Biochips come handy as thousands of experiments are performed on a small chip with a solid platform and acts like a mini laboratory. Usage of biochips has increased in the past decade as its application varies from high throughput screening in drug discovery to personalized medicine.

The global biochips market is broadly classified as micro arrays and lab on chips based on its type. Biochips market is segmented on the basis of application as diagnostic, drug discovery and development, research, forensic and others. Based on the products the biochips market is further segmented into instruments, reagents and consumables, software and services. The global biochips market is expected to grow at a CAGR of around 17.8% from 2015 to 2021. Revolution in the field of genomics, proteomics as well as rapid drug discovery increased the demand for biochips. In addition, increase in diagnosis and treatment of cancer and genetic diseases, approval for personalized medicines and invention of novel technologies in biochips drives the market of biochips. Standardization and quality assurance of biochips, technological ease in handling the biochips especially in the areas of diagnosis and treatment, high cost along with ethical and social issues hinders the market growth. Lifestyle changes owing to increase in cancer, diabetes and hypertension patients, early diagnosis and treatment of diseases, advancement of biochips with its wide application areas shows that biochip market has vast opportunities in the coming years. North America accounts for the highest market share followed by Europe. Steep rise in genetic diagnosis, huge corporate outsourcing for drug discovery, increase in personalized medicines and favourable government policies makes U.S. the leader of Biochips market. However, Asian countries especially India and China’s are the fast growing regions with its growing demand for biochips and increasing research investments.

Major players in biochips market include Affymetrix, Inc. (U.S.), Agilent Technologies (U.S.), Bio-Rad Laboratories (U.S.), Cepheid, Inc. (U.S.), Fluidigm Corporation (U.S.), GE Healthcare (U.K.), Hoffman-La-Roche (Switzerland), Illumina, Inc. (U.S.), PerkinElmer, Inc. (U.S.) and Thermo Fisher Scientific, Inc. (U.S.).

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