

A decorative graphic on the right side of the image consisting of a grid of white hexagons with a subtle 3D effect, appearing to recede into the background.

CALVIRI.
Let's End Cancer.



Cancer causes **20M** tragic
diagnoses each year;
10M of them end in someone's
death.

Source: National Cancer Institute



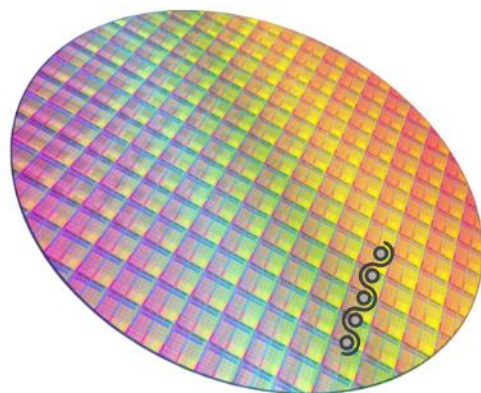
CALVIRI HAS CREATED
THE TECHNOLOGIES

TO END CANCER.

Simple, affordable blood test to sensitively detect cancer

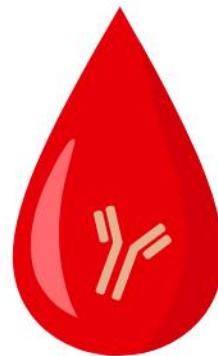


New Machine



Peptide Chip

6



Patient Serum

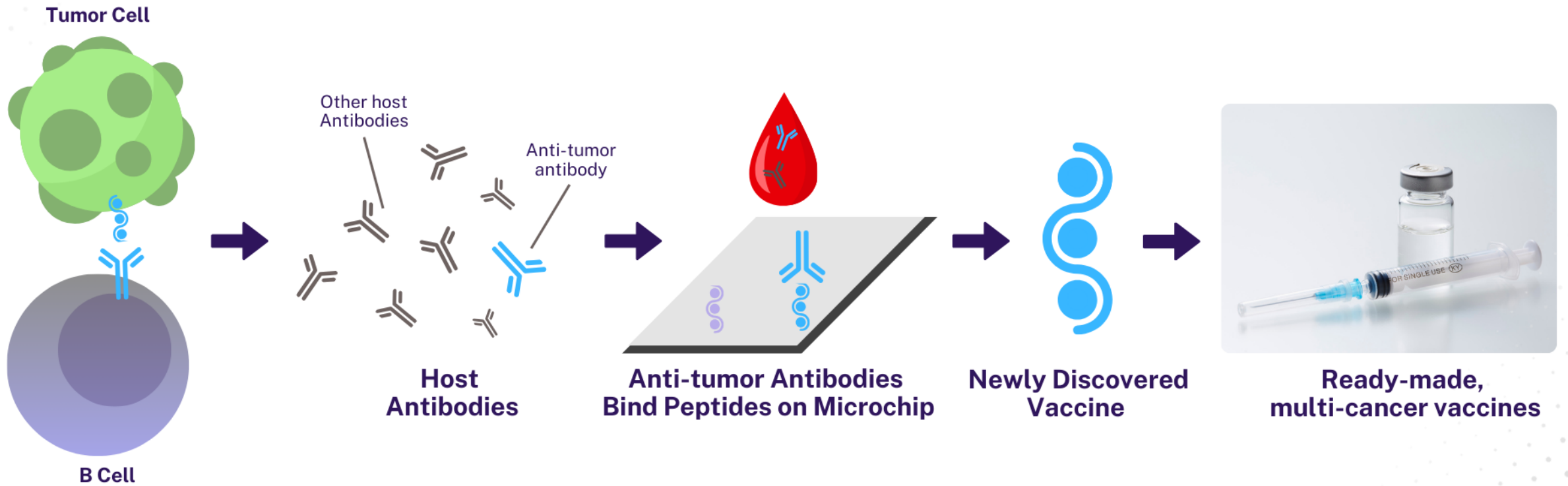


Diagnostics

We invented the **only technology** that can do this

Simple, safe, affordable vaccines

To treat and even prevent cancer



The Fastest Path To Human Products

The fastest path to human products is through dogs

- Faster approval process
- Faster sales revenue
- Validates & accelerates human product commercialization



