

HT Vista

Market education

Agenda

- Background in short
- The Science:
Technology & Study
- The new diagnostic
work-up
- Benefits
- Q&A



By  HTVET

● Our Mission

Saving pet's lives by empowering vets and nurses to rule out and detect cancer at early stages quickly and confidently in their own practice.



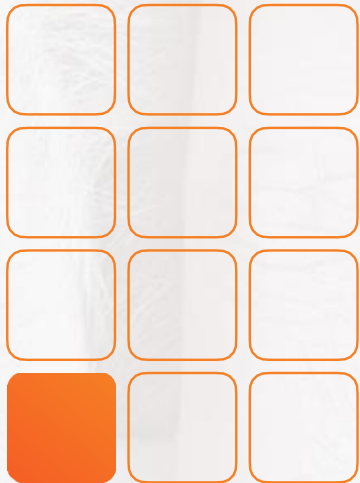
Cancer is the **leading cause of death** in 47% of dogs over the age of 10 years old

**Suspicious
lumps**

10
a week



40
a month



500
a year



Important facts about LUMPS & BUMPS

1. Tumors of the skin and subcutaneous tissues are the most common tumors in dogs, accounting for **one-third of all tumors** encountered in the species.
2. Approximately **1 in 4 dogs** will, at some stage in their life, develop **a tumor**.
3. Almost **half of the dogs over the age of 10** will develop **cancer** (malignancy).
4. Even the most experienced veterinarian or oncologist cannot look at or palpate a mass and know whether it is malignant or not.
5. Only 60% of detected masses are sampled (USA) > 20% get a non-diagnostic result

6. **Guidelines:** All skin and SQ masses that are **>1 cm** should be aspirated for cytologic evaluation.
7. **In veterinary medicine, most skin and subcutaneous tumors can be cured with surgery alone if diagnosed early when tumors are small.**
8. Today, means of diagnosis are cytology (FNA) and histopathology (Biopsy).

FNA

- Only 60% of the masses sampled
- 20% non-diagnostic
- No immediate customer satisfaction
- Expensive
- Invasive
- Time consuming



HT Vista is the **first non-invasive medical screening device** that empowers vets & nurses to rule out subcutaneous & dermal cancer on the spot in their own practice.

What is a screening test?

- **A screening test is done to detect potential health disorders or diseases.**
- The goal is early detection, to reduce the risk of disease, or to detect it early enough to treat it most effectively

A Good Screening Test

High negative predictive value

- The likelihood that a negative test result is truly negative
- $\text{True negative results} / \text{Total negative}$

(a benign result = benign tumor)

High sensitivity

- The ability to determine positive results correctly
- $\text{True positives} / \text{Total positives results}$

(detect malignant tumors)

WE DON'T WANT TO SEND HOME A PATIENT WITH CANCER

HT Vista

- Target audience: **General practitioners**
- Positioning in the diagnostic procedure: **First line screening test**



