

**Sona's Targeted Hyperthermia Therapy:**  
**A Novel Nanomedical Immunomodulator**  
**Priming the Immune System to Enable**  
**Immunotherapy**

*Demonstrated Safety, Tolerability and Compelling  
Efficacy In Our First-in-human Study*

**October 2025**

# Forward Looking Statement

This presentation contains forward-looking information under applicable securities law. All information that addresses activities or developments that we expect to occur in the future is forward-looking information. Forward-looking statements are based on the estimates and opinions of management on the date the statements are made.

Such forward-looking statements include, but are not limited to, statements regarding the benefits to accrue to Sona from the future development of Targeted Hyperthermia Therapy and the development of diagnostic devices.

Forward-looking statements are necessarily based upon a number of assumptions or estimates that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward-looking statements, including the risk that Sona may not be able to secure the required regulatory approvals, enroll study participants in a timely manner, successfully obtain sufficient clinical and other data to support successful regulatory submissions, raise sufficient additional capital, secure patents or develop the envisioned therapy, and the risk that THT may not prove to have the benefits currently reported and anticipated.

Actual results may differ materially from those set forth in this presentation due to risks and uncertainties affecting Sona and its products, including the demand for Sona's therapies and tests which may be adversely affected by introduction or success of competing products, the ability for Sona to successfully develop longer-term applications for its technology and other risks detailed from time to time in Sona's ongoing filings and in its most recent annual information form filed with the Canadian regulatory authorities on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca).

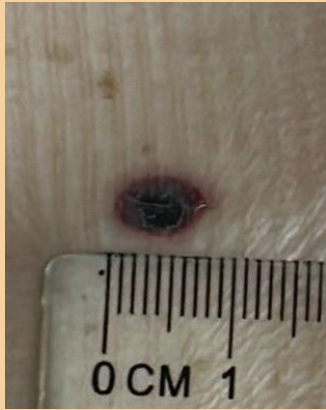
Readers are cautioned not to place undue reliance on these forward-looking statements and are encouraged to read Sona's continuous disclosure documents which are available on SEDAR+. Such statements should not be regarded as a representation that any of the plans, expectations or intentions will be achieved. Sona takes no responsibility to update forward-looking statements in this presentation except as required by law.



# Investment Highlights



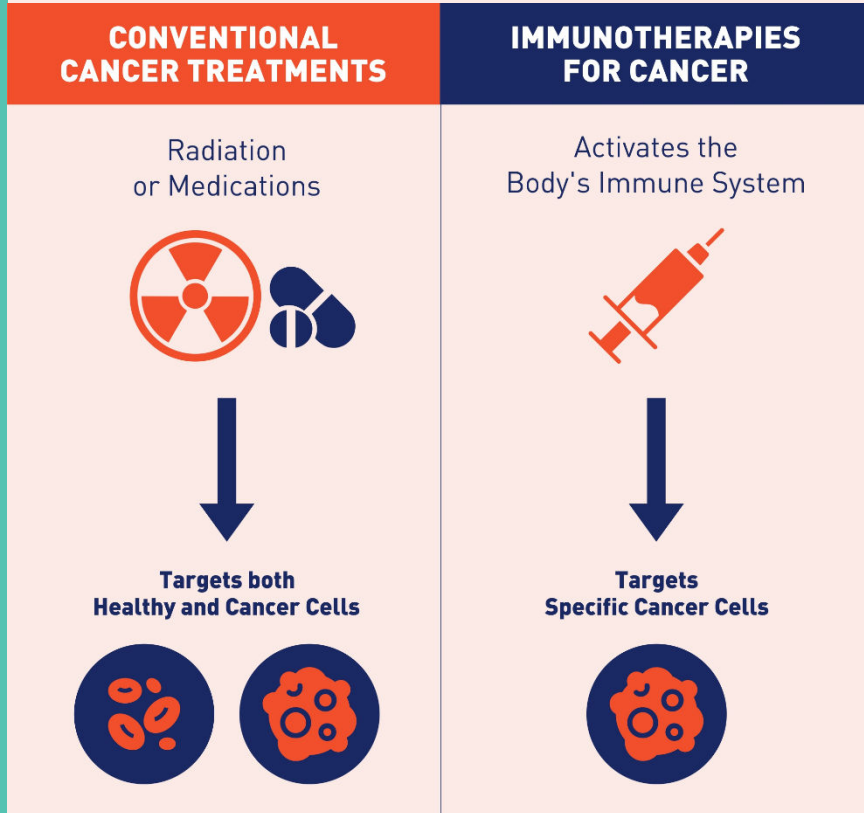
After  
immunotherapy



After THT  
treatment

- ✓ **Gentle but powerful therapy** - kills cancer cells selectively and activates the immune system
  - Heating tumors from the inside out to elicit neo-antigens that engage the immune system and enhance immunotherapy drug response rates
- ✓ **Compelling human efficacy, safety and tolerability melanoma data**
  - Tumors cleared of melanoma where immunotherapy failed in 6/10 late-stage patients
  - ~10 minute therapy with a strong safety and tolerability profile
- ✓ **Broad pre-clinical efficacy data in three cancer models**
  - Multiple therapeutic targets in cancers with immunogenically 'cold' tumors
- ✓ **Uniquely biocompatible, patented and vetted nanotechnology platform**
  - Ideal nanoparticle for many 'in vivo' applications
- ✓ **Strong and growing patent portfolio**
- ✓ **Experienced team and connected board**

Immunotherapy has provided a 'step change' in cancer treatment



*Immunotherapy treatments harness the immune system to fight cancer on its own*

## Immunotherapy Checkpoint Inhibitors *Release The Brakes For The Immune System To More Readily Recognize and Attack Cancer*

