

CHAPTER 5CHAPTER 5

Finding Comparable Licensing Terms

By

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This chapter includes a discussion of various companies that provide commercial services helpful in performing royalty rate analyses. With the advent of the Internet, this is an area that it is changing very rapidly. The subject matter of this chapter is generally covered at the AUTM Annual Meeting in the Educational Track "Valuation 101" and the available resources are generally updated at that time. If the reader is aware of other consultants or companies that perform similar services, please provide the names of these organizations to Dr. Ashley J. Stevens at the above address email: astevens@bu.edu; phone: (617) 353-4550) with a copy to Ms. Marjorie Forster, Chair of the AUTM Manual Working Committee, University of Maryland at Baltimore (Phone: 410-706-3559), so that they may be considered for inclusion in the AUTM Manual Update(s).

1. INTRODUCTION

So, the chapter on the pricing of intellectual property rights has left you depressed. A technology transfer manager knows that with one disclosure coming in per week, there is not that much time to devote to working out what to ask for in a negotiation. How does a licensing professional determine a realistic starting point for negotiations?

Well, how does one decide what selling price to list a house for during a move? Most people look around the neighborhood, identify houses that have sold recently and decide how their house compares in size, condition, location (and location and location) to those that have sold and, based on these comparisons, estimate what theirs is worth. Then they add five thousand for the heck of it and another five or ten thousand to give themselves some coming down room and that is their listing price.

This approach sounds as if it would work very well for valuing technology for a licensing transaction, except that a technology transfer manager can not drive around the neighborhood and see what has sold recently. That database of comparable transactions is not available from the Town Hall or the Multiple Listing Service. Or is it? There are at least three sources of comparables that a technology transfer manager can access.

2. IN-HOUSE DATABASE

The first place to look is in your own files. Unless a manager is setting up the first office in the institution, there will be an institutional history. There will be files of previous transactions. A manager can flip through these transactions relatively quickly to determine what the institution has been able to achieve in the past. If time allows, a computerized database of the financial terms should be created to look at the trends.

This will very likely provide a floor to the starting point of negotiations, rather than a ceiling. Most institutions are probably still going up a learning curve on deal valuation and haven't yet hit its top. Managers will probably look back on transactions that were done five or ten years ago, shake their heads and hope that nobody finds out the terms their institution agreed to! Conversely, this may not be true for the licensees! A technology manager will probably find the toughest negotiations to be with a company with which the institution completed its last transaction five or more years ago. To a company, those terms provide a fine starting point for the next transaction. The concepts expected today--substantial milestone payments, full transparency on sublicensee sales, no pass throughs on third party royalties, and no offset for patent cost reimbursement--may be very hard to establish.

3. TALK TO YOUR PEERS.

This chapter would not be complete if it did not at least mention the value of contacting other technology transfer professionals who are engaged in licensing and valuing technologies on a daily basis for possible comparable royalty rates and other forms of payment agreed to in a negotiation. The author has found that his faculty are frequently aware of colleagues at other Universities who have done a transaction

4. TECHNO-L

Conflict of Interest Disclosure: The author is a member of the Advisory Board of techno-l.

Techno-l is the primary technology transfer discussion group on the Internet. Started by Donna Baranski-Walker when she was in MIT's Office of Technology Licensing, it was initially hosted on the MIT computer. It then moved to SRI and Scott Taber took over responsibility for managing techno-l. Most recently, it was acquired in October 1999 by UVentures, one of the emerging transfer portals.

Techno-l is an unmoderated discussion group. In technical parlance, techno-l is an open listserv which uses the Majordomo software. In Internet parlance, techno-l is a community -- every posting is broadcast out to more than a thousand members of the listserv; ask a question and other members of the group respond. Ask a question about royalty rates and you will get answers. Generally, responses come to the poster of the question directly rather than being posted to techno-l itself. The custom of techno-l is that the poster should then assemble the responses they receive and post them to techno-l within a week or so of the original question being asked.

What this means is that both techno-l itself and its archives are a valuable resource for finding comparable license terms. You can post an inquiry about what are reasonable license terms for a particular type of technology, or you can search the archives to see if anyone has previously asked about that type of technology.

