Tech transfer—slow progress

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Tech transfer (about half of which is biotech) from research institutions to business continues to swell; relatively steady startup growth in the US and UK contrasts with frenetic bursts of start-up activity in Europe, (e.g., France, Denmark, Germany and Sweden). Despite the fact that US universi-

ties raised >\$1 billion from licenses/options in 2003, only a handful make a significant amount of income from tech transfer and devote a sizeable staff to managing it. Recent advances in marketing research to corporations have given US institutions an edge over their European counterparts.

US research institution income and licenses

In the past decade, the average number of licenses/options has more than doubled, whereas average income has more than tripled.

Source: Association of University Technology Managers

New biotech company formation

The 2001 flurry of growth of biotechs in Denmark, France, Germany and Israel was built on only a modest number of mature companies.

Source: Critical I

Technology transfer at top US research institutions

Name of institutions	Research (\$ millions) ^a	Licenses (\$ millions) ^b	Inventions ^c	Patents filed ^d	Executed licenses ^e	Paying licenses ^f	Patents issued ^g	Start-ups
Universities								
University of California System	2,623	61	1,027	490	208	826	323	22
Johns Hopkins Univ.	1,461	7	330	380	159	218	95	5
Massachusetts Inst. of Technology	994	24	452	235	114	379	152	15
Univ. of Illinois, Chicago Urbana	785	7	229	118	86	183	39	6
Univ. of Washington	784	29	199	73	67	350	46	3
Univ. of Michigan	749	7	257	97	76	177	64	9
W.A.R.F./Univ. of Wisconsin, Madison	721	37	406	146	177	245	87	0
Univ. of Pennsylvania	649	10	321	153	83	51	50	12
Stanford Univ.	639	43	362	290	128	377	117	12
SUNY Research Fdn.	629	13	235	132	34	143	51	4
Hospitals & research institutes								
Massachusetts General Hospital	410	44	199	105	62	106	85	4
Mayo Fdn. For Medical Education and Research	351	11	226	58	133	254	69	0
Brigham & Women's Hospital	324	7	94	46	23	70	29	1
M.D. Anderson Cancer Ctr.	282	3	126	74	24	33	19	3
Sloan Kettering Inst. for Cancer Res.	224	74	74	33	29	61	34	0
Fred Hutchinson Cancer Res. Ctr.	203	1	13	6	5	65	5	0
Beth Israel Deaconess Medical Ctr.	161	2	62	32	25	45	11	3
Dana-Farber Cancer Inst.	151	4	67	25	32	129	10	0
St. Jude Children's Research Hospital	131	1	32	9	22	84	5	0
Children's Hospital, Cincinnati	130	2	26	19	12	16	3	2

^aTotal sponsored research expenditures; ^bAdjusted gross license income received; ^cInvention disclosures received; ^dUS patent applications filed; ^eLicenses & options executed; ^fLicenses & options yielding income; ^gUS patents issued. Source: Association of University Technology Managers

Changes in US tech transfer indicators

Everything, except for the number of patents issued, grew more slowly in 2003.

Source: Association of University Technology Managers

Technology transfer staffing at US universities

In 2003, four out of ten tech transfer offices had fewer than five employees.

Source: Association of University Technology Managers

US/Europe tech transfer gap

In 2003, US tech transfer in general (all sectors) was more successful than in Europe.

Source: European Commission and Association of University Technology Managers