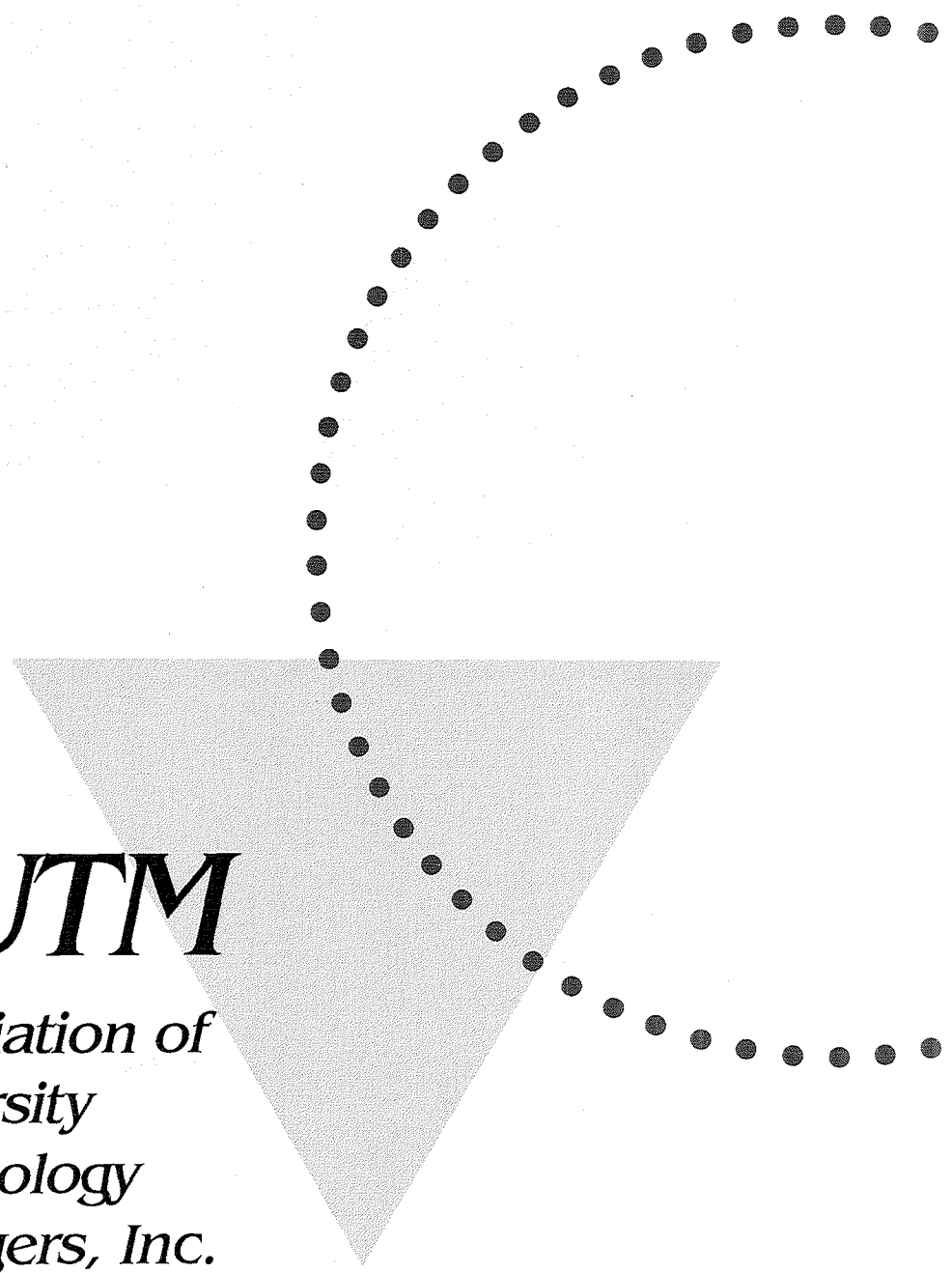
The AUTM Licensing Survey Executive Summary and Selected Data Fiscal Years 1993, 1992, and 1991



AUTM

Association of University Technology Managers, Inc.



AUTM Licensing Survey
Executive Summary and Selected Data
Fiscal Years 1993, 1992, and 1991

Prepared For and Submitted To
The Association of University Technology Managers, Inc.

October 1994

Conducted By

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FOREWORD

It is with great pleasure that we submit to you the results of the "AUTM Licensing Survey" for Fiscal Years 1993, 1992, and 1991. This survey was commissioned by the Association of University Technology Managers ("AUTM") with approval from the 1994 AUTM Board of Trustees, and under the direction of William Hostetler (AUTM President), Eugene K. Schuler, Jr. (AUTM Statistical Committee Chair), and Jean A. Mahoney (AUTM Publications Committee Chair).

Appreciation is extended to the AUTM members who participated in this survey for the second year in a row, and to the new institutions that joined in the AUTM Licensing Survey for the first time this year. Your timely and complete responses are to be commended.

The "Executive Summary and Selected Data" report provides an overview of the larger, more detailed report (referred to hereafter as the "full report"), and includes 1993 aggregate totals and selected data from the full report. The data summarized in the full report updates the previously reported figures for Fiscal Years 1991 and 1992, and presents new data accrued for Fiscal Year 1993.

For information on the price and availability of the full report, contact Ms. Penny Dalziel, AUTM, 71 East Avenue, Suite S, Norwalk, CT 06851-4903, (203) 852-7168 (P), or (203) 838-5714 (F). Questions regarding the material presented in this report should be directed to our attention.