There are two ways to subscribe to techno-l. The normal way is to receive every posting live through the day. To do this, send a message to:

techno-l-subscribe@lists.uventures.com

leaving the subject line blank. Messages are sent to:

techno-l@lists.uventures.com

However, some of the subscribers have "hot buttons" that when pressed by another member can unleash a torrent of email that can become irritating. Okay, so you can filter the email into a separate mailbox, but then you have to find the time to go to the mailbox and read them all. A very useful innovation that UVentures has introduced is the daily digest, which assembles all the postings into "threads" on the same subject and emails it to you as a single message.

To subscribe to daily digest, send a message:

techno-l-digest@lists.uventures.com

leaving the subject line blank.

Archiving the postings to techno-1 has an even more checkered history than the hosting of the listserv itself. Knowledge Express, which was perhaps the first technology transfer portal, archived techno-1 while Buz Brown was running it, but this service stopped some time after Buz left. UVentures has maintained an archive since it took over techno-1 in October, 1999 and has committed to assemble the various earlier archives that exist, but as of July 2000, they have not done so.

To search the archives, you must be a member of UVentures.com. This is free if you are a technology transfer professional. The website address is:

<http://www.uventures.com/index.html>

Archives are available from January 1, 1997 through early October, 1999 on egroups:

<http://groups.yahoo.com/group/techno-1/messages>

During this three year period, 7,153 messages were posted to techno-1 and are archived. A search on the phrase “royalty rate” yielded 204 hits; a search on “license term”: yielded 51 hits;

5. PUBLISHED SURVEYS

Few surveys of royalty rates for specific industries have been published, and none for specific technologies, so those that are available are of relatively little use as a serious guide to setting rates in a specific transaction because of the broad categories in which technologies are grouped. The reason for this is that there are only two ways to carry out a survey:

- compile available data; or
- persuade people to respond to a survey.

Compiling the available sources of data discussed below is sufficiently laborious that the data is sold rather than given away, while there is little incentive for individuals to respond to surveys, which would itself be a highly labor intensive activity.

In Chapter VII-4 of this manual, Raz Ragaitis presents a comprehensive listing of the published surveys. In general terms, the reported royalty rates reflect the profitability of the industries to which they pertain, which, under the 25% rule, is the primary determinant of the royalty rates that should result.

6. PUBLICLY AVAILABLE SOURCES OF TRANSACTIONS

7. TRANSACTIONS AVAILABLE VIA SEC FILINGS

Another and far more valuable source of information is to actually look at the terms in agreements that have been successfully negotiated by your peers. It is possible to get access to the partial or even complete text of a large number of agreements entered into by others. Even if only a partial text is available, there is real value in doing this to see how others have approached a particular situation, structured the milestones, the offsets etc.

7.1. How They Come to be Available

These agreements enter the public domain either through various regulatory filings, most notably the SEC or by public announcement, generally in association with announcement of a corporate partnership or as the result of a law suit.

Academic licenses usually contain confidentiality provisions and a restriction on the use of names, that may look fairly iron clad. However, the SEC requires that any *imaterial* agreement concerning a publicly traded company (or a company seeking to become publicly traded) be available to the public. A transaction is *imaterial* if it affects 5% of the company's assets or 10% of its sales. Many start-up companies' only revenues generally are from partnership agreements with large companies that involve research and licensing. Furthermore, the profitability of their eventual product sales will all be affected by their inward licensing agreement, virtually all their agreements will need to be deposited with the SEC.

The key limitation is that the company be publicly traded or have filed to go public. When a company is still privately held, it does not fall under the SEC's jurisdiction and this avenue will not be available to a technology manager. However, the moment the company files the registration statement for its Initial Public Offering (IPO), generally an S-1 but sometimes (if the company is going to raise less than \$5 million and adhere to other restrictions) an S-13, all the agreements the company has previously negotiated go to the SEC, even if the registration statement is subsequently withdrawn. All new transactions will be deposited on an annual or even more frequent basis, via the company's 10K (the

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form of the annual report filed with the SEC) or the 10Q(the formal quarterly report. They don't call it "Going Public" for nothing!

