

Canada's Corporate Innovation Leaders

A supplement prepared by
Research Infosource Inc., an Impact Group company

Canada's Top 100 Corporate R&D Spenders List 2003

Rank	2002	2001	Company	R&D Expenditures			Revenue	R&D Ratio	Industry
				FY2002 \$000	FY2001 \$000	% Change 2001-2002	FY2002 \$000	R&D as % of Revenue**	
1	1	1	Nortel Networks Corporation*	\$3,501,992	\$4,992,042	-29.8	\$16,583,424	21.1	Comm/telecom equipment
2	4	2	Magna International Inc.*	\$574,766	\$359,229	60.0	\$20,369,658	2.8	Automotive
3	3	3	Pratt & Whitney Canada Corp.(fs)	\$428,000	\$440,000	-2.7	\$2,390,000	17.9	Aerospace
4	2	4	JDS Uniphase Corporation*	\$400,138	\$504,624	-20.7	\$1,724,613	23.2	Comm/telecom equipment
5	7	5	IBM Canada Ltd.(fs)(e)	\$315,300	\$250,000	26.1	\$5,275,000	6.0	Software and computer services
6	119	6	Bell Canada**	\$300,000	\$285,000	5.3	\$14,403,000	2.1	Telecommunications services
7	6	7	ATI Technologies Inc.*	\$286,361	\$255,436	12.1	\$1,604,512	17.8	Computer equipment
8	16	8	Bombardier Inc.	\$233,500	\$123,400	89.2	\$21,633,800	1.1	Aerospace
9	5	9	Ericsson Canada Inc.(fs)	\$201,000	\$270,000	-25.6	\$482,000	41.7	Comm/telecom equipment
10	8	10	Alcan Inc.*	\$180,596	\$209,034	-13.6	\$19,692,816	0.9	Mining and metals
11	15	11	Ballard Power Systems Inc.*	\$178,611	\$128,031	39.5	\$142,807	125.1	Primary energy
12	9	12	Atomic Energy of Canada Limited	\$161,936	\$178,945	-9.5	\$495,783	32.7	Primary energy
13	20	13	Apotex Inc.	\$153,217	\$115,000	33.2	\$749,821	20.4	Pharmaceuticals/biotechnology
14	13	14	Pfizer Canada Inc.(fs)	\$151,979	\$132,235	14.9	\$1,231,127	12.3	Pharmaceuticals/biotechnology
15	12	15	Creo Inc.*	\$138,903	\$146,709	-5.3	\$847,784	16.4	Software and computer services
16	10	16	PMC Sierra, Ltd.(fs)	\$131,284	\$157,000	-16.4	\$191,001	68.7	Electronic parts and components
17	14	17	Zarlink Semiconductor Inc.*	\$131,128	\$131,000	0.1	\$348,786	37.6	Comm/telecom equipment
18	23	18	GlaxoSmithKline Inc.(fs)	\$122,232	\$101,373	20.6	\$1,010,927	12.1	Pharmaceuticals/biotechnology
19	19	19	Merck Frosst Canada Ltd.(fs)	\$120,987	\$119,000	1.7	\$985,264	12.3	Pharmaceuticals/biotechnology
20	17	20	CAE Inc.	\$117,344	\$122,270	-4.0	\$1,126,500	10.4	Aerospace
21	21	21	Cognos Incorporated*	\$117,174	\$104,152	12.5	\$771,541	15.2	Software and computer services
22	11	22	Tembec Inc.	\$111,481	\$152,105	-26.7	\$3,391,000	3.3	Forest and paper products
23	25	23	Aventis Pasteur Limited(fs)	\$105,746	\$83,000	27.4	\$231,800	45.6	Pharmaceuticals/biotechnology
24	22	24	Hydro-Québec	\$102,100	\$103,100	-1.0	\$13,002,000	0.8	Electrical power and utilities
25	27	25	AstraZeneca Canada Inc.(fs)	\$96,952	\$74,971	29.3	\$892,678	10.9	Pharmaceuticals/biotechnology
26	18	26	Geac Computer Corporation Limited	\$92,792	\$119,214	-22.2	\$719,452	12.9	Software and computer services
27	29	27	MDS Inc.	\$85,000	\$68,000	25.0	\$1,792,000	4.7	Health services
28	26	28	Biovail Corporation*	\$81,896	\$78,995	3.7	\$1,237,514	6.6	Pharmaceuticals/biotechnology
29	46	29	Research In Motion Limited*	\$77,761	\$39,755	95.6	\$461,781	16.8	Comm/telecom equipment
30		30	EnCana Corporation	\$76,000	\$100,000	-24.0	\$10,011,000	0.8	Oil and gas
31	34	31	BCE Emergis Inc.	\$74,300	\$63,200	17.6	\$539,900	13.8	Telecommunications services
32	38	32	QLT Inc.*	\$66,745	\$49,858	33.9	\$173,496	38.5	Pharmaceuticals/biotechnology
33	37	33	Aventis Pharma Inc.(fs)	\$64,000	\$52,000	23.1	\$450,000	14.2	Pharmaceuticals/biotechnology
33	28	33	Imperial Oil Limited(fs)	\$64,000	\$71,000	-9.9	\$16,890,000	0.4	Oil and gas
35	31	35	NOVA Chemicals Corporation*	\$61,246	\$61,936	-1.1	\$4,854,106	1.3	Chemicals and materials
