

2006 Fall Purchasing Survey

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Report Introduction

The 2006 Fall Purchasing Report is composed of a purchasing market overview and an introduction to the 2006 Fall Purchasing Survey, which is comprised of researcher budgetary information, their purchasing plans for products and the general technology areas in which these purchases are likely to occur, as well as where product information is obtained for conscientious decision making. The report also includes a comprehensive discussion of the survey results, and conclusions and recommendations drawn from both market analysis and the survey data.

The market overview delves into projected federal funding for life science research and past trends for expected budgets. While the budget request of the National Institutes of Health for fiscal year (FY) 2007 is the same as for FY2006 (~\$28.3 billion), the allocation of funds is quite different. Biodefense investment, which saw a sharp increase in 2006, has gained \$110 million over its allocation for 2006 as have the NIH Roadmap initiatives. The new “Pathway to Independence” program that provides increased support for new investigators is slated to receive \$15 million. Another \$68 million is earmarked for the new Genes, Environment, and Health Initiative to examine how major diseases develop as a result of the interactive network of genes, diet, physical activity, and the environment. Such “systems biology” approaches are gaining momentum across many diverse disciplines.

While stem cell research saw increases in 2006 as well, today its funding is primarily supported by independent, corporate, and community foundations, a clear indication that federal and state support for stem cell research is still hampered by political undertones. The market overview also profiles the states and research institutions that have increased their share of the funding pie. Even states that have not traditionally invested in biomedical science are developing programs to build a research infrastructure to attract both investors and top scientific minds. Both pharmaceutical and biotechnology companies appear to have increased R&D spending at about 4% from 2004 to 2005 to a tune of \$62 billion. Presently, we are seeing increases in high-end instrumentation, such as imaging systems and mass spectrometers, as the current scientific focus on molecular and cellular biology continues to grow.

Market Overview

Markets in Extraordinary Places, Money from Exceptional Sources

Researchers hardly think twice when it comes to scientific method. Having withstood the test of centuries, the practice of forming hypotheses, recording observations and drawing conclusions fuels the engine of discovery. These days, however, research has become a proverbial Hummer, a vehicle whose requirements tend to stress existing resources. Modern life science calls for more money as it addresses “more complex research problems,...which in turn depends on a wide range of advanced technologies,” according to a strategic plan¹ of the National Center for Research Resources (NCRR), part of the National Institutes of Health (NIH).

No longer do simple microscopes and glass Petri dishes suffice. The current focus on cellular and molecular phenomena necessitates high-priced instruments, “including mass spectrometry, macromolecular crystallography and advanced imaging tools,” according to the NCRR. In addition, “biomedical researchers increasingly depend on sophisticated computational resources for modeling biological processes and collecting, managing and analyzing data.”

Such necessities are within reach for most researchers in industry, who now enjoy the increased confidence of investors and venture capitalists. Academic researchers, on the other hand, are facing uncertainty with dwindling support from the traditional mainstay: the federal government. The growth of the NIH budget, which doubled from 1994 to 2003, has reached a plateau. However, special programs and provisions exist to fill urgent needs and/or to sustain priority initiatives.

Fortunately, the funding landscape features a spectrum of options to keep the current of discoveries flowing. Both public and private organizations have stepped up to fill the lack. In addition, states across the country are allocating resources to embrace the job-creating and economy-boosting potential of biomedical research and the drug industry.

Show Me the Money

President George W. Bush's request to the Labor, Health and Human Services and Education Appropriations Subcommittee for NIH funding is \$28.350 billion² for the fiscal year (FY) 2007. Representing the same amount as that of FY 2006, the president's request for FY 2007 contains changes in how the funds will be allocated. Efforts in biodefense will receive \$1.891 billion, an increase of \$110 million, or 6.2%, over FY 2006³. The new “Pathway to Independence” program, which provides increased support for new investigators, will receive \$15 million. The NIHs Roadmap initiatives will receive \$443 million, an increase of \$113 million over FY 2006. The new Genes, Environment and Health Initiative will receive \$68 million to examine how major diseases develop as a result of the interplay of genes, diet, physical activity and other environmental factors.

The president's request also contains provisions for an increase in the number of research project grants (RPGs). For FY 2007, \$3.3 billion will fund an estimated 9,337 competing RPGs, representing an increase of 275 competing RPGs over that of FY 2006⁴.

Market Overview (continued)

Support for research centers will increase by \$62 million to \$2.8 billion, or 2.3%. The budget also allocates \$25 million for the construction and renovation of biosafety level 3 labs.

For FY 2005, the NIH gave the highest number of awards, including research and training grants, to the following institutions listed in ranked order⁵:

1. Johns Hopkins University
2. University of Pennsylvania
3. University of Washington
4. University of California, San Francisco
5. Washington University
6. Duke University
7. University of Michigan
8. University of California, Los Angeles
9. University of Pittsburgh
10. Yale University
11. Columbia University
12. Science Applications International Corporation – Frederick, Inc.
13. Harvard University
14. University of California, San Diego
15. Stanford University

The Color of Money

As of the summer of 2006, Senate appropriations subcommittees have approved \$28.5 billion for the NIH, \$220 million more than FY 2006 and \$200 million more than the president's request⁶. The Senate appropriations subcommittees have also approved funding for biomedical research efforts extraneous to the NIH. The Commerce, Justice and Science appropriations subcommittee has approved \$5.99 billion for the National Science Foundation, which is \$410 million above FY 2006⁷. The appropriations subcommittee for the Department of Agriculture, Rural Development, Food and Drug Administration and Related Agencies approved \$1.942 billion, \$118 million more than FY 2006, for the U.S. Food and Drug Administration and \$2.421 billion for agricultural research and extension programs, which includes funding of \$107.2 for pandemic influenza preparedness and \$56.73 million for research on avian influenza⁸.