7.2. Obtaining Agreements Yourself

7.2.1. Identifying Comparable Transactions

The first requirement is to identify a transaction that is similar to the one you are contemplating. You may know of similar transactions from general industry awareness, from reading trade publications, the Wall Street Journal, talking to industry players, potential licensees etc.

If you do not know of a specific transaction, there are Internet-based, free resources to find them. The resources are much more fully developed for life sciences than for physical sciences.

AT THE END OF THIS CHAPTER, ALL THE RESOURCES DESCRIBED IN THE NEXT SECTIONS ARE ILLUSTRATED, FINDING THE TERMS FOR GENE THERAPY TECHNOLOGIES OBTAINED BY RESEARCH CORPORATION TECHNOLOGIES, INC., JOHNS HOPKINS UNIVERSITY AND THE UNIVERSITY OF MANITOBA FROM AVIGEN, INC.

7.2.1.1. Life Sciences -- Recombinant Capital, Inc.

Recombinant Capital is run by Mark Edwards. Mark worked in Stanford's technology transfer office in the early 1980's and later was Manager of Business Development at Chiron. He then left to set up Recombinant Capital. He is a well known speaker on the biotech deal analysis circuit and also has a marketing arrangement to sell company deal and valuation analyses through In Vivo, the monthly magazine on the Health Care industry.

Early on in the biotechnology industry, Mark identified the wealth of information available from SEC filings. He established a good business in obtaining license agreements and analyzing them. Later on in this chapter, his service to backfill redacted financial terms in licenses for which confidential treatment has been requested with the SEC is described.

With the advent of the Internet, Mark set up what is arguably the

most useful single Internet site for academic technology transfer offices:

<http://recap.com/>

The “Alliance” section of the site has a large listing of deals between biotechnology companies, both in-licensing deals from Universities and out-licensing deals with Big Pharma companies. The database can be searched by University, by Company and by therapeutic area.

A technology manager about to do a deal in a particular technology area can therefore search the database and find companies that have done deals in similar areas.

The results of the search show the date of the transaction and whether an agreement was filed with the SEC. If it was available and has been analyzed by Recombinant Capital, the key parameters of the deal -- total size, equity amount and royalty rate are presented.

7.2.1.2. Physical Sciences

No comparable database to Recombinant Capital exists for physical sciences. A poor counterpart is the CorpTech database:

<http://www.corptech.com/index.cfm>

CorpTech contains listings of about 18,000 high tech companies. It is a subscription service, but all the information needed to find SEC filings is available in their free section.

You can search the database by product and obtain a listing of companies that sell that product. The database will find both private and public companies, and there is no assurance that any of the public companies have done a licensing transaction or that that transaction was filed with the SEC.

7.2.2. Accessing Agreements

Having identified that a useful comparable has been filed with the SEC, the next task

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is to get a copy. Accessing agreements filed with the SEC has been revolutionized by the Internet. The SEC was a pioneer in making government information available to the general public over the Internet. In 1993, the SEC laid out a timetable to move all publicly traded companies from filing their required reports via paper filings to electronic filings. Starting in May 1994 with the largest companies and finishing in 1996 with the smallest companies, all publicly traded companies (and public wannabees) now file all their reports electronically. The system is called EDGAR.

There are a number of ways to access EDGAR. The SEC has its own website:

<http://www.sec.gov>

You can search by company name or by ticker symbol and there is a ticker look-up option. EDGAR provides access to the "raw" documents filed by companies and is free.

An outstanding website is the NASDAQ site:

<http://www.nasdaq.com>

As with EDGAR, you can search by company name or by ticker. NASDAQ is not parochial — it provides access to companies that are listed on the NYSE as well as NASDAQ/AMEX. In addition to stock price histories (important in valuing the equity component of licensing transactions), the NASDAQ site provides analyst reports, press releases about companies and access to their SEC filings. It used to be the author's preferred route to a company's SEC filings, but has recently started using a value added reseller of EDGAR filings, which has had the perverse effect of limiting the information provided on the screen to four or five lines of information at a time.