Technology

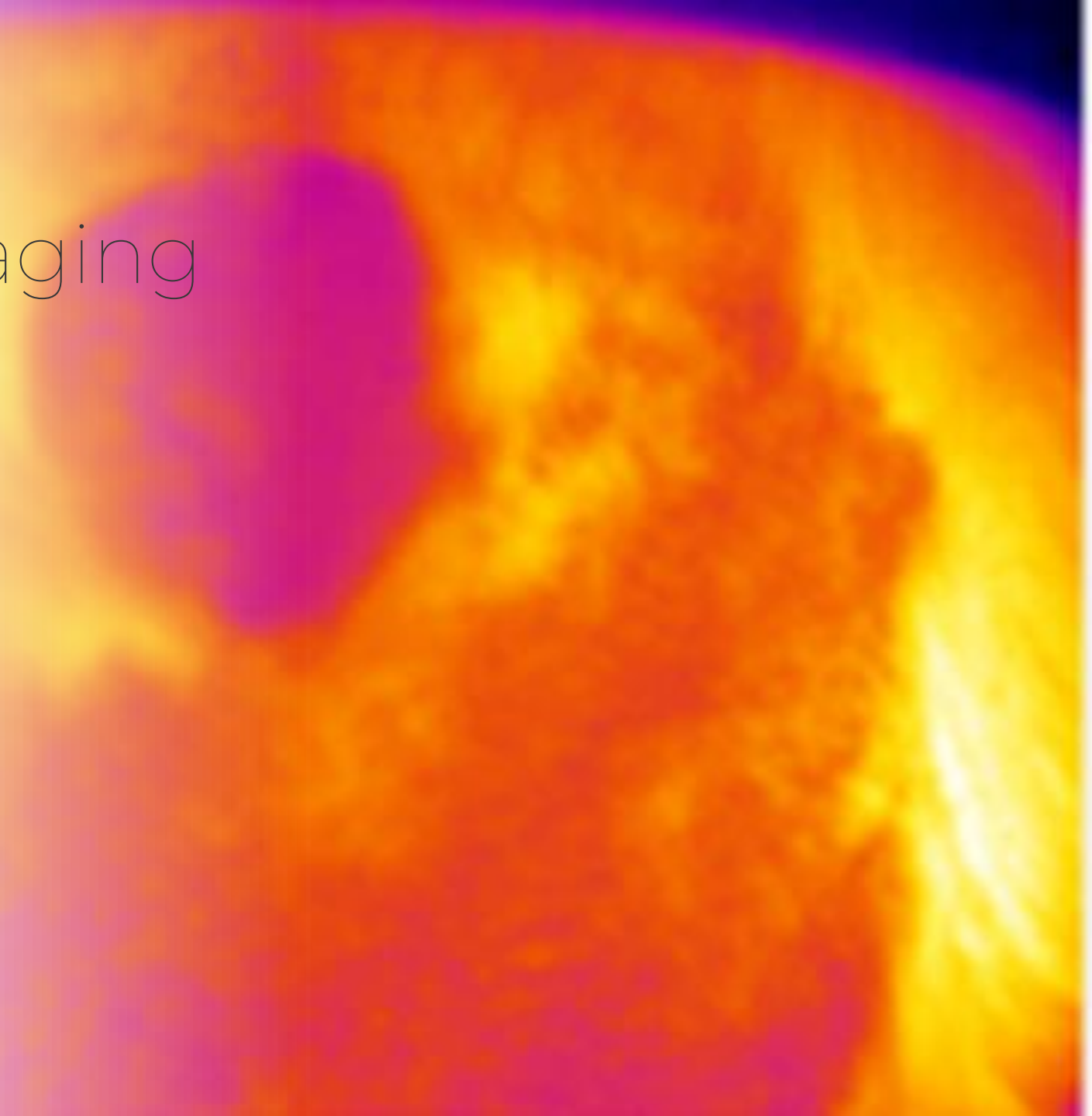


Study

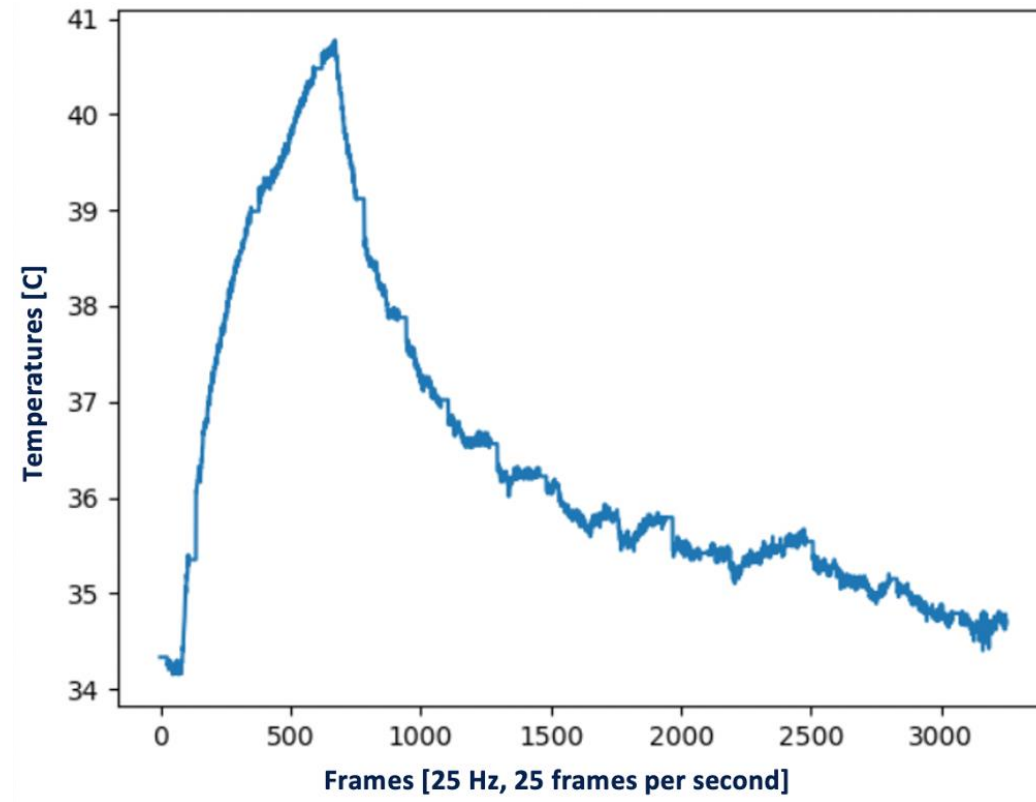


The technology: Heat Diffusion Imaging

- Dynamic imaging:
 - 50 sec scan > results in a few minutes depending on WIFI connection.
- Use buzz words:
 - Heat diffusion imaging
 - Patented technology
 - Artificial intelligence
 - Computer vision
 - Signal analysis

