

Synergy Med

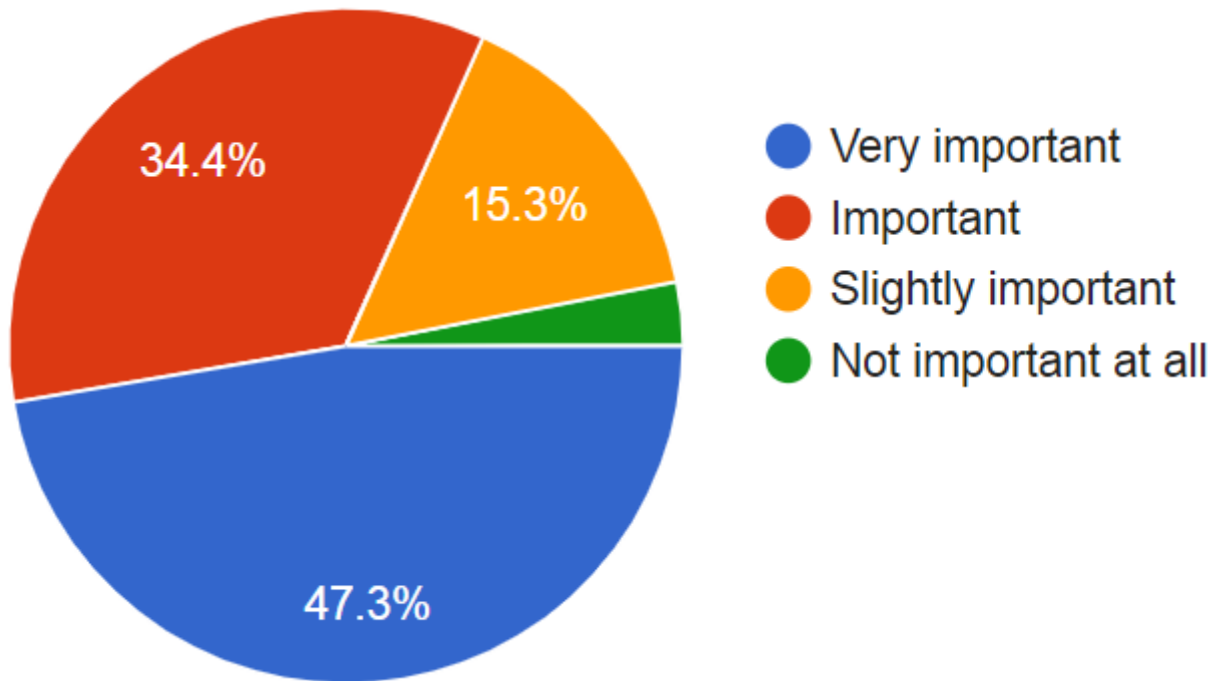
The non-surgical solution for
Treatment of cancer tumors



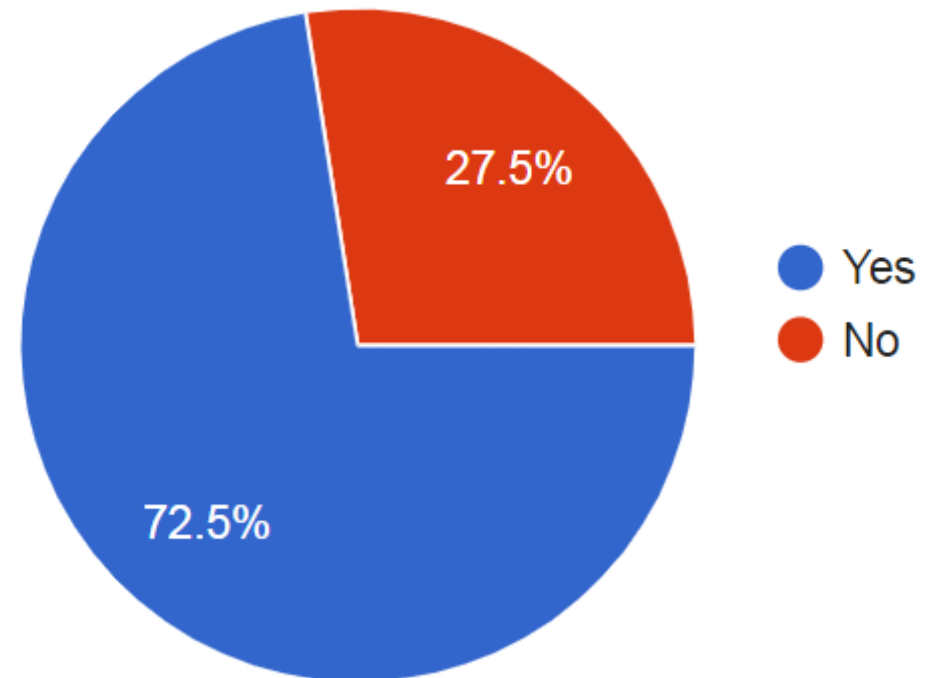
Women Survey for Non-Surgical Treatment



Importance of natural breast look?