As of this writing (April 2000), the author's preferred vehicle to access SEC filings is EDGAR Online:

<http://www.edgar-online.com/>

EDGAR Online is a publicly traded company that provides value added EDGAR filings. Although intended to be a \$9.95/month subscription service, everything the technology manager needs can be done via their free "Visitor Registration".

The steps are as follows.

- (i) Enter the company name (or ticker symbol if you have it); hit the next button down to pick which type of search you are doing. Hit “Search”.
- (ii) A list will come up of all the SEC filings the company has made with EDGAR. You can sort the list by type of form or by the time filed. For this search you will be looking for an S-1 (or S-13) if the company is newly public or the most recent 10K if has been public for a while. Select the document and double click on it.
- (iii) You will be presented with three options to view it -- HTML, RTF (rich text format, a universal word processing format) and hard copy. Pick “HTML”
- (iv) The document will open on the screen. On the right will be the text (and you can change the font size to be able to see the entire text on the screen without having to scroll back and forth). On the left will be a series of hypertext links to headings within the document. This is one of the value added features that makes EDGAR Online so much more useful than raw EDGAR.
- (v) Touch your cursor in the heading section, open your browser’s “Find” command and search for “Exhibits”. This will find the list of Exhibits and Financial Statements that are part of the filing. Click on it and that part of the filing will appear on the right. It will be a listing of various formal documents that the company has filed with the SEC, including its material license agreements.
- (vi) Use the “Find” Feature again to find the license agreement of interest. You can print it out.

The company can request confidential treatment for the document, generally indicated by a double asterisk against it in the index of exhibits. If this is the case, the key financial provisions will be redacted and replaced by asterisks and you may need to use the services of a consultant, such as Recombinant Capital (see Section ____ below). Nonetheless, even a redacted agreement can be helpful -- it can show you how the royalty provisions were structured, how offsets were structured, whether royalties were determined as a percent of sales or a fixed amount per unit and so forth. When you start out to do an agreement with a company, it can be very

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helpful to have in front of you an example of an agreement that they have signed, so that you can see what approaches to solving common contractual problems have previously been acceptable to them.

7.2.2.1. Obtaining a Pre-EDGAR Document -- Disclosure Information, Inc.

In the pre-EDGAR period, documents were filed with the SEC via a company called Disclosure Information, Inc., which the SEC allowed to be set up in 1968 to process this paper flow and to make it available to the public at reasonable prices. In the first edition of the AUTM Licensing Manual, DII was the primary resource discussed. DII was founded around proprietary scanning software and a proprietary searching algorithm that allowed it to process and access the vast pre-EDGAR paper flow extremely quickly. Now however, DII's usefulness is regulated to accessing pre-EDGAR documents. Indeed, the company has been acquired and is now a unit of Primark, Inc.

DII has a nationwide toll free number, linked to its head offices, located in New York to be close to the SEC. In addition, it has regional bureaus in a number of major cities, London, and Tokyo. Through the London Office, filings of companies listed on the London Stock Exchange are also available.

DII can be reached via: (800) 843-7747, or
<http://www.primark.com/>

The complete text of a document may be obtained for a minimal cost, i.e. \$25. DII will set up an account over the phone the first time a manager calls in and will immediately ship against this account, without doing a credit report. The company is truly user friendly.

7.2.3. Limitations of Direct Access

The main limitation of the do-it-yourself approach is if the company has requested confidential treatment, all the really interesting bits, the numbers, will have been blanked out. Fortunately there are consultants available to address both of these limitations.

8. Using Consultants to Obtain Comparables

A number of consultants provide comparable transactions for a fee. Their information comes from one of three sources:

- SEC filings, as above
- Judgments or settlements of lawsuits
- Public announcements of partnerships

8.1. Finding SIC or NAICS Codes

Several of the services classify the agreements by SIC (4 digit) or NAICS (6 digit) code. These classification systems were developed with the old economy in mind and are fairly blunt instruments for classification of high technology and life science industries. For instance, virtually all medical devices are in two groups, 384 and 385 (ophthalmic), with a total of six 4-digit codes. All semiconductors are in a single 4-digit code, 3674

One way to find the SIC code for an industry of interest is to look up a company which participates in that industry in FreeEDGAR. The front page of the search results shows the SIC code.