The defense appropriations subcommittee approved \$245 million for breast, prostate and ovarian cancer research programs and \$45 million for an unspecified medical research fund⁹. In the Homeland Security Appropriations bill, the subcommittee approved \$327 billion "to support basic and applied research, development of prototypes and procurement of systems to mitigate the effects of weapons of mass destruction" for biological countermeasures¹⁰. The bill also includes \$75 million to counter chemical warfare agents and toxic industrial chemicals and \$50 million for university programs.

Market Overview (continued)

These figures represent declining federal support for health research, according to analysis by Research!America, a nonprofit organization that promotes health improvement efforts. In its latest study, Research!America found that health-related research funding grew 2.2% in 2005 while the Biomedical Research and Development Price Index grew 5.5%¹¹.

“As a result, the portion of the total health dollar allocated to research has decreased from 5.8 cents in 2004 to 5.5 cents in 2005,” according to the report.

The NIH “can now only afford to fund one of every five funding proposals,” according to an article discussing the results of Research!America’s study. The article is published in the September 13, 2006 issue of the *Journal of the American Medical Association*¹². However, “the more important issue may be how the money is spent,” the article continued, quoting Hamilton Moses III, MD, chairman of consulting group Alerion Institute of North Garden, Va.

“The challenge for science in biomedicine today is productivity – to get more out for what goes in,” said Moses, who studied the state of biomedical research funding and published his findings in a 2005 issue of the *Journal of the American Medical Association*¹³.

That appears to be the strategy that NCRP is taking with its shared instrumentation grant. The program provides funding for research equipment costing \$100,000 to \$500,000, which must be shared by at least three NIH-supported investigators. For equipment costing at least \$750,000, the high-end instrumentation grant provides awards of up to \$2 million.

In 2006, the shared instrumentation grant provided funds for the purchase of 108 instruments¹⁴. Grantees purchased 17 units, about five of which were combined with a liquid chromatography function. Other popular instruments included confocal microscopes (14 purchased) and flow cytometer-cell sorters (13 purchased). The 12 small animal imaging units purchased included mostly magnetic resonance imagers and ultrasound devices.

High-throughput instruments were also popular with grantees. They purchased about five automated DNA analyzers and sequencers and five automated proteomics workstations. Grantees also purchased more than 20 imaging systems, including those for live cell imaging, multi-photon microscopes, light and electron microscopes and various digital imagers. Other purchases included research irradiators, real-time PCR systems and equipment for computer informatics.

Most of the 14 grantees of the 2006 high-end instrumentation program purchased imaging equipment for small animal and clinical studies¹⁵. These include four magnetic resonance imaging systems and one hybrid system with positron emission tomography, single photon emission computed tomography and computed tomography. Grantees also purchased two mass spectrometers, two nuclear magnetic spectrometers and two electron microscopes.

Market Overview (continued)

Follow the Money

Despite tightening federal funds, state funds will help fuel the purchase of life science research equipment and supplies. Governors across the country are launching programs to expand, sustain, and/or attract the bioscience industry, according to the Biotechnology Industry Organization's report, "Growing the Nation's Biotech Sector: State Initiatives 2006"¹⁶. The general strategy has been to provide facilities in and around locations with an existing foothold in biomedical research, such as in Raleigh, N.C., Portland, Ore., New York, Denver, Chicago, and San Francisco. In Michigan, New Jersey, Pennsylvania, Indiana, New York and Wisconsin, state funds are available for not only constructing incubator space, but also incentives for start-up companies.

Even states that "have not traditionally invested in developing their bioscience base" have developed programs to establish an infrastructure for biomedical research, according to the Biotechnology Industry Organization's report¹⁷. States, such as the following examples, should be ripe markets for all sorts of research gear to equip the multitude of new labs:

- Alabama – Pledged \$50 million for the construction and establishment of the Hudson-Alpha Institute for Biotechnology, a nonprofit that will also receive \$80 million in private funding.
- Iowa – Developed a program, facilitated by Iowa State University Extension Center for Industrial Research and Service, to convert agricultural crops into biobased products and bioenergy.
- Kansas – Established the Kansas Bioscience Organization to attract and retain bioscience talent, companies and funding, with emphasis on the agricultural, industrial and environmental sectors.
- Missouri – Formed the Advisory Council for Plant Biotechnology to determine strategies for capitalizing on the industry and to attract new life sciences companies.
- Montana – Opened two wet-lab incubators and plans on developing a venture capital initiative, in addition to creation of the Montana BioScience Alliance for commercializing and sustaining the state's biotechnology industry.
- New York – Developed aggressive plan for clean, renewable energy research and product development.
- North Dakota – Created the Center of Excellence in Life Science and Advanced Technologies at the University of North Dakota.
- South Dakota – Created three new Centers of Excellence that focus on bioscience.

The federal government's restrictive guidelines on stem cell research continue to drive funding from sources other than federal agencies. Because most existing equipment in labs was purchased with federal funds, they can not be used to study stem cells. Researchers receiving support for stem cell research will need to purchase new sets of research supplies and equipment. Several states have pledged substantial support during the last few years. While the \$3 billion California voters approved for stem cell research remains mired in legal challenges, New Jersey, Connecticut, Illinois, Wisconsin and Maryland have proceeded to provide hundreds of millions of dollars¹⁸.