36	30	36	Motorola Canada Limited(fs)	\$54,900	\$64,000	-14.2	\$1,157,000	4.7	Comm/telecom equipment
37	32	37	Hummingbird Ltd.*	\$54,898	\$61,496	-10.7	\$283,300	19.4	Software and computer services
38	42	38	DuPont Canada Inc.(fs)	\$53,951	\$45,144	19.5	\$2,468,430	2.2	Chemicals and materials
39	39	39	Syncrude Canada Ltd.	\$52,300	\$48,300	8.3	\$3,390,000	1.5	Oil and gas
40		40	Hyperchip Inc.*	\$52,007	\$49,812	4.4	\$0		Comm/telecom equipment
41	48	41	Corel Corporation*	\$47,103	\$39,099	20.5	\$198,971	23.7	Software and computer services
42	49	42	Janssen-Ortho Inc.(fs)	\$41,288	\$38,814	6.4	\$503,682	8.2	Pharmaceuticals/biotechnology
43	51	43	Eli Lilly Canada Inc.(fs)	\$40,895	\$37,393	9.4	\$428,068	9.6	Pharmaceuticals/biotechnology
44	77	44	Westport Innovations Inc.	\$40,100	\$21,051	90.5	\$31,370	127.8	Transportation
45		45	TELUS Corporation	\$40,000	\$32,000	25.0	\$7,006,700	0.6	Telecommunications services
46	44	46	Ontario Power Generation Inc.	\$39,000	\$42,000	-7.1	\$5,746,000	0.7	Electrical power and utilities
47	73	47	Descartes Systems Group Inc.*	\$38,461	\$25,004	53.8	\$124,928	30.8	Software and computer services
48	35	48	Bayer Inc.(fs)	\$37,935	\$56,244	-32.6	\$1,547,306	2.5	Pharmaceuticals/biotechnology
49	50	49	Open Text Corporation*	\$37,801	\$37,643	0.4	\$239,450	15.8	Software and computer services
50	53	50	Leitch Technology Corporation	\$37,353	\$36,960	1.1	\$198,242	18.8	Comm/telecom equipment
51	56	51	Novartis Pharmaceuticals Canada Inc.(fs)	\$35,000	\$34,064	2.7	nd		Pharmaceuticals/biotechnology
52	58	52	Precision Drilling Corporation	\$34,862	\$32,440	7.5	\$1,689,150	2.1	Primary energy
53	76	53	Inex Pharmaceuticals Corporation	\$34,108	\$21,228	60.7	\$7,985	427.2	Pharmaceuticals/biotechnology
54	54	54	Stressgen Biotechnologies Corporation	\$33,675	\$35,906	-6.2	\$14,042	239.8	Pharmaceuticals/biotechnology
55	85	55	ConjuChem Inc.	\$32,634	\$17,796	83.4	\$468		Pharmaceuticals/biotechnology
56	62	56	Hemosol Inc.	\$32,444	\$30,157	7.6	\$0		Pharmaceuticals/biotechnology
57	47	57	GSI Lumonics Inc.*	\$32,105	\$40,776	-21.3	\$249,804	12.9	Electronic parts and components
58	55	58	MOSAID Technologies Incorporated	\$30,549	\$35,182	-13.2	\$50,153	60.9	Comm/telecom equipment
59	78	59	Genpharm Inc.(fs)	\$28,900	\$20,927	38.1	\$272,800	10.6	Pharmaceuticals/biotechnology
60	68	60	Celestica Inc.*	\$28,581	\$26,478	7.9	\$12,989,721	0.2	Electronic parts and components
61	69	61	SR Telecom Inc.	\$28,555	\$26,048	9.6	\$196,903	14.5	Comm/telecom equipment
62	43	62	Biomira Inc.	\$28,304	\$42,117	-32.8	\$5,304	533.6	Pharmaceuticals/biotechnology
63	74	63	Genuum Corporation	\$27,671	\$22,523	22.9	\$116,314	23.8	Electronic parts and components
64	59	64	CMC Electronics Inc.	\$27,400	\$32,100	-14.6	\$356,800	7.7	Comm/telecom equipment
65	61	65	Sierra Wireless, Inc.*	\$26,767	\$30,829	-13.2	\$121,125	22.1	Electronic parts and components
66	65	66	EXFO Electro-Optical Engineering Inc.*	\$26,705	\$27,253	-2.0	\$107,305	24.9	Comm/telecom equipment
67	60	67	Inco Limited*	\$26,697	\$30,968	-13.8	\$3,393,634	0.8	Mining and metals
68	64	68	Pivotal Corporation*	\$26,639	\$29,033	-8.2	\$109,325	24.4	Software and computer services
69	104	69	Theratechnologies Inc.	\$26,613	\$13,952	90.7	\$3,495	761.5	Pharmaceuticals/biotechnology
70	33	70	724 Solutions Inc.*	\$26,125	\$60,468	-56.8	\$32,551	80.3	Comm/telecom equipment
71	63	71	AETerna Laboratories Inc.	\$26,062	\$29,222	-10.8	\$101,204	25.8	Pharmaceuticals/biotechnology
72	82	72	Westaim Corporation	\$25,692	\$19,440	32.2	\$49,063	52.4	Electronic parts and components
