Microarray Based Identification of Pathogens of Infectious Disease

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Identification of microbial pathogens was successfully carried out with a Microchip. The goal of this study is to develop a diagnostic DNA chip which can be used for the identification of various microbial pathogens causing infectious diseases. The traditional method of diagnosis of pathogens is a cultivation based method which is time consuming and not sensitive enough. Microchip technology might provide an ideal solution^{1), 2)}nically significant microbial pathogens.

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References

- Greisen, K., Loeffelholz, M., Purohit, A. and Leong, D., "PCR Primers and Probes for the 16S rRNA Gene for Most Species of Pathogenic Bacteria, Including Bacteria Found in Cerebrospinal Fluid" (1994), Journal of Clinical Microbiology, 32(2), 335-351.
- 2. Veer L. J. V. and Jong D., "The Microarray to tailored Cancer Treatment" (2002), Nature Medicine, 8(1), 13-14.

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