Market Overview (continued)

We're In the Money

Stem cell research also brings to bear the increasing importance of support from independent, corporate and community foundations. On November 14, 2006, the Virginia and D.K. Ludwig Fund announced its gift of \$120 million plus stock in a New York real estate holding company to create six Ludwig Centers that will study cancer stem cells¹⁹. The centers will be located at Dana Farber Cancer Institute at Harvard Medical School, Johns Hopkins University, Memorial Sloan-Kettering Cancer Center, MIT, Stanford University and the University of Chicago. The gift is one of the country's single largest to be given to cancer research – and one that most certainly creates the need for more research equipment.

Such generosity reflects the general giving trend of private foundations²⁰. In 2004, the last year for which data was available, the \$15.5 billion given by the country's 1,200 largest private and community foundations represented an increase of 8.1% over 2003, according to the Foundation Center, a nonprofit that provides support, information and training for grant-seeking and grant-making organizations. At the same time, the actual number of grants increased by 4.8% from 120,721 in 2003 to 126,497 in 2004.

Health pursuits received 22.3% of all grant dollars in 2004, boosted by a \$750 million grant for immunization from the Bill & Melinda Gates Foundation²¹. Only the education sector received more, accounting for 23% of all grant dollars. Two of the three areas receiving the greatest increase in funding include health, along with the science & technology sector, which received 3% of all grant dollars in 2004. Foundations based in the country's western region awarded the largest share (43%) of their grants to health. Foundations located in other regions of the country awarded 9% to 17% of grant dollars to health.

Factoring in the contributions of the country's nearly 68,000 foundations, giving in 2005 totaled an estimated \$31.8 billion, according to the Foundation Center's analysis²². This represents a 5.5% rise over the \$31.8 billion of 2004. However, "U.S. foundation giving is unlikely to grow substantially in 2006," according to the report. "Accounting for inflation, giving will be pretty much flat."

Money, Money, Money

At the same time, the biopharmaceutical industry continues to flourish. Strengthening support from various sources means funds to purchase the necessary equipment and supplies for research and development (R&D). In 2005, the U.S. industry spent an estimated \$51.3 billion on R&D, representing a 4% increase over the \$47.6 billion spent in 2004, according to the Pharmaceutical Research and Manufacturers of America²³. Globally, biotechnology companies alone increased their R&D spending by 4%, investing \$20.415 billion in 2005 and \$19.542 billion in 2004, according to investment and consulting company Ernst & Young²⁴. In the world of big pharma, which Ernst & Young defined as the world's 15 largest pharmaceutical companies, R&D expenses for 2005 totaled approximately \$62 billion.

Market Overview (continued)

Healthy revenues, a spate of product approvals and the increasing confidence of investors have led to the \$19.7 billion of capital raised globally, according to Ernst & Young's report²⁵. In the U.S., biotechnology companies raised \$3.3 billion in venture financing, second only to the all-time high of \$3.6 billion reached in 2004. Another \$6.8 billion primarily surfaced from convertible debt transactions, private investment in public entity financings and reverse mergers.

"The bigger story for the industry – and one that unfolded during [2005] was the amount that the industry generated through partnering," according to G. Steven Burrill's state of the biotechnology industry address at the 2006 Biotechnology Industry Organization's annual meeting²⁶. "The \$17 billion raised was an all-time record in biotech's 30-plus year history, giving a clear indication that mergers and acquisitions, along with partnering, had become a very attractive option for biotech companies to help drive their product development programs and ultimately increase shareholder value."

Burrill, founder and CEO of the life sciences venture and investment company Burrill & Company, explained that "big pharma's appetite for biotech deals, already fueled by a need to supplement thin pipelines and replace products losing their patent protection, will continue to grow" in 2006²⁷.

Companies and investors are also infusing capital toward research on pandemic diseases, such as avian flu, and the development of vaccines. Industry is also giving significant focus to research on the prevention and treatment of obesity and Alzheimer's disease. High oil prices have created a surge of investment into the R&D of agricultural products as energy sources.

"The third consecutive year of strong biotech financing is very good news for the industry," according to the Ernst & Young report²⁸. "The single-minded focus on product development has paid off, and investors are increasingly drawn to the sector."

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2. National Institutes of Health, "Summary of the FY 2007 President's Budget," February 6, 2006.
4. Ibid.
5. Ibid.
6. <http://grants1.nih.gov/grants/award/rank/medttl05.htm>
7. Senate Appropriations Subcommittee, "Appropriations Subcommittee Reports FY 2007 Labor, HHS, Education Spending Bill", press release, July 18, 2006.
8. Senate Appropriations Subcommittee, "Committee Approves Commerce, Justice and Science Appropriations Spending Bill", press release, July 13, 2006.
9. Senate Appropriations Subcommittee, "Appropriations Subcommittee Reports FY 2007 Agricultural Spending Bill", press release, June 22, 2006.
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11. Research!America, "2005 Investment in U.S. Health Research", September 2006.
12. T. Hampton, "Health Research Funding Losing Ground," *Journal of the American Medical Association*, 296(10):1219-1220, September 13, 2006.

Market Overview (continued)

13. H. Moses III et al., "Financial Anatomy of Biomedical Research", *Journal of the American Medical Association*, 294(11):1333-1341, September 21, 2005.
14. <http://www.ncrr.nih.gov/biotech/BIGCumulativeAwardimpp.pdf>
15. <http://www.ncrr.nih.gov/biotech/BIHCumulativeAwardimpp.pdf>
16. Biotechnology Industry Organization, "Growing the Nation's Biotech Sector: State Initiatives 2006", April 2006.
17. Ibid.
18. Ibid.
19. Ludwig Institute for Cancer Research, "Ludwig Fund Gives \$120 Million for Cancer Research", press release, November 14, 2006.
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21. Ibid.
22. The Foundation Center, "Foundation Growth and Giving Estimates, 2006 Edition", April 2006.
23. Pharmaceutical Research and Manufacturers of America, "Pharmaceutical Industry Profile 2006", March 2006.
24. Ernst & Young, "Beyond Borders: The Global Biotechnology Report 2006", April 2006.
25. Ibid.
26. Burrill & Co., "A Changing Prescription for Biotechnology," press release, April 11, 2006.
27. Ibid.
28. Ernst & Young, "Beyond Borders: The Global Biotechnology Report 2006", April 2006.