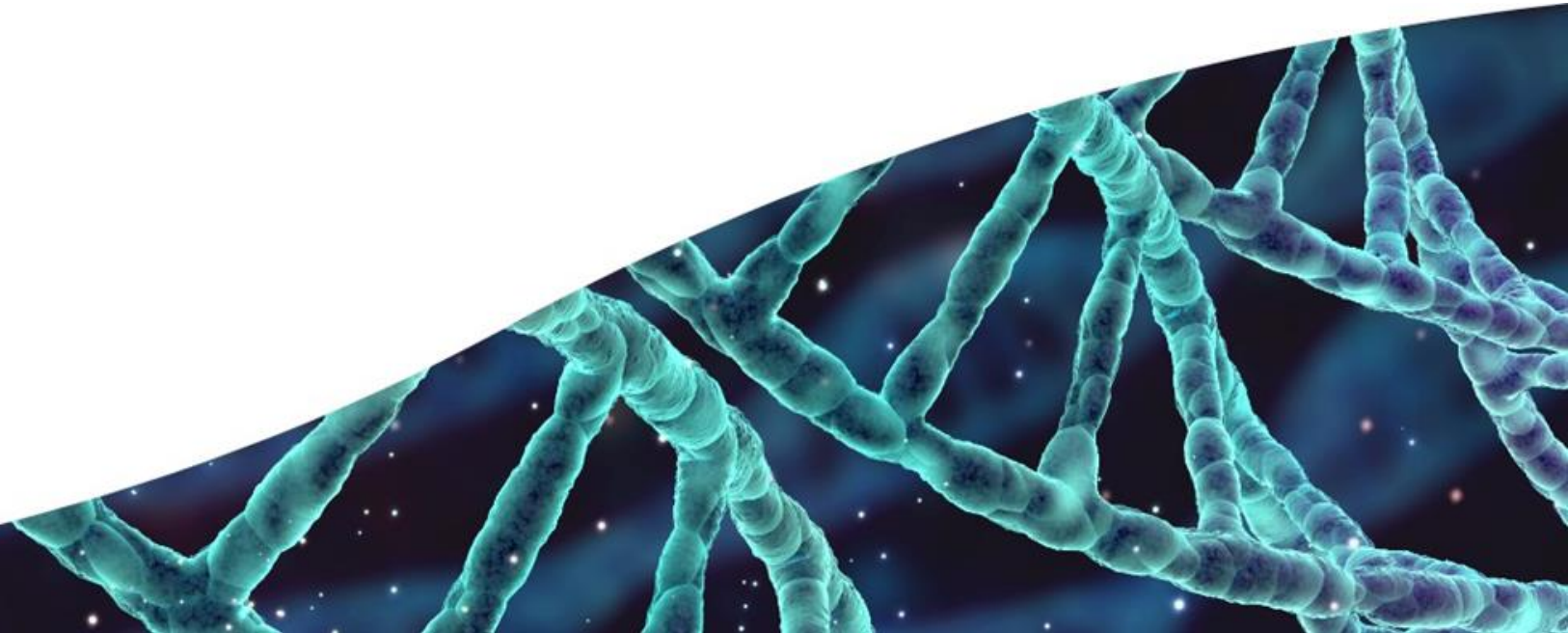


Example Signal



The Physiological Rationale Behind The Technology

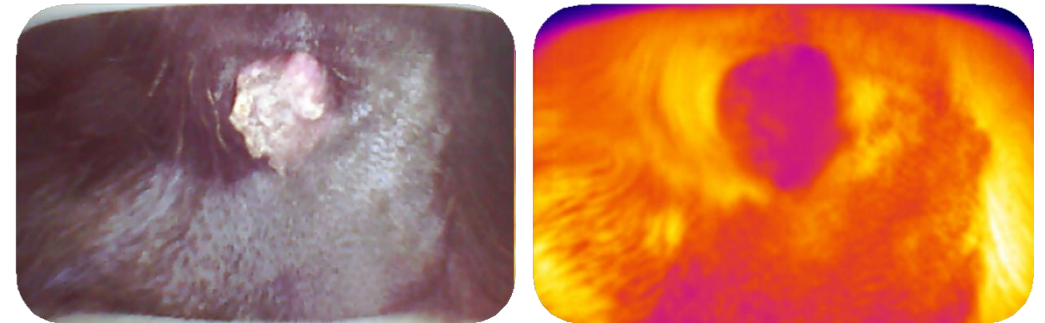
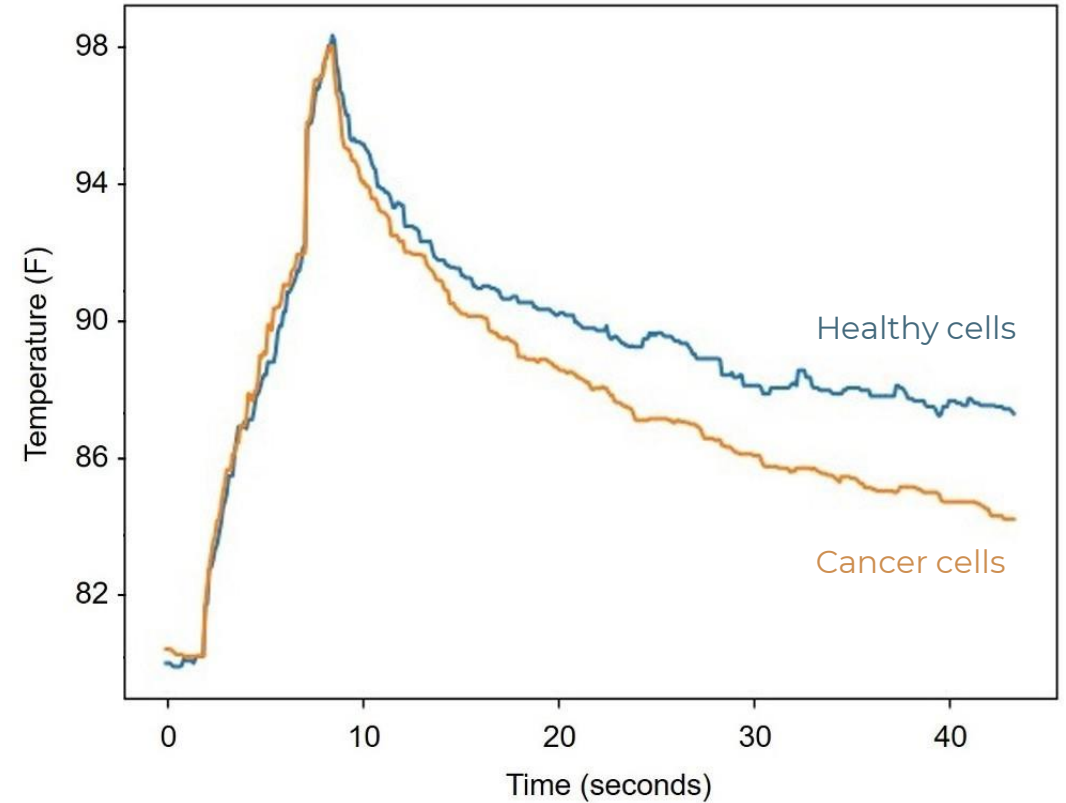
- Based on the tissue's response to thermal excitation over a short period of time
- Healthy and malignant tissue have different physical characteristics
- Thermal Diffusivity in living tissues is based on:
 - Density
 - Thermal conductivity
 - Metabolism
 - Vascular network
 - Heat capacity



