

Signals Magazine

Online Magazine Of Biotechnology Industry Analysis

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Financial Snapshot For December 2002: Down, But Not Out



It seems that the current bear market will never end. Wall Street just closed out 2002 on a down note -- for the third straight year. All three of the major market indices -- the Dow Jones Industrial Average, the Nasdaq Composite Index and the Standard & Poor's 500 index -- suffered losses in 2002, as they had in 2001 and 2000. This three-year losing streak hasn't happened to the Dow and the S&P since 1939-1941. And it's the first time in Nasdaq's 31-year history that it's recorded a three-year loss.

Given those unsettling statistics, it comes as no surprise that the biotech stocks have also taken a beating. But, due to the genomics bubble, the biotechs actually outperformed the Nasdaq Comp in 2000: That year, the Nasdaq Biotech Index gained 23%, while the Comp lost 39%.

Since then, as we know all too well, it's been a downhill ride. Between December 29, 2000 and December 31, 2002, the Nasdaq Biotech Index dropped by 54%, while the Comp shed 46%.

And it's not over yet. During October and November 2002, both the Biotech Index and the Comp exhibited significant gains: The Biotech Index rose by 11% and 9%, respectively, while the Comp gained 11% each month. In December, however, both indices fell back: The Biotech Index shed 11% and the Comp lost 10%.

PHARMACEUTICALS	\$8.54	33%	-65%	\$2,458	\$1,909	\$549	\$683	1900	\$0.3	-\$431.0	4.4	0.6
MYRIAD GENETICS	\$14.95	26%	-72%	\$357	\$73	\$284	\$0	491	\$0.6	-\$27.4	2.7	1.8
1st Generation Genomics Average		25%	-73%	\$878	\$789	\$89	\$275		\$0.0	-\$149.6	4.7	0.8
1st Generation Genomics Median		26%	-72%	\$348	\$275	-\$18	\$94		\$0.0	-\$51.7	3.5	0.6

Company	Close 12/26/02	% 52wk High	% change from 12/31/01	Market Cap (\$M)	Cash & Mkt. Sec. (\$M)	Tech Value (\$M)	LT Debt plus Convert	# of Staff	Tech Value / Staff (\$M)	Est. Burn Rate (\$M)	Survival Index (Yrs)	Equity Multiple
ACLARA BIOSCIENCES	\$2.15	41%	-58%	\$78	\$111	-\$33	\$0	170	-\$0.2	-\$39.4	2.8	0.3
AFFYMETRIX	\$24.00	57%	-36%	\$1,401	\$354	\$1,048	\$370	905	\$1.2	-\$6.3	55.8	4.0
CALIPER TECHNOLOGIES	\$3.08	16%	-80%	\$75	\$139	-\$64	\$0	132	-\$0.5	-\$45.5	3.1	0.3
CELERA GENOMICS GROUP	\$9.77	35%	-63%	\$699	\$908	-\$209	\$0	na	na	na	na	na
CEPHEID	\$5.50	84%	31%	\$170	\$16	\$153	\$2	143	\$1.1	-\$22.1	0.7	2.3
CIPHERGEN BIOSYSTEMS	\$3.50	42%	-56%	\$95	\$64	\$32	\$0	229	\$0.1	-\$29.2	2.2	0.5
ILLUMINA	\$3.10	25%	-74%	\$100	\$80	\$20	\$26	179	\$0.1	-\$65.8	1.2	1.2
SEQUENOM	\$1.70	15%	-84%	\$67	\$114	-\$47	\$2	272	-\$0.2	-\$57.9	2.0	0.1
TRANSGENOMIC	\$2.42	19%	-78%	\$57	\$25	\$32	\$0	na	na	-\$15.9	1.6	0.5
Genomic Supply Average		37%	-55%	\$305	\$201	\$103	\$44		\$0.2	-\$35.3	8.7	1.2
Genomic Supply Median		38%	-60%	\$87	\$95	\$11	\$1		\$0.1	-\$29.2	2.0	0.5