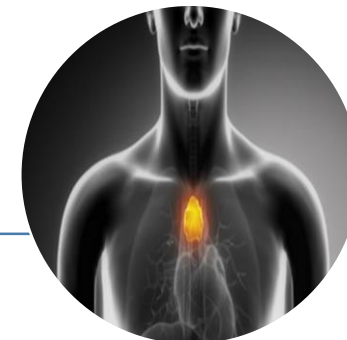
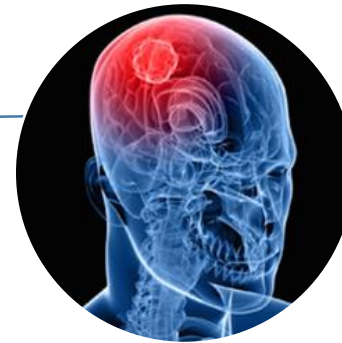
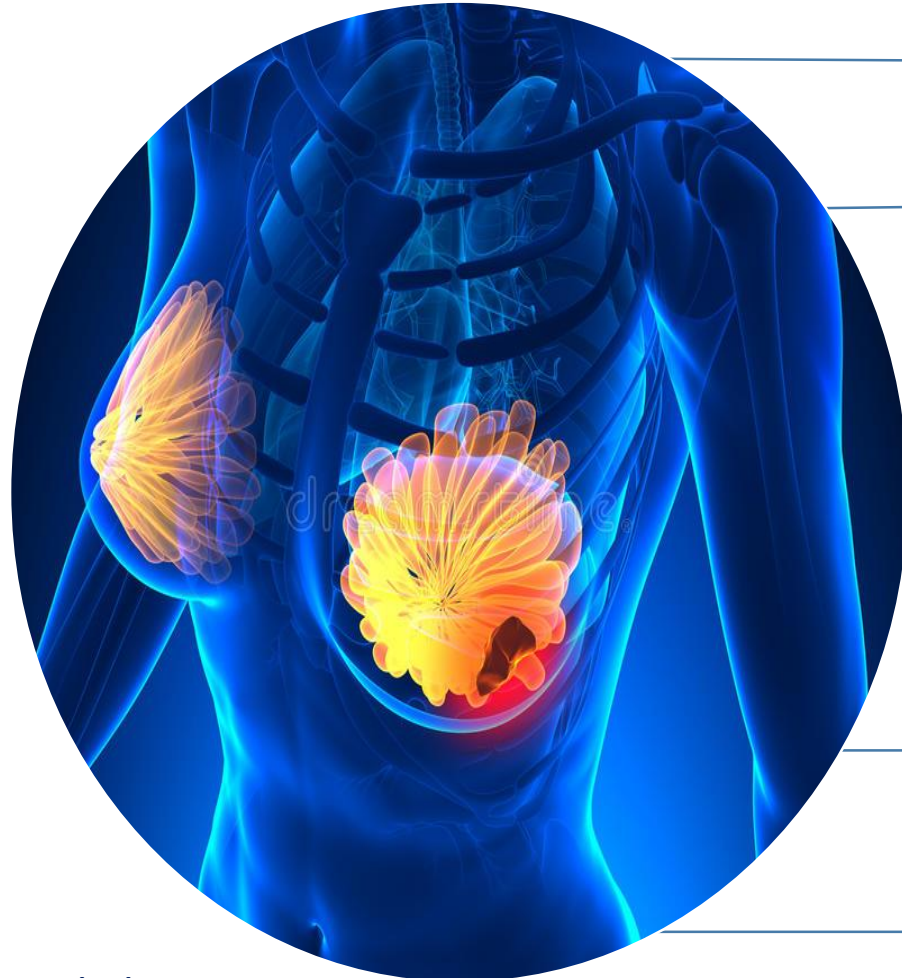
Would a Non-Surgical treatment encourage more early screening?



