ANNUAL REPORT

UNIVERSITY OF CALIFORNIA

TECHNOLOGY TRANSFER PROGRAM

FISCAL YEAR 1999

Annual Report
University of California
Technology Transfer Program

Fiscal Year 1999

Office of the President
Senior Vice President—Business and Finance
Office of Technology Transfer
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Table of Contents

Part 1: Technology Transfer Overview 1
Program Overview 2
Background
Technology Transfer Organization
Policy and Program Developments
Technology Transfer Activity 9
Invention Reporting
Patent Activity
Licensing and Related Activity
Technology Transfer Revenues 14
Total Licensing Revenue
Royalty and Fee Income
Income from Expense Reimbursement
Technology Transfer Expenses 16
Legal and Other Direct Expenses
Operating Expenses
Income Distributions 18
Payments to Joint Holders
Inventor Shares
Research Allocation
General Fund Share
Net Income 20
Summary Tables 20
Systemwide Technology Transfer Activity FY95-FY99
Systemwide Financial Activity FY95-FY99
FY99 Campus Technology Transfer Activity
FY99 Campus Financial Activity

Part 2: DOE Laboratory Portfolios 25
DOE Laboratory-Managed DOE Portfolios 27
OTT-Managed DOE Portfolios 30

UC Technology Transfer on the Internet 32

Part I: Technology Transfer Overview

This Annual Report is divided into two parts. Part 1 presents an overview of technology transfer as it is carried out throughout the University of California. It discusses the evolution and organization of the systemwide technology transfer program and highlights recent developments. Results for the fiscal year ending June 30, 1999 are presented for the nine-campus system. This portfolio of inventions, patents and licenses was managed by the Office of Technology Transfer (OTT) within the Office of the President and five campus-based licensing offices at Berkeley, Irvine, Los Angeles, San Diego, and San Francisco.

Part 2 of this report provides activity and financial information from the technology transfer offices of the three Department of Energy (DOE) Laboratories managed by the University. Information on the Laboratories is reported separately because certain aspects of technology transfer are different at the Laboratories as compared with the rest of the University. Among these differences is the reporting period, which covers the fiscal year ending September 30, 1999.

Program Overview

Background

Since 1943, UC has had a patent policy in place that serves as the foundation for all technology transfer activities. The current Patent Policy encourages the practical application of UC research for the broad public benefit and outlines the responsibilities of the faculty, staff, and others in using the patent system and pursuing the licensing of University technology. Today the UC technology transfer program encompasses a range of activities carried on throughout the system to facilitate the commercialization of promising early stage technologies that arise during the course of research. Increasingly, these activities extend beyond the traditional patenting and licensing of University inventions to the development of a variety of relationships with business, industry and government that enhance the research and education missions of the University and contribute to the economic prosperity of the State of California.

The current scope and operations of the UC technology transfer program reflect recommendations from the Ad Hoc Technology Transfer Advisory Committee, a group convened by former UC President Peltason to examine the structure, governance, and overall approach to technology transfer within the UC system. The March 1994 final report of the committee concluded that technology transfer is an integral and important activity within an academic environment in which research and education are the highest priorities. It recognized the public service benefits of transferring University technology to the private sector and recomemended that technology transfer be carried out in a way that encourages the establishment of research relationships with the industry and contributes to the funding of research and education at UC.

The Ad Hoc Committee also recommended that technology transfer be faculty-centered, inventor-centered, and campus/Laboratory-centered and proposed the establishment of a technology transfer system with distributed responsibility and authorities that balances activities carried out on a systemwide basis with those taking place at the individual campuses and Laboratories. Under this system, campuses and Laboratories, to the extent feasible, would be granted the authority to develop and shape their own technology licensing programs to fit their unique needs. However certain functions, such as policy development and legal oversight, would continue to be the responsibility of the Office of the President.

During the summer of 1994, the Ad Hoc Committee was converted to a standing Technology Transfer Advisory Committee (TTAC) and charged with ongoing oversight of the University's technology transfer program. This 21-member group, chaired by the Senior Vice President — Business and Finance, meets periodically to advise the President on technology transfer policy and to guide the direction of the systemwide program.

TECHNOLOGY TRANSFER ADVISORY COMMITTEE

Richard E. Attiyeh	Vice Chancellor — Research, UCSD
Carol Berman	Contracts and Grants Coordinator, DANR, UCOP
Patricia Brennan	Interim Director, Office of Sponsored Research, UCLA
Joseph Cerny	Vice Chancellor — Research, UCB
J. Lawrence Fox	Director, Technology Transfer Center, UCD
Terence A. Feuerborn	Executive Director, Research Administration and Technology Transfer, UCOP
Cheryl A. Fragiadakis	Department Head, Technology Transfer, LBNL
Warren M. Gold	Professor, Medicine, UCSF
Arthur C. Gossard	Professor, Materials, UCSB
Harry W. Green, II	Vice Chancellor — Research, UCR
Zach W. Hall	Vice Chancellor — Research, UCSF
Susanne Huttner	Director, Industry-University Cooperative Research Program, UCOP
Alan P. Jackman	Professor, Chemical Engineering and Material Science, UCD
V. Wayne Kennedy	Senior Vice President — Business and Finance, UCOP
C. Judson King	Provost and Senior Vice President — Academic Affairs, UCOP
John F. Lundberg	Deputy General Counsel, UCOP
Richard Mah	Acting Director, Industrial Business Development Program Office, LANL
Karena McKinley	Director, Industrial Partnership and Commercialization, LLNL
David G. Schetter	Assistant Vice Chancellor, Research and Technology Alliances, UCI
Robert N. Shelton	Vice Provost, Office of Research, UCOP
Todd W. Wipke	Professor, Chemistry, UCSC

Program Overview

Technology Transfer Organization

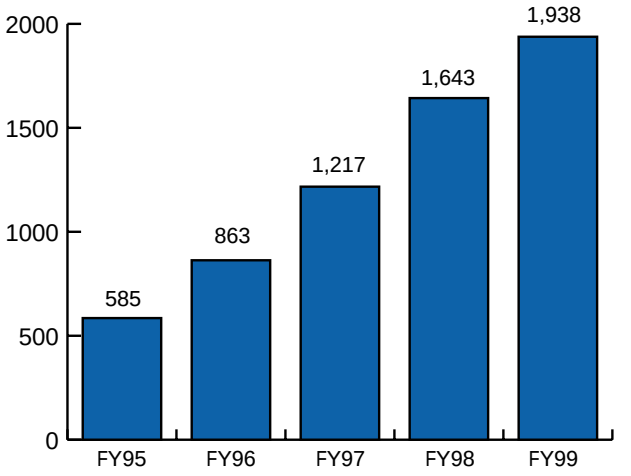
The UC Technology Transfer program operates under the organizational model envisioned in the Ad Hoc Technology Transfer Committee report. Each campus/DOE Laboratory has committed to a different level of licensing and other technology transfer-related activity in an agreement negotiated with the Office of the President.

Systemwide Activity—OTT, within the Office of the President, provides policy development and guidance, legal support, systemwide information management, legislative review, and a variety of other coordinating services in support of the systemwide program. OTT also continues to provide comprehensive management of a substantial invention portfolio and offers a wide range of advisory and infrastructure services both to emerging and well-established campus and Laboratory licensing offices. Offering such services is an increasingly significant OTT function in light of the challenges campus-based technology transfer offices often experience as they initiate and expand their operations.

Campus Activity—At the campus level, six campuses have been delegated licensing authority. Individual programs that carry out the licensing function in close proximity to the faculty and other academic researchers have been firmly established on five campuses (UCB, UCI, UCLA, UCSD and UCSF). In addition, the Davis campus formally established a campus-based technology transfer office in Summer 1999.

Exhibit 1

INVENTIONS MANAGED BY CAMPUS OFFICES



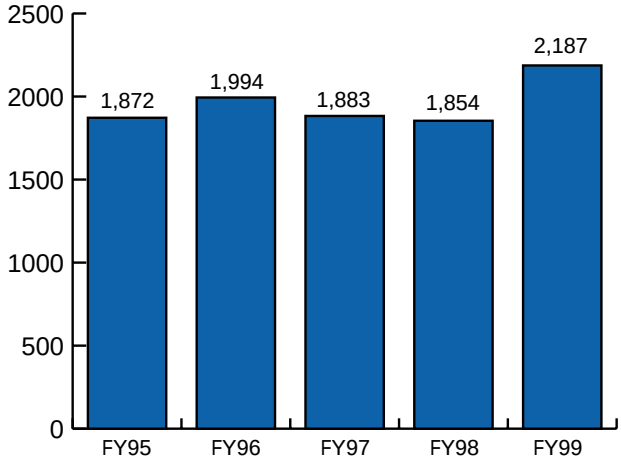
Each of the campus-based licensing offices has a distinctive focus and organization. The scope of responsibilities assigned to the offices often extend beyond patent licensing to include such activities as copyright administration, material transfer agreement negotiation, conflict of interest oversight, industry sponsored research development, faculty advisement on industry relationships, and support of economic development initiatives.

