

# MAGFORCE USA FIGHTING CANCER WITH NANOTHERM THERAPY

SPARED CRN Meeting

May 3, 2018

# AGENDA

- NANOTHERM THERAPY
- ABLATION OF PROSTATE LESIONS

## WHO WE ARE

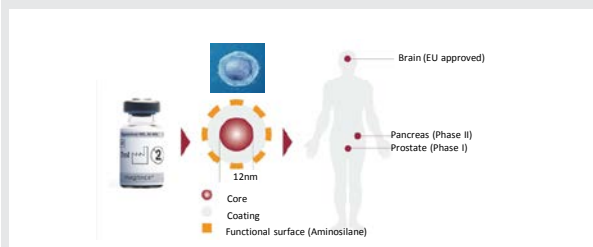
- **Larry Kessler, Sc.D.**
- **Professor, University of Washington, School of Public Health**
  
- **David Hammond, MS**
- **Hammond Clinical Trial Consulting, LLC**
- **Affiliate faculty, University of Washington, School of Pharmacy**

# NANOTHERM ABLATION

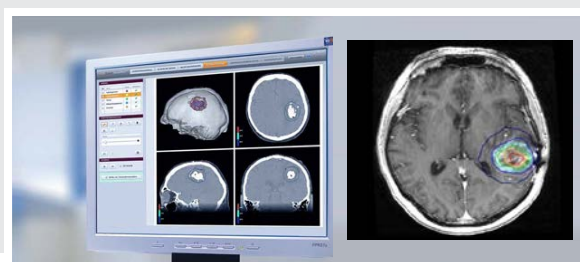
## TUMOR ABLATION FROM THE INSIDE OUT:

### Therapy components

#### NanoTherm



#### NanoPlan



#### NanoActivator



### Mode of action

#### Step 1

- NanoTherm magnetic fluid injected directly into tumor tissue
- Nanoparticles remain in place due to their special coating

#### Step 2

- The simulation takes into account the tumor size, distribution of the NanoTherm particles and tumor location
- Simulated temperature distribution: 40°C (blue line) to 50°C (red line)

#### Step 3

- Magnetic field causes NanoTherm particles to oscillate and produce heat
- Heat destroys or makes cells susceptible to concomitant radio- or chemotherapy

## NANOTHERM THERAPY – STRATEGY DEVELOPMENT & EXECUTION

Focus on application of NanoTherm therapy for the treatment of

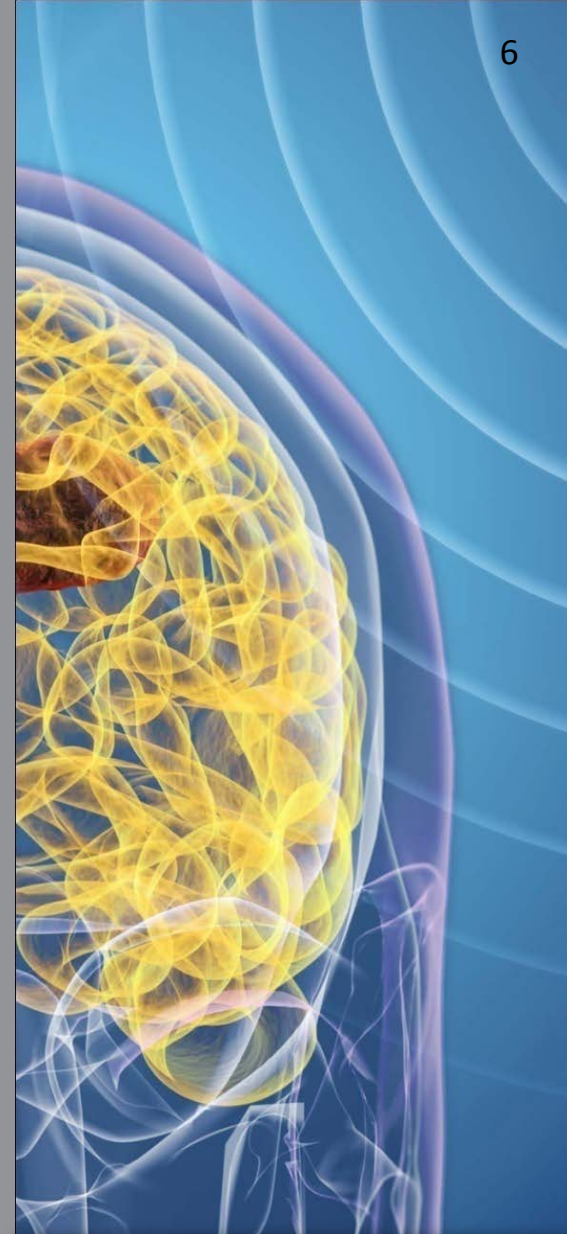
- Brain tumors (Germany & EU 27) and
- Intermediate risk prostate cancer (USA)

