

Breast cancer genetic discovery hailed
乳腺癌基因研究新发现

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科学家说他们现在已经对引起乳腺癌的几乎全部基因突变有了近乎完美的认识。这项发表在《自然》期刊上的研究结果被称为具有“里程碑”意义的时刻，因为此研究结果可以帮助解锁治疗乳腺癌和防止乳腺癌发病的新手段。以下是 James Gallagher 的报道。

To understand the causes of cancer, scientists have to know what goes wrong in our DNA – our **blueprint** of life – that **transforms** healthy tissue into cancerous tissue. Scientists, led by the Sanger Institute in Cambridge, **analysed** all 3 billion letters of the **genetic code** in more than five hundred patients with breast cancer in the largest ever study of its kind.

The researchers say there are ninety three sets of instructions or **genes** that if **mutated** can cause **tumours**. Professor Sir Mike Stratton, the Director of The Sanger Institute, said understanding had been **transformed**. He believes new drugs could eventually be **targeted** at each of the mutations, similar to the way Herceptin is already being used.

The scientists also tried to find out why genes become mutated in the first place. Mutations leave **scars** on our DNA and that allowed the team to identify twelve types of damage that cause mutations in breast tissue. Some are related to family risk, others seem to be the result of fighting off **infections** but most are still unexplained. But understanding those, offers hopes at being able to prevent some cancers in the first place.

词汇表

blueprint	蓝图
transforms	转变，使变样
analysed	分析，研究
genetic code	遗传密码
genes	基因
mutated	(遗传物质) 突变了，变异了
tumours	肿瘤
transformed	被转变了
targeted	被定向的，使针对的
scars	伤痕，伤疤
infections	感染

测验

请听报道并回答下列问题。

1. Did all the patients involved with this research have breast cancer?
2. True or false? Tumours can be caused by a change in our genes.
3. What did scientists find was the most common reason for scars on our DNA that caused mutations in breast tissue?
4. How many letters in the genetic code of the patients did scientists look at?

答案

1. Did all the patients involved with this research have breast cancer?

Yes. 3 billion letters of the genetic code in more than five hundred patients with breast cancer were analysed.

2. True or false? Tumours can be caused by a change in our genes.

True. Researchers say there are ninety three sets of instructions or genes that if changed in some way - or mutated - can cause tumours.

3. What did scientists find was the most common reason for scars on our DNA that caused mutations in breast tissue?

They're not sure - most are still unexplained.

4. How many letters in the genetic code of the patients did scientists look at?

They analysed all 3 billion letters of the genetic code.