Three campuses, Riverside, Santa Barbara, and Santa Cruz, have chosen to continue to rely solely on the licensing services of OTT, and each has been assigned an OTT licensing staff member to serve as a special technology transfer liaison. These individuals spend substantial time in direct contact with faculty, researchers and administrators on the campus in order to understand the specific campus needs and requirements.

This organization has resulted in the campuses having an increasingly larger share of responsibility for management of the overall UC invention portfolio which has itself grown substantially over time. As shown in Exhibit 1, the size of the invention portfolio managed at the campus offices has more than tripled from 585 inventions in FY95 to 1,938 in FY99. During that same period, the size of the OTT-managed portfolio grew from 1,872 to 2,187 inventions (Exhibit 2). A comparison of the five-year data trend indicates that the campuses were responsible for managing only 24% of the 2,457 invention portfolio in FY95 whereas, by the end of FY99, they had responsibility for management of 47% of an invention portfolio that has grown 68% to 4,125 inventions.

Exhibit 2

MANAGEMENT OF THE UC INVENTION PORTFOLIO



The relative level of invention management responsibility residing at the campuses is likely to continue to increase, as approximately six of every ten new inventions disclosed in FY99 were assigned to a campus-based office. This redistribution of responsibility is consistent with the priorities articulated in the Ad Hoc Committee report, referenced above, which envisioned a continuing oversight and coordination role for the central office and a strengthened operational role for campus offices in the licensing enterprise.

DOE Laboratory Activity—The DOE Laboratories continue to manage their own technology transfer activities as they have done since 1988. Offices at Lawrence Berkeley National Laboratory (LBNL), Lawrence Livermore National Laboratory (LLNL), and Los Alamos National Laboratory (LANL) are responsible for licensing intellectual property and for negotiating Cooperative Research and Development Agreements (CRADAs) with industry. The portfolio of inventions managed by the Labs had grown to over 3,000 inventions at the end of FY99.

Program Overview

Policy and Program Developments

New Policy— On August 26, 1999, President Atkinson issued Principles Regarding Rights to Future Research Results in University Agreements with External Parties (see excerpt, opposite page). The Policy delineates University principles for decisions regarding rights and obligations associated with research results arising from the full range of UC research-related relationships with external parties. It was developed in response to recommendations put forth by administrators, faculty and industry representatives who attended the President's Retreat on UC Relationships with Industry in Research and Technology Transfer, held in Los Angeles in January 1997. The policy was originally formulated by a TTAC working group that included representatives of Business and Finance and Academic Affairs in the Office of the President, and the Academic Senate. In addition to extensive campus, Laboratory and Senate review and input, the policy underwent review by the Council on Research (COR), the Council of Vice Chancellors for Research, and the full TTAC.

The Principles Policy provides direction for the growing number of faculty and administrators involved in new forms of research relationships with industry and other extramural parties. It offers a basic framework that enables the University to maintain appropriate consistency of approach across the campuses and Laboratories while providing for greater flexibility in the local administration of agreements governing research results. In addition, the principles provide University negotiators with a basis to support positions taken during often challenging contract negotiations. Guidance is being developed to support the systemwide implementation of the Policy.

Distributed Authority—In the past year there have been significant developments involving four campuses in the redistribution of responsibility for administration of patent and other intellectual property matters. Scheduled performance reviews of the multi-year pilot period for the technology transfer offices at the Irvine and San Diego campuses resulted in the granting of indefinite extensions of licensing authority to both campuses. At Irvine, technology transfer is carried out within the Office of Technology Alliances (OTA), whose mission extends beyond technology licensing to providing a full range of services that support industry/faculty collaboration and commercial interactions. In addition to patent licensing, OTA handles copyright licensing, material transfer agreements and negotiates major technology-based industry sponsored research agreements. At San Diego, the Technology Transfer Office (TTO) recently changed its name to Technology Transfer and Intellectual Property Services (TTIPS) to better reflect its commitment to providing quality campus service in the context of its full range of activities. In addition to technology licensing, these include the management of copyrights, trademark registration and the provision of general services on all matters related to intellectual property issues. The third development involved UCLA, where a campus-initiated change redefined the roles of the campus and OTT in the management of the campus invention portfolio. Under a newly negotiated reassignment of responsibility, UCLA entered into a cooperative model with the Office of the President under which OTT has assumed greater responsibility for managing patenting, licensing and accounting activities on behalf of the campus. Finally, the Davis campus launched its new Technology Transfer Center and was delegated interim licensing authority in November 1999 in anticipation of the completion of a more formal memorandum of understanding.

Equity Activity—In February 1996, President Atkinson issued the University Policy on Accepting Equity under which the University may accept equity in a company as partial considerations for licensing-related transactions. Interim implementing guidelines for accepting and managing equity were issued as a Business and Finance Bulletin in July 1997. This bulletin covers

Principles Regarding Rights to Future Research Results In University Agreements with External Parties

Excerpts from the Policy:

Preamble—This policy defines the core principles to be addressed in University agreements with external parties as to rights to future research results including patents, copyrights, tangible property, and data generated by the University community or through the use of University resources...

Principles

1. Open Dissemination of Research Results and Information
   Agreements with external parties shall not abridge the ability of University researchers to disseminate their research methods and results in a timely manner. The most fundamental tenet of the University is the freedom to interpret and publish or otherwise disseminate research results in order to support the transfer of knowledge to others and maintain an open academic environment that fosters intellectual creativity.
2. Commitment to Students
   Agreements for research relationships with external parties shall respect the University's primary commitment to the education of its students.
3. Accessibility for Research Purposes
   Agreements with external parties shall ensure the ability of University researchers to utilize the results of their research to perform future research.
4. Public Benefit
   Agreements with external parties shall support the ability of the University to make available for the public benefit in a diligent and timely manner any resulting innovations and works of authorship.
5. Informed Participation
   All individuals involved in research governed by a University agreement with an external party shall have the right and responsibility to understand the rights and obligations related to future research results embodied within the agreement.
6. Legal Integrity and Consistency
   Commitments concerning future research results made in agreements with external parties shall be consistent with all applicable laws and regulations and the University's contractual obligations to others.
7. Fair Consideration for University Research Results
   Agreements with external parties shall provide fair consideration to the University and the general public for granting commercial access to future University research results.
8. Objective Decision-Making
   When establishing or conducting University relationships with external parties, decisions made about rights to future research results shall be based upon legitimate institutional academic and business considerations and not upon matters related to the personal financial gain of any individual.

Applicabiliity
When establishing or conducting University relationships with external parties, decisions made about rights to future research results shall be based upon legitimate institutional academic and business considerations and not upon matters related to the personal financial gain of any individual.

the circumstances and conditions under which equity may be accepted in licensing transactions, the approval process for equity acceptance, and the guidelines under which equity is managed once it is received by the University. As of the end of FY99, the University held equity in 30 companies as a result of technology licensing activities. Stock in ten of these companies was traded on public markets and the UC share was valued at $1.5 million. In addition, during the fiscal year, UC received $246,000 from the sale of equity previously acquired under a single licensing agreement.

Master Agreements—The University engages in complex negotiations pertaining to the intellectual property arrangements in sponsored research agreements and other collaborative relationships with industry on a daily basis. These negotiations typically concern a single defined project or activity. In FY99, however, several challenging and significant systemwide agreements were successfully negotiated in which the intellectual property components had a broader positive impact within the University community. In December 1988 the University entered into an agreement with a DuPont Pharmaceuticals Company enabling broad use of a genetically-engineered mouse in UC research. Before this agreement was executed, UC investigators who needed this animal model for research were precluded from using this research tool because of onerous intellectual property “reach-through” provisions associated with its use. The agreement satisfactorily addressed this issue. Similarly, in May the University entered into a systemwide agreement with Affymetrix, a small biotech company that is the primary supplier of probe array chips used in genomic research. The chips had been in great demand by University researchers, but had not been widely available due to the prohibitive cost and problematic intellectual property provisions. This systemwide agreement includes more favorable pricing and intellectual property provisions and also allows the University to elect to purchase and use the chips under the new Agreement terms rather than under the less desirable terms of previously existing agreements with the company.

