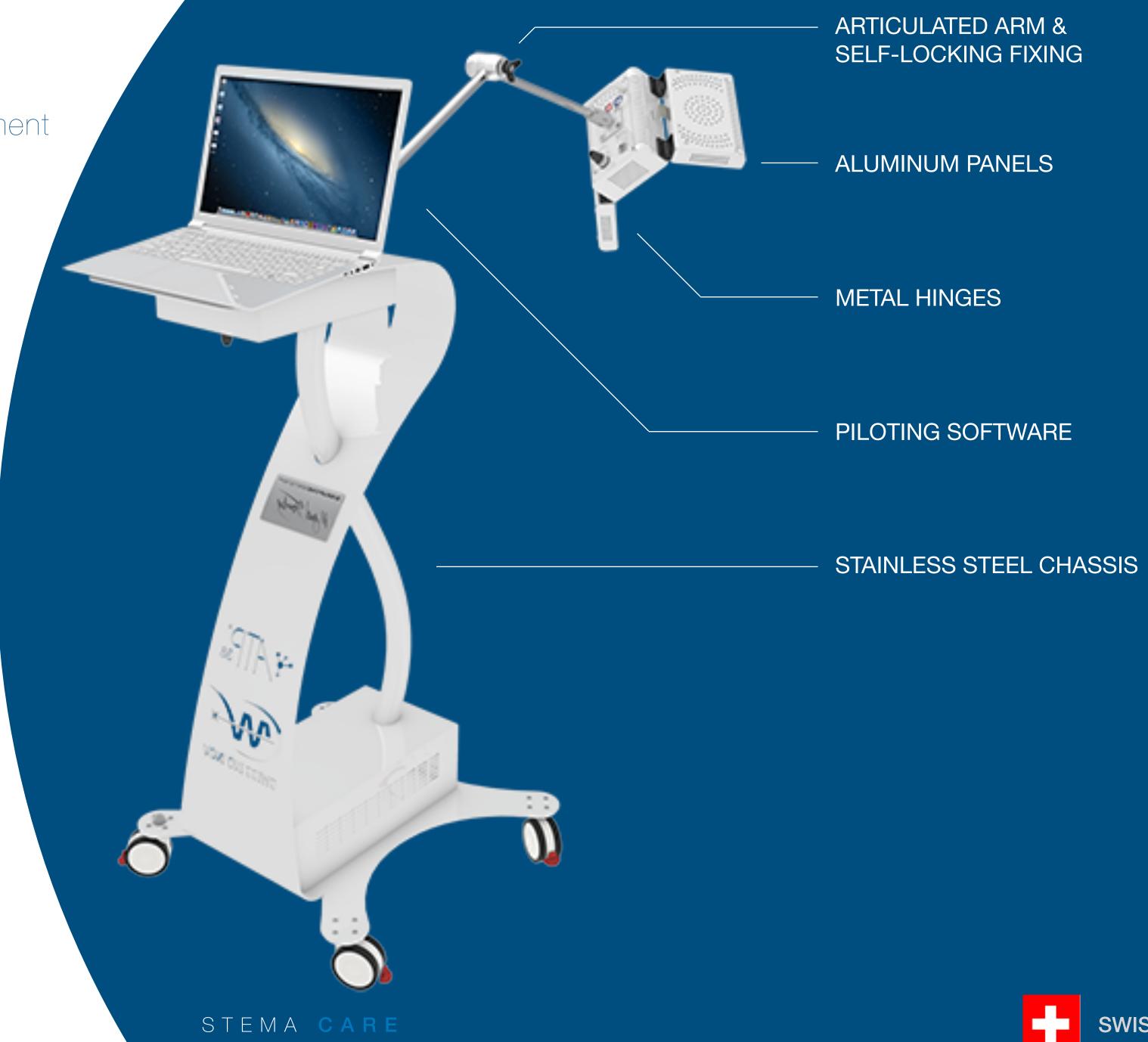
**DEEP RED 1** 665 to 695 nm

**DEEP RED 2** 745 nm to 775 nm

**INFRARED** 800 nm to 835 nm

## ATP38® Accurate, non-invasive & painless treatment



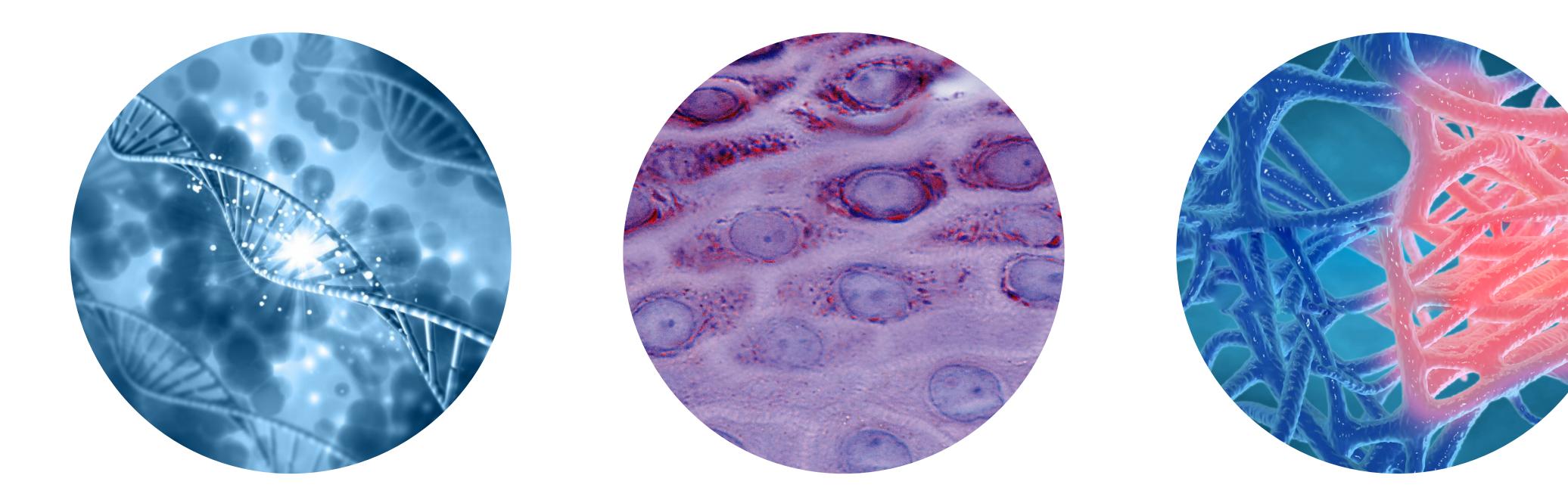






## ATP38® Accurate, non-invasive & painless treatment

cells without side effects.



#### **CELL PROLIFERATION & REGENERATION EFFECT**

### ATP38® is a tool that reduces and relieves pain, improves and accelerates healing, treats inflammation, relieves muscle tension and regenerates

#### **HEALING EFFECT**

#### **ANTI-INFLAMMATORY & ANALGESIC EFFECT**



### ATP38<sup>®</sup> and Oncology Accurate, non-invasive & painless treatment

### RADIOTHERAPY

- Preventive and curative treatment of radiodermatitis: Radiodermatitis is the most common side effect, a feared consequence of which is the interruption of radiotherapy. Several prospective trials show that photobiomodulation reduces its severity and prevents its appearance. ATP 38 is applicable in clinical routine according to specific protocols for ENT, breast, cutaneous and anal canal cancers.
- Preventive and curative treatment of radiomucitis: Mucitis is an extremely common side effect involving radiotherapy and chemotherapy, it directly impacts the quality of life and can lead to a reduction in doses in treatment and therefore to a loss of chance. The MASCC/ISOO, a study group on mucositis of the Multiniational association of supportive care in Cancer and International Society for Oral Oncology, recommends the use of PBM to prevent the occurrence of mucositis. Thus reduce the intensity of pain, the use of opiates and improve the quality of life.



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### RADIOTHERAPY