73	45	73	Husky Injection Molding Systems Ltd.*	\$25,126	\$40,258	-37.6	\$912,318	2.8	Machinery
74	57	74	World Heart Corporation	\$25,016	\$33,595	-25.5	\$10,107	247.5	Medical devices/instrumentation
75	96	75	Global Thermoelectric Inc.	\$23,321	\$15,087	54.6	\$22,311	104.5	Primary energy
76	163	76	Aastra Technologies Limited	\$23,058	\$8,215	180.7	\$212,672	10.8	Comm/telecom equipment
77	75	77	Xerox Canada Inc.(fs)	\$22,874	\$21,605	5.9	\$1,186,060	1.9	Machinery
78	86	78	Tundra Semiconductor Corporation	\$21,696	\$22,039	-1.6	\$28,800	75.3	Electronic parts and components
79	83	79	Royal Group Technologies Limited	\$21,688	\$19,043	13.9	\$1,915,230	1.1	Other manufacturing
80	107	80	Isotechnika Inc.	\$21,281	\$13,388	59.0	\$18,761	113.4	Pharmaceuticals/biotechnology
81	52	81	Noranda Inc.	\$21,000	\$37,000	-43.2	\$6,090,000	0.3	Mining and metals
82	105	82	DALSA Corporation	\$20,686	\$13,625	51.8	\$112,567	18.4	Electronic parts and components
83	115	83	SNC-Lavalin Group Inc.	\$19,832	\$12,400	59.9	\$3,431,650	0.6	Engineering services
84	87	84	Teck Cominco Limited	\$19,000	\$17,000	11.8	\$2,187,000	0.9	Mining and metals
85	89	85	Cangene Corporation	\$18,800	\$16,829	11.7	\$88,151	21.3	Pharmaceuticals/biotechnology
86	91	86	Financial Models Company Inc.	\$18,660	\$16,242	14.9	\$76,193	24.5	Software and computer services
87	100	87	Rio Tinto Iron & Titanium Inc.(fs)	\$18,000	\$14,500	24.1	\$840,000	2.1	Mining and metals
88	113	88	CGI Group Inc.	\$17,609	\$12,585	39.9	\$2,169,613	0.8	Software and computer services
89	108	89	Stuart Energy Systems Corporation	\$17,250	\$13,332	29.4	\$7,909	218.1	Primary energy
90	126	90	General Electric Canada Inc.(fs)	\$17,176	\$10,257	67.5	\$1,929,496	0.9	Other manufacturing
91	106	91	GlycoDesign Inc.	\$17,169	\$13,467	27.5	\$3,017	569.1	Pharmaceuticals/biotechnology
92	122	92	Micrologix Biotech Inc.	\$16,322	\$11,145	46.5	\$0		Pharmaceuticals/biotechnology
93	95	93	Angiotech Pharmaceuticals, Inc.	\$16,311	\$15,122	7.9	\$7,330	222.5	Pharmaceuticals/biotechnology
94	110	94	CryoCath Technologies Inc.	\$15,603	\$12,899	21.0	\$6,028	258.8	Medical devices/instrumentation
95	125	95	AnorMED Inc.	\$15,332	\$10,292	49.0	\$5,224	293.5	Pharmaceuticals/biotechnology
96	129	96	Neurochem Inc.	\$15,304	\$9,926	54.2	\$2,271	673.9	Pharmaceuticals/biotechnology
97	160	97	ID Biomedical Corporation	\$15,215	\$7,525	102.2	\$10,885	139.8	Pharmaceuticals/biotechnology
98	99	98	Suncor Energy Inc.	\$15,000	\$15,000	0.0	\$4,902,000	0.3	Primary energy
99	169	99	Inflazyme Pharmaceuticals Ltd.	\$14,793	\$6,981	111.9	\$0		Pharmaceuticals/biotechnology
100	120	100	Axcan Pharma Inc.*	\$13,906	\$11,215	24.0	\$209,138	6.6	Pharmaceuticals/biotechnology



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R&D Expenditures: We have attempted, wherever possible, to provide gross R&D expenditures before deduction of investment tax credits or government grants. FY2001 R&D expenditure figures may have been adjusted, as more accurate information became available. Canadian-owned company results include worldwide R&D expenditures; foreign subsidiaries include R&D expenditures for Canadian operations.

Revenue: We have attempted, wherever possible, to provide revenue figures net of interest and investment income.

* = converted to CDN\$ at average 2002 = \$1.5704, 2001 = 1.5484 (Bank of Canada)

** = \$1 million or more of revenue

fs = foreign subsidiary

nd = not disclosed

e = RESEARCH Infosource Inc. estimate

** = Bell Canada has revised its reporting for FY2002, FY2001 number has been adjusted accordingly