To look up the SIC or NAICS code yourself, a number of websites are available. Many are as helpful as the coding system itself. Two that are reasonably user friendly are:

SIC Codes: <http://www.osha.gov/cgi-bin/sic/sicser5> Listing by group
<http://www.osha.gov/oshstats/sicser.html> Search by industry or SIC Code

NAICS: <http://naics.com/index.html>

An easy way to compare how the SIC and NAICS systems classify a given area is found at:

<http://www.census.gov/epcd/www/naicstab.htm>

8.2. Financial Valuation Group

The Financial Valuation Group currently offers the most user friendly and economical of the web-based services. FVG has headquarters in California and Florida. The Group's corporate offices are in Tampa and Los Angeles. They are a member of a larger a consortium of six regional firms that provide valuation services, whose website is

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www.fcglc.com.

They have assembled a database of transactions from SEC files that currently contains 2,500 agreements, broken down as follows:

Patents Agreements	509
Technology	387
Trademark	402
Product	381
Software	200
Franchise	202
Web/Database	95
Copyrights	65
Mineral Rights	110
Proprietary Information	40
Other	105

The website to search their database is:

<http://www.fvgi.com>

Click on “Intellectual Property Transaction Database” at the bottom of the page, then click on “Search the Database” in the middle of the list of links on the left hand side of the page)

You can search the database by SIC or by NAICS code. The website provides a list of transactions where either the licensor or licensee (frequently both) have the SIC or NAICS code you have specified. It shows the type of agreement (patent, technology, trademark, etc.) and the document number. You can deselect any of the transactions, that do not appear relevant, submit the request with a credit card number and buy the individual agreement summaries over the internet at \$60 per transaction.

They will carry out a customized search for \$150 plus \$60 per transaction reported.

The results of searches for subjects of frequent interest to academic technology transfer offices yielded the following:

<u>SIC Code</u>	<u>Description</u>	<u>No. of Transactions</u>
2834	Pharmaceutical Preparations	235

2835	In vitro and in vivo diagnostic substances	71
2836	Biologic Products except Diagnostic Substances	103
3674	Semiconductors and Related Devices	33
3691	Storage Batteries	10
3841	Surgical and Medical Instruments and Apparatus	83

A substantial number of the transactions are for trademarks, products or technology and therefore include intellectual property elements that are generally not available from academic institutions.

8.3. RoyaltySource.com

RoyaltySource is a service of AUS Consultants (see Intellectual Property Research Associates below). They have been publishing royalty rate information for 10 years in *Licensing Economics Review* and have now made the information available on a custom search basis. AUS started collecting details of transactions in 1984 as part of their client-specific consulting practice, started systematic collection efforts in mid-1990 and has intensified their efforts in 1998.

A description of the search request can be submitted through their website:

<http://royaltysource.com/rsrr.html>

The charge is \$100 to search the database. For up to ten transactions of interest, the charge increases to \$250; for up to each additional ten transactions of interest, the charge goes up an additional \$50. You receive a one page printout of each transaction, identifying both parties, the financial terms, the intellectual property transferred and the source of the transaction details.

8.4. Recombinant Capital, Inc.

Using Recombinant Capital's Internet site to identify comparable transactions was discussed earlier. Their primary business is filling in the blanks in documents for which confidential information has been requested;

The secret lies in pulling together all of the different filings a company is required to make and comparing them. The lawyers make the company disclose some things in one place, the accountants make it disclose other things in another, the State makes it disclose

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yet other thing in another and so on. Put them all together, and the blanks get filled in.

For a fee of \$200/per agreement (\$300 if you are the first to request that agreement) Recombinant Capital will analyze any of the agreements it has on file. A technology transfer manager will get the complete text and a summary of the agreement. See Exhibit A, which contains an example of an agreement analysis (Triplex/ Baylor, a transaction which included equity).

For a significant transaction, this is well worth doing, but because the cost is significantly more than what it costs to obtain the same agreement (with blanks) from DII, a manager will want to put even more time and effort into selecting the transaction that will be used as a model for the prospective transaction.