Survey Introduction and Methodology

The 2006 Fall Purchasing Survey is designed to provide life science vendors with information about the purchasing plans of researchers, their budgets, and an overview of the process of how product purchases are made. Data were gathered from questions regarding researcher budgets, future purchasing plans, currently used technology and techniques, plans for new technology integration into the laboratory, where product information is obtained before purchasing decisions are made, and factors that influence those decisions. With this information, suppliers will be better able to focus their marketing and advertising campaigns in specific technological areas, as well as direct customer attention to their specific product material. A more thorough understanding of researcher budgets and discretionary spending will permit companies to plan realistic goals for their own sales forecasts and growth in product market share.

The 2006 Fall Purchasing Survey consisted of 24 questions. Of these, 11 included “other” as an answer choice, providing an opportunity for survey participants to specify and elaborate their answers. Demographical information was gathered from 4 questions and from addresses submitted by survey responders. The survey was administered on-line from October 9th-27th, 2006, and the data tabulated and presented here.

Appendix I: Questionnaire

1. Will your laboratory budget increase or decrease for 2007?

- Increase
- Decrease
- Stay the same

2. Please estimate how much your laboratory budget will increase (or decrease) in 2007? (This question will say either 'increase' or 'decrease' depending on the answer to Q1)

- 1 - 10%
- 11 - 20%
- 21 - 30%
- More than 30%

3. How much do you have budgeted for new lab equipment in 2007?

- \$0
- \$1 to 50,000
- \$50,000 to 100,000
- \$100,001 to 500,000
- \$500,001 to 1,000,000
- >\$1,000,000

4. Which of the following equipment/systems do you plan to purchase and when? (check all that apply)

Within 0-3 months Within 3-6 months Within 6-12 months in >12 months

- | | |
|--|---|
| - 2D Electrophoresis Systems | - Laboratory Freezers (Ultralow Temperature) |
| - Analytical Balances | - Laboratory Freezers (Cryogenic) |
| - Autoclave/Sterilizers | - Liquid Handling Systems |
| - Automated Nucleic Acid Extraction | - Mass Spectrometers |
| - Biological Safety Cabinets | - Microscopes |
| - Centrifuges | - Microfluidics Equipment |
| - Flow Cytometers | - Nucleic Acid Sequencers |
| - Fume Hoods | - Nucleic Acid Synthesizers |
| - Gel Documentation Systems | - Plant Growth Chambers |
| - Gel Electrophoresis Systems | - Real-Time Thermal Cyclers |
| - HPLC/FPLC Systems | - Refrigerators |
| - Humidity/Stability Test Chambers | - Spectrophotometers |
| - Hybridization Ovens | - Thermal Cyclers |
| - Incubators - CO2 | - Tissue Culture Hoods |
| - Incubators - Non CO2 | - Water Baths |
| - Laboratory Freezers (-20°C to -30°C) | - Do not plan to purchase any of this equipment |

The next set of questions were only given to the survey participants who selected they planned to purchase each piece of equipment.

5. From which of the following suppliers will you consider purchasing your 2D Electrophoresis System? (Select all that apply)

- Bio-Rad
- GE Healthcare (formerly Amersham Biosciences)
- Syngene
- Invitrogen
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Analytical Balance? (Select all that apply)

- Mettler Toledo
- Shimadzu
- Ohaus Corporation
- Precision Weighing Instruments
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Autoclave/Sterilizer? (Select all that apply)

- Amerex Instruments
- Thermo Electron
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Automated Nucleic Acid Extraction System? (Select all that apply)

- Applied Biosystems
- Bioneer
- Corbett Robotics
- Promega
- Qiagen
- Roche Applied Science
- Thermo Electron
- Eppendorf
- eEnzyme
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Biological Safety Cabinet? (Select all that apply)

- NuAire
- Terra Universal
- Thermo Electron

- Kendro Laboratory Products
- Labconco
- Other (please specify)

From which of the following supplier(s) will you consider purchasing your Centrifuge? (Select all that apply)

- Beckman Coulter
- Thermo Electron
- Heraeus
- Kendro Laboratory Products
- Eppendorf NA
- MIDSCI
- eEnzyme
- Other (please specify)

From which of the following supplier(s) will you consider purchasing your Flow Cytometer? (Select all that apply)

- BD Biosciences
- Beckman Coulter
- Dako
- Guava Technologies
- Partec
- Amnis
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Fume Hood? (Select all that apply)

- Labconco
- Terra Universal
- The Baker Company
- Fisher
- VWR
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Gel Documentation System? (Select all that apply)

- KODAK
- GE Healthcare (formerly Amersham Biosciences)
- Bio-Rad
- Alpha Innotech
- FUJIFILM
- UVP
- PerkinElmer

- Syngene
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Gel Electrophoresis Equipment (non-2D)? (Select all that apply)

- GE Healthcare (formerly Amersham Biosciences)
- Bio-Rad
- Invitrogen
- Thermo Electron
- Hoefer, Inc.
- Cambrex
- Owl Separation Systems
- CBS Scientific Company
- Sigma-Aldrich
- The Gel Company
- Bioneer
- Elchrom Scientific
- Syngene
- PerkinElmer
- Other (please specify)