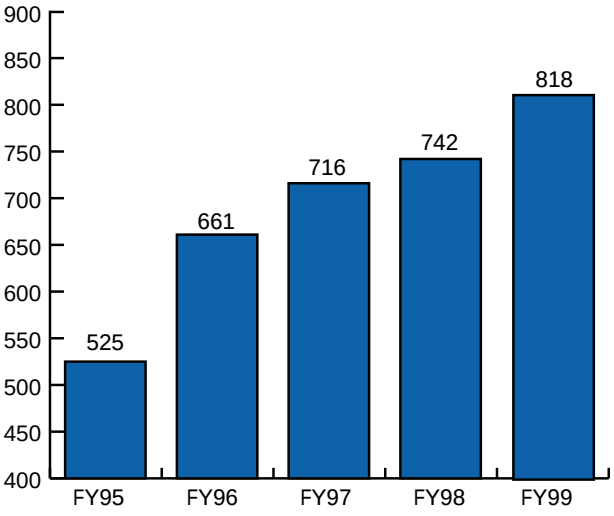
Novartis Agreement—In November 1998 the Berkeley campus entered into an agreement with Novartis Agricultural Discovery Institute, Inc. (NADI) to establish a five-year, $25 million research collaboration in the area of plant genomics. Intellectual property considerations are central to this unique venture which provides funds for non-targeted basic research for the UCB Department of Plant and Microbial Biology as well as access to proprietary Novartis database technology and research tools. In exchange, NADI was granted the right to negotiate licenses to a portion of all inventions disclosed by the department. as allowed under existing University policy and federal guidelines. The UCB Office of Technology Licensing, in consultation with OTT, drafted and negotiated the agreement within University policy and federal guidelines.

Invention Reporting

During the twelve-month period ending June 30, 1999, a total of 818 inventions were disclosed by faculty and researchers at the nine UC campuses. This represents a 10.2% increase when compared with the 742 new inventions reported in FY98 (Exhibit 3).

Exhibit 3

INVENTIONS REPORTED

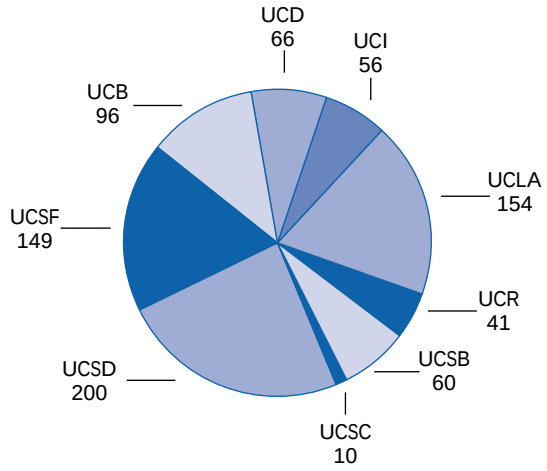


Inventions in life science disciplines including medicine and biotechnology accounted for over 70% of the new inventions, while those from the physical sciences and engineering accounted for most of the balance. Over time, the pattern of invention disclosure has approximated the distribution of extramurally-sponsored research at the University. The distribution of newly reported inventions by campus is shown in Exhibit 4.

Exhibit 4

INVENTION DISCLOSURES BY CAMPUS*

Year Ended June 30, 1999



** Inventions having inventors from more than one campus are counted multiple times, once for each campus with an inventor, thus the total number of inventions in this chart exceeds the 818 total inventions reported in the text.*

As of June 30, 1999, the systemwide invention portfolio was comprised of over 4,000 active inventions. The size of the total invention portfolio of each campus is indicated in the exhibit below.

Exhibit 5

CAMPUS INVENTION PORTFOLIOS*

Year Ended June 30, 1999

UCB	UCD	UCI	UCLA	UCR	UCSB	UCSC	UCSD	UCSF
567	519	284	615	147	196	46	797	963

**Inventions associated with inventors from more than one campus are reported multiple times in this exhibit.*

Technology Transfer Activity

Patent Activity

A patent is a form of intellectual property protection granted by the US or a foreign government that affords the patent holder the right to exclude others from making, using, or selling the patented invention for a defined period of time, generally for twenty years from the date the patent application is first filed. Both US and foreign patent rights often must be pursued for an invention in order to maximize the likelihood of successful commercialization. (Exhibit 6).

Exhibit 6

PATENT ACTIVITY

Year Ended June 30, 1999

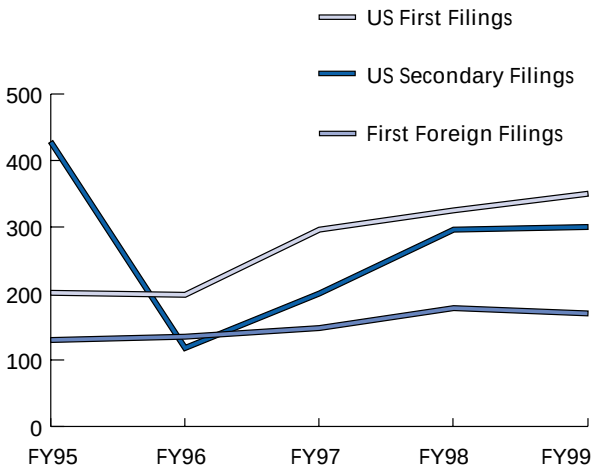
US Applications Filed	
First Filings	368
Secondary Filings	302
Total	670
First Foreign Filings*	183
US Patents Issued	281
Foreign Patents Issued	209

** An invention is counted only one time in the first foreign filings category regardless of the total number of countries in which foreign patent protection is eventually sought.*

Systemwide patent activity for FY99 is presented in Exhibit 6. Exhibit 7 shows trends in patent filings over the past five years. As these figures suggest, there may be multiple filings associated with any one invention. Secondary filings often result from the need to have several distinct patent filings in order to assure adequate patent coverage for all aspects of a new technology. Such secondary filings frequently lead to the issuance of multiple patents related to a single initial invention. The increases in patent filings are a result of the growth in the number of inventions reported, and have given rise to a steady increase in patents issued to UC over the past several years (Exhibit 8).

Exhibit 7

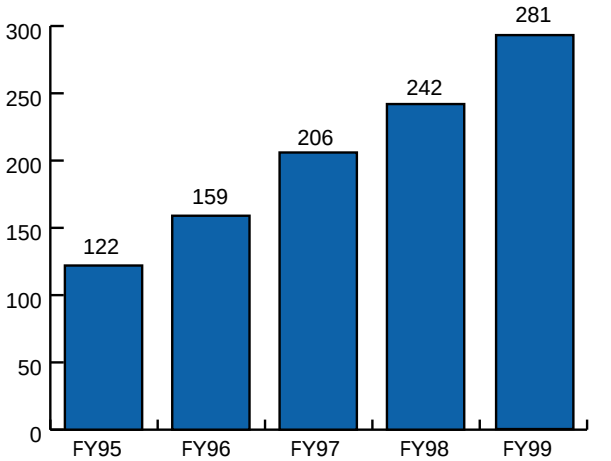
TRENDS IN UC PATENT FILINGS*



** The dramatic increase in secondary filings in FY95 was directly related to the ratification of the General Agreement on Tariffs and Trade (GATT). By initiating selected patent filings prior to a June 8, 1995 deadline established in the GATT agreement, the University was able to assure the longest effective patent term for certain inventions in its portfolio.*

Exhibit 8

US PATENTS ISSUED TO UC



At the end of FY99, there were 1,710 US and 1,487 foreign patents in the systemwide portfolio (Exhibit 9). The number of US patents in each campus portfolio is presented in Exhibit 10.

Exhibit 9

TOTAL UC PATENT PORTFOLIO

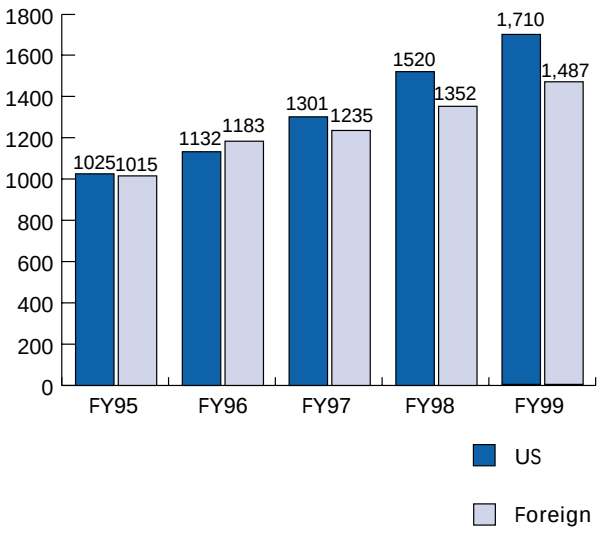


Exhibit 10

CAMPUS US PATENT PORTFOLIOS*

Year Ended June 30, 1999

UCB	UCD	UCI	UCLA	UCR	UCSB	UCSC	UCSD	UCSF
289	227	87	243	47	107	13	248	399

** Patents associated with inventors from more than one campus are reported multiple times in this exhibit.*

Technology Transfer Activity

Licensing and Related Activity

A license agreement grants a licensee the right A license agreement grants a licensee the right to practice a University invention in exchange for the licensee's commitment to provide the resources required to further develop and commercialize the invention. Utility licenses generally cover useful processes, machines, manufactured items, or compositions of matter protected by utility patents. Most utility patents are licensed exclusively to a single company for a defined use, although non-exclusive licensing of utility patents sometimes occurs. In contrast, plant licenses cover sexually and asexually reproduced plant varieties and are licensed non-exclusively to multiple growers and distributors worldwide.