Pet Oncology Is A Huge **Untapped** Market

Market Potential



Differentiation

Only Calviri can detect stage 1 cancers

Only Calviri can make off-the-shelf, inexpensive vaccines

Only Calviri can make a preventative vaccine

Problem: Too Many Dogs Suffer And Die From Cancer

#1¹

leading cause of
canine deaths

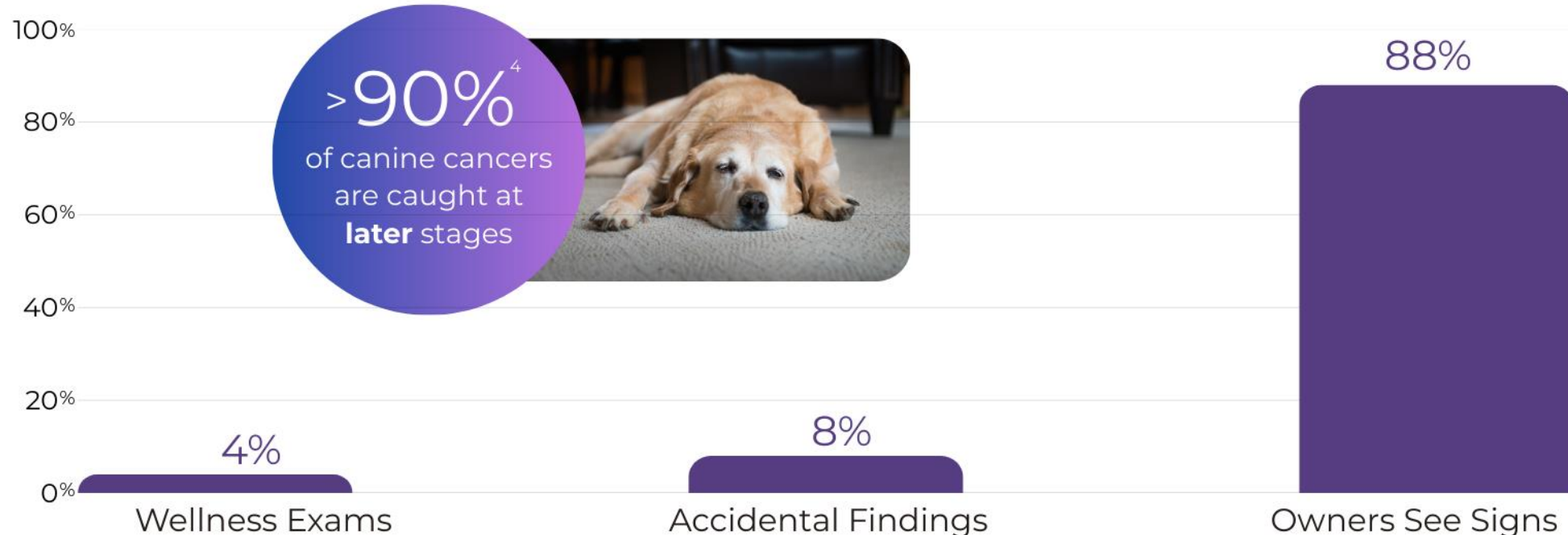
50%²

cancer risk for
senior dogs

6MM³

dogs diagnosed
in the US alone

How Canine Cancer Is Currently Diagnosed



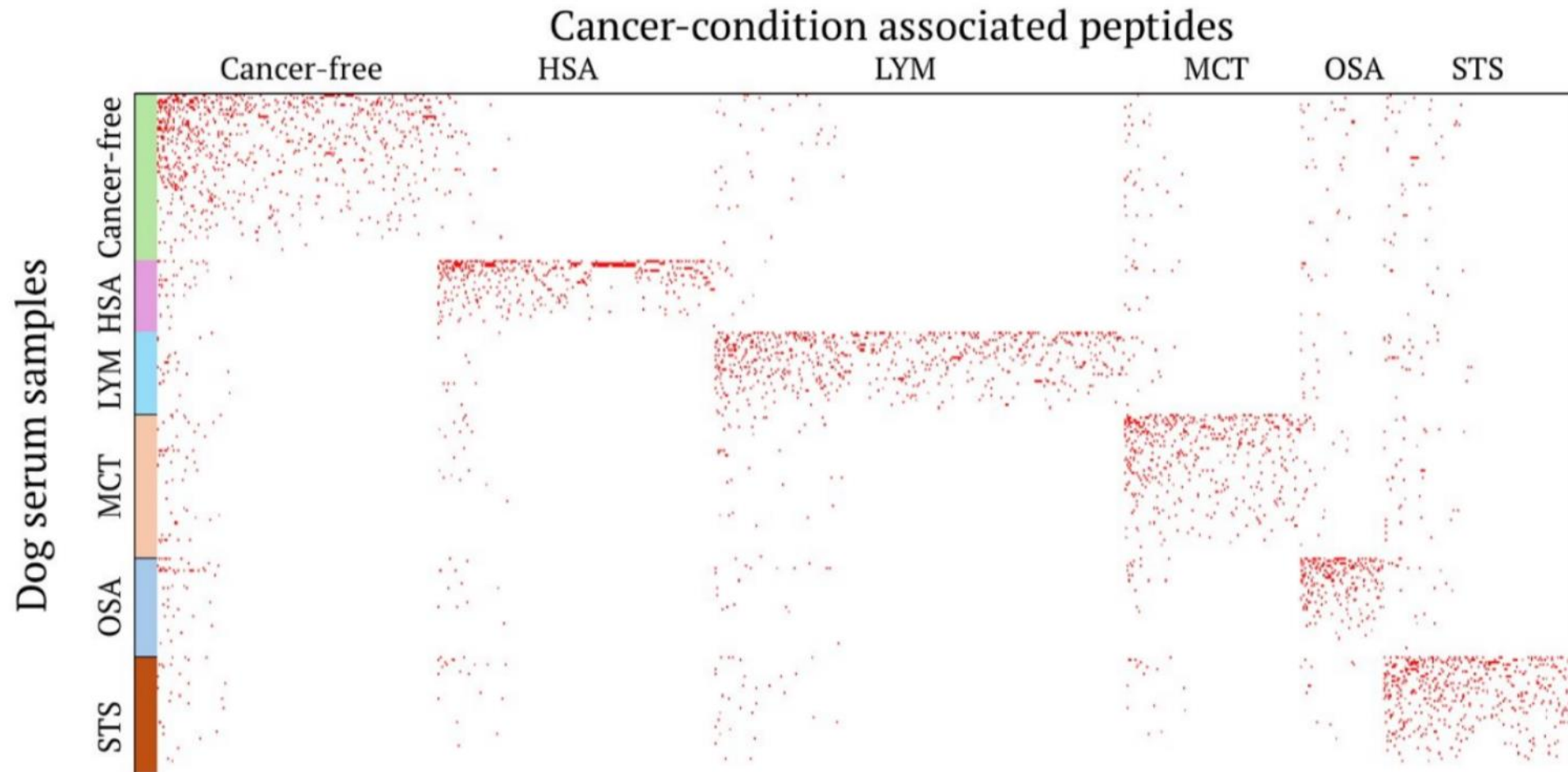
¹JVIM - doi.org/10.1111/j.1939-1676.2011.0695.x

