ANNUAL REPORT
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OFFICE OF TECHNOLOGY LICENSING
FOR
FISCAL YEAR 2005

OFFICE OF THE PROVOST

BRANDEIS UNIVERSITY

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1. Summary

Fiscal 2005 was a "restart" of the technology transfer program at Brandeis. License income and other measures of activity increased over FY04 as summarized in the table below. A new director was recruited, OTL moved into new space in the science complex, the Intellectual Property Review Committee was activated, an integrated database system was acquired and populated, the web site was upgraded, and key competencies were added through consulting arrangements.

	FY05	FY04
Invention Disclosures	14	6
New Patent Applications	6	1
Deals	10	4
Patent expenses	$296,500	$115,500
Patent expense reimbursement	$257,700	$ 94,300
License Income	$631,100	$454,400

2. Financial Activities: Income

Income takes the form of patent expense reimbursement and license income.

Gross license income for FY05 was $631,100, up from $454,400 in FY04. The top revenue-generating technology in FY05 was the proprietary oil blend that is the basis of the Smart Balance® brand of products, earning $308,900 in gross royalty payments (49% of the total of $631,100).

License income, net of out-of-pocket expenses directly related to individual licensed technologies and net of payments to other institutions pursuant to applicable inter-institutional agreements, is distributed pursuant to the Intellectual Property Policy. License income, net of such out-of-pocket expenses and payments to other institutions, was $578,400 for FY05, up from $429,200 for FY04. Distributions to Brandeis-related entities in FY05 and FY04 were as follows:

	FY05	FY04
Inventors	$297,300	$230,000
Departments	$ 93,700	$ 66,300
Provost's Fund	$ 93,700	$ 66,300
General Fund	$ 93,700	$ 66,300
Total	$578,400	$429,200

The other form of income, patent expense reimbursement, comprises payments made by licensees, pursuant to the terms of their license agreements and separate from royalty payments, for expenses incurred by Brandeis in prosecuting patents. Such payments go directly to offset patent expenses, such that, for FY05, $257,700 of the $296,500 in patent expense was reimbursed by licensees, separate from license income, leaving $38,800 in unreimbursed patent expenses.

3. Financial Activities: Budget Compliance

OTL's budget for operating expenses for FY05 was $75,000. Operating expenses comprise office expenses, patent expenses not reimbursed by licensees directly or otherwise deductible from license income, and other out-of-pocket expenses directly related to licensed technologies. For FY05, OTL came in about 10% under budget, with total operating expenses of $66,700 ($38,800 in unreimbursed patent expenses and $27,900 in other operating expenses).

4. Disclosures of Intellectual Property

OTL received 14 disclosures in FY05, up from 6 in FY04 (listed in appended Table 1), and, significantly, involving a number of investigators who had not previously made disclosures. Based on data reported by the Association of University Technology Managers (AUTM), an institution with research expenditures comparable to those of Brandeis might expect about 20 disclosures annually.

5. Patent Activity

Six new U.S. patent applications, distinct from patent applications that are conversions of provisional applications or continuations, continuations-in-part, or divisions ("children", in a sense) of an earlier patent or patent application (the "parent" application or patent), were filed in FY05, up from 1 in FY04 (listed in appended Table 2) and closer to the 10 or so that might be expected based on AUTM statistics.

6. License/Option Agreements

OTL executed a total of 10 agreements, 8 license agreements and 2 option agreements, in FY05, up from 4 in FY04 (listed in appended Table 3). Based on AUTM statistics, Brandeis might expect 5-6 agreements in an average year.

7. Collateral Agreements

OTL supports the research endeavor by reviewing, negotiating and executing material transfer agreements (MTA's), which govern the use of research materials coming in from and going out to both non-profit and for-profit entities. OTL executed 20 MTA's in FY05. MTA's that govern materials incoming from industry, of which there were 5, require negotiation in most instances and, hence, can be time consuming.

At the request of the Office of Sponsored Programs, OTL reviews and comments on the intellectual property aspects of sponsored research agreements and other sorts of cashless collaboration agreements of which there were 12 in FY05.

OTL executed one inter-institutional agreement with Harvard University involving microfluidics technology for the crystallization of proteins. Inter-institutional agreements

govern shared inventions, spelling out which party is responsible for patent prosecution and licensing (Brandeis is in this case) and how expenses and income are to be shared.

7. Space

OTL moved into new space in the science complex. The location in the science complex greatly facilitates access of scientists, OTL's primary clients, to OTL and results in coincidental encounters that significantly increase awareness of OTL and contribute to the establishment of effective working relationships.

