

# 寵物健康照護

oDS-Vet GK 血糖血酮量測系統 (貓狗牛)

景賀科技股份有限公司  
亞蘭斯國際股份有限公司



# DS-Vet GK 血糖血酮量測系統



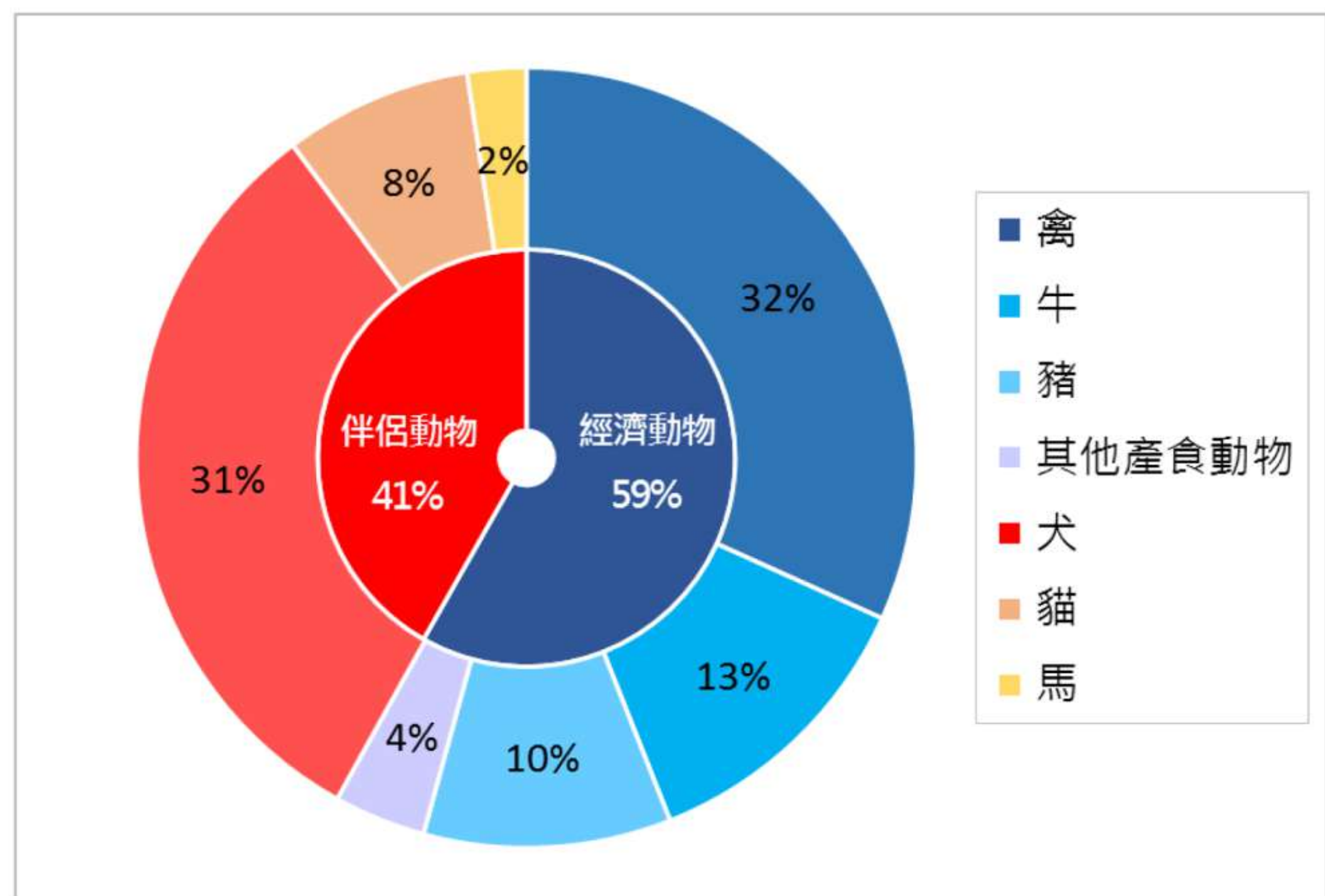
- 一機雙測試
- 動物專用
- 只需要微量血液
- 貓狗牛兼容
- 試片保存效期長





# 動物檢測市場

- 分為經濟動物與陪伴動物。
- 經濟動物以禽類、牛、豬為大宗，整理佔比超過50%。
- 陪伴動物以犬、貓為最主要，佔比達40%。



圖二：2013 年全球動物檢驗試劑市場

Food and Agriculture Organization of the United Nations <http://www.fao.org/home/en/>



Serum Biochemical Reference Ranges

Measure	Units	Dog	Cat	Cow	Horse	Pig	Sheep	Goat	Rabbit	Llama	Vietnamese Potbellied Pig	Ostrich
In Conventional (USA) Units												
Glucose	mg/dL	76–119	60–120	40–100	62–134	85–150	50–80	50–75	75–155	103–160	59.8–175.2	187–247

動物血糖  
參考數值





## 動物血糖血酮

- 狗的好發比例：1/300
- 貓的好發比例：1/230
- 體重下降、口渴
- 一直有食慾、頻尿
- 眼睛混濁 (cloudy eye)
- 精神不濟
- 酮酸中毒