The Unmet Need

- There is a **significant unmet need** for a replacement of cancer surgery (**Noninvasive Technology**).
- Early stage breast cancer patients have to go through **surgical lumpectomy or mastectomy**.
- Brain cancers including, **Glioblastoma**, have **No effective treatment** and surgery is not always possible.
- Tongue (head & neck) cancer Surgery can have a **severe effect on patient's lifestyle** and radiation therapy can be physically damaging.
- About **75% of lung cancer patients are non-surgical candidates**.

The Unmet Need



About Us

- **The Company:** A Medical device company preparing for the clinical stage.
- **Technology:** Noninvasive Ablation Technology based on an Electronic Device with Electromagnetic Applicators, Nanoparticles, Thermal Optical Sensors and Developed Algorithms.
- **Milestones:** Prototype developed, animal studies performed, business plan and business model created, customer study performed, **PCT patent filed.**

Our solution

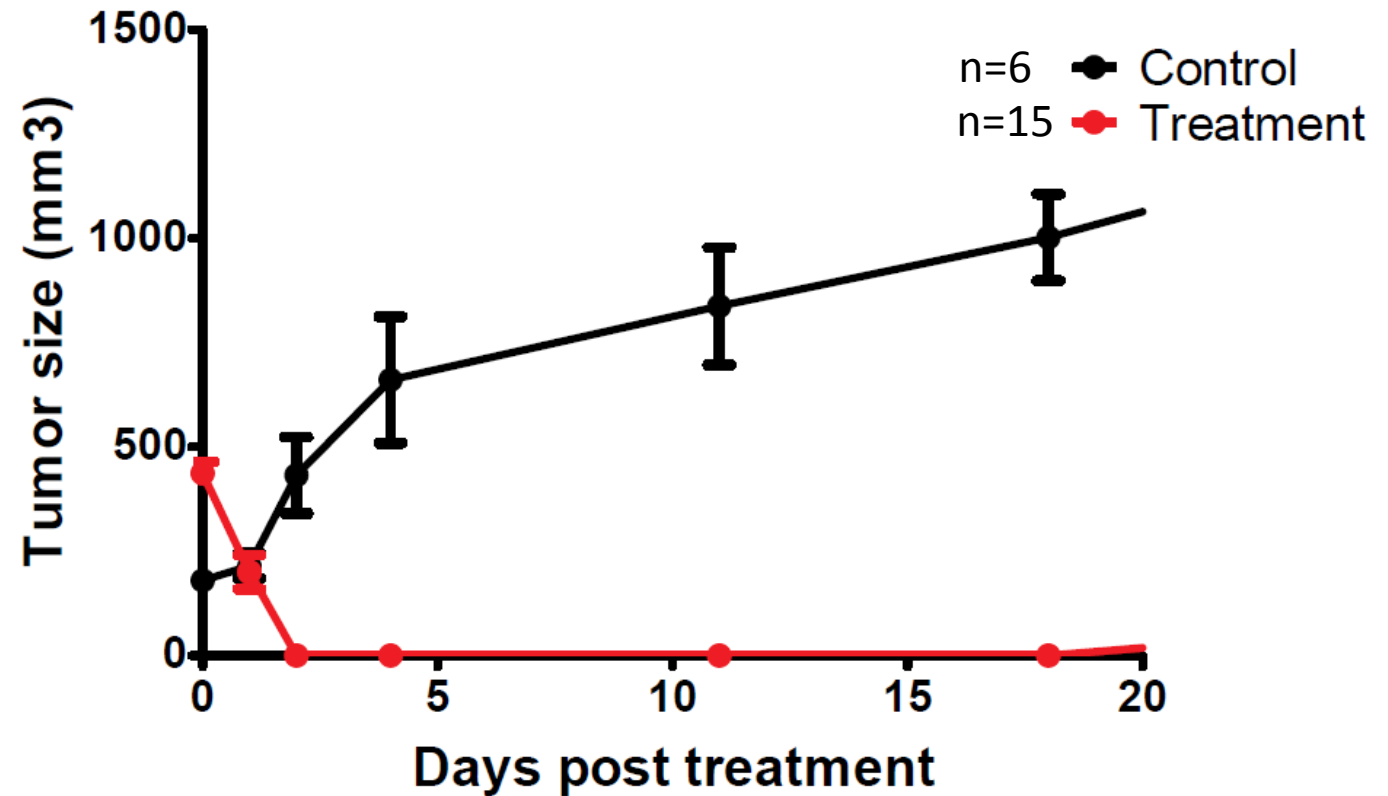
Patent Filed

- System combines different types of **Electromagnetic Energy with Optical Thermal Sensing.**
- Tumors are injected with **FDA approved nanoparticles.**
- The interaction of electromagnetic energy with nanoparticles leads to **selective heating** of the tumor.
- Heating is controlled through **optimized computer algorithms.**
- The **synergetic effect** of all these factors leads to maximal destruction of tumors at minimal energies and no damage to healthy tissue.