From which of the following supplier(s) will you consider purchasing your HPLC/FPLC? (Select all that apply)

- Agilent Technologiess
- GE Healthcare (formerly Amersham Biosciences)
- Bio-Rad
- Cecil Instruments
- Shimadzu
- Varian
- Thermo Electron
- Waters
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Humidity/Stability Test Chamber? (Select all that apply)

- Binder
- Other (please specify)

From which of the following supplier(s) will you consider purchasing your Hybridization Oven? (Select all that apply)

- **Binder**
- **New Brunswick Scientific**
- Thermo Electron

- MIDSCI
- NuAire
- UVP
- Barnstead/Thermolyne
- SANYO Scientific
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Non-CO2 Incubator? (Select all that apply)

- Binder
- Thermo Electron
- Bio-Rad
- MIDSCI
- UVP
- Amerex Instruments
- Major Science
- Kendro Laboratory Products
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your -20C Freezer? (Select all that apply)

- MIDSCI
- Revco
- SANYO Scientific
- TeknoGard
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Ultralow Temperature Freezer? (Select all that apply)

- MIDSCI
- New Brunswick Scientific
- Thermo Electron
- NuAire
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Cryogenic Freezer? (Select all that apply)

- MIDSCI
- Thermo Electron
- Taylor Wharton
- Revco
- SANYO Scientific
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your CO2 Incubator? (Select all that apply)

- New Brunswick Scientific
- Binder
- MIDSCI
- NuAire
- Taylor Wharton
- Revco
- SANYO Scientific
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Liquid Handling System? (Select all that apply)

- Applied Biosystems
- Beckman Coulter
- Eppendorf
- Gilson
- PerkinElmer
- Hamilton Robotics
- Caliper
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Mass Spectrometer? (Select all that apply)

- Applied Biosystems
- Bruker Daltonics
- Waters
- Thermo Electron
- Shimadzu
- Varian
- Agilent
- GE Healthcare (formerly Amersham Biosciences)
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Microscope? (Select all that apply)

- GE Healthcare (formerly Amersham Biosciences)
- Leica
- Nikon
- KODAK
- BD Biosciences
- Carl Zeiss
- Motic Instruments

- Olympus
- PerkinElmer
- Applied Precision- Cellomics
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Nucleic Acid Sequencer? (Select all that apply)

- Applied Biosystems
- LI-COR Biosciences
- Bioneer
- GE Healthcare (formerly Amersham Biosciences)
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Nucleic Acid Synthesizer? (Select all that apply)

- Applied Biosystems
- Genomic Solutions
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Plant Growth Chamber? (Select all that apply)

- Binder
- Percival Scientific
- Nor-Lake Scientific
- Conviron
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Real-Time Thermal Cycler? (Select all that apply)

- Applied Biosystems
- Bioneer
- Bio-Rad/MJ Research
- Corbett Robotics
- Cepheid
- Eppendorf
- Idaho Technologies
- Roche Applied Science
- Stratagene
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Refrigerator? (Select all that apply)

- TeknoGard

- Revco
- SANYO Scientific
- MIDSCI
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Spectrophotometer? (Select all that apply)

- Agilent Technologies
- Bio-Rad
- Eppendorf NA
- PerkinElmer
- Shimadzu
- Thermo Electron
- Beckman Coulter
- Cecil Instruments
- Nanodrop
- Varian
- GE Healthcare (formerly Amersham Biosciences)
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Thermal Cycler? (Select all that apply)

- Applied Biosystems
- Biometra
- Bio-Rad/MJ Research
- Corbett Life Science
- Stratagene
- Eppendorf
- Bioneer
- MIDSCI
- Thermo Electron
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Tissue Culture Hood? (Select all that apply)

- Thermo Electron
- LabConco
- NuAire
- Terra Universal
- The Baker Company
- Other (Please specify)

From which of the following supplier(s) will you consider purchasing your Water Bath? (Select all that apply)

- Bio-Rad
- Elchrom Scientific AG
- Eppendorf NA
- MIDSCI
- New Brunswick Scientific
- Amerex Instruments
- Other (Please specify)

6. Do you currently conduct or plan to conduct microRNA research?

- Currently conducting
- Within 3 months
- Within 6 months
- Within one year
- In more than one year
- Do not currently conduct or plan to conduct

7. Are you planning on purchasing any of the following software and, if so, what would be your time frame for purchase?

Within 0-3 months Within 3-6 months Within 6-12 months in >12 months

- LIMS
- Mass Spectrometry Software
- Bioinformatics Software
- Image Analysis Software
- 2D Image Analysis Software
- Microarray Analysis Software
- Pathway Analysis/Mapping Software
- Other Laboratory Software
- Not planning on purchasing any of the above software

8. What techniques or technologies do you currently use in your lab or will be new to you in 2007? (check all that apply)

Currently Use

Will begin using in 2007

- Capillary Electrophoresis
- Gene Transfer
- Real-time PCR
- Nucleic Acid Labeling and Detection

- Protein Sequence Analysis
- Electrophoresis
- Vector Design/Construction
- Laser Capture Microdissection
- Mutagenesis
- Nucleic Acid Hybridization
- Gene Expression Analysis
- Nucleic Acid Sequence Analysis
- High-Throughput Screening
- PCR/RT-PCR
- Protein Isolation & Purification
- Protein Microarrays
- Crystallization
- Protein-DNA Interaction Analysis
- Protein-Protein Interaction Analysis
- Cell/Tissue Culture
- SNP Analysis
- DNA Microarrays
- Image Analysis
- RNAi/siRNA
- Microscopy
- Spectroscopy
- Antibody-based Technologies
- 2D Electrophoresis