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EXECUTIVE SUMMARY

Introduction

The "AUTM Licensing Survey" was conducted by the Association of University Technology Managers, Inc. ("AUTM") to gather data from U.S. and Canadian institutions on their technology transfer programs. The survey covers a large range of topics, including staffing levels, sponsored research expenditures, startups initiated, licensing activity, gross royalties received and paid to other institutions, expenditures and reimbursements for legal fees, and statistics on invention disclosures, patent filings, and issued patents.

Respondents to the survey were requested to provide a *best estimate* to each question if an exact response was not known. In a few instances, best estimates were provided, and, at times, responses were rounded to the nearest thousands or millions. If a survey response was provided on a confidential basis, the institution's name is reflected in the reports as "Name Confidential." Not available data are noted as "N.A."

The AUTM Licensing Survey was first conducted in 1993 to gather data for Fiscal Years 1991 and 1992, and readministered in 1994 to accrue data for Fiscal Year 1993. The full report presents the data reported by the participating institutions for each year surveyed.

Survey Coverage

The survey population for Fiscal Year 1993 consisted of 250 institutions, which included AUTM regular members[1] and selected affiliate members.[2] Follow-up efforts were heavily concentrated toward the top 100 universities (Source: NSF Table B-4, Federal Obligations for Research and Development to the 100 Universities and Colleges Receiving the Largest Amounts...), resulting in an 85% response rate from these top institutions. Overall, 63% of those contacted responded, representing 158 organizations for Fiscal Year 1993, including: 117 U.S. Universities, 26 U.S. Hospitals and Research Institutes, 12 Canadian Institutions, and 3 Third-Party Patent Management Firms.

Summary of Results

In the full report, the results have been summarized for each fiscal year (Fiscal Years 1993, 1992, and 1991) by sample population.[3] The sample populations have been separated into the following institutional categories: U.S. Universities, U.S. Hospitals & Research Institutes,[4] Canadian Institutions, and Third-Party Patent Management Firms.[5] The full report presents data for the survey participants in five different sections: one section for each of the four institutional categories listed above, and a totals section. In addition a new table in the full study reflects the FY 1993 data by state for participating U.S. institutions, including U.S. Universities, U.S. Hospitals and Research Institutes, and U.S. Patent

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5. *Government agencies were not surveyed in Fiscal Year 1993, and therefore, have not been made a part of this year's report.*

6. *The rate used for the conversion from Canadian to U.S. dollars for Fiscal Year 1993 was $1.29 and was obtained from the Bank of Canada. The rates used for the conversion from Canadian to U.S. dollars for Fiscal Years 1991 and 1992 were $1.20 and $1.25, respectively, and were provided by Dr. James W. Murray, 1993 AUTM Vice President-Canada. In all instances, these rates reflect the annual average for the year.*

7. *When providing data for Fiscal Year 1993, some institutions identified significant changes in the reporting of their Fiscal Year 1991 and 1992 data. These data have been changed to reflect modified data submitted by these institutions, and, as a result, the Fiscal Years 1991 and 1992 totals printed in this year's report may be slightly different than those previously published.*

8. *The gross royalties received for both Fiscal Years 1991 and 1992 shown in this report of $221,607,337 and $287,384,577, respectively, are lower than the previously printed numbers due to removal of government agencies from the report. The National Institutes of Health accounted for $16 million and $12 million in FY 1991 and FY 1992, respectively. These gross royalties reflect those distributed by Research Corporation Technologies to universities ($29 Million in FY 1991 and $32 Million in FY 1992), and royalties distributed by Stanford University to the University of California System (approximately $7 Million in each FY 1991 and FY 1992). Adjusting for these figures, the adjusted gross royalties received for FY 1991 and FY 1992 become $185,607,337 and $248,384,577, respectively. Gross royalties received for Fiscal Year 1993 were reported at $380,212,419. Adjusting for the amount of royalties received that were paid to other institutions ($57,366,590), the adjusted gross royalties received for Fiscal Year 1993 becomes $322,845,829.*

9. *The definitions for Total Sponsored Research Expenditures, Federal Government Expenditures, and Industry Expenditures were modified with the survey for Fiscal Year 1993 to request annual expenditure amounts as opposed to annual sponsored funding levels.*

10. *The University of California System and the SUNY Research Foundation have modified the reporting of their system data to reflect one combined response for all campuses for each of their respective systems. Data submitted separately in Fiscal Years 1991 and 1992 for UCLA are now incorporated into the Univ. of California System response. Data submitted separately in Fiscal Years 1991 and 1992 for SUNY/Buffalo are now incorporated into the response for the SUNY Research Foundation.*

11. *The total number of professional full-time equivalents ("FTEs") and staff support FTEs for both technology transfer and those in support of licensing activities may be understated by the use of FTEs employed by third-party patent management firms that were used for these services. The use of third-party patent management firms was not reported in this survey.*

12. *Direct payment of patenting costs by licensees is not included in the legal fees expended and legal fees reimbursed data.*

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Attachment B

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* *As stated in the Foreword, the full report is available separately.*

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ALL RESPONDENTS:

Attachment D

	U.S. UNIVERSITIES	U.S. HOSPITALS & RESEARCH INSTITUTES	CANADIAN INSTITUTIONS (US $)	PATENT MANAGEMENT FIRMS	TOTAL
Professional FTEs:					
Technology Transfer	353.00	54.20	40.50	56.00	503.70
Licensing Activities	240.10	34.03	26.00	30.00	330.13
Staff Support FTEs:					
Technology Transfer	264.19	31.58	26.30	37.00	359.07
Licensing Activities	167.24	21.35	15.30	23.00	226.89
Industry Expenditures	$1,305,853,185	$269,026,381	$55,746,806	$14,057,779	$1,644,684,151
Federal Government Expenditures	$10,161,518,668	$912,999,693	$300,586,085	$20,000,000	$11,395,104,446
Total Sponsored Research Expenditures	$14,875,677,330	$1,507,164,756	$687,047,338	$34,057,779	$17,103,947,203
Licenses/Options Executed	1,737	252	177	61	2,227
Licenses with Equity	382	58	42	19	501
Startup Companies Formed Since 1980	916	79	156	18	1,169
Gross Royalties Received	$242,269,815	$73,969,108	$5,299,502	$58,673,994	$380,212,419
Royalties Paid to Other Institutions	$19,522,671	$438,956	$35,398	$37,369,565	$57,366,590
Legal Fees Expended	$50,250,423	$11,307,985	$1,933,584	$2,722,169	$66,214,161
Legal Fees Reimbursed	$22,450,374	$4,865,384	$649,969	$417,585	$28,383,312
Licenses/Options Generating Royalties	3,413	409	182	194	4,198
Invention Disclosures Received	6,598	772	393	818	8,581
Total U.S. Patent Applications Filed	3,099	539	92	105	3,835
New U.S. Patent Applications Filed	1,993	297	65	78	2,433

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TABLE 1

Attachment E

(Ranked by FY 1993 Royalties Received)

U.S. UNIVERSITIES: Name of Institution	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
Univ. of Minnesota	$1,162,892	55	5.00	$782,018	$467,904	122	61	30	46	246
Ohio State University	$1,108,620	15	2.00	$289,150	$78,770	63	18	21	20	53
Univ. of Missouri System	$1,100,000	16	0.60	$204,054	$113,309	62	29	7	14	55
Univ. of Kentucky Research Fndtn	$891,084	12	0.80	$190,000	$0	46	10	6	11	40
Univ. of Illinois at Chicago	$891,000	14	3.00	$111,000	$163,000	36	17	8	6	26
Univ. of Illinois, Urbana, Champaign	$856,415	83	1.00	$112,210	$29,405	64	26	10	37	70
Univ. of Pennsylvania	$820,537	28	5.00	$1,174,484	$410,235	119	54	28	8	28
Texas A&M University System	$795,742	43	5.00	$440,982	$34,915	122	30	24	27	98
Univ. of Tennessee Research Corp.	$726,200	20	1.00	$231,000	$64,900	85	17	5	10	27
Univ. of Alabama/Birmingham	$703,262	47	2.50	$198,902	$85,593	77	46	8	22	76
Duke University	$641,486	44	3.00	$709,770	$262,559	85	86	12	27	140
Univ. of Iowa Research Fndtn	$618,642	27	1.30	$395,262	$205,325	64	29	12	10	48
Univ. of Georgia	$611,826	N.A.	1.50	$444,236	$226,485	30	12	14	10	N.A.
Univ. of North Carolina/ Chapel Hill	$574,784	35	2.05	$226,863	$141,250	71	40	21	27	95
Florida State University	$571,118	3	0.60	$451,564	$362,596	21	14	4	2	4
Princeton University	$570,000	14	0.80	$69,700	N.A.	64	18	9	10	43
Brigham Young University	$568,405	28	1.80	$86,971	$31,517	15	6	7	11	61
Case Western Reserve University	$554,361	10	1.20	$57,500	$29,404	39	4	6	7	17
Carnegie Mellon University	$546,000	16	2.00	N.A.	N.A.	39	16	6	8	21
Virginia Tech Intellectual Properties, Inc.	$540,000	27	0.75	$41,000	$0	78	44	20	9	59
Univ. of Maryland, College Park	$512,015	61	4.00	$241,808	$128,270	72	20	19	38	107
Arizona State University	$502,304	5	1.00	$390,352	$54,600	24	6	4	6	9
Univ. of Arkansas, Fayetteville	$500,461	13	0.50	$128,479	$5,946	25	8	8	0	10
SUNY Research Foundation	$476,647	36	5.00	$846,071	$120,616	177	47	31	19	95
Temple University	$475,900	17	2.65	$350,400	$203,900	32	14	N.A.	6	32
Univ. of Texas Houston Hlth. Sci. Ctr.	$470,519	10	2.00	$265,000	N.A.	25	3	6	8	50
Univ. of Southern California	$443,672	15	2.00	$348,000	$100,100	53	12	15	9	15
Thomas Jefferson University	$442,000	22	2.00	$415,000	$143,000	52	46	10	14	33
Northwestern University	$440,172	8	1.00	$363,616	$101,706	45	24	9	4	32
Univ. of Connecticut	$440,000	7	1.00	$176,000	$56,000	37	15	10	6	19

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TABLE 1

Attachment E

(Ranked by FY 1993 Royalties Received)

