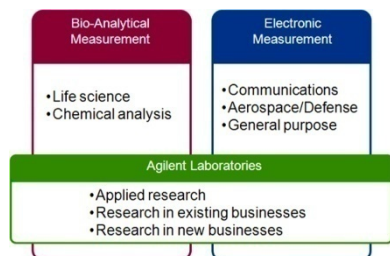


Media Backgrounder – perspective and detail for journalists:



AGILENT TECHNOLOGIES BIO-ANALYTICAL MEASUREMENT BUSINESS

Agilent Technologies, Inc. (NYSE: A), which spun off from Hewlett Packard in 1999, is comprised of three main segments: Bio-Analytical Measurement, Electronic Measurement and Agilent Laboratories. This is an overview of Bio-Analytical Measurement segment of the company, which is also referred to internally as “Life Sciences and Chemical Analysis” to reflect its two main areas of focus.

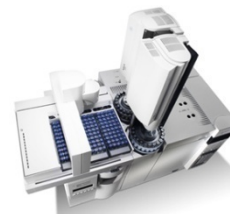
CHEMICAL ANALYSIS

Agilent’s lineage in chemical analysis instruments extends back to 1965 when HP acquired F&M Scientific Corp. of Avondale, PA, a pioneer in gas chromatography. A reputation for innovation and quality in GC and later other instrument platforms has remained unbroken ever since. There are many facets to the chemical analysis market, and Agilent concentrates on four main segments:

- Food testing.** This includes testing food and food products for toxins such as pesticides, drug residues, mycotoxins (which are generated by fungi), and other chemical adulterants such as melamine which recently sickened thousands of babies and caused some deaths in China. Agilent also tests for chemicals that can migrate into foods from packaging. An emerging area of interest is biological testing of food e.g. for genetic modifications or species confirmation. Agilent works with government and private food labs around the world to develop fast, routine methods for detecting and identifying toxins in food.
- Environmental analysis.** Agilent is a leading provider of technology used to analyze air, water, soil, plants and animals for environmental pollutants such as perchlorate, arsenic, mercury, perfluorinated compounds, pharmaceutical residues and other compounds known to or suspected of threatening the health of humans, plants and animals. Environmental scientists must often look for compounds in concentrations as minute as parts-per-trillion.
- Forensics.** Agilent is a well-known provider of scientific tools for detecting and confirming drugs of abuse, chemical analysis of crime scene evidence and detection and analysis of chemical weapons. Agilent is the global leader in instrumentation and methods for testing athletes for banned substances, including labs serving all modern Olympic games and many Tours de France and World Cup Soccer tournaments.
- Hydrocarbon processing.** Agilent has a long track record of supporting petroleum refiners, plastics manufacturers and other segments of the hydrocarbon industry with instruments to evaluate the composition of feedstocks, intermediate products, finished products and effluents to help them meet quality, cost and environmental targets.



F&M Scientific Model 17a
Gas chromatograph circa 1965



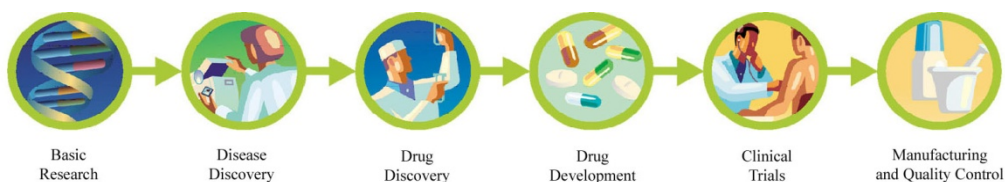
Agilent 5975B GC/MS with
the latest Automated Liquid Sampler

Customers in each of these segments share many of the same needs: One need is to be able to run more samples per shift without expanding the lab or sacrificing quality. Ultimately, they need to maximize the return on their investments in instrumentation and software. Another common need is to make increasingly sophisticated instruments user-friendly enough for general technicians to operate routinely.