²JVIM - doi.org/10.1002/aac2.12046

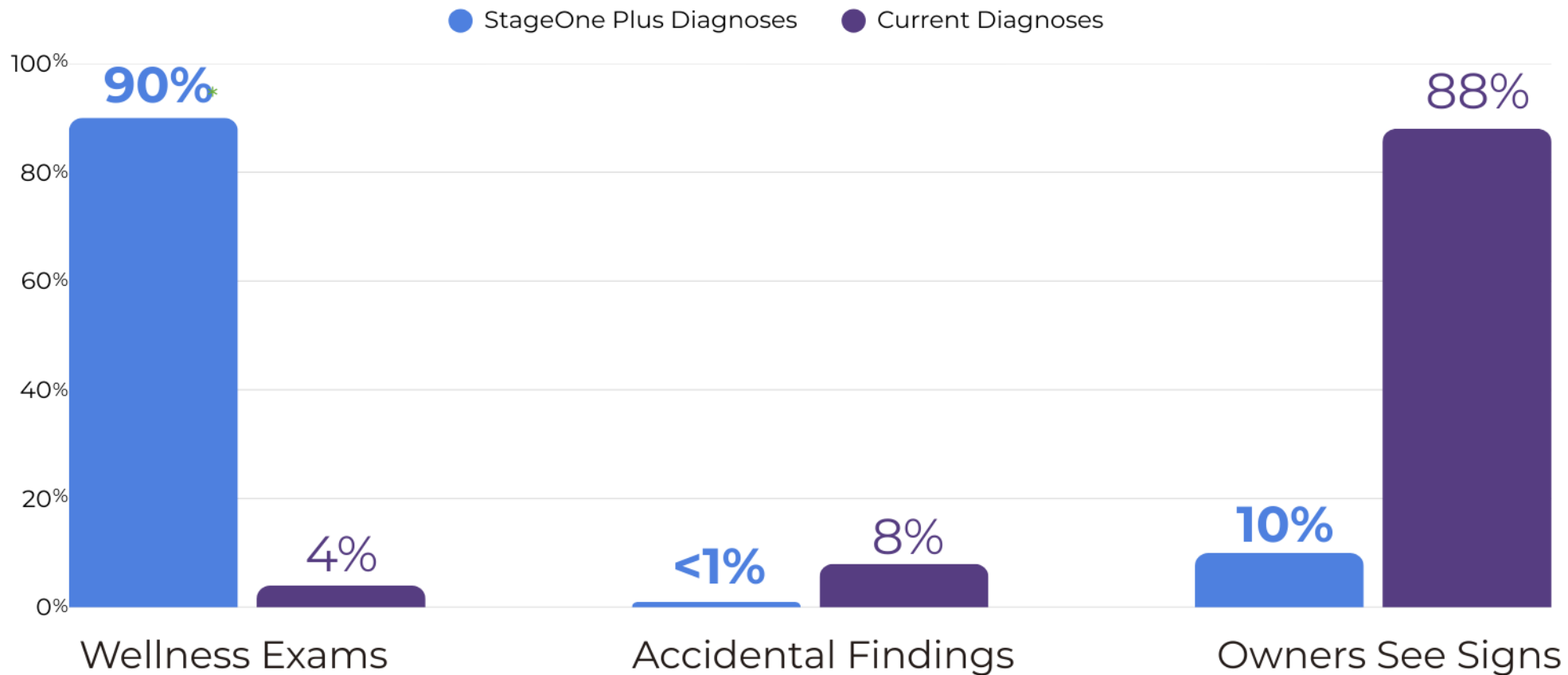
³2024 AVMA Pet Ownership & Demographics

⁴ACVIM - doi.org/10.1111/jvim.16616

Positive binding profiles of group-associated peptides across canine serum samples