9. Do you plan to commercially outsource any of the following in 2007 (not including use of a core facility)?

- Laboratory Animal Services
- Mass Spectrometry Services
- Peptide Synthesis
- Antibody Production
- Library Construction
- Oligonucleotide Synthesis
- siRNA Synthesis
- Microarray Services
- Protein Production
- Microbiology Services
- Cell Culture Services
- Histology Services
- None of the Above
- Other (Please specify)

10. What price per 2D gel (20x20cm) would you be willing to pay for a new 2D Gel premix which would offer the following benefits:

- i. A factor of 2 to 3 in detection sensitivity AND**
- ii. 70 – 80% hit rate on post MS protein detection**

_____ \$ each for up to 100 gels/year
 _____ \$ each for up to 500 gels/year
 _____ \$ each for up to 1000 gels/year
 _____ \$ each for more than 1000 gels/year

11. Do you plan to purchase synthetic oligonucleotides (DNA or RNA) in the next year?

- Yes
- No

12. How many high purity (gel purified) synthetic oligonucleotides (DNA and/or siRNA) do you plan to buy in the next year?

Please indicate the number you plan to purchase under the supplier type. If you do not plan to purchase oligos from a supplier type, please leave the box blank.

Length	Manufacturer	Vendor	Core Facility	Other
20 – 30				
30 - 50				
50 – 70				
70 – 120				
more than 120				

13. What conferences do you plan on attending in 2007? (Select all that apply)

- AAAS: American Association for the Advancement of Science
- AACC: American Association for Clinical Chemistry
- AACR: American Association of Cancer Research
- ABRF: Association of Biomolecular Resource Facilities
- ACS: American Cancer Society
- ASCB: American Society of Cell Biology
- ASHG: American Society for Human Genetics
- ASM: American Society for Microbiology
- ASMS: American Society of Mass Spectrometry
- Biotechnica
- Drug Discovery Technology
- ENDO: Endocrine Society
- FASEB: Federation of American Societies for Experimental Biology

- None
- Other (Please specify)

14. Please tell us why you will not be attending any meetings in 2007.

- It's not in my budget
- There isn't a meeting that pertains to my research interests
- Other (please specify)

15. Which of the following resources do you use to look for life science products?

- Supplier print catalogs
- Journal advertisements
- Conferences
- Colleague referral
- Biocompare
- Email newsletters
- Google
- Journal websites
- LabVelocity
- BioResearchOnline
- SelectScience
- Sciquest
- Supplier websites/web catalogs
- Other (please specify)

16. Please rate from 1 to 5 how much you are influenced by each of the following to purchase lab products.

(1 = Not at all influenced, 5 = Very influenced)

- Email advertisements
- Journal advertisements
- Colleague recommendations
- Print catalogs
- Web advertisements
- Online buyer's guides (Biocompare, LabVelocity, BioSupplyNet)
- Journal articles
- Storeroom availability
- Brand reputation
- Samples

17. Which advertising medium below is the most influential in encouraging you to visit a vendor's website?

- Referral from friend/colleague
- Online advertising
- Print advertising

- Search engine results
- E-mail message
- Booth at a tradeshow
- Third party comparison site
- Other (please specify)

18. Which of the following promotions do you prefer?

- Free trial products
- Discounted products
- Customer reward programs
- Giveaways with Purchases
- Free Technical Manuals/Posters
- Other (please specify)

19. Do you look for life science products online?

- Yes
- No

20. Please indicate how often you use each of the following to look for life science products online.

Very Often Often Sometimes Not Very Often Never

- Biocompare
- LabVelocity.com
- Google
- BiosupplyNet.com
- SelectScience
- Nature.com
- BioResearchOnline
- Supplier Websites
- Sciquest
- Sciencemag.org

21. Please tell us of any other websites you use to find life science products. (open-ended)

Demographic Questions

1. In which type of institution do you work?

- Academic
- Pharmaceutical
- Private Research
- Other (please specify)
- Biotechnology
- Government
- Clinical Diagnostic Testing

2. Which title best applies?

- Professor/Instructor
- Business Development Director/Manager
- Department Head
- Account Manager
- Staff Scientist
- President/CEO/Owner/VP
- Postdoctoral Fellow
- Consultant
- Process Engineer
- Research Director/VP of Research
- Technician/Research Assistant
- Graduate Student
- Principal Investigator
- Lab Director/Chief Scientist
- Procurement Manager
- Other

3. Which of the following are your key areas of research or work?

- Bioinformatics
- Genomics/Genetics
- Drug Discovery
- Marketing/Sales
- Bioengineering
- Purchasing
- Microbiology/Virology
- Cell Biology
- Administration
- Pharmacology/Toxicology
- Neuroscience
- None of the Above
- Immunology
- Diagnostics/Pathology
- Biochemistry
- Molecular Biology
- Proteomics
- Other (please specify)

4. Which best describes your purchasing authority?

- Authorize
- Recommend
- Evaluate
- No Purchase Role

Appendix II: Presentation of Survey Data

Demographic Survey Data

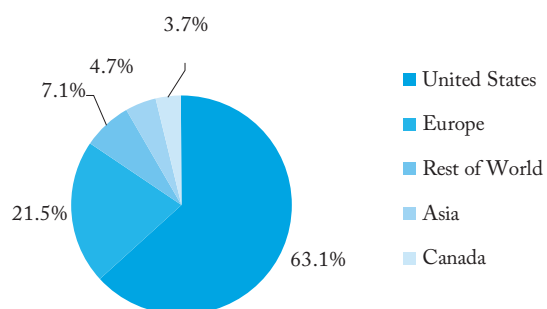
Country

67% of survey participants are from the United States and Canada, over 20% are from Europe, and nearly 5% are from Asia.

