

R&D deals boom in 2004

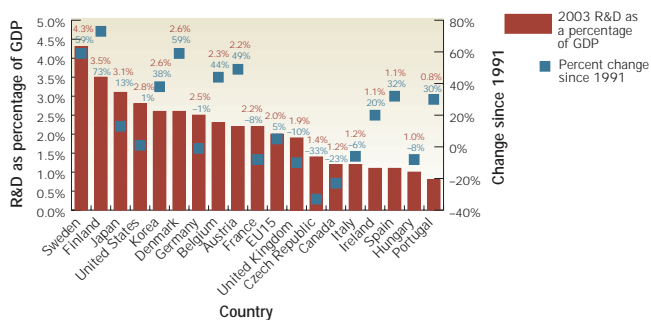
Stacy Lawrence

Last year, biopharmaceutical research partnerships and licensing deals topped \$12 billion. That's up almost one-fifth from 2003. And the trend looks like it might stay on track; in the first half of 2005,

there were already more than \$6 billion in deals. Fewer of these deals are now made by big pharma, the majority being sealed between biotech companies.

Total national expenditure on R&D

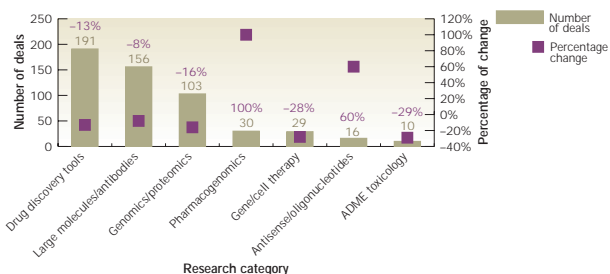
In little more than a decade, the UK and Canada both significantly shrank their investment in R&D as a share of their economy while the United States and Germany kept theirs stable.



2002 data for Japan, UK, and EU15 (Austria, Belgium, Luxembourg, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom). Source: Organization for Economic Co-operation and Development, Eurostat, country finance ministries

Biotech deals by research category in 2004

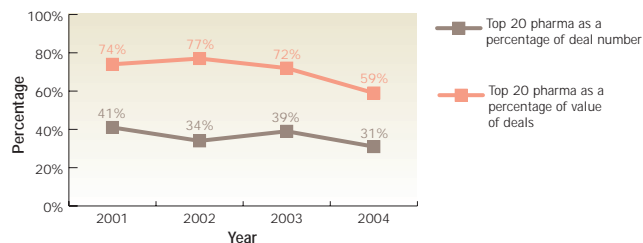
Pharmacogenomics and antisense/siRNA deals increased, whereas large molecule, gene therapy and genomics all declined.



Source: Windhover, Burrill & Company

Top 20 pharma as portion of R&D deals

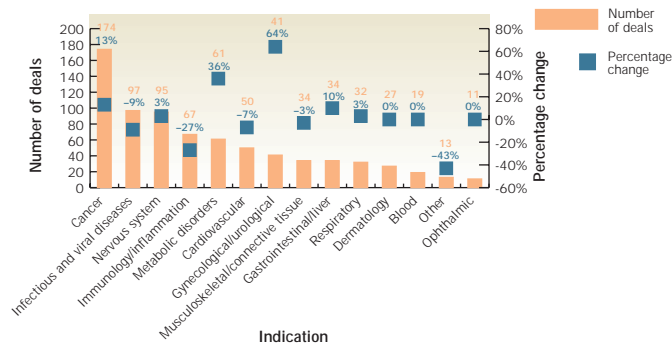
Although the total number and value of research deals are increasing, major pharmaceuticals are participating in a shrinking share.



Source: Windhover, Burrill & Company, Nature Biotechnology

Research deals in 2004 by therapeutic category

Gynecological/urological and metabolic indications as well as cancer saw more research deals last year.



Source: Windhover, Burrill & Company

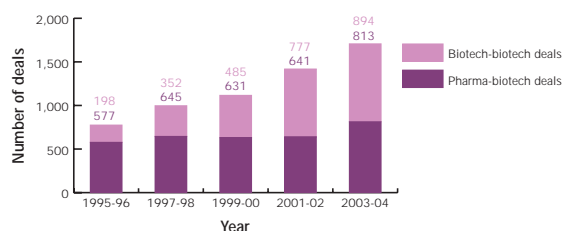
Biotech R&D budgets with the largest increases

Company	R&D 04 (Million)	Percentage change	Absolute change (Million)
Biogen Idec	\$687.7	195%	\$454.4
Amgen	\$2,028.0	23%	\$372.6
Genentech	\$947.5	31%	\$225.5
Monsanto	\$511.0	63%	\$198.0
MedImmune	\$327.3	109%	\$171.0
Cambridge Antibody Technology	\$84.1	-2%	\$158.9
Genmab	\$68.3	8%	\$128.1
Serono	\$594.8	27%	\$127.0
Actellion	\$114.2	72%	\$122.5
Cephalon	\$274.0	63%	\$105.8

Source: Revere Data, Nature Biotechnology

Number of biotech partnership deals

As biotechs reach more agreements among themselves, their share of all deals has increased from one-quarter to more than one-half.



Source: Recombinant Capital