How StageOne Plus Can Change How Cancer is Diagnosed



- 90% of diagnoses can be at wellness exams
- Most of these diagnoses can be stage 1


Performance of Calviri Diagnostic on Stage 1 Tumor Samples

Contrast	30% holdout tests	
	Sensitivity % (SD)	Specificity % (SD)
HSA	60 (17.2)	99 (0.9)
LYM	76 (17.4)	>99 (0.3)
MCT	80 (10.9)	95 (4.0)
OSA	80 (12.8)	92 (4.4)
STS	85 (10.6)	96 (4.0)
Cancer free	88 (6.2)	92 (4.6)
Overall Accuracy	80 (6.2)	

AJVR



High-sensitivity multicancer detection of stage 1 cancer in dogs

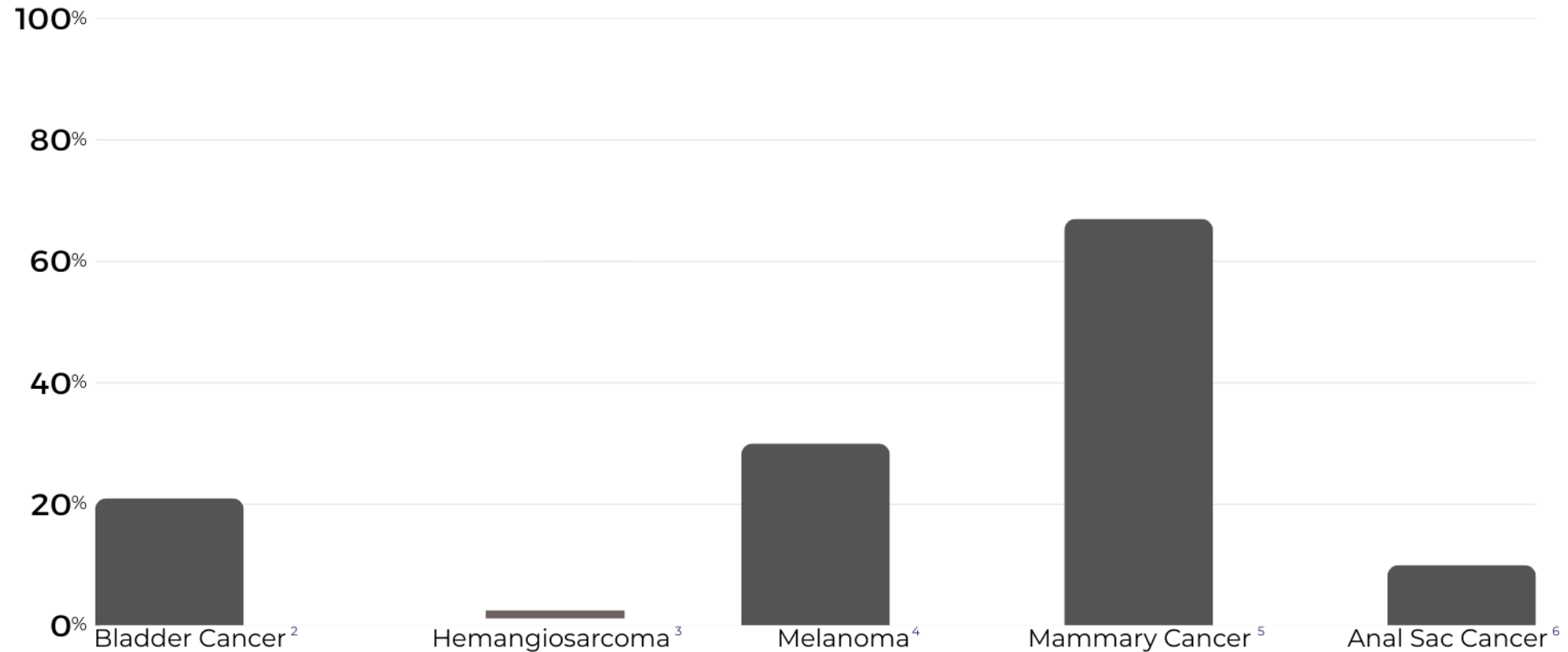
Justin R. Brown, PhD[†]; Luhui Shen, PhD[†]; Nicholas Fulton; Stephen Albert Johnston, PhD; Kathryn F. Sykes, PhD* 