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APPLIED MOLECULAR EVOLUTION	\$2.14	16%	-83%	\$44	\$64	-\$20	\$0	83	-\$0.2	-\$18.8	3.4	0.3
ARENA PHARMACEUTICALS	\$6.71	52%	-44%	\$186	\$209	-\$23	\$0	209	-\$0.1	-\$29.3	7.1	0.6
CURAGEN CORP	\$4.66	20%	-79%	\$230	\$455	-\$226	\$150	454	-\$0.5	-\$88.1	5.2	0.5
DECODE GENETICS	\$1.92	18%	-80%	\$103	\$115	-\$13	\$49	592	\$0.0	-\$67.3	1.7	0.2
DELTAGEN	\$0.51	5%	-94%	\$21	\$77	-\$56	\$10	356	-\$0.2	-\$76.9	1.0	0.1
EXELIXIS	\$7.31	44%	-56%	\$420	\$171	\$249	\$0	571	\$0.4	-\$95.6	1.8	0.9
GENE LOGIC	\$6.55	32%	-65%	\$177	\$181	-\$4	\$1	272	\$0.0	-\$17.5	10.3	0.5
GENENCOR INTERNATIONAL	\$10.06	62%	-37%	\$587	\$160	\$427	\$85	1144	\$0.4	na	na	1.1
HYSEQ INC.	\$0.92	10%	-88%	\$21	\$12	\$9	\$4	224	\$0.0	-\$32.3	0.4	0.1
LARGE SCALE BIOLOGY	\$0.88	18%	-80%	\$22	\$33	-\$11	\$0	169	-\$0.1	-\$38.2	0.9	0.1
LEXICON GENETICS	\$4.70	36%	-59%	\$246	\$129	\$117	\$0	507	\$0.2	-\$59.8	2.2	0.7
LYNX THERAPEUTICS	\$0.46	9%	-89%	\$14	\$18	-\$4	\$1	182	\$0.0	-\$21.9	0.8	0.1
MAXYGEN	\$8.12	42%	-54%	\$280	\$219	\$61	\$0	308	\$0.2	-\$34.8	6.3	0.7
NANOGEN	\$1.51	24%	-74%	\$33	\$52	-\$19	\$0	194	-\$0.1	-\$34.1	1.5	0.2
ORCHID BIOSCIENCES	\$0.47	7%	-91%	\$26	\$22	\$4	\$5	595	\$0.0	-\$48.9	0.4	0.1
PARADIGM GENETICS	\$0.38	6%	-93%	\$12	\$10	\$3	\$5	253	\$0.0	-\$20.0	0.5	0.1
RIGEL PHARMACEUTICALS	\$1.05	20%	-77%	\$48	\$58	-\$10	\$0	147	-\$0.1	-\$35.0	1.6	na
SANGAMO BIOSCIENCES	\$3.70	34%	-60%	\$91	\$55	\$36	\$0	90	\$0.4	-\$14.5	3.8	0.7
Genomic Targets Average		25%	-73%	\$142	\$113	\$29	\$17		\$0.0	-\$43.1	2.9	0.4
Genomic Targets Median		20%	-77%	\$48	\$64	-\$4	\$1		\$0.0	-\$34.5	1.7	0.4

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EMBREX	\$12.00	47%	-33%	\$97	\$8	\$89	\$0	221	\$0.4	na	na	1.6

ENVIROGEN	\$0.60	34%	-50%	\$2	\$2	\$1	\$0	144	\$0.0	-\$1.6	1.1	0.0
IDEXX LABORATORIES	\$33.09	89%	16%	\$1,138	\$90	\$1,048	\$0	2170	\$0.5	na	na	3.4
IMMUCELL CORP	\$1.71	46%	-53%	\$5	\$2	\$3	\$0	30	\$0.1	-\$0.1	19.8	0.5
Agbio/enviro. Average	.	54%	-30%	\$311	\$25	\$285	\$0	.	\$0.2	-\$0.8	10.4	1.4
Agbio/enviro. Median	.	47%	-33%	\$5	\$2	\$3	\$0	.	\$0.4	-\$0.1	1.1	1.0

