

- [China](#)
- ▶ [World](#)
- ▶ [Opinion](#)
- [Business](#)
- ▶ [Sci-Edu](#)
- ▶ [Culture/Life](#)
- [Sports](#)
- [Photos](#)

Services

- [Newsletter](#)
- [Online Community](#)
- [China Biz Info](#)
- [News Archive](#)
- [Feedback](#)
- [Voices of Readers](#)
- [Weather Forecast](#)

RSS Feeds

- [China](#)
- [Business](#)
- [World](#)
- [Sci-Edu](#)
- [Culture/Life](#)
- [Sports](#)
- [Photos](#)
- [Most Popular](#)
- [FM Briefings](#)

Search

About China

- [China at a glance](#)
- [China in brief 2004](#)
- [Chinese history](#)
- [Constitution](#)
- [Laws & regulations](#)
- [CPC & state organs](#)
- [Ethnic minorities](#)
- [Selected Works of Deng Xiaoping](#)



English websites of Chinese embassies



[Home](#) >> [Sci-Edu](#)

UPDATED: 13:06, December 13, 2006

Scientists discover gene that causes familial pancreatic cancer



An international research group has discovered that the mutated form of a gene called Palladin causes familial pancreatic cancer.

The findings, published Tuesday in the online edition of journal PLoS-Medicine, may help explain why the disease is so deadly. The research project was led by Dr. Teri Brentnall, associate professor of medicine at the University of Washington.

Pancreatic cancer is usually a fatal diagnosis. As one of the deadliest types of cancer, it is the fourth leading cause of cancer deaths overall, and third-leading cause of cancer deaths for people aged 40 to 60 in the [United States](#). Most people with the disease die within a year of diagnosis. Researchers estimate that at least ten percent of all pancreatic cancer cases are inherited.

The discovery also reveals that the Palladin gene behaves abnormally in both the hereditary and non-hereditary, or sporadic, forms of pancreatic cancer. Previous studies led by Dr. Carol Otey, Associate Professor of physiology at the University of North Carolina, have revealed that when the Palladin gene is functioning properly, it gives a cell its shape and enables the cell to move. In the case of pancreatic cancer, a mutation in Palladin allows the cell to move much more quickly than normal, essentially invading the surrounding healthy tissue.

Palladin, identified six years ago by Otey, is involved in the cytoskeleton, the structural backbone of all human cells. Brentnall discovered that Palladin plays a role in pancreatic cancer, and that he began to collaborate with Otey. The team believes that the mutated Palladin causes cancer by causing the cytoskeleton to malfunction, which allows the cells to move much more quickly than normal cells.

"A normal cytoskeleton holds up the cell wall and gives it direction to sit down in its proper place and basically to behave," said Brentnall.

"In cancerous cells, the cytoskeleton does not work correctly, and instead of sitting, the cells get up and invade areas where they don't belong, which is how the cancer spreads. This is a new way of thinking about cancer development in the pancreas," he said.

"Brentnall and her colleagues' report of their fascinating discovery of a new cause of inherited pancreatic cancer provides us with important new insights into the mechanisms of pancreatic cancer development that will have a significant impact on future research," commented Michael Goggins, Associate Professor of pathology, medicine and oncology at the Sol Goldman Pancreatic Cancer Research Center at Johns Hopkins.

The role of the cytoskeleton, and specifically the gene Palladin, will be a novel avenue for cancer research. Researchers now need to study how Palladin behaves abnormally in sporadic pancreatic cancer and exactly what mechanism allows the cells to become invasive.

Source: *Xinhua*

- [Comment on the story](#)
- [Tell a friend](#)
- [Print friendly format](#)
- [Save this](#)

Recommendation

- [Text Version](#)
- [RSS Feeds](#)
- [China Forum](#)
- [Newsletter](#)
- [People's Comment](#)
- [Most Popular](#)

Related News

Dic

- Alibaba.com**
- [Alibaba Directory](#)
 - [Alibaba China](#)
 - [China Suppliers](#)

Versions:

- [English](#)
- [Japanese](#)
- [French](#)
- [Spanish](#)
- [Russian](#)
- [Arabic](#)