Our Algorithm

Heating and Cooling

- The Led heats the tissue
- Then the device records how different marked areas heat and cool



HT Vista scan

2 min overall test time



HTVista

Further investigation
is recommended



he mass appears
to be **benign**



Cooper
Smith

ID No. 4567234

Sex: Male

Age: 10

Breed: Labrador

Mass area

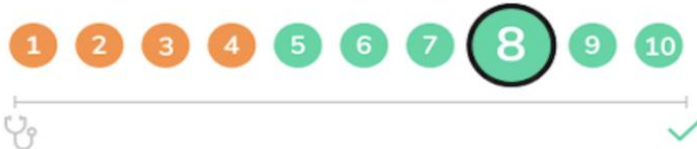
Left ventral neck

Scan ID

13001

Date and time

2021-03-18 10:43:36



Further investigation
is recommended.

**The mass appears
to be benign.**

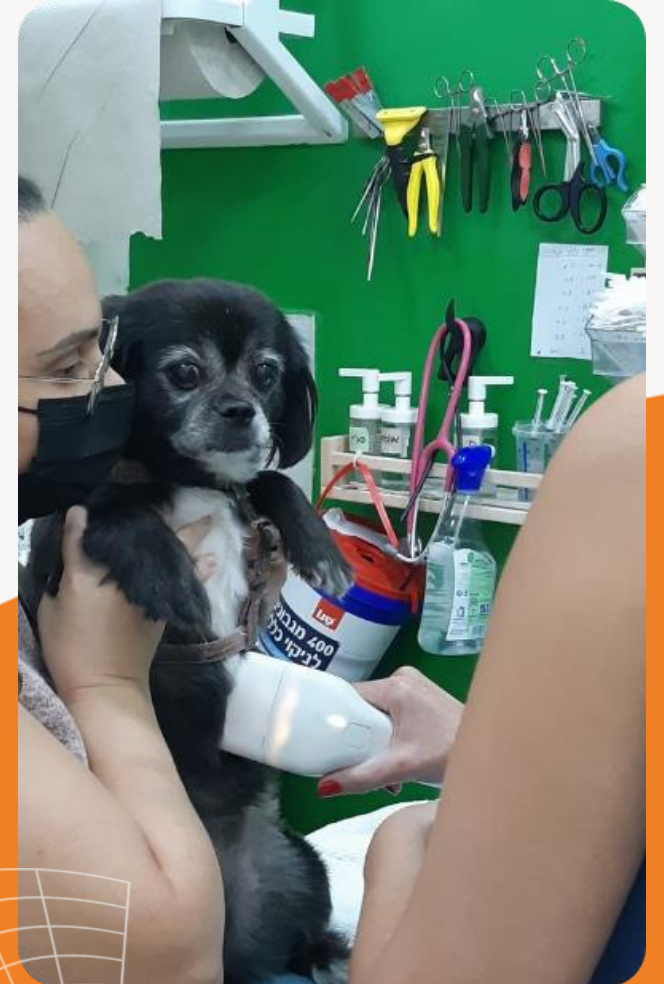
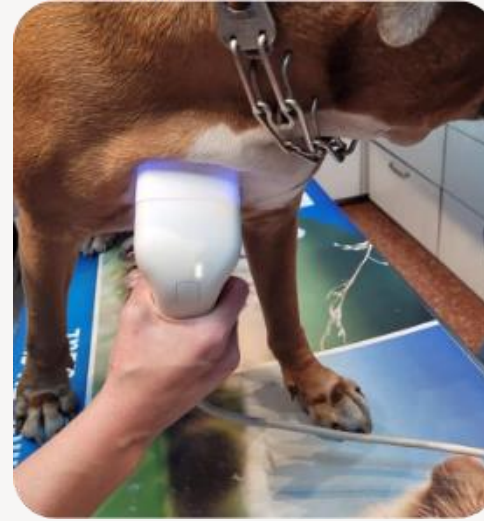


*Please take into consideration that the HTVET System is not intended to provide a diagnosis but rather to be used as a decision support tool. Please consult with the veterinarian to understand the clinical interpretation.