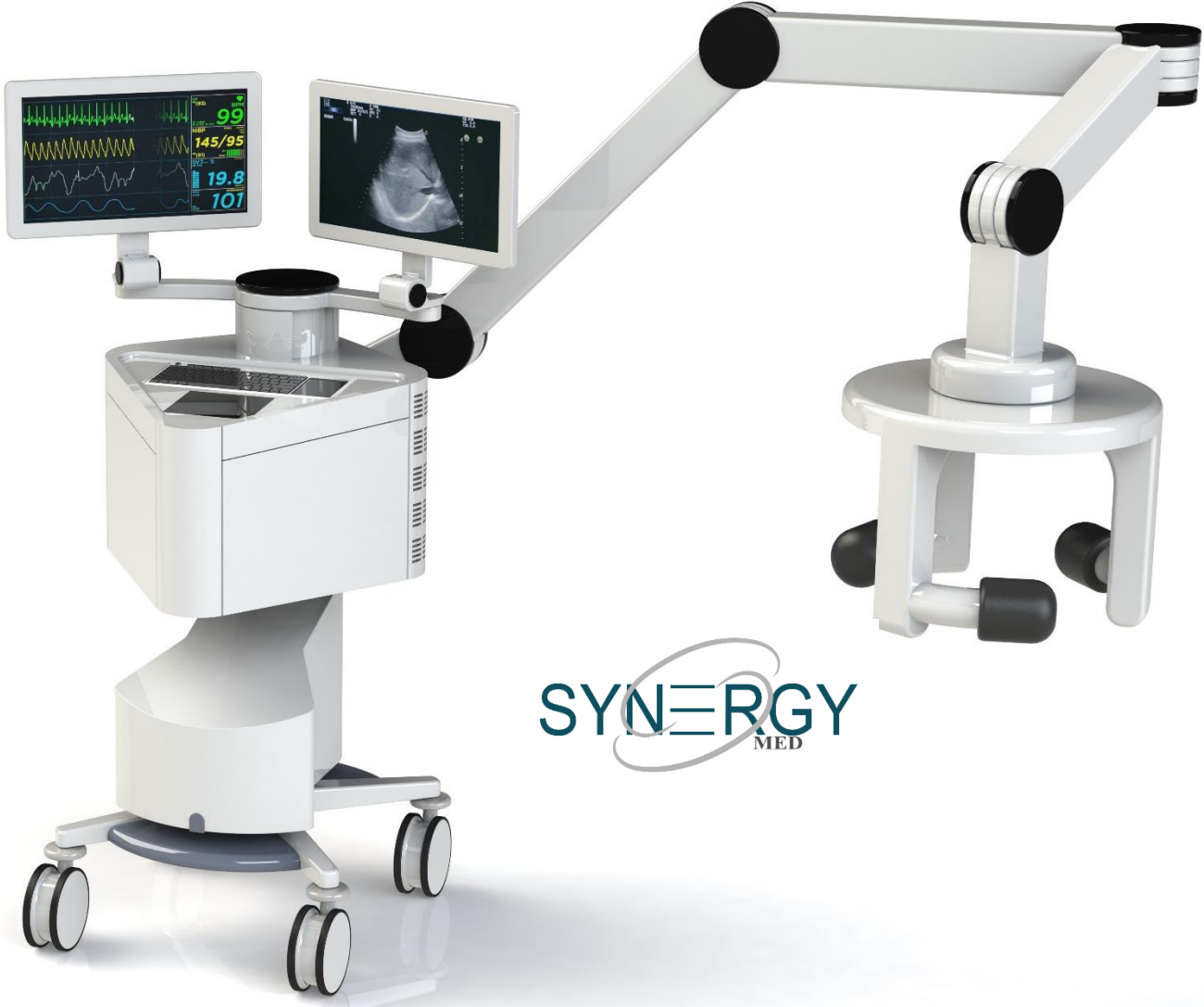


Our Solution II (Proven Technology): Animal Experiments: Utilizing Electromagnetic waves illustrates unprecedented outcomes vs. controls

- Experiments were performed with Balb/c mice using breast cancer cell line.
- **Within 3 days the tumor volume diminished to zero** for the treated group.
- Within a couple of weeks, there was no sign of tumor, no scars and **no cosmetic damage**.