**However, immunotherapy still has:**

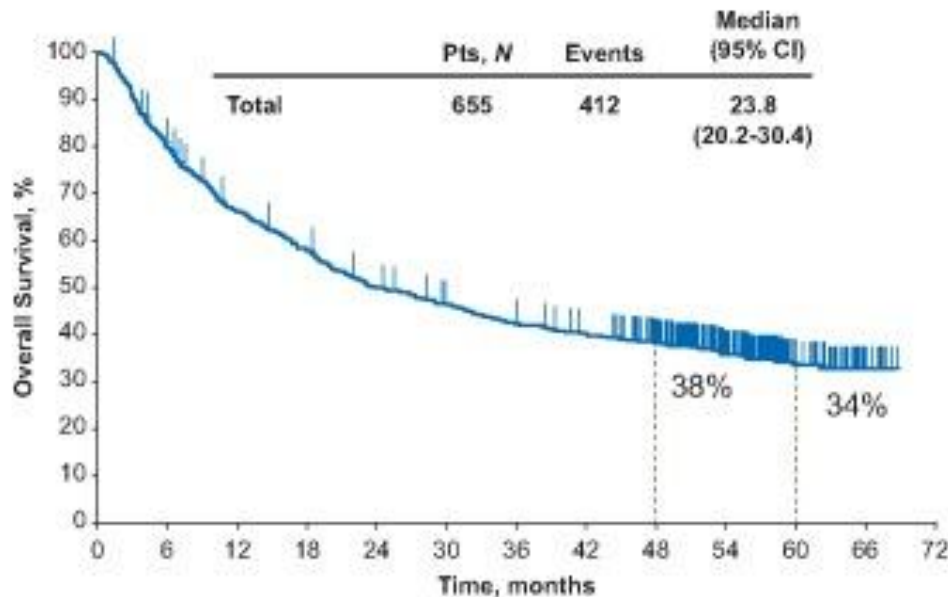
- **Limited response rates**
  - Typical response rate is 15-30%
- **Toxicity**
  - Severe toxicity is experienced in 16% - 20% of patients on an immunotherapy
  - Combining immunotherapies can enhance response rates but also increases toxicity

***Sales of immunotherapy drugs were estimated to be USD \$284.4 billion in 2024 yet they typically get a response less than 33% of the time***

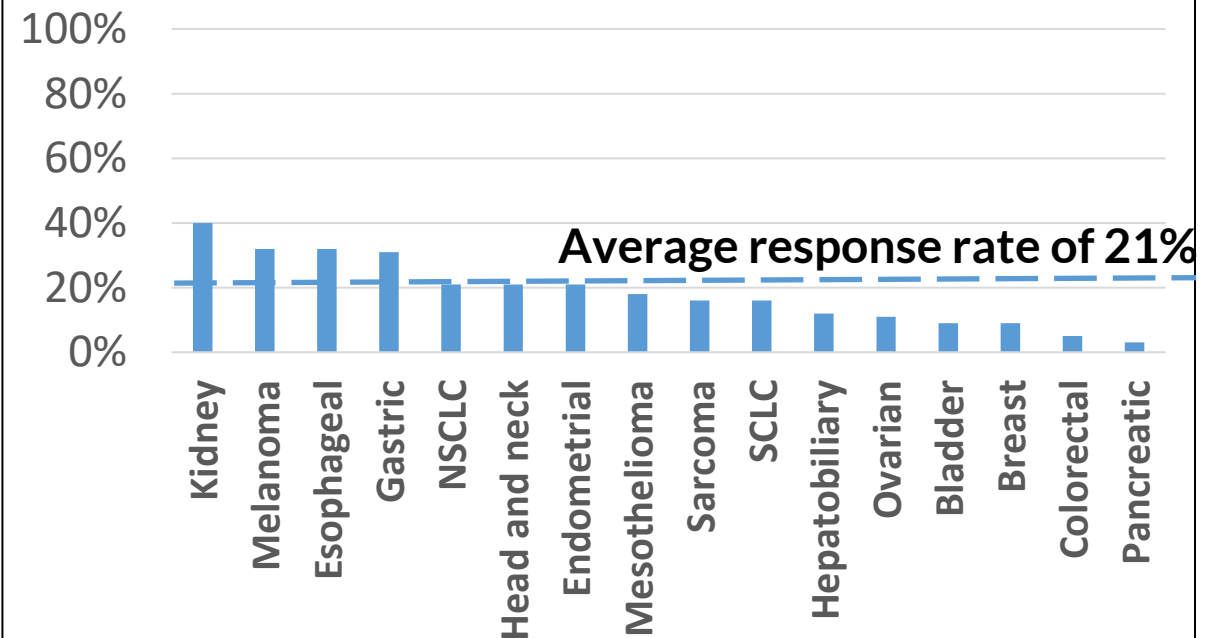
For Instance, Pembrolizumab's Five-Year Overall Survival And Average Response Rates Were Shown To Be Just 34%<sup>(1)</sup> and 21%<sup>(2)</sup>, Respectively

### Five Year Overall Survival Rates

#### Total Population



### Immunotherapy Response Rate in Study of 1678 Patients by Cancer Type



Notes: 1) In a study of overall survival in advanced melanoma  
2) Patients treated with anti-programmed cell death 1 or programmed cell death ligand-1 immunotherapy  
Sources: Melanoma Volume 30, Issue 4 p582-588; CA A Cancer J Clinicians, Volume: 73, Issue: 1, Pages: 17-48, First published: 12 January 2023, DOI: (10.3322/caac.21763)  
Response Rates to Anti-PD-1 Immunotherapy in Microsatellite-Stable Solid Tumors With 10 or More Mutations per Megabase Cristina Valero, MD, PhD, et al

How can response rates be improved without inducing greater toxicity?

