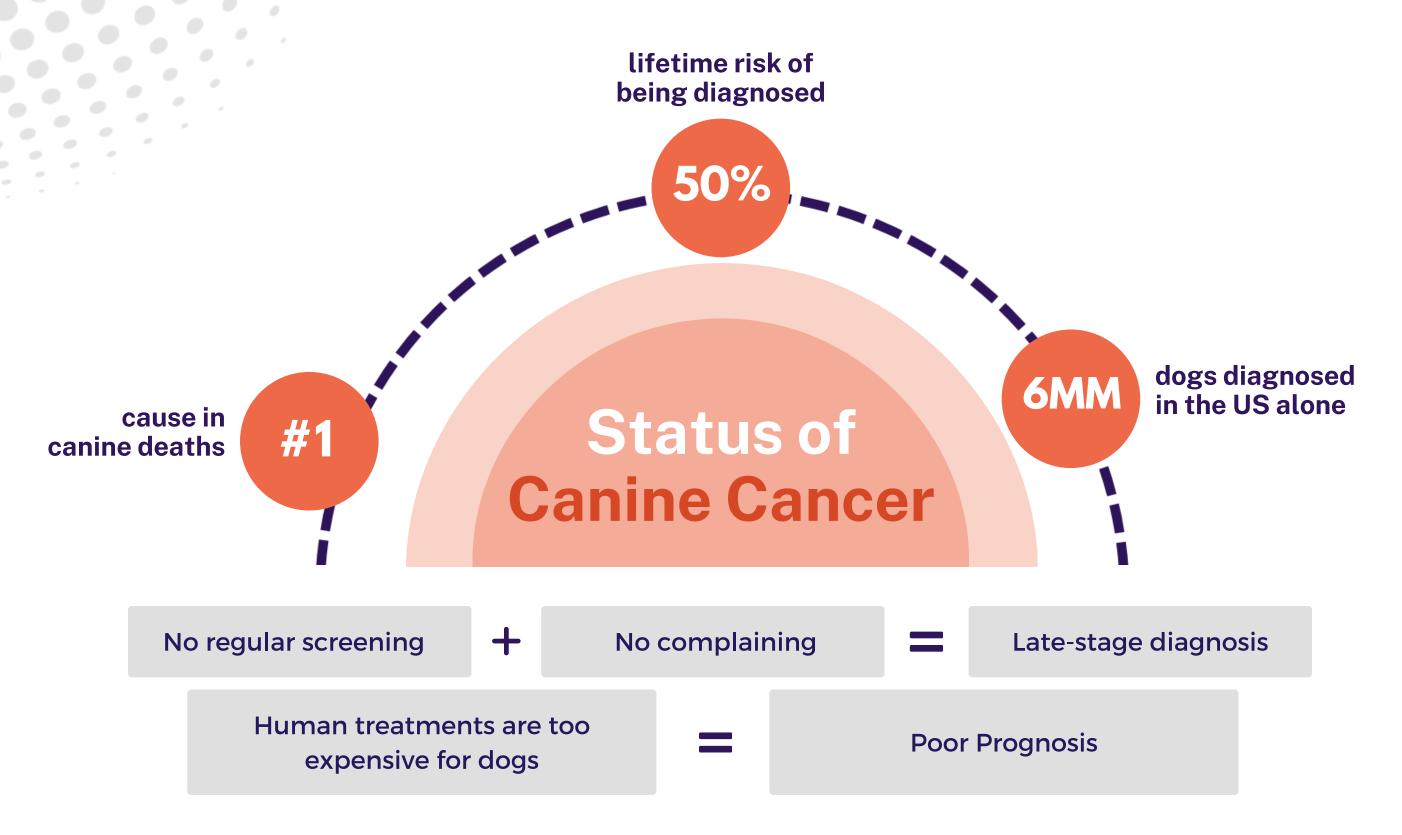


## The Problem Canine Cancer Detection and Treatment

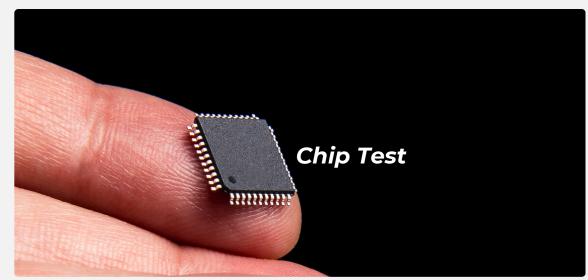


## **The Solution**

#### **Calviri's Complimentary Products**

Sensitive diagnostic for stage 1 cancers





Calviri solves the stage I sensitivity problem

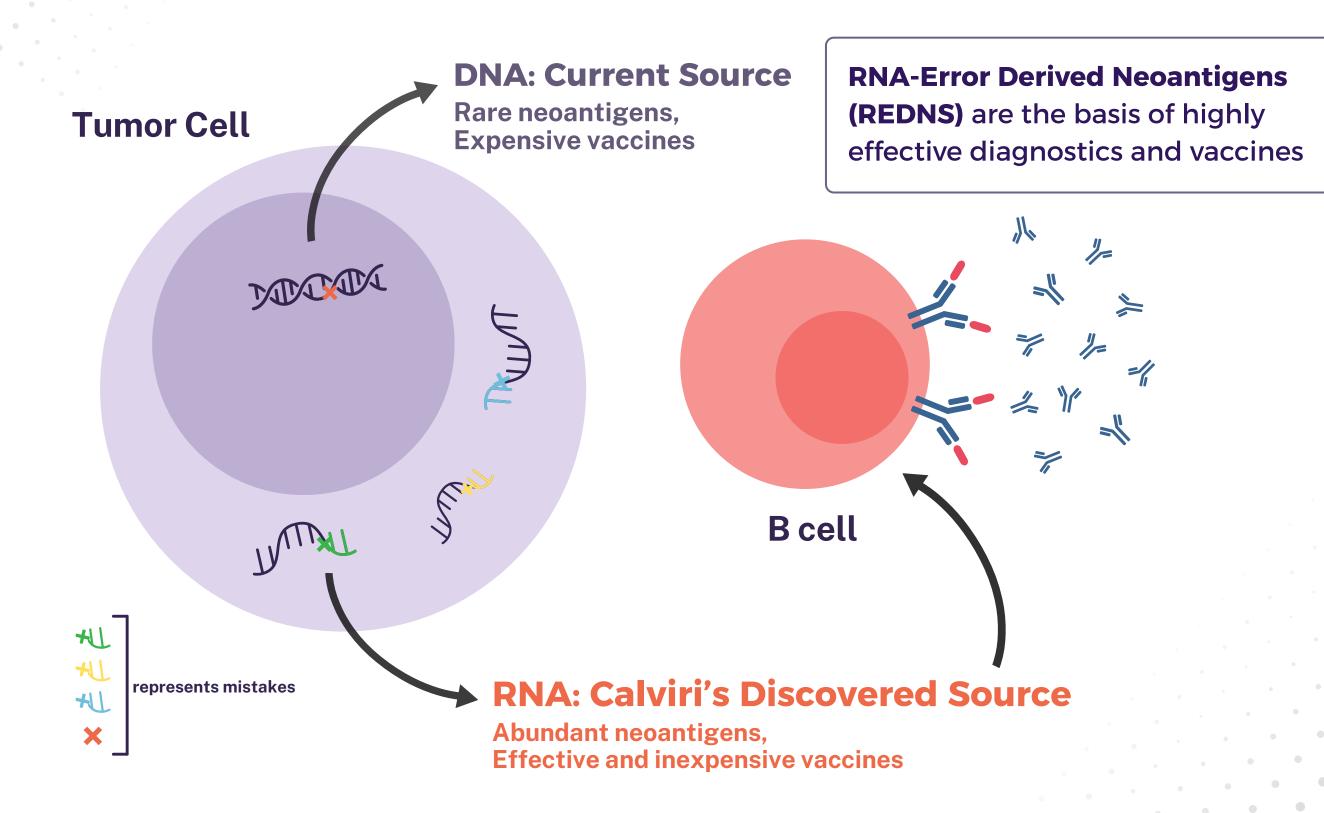
Premade vaccine to treat multi-cancers



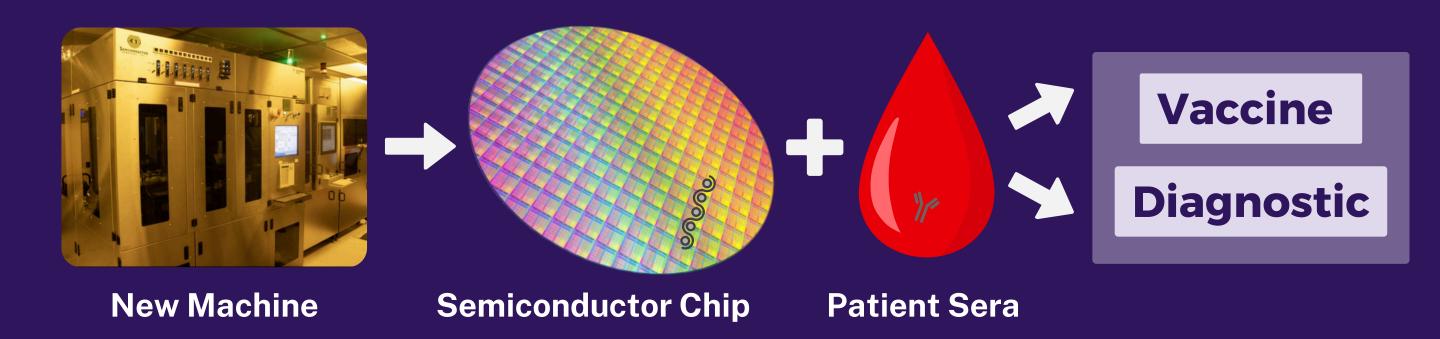


Premade vaccines treat, broadly & inexpensively

