

Pharmacogenomics Market Poised to Double by 2025

PORTLAND, OREGON, UNITED STATES, July 31, 2023 /EINPresswire.com/ -- In the dynamic world of medicine, the field of pharmacogenomics has emerged as a beacon of hope, offering personalized and precision treatments for patients. Back in 2017, the [pharmacogenomics market](#) displayed promising figures, with a total value of \$5,312.8 million. However, the journey has only just begun, as recent projections indicate a meteoric rise in the industry's fortunes.

By the year 2025, experts forecast that the pharmacogenomics market will reach a staggering \$10,265.5 million. This remarkable growth trajectory showcases an impressive Compound Annual Growth Rate (CAGR) of 8.61% from 2018 to 2025, emphasizing the sector's immense potential and significance in shaping the future of healthcare.



Global Pharmacogenomics Market

OPPORTUNITIES AND FORECASTS, 2018-2025

Global Pharmacogenomics Market is expected to reach \$10,265 million by 2025.

Growing at a CAGR of 8.6% (2018-2025)

Pharmacogenomics Market Poised to Double by 2025

For more information, contact Allied Market Research at: <https://www.alliedmarketresearch.com/request-sample/5220>

Key Market Players

1. Genomics International
2. Illumina
3. ThermoFisher Scientific
4. Qiagen
5. AncestryDNA
6. MyHeritage
7. 23andMe
8. FamilyTreeDNA
9. MyHeritage
10. 23andMe

Technology Overview:

1. Next Generation Sequencing (NGS): Next Generation Sequencing has emerged as a cornerstone technology in pharmacogenomics. With its high-throughput capabilities and ability to analyze large volumes of genetic data, NGS enables researchers to identify genetic variations that influence drug responses. This powerful tool has transformed the field by enabling comprehensive genomic analysis, providing valuable insights into personalized medicine.
2. Polymerase Chain Reaction (PCR): PCR remains a widely used technique in pharmacogenomics, particularly for targeted analysis of specific genetic variants. Its reliability and sensitivity make it ideal for amplifying DNA regions of interest, allowing researchers to detect single nucleotide polymorphisms (SNPs) and other genetic variations associated with drug metabolism and response.
3. Gel Electrophoresis: Gel electrophoresis continues to play a crucial role in pharmacogenomics research. Although traditional, it remains a valuable technique for separating and analyzing DNA fragments based on their size. It serves as a foundational method for genetic profiling and validation of genomic alterations relevant to drug therapy.
4. Mass Spectrometry: Mass spectrometry has gained prominence in pharmacogenomics due to its ability to analyze proteins and metabolites. This technology aids in determining drug concentrations and identifying biomarkers that can influence drug efficacy and toxicity. As precision medicine advances, mass spectrometry's contributions will become increasingly vital.
5. Microarray: Microarray technology has contributed significantly to pharmacogenomics research, allowing simultaneous analysis of thousands of genetic variants. By identifying relevant genetic markers, microarrays facilitate the selection of optimal drugs and dosages for individual patients, thereby enhancing treatment outcomes.
6. Others: The field of pharmacogenomics continues to evolve, and alongside the established technologies, novel and emerging techniques hold immense promise for further advancements. These may include CRISPR-Cas9 gene editing, digital PCR, and more, offering exciting avenues for future research and applications.

Application Insights:

1. Cardiovascular Disease: Pharmacogenomics has revolutionized the treatment of cardiovascular diseases by identifying genetic variants influencing drug metabolism and response. This knowledge empowers clinicians to personalize medication regimens, leading to better management of conditions such as hypertension, hypercholesterolemia, and heart failure.
2. Infectious Diseases: The battle against infectious diseases benefits greatly from pharmacogenomics. Genetic variations can impact antiviral and antibiotic drug efficacy, as well as susceptibility to adverse reactions. Understanding these variants enables tailored treatments, improves patient outcomes, and aids in combatting drug resistance.
3. Oncology: Pharmacogenomics has ushered in a new era of precision oncology, where targeted therapies are matched to a patient's unique genetic profile. By identifying genomic biomarkers, oncologists can select the most effective treatments, reduce side effects, and

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