U.S. UNIVERSITIES: Name of Institution	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
Wake Forest University	$75,503	3	1.60	$140,826	$31,769	14	9	2	4	12
Drexel University	$71,800	6	0.50	$108,000	$31,000	8	6	5	2	8
Univ. of Hawaii	$63,000	4	4.00	$204,102	$13,000	15	7	5	3	8
Northeastern University	$60,000	7	0.25	$278,386	$92,081	28	23	5	9	9
Univ. of Texas Medical Branch	$49,833	6	1.00	$267,390	$142,885	16	11	1	4	13
Univ. of Miami	$49,053	8	2.25	$103,033	$49,662	16	5	1	25	37
Univ. of Oregon	$47,910	11	0.20	$20,496	$0	17	12	2	6	10
Univ. of Nebraska Medical Center	$47,000	5	0.50	$217,000	$0	36	9	3	15	23
New York Medical College	$46,999	2	0.50	$23,887	$22,465	3	2	0	0	6
New Mexico State University	$42,525	4	0.25	$114,706	$1,764	13	2	1	2	2
Medical Univ. of South Carolina	$30,000	2	0.75	$60,000	$10,000	9	5	1	2	5
Univ. of Kansas	$26,395	3	1.75	$66,834	$55,000	22	4	5	8	19
Univ. of Central Florida	$25,000	2	1.00	$0	$0	24	3	1	2	12
Univ. of New Orleans	$20,000	2	0.25	$0	$0	3	2	1	2	4
Illinois State University	$15,000	1	0.50	$2,000	$10,000	4	0	0	0	1
Ohio University	$8,500	2	0.30	$45,000	$8,000	7	15	12	5	14
Univ. of Louisville Research Fndtn.	$5,348	2	0.20	$7,500	N.A.	14	0	4	N.A.	N.A.
San Diego State University	$4,000	1	0.00	$6,187	$0	4	2	0	1	0
Univ. of Massachusetts/Amherst	$2,700	6	0.20	$10,000	$0	10	5	2	30	32
Univ. of Maine	$80	1	0.05	$0	$0	4	0	0	0	4
Illinois Institute of Technology	$0	0	0.10	$35,000	$0	11	6	1	1	3
Medical College of Pennsylvania	$0	0	0.10	N.A.	$0	4	3	2	0	0
Miami University	$0	0	0.00	$0	$0	6	1	0	0	0
New Jersey Institute of Technology	$0	0	0.20	$61,000	$0	23	6	5	1	1
Northern Illinois University	$0	0	0.30	$7,690	$0	8	1	2	0	3
Univ. of North Carolina/Charlotte	$0	0	0.30	$54,693	$0	23	2	3	0	0
Univ. of North Dakota	N.A.	N.A.	0.50	N.A.	N.A.	N.A.	6	3	3	10
TOTAL U.S. UNIVERSITIES	**$242,269,815**	**3,413**	**240.10**	**$50,250,423**	**$22,450,374**	**6,598**	**3,099**	**1,307**	**1,737**	**7,317**

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TABLE 1

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(Ranked by FY 1993 Royalties Received)

CANADIAN INSTITUTIONS: Name of Institution	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
	(US $)			(US $)	(US $)					
Univ. of Waterloo	$1,240,310	35	1.50	$112,403	$34,884	N.A.	10	8	10	72
Univ. of Toronto	$1,119,380	37	3.00	$262,016	$190,698	96	13	4	19	53
UTI Inc./University of Calgary	$988,528	23	3.50	$236,677	$55,032	55	9	4	44	121
Univ. of British Columbia	$792,928	25	5.00	$532,981	$120,647	83	24	21	19	84
Queen's University	$527,907	20	3.00	$184,496	$42,636	29	12	13	19	30
Univ. of Alberta	$289,975	14	2.00	$254,735	$118,021	44	11	11	14	52
Univ. of Manitoba	$207,274	12	1.00	$134,686	$41,031	17	3	3	41	40
Mount Sinai Hospital	$98,360	5	1.00	$131,273	$43,733	14	4	1	5	10
Simon Fraser University	$20,865	6	3.00	$14,794	$3,287	31	1	2	0	12
Carleton University	$10,099	4	1.00	$7,507	$0	6	0	2	4	14
Univ. of Western Ontario	$3,876	1	1.00	$11,628	$0	12	4	1	0	1
Univ. of Victoria	$0	0	1.00	$50,388	$0	6	1	3	2	8
TOTAL CANADIAN INSTITUTIONS	**$5,299,502**	**182**	**26.00**	**$1,933,584**	**$649,969**	**393**	**92**	**73**	**177**	**497**

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TABLE 1

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ALL RESPONDENTS:

	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
U.S. UNIVERSITIES	$242,269,815	3,413	240.10	$50,250,423	$22,450,374	6,598	3,099	1,307	1,737	7,317
U.S. HOSPITALS & RESEARCH INSTITUTES	$73,969,108	409	34.03	$11,307,985	$4,865,384	772	539	173	252	898
CANADIAN INSTITUTIONS (US $)	$5,299,502	182	26.00	$1,933,584	$649,969	393	92	73	177	497
PATENT MANAGEMENT FIRMS	$58,673,994	194	30.00	$2,722,169	$417,585	818	105	50	61	139
TOTAL ALL RESPONDENTS	**$380,212.419**	**4,198**	**330.13**	**$66,214,161**	**$28,383,312**	**8,581**	**3,835**	**1,603**	**2,227**	**8,851**

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U.S. HOSPITALS & RESEARCH INSTITUTES:	FY 1993 Selected Totals	FY 1992 Selected Totals	FY 1991 Selected Totals
Industry Expenditures	$269,026,381	$112,600,236	$95,320,190
Federal Government Expenditures	$912,999,693	$584,130,363	$520,892,149
Total Sponsored Research Expenditures	$1,507,164,756	$902,266,306	$802,177,881
Licenses/Options Executed	252	192	119
Gross Royalties Received	$73,969,108	$60,223,269	$45,255,639
Royalties Paid to Other Institutions	$438,956	N.A.	N.A.
Licenses/Options Generating Royalties	409	315	268
Legal Fees Expended	$11,307,985	$8,325,439	$6,428,582
Legal Fees Reimbursed	$4,865,384	$4,008,997	$2,749,296
Invention Disclosures Received	772	577	472
Total U.S. Patent Applications Filed	539	438	416
New U.S. Patent Applications Filed	297	245	220