# Immunotherapy Response Rates Are Low Because Tumor Antigens Presented Are *Too Weak To Elicit An Immune Response*

## Sources of Immunotherapy Resistance

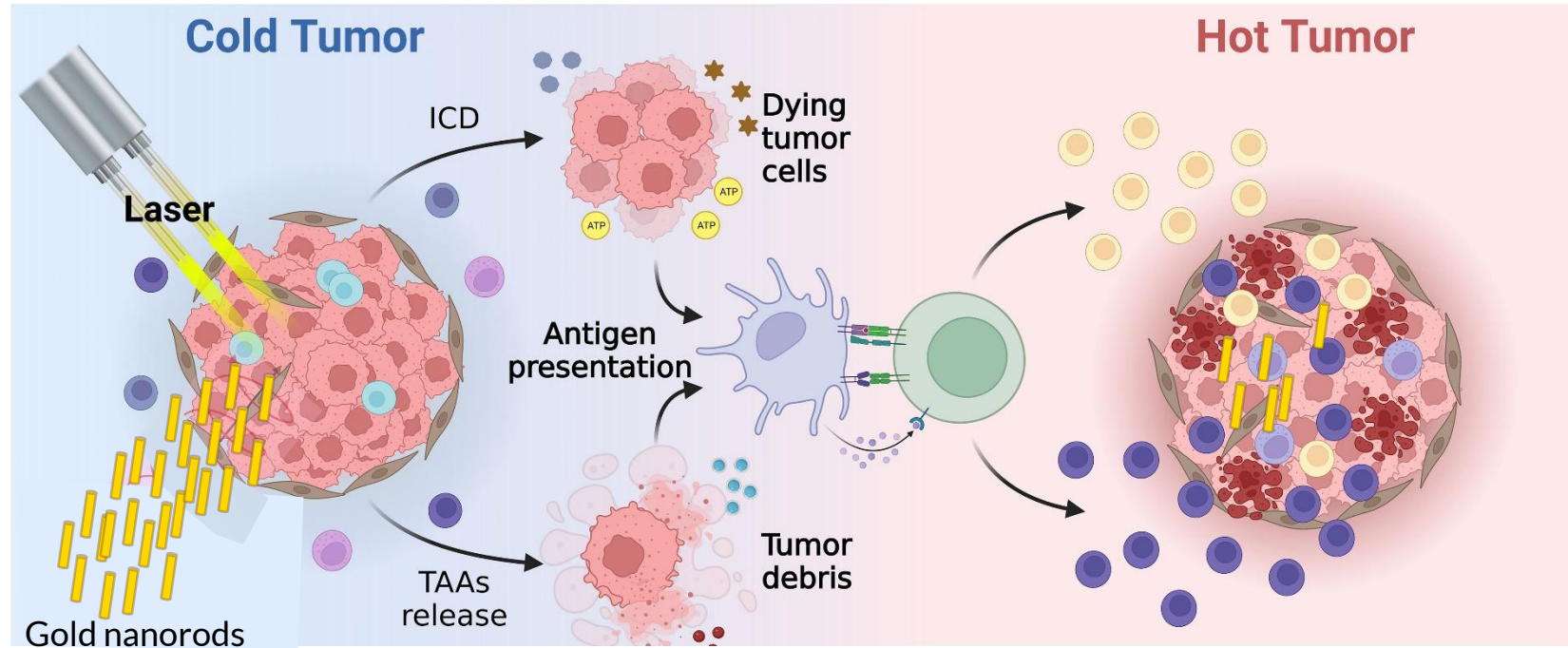
1. *Weak tumor antigen expression*
2. Upregulation of immune-checkpoint molecules (immune fatigue)
3. Activation of alternative signaling pathways
4. Immunoediting

***More of a good thing isn't necessarily better:***

Addressing a weak antigen tumor microenvironment with stronger/more IO drugs risks triggering autoimmunity and toxicity

**How to reveal fresh and stronger tumor antigens to activate and engage the innate immune system, without toxicity?**

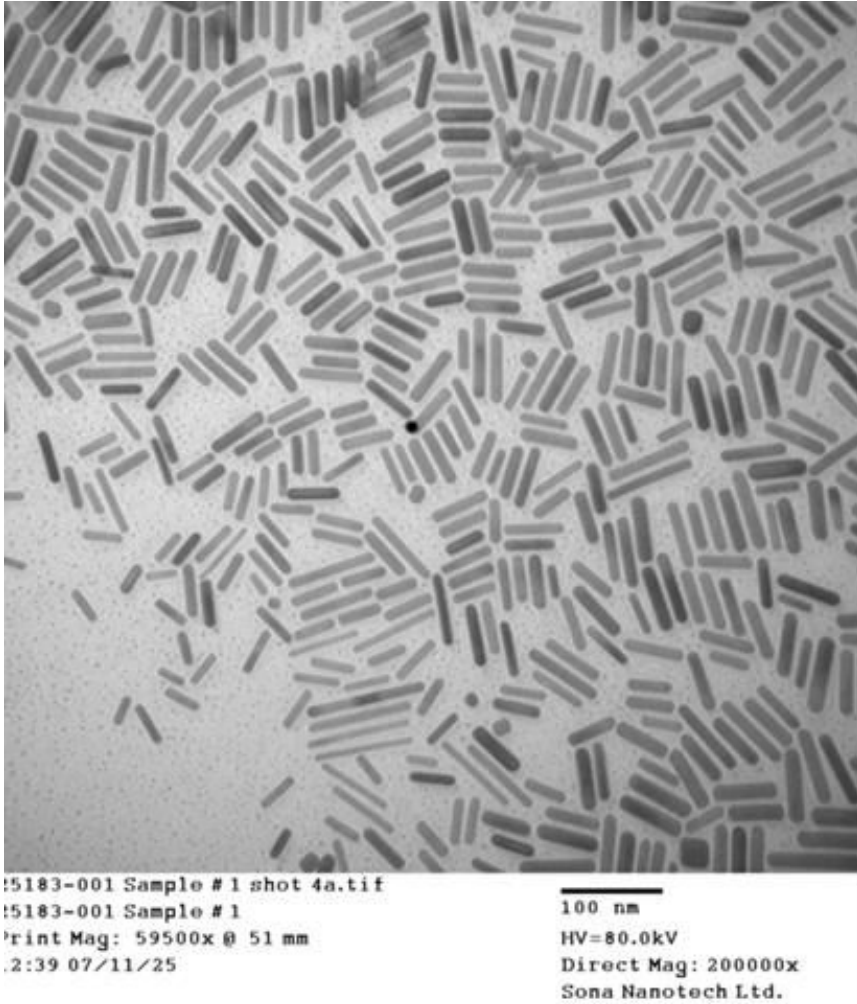
# Sona's THT Heats Tumors Gently With Near-infrared-activated GNRs Causing Apoptotic Cancer Cell Death\* Revealing Neo-antigens and Engaging the Immune System



**\*Apoptotic Cell Death:**  
When a cell actively self-destructs in a controlled manner. In so doing, the dying cells become more "visible" to immune cells due to the altered antigen presentation which can cause the immune system to engage and attack the cancer

Getting the immune system to engage converts 'cold' tumors<sup>(1)</sup> to 'hot' enabling immunotherapies to work more often

# Sona's Gold Nanorods Are Toxin-free And Provide Fastest Thermal Conversion Within Tumors For A ~5-10 Minute Clinical Treatment



