



Industrial Partnerships & Technology Transfer

Keeping Your Name
Out
Of The
Gossip Columns
Of Nature, Science, and the Boston Globe

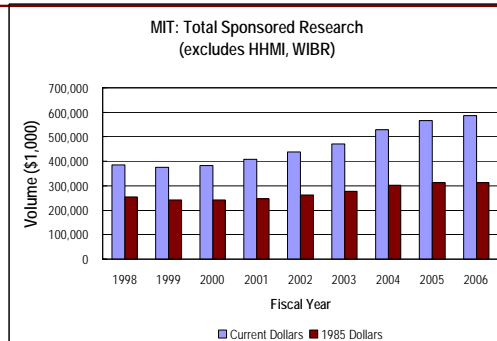
J. D. Litster

Columbia Presidents

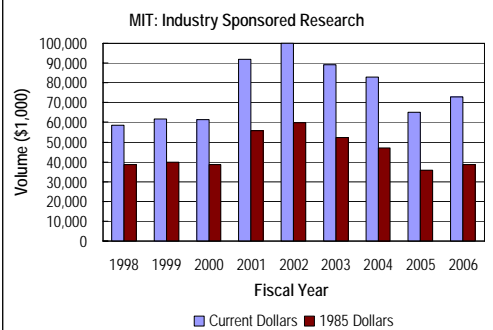
November 1, 2006



MIT Research: Total Sponsorship



MIT Research: Industry Sponsorship



MIT Research Policy: Criteria

- The research should be of intellectual interest to the faculty or research staff who supervise it.
 - ➔ The P.I. is responsible for direction.
 - ➔ Should provide thesis opportunities for students and advance knowledge or state of the art.
 - ➔ Visitors are chosen by the faculty and are expected to contribute to the research.
- Industrially sponsored research should be a balance between MIT's educational purpose and a search for new knowledge to meet the sponsor's needs.



MIT Research Policy: Publication

- The results must be freely published (to maintain our status as a tax exempt institution) and are available to all, no matter who supported the research.
- May be delayed up to 30 days (60 days under special circumstances) to protect patent rights, but no delay in academic credit to students.



MIT Research Policy: Publication

- Sponsor's proprietary information will be safeguarded. How do we do this in cooperative programs—where the research is done on sponsor's premises?
 - ➔ Sponsor approves thesis proposal and agrees in advance everything under the scope of the proposal may be published.
 - ➔ Sponsor has 30 days to examine thesis and publications to ensure no proprietary information is revealed.



MIT Research Policy: IP Ownership

- MIT has title to all intellectual property developed by employees using significant facilities or funds administered by MIT. All research sponsorship agreements, regardless of sponsor, transfer the intellectual property to MIT. MIT's IP is licensed to encourage the transfer of technology for development by industry in the public interest.
- IP developed by visitors also belongs to MIT.



MIT Research Policy: IP Ownership

- For products produced under an MIT license, MIT requires substantial manufacturing in the US. (This extends Chapter 18 of Title 35 USC: PL96-157, the Bayh-Dole Act of 1980, which imposes these requirements on federally supported research.)
- Royalty split is 1/3 inventor before expenses; after expense income is shared equally by inventor's department/laboratory and MIT centrally.



MIT IP Policy: Sponsor's Options

1. The sponsor may have exclusive commercial rights and pay royalties to MIT.
2. The sponsor may have a non-exclusive royalty-free license for sponsor's internal use.
3. The sponsor may have a non-exclusive commercial license in exchange for patent maintenance costs.



MIT IP Policy: Sponsor's Options

4. The sponsor may waive all rights and receive 25% of patent income after expenses.[†]

Sponsor makes a choice when the IP is known. If MIT elects not to file a patent, the sponsor may do so in MIT's name and then choose from one of the four options above.

[†] This is a rare incentive to get a sponsor who does not intend to use a patent to waive the right to a non-exclusive license.



MIT Research Support: Industrial Partnerships

Typical Features:

- Long term commitment – 5 years minimum
- Support ~ \$20 million (over 5 years)
 - \$15 million research, allocated by joint committee
 - \$5 million unrestricted gift to MIT
- Relationship built at the highest level



MIT Research Support: Industrial Partnerships

Typical Features (cont'd):

- Requires finding common goals – as expressed in a vision statement.
- More than one topic of interest (3–5 program areas).
- Generally interdisciplinary.
- Often requires strong (well-known) faculty leadership.



MIT Research Support: Industrial Partnerships

A Relationship of Equals:

- Governance by consensus:
 - + executive operating committee with equal representation
 - + sponsor participates in reviewing/selecting projects
 - + consensus required to support a project
- Disputes are resolved by the principals.
- Wind down relationship if parties not happy with it.



MIT Research Support: Industrial Partnerships

Normal MIT Policies Followed on IP:

- IP ownership:
 - determined by law of inventorship/copyright (i.e., depends on who inventors are)
 - if university facilities used, MIT joint ownership as minimum
- Commercial rights, or
- Royalty-free non-exclusive license.
- Option for exclusive royalty-bearing license.
- Rates negotiated after the IP is known.



MIT Research Support: Industrial Partnerships

Miscellaneous Terms:

- Freely publish results; delay to file patents if PI approves.
- Rights to background IP are not guaranteed.
- Confidentiality is MIT standard; no separate NDAs.
- Termination without cause is an option, with suitable ramp down of funding.



MIT Policies: Outside Professional Activities

Consulting and other outside professional activities must be clearly distinguished from university responsibilities.