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ALEXION PHARMACEUTICALS	\$14.97	56%	-39%	\$273	\$325	-\$53	\$124	140	-\$0.4	-\$68.4	4.8	0.7
AUTOIMMUNE	\$0.69	49%	-46%	\$12	\$10	\$1	\$0	na	na	-\$0.7	14.7	0.1
BIOMARIN PHARMACEUTICAL	\$6.92	49%	-49%	\$371	\$101	\$271	\$0	216	\$1.3	-\$57.6	1.7	1.2
BIOTRANSPLANT	\$0.46	5%	-95%	\$12	\$14	-\$2	\$0	105	\$0.0	-\$96.3	0.1	0.1
CONNETICS CORP	\$11.97	82%	1%	\$372	\$38	\$334	\$0	162	\$2.1	-\$21.3	1.8	2.2
CORTECH	\$2.37	57%	-42%	\$9	\$0	\$9	\$0	na	na	-\$2.6	0.0	0.1
CYPRESS BIOSCIENCE	\$2.75	61%	-33%	\$36	\$16	\$21	\$0	9	\$2.3	-\$6.3	2.5	0.3
EPIMMUNE	\$1.00	24%	-67%	\$12	\$12	\$0	\$0	52	\$0.0	-\$6.0	2.0	0.1
ICOS CORP	\$24.82	40%	-57%	\$1,540	\$194	\$1,346	\$0	469	\$2.9	-\$161.6	1.2	2.0
INKINE PHARMACEUTICAL CO	\$1.85	74%	19%	\$65	\$8	\$57	\$0	12	\$4.8	-\$6.2	1.2	1.1
KERYX BIOPHARMACEUTICALS	\$1.66	20%	-77%	\$33	\$30	\$3	\$0	63	\$0.0	-\$9.6	3.1	0.5
LA JOLLA PHARMACEUTICAL CO	\$6.66	71%	-26%	\$283	\$75	\$208	\$0	118	\$1.8	-\$45.4	1.6	1.4
PROTEIN DESIGN LABS	\$8.50	25%	-74%	\$757	\$638	\$119	\$159	363	\$0.3	-\$2.2	285.5	1.2
TANOX	\$9.81	52%	-47%	\$435	\$105	\$329	\$0	114	\$2.9	-\$22.4	4.7	1.4
Autoimmune Average	.	48%	-45%	\$301	\$112	\$189	\$20	.	\$1.5	-\$36.2	23.2	0.9
Autoimmune Median	.	52%	-46%	\$65	\$30	\$21	\$0	.	\$1.3	-\$9.6	1.8	1.0

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ALLOS THERAPEUTICS	\$7.37	75%	6%	\$190	\$64	\$126	\$0	61	\$2.1	-\$27.5	2.3	1.1
ANTIGENICS	\$10.60	58%	-35%	\$351	\$84	\$266	\$0	208	\$1.3	-\$104.0	0.8	1.2
APHTON CORP	\$3.81	24%	-74%	\$86	\$13	\$74	\$0	50	\$1.5	-\$39.3	0.3	0.7
AVAX TECHNOLOGIES	\$0.17	17%	-71%	\$3	\$8	-\$5	\$0	43	-\$0.1	-\$10.5	0.8	0.0
AVI BIOPHARMA	\$5.09	38%	-53%	\$135	\$30	\$105	\$0	85	\$1.2	-\$42.0	0.7	1.0
BIOMIRA	\$0.90	19%	-79%	\$48	\$83	-\$35	\$0	179	-\$0.2	-\$17.6	4.7	0.5
BOSTON LIFE SCIENCES	\$1.08	29%	-60%	\$24	\$11	\$13	\$0	na	na	na	na	na
BRITISH BIOTECH PLC	\$1.70	15%	-81%	\$36	\$173	-\$137	\$3	145	-\$0.9	-\$36.2	4.8	0.1
CELGENE CORP	\$22.78	68%	-29%	\$1,793	\$294	\$1,499	\$0	383	\$3.9	-\$6.9	42.8	3.3
CELL PATHWAYS	\$0.45	6%	-94%	\$18	\$19	-\$1	\$0	77	\$0.0	-\$7.2	2.6	0.1
CELL THERAPEUTICS	\$7.78	28%	-68%	\$254	\$194	\$61	\$175	238	\$0.3	-\$106.0	1.8	0.7
CORIXA CORP	\$6.71	41%	-55%	\$330	\$57	\$273	\$30	496	\$0.6	na	na	0.3
CYTOGEN CORP	\$2.92	8%	-90%	\$26	\$20	\$6	\$2	74	\$0.1	-\$12.8	1.5	0.1
DENDREON	\$5.50	48%	-45%	\$145	\$60	\$85	\$0	72	\$1.2	-\$25.0	2.4	0.9
DOR BIOPHARMA	\$0.53	25%	-49%	\$11	\$10	\$1	\$0	22	\$0.1	na	na	na
DUSA PHARMACEUTICALS	\$1.59	20%	-80%	\$22	\$58	-\$36	\$2	55	-\$0.6	-\$13.8	4.2	0.2
ENTREMED	\$0.93	10%	-89%	\$20	\$11	\$9	\$4	112	\$0.1	-\$45.0	0.3	0.1
EXEGENICS	\$0.45	12%	-86%	\$7	\$22	-\$15	\$0	29	-\$0.5	-\$7.5	2.9	0.1
GENAERA	\$0.50	13%	-87%	\$18	\$15	\$3	\$0	57	\$0.0	-\$13.3	1.1	0.1
GENTA	\$8.01	43%	-44%	\$586	\$144	\$442	\$10	60	\$7.4	-\$68.3	2.1	1.8
GERON CORP	\$3.52	34%	-60%	\$87	\$62	\$25	\$16	142	\$0.2	-\$36.0	1.7	0.3

