



A Method for In Vivo Visualization of Mutated Mouse Cells

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BACKGROUND

One method of studying tumors in mice is by using the CRE recombination system to delete or overexpress cancer-control genes in particular tissues at particular times. However, a hurdle in studying tumorigenesis is the difficulty in monitoring the progress of tumors in vivo. Current techniques require sacrifice of the animal followed by in situ work. These methods require the use of large numbers of animals and preclude the possibility of following the progress of a particular tumor over time.

DESCRIPTION

UC scientists have developed a sensitive, non-invasive technique for in vivo visualization of cells mutated by the CRE recombination system. Using positron emission topography (PET), they are able to follow the development of the potentially tumorous cells over time.

ADVANTAGES

Since no sacrifice is required to visualize the affected cells, fewer mice can be used to obtain statistically valid data. Tumor cells can be detected at the very earliest stages, and the effects of therapy, environment, and type and severity of mutation can all be assessed in vivo.

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INVENTORS

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OTHER INFORMATION

CATEGORIZED AS

- ▶ **Biotechnology**
 - ▶ Genomics
 - ▶ Health
 - ▶ Other
- ▶ **Medical**
 - ▶ Diagnostics
 - ▶ Therapeutics

RELATED CASES

2000-169-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

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