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PATENT MANAGEMENT FIRMS:	FY 1993 Selected Totals	FY 1992 Selected Totals	FY 1991 Selected Totals
Industry Expenditures	$14,057,779	$1,785,000	$1,600,000
Federal Government Expenditures	$20,000,000	N.A.	N.A.
Total Sponsored Research Expenditures	$34,057,779	$1,785,000	$1,600,000
Licenses/Options Executed	61	13	10
Gross Royalties Received	$58,673,994	$50,648,801	$43,055,673
Royalties Paid to Other Institutions	$37,369,565	N.A.	N.A.
Licenses/Options Generating Royalties	194	142	124
Legal Fees Expended	$2,722,169	$3,071,586	$3,250,640
Legal Fees Reimbursed	$417,585	$156,671	$25,995
Invention Disclosures Received	818	784	735
Total U.S. Patent Applications Filed	105	97	54
New U.S. Patent Applications Filed	78	18	29

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Suggested Citation

The Association of University Technology Managers, Inc. report entitled, *AUTM Licensing Survey Executive Summary and Selected Data, Fiscal Years 1993, 1992, and 1991.*

Availability of Publication

For information on the price and availability of the "Executive Summary and Selected Data" report or the full report, contact Ms. Penny Dalziel, 71 East Avenue, Suite S, Norwalk, CT 06851-4903, Phone: 203-852-7168, Fax: 203-838-5714.

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ALL RESPONDENTS:	FY 1993 Selected Totals	FY 1992 Selected Totals	FY 1991 Selected Totals
Industry Expenditures	$1,644,684,151	$1,237,399,938	$1,079,219,553
Federal Government Expenditures	$11,395,104,446	$10,393,561,887	$9,275,106,157
Total Sponsored Research Expenditures	$17,103,947,203	$14,412,989,520	$12,957,480,588
Licenses/Options Executed	2,227	1,720	1,257
Gross Royalties Received	$380,212,419	$287,384,577	$221,607,337
Royalties Paid to Other Institutions	$57,366,590	N.A.	N.A.
Licenses/Options Generating Royalties	4,198	3,377	2,711
Legal Fees Expended	$66,214,161	$45,629,290	$37,250,399
Legal Fees Reimbursed	$28,383,312	$15,732,830	$10,845,638
Invention Disclosures Received	8,581	7,345	6,337
Total U.S. Patent Applications Filed	3,835	2,978	2,476
New U.S. Patent Applications Filed	2,433	1,951	1,642

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CANADIAN INSTITUTIONS:	FY 1993 Selected Totals (US $)	FY 1992 Selected Totals (US $)	FY 1991 Selected Totals (US $)
Industry Expenditures	$55,746,806	$46,953,659	$46,045,723
Federal Government Expenditures	$300,586,085	$262,775,142	$267,509,935
Total Sponsored Research Expenditures	$687,047,338	$472,420,978	$484,021,929
Licenses/Options Executed	177	54	49
Gross Royalties Received	$5,299,502	$4,153,048	$3,314,127
Royalties Paid to Other Institutions	$35,398	N.A.	N.A.
Licenses/Options Generating Royalties	182	111	109
Legal Fees Expended	$1,933,584	$698,829	$524,337
Legal Fees Reimbursed	$649,969	$235,950	$286,521
Invention Disclosures Received	393	284	250
Total U.S. Patent Applications Filed	92	94	73
New U.S. Patent Applications Filed	65	80	59

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U.S. UNIVERSITIES:	FY 1993 Selected Totals	FY 1992 Selected Totals	FY 1991 Selected Totals
Industry Expenditures	$1,305,853,185	$1,076,061,043	$936,253,640
Federal Government Expenditures	$10,161,518,668	$9,546,656,382	$8,486,704,073
Total Sponsored Research Expenditures	$14,875,677,330	$13,036,517,236	$11,669,680,778
Licenses/Options Executed	1,737	1,461	1,079
Gross Royalties Received	$242,269,815	$172,359,459	$129,981,898
Royalties Paid to Other Institutions	$19,522,671	N.A.	N.A.
Licenses/Options Generating Royalties	3,413	2,809	2,210
Legal Fees Expended	$50,250,423	$33,533,436	$27,046,840
Legal Fees Reimbursed	$22,450,374	$11,331,212	$7,783,826
Invention Disclosures Received	6,598	5,700	4,880
Total U.S. Patent Applications Filed	3,099	2,349	1,933
New U.S. Patent Applications Filed	1,993	1,608	1,334

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TABLE 1 **Attachment E**

(Ranked by FY 1993 Royalties Received)

PATENT MANAGEMENT FIRMS:

Name of Institution	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
Research Corporation Technologies	$55,463,780	135	16.00	$2,092,169	$242,084	666	51	28	35	N.A.
Competitive Technologies, Inc.	$3,100,000	51	10.00	$380,000	$25,000	65	15	7	17	102
Center for Innovative Technology	$110,214	8	4.00	$250,000	$150,501	87	39	15	9	37
TOTAL PATENT MNGMNT. FIRMS	**$58,673,994**	**194**	**30.00**	**$2,722,169**	**$417,585**	**818**	**105**	**50**	**61**	**139**