ILEX ONCOLOGY	\$7.46	26%	-72%	\$243	\$127	\$116	\$72	310	\$0.4	-\$61.9	2.0	0.5
IMCLONE SYSTEMS	\$11.41	18%	-75%	\$840	\$352	\$489	\$242	399	\$1.2	-\$172.4	2.0	2.4
IMMUNOGEN	\$3.26	18%	-80%	\$140	\$138	\$2	\$0	76	\$0.0	-\$17.7	7.8	0.4
IMMUNOMEDICS	\$5.40	24%	-73%	\$269	\$45	\$225	\$0	85	\$2.6	-\$10.7	4.2	1.7
MAXIM PHARMACEUTICALS	\$2.49	35%	-64%	\$58	\$116	-\$58	\$1	132	-\$0.4	-\$32.6	3.6	0.2
MEDAREX	\$4.14	22%	-77%	\$205	\$402	-\$197	\$175	297	-\$0.7	-\$191.9	2.1	0.4
NAPRO BIOTHERAPEUTICS	\$0.73	6%	-94%	\$22	\$17	\$5	\$25	189	\$0.0	na	na	0.2
NEOPHARM	\$11.20	41%	-55%	\$183	\$108	\$75	\$0	72	\$1.0	-\$36.1	3.0	1.1
NEORX CORP	\$0.45	7%	-92%	\$12	\$18	-\$6	\$5	118	-\$0.1	-\$29.7	0.6	0.1
NORTHWEST BIOTHERAPEUTICS	\$0.16	3%	na	\$3	\$7	-\$5	\$0	53	-\$0.1	-\$17.8	0.4	0.0
OSI PHARMACEUTICALS	\$17.19	35%	-62%	\$626	\$518	\$108	\$200	383	\$0.3	-\$117.8	4.4	0.9
OXIGENE	\$1.03	30%	-66%	\$13	\$15	-\$3	\$0	15	-\$0.2	-\$11.0	1.4	0.2
PRAECIS PHARMACEUTICALS	\$3.17	52%	-46%	\$164	\$238	-\$74	\$33	na	na	-\$56.9	4.2	0.5
PROGENICS PHARMACEUTICALS	\$6.46	35%	-65%	\$82	\$49	\$33	\$0	80	\$0.4	-\$21.4	2.3	0.9
QLT PHOTOTHERAPEUTICS	\$8.51	33%	-67%	\$581	\$257	\$324	\$0	285	\$1.1	-\$48.3	5.3	1.2
SCICLONE PHARMACEUTICALS	\$3.51	70%	17%	\$129	\$23	\$106	\$0	na	na	-\$13.4	1.8	0.8
SEATTLE GENETICS	\$3.34	45%	-41%	\$103	\$36	\$67	\$0	na	na	-\$25.1	1.4	1.0
XENOVA GROUP PLC	\$5.84	46%	-50%	\$81	\$18	\$63	\$0	134	\$0.5	-\$8.8	2.1	4.5
Cancer Average	.	30%	-63%	\$204	\$100	\$103	\$26	.	\$0.7	-\$42.6	3.6	0.8
Cancer Median	.	29%	-66%	\$87	\$53	\$19	\$0	.	\$0.2	-\$26.3	2.1	0.5

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ATHEROGENICS	\$7.15	85%	18%	\$201	\$47	\$155	\$0	79	\$2.0	-\$26.3	1.8	1.6
CORVAS INTERNATIONAL	\$1.54	21%	-76%	\$42	\$79	-\$36	\$12	95	-\$0.4	-\$21.8	3.6	0.2
CV THERAPEUTICS	\$19.97	36%	-62%	\$541	\$432	\$110	\$196	222	\$0.5	-\$126.9	3.4	1.1
QUESTCOR PHARMACEUTICALS	\$0.92	39%	-56%	\$36	\$8	\$27	\$3	38	\$0.7	-\$4.4	1.9	0.4
SCIOS	\$33.69	98%	42%	\$1,572	\$53	\$1,519	\$15	425	\$3.6	-\$90.0	0.6	2.8
TEXAS BIOTECHNOLOGY CORP	\$1.46	20%	-78%	\$64	\$52	\$12	\$0	na	na	-\$24.9	2.1	0.3
Cardiovascular Average	.	50%	-35%	\$409	\$112	\$298	\$38	.	\$1.3	-\$49.1	2.2	1.1
Cardiovascular Median	.	39%	-56%	\$64	\$52	\$27	\$3	.	\$0.9	-\$24.9	1.9	1.0

