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Valuation University Patent License – Sharing Value

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Valuation University Patent License – Sharing Value

Speakers:

Steve M. Ferguson, CLP, National Institutes of Health (NIH)
Andrew J. Maas, RTTP, Louisiana State University & A&M College

November 17, 2016



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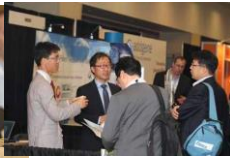
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Access to AUTM Publications

- *AUTM Better World Report*
- AUTM Salary Survey
- AUTM Technology Transfer Practice Manual
- AUTM Licensing Activity Survey (currently for United States and Canada)
- AUTM Update

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SHARING VALUE

Methods for Setting Royalty and Milestone Payments, Formulas & Rates



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Faculty:



Andrew Mass
Louisiana State University
Email: andrewm@lsu.edu



Steve Ferguson
National Institutes of Health
Email: sf8h@nih.gov

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Course Outline:

- | | |
|--------------------------------|---------------|
| 1. Creating Value | Oct 27, 2016 |
| 2. Measuring Value | Nov 11, 2016 |
| 3. Sharing Value | Today! |
| 4. Special Issues for startups | |

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3: Sharing Value

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When Sharing Value?

- At **option** negotiation/execution
- At **license** negotiation/execution
- At conversion of a **portion** of running royalties to equity
- At a **liquidity event** (i.e. a sale of all or substantially all of the companies assets – either in total or in association with a specific product line)
- At license **expiration** or **termination** (audit, review, etc.)
- Other times valuation should be considered: investment analysis, capital budgeting, merger and acquisition transactions, financial reporting, taxable events to determine the proper tax liability, and in litigation.

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When Is Technology Valued?

- Retrospectively (looking back in time), by litigators and accountants:
 - Value is **established** and paid at a point in time (settlement)
 - Relationships Between the Parties: valuation and payments imposed by court
 - Knowledge: all relevant information is known to both sides
- Prospectively (forward looking), by deal-makers and entrepreneurs:
 - Value anticipated and **extracted** over time (royalty)
 - Relationships Between the Parties: agreeable to both sides
 - Knowledge: Not much information and often one party believes it has an advantage over the other (asymmetric)

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What Basis Should be Used?

- **Absolute Value:** How much would I buy or sell the IP for today?
 - Cost of capital & time value of money
 - Discounted for all risks: Development, market, competition, regulation...
 - Development cost or replacement cost
 - Net Present Value (NPV) of Discounted Cash Flow (DCF)
 - Auctions
 - Decision trees
 - Based on mathematical analysis of known information

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What Basis Should be Used?

- **Relative (Proportional) Value:** What is the contribution of the IP to the value that the licensee will create from it?
 - Cost of capital, time value of money and risk are shared
 - Comparables
 - Income allocation analysis
 - Based on observations of market and similar deals with added mathematical analysis

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Valuation Methods

- I. Cost
- II. Income Allocation
- III. Market Comparable
- IV. Auctions

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Cost Method

Cost DOES NOT EQUAL Value

- “Why does the University want to make a profit? After all you are a non-profit.”
- True cost is very hard to measure
- The “stand-alone project” fallacy
- Return to the university’s stakeholders
- The Long Tail

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Income Allocation

- Allocation of the incremental profit contribution from the IP between the licensor and licensee
- Five main parameters to determine value
 - Income associated with the use of the IP
 - Expected growth characteristics of the identified income
 - Expected duration of the income
 - Risk associated with generating the estimates of the income
 - Proportion of the income that is attributable to the subject IP
- Data collected from a large set of licenses was found to be grouped around 25/75 licensor/licensee
- But every case is different – consider the 15 Georgia-Pacific factors to determine the allocation

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Income Allocation in Practice

- 25% of incremental profit is within a “Risk Range” and a “Contribution Range” for IP.
- Apply the method with the Georgia-Pacific factors, not a 25% “rule-of-thumb”.
- Use of 25% as a “Rule of Thumb” and the courts:
 - You can’t claim “25%” or any other rule-of-thumb value in litigation without justifying it by bottoms-up value analysis.
 - No impact on license negotiations
- 10% of Gross Margin is often a useful proxy to determine royalty on Sales.

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“Standard” Royalty Rates

- Vary by industry
- Typically for IP portfolios and non-exclusives
- Typically for production-ready IP
- Getting information:
 - Newsletters & databases
 - Specialized reports
 - Your AUTM colleagues

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Royalty Offsets

- Can offset for:
 - Current-year maintenance payments
 - Prior-year maintenance payments
 - Sunk patent costs
 - Cost of patent defense
 - Other (keep to a minimum)

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Income Allocation Simple Example:

IP reduces costs; How will licensee apply the benefit?