Validation Study

A prospective validation study was held from November 2021 to July 2022 at veterinary clinics in Israel.

525 masses were scanned with the HT Vista, aspirated or biopsied, and sent to laboratories for diagnosis.



Validation Study - Results

				Predicted results
True results		Malignant	Benign	Total
	Malignant	45 [TP]	8 [FN]	53
	Benign	125 [FP]	253 [TN]	378
	Total	170	261	431

Evidence

HT Vista - tested on **THOUSANDS** of dogs

85%

Sensitivity

70%

Specificity

71%

Accuracy

25%

PPV

98%

NPV

The high Negative Predictive Value gives confidence in ruling out cancer.

*Based on a validation study done on approximately 400 dogs in community clinics

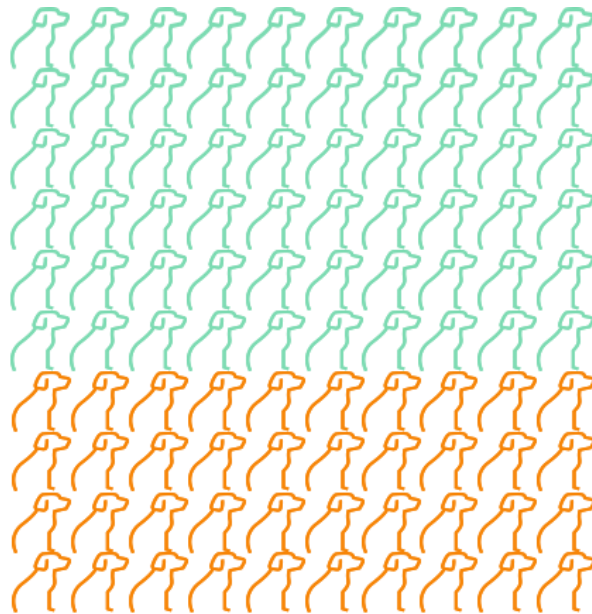
HT Vista: Statistics Made Simple

60%
Benign

5 6 7 8 9 10

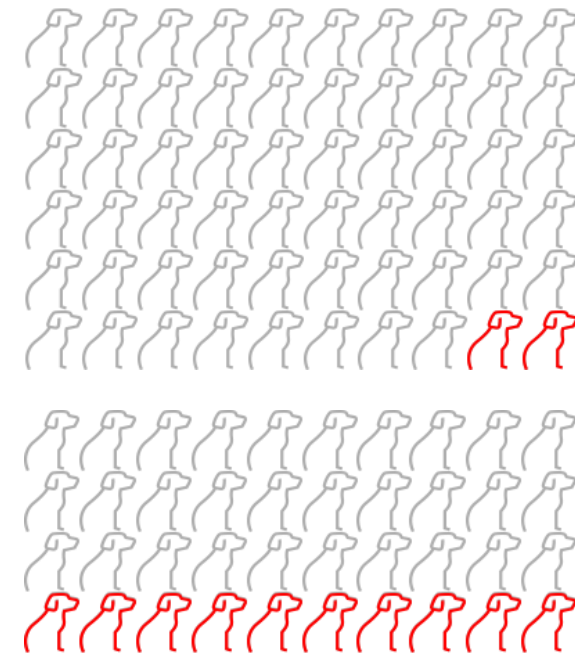
40%
Further
Investigation

1 2 3 4



Patient can go home

Cytology / biopsy



98%
Benign

25%
Malignant

HDI Score

Further investigation is recommended



The mass appears to be **benign**

5-10 score: the mass is benign, with a 98% certainty and increasing probability.