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3-DIMENSIONAL PHARMACEUTICALS	\$3.02	31%	-64%	\$68	\$83	-\$15	\$4	204	-\$0.1	-\$28.9	2.9	0.4
ARGONAUT TECHNOLOGIES	\$0.90	20%	-79%	\$18	\$33	-\$15	\$0	154	-\$0.1	-\$12.6	2.6	0.1
ARIAD PHARMACEUTICALS	\$2.37	38%	-56%	\$82	\$36	\$46	\$6	69	\$0.7	-\$28.2	1.3	0.5
ARQULE	\$3.05	16%	-82%	\$65	\$86	-\$21	\$8	385	-\$0.1	-\$19.7	4.4	0.3
ARRAY BIOPHARMA	\$5.31	33%	-64%	\$147	\$60	\$88	\$0	na	na	-\$3.4	17.6	1.2
BIOCRYST PHARMACEUTICALS	\$0.98	16%	-75%	\$17	\$27	-\$10	\$0	77	-\$0.1	-\$20.6	1.3	0.1
KOSAN BIOSCIENCES	\$6.08	63%	-24%	\$154	\$70	\$84	\$0	68	\$1.2	-\$25.6	2.7	1.1
PHARMACOPEIA	\$9.24	60%	-33%	\$217	\$144	\$73	\$0	800	\$0.1	-\$20.3	7.1	0.8
SYMIX TECHNOLOGIES	\$12.01	44%	-43%	\$371	\$118	\$253	\$0	204	\$1.2	na	na	2.5

VERTEX

PHARMACEUTICALS	\$16.60	51%	-32%	\$1,263	\$680	\$584	\$315	1000	\$0.6	-\$84.1	8.1	1.6
Chemistry Average	.	37%	-55%	\$240	\$134	\$107	\$33	.	\$0.4	-\$27.0	5.3	0.9
Chemistry Median	.	38%	-56%	\$82	\$70	\$46	\$0	.	\$0.3	-\$20.5	2.8	0.8

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CEPHALON	\$50.33	64%	-33%	\$2,777	\$595	\$2,183	\$871	1127	\$1.9	na	na	2.8
DOV PHARMACEUTICALS	\$7.10	59%	na	\$102	\$67	\$35	\$13	NA	NA	-\$15.1	4.4	1.3
GUILFORD PHARMACEUTICALS	\$3.91	30%	-67%	\$117	\$105	\$11	\$4	289	\$0.0	-\$67.3	1.6	0.3
INDEVUS PHARMACEUTICALS	\$2.15	17%	-81%	\$101	\$39	\$62	\$0	19	\$3.2	na	na	na
MACROCHEM CORP	\$0.33	7%	-89%	\$9	\$12	-\$3	\$0	32	-\$0.1	-\$8.6	1.4	0.1
NEUROCRINE BIOSCIENCES	\$49.13	91%	-4%	\$1,503	\$287	\$1,216	\$0	222	\$5.5	-\$79.0	3.6	3.6
SPECTRUM PHARMACEUTICALS	\$1.86	2%	-98%	\$3	\$3	\$0	\$0	53	\$0.0	-\$20.6	0.1	0.0
SYNAPTIC PHARMACEUTICAL CORP	\$6.31	84%	5%	\$69	\$35	\$35	\$0	97	\$0.4	-\$26.1	1.3	0.5
TITAN PHARMACEUTICALS	\$1.46	14%	-85%	\$40	\$90	-\$49	\$0	58	-\$0.8	-\$28.1	3.2	0.2
CNS Average	.	41%	-57%	\$525	\$137	\$388	\$99	.	\$1.3	-\$35.0	2.2	1.1
CNS Median	.	45%	-67%	\$85	\$53	\$23	\$0	.	\$0.4	-\$23.4	1.5	0.5