The provisions of the license define the rights and responsibilities of the two parties. In the typical license agreement, the licensee is granted the right to practice an early stage invention that is protected by a University patent. In exchange, the licensee makes a commitment to commercialize the invention and pay the University agreed-upon fees, reimbursement of expenses and royalty payments when products reach the marketplace. The specific terms of the agreement are determined through a complex negotiation process. Prior to the execution of a license, certain shorter-term agreements are sometimes executed. A secrecy agreement is used in conjunction with marketing and affords a potential licensee access to confidential information that assists the company in determining if it has an interest in pursuing a license for a given technology. A letter agreement is generally used to confirm a company's intent to negotiate a license and often commits a company to pay certain fees or patent costs while negotiations are underway. Option agreements are similar in scope to license agreements and protect a licensee's interest in an invention while more in-depth technical or marketing research is performed.

In FY99, UC entered into 324 licenses and related revenue-generating agreements. As indicated in Exhibit 11, these included 76 utility license agreements, 102 plant license agreements, 41 option agreements, and 105 letter agreements. In addition, 950 secrecy agreements were executed that enabled companies to receive confidential information necessary to evaluate campus inventions for commercial potential.

Exhibit 11

LICENSING ACTIVITY

Year Ended June 30, 1999

Agreements Executed	
Secrecy (Marketing)	950
Letters	105
Options	41
Utility Licenses	76
Plant Licenses	102
Total Active Licenses	
Utility Licenses	551
Plant Licenses	426

At the close of the fiscal year, the systemwide portfolio totaled 977 licenses. In managing these agreements, the University must collect monies when due and monitor progress to ensure that the licensees exercise due diligence in developing inventions toward commercial application.

Exhibit 12

TOTAL UTILITY LICENSES

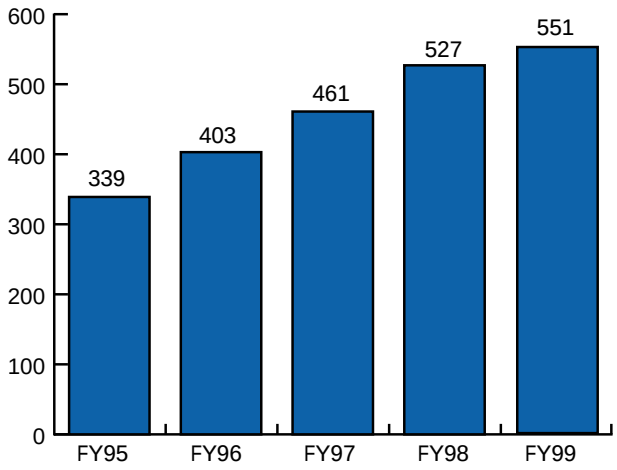
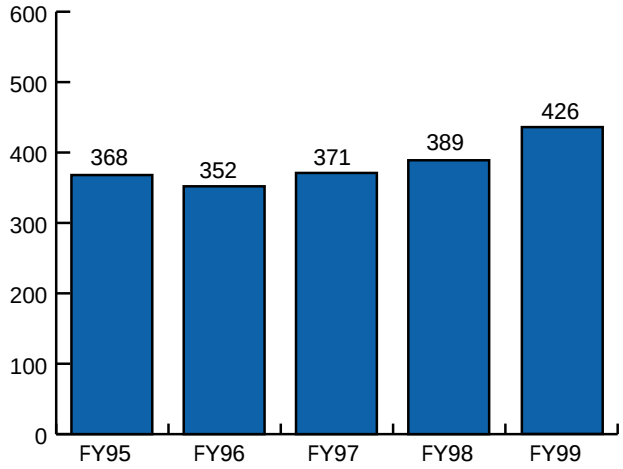


Exhibit 13

TOTAL PLANT LICENSES



Exhibits 12 and 13 show the five year trend in the size of the portfolio of UC utility and plant licenses. Each year some agreements expire or are terminated. In general, the total number of active utility agreements has continued to rise due to increasing licensing activity throughout the system. During the past fiscal year, the introduction of new alfalfa, cling peach, and plum rootstock cultivars contributed to an increase in plant licensing activity.

Exhibit 14 shows the number of utility license agreements associated with each campus. In addition, the Berkeley campus has 7 plant licenses in its portfolio, Davis has 293, and Riverside has 127.

Exhibit 14

TOTAL UTILITY LICENSES BY CAMPUS*

Year Ended June 30, 1999

UCB	UCD	UCI	UCLA	UCR	UCSB	UCSC	UCSD	UCSF
95	48	27	81	10	11	2	116	164

** Licences associated with inventions that have inventors from more than one campus are reported multiple times in this exhibit.*

Technology Transfer Revenues

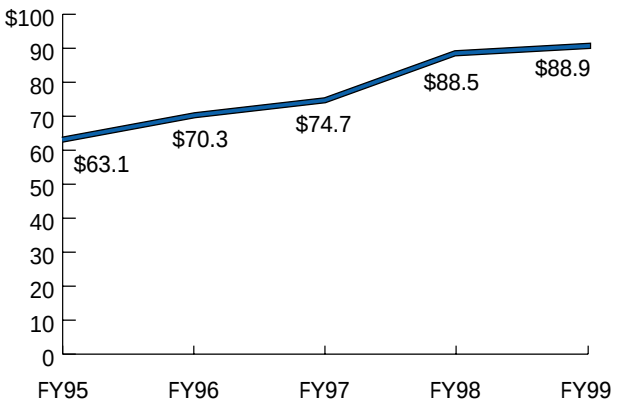
Total Licensing Revenue

Total licensing revenue includes income from royalties, agreement issue and other fees, as well as reimbursements of patent expenses paid by licensees. In FY99, total licensing revenue rose .5% to $88.9 million, stabilizing the steady upward trend reported over the previous several years (Exhibit 15). Exhibit 16 shows the amount each campus contributed to total licensing revenue.

Exhibit 15

TOTAL LICENSING REVENUE

(Millions)



Royalty and Fee Income

The portion of total licensing revenue from royalty and fee income rose 1.3% in FY99 to $80.9 million.

Income from the top five royalty-generating inventions contributed $55.3 million in FY99 (Exhibit 17), accounting for 68% of royalty and fee income. The top twenty-five royalty-generating technologies collectively accounted for $69.0 million or 85% of this total. Four utility inventions, Fluorescence Gel Scanner, Metabolizable Chelates, Intracellular DNA/RNA Targeting, Fluorescence Scanner, and one plant invention, Selva Strawberry, appeared on the list of top commercialized inventions for the first time in FY99. UC is distinguished among universities in having a portfolio with a large number of inventions from a range of disciplines that generate substantial royalty income.