SYNERGY-1: Design of our Envisioned Product



Potential Market Size for our application

- **Veterinary Market:** \$5B in the US alone.
- **Human Breast Cancer:** \$7.5B Worldwide.

VETERINARY MARKET:

70% of US households own a pet.

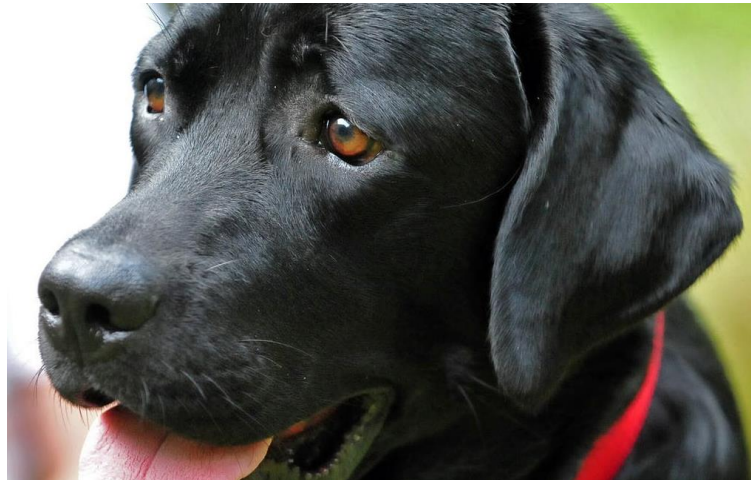
Over 12,000,000 new cancer cases for cats and dogs in the US.

26,000 US small animal veterinary practices and about 817 animal hospitals

Skin cancer is the most common type of cancer diagnosed in horses



10/23/2020



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HUMAN MARKET:

Main Market

- Breast cancer is the second most common cancer, overall, and the most common cancer in women. 12% of all women will develop breast cancer in their lifetime.
- There are **over 2 Million New Breast Cancer Cases Worldwide.**
- In **Europe** there are over **494,100 new cases** of breast cancer yearly
- In the **US**, there are about **316,700 new cases** diagnosed each year, with ~40,000 deaths attributed to this cancer annually.
- In **China**, about **278,900** new yearly cases are reported.
- Our analysis, based on the American Cancer Society indicates that about 50% of US patients go through Breast Conserving Surgery (BCS). The BCS market segment is the one that we address.

Other Potential HUMAN MARKETS:

- **Skin Cancer:**
- Nonmelanoma skin cancer affects more than **3 million** Americans a year.
- More than **1 million** Americans are living with melanoma.
- **Head and Neck Cancer:**
- About 4% of all cancers in the United States.
- An estimated **65,410 people** (48,000 men and 17,410 women).
- **Palliative Care:**
- About **14 million** cases of cancer patients worldwide.
- SynergyMed therapy may be used as an alternative to costly radiation therapy for recurrent tumors.

Competitors



CORPORATIONS

Boston
Scientific



Johnson & Johnson



magforce®
THE NANOMEDICINE COMPANY



STARTUPS

Competitive Analysis:



Company	Product Name	Method	Noninvasive Applicator	Selective Heating	Image Guidance During Treatment	Precise Dose Evaluation	Can Treat Multiple Tumors Simultaneously
SynergyMed	Synergy-1	Thermal Ablation	√	√	X	√	√
NeuWave (J&J)	Intelligent Ablation System	Thermal Ablation	X	X	√	X	X
Angiodynamic	Acculis MTA System	Thermal Ablation	X	X	√	X	X
Covidien	Percutaneous Antenna System	Thermal Ablation	X	X	√	X	X
Boston Scientific	Leveen coaccess needle electrode system	Thermal Ablation	X	X	√	X	X
Galil Medical	Visual Ice Cryoablation System	Cryoablation	X	X	√	X	X
IceCure	IceSense3	Cryoablation	X	X	√	X	X

Competitive Advantage

- **Noninvasive, selective heating** locally and with no damage to surrounding tissue.
- Provides an **alternative to surgery** for Breast, Skin, Glioblastoma, Lung, Oral and Head & Neck cancers.
- **No** image guidance **required** during the treatment.
- **Can be monitored**, in process with **MRI or other imaging modalities**, if needed.
- **Short treatment time** ~10 minutes.
- **Significantly lower energy exposure**: Increasing the patient and treating personnel safety.
- Preserves the **cosmetic shape** of the body.
- Less likely to infections, bleeding, and other surgical complications. Also, eliminates the need for **Re-Excision of tumors** which happens in 10-40% of breast cancer surgeries.