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TABLE 1 Attachment E

(Ranked by FY 1993 Royalties Received)

U.S. HOSPITALS & RESEARCH INSTITUTES: Name of Institution	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
Sloan Kettering Institute for Cancer Res.	$28,580,000	16	2.00	$533,153	N.A.	45	44	11	11	58
City of Hope National Medical Ctr.	$21,894,353	16	1.25	N.A.	$70,459	11	22	10	13	32
Health Research, Inc.	$4,557,500	6	0.35	$256,670	$30,000	12	10	7	2	23
SRI International	$3,800,000	15	1.00	$1,000,000	$100,000	95	43	36	18	50
Wistar Institute	$2,896,000	30	2.00	$336,000	$0	10	13	6	20	60
Dana-Farber Cancer Institute	$2,847,172	14	2.75	$787,077	$139,592	54	54	16	19	66
Mayo Foundation	$2,769,212	80	5.00	$190,412	$10,000	102	13	8	36	110
Brigham & Women's Hospital	$1,331,351	15	3.00	$1,548,208	$638,979	55	42	25	22	52
Children's Hospital, Boston	$1,290,000	22	1.50	$549,000	$219,000	54	40	4	7	33
Salk Institute	$1,184,342	89	1.70	$1,167,668	$917,951	60	40	3	14	144
Massachusetts General Hospital	$1,125,498	18	3.50	$2,967,675	$2,151,815	108	124	17	35	82
Fred Hutchinson Cancer Res Ctr.	$513,680	32	1.75	$238,000	N.A.	34	22	5	12	65
New England Medical Center	$393,000	13	1.50	$430,000	$238,000	15	15	2	8	23
Cleveland Clinic Foundation	$296,214	11	1.00	$24,461	$34,620	36	6	2	13	39
Childrens Hospital of Philadelphia	$112,500	3	0.50	$254,000	$100,000	10	10	3	1	3
Children's Hospital, Oakland	$101,000	2	0.30	$60,000	$0	0	1	1	1	3
Fox Chase Cancer Center	$97,950	5	0.50	$30,666	$4,950	8	3	4	8	8
New England Deaconess Hospital	$62,259	1	0.50	$367,822	$71,119	4	8	5	0	7
La Jolla Cancer Research Fndtn.	$50,000	1	1.00	$250,000	$50,000	15	14	2	3	6
St. Jude Children's Research Hospital	$31,909	10	0.33	$9,891	$0	4	0	0	3	13
Woods Hole Oceanographic Inst.	$15,000	3	0.50	$27,600	$0	3	3	0	4	10
National Jewish Center	$14,820	5	0.00	$123,650	$88,899	9	7	1	1	8
California Pacific Medical Ctr. Res. Inst.	$5,348	2	0.10	$7,500	N.A.	14	0	4	N.A.	N.A.
Albert Einstein Healthcare Network	$0	0	0.50	$15,000	$0	5	1	0	1	1
Houston Advanced Research Center	$0	0	1.30	$110,400	$0	7	3	1	0	2
Ramsey Foundation	$0	0	0.20	$23,132	$0	2	1	0	0	0
TOTAL U.S. HOSPITALS & RESEARCH INSTITUTES	**$73,969,108**	**409**	**34.03**	**$11,307,985**	**$4,865,384**	**772**	**539**	**173**	**252**	**898**

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TABLE 1

Attachment E

(Ranked by FY 1993 Royalties Received)

U.S. UNIVERSITIES: Name of Institution	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
Oregon State University	$426,969	18	0.30	$163,329	$57,378	19	14	5	5	34
Vanderbilt University	$413,000	11	1.00	$187,000	$33,000	39	10	2	14	43
Univ. of Pittsburgh	$391,852	10	0.60	$674,513	$153,974	34	33	14	6	21
Penn State University	$376,636	40	2.00	$234,939	$71,737	106	38	10	14	N.A.
Univ. of Rhode Island	$375,556	12	0.40	N.A.	N.A.	11	3	4	3	12
Wayne State University	$367,308	12	1.20	$620,090	$188,895	32	12	13	15	30
Name Confidential	$350,000	24	1.50	$540,000	$235,000	53	36	7	16	35
Brown University Research Fndtn	$335,714	8	1.00	$55,146	$18,900	10	7	4	3	8
Oregon Health Sciences University	$313,446	40	1.20	$200,185	$34,228	28	21	6	30	53
Name Confidential	$304,922	16	0.50	$132,363	$79,010	30	13	7	6	40
Univ. of Texas Hlth Sci Ctr, San Antonio	$272,762	15	0.25	$447,416	$0	27	19	12	10	45
Univ. of Delaware	$257,788	8	0.60	$105,927	$9,060	15	6	6	4	31
Mississippi State University	$247,574	3	0.13	$7,997	$0	17	6	1	5	5
Univ. of Dayton	$220,680	9	1.50	$105,355	$11,814	22	4	7	5	67
Kansas State University Research Fndtn.	$219,993	11	2.00	$327,936	$79,373	28	18	11	7	28
Indiana University	$208,000	40	1.50	$198,000	$37,000	62	31	5	18	54
Univ. of Maryland, Baltimore	$200,568	7	3.00	$80,795	$23,446	49	6	5	6	10
Univ. of South Florida	$192,169	15	0.50	$190,905	$10,000	23	9	9	8	17
Johns Hopkins Univ./Applied Physics Lab	$174,799	10	0.75	$5,930	N.A.	44	9	8	3	35
Louisiana State University	$173,578	9	1.00	$108,000	$22,825	23	10	0	3	37
Univ. of Massachusetts Medical Center	$168,179	9	0.50	$135,008	N.A.	23	13	2	3	23
Washington State University	$167,750	19	1.50	$107,091	$74,792	31	18	2	14	47
Univ. of Denver	$153,539	2	0.10	$14,227	$0	10	2	1	0	4
Univ. of Arizona	$153,111	16	1.00	$151,396	$46,647	68	21	8	17	65
Dartmouth College	$143,615	23	0.00	$154,537	$41,837	11	11	0	8	24
Georgetown University	$115,483	11	1.00	$452,705	$96,577	31	20	5	4	11
Syracuse University	$101,974	15	1.00	$79,644	$35,738	12	3	6	14	21
Brandeis University	$100,000	9	0.25	$10,000	$50,000	14	1	3	9	26
Univ. of Akron	$100,000	8	2.00	$200,000	N.A.	27	20	11	10	20
Hahnemann University	$98,000	7	2.00	$44,000	$31,000	15	17	5	7	12