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ABGENIX	\$7.47	20%	-78%	\$654	\$546	\$108	\$200	324	\$0.3	-\$318.8	1.7	0.7
ALKERMES	\$6.18	20%	-77%	\$400	\$110	\$290	\$207	520	\$0.6	-\$181.0	0.6	0.9
ARADIGM CORP	\$1.41	19%	-80%	\$44	\$39	\$5	\$0	307	\$0.0	-\$39.9	1.0	0.2
BIODELIVERY SCIENCES	\$2.04	54%	na	\$14	\$10	\$4	\$0	8	\$0.6	na	na	na
CIMA LABS	\$24.93	66%	-31%	\$355	\$56	\$299	\$0	171	\$1.7	na	na	1.5
CYGNUS	\$0.74	11%	-86%	\$29	\$17	\$11	\$19	102	\$0.1	-\$46.1	0.4	0.1
DEPOMED	\$1.69	22%	-76%	\$24	\$3	\$20	\$1	40	\$0.5	-\$28.0	0.1	0.4
EMISPHERE TECHNOLOGIES	\$3.66	11%	-80%	\$66	\$62	\$4	\$31	241	\$0.0	-\$99.7	0.6	0.2
ENZON PHARMACEUTICALS	\$17.31	30%	-69%	\$744	\$189	\$555	\$0	106	\$5.2	na	na	2.8
FLAMEL TECHNOLOGIES SA	\$4.19	86%	54%	\$68	\$13	\$55	\$0	137	\$0.4	na	na	na
GENETRONICS BIOMEDICAL LTD	\$0.29	33%	-55%	\$15	\$3	\$11	\$0	27	\$0.4	-\$6.1	0.6	0.3
INHALE THERAPEUTIC SYSTEMS	\$8.62	45%	-54%	\$478	\$336	\$142	\$299	694	\$0.2	-\$99.3	3.4	0.6
NOVAVAX	\$2.94	20%	-79%	\$73	\$16	\$57	\$40	173	\$0.3	-\$22.0	0.7	0.7
NOVEN PHARMACEUTICALS	\$9.65	35%	-46%	\$218	\$53	\$164	\$0	252	\$0.7	na	na	2.8
ORAPHARMA	\$7.35	99%	64%	\$100	\$17	\$84	\$0	124	\$0.7	-\$20.8	0.8	0.9
SEPRACOR	\$9.73	16%	-83%	\$819	\$668	\$151	\$1,114	930	\$0.2	-\$375.3	1.8	1.0
SHEFFIELD PHARMACEUTICALS	\$0.18	4%	-96%	\$5	\$1	\$4	\$12	16	\$0.3	-\$12.7	0.1	0.1
Delivery Average	.	35%	-54%	\$241	\$126	\$116	\$113	.	\$0.7	-\$104.2	1.0	0.9
Delivery Median	.	26%	-76%	\$70	\$28	\$56	\$1	.	\$0.4	-\$39.9	0.7	0.7

Company	Close 12/26/02	% 52wk High	% change from	Market Cap (\$M)	Cash & Mkt. Sec.	Tech Value (\$M)	LT Debt plus	# of Staff	Tech Value / Staff	Est. Burn Rate	Survival Index (Yrs)	Equity Multiple
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CORP	\$16.06	68%	-23%	\$246	\$44	\$202	\$0	370	\$0.5	na	na	1.4
NORTHFIELD LABORATORIES	\$3.68	38%	-57%	\$52	\$15	\$37	\$0	60	\$0.6	-\$11.5	1.3	0.4
OSTEOTECH	\$6.46	57%	16%	\$110	\$16	\$94	\$17	365	\$0.3	na	na	1.7
PAIN THERAPEUTICS	\$2.35	19%	-74%	\$64	\$58	\$6	\$0	26	\$0.2	-\$14.9	3.9	0.6
PHARMACEUTICAL PRODUCT DEVELOP	\$29.49	84%	-9%	\$1,631	\$120	\$1,512	\$7	4375	\$0.3	na	na	6.2
PHARMACYCLICS	\$3.40	31%	-66%	\$55	\$115	-\$60	\$0	176	-\$0.3	-\$29.0	4.0	0.2
PHARMOS CORP	\$1.09	39%	-54%	\$62	\$29	\$33	\$0	70	\$0.5	-\$13.4	2.1	0.5
QIAGEN NV	\$5.49	26%	-70%	\$798	\$0	\$798	\$0	na	na	na	na	na
QUINTILES TRANSNATIONAL CORP	\$12.01	62%	-25%	\$1,414	\$1	\$1,413	\$0	17224	\$0.1	na	na	1.6
SANGSTAT MEDICAL CORP	\$11.45	42%	-42%	\$303	\$106	\$197	\$17	263	\$0.7	na	na	1.0
SICOR	\$15.90	84%	1%	\$1,861	\$233	\$1,628	\$27	1851	\$0.9	na	na	2.4
SUPERGEN	\$2.78	19%	-81%	\$91	\$34	\$57	\$0	115	\$0.5	-\$43.8	0.8	0.3
TRIPOS	\$7.20	21%	-62%	\$63	\$19	\$44	\$0	267	\$0.2	-\$5.1	3.8	1.8
Other Average	.	46%	-33%	\$365	\$67	\$297	\$24	.	\$0.6	-\$16.0	1.7	1.6
Other Median	.	42%	-43%	\$99	\$16	\$88	\$0	.	\$0.4	-\$11.5	1.0	1.0