# 酮酸血症

「酮酸血症」便是當大量的酮酸累積在血液中，最終造成代謝性酸中毒，產生很多危及生命跡象的症狀。

根據研究，多數酮酸血症的貓咪都是發生在新發現有糖尿病的貓！

因此若家貓初次被診斷有糖尿病，必須提高警覺此併發症的發生。

## 控制及管理 犬貓糖尿病

可以怎麼做？



# 乳牛酮症

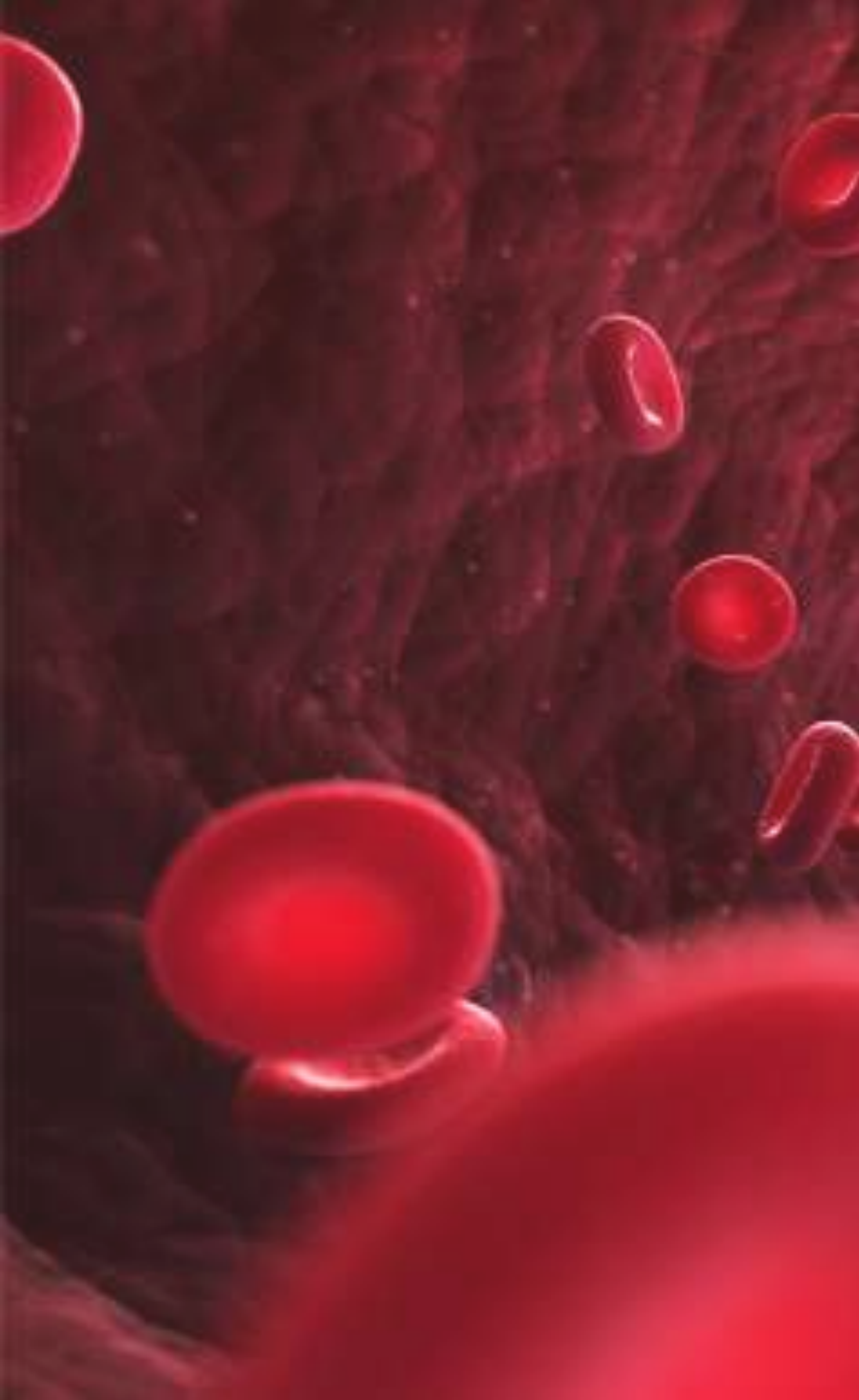
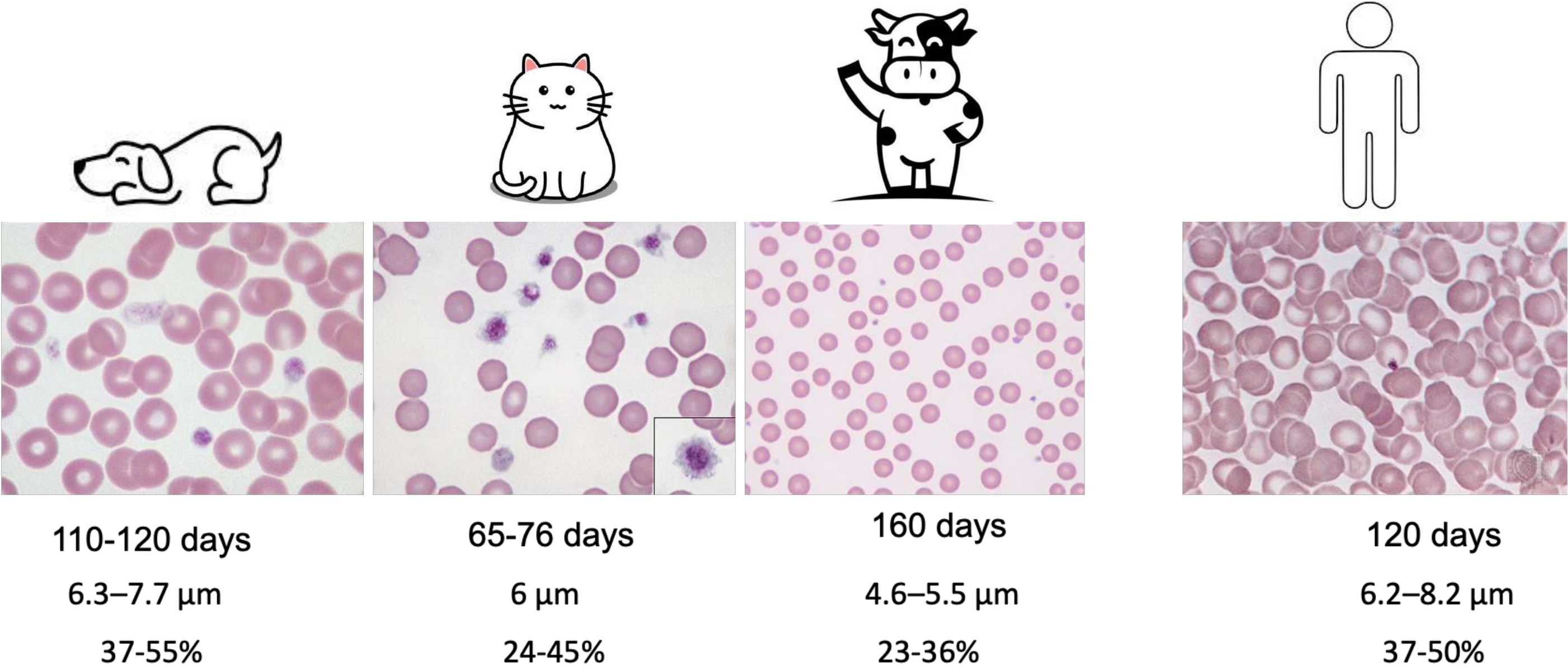
- 乳牛的好發症之一
- 新陳代謝的疾病
- 造成乳牛產乳量下降
- 生育率下降
- 酪農的經濟損失