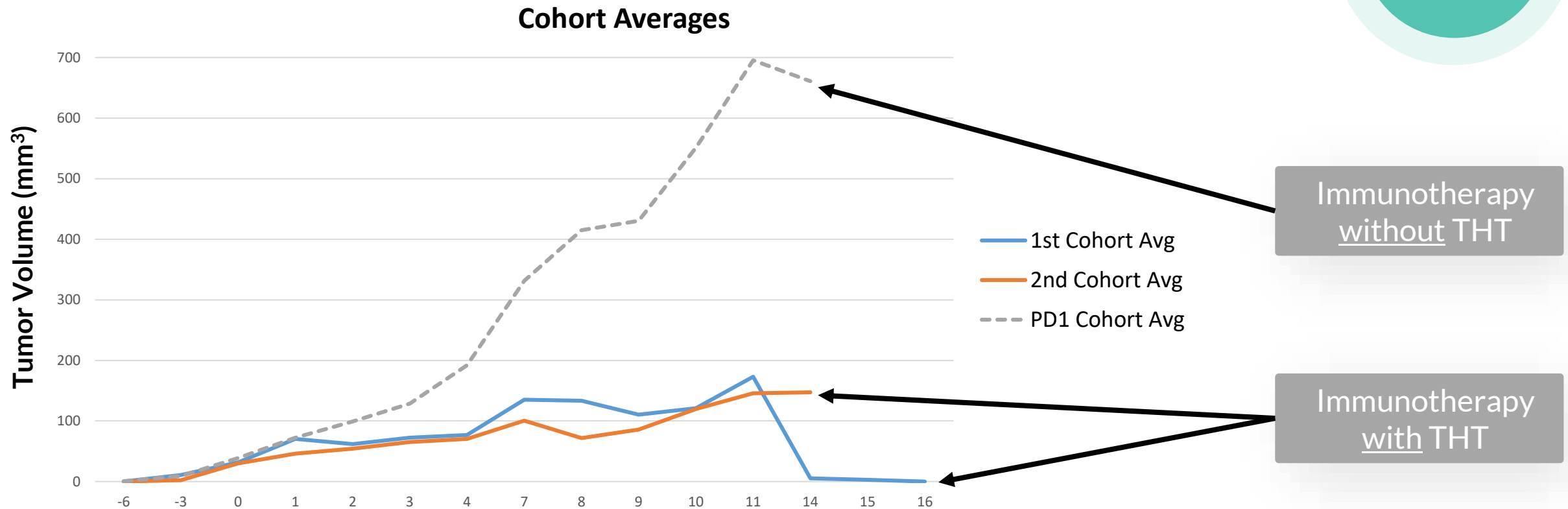
## Sona's Gold Nanorod's ("GNR") Advantages

- ✓ **Highly functional:**
  - Optimal nanoparticle for thermal conversion
  - Can be 'tuned' to react to set wavelengths
  - Can be conjugated to molecules
- ✓ **Uniquely Biocompatible:**  
GNRs made with inert gold and no toxic "CTAB"
- ✓ **Validated by:**



# Preclinical Animal Studies Demonstrated THT's Ability To Make Immunotherapies Work In 'Cold' Tumors

Colorectal  
Cancer  
Study



Sona's THT enabled tumor elimination by 26 days (N=4) with world class immunotherapy which had little effect on its own

# 1st Human Study Protocol Aimed To Show THT's Power As A Monotherapy In An Immunotherapy-resistant Solid Cancer

## Key Protocol Elements

- Two applications of THT (day one and day eight), to create hyperthermia in tumors, up to 2.5 cm in diameter, as an adjunctive treatment.
- Quantification and characterization of tumor-infiltrating immune cell populations in tumor biopsies pre- and post-treatment, and measurement of serum cytokine levels pre- and post-treatment.

## Key Enrolment Criteria

- Up to 10 participants with stable or progressive cutaneous and/or subcutaneous skin lesions at stages 3C/3D/4M1
- All sites with visible/palpable otherwise unresectable melanoma, mucosal melanoma, and regions with extensive cutaneous and subcutaneous metastasis e.g. numerous in-transit lesions.

This cohort of ten patients had gone 0/10 with the best immunotherapy drugs in the world

# THT's First-in-human Clinical Study Results

Objective was to generate data and insights in four areas:

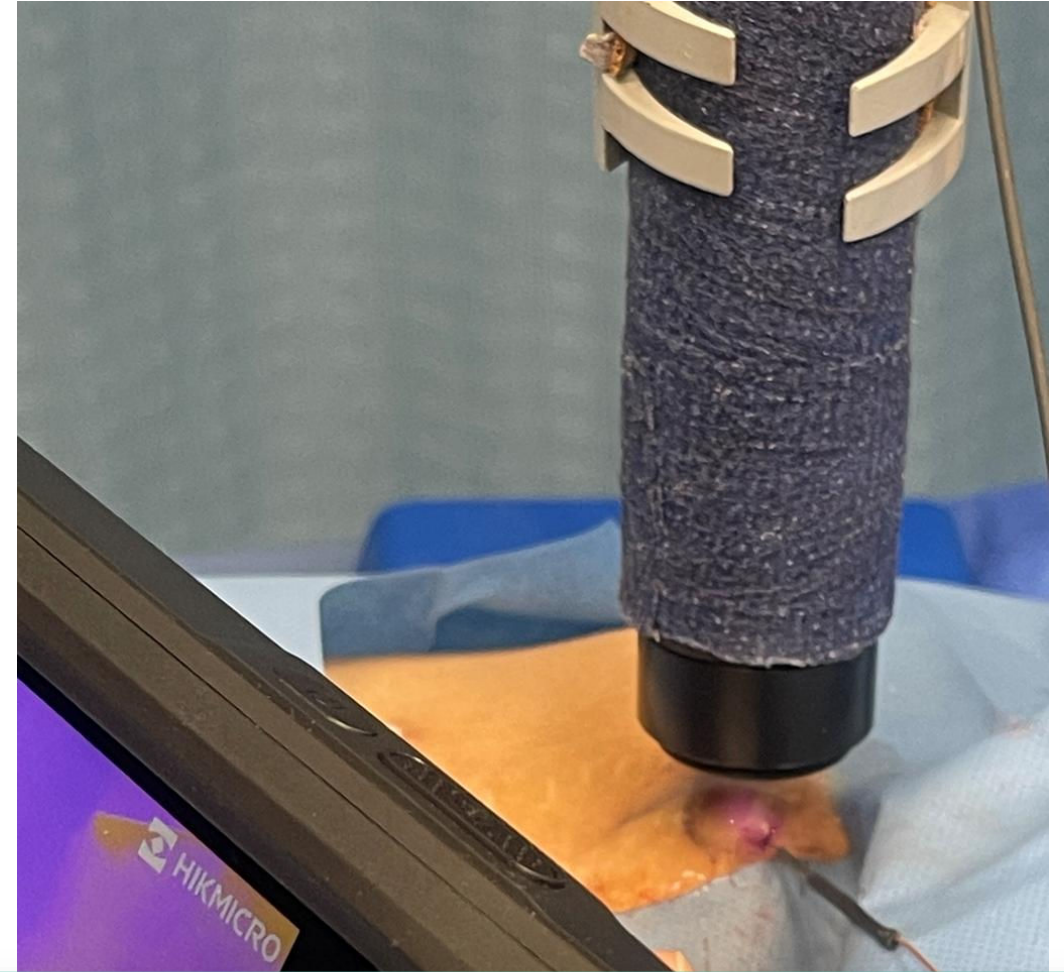
- **Safety:** Only one serious adverse event but unrelated to therapy
- **Tolerability:** No drop-outs and no refusals to second treatment
- **Design factors:** 16+ technique and device enhancements identified
- **Efficacy:** 80% response rate within first two weeks  
60% complete responses (confirmed in representative biopsies)