### PREVIOUS EUROPEAN CLINICAL TREATMENT EXPERIENCE

Indication	Patients
<b>Glioblastoma Multiforme</b>	<b>80</b>
<b>Prostate Cancer</b>	<b>29</b>
Esophageal Cancer	10
Pancreatic Cancer	7
Other Indications	~20

**MagForce AG has CE mark in Germany and in the EU27 to treat brain cancers with NanoTherm therapy**

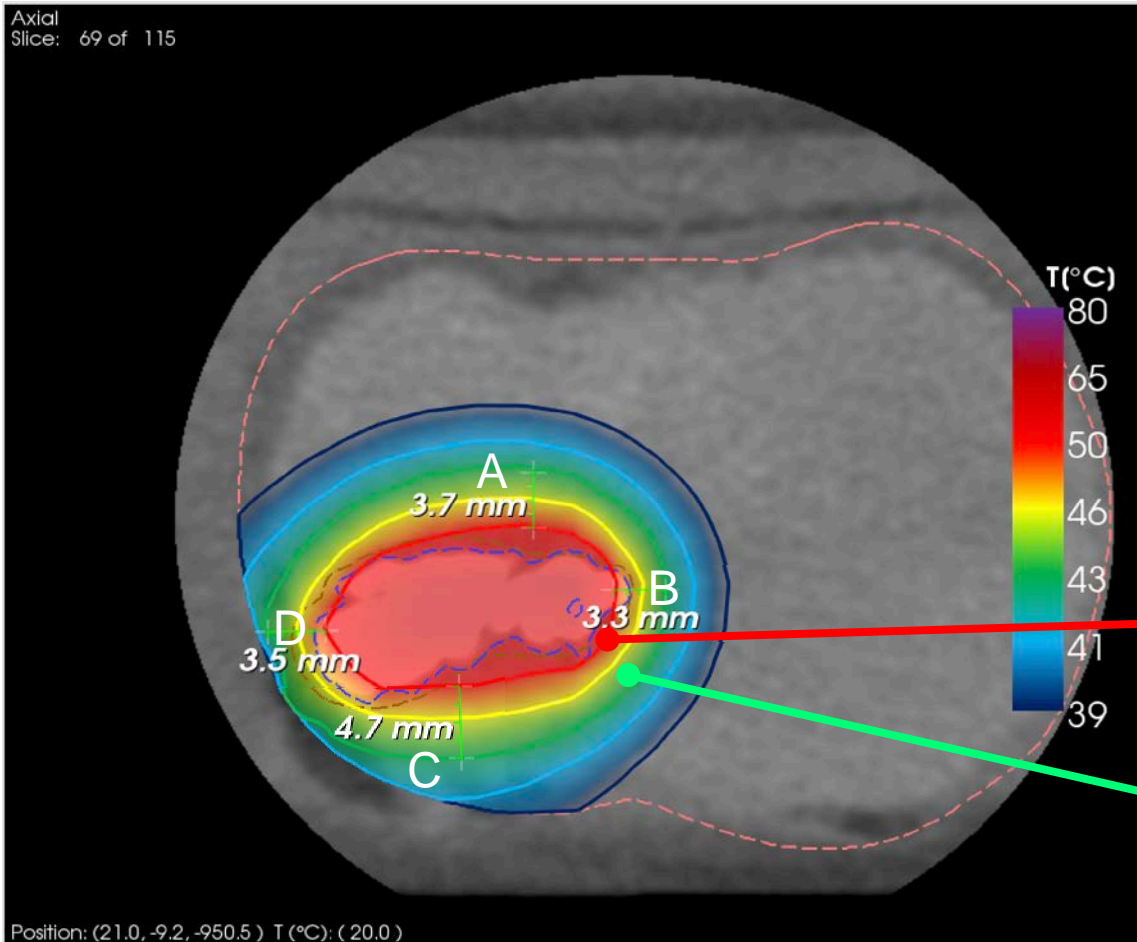
# ABLATION OF PROSTATE LESIONS



**magforce**<sup>®</sup>

THE NANOMEDICINE COMPANY

# NANOTHERM THERAPY FOR THE ABLATION OF INTERMEDIATE RISK PROSTATE CANCER LESIONS – MAGFORCE USA, INC.



Average distance from NanoTherm Ablation 50° C iso-contour line to the simulated 43° C iso-contour line

Distance measurements A-D between the 50° C (**red**) ablation contour line and the 43° C (**green**) no damage contour line ( $H = 10 \text{ kA/m}$ ).

# MGF-0115 CLINICAL STUDY – A PIVOTAL, PROSPECTIVE, THREE-STAGE, SINGLE-ARM STUDY OF FOCAL ABLATION OF THE PROSTATE WITH NANOTHERM THERAPY SYSTEM FOR LIMITED-VOLUME, CLINICALLY LOCALIZED, INTERMEDIATE-RISK PROSTATE CANCER

## Study Stage Description:

Stage I: 10 patient study

Will demonstrate adequate ablation of tumor tissue

Will demonstrate lack of ablation outside target zone

Ablative NanoActivation Time: 60 minutes