### New Neoantigen Source Enables Our Diagnostics and Vaccines



## Calviri Invented Only Technology to Search REDN Space



# Multi-Cancer Early Detection Test Ready for Commercialization 6/2025

#### **Stage 1 Diagnostic Sensitivities\***

Cancer Type	Calviri	PetDx (former)	Volition
Mast Cell Tumor	80%	6%	11% (stage 2)
Lymphoma	>99%	0%	33% (9)**
Hemangiosarcoma	90%	50% (2)**	67% (3)**
Osteosarcoma	<b>71</b> %	NA	NA
Soft Tissue Sarcoma	89%	13% (15)**	NA

<sup>\*</sup>Sensitivities at 97% specificity

<sup>\*\*</sup> group size

## Therapeutic Vaccine Competition

Hemangiosarcoma therapeutic vaccine - Clinical trial ongoing Multi-cancer therapeutic vaccine - 2025

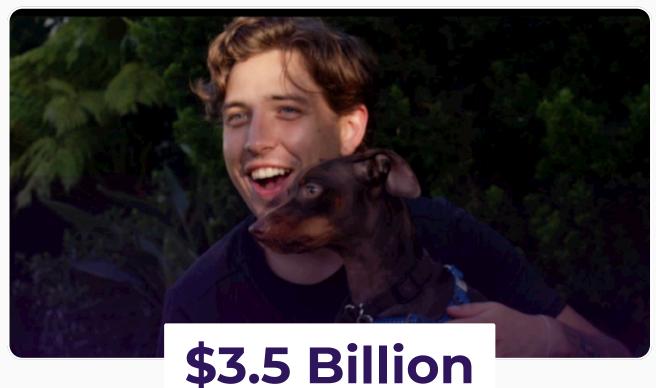
Specifications	Calviri	Torigen/Elias
Components	REDNs	Undefined Lysates
Design	Pre-Made	Personal
Price	\$500	\$1,500-\$10,000
Application	Any stage, Any tumor	Only later stages, Only some tumors