# 選用動物專用機種的理由

- 各種動物的血液組成都是特殊，特別的
- 專用機種針對該種類建立專用的演算法





# 建議 採血 部位





臨床  
驗證

**佳恩動物醫院**

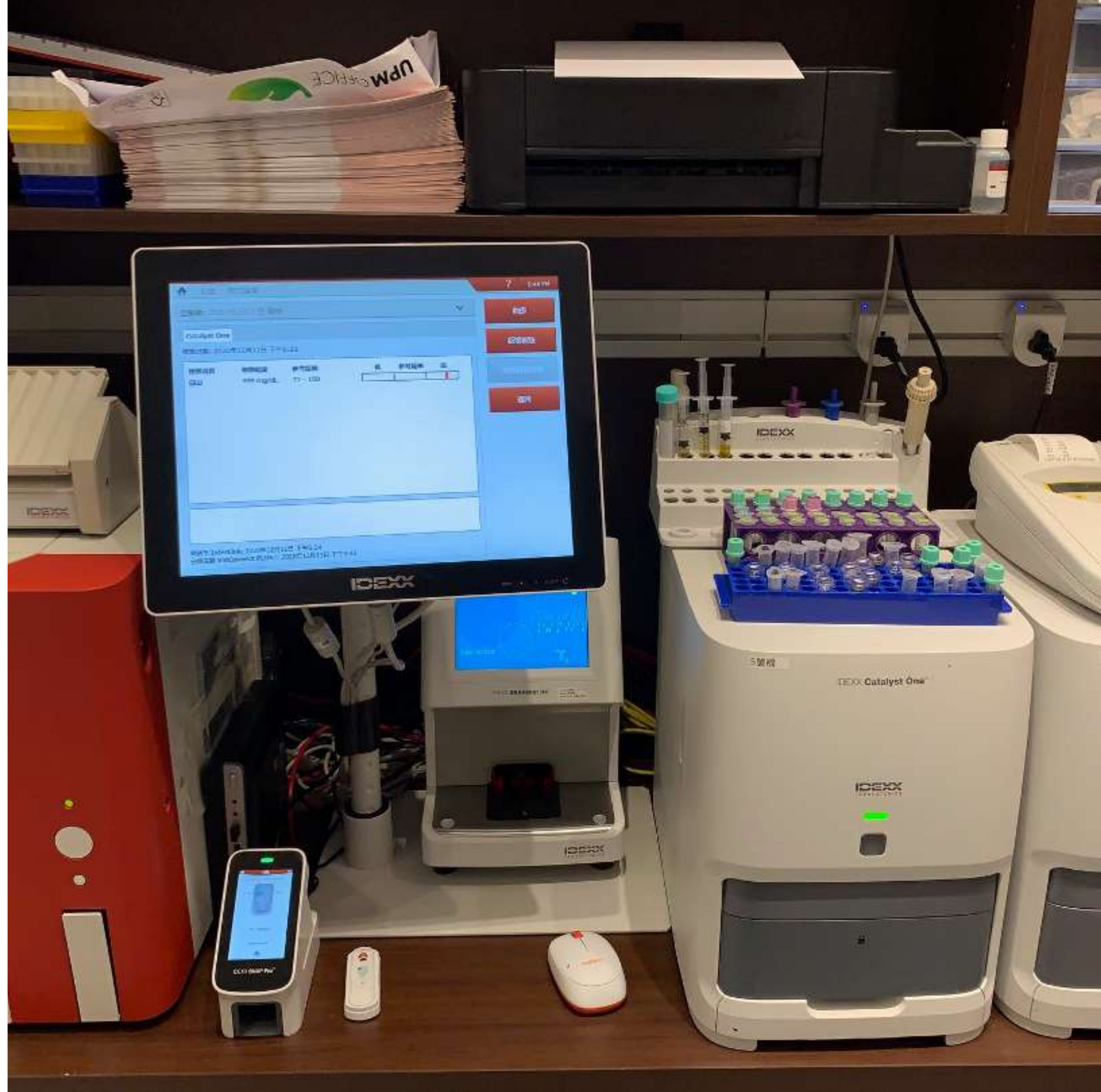
提供動物們最高等級的醫療照護





# 標準的生化比對機

- IDEXX生化機
- 合格獸醫師親自比對
- 現場臨床驗證
- 寵物友善環境





# 台大動物科學系

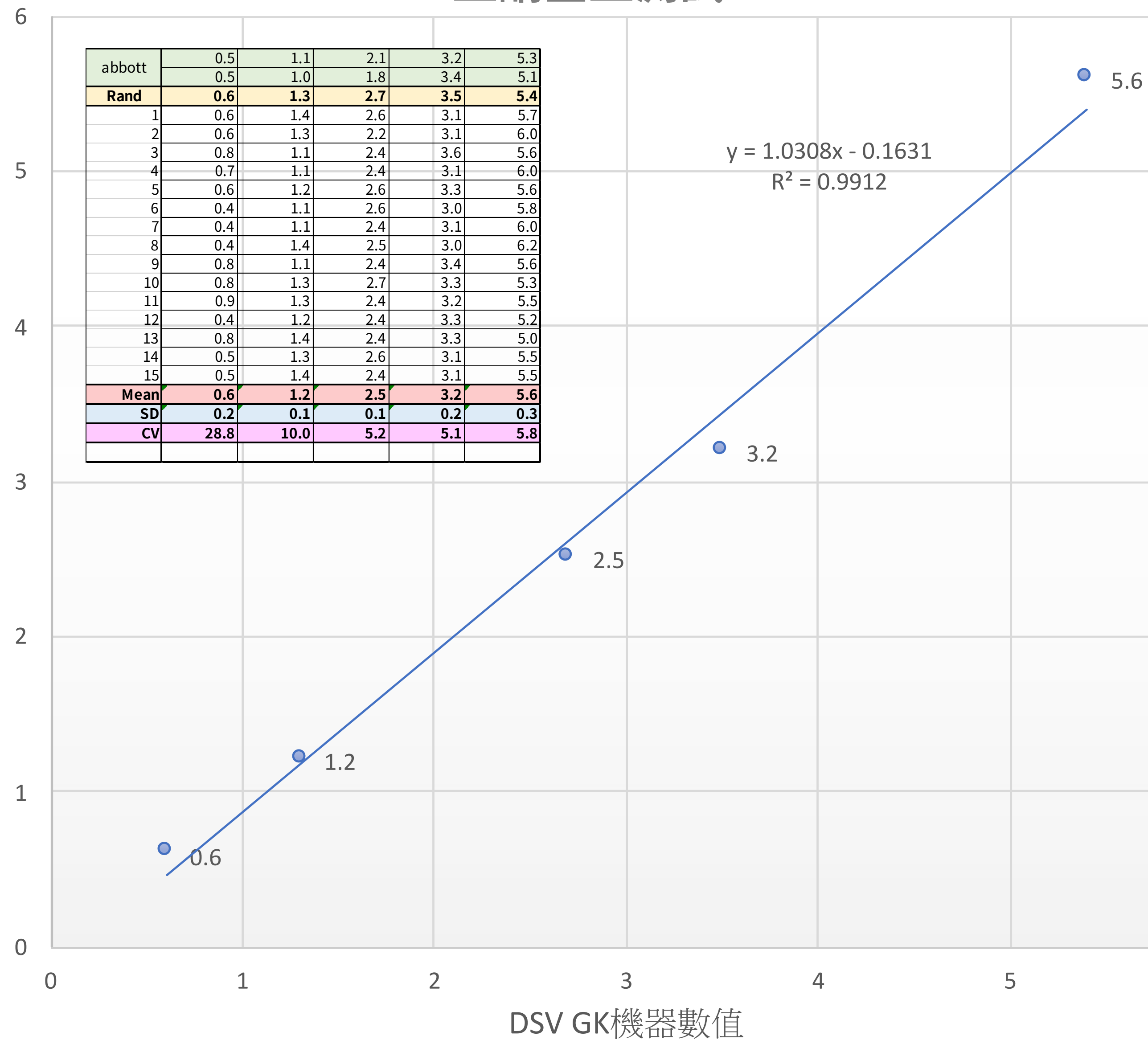
- 乳牛血液實測
- 台灣大學產學合作
- 牧場驗證
- 生化分析儀比對





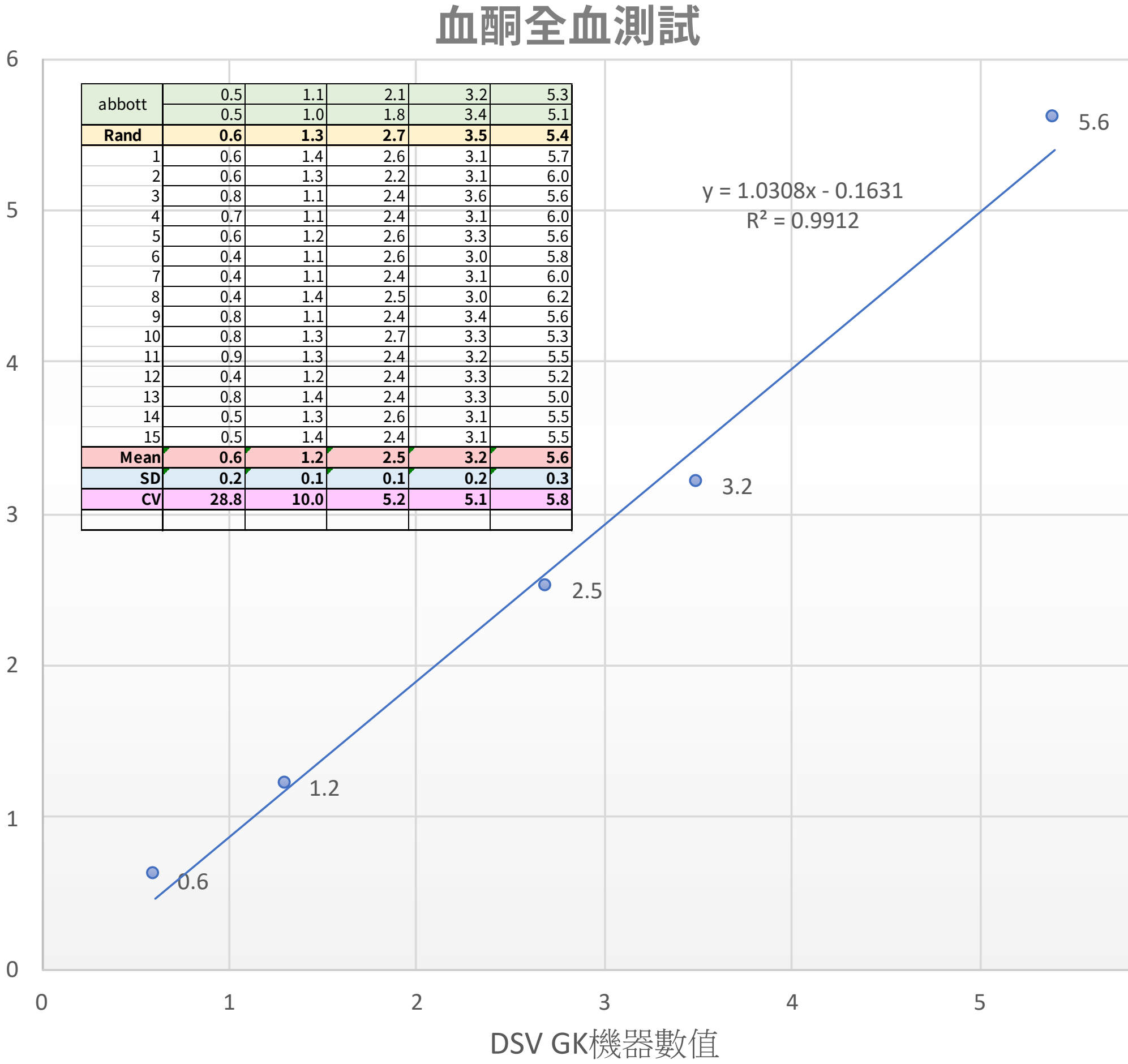
# 使用牛血樣搭配多濃 度血酮測試

## 血酮全血測試





# 牧場測試



使用牛血樣搭配多濃度血酮測試





# 產品實照







# 動物健康進階到「精準量測」

參數指標進入數字精準化的時代

同時，專用機的產生，給予動物健康更高的標準

目標提供設獸醫師快速的診斷依據，提供家用簡單有效的測試方式

我們為動物的檢測提供進階的解決方案



# DS-Vet GK

## Blood Glucose & Ketone Monitoring System

Thank you for choosing the **DS-Vet GK** Blood Glucose & Ketone Monitoring System. The **DS-Vet GK** Glucose & Ketone Monitoring System will provide accurate blood glucose and ketone results from fresh whole bloods samples in just a few simple steps.

The **DS-Vet GK** Blood Glucose & Ketone Monitoring System is intended for use outside the body for Feline, Canine and Bovine. Please follow these guidelines:

Do use **DS-Vet GK** Blood Glucose & Ketone Meter for:

- Animal use only.
- Testing with fresh capillary or venous whole blood.
- Testing with fresh whole blood collected in a syringe or tube with EDTA or heparin anticoagulant if testing within 10 minutes.