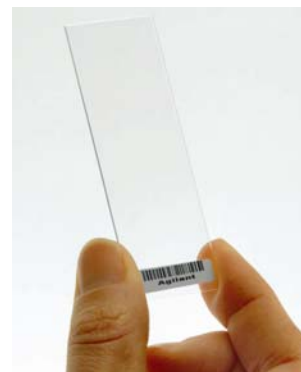
LIFE SCIENCES



Agilent's expertise in analytical chemistry lead naturally into the life sciences, and a significant portion of Agilent's portfolio applies to both worlds. Today Agilent liquid and gas chromatography systems, mass spectrometers, DNA microarrays, scanners, thermal cyclers, reagents and software are used by academic, government and private labs doing biological research everywhere. A major provider of analytical quality control/quality assurance tools and regulatory compliance services for the pharmaceutical industry, Agilent has aggressively developed products and services along the entire therapeutic value chain, from basic biological research to disease discovery, through drug discovery. Life science tools are Agilent's fastest growing category. The breadth of Agilent's offerings make the company a major factor in the emerging trend of "systems biology," where scientists are beginning to make inroads against important diseases by examining them from multiple perspectives. For example, they might compare patterns of activity in the genome with patterns of all the proteins in a sample to reveal how a particular type of cancer spreads.



- Genomics.** Agilent is a worldwide leader in tools and software for studying the relationships between the genome and specific diseases. Back in 1999, Agilent pioneered the lab-on-a-chip Bioanalyzer that remains the industry standard for determining the quality of RNA samples used in life science research. The company is also a world leader in microarrays used to study a variety of important genomic activities including: gene expression, microRNA, copy number variation and methylation. Agilent synthesizes as many as one million DNA probes on a 1 in. x 3 in. glass slide to measure genomic activity. Agilent is also eliminating a major bottleneck in next generation sequencing workflows with a tool that enables scientists to only sequence the portions of the genome of interest to them. This saves them substantial time and money. In 2007, Agilent acquired Stratagene, now the BioReagents Division, greatly expanding offerings of reagents for genomics, acquiring PR instruments and Hycor diagnostics assays. Agilent also provides the powerful bioinformatics software systems that investigators need to derive knowledge from the mountains of complex data generated by genomic experiments.



Agilent SurePrint Microarray containing one million DNA probes on a 1 in. x 3 in. slide.

- **Proteomics.** Agilent launched a major line of liquid chromatograph/mass spectrometers in 2006, offering sought-after capabilities for chemical analysis markets, and also providing needed performance for the study of large sets of proteins in biological samples: proteomics. Agilent provides complete workflow solutions for this emerging research area, from protein isolation through LC/MS screening and characterization tools through data visualization systems. Like genomics, the study of proteomics involves the generation, comparison and interpretation of large sets of complex data, and Agilent has developed specialized software for this daunting task.
- **Metabolomics.** The study metabolites in biological samples is generating a great deal of momentum in the scientific community in the search for biomarkers for important diseases. These small molecules also present many challenges, which Agilent is on the forefront of solving. Agilent is a leader in providing tools for metabolomics study, including LC/MS, GC/MS, consumables and specialized software and database.



Agilent 1200 Series Rapid Resolution Liquid Chromatography System coupled to an Agilent Accurate Mass Quadrupole Time-of-Flight Mass Spectrometer

KEY PRODUCTS

- Liquid Chromatography
- Gas Chromatography
- Mass spectrometry
- Microfluidics: both pressure and electrophoretic
- Microarrays
- Reagents
- LC and GC columns
- Software and informatics
- Lab Automation
- Service and support
- Compliance services
- Instrument monitoring and diagnostics



Agilent Direct Drive Robot used to automate complex life science workflows



Example of a microfluidic electrophoresis chip For the Agilent 2100 Bioanalyzer (actual size)