## Pet Oncology is Huge Untapped Market

#### **Early Diagnostic**

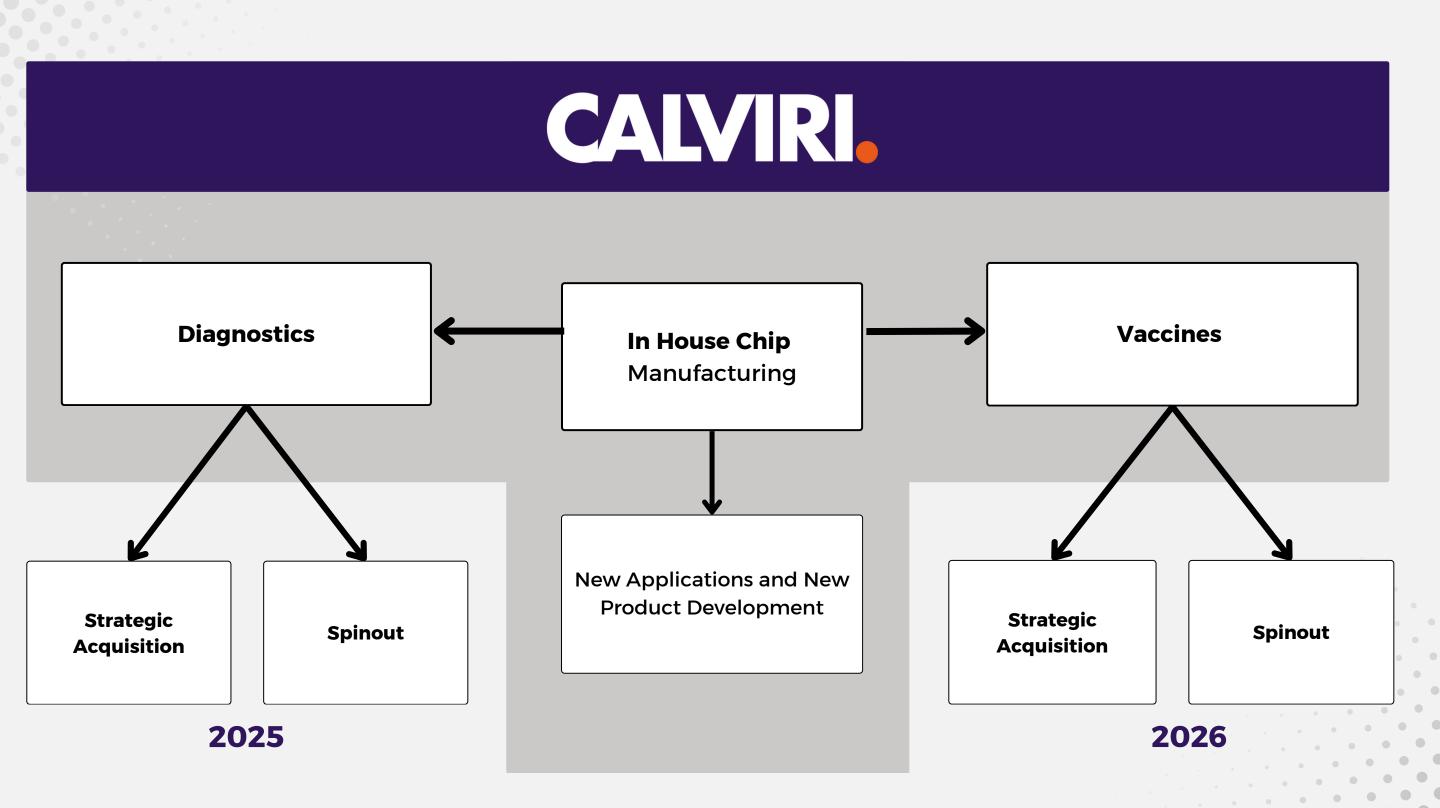


#### **Vaccine to Treat**



- There are 90 million pet dogs in the US alone
- More than half of them are 7 years of age or older and considered "senior"
- Canine studies show that senior dogs develop cancer at a 4-fold higher rate than younger dogs

### **Business Plan**



## Risks and Limitations To Successful Commercialization

### **Diagnostics**

Unknown adoption rate

### **Vaccines**

• Unknown efficacy in clinical trials

## **Our Traction**



### Milestones To Revenue

### **Diagnostics**

- License/partner MCED dog diagnostic- 2025
- **Commercialize MCED dog diagnostic- 2025**

#### **Vaccines**

- (initiate multi-cancer vaccine conditional trial 2026
- **Commericalize multi-cancer vaccine 2026**



#### **Gene Delivery**

- Gene Gun: now commonly used to transform plants
- Method to genetically modify chloroplasts and mitochondria

#### **Molecular Biology & Genetics**

- Simple way to make new plants (EBN): solved 50 year puzzle
- Discovered proteins have separable functional domains: in textbooks now
- First to develop a recombinant DNA technology that is cloning-free
- TEV protease system: now widely used in research and industry for protein purification

#### **Resistance & Immunity**

- New method to create pathogen resistance in plants (PDR): now widely used
- Nucleic acids for vaccination: basis for Covid vaccines
- Simple, rapid method to make synthetic antibodies