**DO NOT** use **DS-Vet GK** Blood Glucose & Ketone Meter for:

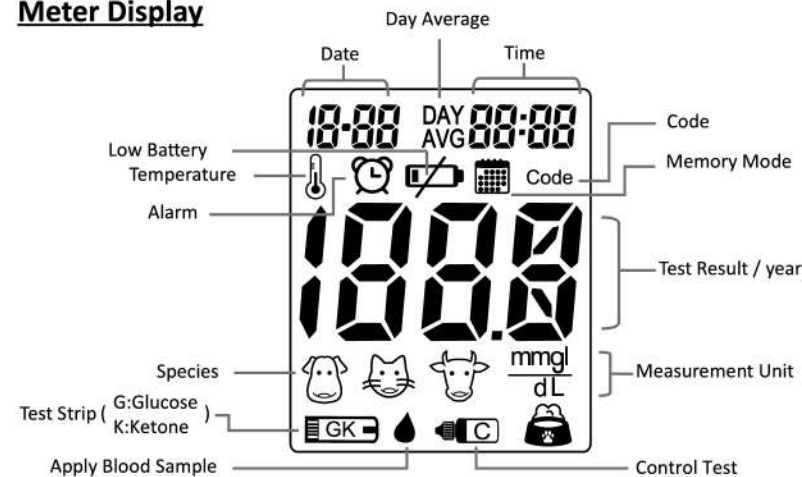
- Testing of arterial blood
- Testing with serum
- Testing with plasma

### IMPORTANT:

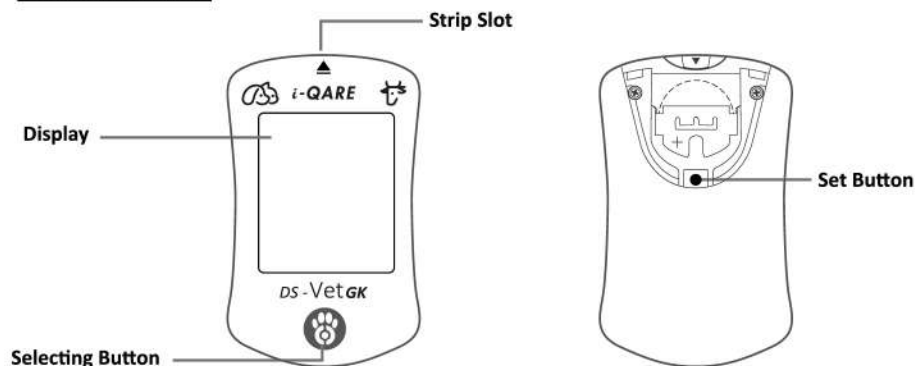
Please read all the instructions provided in this user guide and practice the testing procedures before using the **DS-Vet GK** Blood Glucose & Ketone Meter.

## A. Getting Started

### Meter Display



### Glucose Meter



### IMPORTANT :

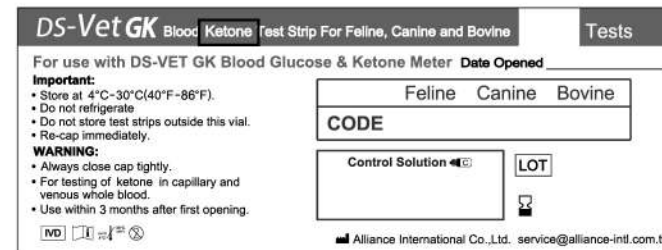
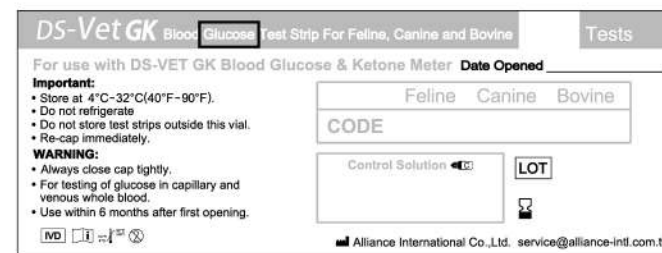
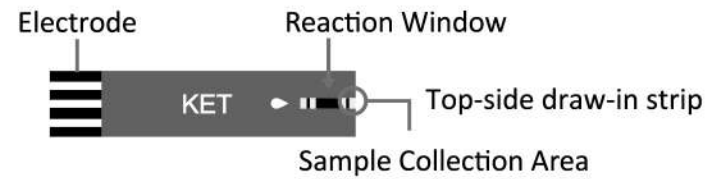
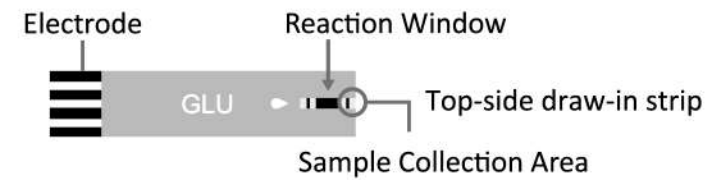
#### Meter Use and Precaution

- The meter is pre-set to display blood glucose concentration in either millimoles per liter (mmol/L) or milligrams per deciliter (mg/dL) depending on which unit of measure is standard in your country. This unit of measure cannot be adjusted.
- The meter is pre-set to display blood  $\beta$ -ketone concentration only in millimoles per liter (mmol/L).
- **DO NOT** get water or other liquids inside the meter.
- Keep the strip slot area clean and dry.
- Keep the meter dry and avoid exposing it to extremes in temperature or humidity. **DO NOT** leave it in your car.
- **DO NOT** drop the meter or get it wet.
- **DO NOT** take the meter apart. Taking the meter apart will void the warranty.
- Refer to the **Caring for the Meter** for details on cleaning the meter.
- Keep the meter and all associated parts out of reach of children.

Note: Follow proper precautions and all local regulations when disposing of the meter and used batteries.

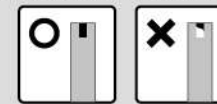
## DS-Vet GK Blood Glucose & Ketone Test Strips

**DS-Vet GK** Blood Glucose & Ketone Test Strips work with the **DS-Vet GK** Blood Meter to measure the Glucose & Ketone concentration in whole blood.