Exhibit 16

TOTAL LICENSING REVENUES BY CAMPUS*

Year Ended June 30, 1999

(Thousands)

UCB	UCD	UCI	UCLA	UCR	UCSB	UCSC	UCSD	UCSF	Other*
$4,157	$7,685	$1,429	$8,447	$1,034	$610	$86	$6,072	$58,190	$1,202

** Revenues primarily from a portfolio of 70 OTT-managed DOE Laboratory inventions, most disclosed prior to the establishment of the laboratory-based licensing offices.*

Exhibit 17

UC TOP EARNING COMMERCIALIZED INVENTIONS

Year Ended June 30, 1999
(Thousands)

(Invention, Campus, Year Disclosed)	
Hepatitis-B Vaccine (SF, 1979 and 1981)	$28,997
Process for Gene Splicing (SF, 1974)	14,618
Human Growth Hormone (SF, 1977)	5,420
Intracranial Aneurysms Treatment (LA, 1989)	4,069
Nicotine Patch (LA, 1984)	2,209
Subtotal (Top Five Inventions)	$55,313
Camarosa Strawberry (DA, 1992)	1,955
Liposome Sizing Method (SF, 1977)	1,323
Interstitial Cystitis Therapy (SD, 1980)	1,296
Fluorescent Conjugate Probes (BK, 1981)	1,124
Yeast Expression Vector (SF, 1982)	1,119
Liposome Storage Method (DA, 1984)	837
Radiographic Media (SD, 1979)	797
Feline Leukemia Virus Diagnostic (DA, 1980)	741
Cochlear Implants (SF, 1979)	588
Aids for Learning Disabled (SF, 1994)	515
Magnetic Resonance Imaging (SF, 1976)	509
Feline AIDS Virus Diagnostic (DA, 1986)	562
Fluorescence Gel Scanner (BK, 1990)	412
Metabolizable Chelates (DA, 1987)	355
Phosphorus Plant Fertilizer (RV, 1990)	268
Intracellular DNA/RNA Targeting (SF, 1991)	260
Atomic Force Microscope (SB, 1989)	256
Fluorescence Scanner (BK, 1992)	247
Chandler Strawberry (DA, 1982)	244
Selva Strawberry(DA, 1999)	233
Total Income (Top 25 Inventions)	$68,954
Total Income (All Inventions)	$80,889
% of Total from Top 5 Inventions	68%
% of Total from Top 25 Inventions	85%

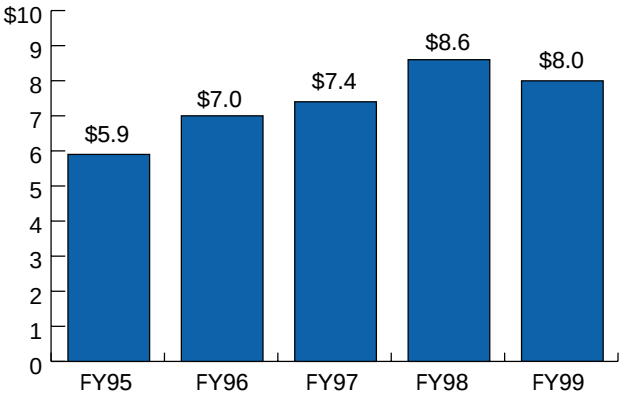
Income from Expense Reimbursements

Expense reimbursements from licensees typically cover legal costs associated both with patenting and protecting the patent rights associated with an invention. Obtaining rights to receive reimbursements is a high priority objective during license negotiations and reimbursements are considered, therefore, to be part of total licensing revenues. For financial reporting purposes, however, they are treated as an offset to legal and other direct expenses (see section on Legal Expenses). In FY99, the University received $8.0 million in expense reimbursements from its licensees (Exhibit 18).

Exhibit 18

INCOME FROM REIMBURSEMENTS OF PATENT EXPENSES

(Millions)



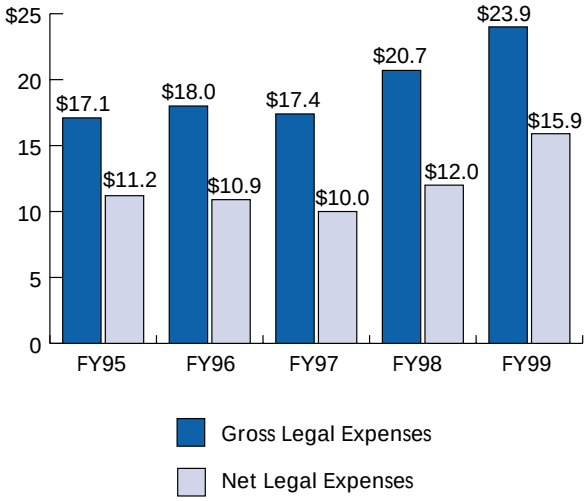
Technology Transfer Expenses

Legal and Other Direct Expenses

Legal and other direct expenses totaled $23.9 million in FY99 (Exhibit 19). Slightly more than half of this amount, $12.5 million, was associated with patent prosecution which includes payments to outside counsel for drafting patent applications and other routine costs associated with securing and maintaining patent protection for University inventions. The remaining $11.4 million was expended for non-routine disputes and legal actions.

Exhibit 19

LEGAL EXPENSES
(Millions)

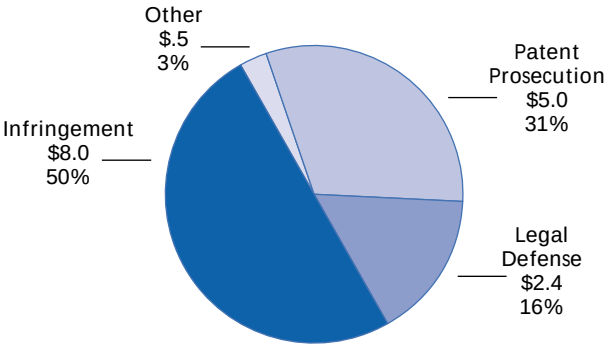


The negotiated terms of license agreements may entitle the University to receive reimbursement of certain legal expenses. These reimbursements totaled $8.0 million in FY99, which gave rise to net legal and other direct expenses in of $15.9 million (Exhibit 19). Only one-third of net legal expenses was for patent prosecution costs, whereas the remainder was for other types of legal actions (Exhibit 20). Patent infringement expenses accounted for approximately half of net legal expenses in FY99. These derived largely from a court case involving the University's Human Growth Hormone patent. There were several other infringement suits involving UC patents in FY99, however licensees bore responsibility for most of the legal expenses for these cases. In the legal defense category, there were substantial costs incurred by the University as the result of a jury trial related to inventor share payments under the patent policy. The remainder of net legal expenses were incurred in connection with a number of smaller legal actions and disputes.

Although University licensing personnel continue to experience a high degree of success in securing reimbursement of patent costs, it is expected that there will continue to be significant legal expenses associated with litigation as the technology transfer program matures, patent activities continue to accelerate, and relationships with inventors, sponsors and licensees become increasingly complex.

Exhibit 20

NET LEGAL EXPENSE
Year Ended June 30, 1999



Operating Expenses

Operating expenses include funds spent for the administration of the technology transfer program at OTT and the five campus-based licensing offices. Each of these offices has a different scope of responsibilities and operations are not comparable from office to office. Therefore, there is substantial variation in what is included as technology transfer operating expenses from location to location. In general, however, operating expenses consist primarily of employee salaries, benefits, and expenses for equipment and supplies. Operating expenses rose 7.5% to $8.5 million in FY99 (Exhibit 21). This increase is due to expenses associated with the growth of technology transfer activities throughout the system and to the support of a more broadly distributed approach to technology transfer administration. As indicated in Exhibit 22, operating expenses as a percentage of total licensing revenue was 10%, up one percent from the previous year.

Exhibit 21

OPERATING EXPENSE
(Millions)

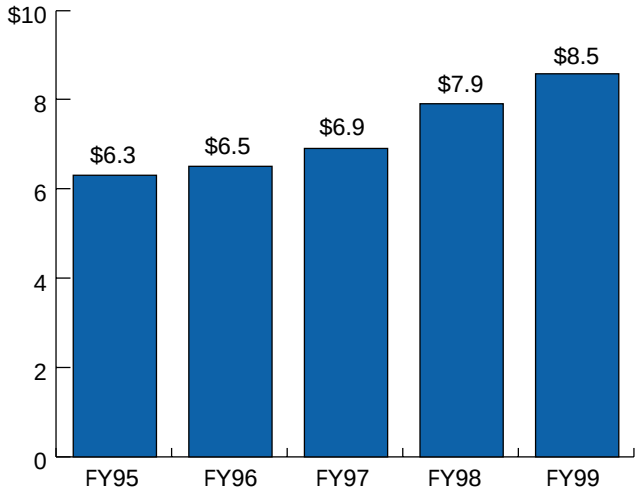
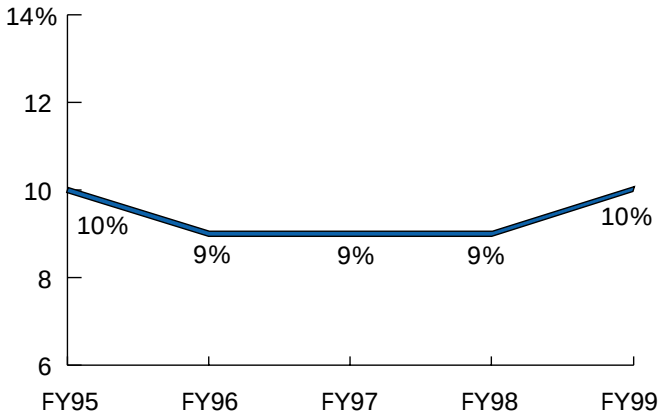


