Aberrantly Methylated Genes as Markers of Breast Malignancy in Ductal Fluids

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Technology description

C03729: Detection of Aberrantly Methylated Genes in Human Samples as Markers of Malignancy
Technical Details:
Inventors have identified novel genes that may be aberrantly methylated in cancer cells. A method for quantification and diagnosing such methylation has also been developed called quantitative multiplex-methylation specific PCR (QM-MSP).
Advantages:
- This technology can be used to detect aberrant methylation in various body tissues including: blood, plasma, duct cells lymph, ductal lavage fluid, nipple aspiration fluid, breast tissue, lymph nodes, bone marrow, etc.
- Aberrent methylation can be detected in tissue containing as little as 50 – 1000 tumor cells resulting is a highly sensitive test.
- May allow for quick detection of cancer leading to rapid and aggressive cancer treatment which may increase chances of patient survival.
- This technology may also be used for disease staging and/or detecting therapy response.

Publications: Issued Patents US 6835541 and US 7858317
Evron, Ella, et al. "Detection of breast cancer cells in ductal lavage fluid by methylation-specific PCR." The Lancet 357.9265 (2001): 1335-1336.

Advantages

这项技术可用于检测各种身体组织中的异常甲基化，包括:血液、血浆、导管细胞淋巴液、导管灌洗液、乳头抽吸液、乳腺组织、淋巴结、骨髓等
在含有50 - 1000个肿瘤细胞的组织中都能检测到异常甲基化，这是一种高灵敏度的检测方法
可迅速发现癌症，从而迅速进行积极的癌症治疗，增加病人的生存机会
这项技术也可用于疾病分期和检测治疗反应
用于高通量自动化技术

Institution

Johns Hopkins University