Company	Close 12/26/02	% 52wk High	% change from 12/31/01	Market Cap (\$M)	Cash & Mkt. Sec. (\$M)	Tech Value (\$M)	LT Debt plus Convert	# of Staff	Tech Value / Staff (\$M)	Est. Burn Rate (\$M)	Survival Index (Yrs)	Equity Multiple
AMGEN	\$50.68	81%	-10%	\$65,229	\$5,058	\$60,171	\$3,055	7700	\$7.8	na	na	17.5
BIOGEN	\$42.14	70%	-27%	\$6,282	\$793	\$5,488	\$40	1992	\$2.8	na	na	7.6
CHIRON CORP	\$39.30	80%	-10%	\$7,393	\$844	\$6,549	\$413	3736	\$1.8	na	na	3.0
GENENTECH	\$34.90	62%	-36%	\$17,963	\$969	\$16,994	\$0	4950	\$3.4	na	na	2.7
GENZYME CORP	\$31.75	52%	-47%	\$6,812	\$369	\$6,443	\$869	5200	\$1.2	na	na	2.5
IDEC PHARMACEUTICALS CORP	\$35.02	48%	-49%	\$5,359	\$479	\$4,880	\$0	692	\$7.1	na	na	na
Revenue-driven Average	.	65%	-30%	\$18,173	\$1,419	\$16,754	\$729	.	\$4.0	na	na	6.7
Revenue-driven Median	.	70%	-27%	\$6,812	\$793	\$6,443	\$40	.	\$2.8	na	na	2.8

Company	Close 12/26/02	% 52wk High	% change from 12/31/01	Market Cap (\$M)	Cash & Mkt. Sec. (\$M)	Tech Value (\$M)	LT Debt plus Convert	# of Staff	Tech Value / Staff (\$M)	Est. Burn Rate (\$M)	Survival Index (Yrs)	Equity Multiple
CUBIST PHARMACEUTICALS	\$8.40	22%	-77%	\$240	\$162	\$78	\$209	180	\$0.4	-\$84.7	1.9	1.0
DISCOVERY PARTNERS	\$2.87	29%	-61%	\$70	\$74	-\$4	\$0	225	\$0.0	-\$38.7	1.9	0.3
DIVERSA	\$9.94	66%	-30%	\$355	\$173	\$182	\$12	276	\$0.7	-\$32.3	5.4	1.3
DYAX	\$1.64	14%	-80%	\$32	\$44	-\$12	\$0	239	-\$0.1	na	na	na
ISIS PHARMACEUTICALS	\$6.88	29%	-69%	\$379	\$325	\$54	\$192	434	\$0.1	-\$83.5	3.9	0.6
LIGAND PHARMACEUTICALS	\$5.97	29%	-67%	\$427	\$43	\$384	\$3	351	\$1.1	-\$49.0	0.9	0.6
NEUROGEN CORP	\$3.89	20%	-78%	\$70	\$91	-\$21	\$20	200	-\$0.1	-\$11.5	7.9	0.4
ONYX PHARMACEUTICALS	\$6.11	68%	19%	\$132	\$56	\$76	\$0	85	\$0.9	-\$47.5	1.2	0.7
REGENERON PHARMACEUTICALS	\$19.70	65%	-30%	\$868	\$299	\$569	\$200	575	\$1.0	-\$121.7	2.5	1.5
REPLIGEN CORP	\$2.70	60%	11%	\$74	\$20	\$54	\$0	40	\$1.4	-\$4.0	4.9	0.4
TULARIK	\$7.99	32%	-67%	\$439	\$161	\$278	\$10	380	\$0.7	-\$97.5	1.6	1.1
Screening Average	.	40%	-48%	\$280	\$132	\$149	\$59	.	\$0.6	-\$57.0	3.2	0.8
Screening Median	.	31%	-64%	\$186	\$82	\$65	\$6	.	\$0.7	-\$47.5	1.9	0.7

