

# **Biochips/Microarrays**

## **Technologies, Companies & Markets**

**By**

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**November 2021**

**A Jain PharmaBiotech Report**

## A U T H O R ' S   B I O G R A P H Y

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## A B O U T   T H I S   R E P O R T

This report will cover new biochip/microarray technologies and companies developing them as well as the markets for these. An older version of this report was published in 2001 by Informa. The focus of the new report is on diagnostic applications of DNA microarrays but a chapter on protein biochips is included for comparison as it is a competing technology. Role of biochip technology in drug discovery and development as well as in personalized medicine is also discussed. Role of new technologies, particularly, nanobiotechnology in development of biochip/microarray is described.

**November 2021 (First edition published by Informa in 2001, continuously updated and rewritten)  
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## **Abbreviations**

aCGH	array comparative genomic hybridization
CNV	copy number variation
FFPE	formalin-fixed, paraffin embedded
HPV	human papilloma virus
IHC	immunohistochemistry
ISH	in situ hybridization
IVD	in vitro diagnosis
LNA	locked nucleic acid
MEMS	Micro Electro Mechanical Systems
mRNA	messenger RNA
meDNA	methylated DNA
miRNA	microRNA
MSI	mass spectrometry imaging
OEM	Original Equipment Manufacturer
ORF	open reading frame
PCR	polymerase chain reaction
SNP	single nucleotide polymorphism
STI	sexually transmitted infections
TMA	tissue microarray
WGA	whole genome amplification