Expectations surpassed in all areas

# THT 1<sup>st</sup> Clinical Study – Treatment Example



Step 1 - Intertumoral injection of 0.5ml GNR solution



Step 2 - Initiate and monitor hyperthermia for 5-10 minutes

# THT 1<sup>st</sup> Clinical Study Results: Efficacy

New  
Data

| Patient | Stage | Day 15 Biopsy               | Day 28 Biopsy       |
|---------|-------|-----------------------------|---------------------|
| 1       | IV    | 100% response               | No longer cancerous |
| 2       | IV    | 100% response               | No longer cancerous |
| 3       | IV    | No response                 | n/a                 |
| 4       | IV    | No response                 | n/a                 |
| 5       | III   | 100% response               | No longer cancerous |
| 6       | TBD   | 100% response               | No longer cancerous |
| 7       | TBD   | 100% response               | No longer cancerous |
| 8       | TBD   | 90% response (10% residual) | 50% residual        |
| 9       | TBD   | 100% response               | No longer cancerous |
| 10      | TBD   | 50% response (50% residual) | 20% residual        |

Of ten tumors biopsied across ten patients, six tumors tested negative for melanoma following the THT therapy protocol

**Patient #9**



**Initial screening  
assessment**



**After second THT  
treatment**

## Patient #6



**Day 1 – confirmed  
melanoma tumor**



**Day 8 – second  
treatment given**

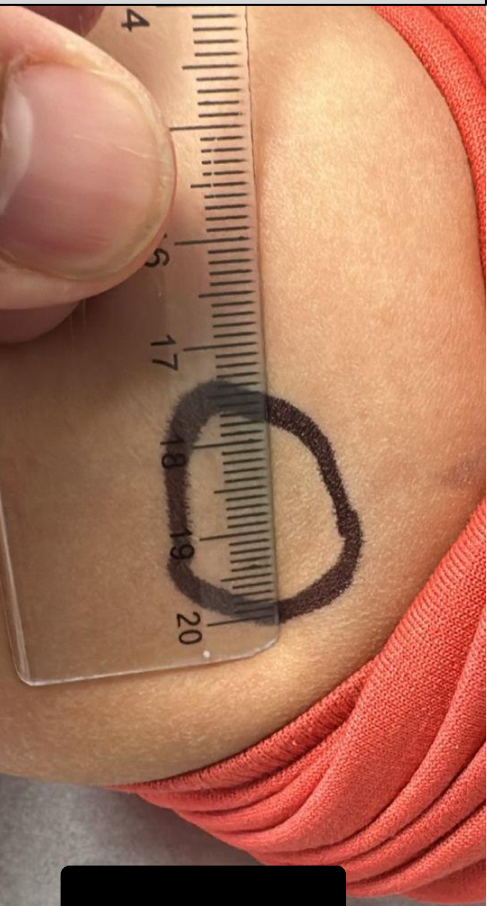


**Day 16 biopsy  
confirms tumor  
negative for  
melanoma**

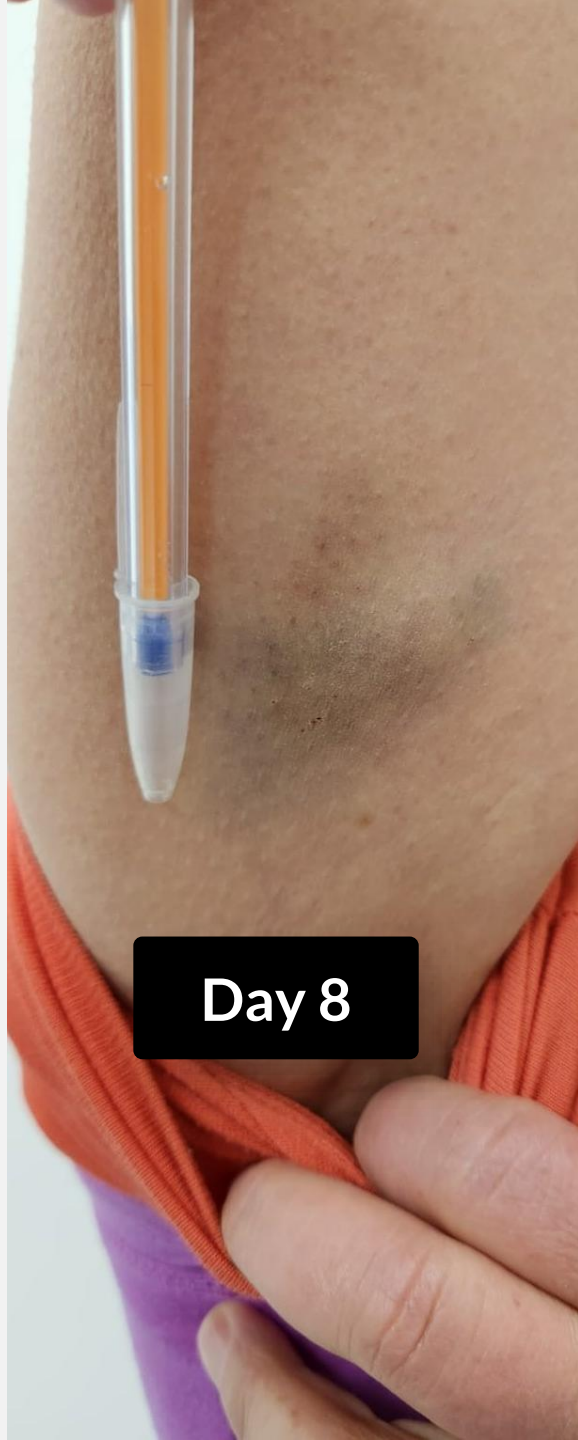


**Day 29 a scab  
remains**

# Patient #1



Day 1

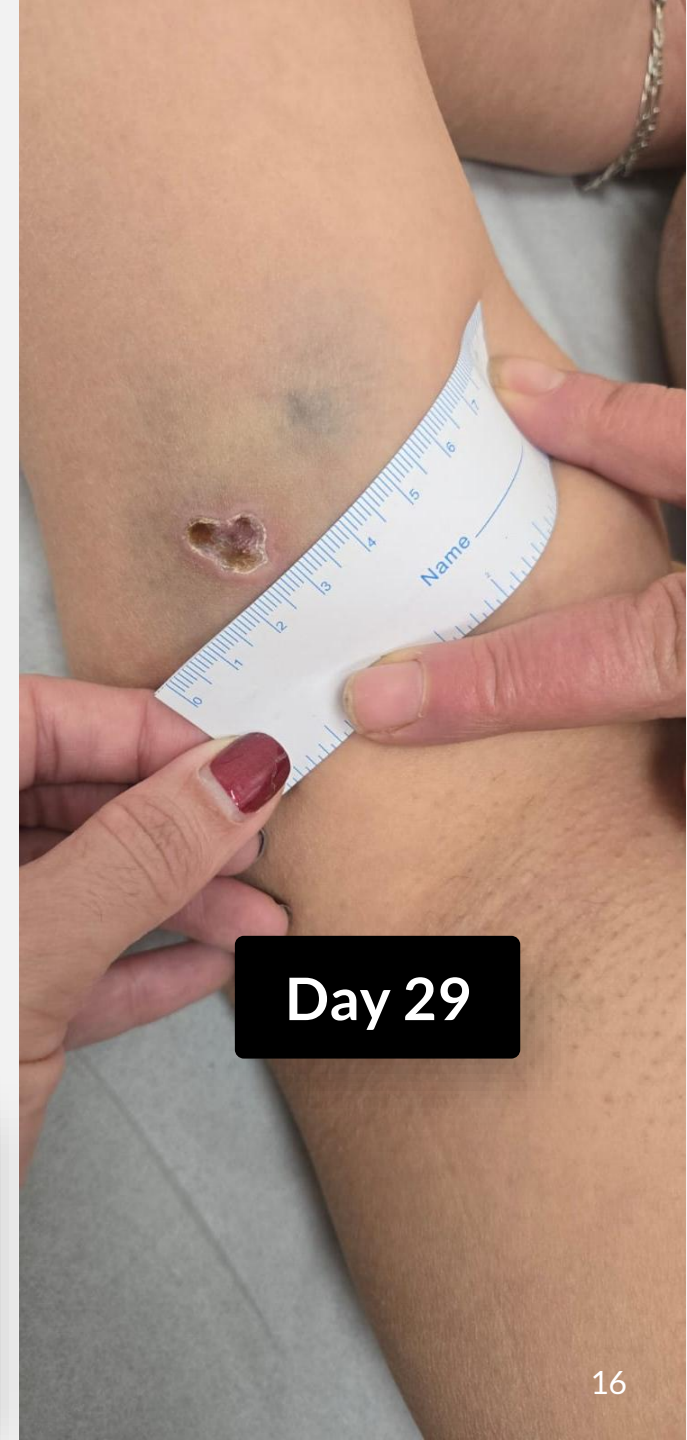


Day 8



Day 15

Day 15 biopsy  
confirms tumor  
negative for  
melanoma

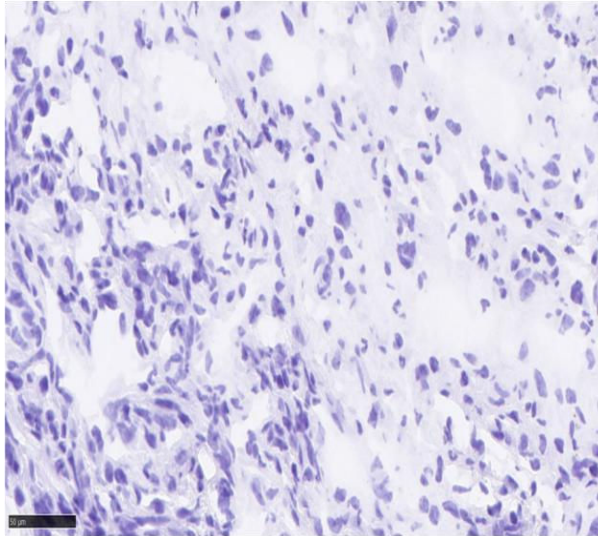


Day 29

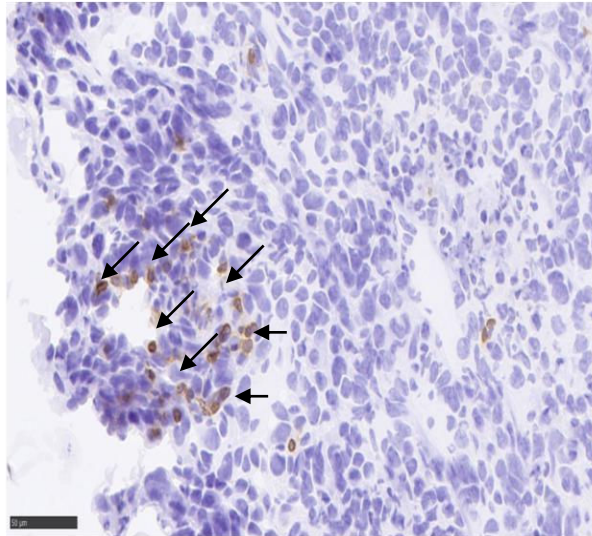
# THT 1<sup>st</sup> Clinical Trial – *Histological Readouts Post-treatment Still To Come*