Calviri, Phoenix, AZ

Patient Survival Rates when Detected at Stages 2-4

Percent of patients surviving post treatment

*2 year survival rate*¹



¹ACVIM - doi.org/10.1111/jvim.16616

²FIO - doi.org/10.3389/fonc.2022.1011969 (Bladder)

³AACR - doi: 10.1111/vco.12342 (HSA)

⁴CCR - MacEwen et. al. pp. 4249-4258, 1999 (Melanoma)

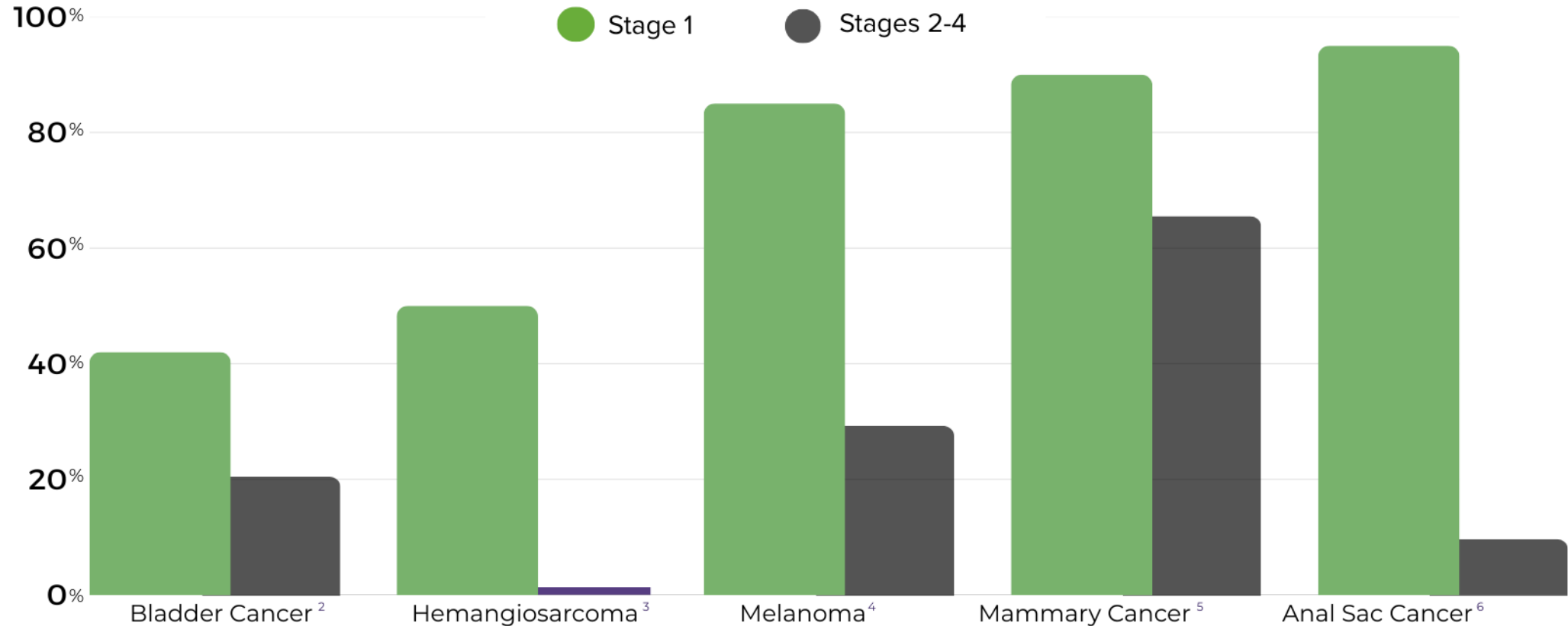
⁵KJVR - doi.org/10.14405/kjvr.20210046 (Mammary)

⁶ACVIM - doi.org/10.1111/j.1939-1676.2007.tb02960.x (Anal Sac)

How Stage 1 Detection Changes Survival Rates

Percent of patients surviving post treatment

2 year survival rate ¹



¹ACVIM - doi.org/10.1111/jvim.16616

²FIO - doi.org/10.3389/fonc.2022.1011969 (Bladder)

³AACR - doi: 10.1111/vco.12342 (HSA)

⁴CCR - MacEwen et. al. pp. 4249-4258, 1999 (Melanoma)