Exhibit 22

OPERATING EXPENSES AS A PERCENTAGE OF TOTAL LICENSING REVENUES



Income Distributions

Payments to Joint Holders

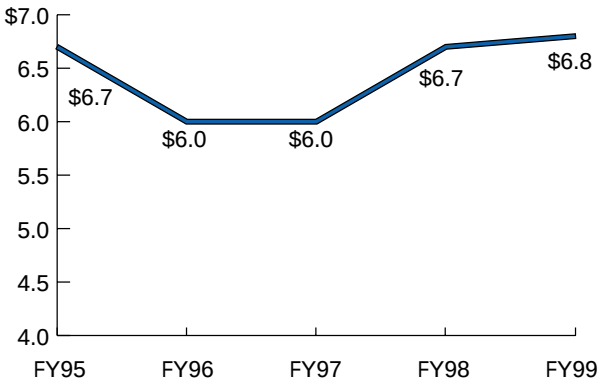
When an invention results from a collaboration When an invention results from a collaboration between UC and non-UC researchers, multiple entities may become joint holders of the invention-related patents. In these instances, interinstitutional agreements are negotiated to establish which entity will be responsible for the management of patent prosecution and licensing of the invention, including the collection and distribution of invention income; such collaborations are relatively common. In FY99, 161 of 818 new disclosures (20%) included non-UC inventors and 27 new interinstitutional agreements were signed.

In FY99, $6.8 million in income was redistributed to other entities for over 45 inventions covered by interinstitutional agreements. These payments were deducted from royalties and fees to arrive at adjusted gross income. The largest payment to a joint holder was $6.2 million to the University of Washington for the Hepatitis-B Vaccine. Over the past five years this invention has accounted for most of the UC payments to joint holders reflected in Exhibit 23.

Exhibit 23

PAYMENTS TO JOINT HOLDERS

(Millions)



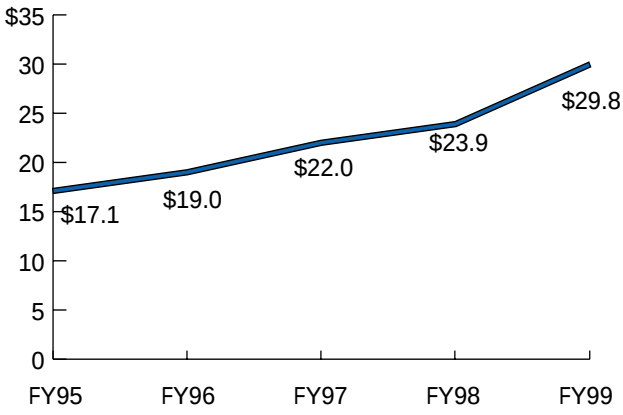
Inventor Shares

The University Patent Policy grants inventors the right to receive a portion of net income accruing to individual inventions. In FY99, 749 inventors received a total of $29.8 million in inventor share distributions based on the financial activity of their inventions through June 1998. This represents a 24.6% increase in monies distributed to inventors over the prior year and continues the five-year upward trend evidenced in Exhibit 24.

Exhibit 24

INVENTOR SHARES

(Millions)

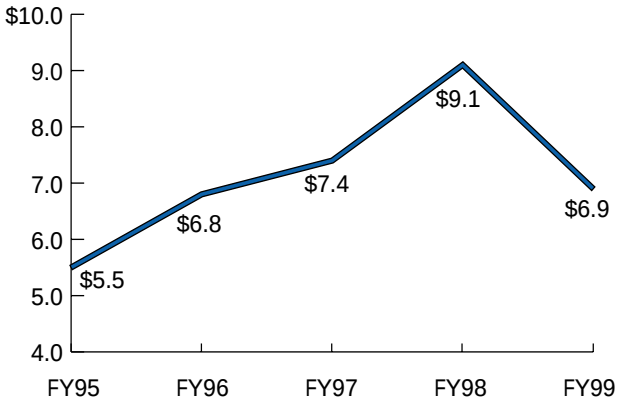


Research Allocation

The current Patent Policy requires that 15% of net royalty and fee income from each invention be designated for research-related purposes on the inventor's campus or Laboratory. These monies are allocated in accordance with plans developed at each campus and Laboratory. The allocation applies to all inventions disclosed on or after October 1, 1997 and totaled $35.4 thousand in FY99.

Exhibit 25

GENERAL FUND SHARE
(Millions)



General Fund Share

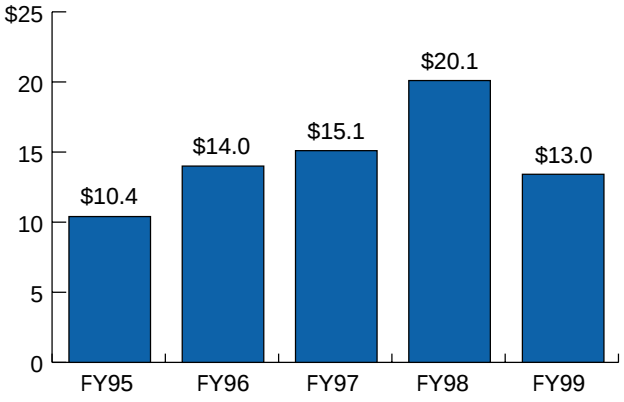
The portion of University technology transfer income allocated to the UC General Fund as part of the State-approved budget totaled $6.9 million in FY99 (Exhibit 25). The General Fund share (previously called the "State share") is equal to 25% of the amount remaining after deducting direct expenses, inventor share payments, and payments to joint holders from total licensing revenue. The General Fund share declined in FY99 because direct expenses and inventor share payments increased substantially while revenues increased only slightly.

Net Income

The portion of technology transfer program income that is available to be redistributed to campuses to support ongoing research and education programs is net income. It is computed as income from royalty and fees less the sum of net legal expenses, program operating expenses, and income distributions. Net income totaled $13.0 million in FY99. Exhibit 26 presents the net income over the past five years.

Exhibit 26

NET INCOME
(Millions)



In addition to these monies, starting in FY97, a portion of Short-Term Investment Pool (STIP) interest earnings on patent income has been distributed to the campuses and DOE Laboratories whose portfolios of OTT-managed cases yielded a net income for the fiscal year. In FY99, STIP interest distributions totaled $401,292.

Summary Tables

SYSTEMWIDE TECHNOLOGY TRANSFER ACTIVITY FY95–FY99[1]

Fiscal Year Comparisons	FY95	FY96	FY97	FY98	FY99	% CHANGE (FY98–FY99)
Invention Disclosures						
Inventions Reported	525	661	716	742	819	10.2%
Total Invention Portfolio	2,457	2,857	3,100	3,497	4,125	18.0%
Patent Prosecution						
US Applications Filed						
First Filings	211	207	294	334	368	10.2%
Secondary Filings	423	118	206	299	302	1.0%
Total	634	325	500	633	670	5.8%
US Patents Issued	122	159	206	242	281	16.1%
Total Active US Patents	1,025	1,132	1,301	1,520	1,710	12.5%
First Foreign Filings	142	150	153	192	183	-4.7%
Total Active Foreign Patents	1,015	1,183	1,235	1,352	1,487	10.0%
Licensing						
Agreements Issued						
Options	32	38	36	39	41	5.1%
Utility Licenses	59	98	95	99	76	-23.2%
Plant Licenses	26	10	35	39	102	161.5%
Total Active Agreements						
Options	61	70	75	93	101	8.6%
Utility Licenses	339	403	461	527	551	4.6%
Plant Licenses	368	352	371	389	426	9.5%

[1] *Financial activity related to the nine UC campus invention portfolio managed at OTT and five campus-based licensing offices. Includes financial activity related to a small sub-set of DOE Laboratory inventions managed at OTT. See page 28 for financial data pertaining to the operation of the DOE Laboratory-based technology transfer offices.*

SYSTEMWIDE FINANCIAL ACTIVITY FY95–99[1]

(Thousands)

Fiscal Year Comparisons	FY95	FY96	FY97	FY98	FY99	% CHANGE (FY98–FY99)
Income from Royalties and Fees	$57,272	$63,205	$67,279	$79,838	$80,888	1%
Less: Payments to Joint Holders	(6,747)	(6,029)	(5,999)	(6,737)	(6,755)	0%
Adjusted Gross Income (A)	50,525	57,176	61,280	73,101	74,133	1%
Legal and Other Direct Expenses	17,073	17,968	17,351	20,684	23,941	16%
Less: Reimbursements	(5,852)	(7,090)	(7,393)	(8,646)	(8,025)	-7%
Net Legal Expenses (B)	11,221	10,878	9,958	12,038	15,916	30%
Mandatory Distributions						
Inventor Shares	17,123	18,991	21,953	23,948	29,782	24%
Research Allocation	N/A	N/A	N/A	N/A	35	N/A
General Fund Share	5,545	6,775	7,425	9,131	6,891	-25%
Total Distributions (C)	22,668	25,766	29,378	33,079	36,708	11%
Operating Expenses (D)[2]	6,285	6,524	6,851	7,913	8,476	7%
Net Income/Loss (A-B-C-D)[3]	$10,351	$14,008	$15,093	$20,071	$13,032	-35%