1-4 score:

- **Further investigation is recommended**
- **This doesn't necessarily mean the tumor is malignant.**
- The device couldn't determine with 98% certainty whether it is benign

The new diagnostic work-up



HT Vista Scan of Suspected Mass

HDI result 5-10 ✓

The mass appears to be benign

No need for further
diagnostics. Probability of
98% that the mass is benign

HDI result 1-4 ⚠

Further investigation recommended

FNA recommended

Malignant

Treat according
to diagnosis

Benign

Follow up based on
clinical judgment

Non-diagnostic result

Consider incisional/
excisional biopsy

HTVista

Case Study - Stella

- Signalment: 10y, female Beagle.
- History: The owner noticed several lumps. One of them itches.
- Physical examination: Three SC lumps on the right thorax and right axilla.





Lipoma

Stela
ID No. 16843
Gender: Female
Age: 9
Breed: Beagle

HT_VET_201

Mass area: **Right stifle** Test ID: 333 Date and time: 24-01-2022 04:18:00

HDI score: 1 2 3 4 5 6 7 8 9 10

Further investigation recommended. The mass appears to be benign.

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Lipoma

Stela
ID No. 16843
Gender: Female
Age: 9
Breed: Beagle

HT_VET_201

Mass area: **Right thorax** Test ID: 332 Date and time: 24-01-2022 04:13:14

HDI score: 1 2 3 4 5 6 7 8 9 10

Further investigation recommended. The mass appears to be benign.

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Mast Cell Tumor

Stela
ID No. 16843
Gender: Female
Age: 9
Breed: Beagle

HT_VET_201

Mass area: **Right axilla** Test ID: 331 Date and time: 24-01-2022 04:09:39

HDI score: 1 2 3 4 5 6 7 8 9 10

Further investigation recommended. The mass appears to be benign.

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What are the benefits?

Veterinarian



Owner





Improved patient outcomes

Convenient screening test encourages earlier evaluation of masses allowing more timely intervention



Portable

Fits with any clinic workflow and makes screening easy for staff and patients



Non-invasive

A needless platform ensures a stress and pain free experience for the patient and less work for the staff



98% Negative Predictive Value (NVP)

Experience peace of mind when communicating a benign result to the pet owner



Easy to use

Intuitive platform means easy staff training and integration



Fast

Real-time analysis provides immediate results and facilitates discussion on next steps



Point-of-care analysis and results

Enables objective decision making regarding the need for further diagnostics and/or management



Affordable

A cost-effective screening tool to add to your diagnostic offerings



Improve compliance

Increase acceptance of recommended treatment plans with screening during the patient's visit



Customer Success

- HT Vista distribution dashboard (Retool)
- Weekly internal meetings to discuss clinics status
- Routine visits to clinics

Dierenkliniek Sint Michielsgestel x										
Start date - End date										
2										
< 1 of 1 >										
HTVET_0069	Dierenkliniek	Natasja Szulili	Scan Timestamp	Pet Name	Case ID	Breed	Gender	Age	Area	HDI Score
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 12, 2022 8:31 PM	LIZZY LOMMI	14220	Mixed	F	6	Left tail base	1
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 12, 2022 8:27 PM	LIZZY LOMMI	14220	Mixed	F	6	Left tail base	10
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 12, 2022 8:22 PM	LIZZY LOMMEN	14220	Mixed	F	6	Left perianal	10
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 12, 2022 8:18 PM	LIZZY LOMMEN	14220	Mixed	F	6	Left tail base	1
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 8, 2022 3:26 PM	Freya	12345	Australian Shepherd	F	2	Mid abdomen	1
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 6, 2022 8:15 PM	COOPER WAC	13026	labradoodle	MC	10	Right thorax	1
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 6, 2022 8:11 PM	COOPER WAC	13026	labradoodle	MC	10	Caudal abdor	10
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 6, 2022 3:38 PM	Jill van der St	12542	Kleine Munsterlander	FS	11	Right stifle	4
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 6, 2022 3:32 PM	Jill van der St	12542	Kleine Munsterlander	FS	11	Right distal hi	10
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 6, 2022 3:29 PM	Jill van der St	12542	Kleine Munsterlander	FS	11	Right stifle	1
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 6, 2022 3:25 PM	Jill van der St	12542	Kleine Munsterlander	FS	11	Right proxima	8
HTVET_0069	Dierenkliniek	Natasja Szulili	Sep 1, 2022 7:34 PM	setup	123	Australian Cattle Dog	M	3	Left proximal	5