### IMPORTANT:

Apply sample only to the Sample Collection Area of the test strip. **DO NOT** apply blood to the top surface of the test strip, this may result in an inaccurate reading.



## B. Installing Battery

When the battery symbol appears or the "E-b" shows on the meter display, please replace a new battery.

1. Press & slide the battery cover.
2. Remove the old and replace a new one followed by + and - signs.
3. Push the top of the battery until it is firmly positioned and replace the cover on top.



## C. Setting Up Your Meter

Set the correct date, time and alarm (optional). If replace the battery, you should check the time and date.

1. With meter off, press **SET Button** for 3 seconds to access or insert a battery to **Setting Mode**.



### 2. Set Year

- Press until the desired year is displayed. (Only show the last two digits of the year, e.g. 2021=>21).
- Press **SET Button** to confirm.



### 3. Set month

- Press until the desired month is displayed.
- Press **SET Button** to confirm.



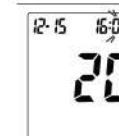
### 4. Set day

- Press until the desired day is displayed.
- Press **SET Button** to confirm.



### 5. Set hour

- Press until the desired hour is displayed.
- Press **SET Button** to confirm.



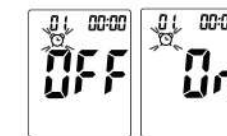
### 6. Set minute

- Press until the desired minute is displayed.
- Press **SET Button** to confirm.



### 7. Set beep sound

- Press to select ON or OFF.
- Press **SET Button** to confirm.



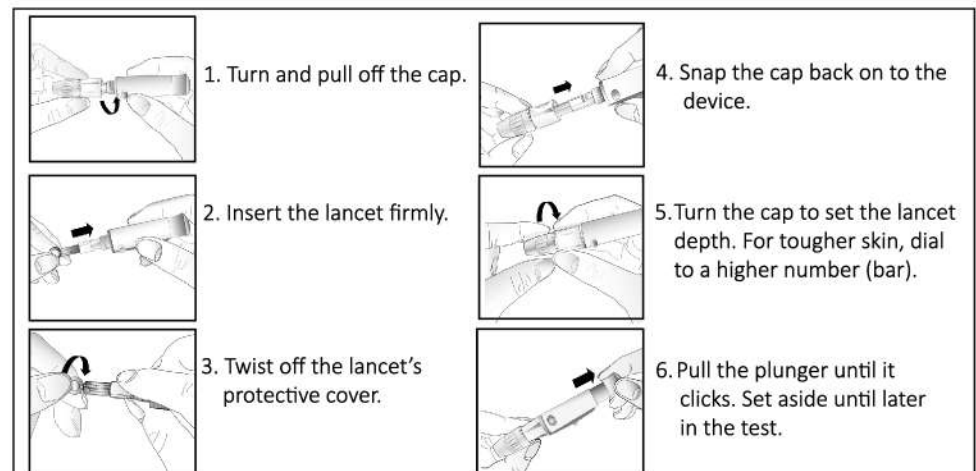
### 8. Set alarm

- Press **SET Button** to set the alarm.
- Press to select ON or OFF. The meter provides 4 sets of alarms.
- Press **SET Button** to confirm.
- 4 sets of alarms are provided.



9. Press **SET Button** to turn off.

## D. Preparing for your Lancing Device



### IMPORTANT :

- Lancet is for single use only. Use a new and sterile lancet to perform test.
- Keep lancing device clean.
- Be cautious when removing the used lancet from and when disposing the used lancet.
- The lightest depth setting is the lowest number on the setting.
- Try different settings to find out which is suitable for use.



E. Coding Meter Before Testing ( IMPORTANT )

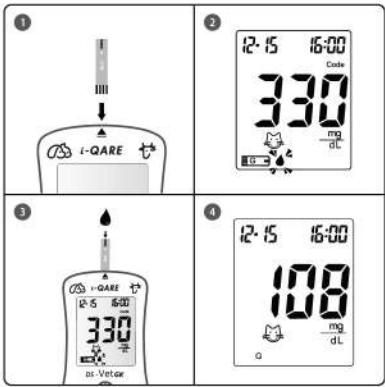


With the meter off, insert the code card (example for Feline in the picture) denotes the species of animal you are going to test into the test strip slot. Please make sure the number on the code card matches the code on your display and test strip vial label. The display show, the code number 330 , the species  , strip type  and unit  $\frac{mg}{dL}$  . The display will show “OK” with removing the code chip, and the type of test coding process is done.

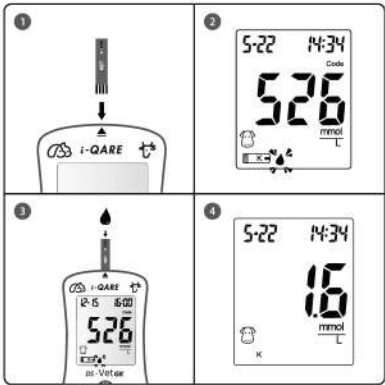
F. Perform Test

The test strips are for single use only.

Select the test site.  
Wash your hands and the test site with warm water and dry them thoroughly.  
(Test Sites: the marginal ear vein; paw pad in cats and dogs; leg callus, usually dogs, inner or outer lip, dogs only. Consult your veterinarian the suitable site for your pet.



