

## IMAGINEERING TECHNOLOGIES

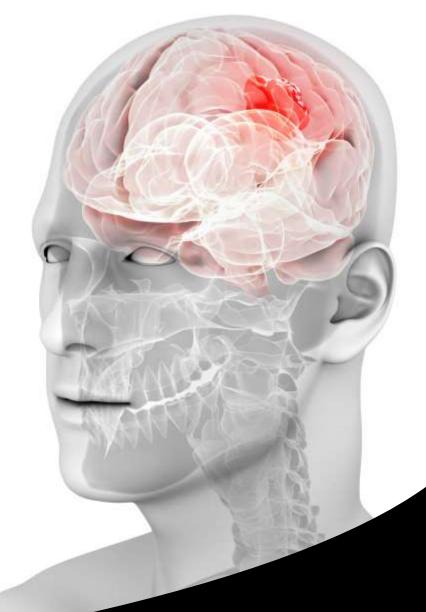
Groundbreaking Approach to Cancer Treatment for a Better Tomorrow



## IMAGINEERING TECHNOLOGIES: FAST FACTS

Most brain cancers prove to be incurable by conventional means once the tumor grows to a certain size. That means old-school treatments like surgery and chemo fail to heal the patient.

Imagineering Technologies is striving to overcome this horrible disease. In a world where patients struggle to cost-effective treatments — or treatments that work at any price, for that matter — we believe we can do better. Our proposed approach is a cost-effective means of treating these cancers.



#### KEY HIGHLIGHTS

- There is no cost-effective treatment of brain cancer beyond a critical size
- Imagineering Technologies Inc is proposing a unique integrated solution to this problem
- Carbon Ion Beam irradiation facilities exist in Japan and Europe for R&D purposes -- and some patient treatment
- Imagineering Technologies is targeting a \$50,000 per Glioblastoma patient full treatment cost





\$10 Billion+ USD per year



#### TARGET CUSTOMER

Hospitals, Cancer Treatment Centers, Cancer Patients



## **DEVASTATING PROBLEM**

Conventional surgeries and chemotherapy have failed to cure most brain cancers, particularly when the tumor exceeds a certain size.

This life-threatening disease is nothing short of devastating.

We believe it's time to change that.

We believe it's time for a new treatment that will help patients overcome this horrible disease without breaking the bank.

## **GROUNDBREAKING SOLUTION**

Imagineering Technologies will solve these problems by approaching cancer in a new way. Our proposed approach will lead to a cost-effective means of treating these cancers.

Many scientists are proposing genetic cancer treatment approaches, and our technical position is that a certain percentage of all cancer treatment will require radiation.

Our initial subject and target cancers are Glioblastomas, which consist of 52% all primary brain tumors. These patients have a very low survival rate with conventional treatment modalities.

We want to change that.



## **HOW WE'LL SUCCEED**

Dr. Henry Makowitz intends to develop, and market:



#### **Specifically for cancer treatment**

#### This includes:

Pharmaceuticals for the control of Radiation
Susceptibility and Resistance

Heavy Ion Beam Delivery Technology Development of Specialized Computers for DNA/RNA repair modeling

Scanners for Very High
Resolution and High-Speed
Cancer Detection

More powerful Antibiotics Further, we propose to develop pharmaceuticals for the control of Radiation Susceptibility and Resistance from existing Biochemical and Biophysical processes in micro-organisms that exist in nature (some in extreme environments).

New antibiotics may also result from these enzymes and micro-organisms. These antibiotics will be investigated in a complementary effort to the development of pharmaceuticals for the control of Radiation Susceptibility and Resistance. This work will be a spin-off pharmaceutical effort, with minimum additional resources required from Imagineering and minimal additional technological and financial risk.





We are also dedicated to the development of Heavy Ion Beam Delivery Technology (primarily Carbon Ions), and the development of Specialized Computers for DNA/RNA repair modeling, which will utilize advanced Super-conducting Components and High-Strength Materials.

Fifty Angstrom Lithographic Processes will be developed for Super-Conducting Circuits. Quantum Computation will be explored. Low Temperature High Tc Magnet Technology will be developed for a Heavy Ion Beam Delivery System. The Scanners for Very High Resolution and High-Speed Cancer Detection will utilize proprietary Imagineering Technology.