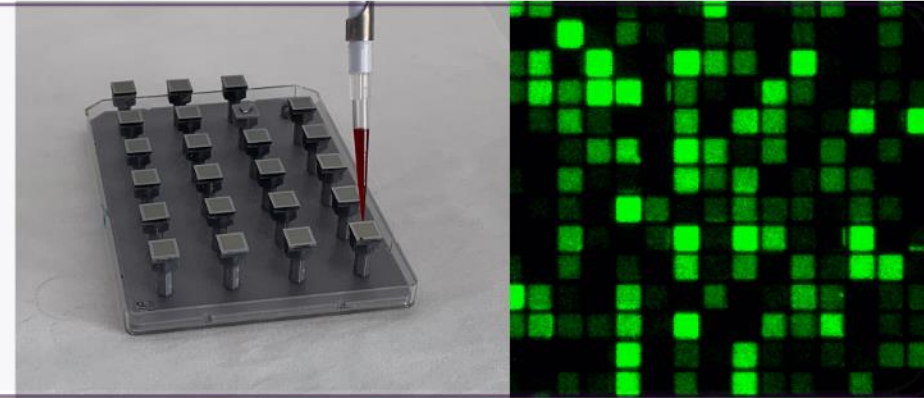
⁵KJVR - doi.org/10.14405/kjvr.20210046 (Mammary)

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StageOne Plus Test

StageOne Plus

Detects Cancer at Stage 1 or earlier,
scheduled to be available in 2026



Our goal
is to make
>90%
diagnoses
stage 1

Catching cancer early means

- better **quality** of life
- higher **survival** rates

Peer-Reviewed Publication

American Journal of Veterinary Research: High-sensitivity multicancer detection of stage 1 cancer in dogs - June 13, 2025

Press Release

PR Newswire: Calviri Publishes Results Demonstrating Sensitive Detection of Stage 1 Tumors in Dogs - June 17, 2025

How does *StageOne Plus* stand out from other cancer tests?

Feature	StageOne Plus ¹	Leading Test 1	Leading Test 2
Sensitive Detection	All stages, including Stage 1	Later stages	Later stages
Stage 1 Accuracy	80%	Undetermined	Undetermined
Cancer Type Effectively Detected	Most cancers	Blood system cancers ²	Lymphoma
Patient/ Test Requirements	None/ 0.005 mL serum ³	Healthy, preferably fasted/ 2-5 mL blood	None/ 1 mL plasma + 2 mL serum

StageOne Plus specifications for initial launch

Test Capabilities

Stage 1

Sensitive Multi-Cancer Detection

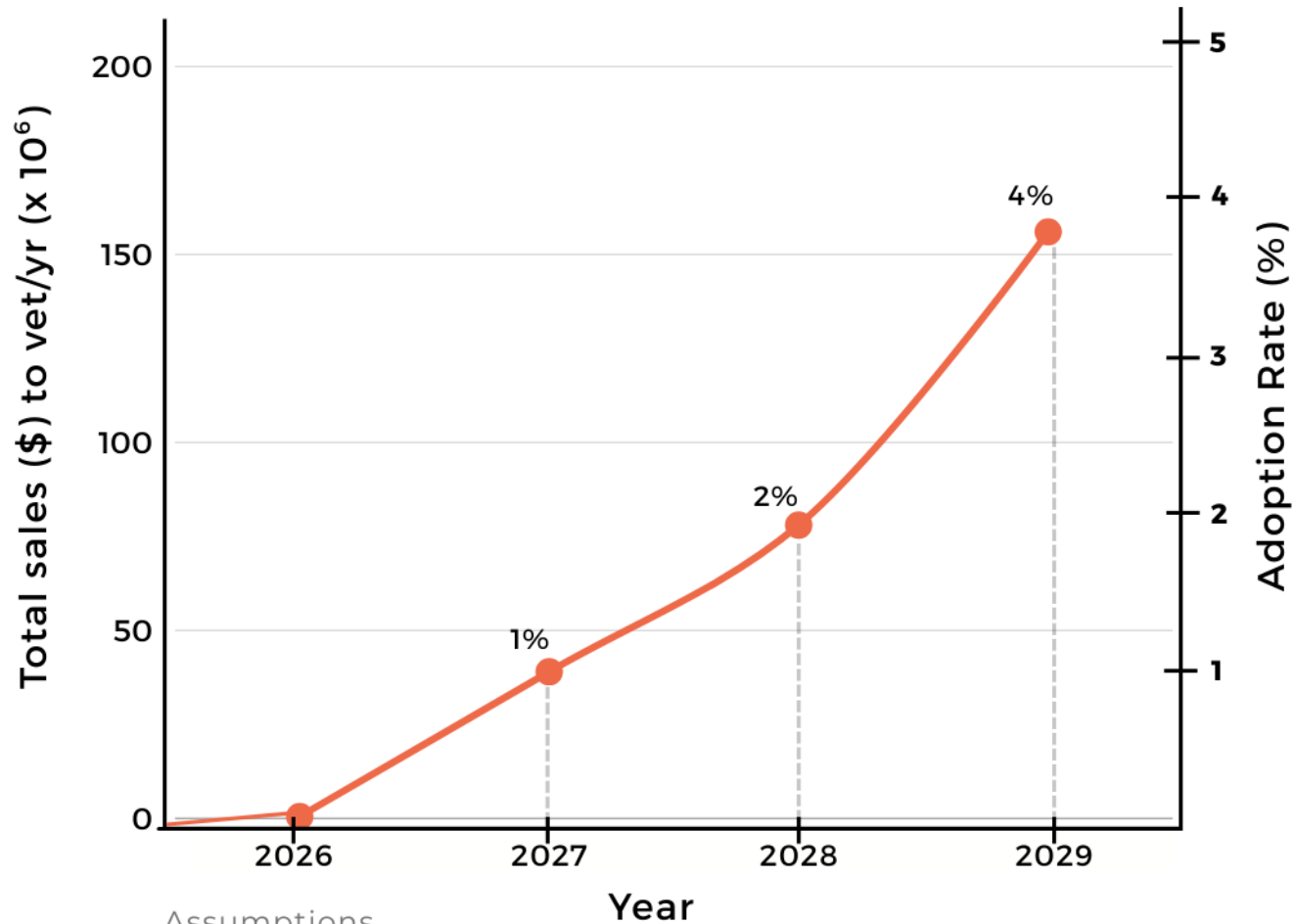
May Indicate Tissue Of Origin For 5
Common Cancers¹