Trial Strategy

- **Veterinary:**
- Perform a study on 10 dogs and 10 cats with superficial cancer tumors (skin, breast, leg, head & neck).
- **Human:**
- Start with 5-10 palliative care patients with recurrent skin tumor. Possibly at Rambam Hospital, Israel.
- Perform ablate and resect trial on 10 breast cancer surgical (lumpectomy) candidate patients. Histology to assess tumor and margin.
- Perform a clinical trial on ~80 breast cancer patients. University of Maryland.

- Capital Equipment: Sales, Lease and Rent of device.
- 资本设备：设备的销售和租赁

- Consumables: Sale of nanoparticles and thermal sensors.
- （出售）耗材：纳米粒子和热传感器

Pricing

- **Device Price to Final Customer: \$100K.**
- **Consumables Cost to Customers: \$1-1.5K per patient.**
- **Software Licensing: \$10K per year.**

ROAD TIMELINE



TEAM



Anan Copty, Ph.D.
Founder & CEO

>20 years of technical & leadership experiences, RMD: Radiation Monitoring Devices, Intel: Biochips, Hebrew University: Electromagnetic Interaction Interaction with Biology, Harvard Medical School: MRI



Rand Arafah, Ph.D.
Pre-Clinical Studies Development
Ph.D. in Oncology and Cancer
Biology at the Weizmann Institute



Robert Roy, MBA, BSEE/BSME
VP of Marketing, Sales & Fund Raising
>35 years of senior-level management
in medical device companies



Raja Tabar, MSEE
Medical Device Software Development
>23 years experience in software
development for medical devices



Daniel Kacher, Ph.D.
Clinical Studies and Product Development
Ph.D. in Biomedical Engineering
25 years at Brigham and Women's Hospital

Medical Advisors



Professor Nader Hanna, MD
Surgical Oncology
Cancer Institute Director
University of Maryland



Dr. Salem Billan, MD
Director of Head & Neck Oncology Unit
Rambam Medical Center in Haifa

Scientific & Collaborative Partnership



Professor Warren Chan
World Class Expert on Nanoparticles
CEO at Luna Nanotech Inc. and University of Toronto

VC Funding

- 2020: **\$5M** Investment
- Product Development
 - First-In-Human
 - Clinical Studies in China

Next Steps



- **Prototype to Product:**
- The company will take its prototype to a full product, test it to meet all the regulatory standards, and certify it to be sold in the US for veterinary applications.
- **Veterinary Studies:**
- The company is planning animal studies on dogs and cats with Beit Dagan Animal Hospital in Israel and private US animal hospitals.
- **Human Studies:**
- SynergyMed has the interest of Maryland University and Harvard Medical School at Brigham and Women's Hospital to perform initial clinical data to demonstrate a proof of concept, to be followed by a full clinical study for the FDA.
- Initial studies on palliative patients may be performed as a first in human. We have the interest of Rambam Hospital in Israel to do this.

Go-To-Market Strategy

- First product, **SYNERGY-1** will be sold as a non-FDA device to veterinary clinics and research institutions in the US. **By 2021**
- The device will be manufactured in China with collaboration in product development in Israel and the US.
- Sell directly to leading veterinary hospitals. Use distributors to expand market.
- First market is the US veterinary market. Followed by Canada and Europe.
- In 2021, we will start First-in-Human clinical studies in China on palliative patients.
- In 2022, we will perform clinical studies in China on breast cancer patients as an ablate and resect protocol.
- In 2023, obtain CFDA approval for use in palliative cases.

Previous Awards/Recognitions



- Russia (Moscow): Won the Gold Medal of the Archimedes conference of science and technology amongst 27 countries.
- Merage Institute +45 Competition: Won the second prize out of 400 medical device startups.
- World Economic Forum: Company chosen in the top 100 startups.
- New England Venture Summit (Boston): Chosen amongst the top 20 medical device companies to present at the summit.
- The Society for Oncology Thermal Medicine (Tucson, Arizona): Chosen to present company findings at the prestigious conference for thermal cancer treatment.
- SynergyMed was chosen to present at the Women Health Innovation & Invention Conference, 2019 in Tel Aviv.

It is Time to End Painful Cancer Surgery

Thank You