## Change in Immune Infiltrates (Preclinical Mouse Model)

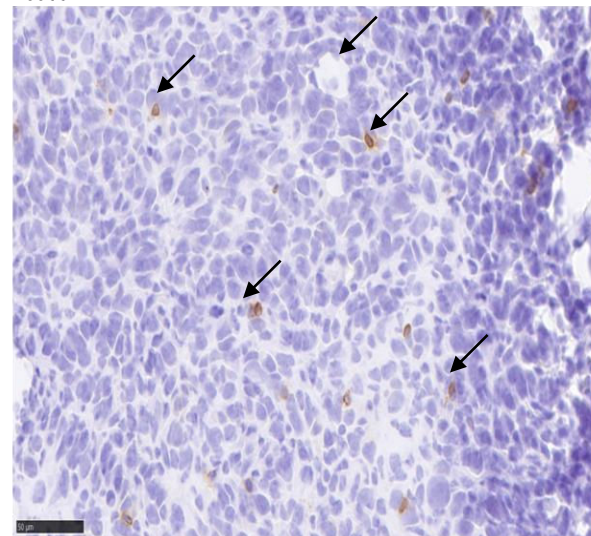
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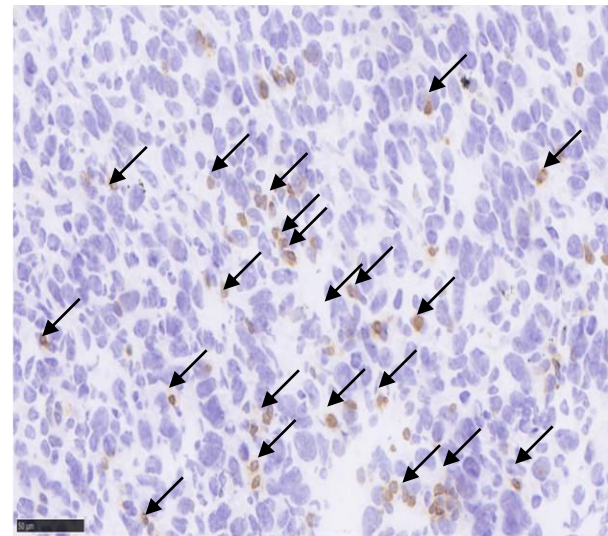
IL-2



THT



THT+IL-2



CD3 IHC stain

Note: Brown staining represents CD3+ cells. Scale bar represents 50  $\mu$ m.

**Efficacy in humans will be further assessed by the extent immune infiltrates as evidence of immune system activation**

# Sona's THT Therapy is Proprietary And Benefits From IP Protection

## Sona's Four Sources of IP Advantage

### ✓ Patents:

- **Method for Manufacture of Biocompatible Gold Nanorods**
  - Issued: USA, Canada and South Korea. Pending: PCT, EU.
- **Photothermal Near-Infrared LED Light Device**
  - Issued on Dec. 11, 2014, as US patent #10,064,940
- **Gold Nanoparticle Conjugates and Uses Thereof**
  - US patent #9,175,015 filed Aug. 22, 2008
- **Provisional Filings:**
  - Photothermal Near-Infrared Laser Light Device
  - Combination therapies for treating cancer
  - A gold nanorod conjugation concept for targeted drug delivery

### ✓ THT Theragnostic concept:

- *Leveraging both the biocompatibility and functionality of Sona's GNRs to develop an antibody-GNR conjugate to identify and treat specific cancers by applying THT with NIR light*

### ✓ THT Tri-conjugate concept:

- *Leveraging both the biocompatibility and functionality of Sona's GNRs to develop an antibody-drug-GNR conjugate to direct drugs directly to a specific cancer and treat by applying THT with NIR*

### ✓ Time Advantage:

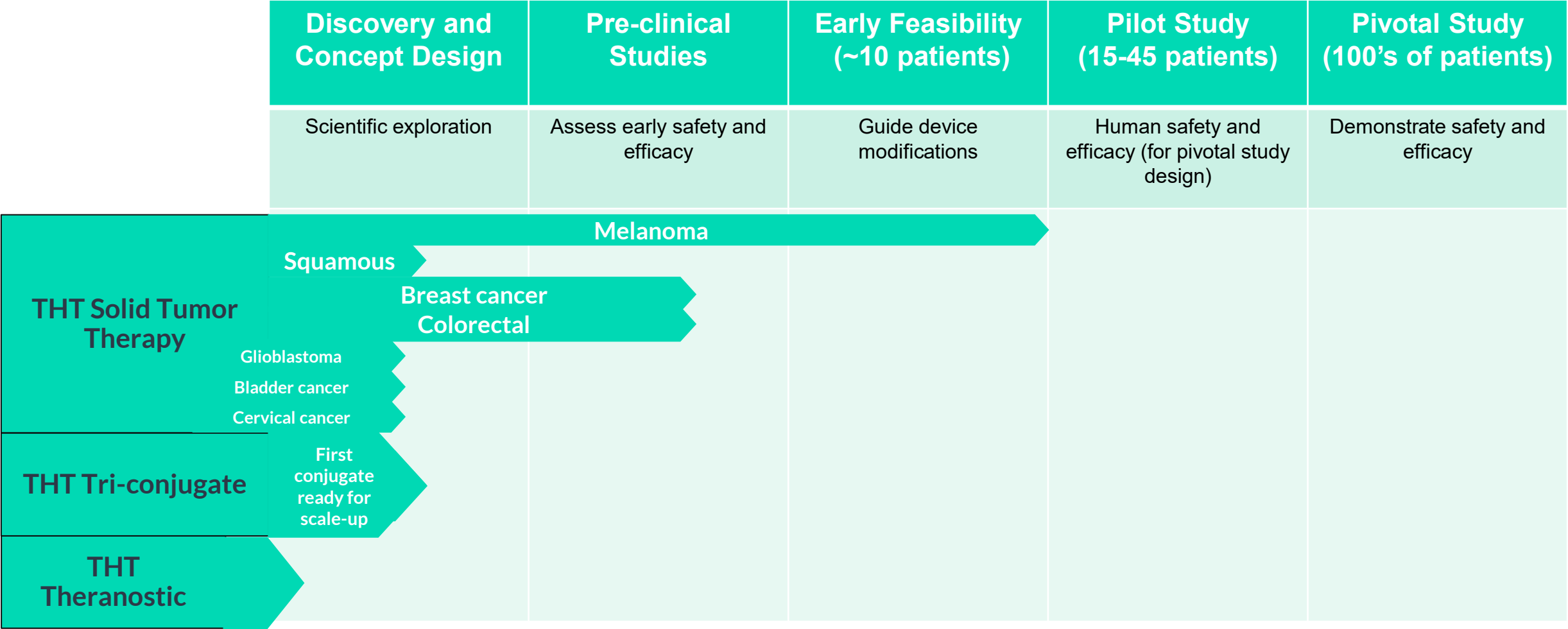
- Moving quickly to maintain Sona's lead to be the first to be approved by regulators