- Treatment of Xerostomia: Xerostomia affects more than half of patients 3 months after radiation therapy for ENT cancer. It results from the alteration of the functions of the salivary glands. PBM makes it possible to treat the dysfunction of these glands and thus increase salivary flow.
- Treatment of lymphedema: It affects 20% of patients treated for breast cancer. In addition to dietary hygiene measures, lymphatic drainage, PBM stimulates angiogenesis and reduces lympho static fibrosis by improving lymphatic trophicity.
- Osteoradionecrosis: in this painful and serious complication of radiotherapy, PBM thanks to its biomodulating action can be used alone or in combination as a preventive, analgesic or palliative tool and in support of surgical treatments. It reduces the risk of the appearance of necrotic lesions.





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### CHEMOTHERAPY

- Preventive and curative treatment of peripheral neuropathy: Results of randomized trials indicate that PBM has the potential to prevent the development of peripheral neuropathy for patients who have received chemotherapy (platinum taxane) in the context of breast cancer. In addition, Photobiostimulation relieves pain when neuropathy is already installed.
- Treatment of alopecia: Photobiostimulation is able to inhibit cellular apoptosis of the looting follicle, stimulates hair regrowth.
- Preventive and curative treatment of chemo-induced mucitis: The multinational association of supporting care in cancerology (MASCC) recommends Photobiostimulation for the prevention of mucositis in patients receiving chemotherapy. PBM reduces the duration and intensity of mucitis.









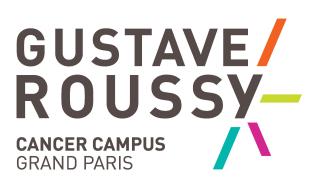
### Contact & more information :



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### **Centre hospitalier** universitaire vaudois

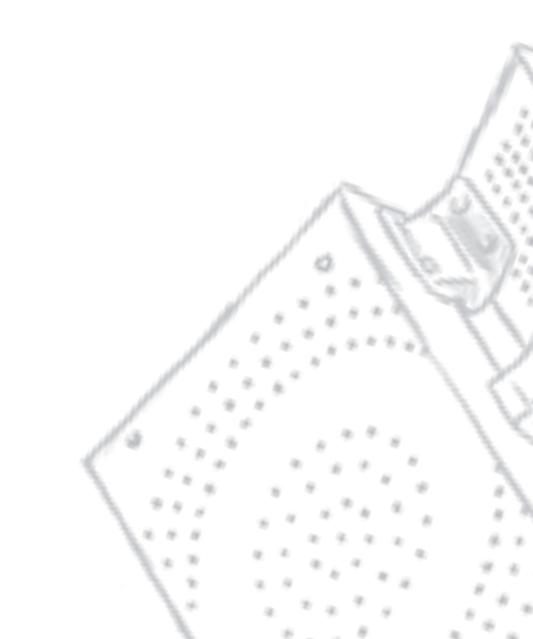








#### INSTITUT DE RADIOTHÉRAPIE ET DE RADIOCHIRURGIE





# STEMA CARE

we support.