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TABLE 1 **Attachment E**

(Ranked by FY 1993 Royalties Received)

U.S. UNIVERSITIES: Name of Institution	FY 1993 Royalties Received	FY 1993 Licenses Generating Royalties	FY 1993 Professional FTEs for Licensing	FY 1993 Legal Fees Expended	FY 1993 Legal Fees Reimbursed	FY 1993 Invention Disclosures Received	FY 1993 U.S. Patent Applications Filed	FY 1993 U.S. Patents Issued	FY 1993 Licenses & Options Executed	Total Active Licenses & Options
Univ. of California System	$45,440,022	452	36.75	$5,818,372	$4,074,088	568	332	99	141	766
Stanford University	$31,200,000	214	9.50	$1,870,000	$574,458	209	72	39	122	835
Columbia University	$21,088,217	206	3.12	$1,248,974	$52,250	90	44	29	21	237
W.A.R.F./Univ. of Wisconsin-Madison	$15,822,400	72	3.00	$2,355,900	N.A.	132	65	51	24	158
Univ. of Washington/Wash. Res. Fndtn.	$14,755,000	71	9.00	$710,000	$414,000	164	51	22	30	175
Michigan State University	$14,150,029	29	2.00	$285,255	$129,265	76	25	14	10	66
Iowa State University	$11,600,000	62	7.50	$5,500,000	$4,580,000	146	69	22	35	93
Massachusetts Inst. of Technology (MIT)	$5,808,000	182	8.80	$3,300,000	$1,600,000	282	161	92	71	322
Univ. of Florida	$5,666,412	46	4.00	$590,678	$480,765	90	41	45	29	105
Harvard University	$5,430,000	109	7.50	$1,700,000	$1,150,000	97	91	22	53	202
Clemson University	$4,300,000	12	0.50	$176,512	$19,388	37	12	8	3	4
Univ. of Rochester	$3,790,318	13	0.75	$286,441	$37,390	60	17	14	9	33
Tulane University	$3,721,275	16	1.50	$238,210	$106,843	22	25	4	10	48
Univ. of Virginia Patents Fndtn.	$3,538,382	18	1.00	$200,736	$90,004	35	15	5	3	25
Washington University	$2,500,000	55	2.60	$403,200	$400,474	N.A.	48	15	22	119
Rutgers, The State University of NJ	$2,419,706	43	1.50	$677,344	$267,056	71	40	16	10	95
California Institute of Technology	$2,354,000	23	1.00	$500,000	$100,000	290	69	23	12	28
Georgia Institute of Technology	$2,303,752	25	3.00	$256,727	$30,164	107	32	18	21	60
Baylor College of Medicine	$2,280,000	53	2.50	$504,000	N.A.	70	18	8	27	77
Johns Hopkins University, excl. APL	$2,047,199	65	3.50	$1,089,517	$772,174	195	78	32	44	172
Cornell Research Fndtn., Inc.	$1,863,821	147	4.00	$1,289,218	$235,965	169	137	N.A.	71	363
Yale University	$1,700,000	53	3.00	$212,000	$53,000	71	30	13	14	144
North Carolina State University	$1,543,400	27	2.00	$667,700	$587,200	75	61	24	33	125
New York University Medical Center	$1,500,000	12	N.A.	$250,000	$120,000	N.A.	N.A.	N.A.	N.A.	N.A.
Univ. of Utah	$1,432,750	50	3.00	$263,238	$24,228	117	50	18	36	108
Univ. of Texas Southwestern	$1,425,000	19	1.20	$855,000	$273,000	46	33	13	12	52
Emory University	$1,400,000	7	0.90	$316,316	$174,067	35	17	9	12	27
Univ. of Cincinnati	$1,300,693	7	0.60	$81,549	$6,910	54	22	8	5	33
Univ. of Colorado	$1,272,764	23	2.00	$298,767	$26,900	71	32	16	10	43
Univ. of Michigan	$1,245,000	56	4.50	$995,213	$539,623	119	62	12	23	99