N = 921

Country	Count	%
United States	581	63.1%
Europe	198	21.5%
Asia	43	4.7%
Canada	34	3.7%
Rest of World	65	21.5%

Country

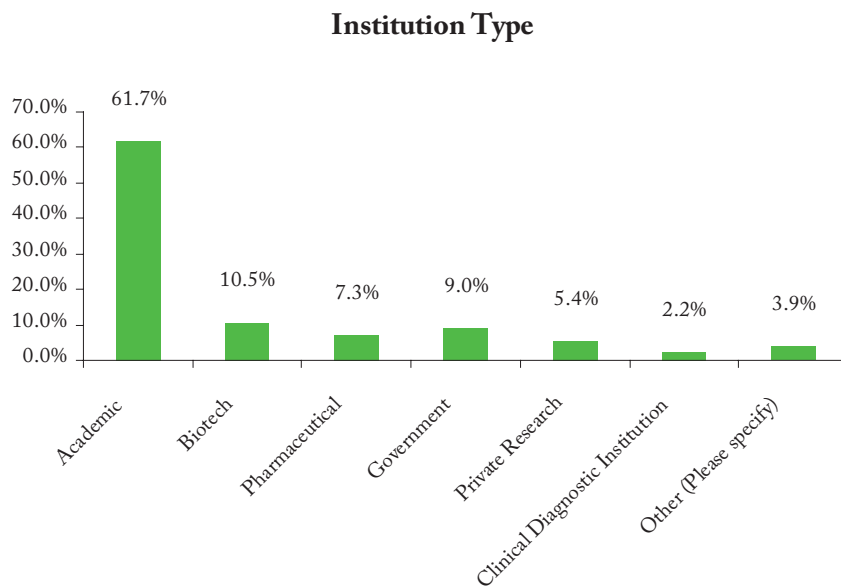


What is your Institution Type?

62% of survey participants are from Academia, 18% are from Biotech and Pharmaceutical companies, and 9% are from Government.

N = 922

Institution Type	Count	%
Academic	569	61.7%
Biotech	97	10.5%
Pharmaceutical	67	7.3%
Private Research	50	5.4%
Government	83	9.0%
Clinical Diagnostic Institution	20	2.2%
Other	36	3.9%



Which title best applies?

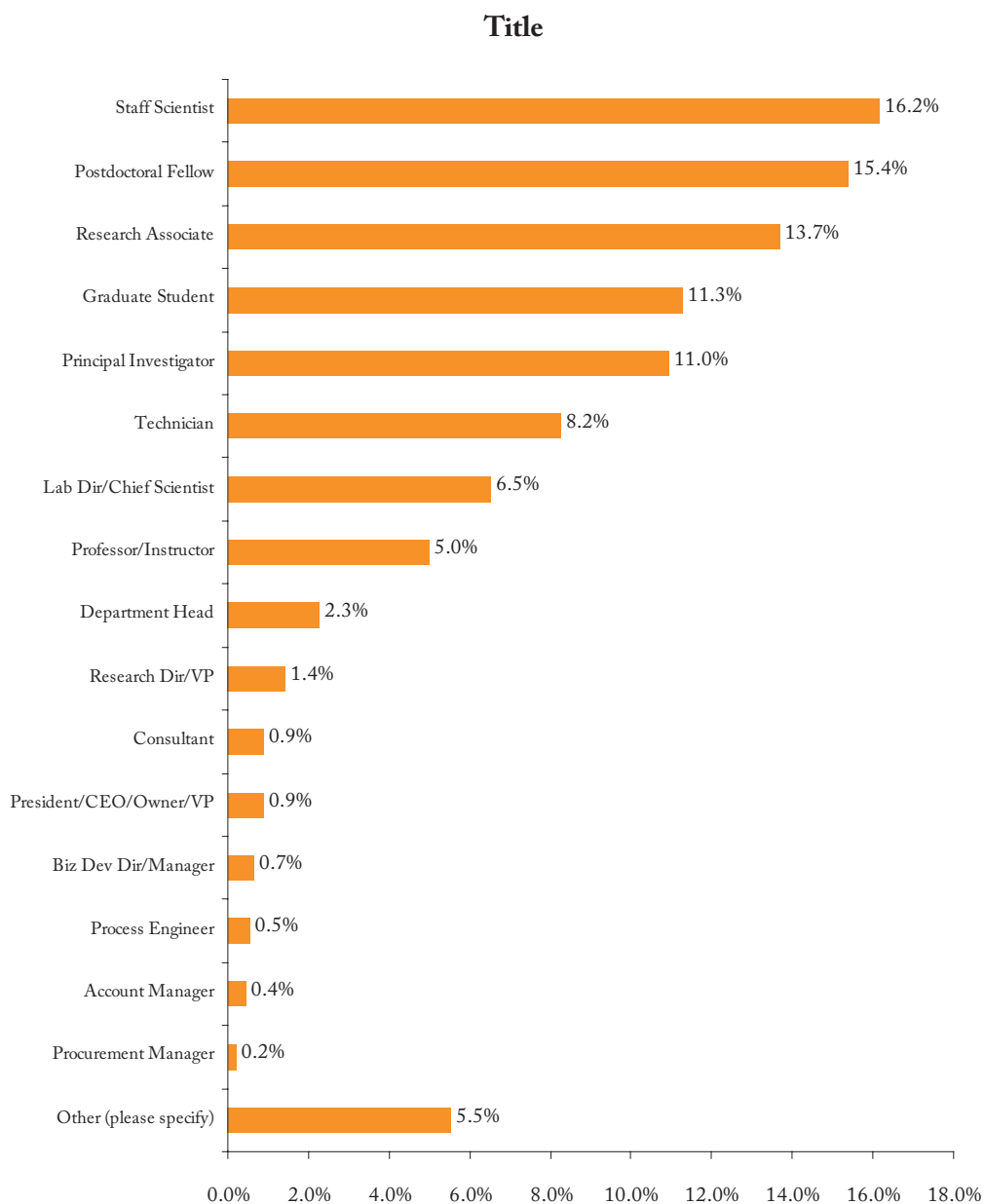
Over 75% of survey participants work at the bench*.