	Before/without IP	After/with IP	Incremental Change
Sales	\$100	\$200	\$100
COGS	\$50	\$90	\$40
Gross Margin	\$50	\$110	\$60
G&A	\$20	\$40	\$20
Net Income	\$30	\$70	\$40

Proposed Royalty (25% Rule) = \$10
 = 25% of Incremental Net Income
 = 17% of Incremental Gross Margin (\$10/\$60)
 = 5% of Sales (\$10/\$200) (Easy to measure)

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Market Comparable

- Every technology is unique – so can you ever really find a true comparable?
- Requires information on the following:
 - Relevant industry application
 - Geographic constraints
 - Exclusivity
 - Payment mechanism
 - Timeframes
- Also consider bankruptcy filing, forced divestiture, and market conditions at the time of the event
- It is not like physical property because
 - No standard transactional database
 - Rarely published data
 - Often need more than one comparable

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Market Comparable Data Sources

- Richard Razgaitis in AUTM Licensing Manual, Chapter VII-4
- AUTM Transactional Academic Comparables (TransAct)
- Licensing Executive Society:
 - Degnan and Horton, Les Nouvelles, June 1997
 - BioPharmaceutical Royalty Rates and Deal Terms Survey (2006, 2008, 2010)
 - Chemicals, Energy, Environmental and Materials (CEEM) Survey (2010)
 - High Tech Survey (2011)
- RoyaltySource, www.royaltysource.com
- RoyaltyStat, www.royaltystat.com
- Tech Agreements www.techagreements.com
- Business Valuation Resources www.bvresources.com
- Recombinant Capital www.recap.com
- PharmaDeals www.pharmadeals.net
- Royalty Rates for Technology, 5th Ed. www.ipresearch.com

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Market Comparable Example

Median Royalty Rates	Pharma	Non-Pharma
Revolutionary	10-15%	5-10%
Major Improvement	5-10%	3-7%
Minor Improvement	2-5%	1-3%

Degnan and Horton

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Market Comparable Corporate Information

- www.sec.gov (EDGAR)
- Court records: www.pacer.gov
- Corporate databases: Nerac, Frost & Sullivan, Dun & Bradstreet
 - May be available from your endowment management or Business School if they are subscribers

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Auctions

- Introduced on April 6, 2005 at the first-of-its-kind live patent auction, held in San Francisco by Ocean Tomo, an IP consulting firm.
 - Started with more than 1,200 patents before the event and selected 400 patents that it believed were the most marketable.
- Often not allowed by university policy
- Penn State held first University lead Auction in April 2014
 - only two patents were licensed out of 73 offered
 - Judged to be successful because “The auction has spawned many ongoing conversations with companies that hadn’t known about our IP portfolio before...It’s a good way to let these companies know what we have to offer and vice versa.”
 - “...A final attempt to capture value from some of our older unlicensed patents, and put them into the hands of companies that can use them at a favorable price”

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Sublicensing

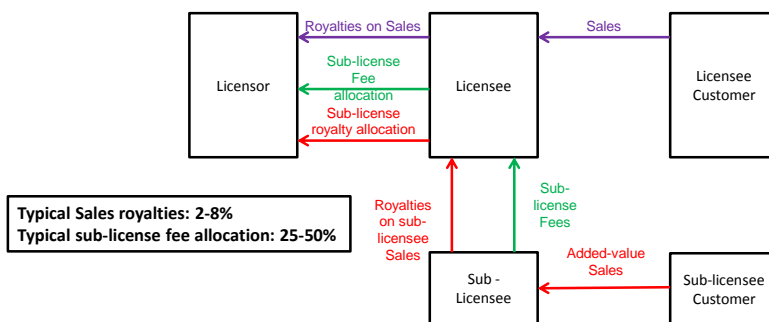
- Beware of “flipping” and licensees who act like patent agents
- Beware of sublicenses without royalty reach-through
- Beware of multiple tiers of sublicenses
- Capture sublicense optioning and cross-license income
- Can be a useful tool for Field-Of-Use and performance management

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Sublicensing: Follow the Money



7 Ways to Share the Value of the IP

- Pre-commercialization:
 - (1) **License Fees** (Cash and/or Equity): Commitment, licensor opportunity cost, licensee credibility, investor commitment
 - (2) **Expense Reimbursement**: (e.g. Patent fees)
 - (3) **Milestone Payments**: risk reduction
 - (4) **Maintenance Fees**: continued commitment, opportunity cost
- Commercialization:
 - (5) **Running Royalties** & (6) **Sublicense Fees**: sharing in financial benefit of the IP: on either an absolute or allocation basis
- (7) **Research support**:
 - Value of strategic relationship with the university
 - Value of research costs today versus potential value in future
 - Future improvements



