

## NEXT-GENERATION ACCELERATORS FOR PROTON-BEAM CANCER THERAPY

### OVERVIEW:

HIL Applied Medical is developing an ultra-compact, high-performance accelerator for proton therapy. We apply a patented laser-based, nanotech-enabled approach to particle acceleration - paving the way for truly cost-effective single-room proton therapy systems.

### PROTON THERAPY:

A proton beam is a form of focused radiation used to treat solid tumors. It is superior to traditional radiation therapy (x-ray) in that it reduces damage to surrounding healthy tissue by over 70%, thereby reducing toxicities and improving patient survival and quality of life. Proton therapy is used routinely for treating over 28 types of cancer; it is FDA-cleared (510k) and reimbursed at rates roughly double those of traditional radiation therapy.

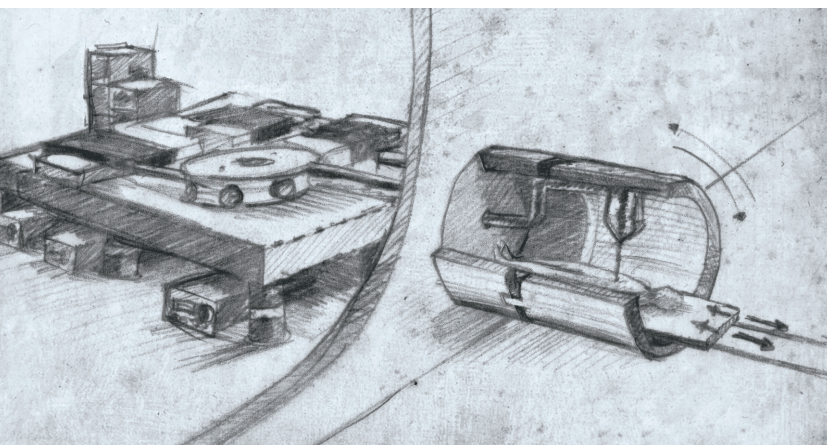
### THE UNMET NEED:

Nowadays there are only 10 operating proton therapy facilities in the US, serving approximately 6,000 patients/year of the USA's 250,000-300,000 eligible patients/year - leaving over 95% of the market untapped.

The main barrier to widespread adoption is the large size (football stadium) and high cost (\$150-250M) of building and operating these centers.

### STATUS:

HIL has a working experimental setup; the company completed a proof of concept at 25% energy and dose rate, and is rapidly approaching clinically-relevant energies. HIL's approach leads to proton energies that are consistently 10-15 times above those achieved with other investigational methods for laser-based acceleration.



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