

Biotech patenting matures

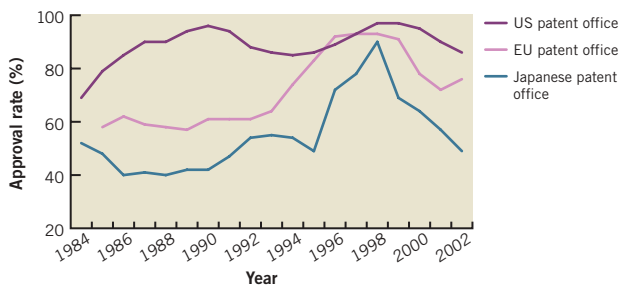
Stacy Lawrence

The glut of patents that bombarded major patent offices in the late nineties appears to be on the wane; patent approval rates have also dropped. According to the US Department of Commerce, in 2002, 33,131 biotech patents were pending and 23,992 were granted. Over

the past decade, companies have dramatically overtaken research institutions and government as patentees: in 1993, companies received just 3% of all patent approvals; last year, they claimed almost seven out of ten new patents.

Overall patent approval rate

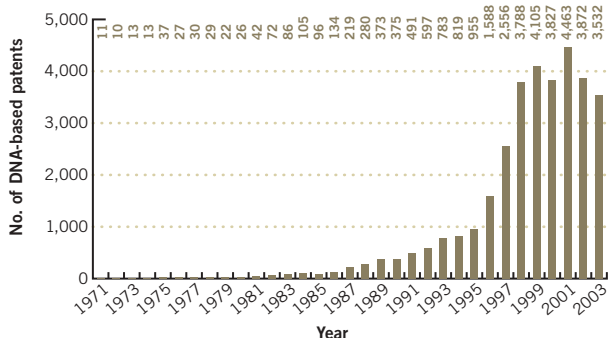
Adjusted for a few years of time lag and other factors, all the major patent offices were approving at least 90% of patent applications in 1998, a large proportion of which were in biotech.



Source: Federal Circuit Bar Journal

Biotech patents approved by USPTO

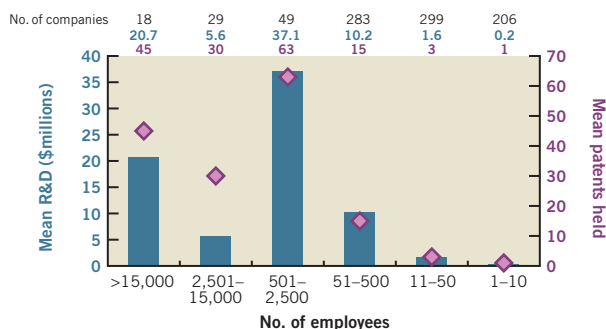
The number of biotech patents granted in the United States recently has dwindled.



Source: DNA Patent Project at the Kennedy Institute of Ethics, Georgetown University

Average number of patents held & company size

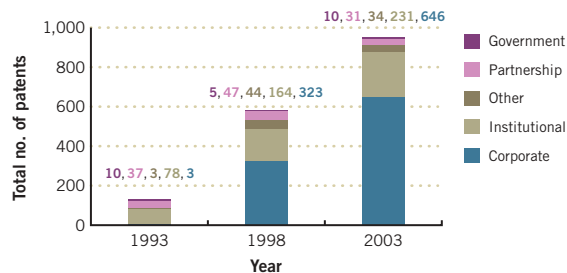
The largest companies don't always hold the most patents or spend the most money on R&D.



Source: U.S. Department of Commerce

Biotech patents by organization

More than two-thirds of all biotech patents were awarded to companies last year, up from a mere 2% in 1993.



Patents featuring the term "nucleic acid" in the specifications of the patent. Source: Finnegan, Henderson, Farabow, Garrett & Dunner

Top 10 US biotech patent holders over past 10 years

The University of California system and the US government continue to dominate USPTO patent approvals.

Year	No. patents ^a	Year	No. patents ^a	Year	No. patents ^a
1993	22	1998	130	2003	118
US Government	20	University of California	127	US Government	87
Scripps	17	Incyte Pharmaceuticals	104	Human Genome Sciences	82
E.I. duPont de Nemours	10	Genentech	101	Isis Pharmaceuticals	65
Scios Nova Inc.	9	Chiron	61	Applera	54
Ciba-Geigy	9	Johns Hopkins University	54	Genentech	54
Syntex	8	University of Texas	42	Millennium	48
Abbott Laboratories	8	NeXstar Pharmaceuticals	39	E.I. duPont de Nemours	48
Eastman Kodak	8	ISIS Pharmaceuticals	37	Affymetrix	45
Fuji Photo	8	Columbia University	37	Corixa	42

^aPatents featuring the term "nucleic acid" in the specifications of the patent. Source: Finnegan, Henderson, Farabow, Garrett & Dunner

Top 25 US biotech patent holders

Ten of the top 25 holders of US biotech patents are universities, research institutions or the government.

Holder	No. patents ^a	Holder	No. patents ^a
University of California	876	Amgen	308
US Government	813	Johns Hopkins University	292
GlaxoSmithKline	567	Applera	277
Incyte Genomics	539	Massachusetts General Hospital	260
Aventis	530	Novo Nordisk	253
Chiron	393	Harvard University	241
Genentech	367	Pfizer	227
Bayer	359	Stanford University	206
Wyeth	349	Eli Lilly	202
Novartis	344	Salk Institute	177
Merck	328	Cornell University	172
University of Texas	318	MIT	170
Human Genome Sciences	316		

^aDNA-based patents. Data as of February 2004. Source: DNA Patent Project at the Kennedy Institute of Ethics, Georgetown University

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