

## **Proteomics: Technologies and Global Markets**

Market Research Report | 2022-12-05 | 384 pages | BCC Research

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### **Report description:**

Description

Report Scope:

The study's scope covers MS instruments, consumables, workflow products, planar arrays, bead arrays, and LOACs. It also covers the research, drug discovery and development, diagnostics, and applied end-user market segments. The main geographical markets-North America, Europe, Asia-Pacific, and Rest of the World (ROW)-are included.

The MS market is covered by instrument type, MS consumables, and product type and end-user markets. The biochip market is covered by biochip type and the end-user market for each type. The diagnostics market is covered in some detail, including by major platform (i.e., MS, biochips), by disease type and for cancer by indication. This report provides the current market sizes for these segments, as well as their forecasted growth to 2027.

Technology status and forces driving the market are discussed and analyzed. Factors that influence each market are also highlighted, including growth-driving forces, industry alliances and acquisitions, applications in diagnostics and drug discovery, customer needs, and competitive trends.

Key industry acquisitions and strategic alliances are given for the five-year period from 2021 through 2027.

This report examines the main patent trends within the industry and profiles proteomics companies.

Report Includes:

- 149 data tables and 97 additional tables

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- An up-to-date overview of the global markets for proteomics and related technologies
- Analyses of the global market trends, with historic market revenue data from 2019 to 2021, estimates for 2022, and projections of compound annual growth rates (CAGRs) through 2027
- Highlights of the upcoming market potential for the global proteomics industry, growth driving factors, and areas of focus to forecast this market into various segments and sub-segments
- Estimation of the actual market size and market forecast for proteomics in value (USD millions) terms, and their corresponding market share analysis by platform technology, end-user application, and region
- In-depth information (facts and figures) concerning major market dynamics (DROs), technology advancements, new products and applications in proteomics, and COVID-19 impact on the market for proteomics
- Insight into recent industry structure for proteomics technologies, competitive aspects of each product segments, major growth strategies, and company value share analysis based on their segmental revenues
- Updated information on key mergers and acquisition deals, agreements, partnerships, collaborations and product launches within the global proteomics industry
- Profile descriptions of the leading proteomics manufacturers, including Agilent, Danaher Corp., GlaxoSmithKline PLC, PerkinElmer Inc., Qiagen GmbH, and Sanofi.

## Executive Summary

### Summary:

In May 2014, two independent research groups, one in the U.S. and India, and the other in Germany, published the first drafts of the human proteome, which was based on mass spectrometry data. These maps were the most comprehensive to date and signaled the rapid progress in our understanding of the role of genes and their products, proteins.

Approximately 5 million scientists are working on biological sample preparation in more than 80,000 laboratories globally. Major factors impacting the market are increased spending on research and development in developing economies. China is emerging as a global leader in sequencing and an increasing number of genomics projects run by Chinese agencies and other companies throughout the globe are creating genome libraries. There is also increased interest in personal genetics. Many companies, including Google, are investing in genomics start-ups. Along with this growth in genomics and proteomics, is a growing concern regarding data security and privacy. Personal genomics kits currently sold directly to consumers have become a growing concern for the U.S. Food and Drug Administration (FDA).

The draft human proteome signaled the coming of age of proteomics, a field that is rapidly transitioning from research and development application to more applied fields including diagnostics. The two key proteomics technologies-mass spectrometry and biochips-are benefiting from an explosion of new proteomics content from the large-scale genomic and proteomic initiatives. For instance, according to the Journal of Proteome Research, ACS Publications, the Human Proteome Organization (HUPO) has introduced the Proteomics Standards Initiative (PSI) that is exploring software tools and open community standards in proteomics over the last 15 years (from 2002). Further, HUPO is also credited with completing protein parts list for the draft human proteome. In addition, HUPO is also exploring the application of proteomics for integration with genomics and transcriptomics across life sciences and biomedical research. This proteomics content is driving the discovery of new biomarkers that are important in disease diagnostic processes such as cancer diagnostics, myocardial infarction, congestive heart failure, and others.

Novel technologies are also driving proteomics applications. For example, increasing miniaturization and integration is occurring in biochip devices, and improvements in mass spectrometry workflow and instruments. These innovations are driving proteomics applications in important markets like drug discovery and development and diagnostics. For instance, in 2017, as per the European Association of Urology, the Israeli Institute of Technology developed a silicon biosensor chip that can identify the best antibiotics in just a few hours instead of days and can help in treating a bacterial infection. Furthermore, in 2017, the Georgia

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Institute of Technology presented that replacing conventional power supplies with Triboelectric Nano-generators (TENG) for charging molecules can boost up sensitivity of mass spectrometers and can also help in identification of small volumes.

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