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Vocabulary: medicine 词汇: 医药

Next time you see a pigeon flying around, look at it with some respect - it might be able to help with the **diagnosis** and **treatment** of human **diseases**.

A recent study has shown that these birds could be trained to **detect breast cancer** from images as **accurately** as humans.

It's all about their visual memory - these birds have plenty of it even if their **brains** are very small. Professor Edward Wasserman from the University of Iowa, a co-author of the study, says: "Pigeons can **distinguish** identities and emotional expressions on human faces, letters of the alphabet, **misshapen pharmaceutical capsules**, and even paintings by Monet versus Picasso." And Wasserman adds that the birds' visual memory capacity is equally impressive, with a proven **recall** of more than 1,800 images.



Would you trust Dr Pigeon?

So how did the scientists find out about the amazing ability of these birds? They taught different pigeons to distinguish **microscope images** of **cancerous** and **non-cancerous tissue** and rewarded them with food every time they got it right.

It didn't take long to get good results. After two weeks of training in 'pigeon medical school', the 'students' recorded **85% accuracy** as they managed to identify cancerous tissue from images they had not seen before.

But pigeons are not the only animals showing potential to help human diagnosis. A team at the University of Arkansas for Medical Sciences has shown that a dog can be trained to smell **urine samples** of patients to identify **thyroid** cancer. It lay down when it could smell cancer and turned away if not. The animals got it right in 30 cases out of 34.

So don't **dismiss** the abilities of these animals. They might be much more intelligent than you think.

词汇表

diagnosis	诊断
treatment	治疗
disease	疾病
to detect	检测
breast cancer	乳腺癌
accurately	精确地
brain	大脑
to distinguish	区分, 鉴别
misshapen	畸形的
pharmaceutical capsules	药用胶囊
recall	记性
microscope images	显微镜图像
cancerous	癌症的
non-cancerous tissue	非癌症的组织或细胞
accuracy	准确性
urine samples	尿液样本
thyroid	甲状腺
to dismiss	不予理会, 不予考虑

测验与练习

1. 阅读课文并回答问题。

1. What makes pigeons good at identifying cancerous tissue?
2. What kind of medicine can pigeons spot?
3. What was the incentive for the birds to identify the correct image during the research?
4. True or false? *Pigeons got the correct answer in 30 cases out of 34.*
5. Which three verbs in the text mean 'to indicate what something is'?

2. 请你在不参考课文的情况下完成下列练习。选择一个意思合适的单词填入句子的空格处。

1. I was relieved when the doctor told me the tests revealed that I had _____ tissue.

cancerous	thyroid	non-cancerous	human disease
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2. According to researchers, pigeons can distinguish human _____.

alphabet	brains	smell	states of mind
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3. My doctor asked me to produce _____ to test if I have a kidney infection.

a urine sample	a pigeon	microscope images	a diagnosis
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4. Ann had to take a pill a day for a whole week. It was a good _____ but she had to follow it properly or she would not be cured.

diagnosis	treatment	ability	pharmaceutical capsule
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5. With new computer models, we can predict the weather _____.

accurate	accurately	right	rightly
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答案

1. 阅读课文并回答问题。

1. What makes pigeons good at identifying cancerous tissue?
According to the study, the birds' visual memory.
2. What kind of medicine can pigeons spot?
Pigeons can distinguish misshapen pharmaceutical capsules from the normal ones, says Professor Edward Wasserman from the University of Iowa.
3. What was the incentive for the birds to identify the correct image during the research?
A reward in the form of food.
4. True or false? *Pigeons got the correct answer in 30 cases out of 34.*
False. A dog used for research by a University of Arkansas for Medical Sciences team was trained to identify patients with thyroid cancer and got it right in 30 cases out of 34.
5. Which three verbs in the text mean 'to indicate what something is'?
The verbs are: to detect, to distinguish and to identify.

2. 请你在不参考课文的情况下完成下列练习。选择一个意思合适的单词填入句子的空格处。

1. I was relieved when the doctor told me the tests revealed that I had **non-cancerous** tissue.
2. According to researchers, pigeons can distinguish human **states of mind** (*as they can distinguish emotional expressions on human faces*).
3. My doctor asked me to produce a **urine sample** to test if I have a kidney infection.
4. Ann had to take a pill a day for a whole week. It was a good **treatment** but she had to follow it properly or she would not be cured.
5. With new computer models, we can predict the weather **accurately**.