8. Intellectual Property Review Committee

The Intellectual Property Review Committee addressed three questions raised by different departments. The Committee reached the following decisions, which are memorialized in minutes of Committee meetings maintained by OTL and which were accepted by the Provost: (i) the Physics Department's contemplated uses of the department's share of license income to co-sponsor the Women's Studies symposium on Women in Science and to fund a new course between Classics and Physics were appropriate uses under the Brandeis Intellectual Property Policy; (ii) ownership of teaching materials developed by full-time Lecturers in the Department of Romance and Comparative Literature when participating in the team-teaching of language courses should remain with the authors, consistent with the spirit and intent of the Brandeis Intellectual Property Policy that faculty members should not usually be asked to assign ownership of such materials to the University; and (iii) ownership of syllabi and briefs prepared in the future by faculty at the request of, and with remuneration by, the Brandeis University National Women's Committee (BUNWC) would be shared with the University if BUNWC stipulated this condition when commissioning the work.

9. Integrated Database System

An integrated database system designed specifically for the needs of an academic technology licensing function was acquired and populated and is now in use in OTL. This system was developed by Harvard University for its internal use and is also used by most of the affiliated hospitals for the management of invention disclosures, patents/patent applications, licenses and financial activity.

10. OTL Web Site

The OTL web site (www.brandeis.edu/offices/otl) was updated and upgraded with the help of Brandeis Technology Services.

11. Consulting Arrangements

OTL added competencies through consulting arrangements. Alan Gordon, Technology Licensing Officer in MIT's Technology Licensing Office with responsibility for software and information technology, advises OTL in those areas.

Karen Hersey, Senior Counsel for Intellectual Property, MIT (retired) and Visiting Professor of Law, Franklin Pierce Law Center, provides legal review of license agreements and also is an authority on copyright law. She can advise on any question about copyright licensing, including licensing of digital works and internet-based educational materials.

13. Outreach

Outside of the University, Larry Steranka co-chaired the annual, three-day, professional development course offered by Association of University Technology Managers on start-up business development. In addition, he served as a panelist for a session on university-industry relationships at the annual meeting of the Licensing Executives Society. Larry is also a member of the board of directors of the Massachusetts Association of Technology Transfer Offices.

Internally, OTL laid the ground-work for the FY06 publication of "A Guide to Technology Transfer for Creators of Intellectual Property at Brandeis University" and the launching of a seminar series for the Brandeis community on topics relevant to technology transfer.

As noted above in the context of moving into the science complex, much internal outreach has been achieved through one-on-one interactions with Brandeis investigators.

Table 1: Disclosures in FY05

PCR technology
- Enhancements of LATE-PCR (Wangh, Pierce, Rice, Salk and Sanchez)
- Molecular wires (Wangh, Pierce, Reis, Rice and Sanchez)
- Improved probes (Wangh, Pierce, Reis, Rice and Sanchez)
- Enhanced elixirs (Wangh, Pierce, Reis, Rice and Sanchez)

Research tools
- Tandem peptides for mass spec (Moore and LaRiviere)
- Multicolor fluorescence microscope (Friedman, Chung and Gelles)

Therapeutic approach to treating immune disorders
- Method of increasing IgG catabolism (Simister)

Microfluidics
- Microfluidic device for protein crystallization (Fraden, Azkarate, Link and Shim)

Web-based educational games
- SpellBee, GeograBee, CalcuBee, MoneyBee (Pollack)

Information technology
- Solving the "invariance" problem in computer vision (Lisman, Cohen, DiLillo and Storer)

Spanish Language Placement Exam (Schuhmacher)

Inventor owned under Brandeis IP policy
- Partition for small animal cage (Hayes, Perlman and Pronczuk)
- Bipolar magnetic blocks (Pollack)
- Method for isolating epithelial cell types from normal organs (Yerganian)

Table 2: New U.S. Patent Applications Filed in FY05

PCR technology
- Reducing mispriming in PCR amplification – Elixir (Wangh)
- Primers, probes, and methods for nucleic acid amplification (Wangh)

Chiral chemistry
- Asymmetric CH activation (Yu)
- Bifunctional chiral catalysts (Deng)

Research reagents
- Clonable tag for labeling proteins (DeRosier)

Microfluidics ("nanotechnology")
- Microfluidic device for protein crystallization (Fraden)

And some applications for trademark registration
- On-line educational games: SpellBee, GeograBee, CalcuBee, MoneyBee

Table 3: License and Option Agreements in FY05

Reagent
- non-exclusive license, research and development use

PCR technologies (4 “cases”, i.e., patent families)
- exclusive option, all fields, world-wide

Chemical process
- exclusive license, chemical manufacturing, world-wide

Phytosterol technology (nutriceuticals)
- exclusive license, all fields in Europe, some in U.S.
- exclusive license, cooking oil, U.S.
- exclusive license, dietary supplement, U.S.
- exclusive license, donuts, NYC area

“Smart Balance®” oil blend
- non-exclusive license, cookies/crackers, U.S.
- non-exclusive, cookies/crackers, Canada

Method for 3D X-ray imaging with low-dose radiation
- exclusive option, world-wide