[1] *Financial activity related to the nine UC campus invention portfolio managed at OTT and five campus-based licensing offices. Includes financial activity related to a small sub-set of DOE Laboratory inventions managed at OTT. See page 28 for financial data pertaining to the operation of the DOE Laboratory-based technology transfer offices.*

[2] *Includes operating costs for OTT and five campus licensing offices as well as a $698,350 UCOP budgetary assessment equal to 1% of OTT Adjusted Gross Income.*

[3] *Net Income/Loss does not reflect the portion of Short-Term Investment Pool (STIP) interest earnings on patent income which, since FY98, has been distributed to the campuses and DOE Laboratories whose portfolios yield a net income for the fiscal year. The STIP interest earnings for FY99 were $401,292.*

TECHNOLOGY TRANSFER ACTIVITY BY CAMPUS

(Year Ended June 30, 1999)

	UCB	UCD	UCI	UCLA	UCR	UCSB	UCSC	UCSD	UCSF
Invention Disclosure									
Inventions Reported	96	66	56	154	41	60	10	200	149
Total Invention Portfolio	567	519	284	615	147	196	46	797	963
Patent Prosecution									
US Applications Filed									
First Filings	59	39	21	40	3	39	6	39	62
Secondary Filings	44	22	16	59	3	21	1	48	98
Total	103	61	37	99	6	60	7	87	160
US Patents Issued	41	28	15	47	4	24	2	40	82
Total Active UC Patents	289	227	87	243	47	107	13	248	399
First Foreign Filings	34	11	13	27	3	7	0	37	56
Foreign Patents Issued	15	34	8	37	5	3	0	51	53
Total Active Foreign Patents	225	230	54	179	18	66	0	270	453
Licensing									
Agreements Issued									
Options	20	3	0	5	0	2	1	8	7
Utility Licenses	11	7	4	9	1	2	0	23	20
Plant Licenses	1	90	0	0	11	0	0	0	0
Total Active Agreements									
Options	40	12	4	9	2	9	1	12	22
Utility Licenses	95	48	27	81	10	11	2	116	164
Plant Licenses	7	293	0	0	127	0	0	0	0

Note: A number of inventions involve inventors from multiple UC campuses. Activity statistics for these inventions are reported multiple times, once for each campus involved. Thus, for any given measure of activity, the sum of individual campus numbers may be greater than the systemwide totals reported elsewhere in this report.

FINANCIAL ACTIVITY BY CAMPUS

Year Ended June 30, 1999

(Thousands)

	UCB	UCD	UCI	UCLA	UCR	UCSB	UCSC	UCSD	UCSF
Income from Royalties and Fees	$3,218	$7,205	$742	$7,423	$902	$448	$15	$4,043	$55,849
Less: Payments to Joint Holders	(19)	—	—	—	—	—	—	(84)	(6,652)
Adjusted Gross Income (A)	3,199	7,205	742	7,423	902	448	15	3,959	49,197
Legal and Other Direct Expenses	1,839	1,832	980	1,473	313	478	93	2,551	13,962
Less: Reimbursements	(939)	(480)	(687)	(1,024)	(131)	(162)	(71)	(2,029)	(2,341)
Net Legal Expenses (B)	900	1,352	294	449	182	316	22	523	11,621
Mandatory Distributions									
Inventor Shares	992	2,359	232	1,940	326	265	3	2,492	25,224
Research Allocation	7	0	1	0	0	0	1	14	13
General Fund Share[1]	327	874	54	1,214	99	(33)	(2)	236	4,121
Total Mandatory Distributions (C)	1,326	3,233	287	3,152	425	232	2	2,742	25,224
Operating Expenses (D)[2]	142	1,206	138	522	216	259	68	472	2,398
Net Income/Loss (A-B-C-D)	$831	$1,414	$23	$3,300	$79	$(359)	$(77)	$222	$9,954

(NOTE: The OTT operating expense data shown above includes the OCOP Assessment for each campus/lab.)

[1] *When direct exspenses and inventor shares exceed adjusted gross income, the General Fund share is represented as a credit (negative amount).*

[2] *Reflects recharges to individual campuses of OTT operating expenses and a UCOP assessment equal to 1% of adjusted gross income. Does not include operating expenses associated with the implementation of the technology transfer program at the individual campuses. Campus-based licensing offices reported FY99 operating expenses as follows: UCLA $763,215; UCSD $624,404; UCSF $369,671.*

[3] *When direct expenses and inventor shares exceed adjusted gross income, the State share is represented as a credit (negative amount).*

[4] *Portfolio net income indicates the extent to which income generated by the campus invention portfolio offsets direct costs associated with that portfolio.*

[5] *In addition to this net income, campuses that had positive net income for OTT-managed cases also received Short Term Investment Pool (STIP) income distributions in the following amounts: UCB — $8,447; UCD — $37,108; UCI - $622;UCLA — $81,844; UCR — $2,095; UCSF — $255,522.*

Part 2: DOE Laboratories

Since 1988, technology transfer for the DOE Laboratories has been under the purview of laboratory-based offices at Los Alamos National Laboratory (LANL), Lawrence Berkeley National Laboratory (LBNL), and Lawrence Livermore National Laboratory (LLNL). The licensing function is managed within the context of larger departments responsible for fostering a variety of partnerships with industry: LANL's Civilian and Industrial Technology Program Office, LBNL's Technology Transfer Department, and LLNL's Industrial Partnerships and Commercialization Department. In addition to patent licensing, these offices direct substantial resources toward the licensing of software and the negotiation of Cooperative Research and Development Agreements (CRADAs), technical assistance and other agreements with industry. Although these DOE Laboratory offices manage most Laboratory inventions, OTT oversees a small portfolio of inventions disclosed prior to 1988 and some more recent cases such as those having co-inventors from the UC campuses.

Certain aspects of technology transfer processes differ at the DOE offices as compared with OTT and the campuses. For example, after an invention is disclosed and a determination is made to pursue licensing on behalf of the University, a waiver request must be submitted to DOE to enable The Regents to be assigned title to the invention. In addition, whereas OTT and campus offices contract with attorneys at outside law firms for all of their patent prosecution activity, the Laboratories manage most US patent filings internally through their own legal departments and contract out only for selected matters, particularly foreign prosecution. In addition, the fiscal year at the Laboratory offices ends September 30 in contrast to the June 30 end date for the fiscal year at OTT and the campus offices.

Information in the DOE Laboratory-Managed Portfolios section (pp 27-29) pertains to the activities of the technology transfer offices of the Laboratories, whereas the information in the OTT-Managed DOE Portfolios section (pp 30-31) applies to the Laboratory cases managed at OTT.

Invention Reporting

In FY99, DOE Laboratory researchers disclosed 163 inventions. Below are descriptions of three inventions currently managed by the Labs which highlight the breadth of research and technology transfer activity underway at the Labs:

Fuel Cell Innovation (LANL): An LANL program whose goal is to create highly efficient, low or zero emission fuel cell power systems as a viable replacement for the internal combustion engine in automobiles has given rise to a portfolio of fuel cell related patents. One of these, the "Annular Feed Air Breathing Fuel Cell Stack," relies upon ambient air pressure for oxygen and on its own water generation for humidification, thereby overcoming costly cooling, humidification and pressurization subsystems typically required for efficient fuel cell operation. Additionally, the shape of the fuel cell is relatively smaller, lighter and easier to fabricate than rectangular polymer electrolyte membrane fuel cells. As a result, this "circular stack" is ideal for portable power applications. Another patent "Preventing CO Poisoning In Fuel Cells," provides a method for removal of carbon monoxide which would otherwise "poison" the hydrogen stream and is key to the efficient performance a hydrogen fuel cell at low operating temperatures. As the market for fuel cells continues to mature, several companies have expressed an interest in licensing LANL's fuel cell patents. This year LANL executed three commercial licenses with suppliers and systems integrators covering various patents.