Company	Close 12/26/02	% 52wk High	% change from 12/31/01	Market Cap (\$M)	Cash & Mkt. Sec. (\$M)	Tech Value (\$M)	LT Debt plus Convert	# of Staff	Tech Value / Staff (\$M)	Est. Burn Rate (\$M)	Survival Index (Yrs)	Equity Multiple
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CELLEGY PHARMACEUTICALS	\$4.35	49%	-49%	\$85	\$6	\$79	\$1	36	\$2.2	-\$22.5	0.3	0.9
LIFECCELL CORP	\$2.95	75%	30%	\$61	\$5	\$56	\$1	138	\$0.4	na	na	0.8
LIFECORE BIOMEDICAL	\$8.10	62%	-27%	\$104	\$3	\$102	\$6	200	\$0.5	-\$0.2	13.2	1.2
Wound Average	.	62%	-16%	\$84	\$4	\$79	\$2	.	\$1.0	-\$11.3	6.7	1.0
Wound Median	.	69%	1%	\$73	\$4	\$68	\$1	.	\$0.8	-\$0.2	1.0	1.0
Grand Average	.	40%	-50%	\$776	\$147	\$633	\$55	.	\$0.9	-\$42.7	4.6	1.3
Grand Median	.	37%	-57%	\$103	\$55	\$56	\$0	.	\$0.4	-\$27.0	1.8	0.7

Footnotes to the table:

- Technology value: Market cap - cash (and cash equivalents)
- LT debt plus convert.: Long-term debt plus convertible debt
- Estimated burn rate: Net loss from the last available quarterly report, X4. Companies with net profit (instead of loss) are indicated as "na."
- Survival index: Cash (plus cash equivalents) / Estimated burn rate.
- Equity multiple: Market cap / (common stock + preferred stock + additional paid-in capital).
- Median: Middle value in a set of values
- The information contained in the December 2002 Stock Report has been obtained from public sources. Where information is not available, it is indicated as "na." Recombinant Capital cannot warrant the ultimate accuracy of the data. All data are subject to change.
- Most of the accounting figures are from quarterly reports as of 6/02, with some figures adjusted for quarterly reports as of 9/02 and/or one-time write-offs.

Highlights From The December 2002 Stock Report:

- The continued pressure on biotech stock prices has taken a heavy toll. While the stocks in our universe did manage to rally in the late fall, they couldn't hold on in December. In fact, between November 29 and December 31, 2002, about 80% of the companies on our list saw their stock prices move lower.
- At the end of December 2001, there were 254 companies on our list. A year later, that number had been whittled down to 233. Some companies have dropped off our list due to M&A activity, others have gone bankrupt, and the remainder have been delisted from Nasdaq.
- At the end of December 2001, 13 (or 5%) of the stocks on our list closed at \$1 per share or less. A year later, that number had increased dramatically, with 43 (or 18%) closing at \$1 per share or less on December 26, 2002.

- Obviously, declining stock prices lead to shrinking market caps. At the end of December 2001, the median market cap for the biotech companies in our universe was \$239 million. At the end of December 2002, the median market cap was \$103 million.
- With such low valuations, an increasing number of companies are trading below cash. At the end of December 2001, 11 (4%) of the firms on our list had negative technology values, meaning that their cash, cash equivalents and marketable securities were worth more than their market caps. At the end of December 2002, 54 (23%) of the companies in our universe had negative technology values.
- The list of companies trading below cash includes many of the biotech sector's former high-flyers -- [Human Genome Sciences](#) Inc., [Incyte Genomics](#) Inc. and [Celera Genomics](#) Group, for instance.
- In fact, the genomics sector suffered greatly in 2002: Stocks of the 1st generation genomics companies lost a median 72% of their value; genomic supply companies lost a median 60% and genomic target-based companies saw their stocks drop by a median 77% over the year just ended. All three groups fared worse than the median for the entire universe of 233 companies.
- But these weren't the only groups that fell below the grand median loss in stock price of 57%. Others included: cancer (-66%); CNS (-67%); delivery (-76%) and screening (-64%).
- While some public biotech companies managed to raise money in 2002 (mainly through private equity or debt financings), most are now in survival mode. And until the market turns around, we are likely to see more announcements of delistings, bankruptcies and mergers in the coming months.

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originally published 01/02/2003

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