N = 922

Institution Type	Count	%
Staff Scientist	149	16.2%
Postdoctoral Fellow	142	15.4%
Graduate Student	104	11.3%
Research Associate	126	13.7%
Principal Investigator	101	11.0%
Technician	76	8.2%
Lab Director/Chief Scientist	60	6.5%
Professor/Instructor	46	5.0%
Department Head	21	2.3%
Research Director/VP of Research	13	1.4%
Consultant	8	0.9%
President/CEO/Owner/VP	8	0.9%
Business Development Director/Manager	6	0.7%
Process Engineer	5	0.5%
Account Manager	4	0.4%
Procurement Manager	2	0.2%
Other	51	5.5%

*Includes: Postdoctoral Fellow, Staff Scientist, Graduate Student, Research Associate, Principal Investigator, Technician.

Which title best applies?



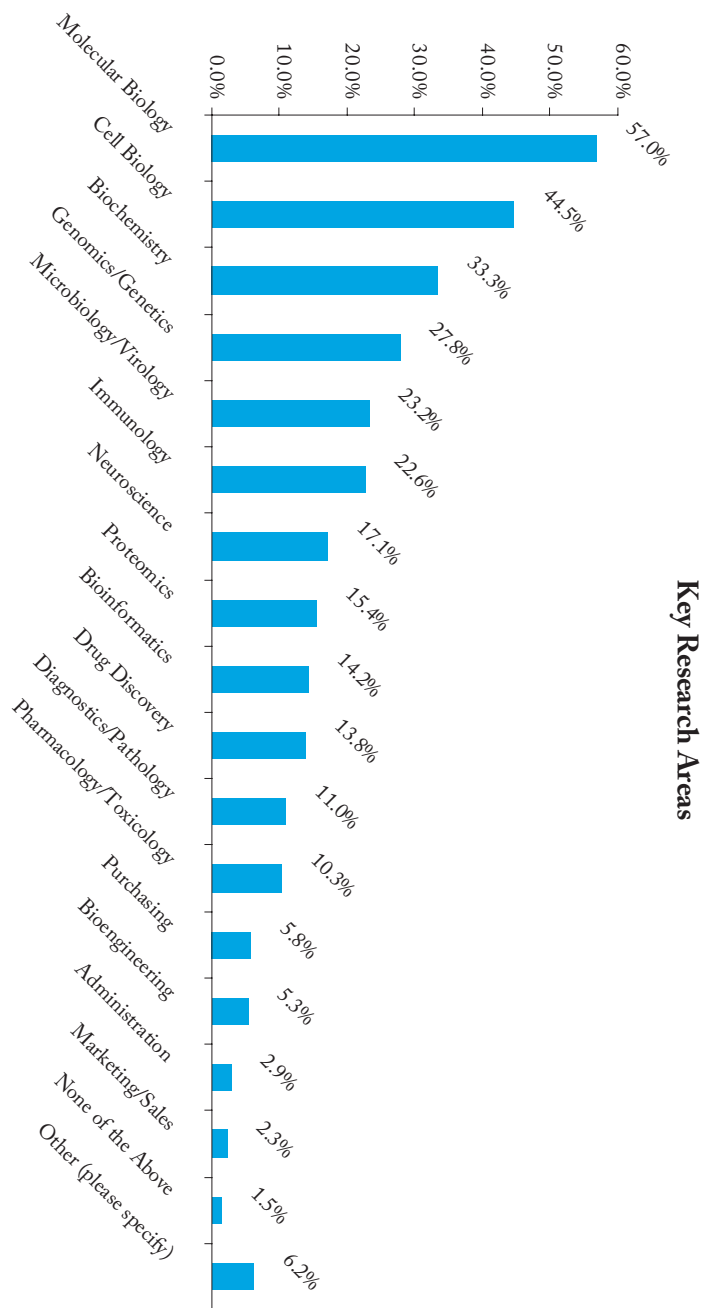
**Which of the following are your key areas of research or work?
(check all that apply)**

The majority of the survey participants selected Molecular Biology as their key area of research.
N = 921

Research Area or Work	Count	%
Molecular Biology	525	57.0%
Cell Biology	410	44.5%
Biochemistry	307	33.3%
Genomics/Genetics	256	27.8%
Microbiology/Virology	214	23.2%
Immunology	89	22.6%
Neuroscience	157	17.1%
Proteomics	142	15.4%
Bioinformatics	131	14.2%
Drug Discovery	127	13.8%
Diagnostics/Pathology	101	11.0%
Pharmacology/Toxicology	95	10.3%
Purchasing	53	5.8%
Bioengineering	49	5.3%
Administration	27	2.9%
Marketing/Sales	21	2.3%
None of the Above	14	1.5%
Other	57	6.2%

Which of the following are your key areas of research or work? (check all that apply)

The majority of the survey participants selected Molecular Biology as their key area of research.
N = 921



Which best describes your purchasing authority?

Nearly 90% of the survey respondents either authorize or recommend purchases.

N = 922

Purchasing Authority	Count	%
Authorize	358	38.8%
Recommend	459	49.8%
Evaluate	63	6.8%
No purchase role	42	4.6%