# WHAT WE KNOW AND HOW WE'LL BENEFIT

It is known that certain organisms exist in nature that are very resistant to very high radiation fields and other extreme conditions. Such organisms can be found coexisting naturally with very harsh natural physical environments. Their resistance and survival ability is due to their genetic capabilities to rapidly repair their DNA and RNA, as well as other cell functions from the damage caused by their environment.

If their genetic capabilities could be transferred to an unrelated organism by laboratory manipulation, it could change everything! However the theoretical details of these mechanisms are not known at this time. That said, the theory of evolution indicates that the biochemical processes found in all living organisms are not that dissimilar, and that processes found in one set of organisms will most likely map to another.



Imagineering Technologies hopes to isolate a number of organisms in their natural or man-made environments, and then (through biochemical studies) isolate the enzymes and DNA/RNA mechanisms responsible for resilience to extreme conditions and environments.



It is hoped that new pharmaceuticals will be developed from these enzymes, and DNA/RNA mechanisms, for the control of Radiation Susceptibility and Resistance. New antibiotics may also result from these enzymes and micro-organisms.

Note: The above arguments are based on the best scientific information available to date and general theoretical arguments. Genetic transfer of certain genetic traits associated with radiation Resistance and Susceptibility has been demonstrated for one organism in the laboratory, but genetic transfer across organism types is presently in question, although some debatable evidence exists.

#### **BACKED BY RESEARCH**

Imagineering Technologies isn't going at this blindly. While our innovation is fresh, our potential has already been proven.

In the peer-reviewed *Reviews of Modern Physics* ("Heavy-ion tumor therapy: Physical and radiobiological benefits," Volume 82, January-March 2010), results show that "high-energy beams of charged nuclear particles (protons and heavier ions) offer significant advantages for the treatment of deepseated local tumors in comparison to conventional megavolt photon therapy."

REVIEWS OF MODERN PHYSICS, VOLUME 82, JANUARY-MARCH 2010

#### Heavy-ion tumor therapy: Physical and radiobiological benefits

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(Published 19 February 2010)

High-energy beams of charged nuclear particles (protons and heavier ions) offer significant advantages for the treatment of deep-seated local tumors in comparison to conventional megavolt photon therapy. Their physical depth-dose distribution in tissue is characterized by a small entrance dose and a distinct maximum (Bragg peak) near the end of range with a sharp fall-off at the distal edge. Taking full advantage of the well-defined range and the small lateral beam spread, modern scanning beam systems allow delivery of the dose with millimeter precision. In addition, projectiles heavier than protons such as carbon ions exhibit an enhanced biological effectiveness in the Bragg peak region caused by the dense ionization of individual particle tracks resulting in reduced cellular repair. This makes them particularly attractive for the treatment of radio-resistant tumors localized near organs at risk. While tumor therapy with protons is a well-established treatment modality with more than 60 000 patients treated worldwide, the application of heavy ions is so far restricted to a few facilities only. Nevertheless, results of clinical phase I-II trials provide evidence that carbon-ion radiotherapy might be beneficial in several tumor entities. This article reviews the progress in heavy-ion therapy, including physical and technical developments, radiobiological studies and models, as well as radiooncological studies. As a result of the promising clinical results obtained with carbon-ion beams in the past ten years at the Heavy Ion Medical Accelerator facility (Japan) and in a pilot project at GSI Darmstadt (Germany), the plans for new clinical centers for heavy-ion or combined proton and heavy-ion therapy have recently received a substantial boost.

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#### I. INTRODUCTION

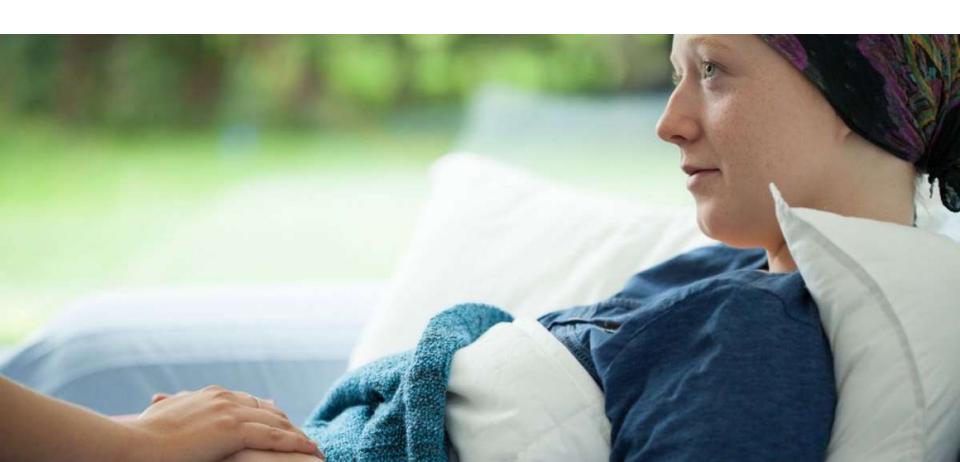
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Radiotherapy plays an important role in the treatment