### ✓ Trade Secrets:

- Techniques for delivery of GNRs in vivo and application of laser
- Protocols for immunotherapy agent combinations

# Next Steps - Sona Is Leveraging On Its Uniquely Biocompatible GNR Platform Technology To Develop Further Applications

## Sona’s Product Pipeline – By Stage Of Development



# A Team That Hits Above The Company's Weight

## Board



**Mark Lievonon**  
Chairman

- Led vaccine maker Sanofi-Pasteur to a billion-dollar value



**Walter Strapps PhD**  
Director

- CEO of Khosla Ventures CRISPR/Cas13 biotech



**Neil Fraser**  
Director

- Led Medtronic Canada for ~20 years



**Jim Megann**  
Director

- 25 years of experience in capital markets



**Wayne Myles, KC**  
Director

- Entrepreneur & lawyer closing transactions at \$billions in value



**Len Pagliaro, PhD**  
Director

- Developer of Targeted Hyperthermia Therapy

## Management



**David Regan, MBA**  
Chief Executive Officer

- Capital markets professional
- Former strategy consultant



**Dr. Carman Giacomantonio**  
Chief Medical Officer

- Surgical oncologist & researcher



**Kulbir Singh, PhD**  
Head of R&D

- Co-Developer of CTAB-free gold nanorods



**Darren Rowles, MBA**  
Head of Diagnostics

- 17 years' experience with nanoparticle diagnostics



**Robert Randall, CPA**  
Chief Financial Officer

- Extensive public company experience

## Advisors



**Dr. Catherine J. Murphy**

- Inventor of gold nanorods



**Dr. Gerry Marangoni**

- Co-developer of CTAB-free gold nanorods

## Next Steps

- 1. Further assess full data set and conduct histology analysis**
- 2. Monitor study patients for further evidence of abscopal effect**
- 3. Pilot Study**

- Refined treatment
- Data expected to qualify for most regulators
- Highly efficient study
- ~30-40 patients, potentially multi-center
- Target to initiate by spring of 2026

Health Canada's assessment of risk considers factors such as the nanoparticle's biodistribution, potential for bioaccumulation and toxicity, and the possibility of systemic exposure.

**An Investigational Testing Authorization has been  
filed with Health Canada**

# Capitalization Table

As of October 20, 2025

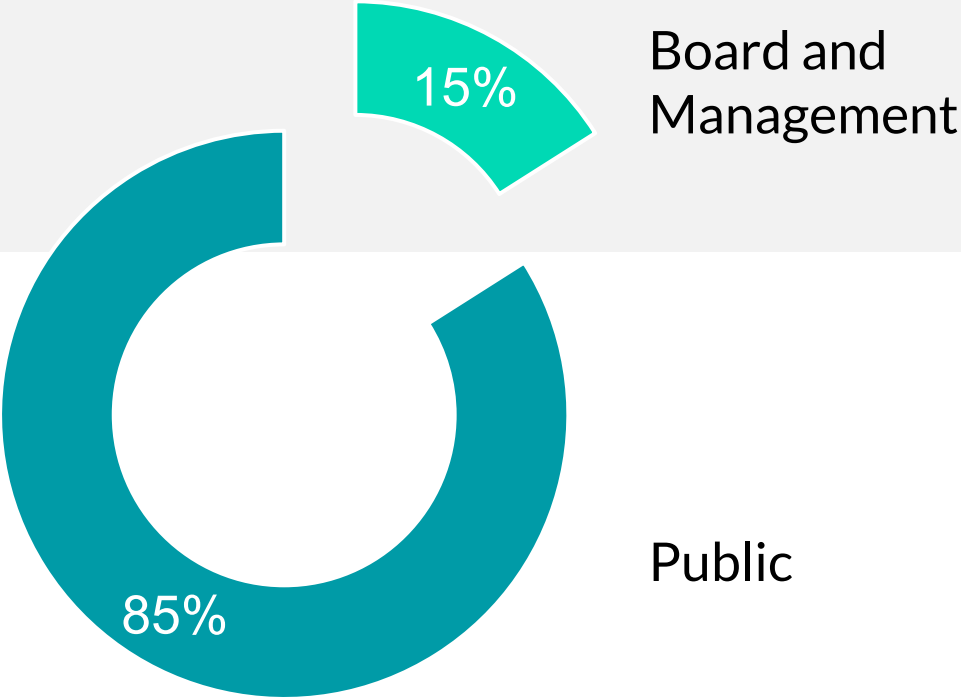
## Market Capitalization

|                  |               |
|------------------|---------------|
| Share Price      | C\$0.77       |
| Market Cap.      | C\$85M        |
| 52 Week High/Low | \$0.91/\$0.24 |

## Capital Structure

|                      |        |
|----------------------|--------|
| Issued & Outstanding | 112.5M |
| Options              | 7.2M   |
| Warrants             | 2.6M   |

## Ownership





# Thank you

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BIOCOMPATIBLE

**GNR**

GOLD NANOROD  
TECHNOLOGY