#### **Most Recent Calviri Inventions**

- ACED arrays for early diagnosis of stage 1 cancers
- RNA frameshift neoantigens and preventative cancer vaccine

## **Experienced and Invested Board**



Jeff Le Benger, MD

Calviri Chairman of the Board

Former CEO of Summit Health



Stephen Albert Johnston

Calviri CEO, Co-Founder

Over 60 patents, Member of National Academy of Inventors



**Kathryn Sykes, PhD** 

Calviri VP of Research and Product Devt.,

Co-Founder

Diagnostic and vaccine patents for cancer and other diseases



**Jacque Sokolov, MD** 

Director

Chairman for SSB
Solutions, Board of
Directors for Phoenix
Children's Hospital,
GlobalMed, Veterans
Accountable Care
Group



**Michael McCallister** 

Director

Board of Directors for Zoetis, Former CEO of Humana

## Scientific Advisory Board



#### **Terry Alice McInnis, MS, MBA, MPH** | Chairman

Is a seasoned executive serving at the intersection of business and medicine. She closes gaps between technologies, diagnostics, and pharmaceuticals and regulation, market access, and patient care. Acknowledged as a futurist, her key talent is finding "out of the box" approaches that generate new business, accelerate growth, or disrupt competitors.



#### **John Ballantyne, PhD** | Advisor

Received his PhD in Pharmaceutical Sciences from North Dakota State University in 1997. In 1998 he co-founded Aldevron with Michael Chambers. He served as chief Scientific Officer before retiring at the end of 2021 after the company was acquired by Danaher. He is an active investor in early-stage biomedical companies.



#### **Stan Lapidus** | Advisor

Founded and led two of the most successful cancer diagnostics companies of all time: Cytyc and Exact Sciences. He is an inventor and entrepreneur, currently serving on several healthcare and medical technology boards. He holds 37 patents, primarily for methods of early cancer detection.



#### **Steven W. Dow, DVM, PhD** | Advisor

Is a veterinary internist and professor of Clinical Sciences in the College of Veterinary Medicine and Biomed Sciences at CSU. He directs the immunotherapy Research Lab, investigating new immune-based approaches to treatment of cancer and infectious disease. He received his DVM from the University of Georgia and PhD in Comparative Pathology at CSU.



#### Peter P. Lee, MD | Advisor

Is the Chair of the Department of Immuno-Oncology at the Beckman Research Institute at City of Hope. He is Co-leader of the Cancer Immunotherapeutics Program, Professor in the Department of Hematology & Hematopoietic Cell Transplantation and the Billy and Audrey Wilder Professor in Cancer Immunotherapeutics. He received his MD at UC-San Diego.



#### **Use of Funds**

- Expand Chip Production
- Manufacture Multi-Cancer Vaccine and Conduct Clinical Trial
- Management and Technical Hires

## Future Opportunities For Our Technologies

**Human Diagnostic and Therapeutic Vaccine** 

**Preventative Cancer Vaccine** 

### **Calviri Publications**

#### **Vaccines**

A Worldwide Preventative Cancer Vaccine Is Achievable With New Discoveries And Comparative Oncology 10.29011/2833-3497.000162

RNA transcription and splicing errors as a source of cancer fsp neoantigens. 10.1038/s41598-019-50738-4

Comparison of shared and personal frameshift neoantigens vaccines in mouse mammary cancer models. 10.1186/s12865-020-00350-3

Using frameshift peptide arrays for cancer neoantigen screening. 10.1038/s41598-018-35673-0

#### **Diagnostics**

Predicting response and toxicity to immune checkpoint inhibitors using antibodies to frameshift neoantigens. 10.1186/s12967-023-04172-w

Production of high-complexity frameshift neoantigen peptide microarrays. 10.1039/D0RA05267A

#### **Clinical Trials**

Design of a randomized clinic controlled study of a preventative cancer vaccine in dogs. 10.1016/j.vetimm.2023.110691

Low Prevalence of Occult Cancer Diagnosis when Screening Healthy, Higher-Risk, Middle-Aged to Older Dogs. Journal of American Veterinary Medicine Assoc. 10.2460/javma.24.07.0463

Results of a clinical trial of a broadly preventative cancer vaccine. (in preparation)



**CALVIRI**Animal Health