- Take a glucose test strip from vial and recap immediately and tightly.  
**Note:** The meter turns off after 3 minutes of inactivity. Reinsert the unused test strip to restart the meter.
- The meter is waiting for the blood sample while the blood drop icon is flashing.  
The code number appears with denoted species, date, time, and unit (if not, please code your meter).
- Apply the blood sample to the sample collection area of the test strip, and the meter will perform the measurement.
- For glucose test, the meter will count down from 5 to 1, and then display the measurement result. The result will display on the screen, along with species symbol, G = Glucose, unit, date, and time.




- Take a ketone test strip from vial and recap immediately and tightly.  
**Note:** The meter turns off after 3 minutes of inactivity. Reinsert the unused test strip to restart the meter.
- The meter is waiting for the blood sample while the blood drop icon is flashing.  
The code number appears with denoted species, date, time, and unit (if not, please code your meter).
- Apply the blood sample to the sample collection area of the test strip, and the meter will perform the measurement.
- For ketone test, the meter will count down from 10 to 1, and then display the measurement result. The result will display on the screen, along with species symbol, K = Ketone, unit, date, and time.

**IMPORTANT:**  
1. The meter’s operating range: 10°C - 40°C (50°F - 104°F).  
2. Always check the code number on the screen that matches the code number on the vial and denoted species before testing. Code your meter with coding section if not.

G. Meter Memory

The **DS-Vet GK** Blood Glucose & Ketone Meter can store up to 600 test results for glucose and ketone. You can review the individual or average test results by entering the memory mode. The meter also calculates and displays 7, 14, and 30-day glucose averages.

1. Press and hold  for 1 second to enter Memory mode.

7 DAY


238

14 DAY

188

30 DAY

125


2. Press  to view 7, 14, 30-day averages and all stored results.

01

168

168

mg/dL


3. Press  to view all stored results. The first recent result appears first after 7, 14, 30-day average.

01

168

168

mg/dL

4. Press  to turn off the meter.

Date, Time

Memory icon

Testing value

Unit

Species

Glucose

The number of result

Notes :





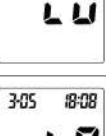


The meter will shut down automatically without any further action after 2 minutes.

H. Clean the Meter

Avoid getting dirt, dust, blood, Control solution or liquid in the meter test strip, please clean the outside of the meter by using a damp cloth and:  
•Mild detergent/soap and water, or  
•70% isopropyl alcohol (available in the USA)


**IMPORTANT:** Do not immerse the meter in water or other liquid.

I. Troubleshooting

Message on Display	Causes	Solutions
	Battery exhausted	Battery Type: CR2032 x 1
	Remove the test while counting down after applying blood sample to the strip	Retest with a new strip, please <b>DO NOT</b> move the strip until the result is shown on the display.
	Used or damage test strip	<b>DO NOT</b> reuse the test strip. Please use a new strip to test again.
	Operating temperature is too high ( > 40°C)	Move to an area between 10°C - 40°C (50°F - 104°F), wait for 10-15 minutes and do the test.
	Operating temperature is too low ( < 10°C)	Move to an area between 10°C - 40°C (50°F - 104°F), wait for 10-15 minutes and do the test.
<div><div>3:05</div><div>18:08</div><div></div></div>	Blood glucose may be extremely low. If it is lower than 10mg/dL (0.5mmol/L).	Ensure the test strip has drawn in sufficient blood sample to the blood application zone and test again with new strip.
<div><div>3:05</div><div>18:08</div><div></div></div>	Blood glucose may be higher than 700mg/dL (38.9mmol/L).	Make a new test with a new test strip again. Make sure follow the correct procedures.

3:05

18:08




Coding error

Please refer to Coding the Meter and the use of correct CODE chip.

3:05

18:08














Blood ketone may be higher than 8.0mmol/L.

Make a new test with a new test strip again. Make sure follow the correct procedures.

J. Specifications

Model Name	DS-Vet GK Blood Glucose/Ketone Meter	Battery Life	1000+ tests
Assay Method	Electrochemical biosensor	Memory Capacity	600 results with date and time
Test Sample	Fresh whole blood, Capillary and venous Whole Blood	Measurement Units	• Glucose: mg/dL or mmol/L • Ketone: mmol/L
Sample Size	0.7µL (Glucose), 1.0µL (Ketone)	Power Supply	One CR2032 battery
Measuring Time	• Glucose: 5 sec. • Ketone: 10 sec.	Auto turn-off	2 minutes
Measuring Range	• Glucose: 10 – 700 mg/dL (0.5~38.9mmol/L) • Ketone: 0.0 – 8.0 mmol/L	Average Calculation	7, 14, 30 days
Operation Condition	10°C - 40°C (50°F - 104°F), < 95% R.H.	Dimension	76 x 45 x 21.9mm
Meter Storage/ Transportation Condition	-20°C - 60°C (-4°F - 140°F), < 95% R.H.	Weight	46g (without battery)

K. Index of Symbols

 Lot number	 Manufactured by	 Caution	 Temperature limitation
 Catalogue number	 Keep away from sunlight	 Do not re-use	 Use by
 Consult instructions for use	 Keep dry	 WEEE	

L. Manufacturer

**Alliance International Co., Ltd. Customer Service:**  
No. 54 Ying-Tao Rd., Yingge Dist. New Taipei City 239, Taiwan  
service@alliance-intl.com.tw

M. References

- BSAVA Manual of Canine and Feline Endocrinology, 3rd Edition, British Small Animal Veterinary Association. Edited by Carmel Mooney and Mark E Peterson 2004.
- Ettinger SJ, Feldman EC. Textbook of Veterinary Medicine. Vol 2. WB Saunders Company. Pp1529 - 1534. 1995.