Stage 2-4

Sensitive Multi-Cancer Detection

¹ Hemangiosarcoma, Lymphoma, Mast Cell Tumors, Osteosarcoma, Soft Tissue Sarcoma

Revenue generated at projected **adoption rates**



Assumptions

- \$100 Price to Vet
- 39M Dogs >5 years old in US with annual wellness exam bloodwork

Revenue Projections for Dog Cancer Diagnostic Alone

Calviri 3-year Revenue Projections

Year	Revenue*
2026	\$19.5M
2027	\$58.5M
2028	\$117M

*Assumptions:

- \$100/diagnostic test to vet
- Adoption rate projections as shown



Calviri Proposed Mature Structure



CI INVENTION AND DISCOVERY



Intellectual Property

Trade Secrets ----- Chip production is strongly protected by trade secrets
Process is multi-step and complicated
It is highly unlikely to be replicated

Trademarks ----- *StageOne Plus*[™] is protected
Calviri[™] is pending

Patents ----- Over 60 patents on vaccines, diagnostics and chip production.
Patents issued
• In US and other countries as strategically sound
Patents pending
Blocking Patents Filed
• Blocking broad claims of others, though not pursued

Selected Set of Issued or Pending Patents

7-032LUS3	CAU.006C1	THERAPEUTIC AND PREVENTIVE CANCER VACCINES	Issued
	CAU.023NP	PEPTIDE ARRAY QUALITY CONTROL	Closed
7-032LEP1	CAU.004EP	A METHOD TO CREATE PERSONALIZED CANCER VACCINES	ConfirmABA
7-032LEP2	CAU.006EP	A METHOD TO CREATE PERSONALIZED CANCER VACCINES	ConfirmABA
9-105LEP1	CAU.017EP	COMPOUND ARRAYS FOR SAMPLE PROFILING	ConfirmABA
	CAU.003P1	IDENTIFICATION AND USE OF NOVOPEPTIDES FOR THE TREATMENT OF CANCER	Issued
7-032LEP1	CAU.004DE	A METHOD TO CREATE PERSONALIZED CANCER VACCINES	Issued
7-032LEP2	CAU.006DE	A METHOD TO CREATE PERSONALIZED CANCER VACCINES	Issued
7-032LEP2	CAU.006GB	A METHOD TO CREATE PERSONALIZED CANCER VACCINES	Issued
7-032LUS2	CAU.006NP	A METHOD TO CREATE PERSONALIZED CANCER VACCINES	Issued
0-098L-US	CAU.007C1	METHODS AND COMPOSITIONS FOR IDENTIFYING RECOMBINANTS FOR USE IN TREATING AND PREVENTING CANCER	Issued
0-098L-US	CAU.007C2	METHODS AND COMPOSITIONS FOR IDENTIFYING RECOMBINANTS FOR USE IN TREATING CANCER	Issued
5-233LUS2	CAU.008D1	METHODS OF CLASSIFYING RESPONSE TO IMMUNOTHERAPY FOR CANCER	Issued
5-233LUS1	CAU.008NP	METHODS OF CLASSIFYING RESPONSE TO IMMUNOTHERAPY FOR CANCER	Issued
9-105LDV1	CAU.017D1	COMPOUND ARRAYS FOR SAMPLE PROFILING	Issued
9-105LDV2	CAU.017D2	COMPOUND ARRAYS FOR SAMPLE PROFILING	Issued
9-105LUS4	CAU.017D3	COMPOUND ARRAYS FOR SAMPLE PROFILING	Issued
9-105LDE1	CAU.017DE	COMPOUND ARRAYS FOR SAMPLE PROFILING	Issued
9-105LRI1	CAU.017RI	COMPOUND ARRAYS FOR SAMPLE PROFILING	Issued
09-105LE1	CAU.017IE	COMPOUND ARRAYS FOR SAMPLE PROFILING	Issued
09-105L-P	CAU.017P	COMPOUND ARRAYS FOR SAMPLE PROFILING	Issued
2-074LUS	CAU.019NP	METHODS FOR PERFORMING PATTERNED CHEMISTRY	Issued
1-101L-US	CAU.020NP	NON-COVALENT PATTERNED CHEMICAL FEATURES AND USE THEREOF IN MASK-BASED QUALITY CONTROL	Issued
1-102L-CO	CAU.021C1	PEPTIDE ARRAY QUALITY CONTROL	Issued
1-102L-US	CAU.021NP	PEPTIDE ARRAY QUALITY CONTROL	Issued
3-111LAU2	CAU.023AU1	IMMUNOSIGNALING: A PATH TO EARLY DIAGNOSIS AND HEALTH MONITORING	Issued
3-111L-P1	CAU.023P	IMMUNOSIGNALING: A PATH TO EARLY DIAGNOSIS AND HEALTH MONITORING	Issued
3-111L-P2	CAU.023PD1	IMMUNOSIGNALING: A PATH TO EARLY DIAGNOSIS AND HEALTH MONITORING	Issued
0-071L-CO	CAU.036C1	DIAGNOSTIC TO DISTINGUISH BACTERIAL INFECTIONS	Issued