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Methods to Share Value

- Upfront Payments
- Pre-Market Entry Payments
- Post-Market Entry Payments

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Upfront Payments

- License issue fee
 - May include sunk patent costs
 - Reflects the initial value of the technology being transferred
 - For out-licensing, reflects recapture of know-how created
 - May likely be paid in stages via milestones
- Equity
 - If licensee is cash-poor
 - If license has a strategic, company-building value
 - If business model generates income not captured by Royalty Basis
 - A NewCo may only be able to pay in stock

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Pre-Market Entry

- Patent costs
- Milestone payments capture increase in value of technology to licensee as they hit milestones (risk reduction)
 - Common with life sciences inventions
 - Clinical development milestones
 - Patent milestones
 - Technology demonstration milestones
 - Sales milestones
 - Can be paid in stock (e.g. financing milestones)
- License Maintenance Fee
- Annual Minimum Royalties
 - Typically escalate substantially after three to five years
 - More common with physical sciences inventions

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Post-Market Entry: Running Royalties

- The main post-commercialization economic component of the license
- Biggest long-term impact if the product is successful
- Royalty based on Sales is best
 - Gross Margins can work; but don't go any "deeper" into the Income Statement
 - A better option is different royalty percentages for different time intervals, product lines or fields of use
- Understand Convoeyed Sales
- Resist capped royalties

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Conclusions on Valuation for Licensing

- Choosing the licensee(s) will have the biggest effect on the value.
- Understand and endorse the licensee's business plan before you discuss license terms.
- The license should support the business plan.
- A process will help you ask the right questions, exchange information, minimize negotiation time, and learn.
- Understand the important variables and their likely ranges.
- Remember the "Long Tail".

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Suggested Additional Reading

- The AUTM Licensing Manual (1994 and 2003 Editions)
 - Valuation, Richard Razgaitis
 - Finding Comparables, Ashley Stevens
- Section 9 of IP Handbook: <http://www.iphandbook.org/handbook/ch09/>.
- Richard Razgaitis:
 - Dealmaking Using Real Options and Monte Carlo Analysis, Wiley, 2003.
- Litigation Backgrounder for Licensing, by Robert Goldscheider, les Nouvelles, March 1994, 20-33.
- The Classic 25% Rule and the Art Of Intellectual Property Licensing, by Robert Goldscheider, Les Nouvelles, September 2011, p.148-159.

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The Georgia-Pacific Factors

- **Royalties Previously Received:** The royalties received by Georgia-Pacific for licensing the patent, proving or tending to prove an established royalty.
- **Royalties Previously Paid:** The rates paid by the licensee for the use of other similar patents.
- **Exclusivity:** The nature and scope of the license, such as whether it is exclusive or nonexclusive, restricted or nonrestricted in terms of territory or customers.
- **Licensors Choices to Preserve Monopoly:** Georgia-Pacific's policy of maintaining its patent monopoly by licensing the use of the invention only under special conditions designed to preserve the monopoly.
- **Relationship Between the Parties:** The commercial relationship between Georgia-Pacific and licensees, such as whether they are competitors in the same territory in the same line of business or whether they are inventor and promoter.
- **Convoyed Sales:** The effect of selling the patented specialty in promoting sales of other Georgia-Pacific products; the existing value of the invention to Georgia-Pacific as a generator of sales of nonpatented items; and the extent of such derivative or "convoyed" sales.
- **Duration:** The duration of the patent and the term of the license.

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The Georgia-Pacific Factors

- **Profitability:** The established profitability of the patented product, its commercial success and its current popularity.
- **Value Proposition:** The utility and advantages of the patent property over any old modes or devices that had been used.
- **Benefits of Value Proposition:** The nature of the patented invention, its character in the commercial embodiment owned and produced by the licensor, and the benefits to those who used it.
- **Extent of Infringement:** The extent to which the infringer used the invention and any evidence probative of the value of that use.
- **Customary Profit:** The portion of the profit or selling price that is customary in the particular business or in comparable businesses.
- **Unique Contributions:** The portion of the realizable profit that should be credited to the invention as distinguished from any nonpatented elements, manufacturing process, business risks or significant features or improvements added by the infringer.
- **Expert Opinion:** The opinion testimony of qualified experts.
- **Likely Friendly Terms:** The amount that Georgia-Pacific and a licensee would have agreed upon at the time the infringement began if they had reasonably and voluntarily tried to reach an agreement.

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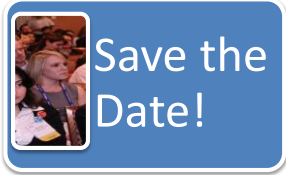




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