For more information, contact:

Mr. Mark Edwards
Recombinant Capital, Inc.
220 Montgomery Street, Suite 1616
San Francisco, CA 94104
Phone: (415) 433-1720
Fax: (415) 433-1722

8.5. PricewaterhouseCoopers

PricewaterhouseCoopers has a substantial database of licensing transactions. Their website:

<http://www.ipex.net>

has an industry profitability/royalty rate tool but does not provide access to their royalty rate database.

PricewaterhouseCoopers will do a customized search of their database for \$1,500 per search. The partner in charge is:

Avron Levko
PricewaterhouseCoopers LLP
200 East Randolph Drive
Chicago, IL 60601

(312) 960-7826

The Associate who actually carries out searches is Erika Courtin (312) 540-2142.

A presentation they gave a few years back reported the following data by industry:

<u>Industry</u>	<u>Type of License</u>	<u>No. of Licenses</u>	<u>Royalty Rates</u>
Pharmaceuticals	Patent	31	2-25%
Medical Technology	Patent	25	1.5-8%
Toys	Patent	27	2-10%
Clothing	Trademark	37	2-10%

8.6. Ernst & Young

The Chicago office of the Big Six accounting firm of Ernst and Young has tapped into the same source of raw material for a different purpose. E&Y was looking for a way to establish appropriate royalty rates for their clients both on third party transactions and for inter-company transfers between operating entities in different countries for tax purposes. This database is broad, and therefore, is likely to be an invaluable resource for universities looking at transactions in chemicals, electronics, materials etc. E&Y has not set up a web accessible database nor a relatively low cost search service the way the firms listed earlier have.

For more information, contact:

Michael Merwin or Colleen Borghi
Ernst & Young
Sears Tower
223 Wacker Drive
Chicago, IL 60606-6301
Phone: (312) 879-3630
Fax: (312) 879-4028

8.7. OTHER SOURCES

8.8. Intellectual Property Research Associates

Mr. Russell Parr, Intellectual Property Research Associates, has published a compendium of royalty analyses in a book titled, *The Royalty Rate Report for the Pharmaceutical and Biotechnology*

Industries. It currently lists for approximately \$895. The information was obtained from public sources--press releases, newspaper stories, etc. The sample page mailed out, Roberts Radynile for hypoxic radiation sensitizers, was in late Phase III when licensed to DuPont-Merck for a 10% royalty rate. Details of the rest of the components of the deal were given, but the date of the transaction was not included. A listing of the products covered in this book is provided in Exhibit C.

For more information, contact:

Mr. Russell Parr
Intellectual Property Research Associates
1004 Buckingham Way
Yardley, Pa. 19067
Phone: (215) 428-1162

9. SPECIFIC USES OF COMPARABLES

Even beyond the use of comparables in valuing specific technologies, the author has identified two further very specific uses of these transactions. Neither of these uses requires that a technology transfer manager engage in the potentially expensive consulting approaches; actual, the as-filed agreements obtained via DII will suffice.

10. WHAT WEIGHT SHOULD A MANAGER GIVE TO COMPARABLES?

This author believes that comparables should be given very serious weight in the valuation of a technology.

The academic in all of us would probably like to think that a rigorous process of analysis is the preferred way to come up with a valuation for a technology. However, beyond the extreme difficulty of finding the data, let alone the time to carry out such an exercise, it is perhaps instructive to think about the way investment bankers value companies for IPOís. Yes, they will analyze their products, markets, times to market and risks and do all manner of discounted cash flow analyses. But then they will look at the valuations of recent offerings and perform a reality check.

As another example of the relative weighting of *ab initio* approaches versus comparables, have you refinanced your house recently? The appraisers will measure the area and calculate the value of the house on a replacement cost approach, but then they will look at three comparable transactions in the neighborhood. Whether the seller likes the value of the house the appraisers come up with or not will likely depend on the comparables chosen to determine the price.

Comparables are a very respectable methodology and should be considered as a regular tool in the valuation development process.

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Ashley, from this point forward are your attachments.

Depending on what is selected this time, hopefully these will be available in electronic format.

If not, we can recreate in Word if we have permission to do so. We would need permission to incorporate anyway.

I can assist with the attachments as needed. Let me know if my help is needed here.