- Limited in extent (one day per week).
- Students or MIT staff may not be involved.
- Restricted (if any) use of MIT facilities.

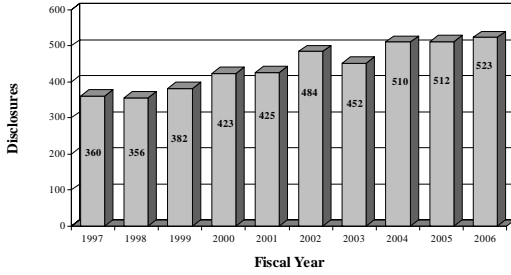


MIT Policies: Conflict of Interest or Commitment

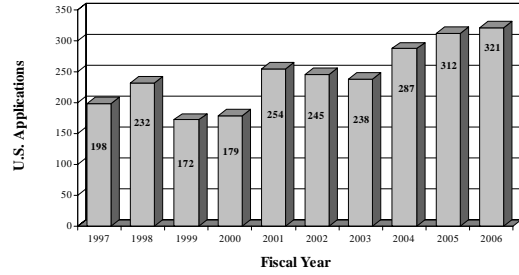
- MIT has only full time faculty appointments, so a major management position in a company is not allowed, except when on leave.
- A company may not support research at MIT if it is a commercial activity (if a company is a commercial activity, it is not allowed to support research at MIT)



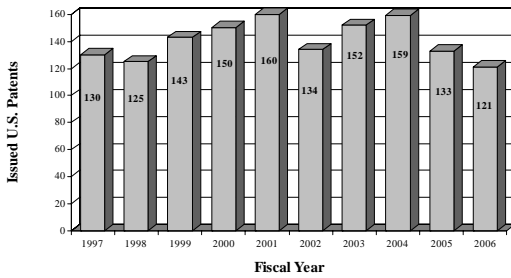
M.I.T. Disclosures by Fiscal Year, 1997-2006



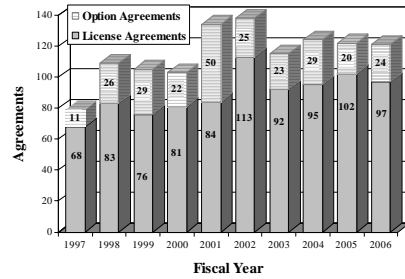
M.I.T. U.S. Applications by Fiscal Year, 1997-2006



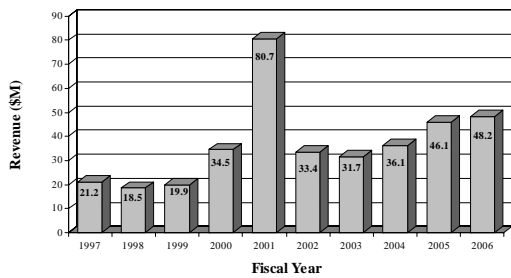
M.I.T. Issued U.S. Patents by Fiscal Year, 1997-2006



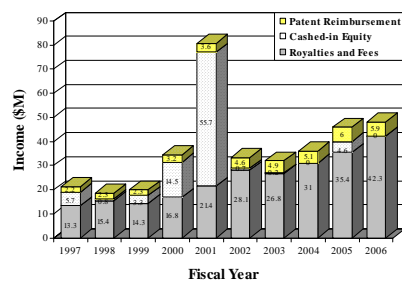
M.I.T. Licenses and Options by Fiscal Year, 1997-2006



Total Cash Income by Fiscal Year, 1997-2006

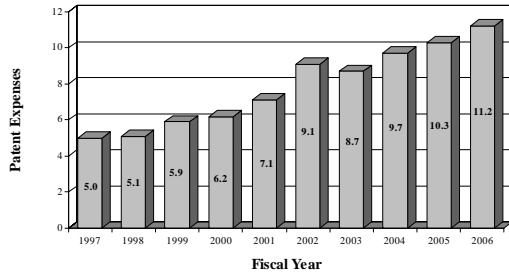


Licensing Income (\$M) by Fiscal Year, 1997-2006

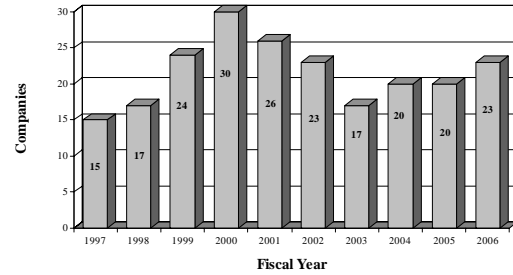




Patent Expenses (\$M) by Fiscal Year, 1997-2006



Companies Started per Fiscal Year, 1997-2006



Technology Transfer: Incubation

Incubators may be thought necessary because university technology is not mature; a better reason might be lack of important infrastructure in the local area.

- If done in or by the university, it is fraught with conflicts of interest and commitment.
- It all too often leads to weak companies that never “grow up.”



MIT-Related Research: Serendipity

In 1997 the Bank of Boston studied the economic impact of MIT faculty and graduates (mostly the latter). The study found that they had founded over 4,000 companies that employed 1.1 million people and had gross sales of \$232 thousand million. The most interesting result of the study (to me) was the unpredictability.



MIT-Related Research: Serendipity

- Only 18% of the biotech companies were founded by life sciences graduates; 40% of them were founded by engineers.
- Social science graduates founded 13% of the electronics firms, 27% of the manufacturing firms, and 26% of the software companies.
- Engineering graduates founded 45% of the companies in finance, and 33% of the management consulting firms.



All Research: Predictability

DILBERT by Scott Adams