As if that weren't enough, many studies suggest that Heavy Ion tech could be effective in curing brain cancer. That research dates back to the 1950s! (refer to; **Carbon ion radiotherapy in the treatment of gliomas: A review, Timothy D. Malouff, Jennifer L. Peterson, Anita Mahajan & Daniel M.**<u>Trifiletti Journal of Neuro-Oncology, Volume 145, pages191–199 (2019)</u>.

We are very excited about the potential to save lives. However, the current tech is extremely expensive. We can improve upon the effectiveness of treatment and, in the process, reduce the costs to a more manageable level. As a result, we will make it possible for more people to get the care they need.



## **MEET THE TEAM**



Dr. Henry Makowitz

FOUNDER, CEO, PRESIDENT AND

DIRECTOR | EXECUTIVE VP OF R&D

- Has been employed by Cray Research, Inc., the Brookhaven National Laboratory, the Los Alamos National Laboratory, and the Idaho National Engineering Laboratory as a Physicist, Engineer and Computational Scientist
- Bachelor of Science in Physics from the State University of New York at Albany
- Masters of Science in Mechanical Engineering from the State University of New York at Stony Brook
- Ph.D. in Physics from the University of Texas at Austin



Mr. Mark Makowitz
DIRECTOR AND COMPANY SECRETARY

- Law Degree and B.A. in Accounting
- Operates his own Law Firm, Makowitz and Associates, in Denver, Colorado



## **MARKET OPPORTUNITY**

The global market for effective pharmaceuticals (for the control of Radiation Susceptibility and Resistance in Cancerous and Adjoining tissues) is estimated to be \$10 billion annually.

New, more powerful antibiotics could have a multi-billion-dollar annual market as well.

And while genetic approaches to cancer treatment are projected to become the dominant technology of the future, Imagineering predicts that at least 25% of all cancer treatment will still involve some radiation procedures, and remain a market for its proposed pharmaceuticals.

## **BUSINESS MODEL & REVENUE STREAMS**

We are pre-revenue but anticipate the following:

MARKET SIZE

2 – 3 Glioblastomas

> per 100,000 persons per year

WORLD POPULATION

7.7 Billion persons TOTAL TREATMENT PRICE ASSUMED PER PATIENT

\$50,000

(includes scans, pharmaceuticals, and carbon ion irradiation)

## **COMPETITIVE OVERVIEW**

Competitor	Pharmaceutical and/or Biopharm Company	Hard/Software dev co (ex: IBM or Siemens)	Startups
KEY STRENGTHS	Immense size	Immense size	Can follow a focused R&D plan
	Access to plenty of capital	Access to plenty of capital	
KEY WEAKNESSES	Lack of focus on one type of product	Lack of experience in development of pharmaceuticals and/or	Lack of experience in related R&D that Dr. Henry Makowitz brings to
	No integrated technology approach	bio- pharmaceuticals	Imagineering Technologies (more than 40 years of R&D experience)
	No hardware development experience		

## **INVESTMENT OPPORTUNITY**

For this round, Imagineering Technologies is seeking a **total raise of \$4,000,000 in equity.** 

The funds will allow us to develop three Hardware Prototypes and establish Scientific Feasibility for its Bio-Pharmaceuticals.

Our anticipated use of funds includes:

	min	max
Administration & Travel	\$250,000	\$400,000
R&D (Labs, Offices, etc.)	\$650,000	\$1,000,000
Capital Expenses	\$200,000	\$500,000
Salaries	\$600,000	\$1,800,000
TOTAL	\$1,700,000 to \$3,700,000	

## **WHY INVEST?**

Imagineering Technologies wants to put an end to the suffering caused by terminal brain cancer.

With thousands of fatal cases estimated to occur every year in the United States alone (and many more globally), we are eager to provide patients with a more effective -- and cost-effective -- treatment.

Backed by research, we believe our groundbreaking solution is the breakthrough the world has been waiting for.

Now we need your help to to execute on our vision.



For more information on this investment opportunity, please contact:



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