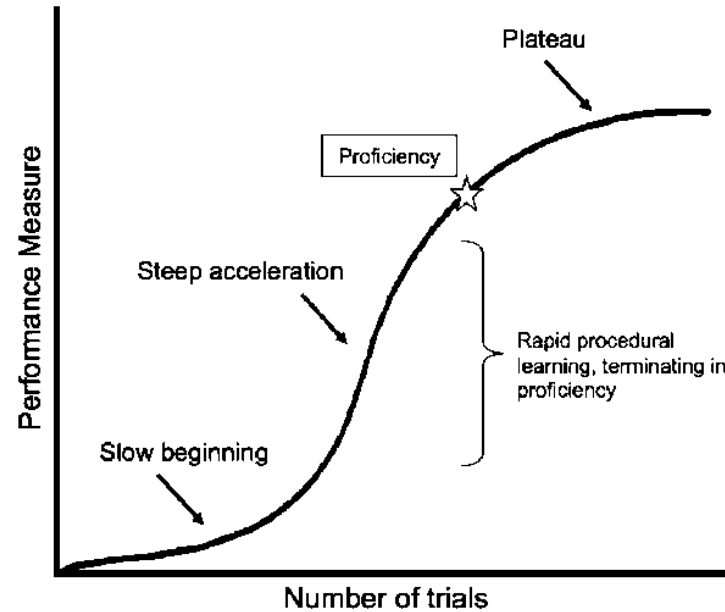
Ongoing market education

- Repeat training
 - In cases of low-quality scans
 - New employees
 - High-frequency support
 - Qualification process
- “Scans day” – with/without distributors’ involvement
- Raise customer awareness (testimonials, social media campaigns, email blasts, promotion of Geriatric panels...)

Average Scan's Quality - Tali's Scale



The expected learning curve



- Use a good shaver
- HTVet team will follow the first 5 scans quality (per user) and will send feedback to improve scanning skills
- HTVet Support: Technical, Clinical, Marketing



Do's

- Focus on the product benefits that answer the specific client's pain points.
- Make sure the user understands 1-4 **DOESN'T MEAN** cancer
- Make sure user understands that the result should be aligned with their clinical judgment
- Explain the expected "Learning curve"



Don'ts

- Avoid the phrase "Malignant or Benign"
- Avoid referring to a 1-4 result as "suspicious", or a potential False positive



I can perform cytology to diagnose a lump as malignant or benign on my own. Why do I need a device for this purpose?

- HT Vista is not designed to replace cytology.
- HT Vista is a screening tool
- Decision support tool
- The HT Vista answer is provided within minutes while the owner is there, enabling the Veterinarian to continue diagnostics during the same visit.

Which lesions can the HTVista scan?

As a ground rule, if you can palpate it – you can scan it!

The HT Vista can scan cutaneous and subcutaneous lesions as small as half a centimeter in size and up to half a centimeter deep.

I received a result that recommended further investigation (1-4); however, when I did a fine needle aspirate or biopsy - the tumor was benign.

- The HT Vista is a screening tool designed to rule out malignancy in dermal and subcutaneous lesions in dogs.
- If the device cannot state that the mass is benign with 98% confidence, it will suggest further diagnosing of the mass. Therefore, **some benign tumors are expected to be scored between 1 and 4.**
- Low-quality scans may end up with a 1-4 result (learning curve, practice makes perfect)

What should I do if I think the mass should be aspirated, but the result is HT-negative (5-10)?

- If a dog has a very suspicious or fast-growing mass and you're sure it should be aspirated, proceed straight to cytology.
- Use HT Vista for all the cases where you need to decide if and how to continue with the diagnosis process.

I received **benign results on the scan (5-10)**; however, when I did a fine needle aspiration or biopsy - the tumor was **malignant**.

- These types of mistakes are rare.
- There is a 98% probability of a mass being benign if the results are between 5 and 10.
- **The scan could be affected by improper clipping or too much movement (learning curve).**
- If you find that the scan gave you a false negative result, contact the support team and send the scan number and the patient's ID.

Clinical Partners



Distributors Worldwide



Business Model

HT Vista is sold for cost-price
Pay per service



Questions