Increased MRI Sensitivity (LBNL): A multidisciplinary team of scientists from LBNL's Material Sciences and Life Sciences divisions has invented a technique that vastly increases the sensitivity of magnetic resonance imaging. The technique uses "hyperpolarized" xenon gas dissolved in an FDA-approved injectable fluid to create samples that remain highly polarized for a matter of minutes or more. This provides adequate time for imaging complex structures and enables much-improved imaging of physiological phenomena in the blood system and in tissues specific to the heart, brain and other organs. The Berkeley Lab research team has already performed successful MRI of molecules of anesthetic entering human blood cells; they also have obtained high-resolution, time-resolved signals from hyperpolarized xenon injected directly into blood vessels and tissues. LBNL has exclusively licensed this technique to a leading company in *in vivo* diagnostic imaging products.

Carbon Aerogel Technology (LLNL): A new class of supercapacitor, known as the "Aerogel Capacitor," has been developed based on a novel type of carbon aerogel foam invented at LLNL. The Aerogel Capacitor can be used anywhere a high pulse power, low-resistance, long life energy storage device is needed. Its breakthrough low resistance enables its use in pulse-power and electronic circuitry applications, which other types of supercapacitors cannot address. When placed in parallel with a battery, the Aerogel Capacitor can extend battery life and increase available energy by providing the high peak power needed. Applications include electronics, telecommunications, computers, power supplies and power conversion circuits, battery load-leveling, pulse power, automotive starting and actuators, electric motor starting, military, robotics, power tools, resistance welding, audio, electric and hybrid vehicles, power backup, and many other existing and new applications. LLNL's aerogel technology has been licensed to several companies and is the underlying technology for a number of northern California start-ups.

DOE Laboratory Portfolios

Patenting and Licensing

In FY99, the Laboratories submitted 178 UC Elections and Waiver Reports. A total of 231 patent applications were filed and 157 US patents issued on DOE inventions.

The Laboratories completed a total of 41 new options and licenses for patentable inventions and tangible research products (TRPs) in FY99. Licensing of other types of intellectual property (e.g., copyrighted software) represent a significant additional element of current licensing activity.

Financial Results

The DOE Laboratories generated a total of $3.1 million in income during FY99, as compared with $3.2 million in FY98. Overall, patent income for the Labs remained relatively stable. In contrast, copyright income, which had increased 72% in FY98, dropped 31% in FY99.

Information on DOE patenting and licensing expenses is not provided in this report. Patent expenses are budgeted separately as allowable costs under the University's current contract with DOE and are not readily separable from other expenses of the legal departments. Similarly, operating expenses of the licensing function are not readily separable from other expenses of the technology transfer departments. Finally, income generated by the DOE Laboratories is not subject to the General Fund share assessment.

Inventor share payments of $1,264,577 included $169,132 paid to authors of software. These payments were based on financial activity through September 30, 1999.

FINANCIAL ACTIVITY: DOE LABORATORY OFFICES

Year Ended September 30, 1999
(Thousands)

	LANL	LBNL	LLNL	Total
Income from Royalties and Fees				
Patents and TRPs	$515	$651	$1,495	$2,661
Copyrights/Software	349	22	38	409
Total	$864	$673	$1,533	$3,070
Inventor Shares Paid	$349	$207	$708	$1,264

Fiscal Year Comparisons

	FY98	FY99	% Change
Patents and TRPs	$2,625	$2,661	1%
Copyrights/Software	589	409	-31%
Total	$3,214	$3,070	-4%
Inventor Shares Paid	$1,192	$1,264	6%

PATENTING AND LICENSING ACTIVITY: DOE LABORATORY OFFICES

Year Ended September 30, 1999

	LANL	LBNL	LLNL	Total
Disclosure and Prosecution*				
Inventions Reported	106	105	194	405
US Applications Filed				
First Filings	86	26	82	194
Secondary Filings	10	6	21	37
Total	96	32	103	231
US Patents Issued	50	31	76	157
First Foreign Filings	26	7	35	68
Marketing and Licensing				
UC Elections and Waiver Requests**	32	45	101	178
New Agreements Issued				
Secrecy	338	137	338	813
Option	4	4	0	8
License	17	9	6	33
Total Active Agreements				
Option	8	9	1	18
License	62	31	96	189

Fiscal Year Comparisons
(Thousands)

Disclosure and Prosecution*	FY98	FY99	% Change
Inventions Reported	354	405	14%
UC Applications Filed			
First Filings	182	194	7%
Secondary Filings	46	37	–20%
Total	228	231	1%
UC Patents Issued	141	157	11%
First Foreign Filings	46	68	48%
Marketing and Licensing			
UC Elections and Waiver Requests**	229	178	–22%
New Agreements Issued			
Secrecy	711	813	14%
Option	10	8	-20%
License	29	33	14%
Total Active Agreements			
Option	17	18	6%
License	161	189	17%

** Data reflects patent prosecution initiated on behalf of either DOE or the University.*

***Although patent prosecution may be initiated on behalf of DOE or the University, the University seeks to obtain title, by election or waiver request, to only those Laboratory inventions that are identified as having licensing potential.*

OTT-Managed DOE Portfolios

Activity and Financial Summary

OTT continues to manage a portfolio of 70 inventions for the DOE Laboratories, most disclosed prior to the establishment of the DOE independent licensing offices. In addition, OTT occasionally receives a new Laboratory disclosure when a UC campus-based researcher is also included among the inventors or the technology is closely related to one already administered by OTT.

Royalty and fee income increased 15% to $1,027,000 in FY99 due, in part, to a $350,000 minimum royalty received for LBNL's Lipsome Delivery System for Chemotherapeutic Drugs.

Inventor shares, based on income generated through June 1998, decreased substantially while net legal expenses rose. This increase was largely due to expenses associated with an infringement action involving LLNL's Chromosome Painting technologies.

Operating expenses rose somewhat in FY99, primarily due to increased support for the LANL. DOE Liaison costs included within in operating expenses are allocated between the three Labs based on the same algorithm applied to allocate other fees and cost reimbursements owed the University for Lab oversight.

These factors, taken together, resulted in a 20% increase in portfolio net income in FY99 to $502,000.

INVENTION ACTIVITY (OTT/DOE)

Year Ended June 30, 1999

	LANL	LBNL	LLNL	Total
INVENTION				
Inventions Reported	3	0	0	3
Total Active Cases	9	21	40	70
PATENT ACTIVITY				
US Patent Applications Filed				
First Filings	3	0	0	3
Secondary Filings	0	0	0	0
Total	3	0	0	3
US Patents Issued	1	3	2	6
Total Active US Patents at FYE	5	16	36	57
LICENSING				
Secrecy Agreements Issued	10	0	3	13
Letter/Option Agreements Issued	0	0	0	0
License Agreements Issued	1	0	0	1
Total Active Licenses at FYE	1	7	9	17

FINANCIAL ACTIVITY (OTT/DOE)

Year Ended June 30, 1999 (updated 11/10/1999)
(Thousands)

	LANL	LBNL	LLNL	Total
Royalty and Fee Income	$0	$512	$515	$1,027
Less: Expenses/Distributions				
Net Legal Expenses	5	17	230	252
Inventor Shares	0	54	27	81
Operating Expenses	87	34	71	192
Net Income	$(92)	$407	$187	$502
Inventions Earning Income	0	3	13	16
# of Inventors Paid Shares	0	11	13	24

FISCAL YEAR COMPARISONS

Year Ended June 30, 1999 (updated 11/10/1999)
(Thousands)

	FY98	FY99	% Change
Royalty and Fee Income	$896	$1,027	15%
Less: Expenses/Distributions			
Net Legal Expenses	162	252	56%
Inventor Shares	143	81	-43%
Operating Expenses	174	192	10%
Net Income	$417	$502	20%
Inventions Earning Income	16	16	0%
# of Inventors Paid Shares	31	24	-23%

UC TECHNOLOGY TRANSFER ON THE INTERNET

UC Office of Technology Transfer	www.ucop.edu/ott/
UC Berkeley	socrates.berkeley.edu/~otl
UC Davis	ovcr.ucdavis.edu/
UC Irvine	www.ota.uci.edu/
UC Los Angeles	www.research.ucla.edu./tech/uclatech.htm
UC Riverside	www.ora.ucr.edu/
UC Santa Barbara	research.ucsb.edu/
UC Santa Cruz	www.ucsc.edu/osp/
UC San Diego	invent.ucsd.edu/tto/invent.htm
UC San Francisco	itsa.ucsf.edu/~otm/
Los Alamos National Laboratory	www.lanl.gov/partnerships/
Lawrence Berkeley National Laboratory	www.lbl.gov/Tech-Transfer/
Lawrence Livermore National Laboratory	www.llnl.gov/IPandC/
I*ndustry-University Cooperative Research Program*	uc-industry.berkeley.edu/
President's Retreat: The University of California's Relationships With Industry in Research and Technology Transfer	www.ucop.edu/ott/retreat/