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Attachment C

LIST OF TABLES (FULL REPORT)*

Table 1	Gross Royalties Received and Facts & Figures for Fiscal Year 1993
Table 2	Professional and Support Staff FTEs for Technology Transfer and Licensing Activities
Table 3	Sponsored Research Expenditures for Fiscal Year 1993
Table 4	Sponsored Funding Levels for Fiscal Year 1992
Table 5	Sponsored Funding Levels for Fiscal Year 1991
Table 6	Licenses & Options Executed for Fiscal Years 1993, 1992, and 1991
Table 7	Gross Royalties Received for Fiscal Years 1993, 1992, and 1991
Table 8	Licenses & Options Generating Royalties for Fiscal Years 1993, 1992, and 1991
Table 9	Legal Fees Expended for Fiscal Years 1993, 1992, and 1991
Table 10	Legal Fees Reimbursed for Fiscal Years 1993, 1992, and 1991
Table 11	Invention Disclosures Received for Fiscal Years 1993, 1992, and 1991
Table 12	Total U.S. Patent Applications Filed for Fiscal Years 1993, 1992, and 1991
Table 13	New U.S. Patent Applications Filed for Fiscal Years 1993, 1992, and 1991

** As stated in the Foreword, the full report is available separately.*

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Attachment A

DEFINITIONS

The following definitions were used to clarify these data elements requested on the "AUTM Licensing Survey."

Startup Company: As used in this survey, a company that was dependent upon licensing the institution's technology for initiation.

Eligible FTEs: Persons employed in the office of technology transfer and, in rare instances, those whose duties are *specifically assigned* to supporting technology transfer activities, i.e., an industrial liaison, intellectual property counsel, but not persons employed in an office of sponsored programs.

Technology Transfer: Technology Transfer includes those activities associated with both technology licensing (see definition below) and industry research agreements.

Technology Licensing: Technology Licensing includes activities associated with the evaluation and marketing of technology (including trademarks but not university's insignia) and intellectual property management, and those of license administration. It does not include activities associated with industry research agreements.

Industry Expenditures: Industry Expenditures include total expenditures made by the institution in support of its research activities funded by *corporations*, but not expenditures supported by other sources such as foundations and other nonprofit organizations.

Royalties: Royalties include: license issue fees, payments under options, annual minimums, running royalties, termination payments, the amount of equity received when cashed-in, and software end user license fees equal to $1,000 or more, but not research funding, patent reimbursement fees, a valuation of equity not cashed-in, software end user license fees less than $1,000, or trademark licensing royalties from university insignia.

Royalties Paid to Other Institutions: Royalties Paid to Other Institutions is a subset of gross royalties received and should not be subtracted from the total. This number will be used to better define the double-count of royalties received under this survey.

Total U. S. Patent Applications Filed: Total U. S. Patent Applications Filed includes any filing during the year requested, including continuations-in-part (CIPs), continuations, divisionals, and reissues.

New U. S. Patent Applications Filed: New U. S. Patent Applications Filed is a subset of Total U. S. Patent Applications filed. It does not include continuations, divisionals, or reissues, and typically does not include CIPs. A CIP may only be counted as a new invention if filed with substantially new matter.

Patents Issued: Total number of U.S. patents issued to the institution in the year requested.

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Management Firms. Attachments B and C of this Executive Summary provide the Table of Contents of the full report and a listing of the tables contained in each section, respectively.

To assist technology managers in selecting institutions that are comparable to their own institution, a column has been added to the tables in the full report to indicate whether or not the institution has a Medical School. Tables for Canadian Institutions have been modified, when necessary, to include two separate columns: one for U.S. dollar totals and a second for Canadian dollar totals.[6]

The AUTM Licensing Survey collects information on major variables associated with licensing activities. Each of these values has risen consistently from Fiscal Year 1991 to 1993.[7] Some examples include: invention disclosures received, which increased from 6,337 to 8,581; U.S. patent applications filed, with 2,476 filed in FY 1991 as compared to 3,835 in FY 1993; and licenses & options executed, which rose from 1,257 to 2,227 over this period. Gross royalties received have also increased from $186 million in Fiscal Year 1991 to $323 million for Fiscal Year 1993.[8] These increases are a reflection of both the improved performance by technology transfer programs and greater participation in the AUTM Licensing Survey; the latter evidenced by 130 participating institutions in Fiscal Years 1991 and 1992, as compared to 158 organizations in FY 1993.

Summary totals for Fiscal Year 1993 are noted in Attachment D,[9] and selected data from the full report are provided in Attachment E.[10,11,12] The last report in this Executive Summary, included as Attachment F, presents comparative totals by sample population for the Fiscal Years 1993, 1992, and 1991.

NOTES

1. *An AUTM regular member is defined by the "By-Laws of the Association of University Technology Managers, Inc." under Article 1: Categories of Memberships, and includes: a) institutions of higher education or teaching hospitals; and b) individuals regularly engaged by such institutions to manage their intellectual property.*

2. *As defined by AUTM By-Laws, affiliate members include those organizations other than institutions of higher education or teaching hospitals, such as not-for-profit research firms, profit-making organizations, government agencies, etc., that manage intellectual property and interact with institutions of higher education or teaching hospitals.*

3. *Tables showing data for Fiscal Years 1993, 1992, and 1991 reflect all organizations that participated in the AUTM Licensing Survey for these years. Tables presenting data for only Fiscal Year 1993 or Fiscal Years 1991 and 1992 reflect only those institutions that participated in the survey for those years, respectively.*

4. *Consistent with the reporting of U.S. Hospitals and nonprofit institutions in other similar reports, i.e., the United States Patents Issued to Universities and Nonprofit Organizations report produced by The Research Foundation of SUNY/Buffalo, and at the request of some AUTM members, data for research institutes have been combined with U.S. Hospitals in this report.*

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