



SONOCLOUD®

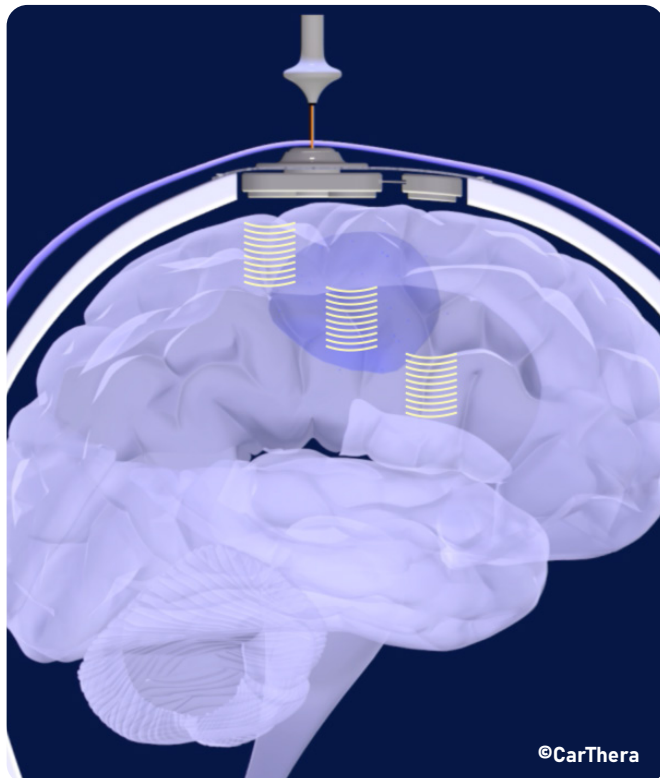
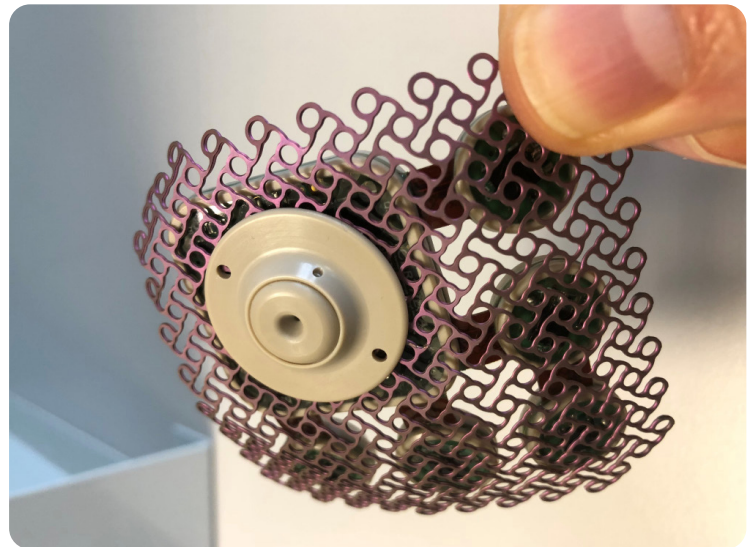
Ultrasounds that make vessels more permeable

SonoCloud® is a medical implant designed by Professor Alexandre Carpentier, a neurosurgeon at La Pitié-Salpêtrière Hospital in Paris. It is inserted into the lining of the skull and activated iteratively during chemotherapy sessions using a transdermal microneedle and then connected to an external programmable generator. Ultrasounds are emitted inside the brain — without any bony obstacles — to allow the blood-brain barrier to be opened temporarily.

Carnot ICM

Scientific / technological breakthrough

The major innovation consists of an unfocused ultrasound, emitted from the lining of the skull itself to avoid any distortion and simplify the use of this technique for repeated medical applications. Numerous studies are being carried out in liaison with Carnot ICM anatomical pathology lab. The Paris Brain Institute also hosts the CarThera advanced brain therapy start-up in its iPEPS - The HealthtechHub business incubator.



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The competitive advantage for the economic stakeholders

SonoCloud allows anyone developing a new therapeutic compound to reach brain tissue more easily and thus reduce the dosage needed to achieve efficiency and avoid any side-effects on peripheral organs.

Partnership

- **CARTHERA**, specialises in therapeutic ultrasound instruments, CarThera designs and develops innovative medical devices for treating brain pathologies.

Contact

Carnot ICM - Alexis GENIN - partnership@icm-institute.org
CarThera - Frédéric SOTTILINI - contact@carthera.eu