MS-105L	CAU.039A	SYSTEMS AND METHODS OF EPIPTYPE BINNING AND ANTIBODY PROFILING	Issued
1-098L-EP	CAU.007EP	METHODS AND COMPOSITIONS FOR IDENTIFYING NEOANTIGENS FOR USE IN TREATING AND PREVENTING CANCER	Pending
5-233LUS3	CAU.008C1	METHODS OF CLASSIFYING RESPONSE TO IMMUNOTHERAPY FOR CANCER	Pending
8-169L-WO1	CAU.010NP	CANCER SPECIFIC RNA-SHIFT VACCINES	Pending
1-214L-US	CAU.012C1	TRANSFORMATIONAL IMMUNE DIAGNOSTICS	Pending
1-271L-US	CAU.016C1	ANTIBODIES AND METHOD OF PRODUCING ANTIBODIES	Pending
9-248LUS1	CAU.031C1	CANINE CANCER VACCINE	Pending
1-040LUS1	CAU.034C1	EXON 1 RNA-SHIFT ANTIGENS FOR VACCINES, THERAPEUTICS, AND DIAGNOSTICS	Pending
1-040LEP1	CAU.034EP	EXON 1 RNA-SHIFT ANTIGENS FOR VACCINES, THERAPEUTICS, AND DIAGNOSTICS	Pending
	CAU.037EP	BYTOPHAN NEOANTIGEN PEPTIDES FOR DIAGNOSTICS, THERAPEUTICS, AND VACCINES	Pending
	CAU.037NP	BYTOPHAN NEOANTIGEN PEPTIDES FOR DIAGNOSTICS, THERAPEUTICS, AND VACCINES	Pending
	CAU.045NP	NON-CODING RNA PEPTIDE ANTIGENS FOR CANCER VACCINES, THERAPEUTICS, AND DIAGNOSTICS	Pending
	CAU.052WO	METHODS AND COMPOSITIONS FOR REDUCING NON-SMOKER DISEASE	Pending
	CAU.052WO	COMPOSITIONS, SYSTEMS AND METHODS FOR DETERMINING HEALTH STATUS	Pending
6-001LUS2	CAU.003D1	IDENTIFICATION AND USE OF NOVOPEPTIDES FOR THE TREATMENT OF CANCER	PreABA
9-248L-R1	CAU.031R1	CANINE CANCER VACCINE	PreABA
9-248L-P1	CAU.031P	CANINE CANCER VACCINE	PreABA
MS3-073L	CAU.046NP	IN SITU CHEMICAL PATTERNING	PreABA
		Client Name Knowledge Base Title Status	
11-040LPR2	CAU.034PR2	RNA-SHIFT ANTIGENS FOR VACCINES	Unfiled
	CAU.035PR	IMPROVED GENETIC IMMUNIZATION SYSTEM TO BREAK SURVIVAL BARRIER	Unfiled
	CAU.037C1	BYTOPHAN NEOANTIGEN PEPTIDES FOR DIAGNOSTICS, THERAPEUTICS AND VACCINES	Unfiled
	CAU.041PR	IMPROVED MASK-BASED PHOTOLITHOGRAPHY	Unfiled

The Team Behind Calviri



Stephen Albert Johnston, PhD/PhD

| CEO, Co-Founder

- Over 60 patents
- Member of National Academy of Inventors
- Multiple only-in-class inventions
- Invented basis for mRNA vaccines



Kathryn Sykes, PhD

| VP of Research & Prod Devt., Co-Founder

- Started 3 Biotechs / 2 in Arizona
- Patents in both diagnostics and vaccines
- Expert in peptide arrays

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**Together,
Let's End Cancer.**

First dogs, then people

CALVIRI.