# Licensing Theory and Practice

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# Agenda

- What is licensing?
- Why license?
- In-, Out-, and Cross- Licensing
- Dividing up the pie
- Extracting value in a license
- Anatomy of a License

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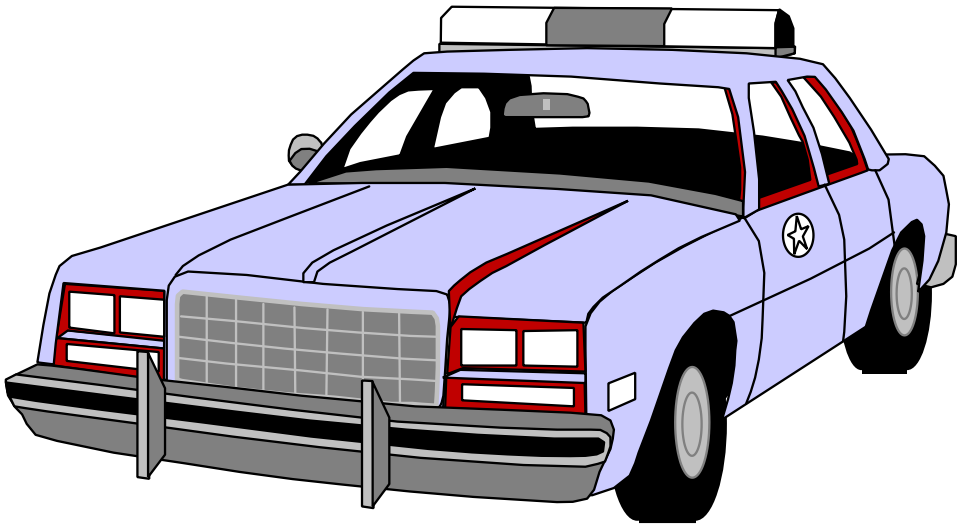
# What is a license?

# Example

# And if they don't meet the conditions……..



# In other words:

A license grants someone access to something:

- The licensor must control the assets that access is being granted to
  - Therefore they have the right to grant access to those assets
- They maintain ownership of those assets
- They can impose their own terms and conditions in return for that access

-- in other words, a license is a bargain or deal

**Think:**

**Microsoft - IBM**

# But WHY do you license something?

- Because they can't or won't develop a technology
  - University — Not part of the mission
  - Small company — Inadequate resources to take to market
  - Invention may not be sufficient to market a product
    - Platform technology, needs additional inventions to productize
- Do a deal whereby someone else bears the majority of the risk and receives the majority of the reward
  - The inventor / licensor receives part of the reward

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# In other words

- 5% (or 10% or 25%) of something is worth more than 100% of nothing

or even

- 5% (or 10% or 25%) of a big pie is worth more than 100% of a small pie

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# Types of Licenses

**In-Licensing**

- Acquiring the right to develop and sell a product
  - Enabling license – patents + know-how
  - Freedom to operate – route through toll gates erected by blocking patents

**Out-Licensing**

- Granting rights to intellectual property to others
  - Enabling license – giving up a product to someone with more resources
  - Freedom to operate – extracting value from a platform technology

**Cross-Licensing**

- Trading IP rights
  - Mutual elimination of road blocks
  - Competitive or non-competitive products

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# Types of Licenses

## Enabling (Carrot)

- Includes know-how;  often a collaboration
- Done at an early stage
- Patents probably still pending

## Freedom to operate  (Stick / Assertion)

- Naked
- Close to product launch
- Patents issued

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# Cross Licensing

- Two parties grant each other licenses to their patents
  - Fighting to a draw
  - Strengthens both versus the competition
- Can be royalty bearing or royalty free
  - Offsetting
  - Generally at concessionary rates

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# *Sony, Samsung Will Share Bulk Of Their Patents*

By Phred Dvorak
And Evan Ramstad

TOKYO—**Sony** Corp. and **Samsung Electronics** Co. said they agreed to share the bulk of their patents, in an unusual move that shows how changes in the electronics industry are pushing some rivals into closer cooperation.

The two giant electronics companies signed a cross-licensing agreement—or agreement to use each others' patents free of charge or for a discounted fee—that covers all technologies the companies deem basic, or roughly 90% of their vast patent holdings. In the U.S. alone, Sony, of Japan, holds about 13,000 patents while Samsung, of South Korea, holds about 11,000.

The companies also agreed on specific technologies, such as some relating to Sony's PlayStation videogames or Samsung's home networking, that each considers vital to its competitive strategies, and therefore out of bounds. They also kept to themselves some important technologies in the growing market for flat-screen television sets.

The agreement, which lasts until 2008, lets two of the world's biggest electronics makers develop products in an increasingly crowded market without worrying about butting heads—even as rivals are bogged down in litigation. It wasn't clear if the pact will pressure other companies to make similar moves.

**Toshiba** Corp. of Japan last month sued **Hynix Semiconductor** Inc., of South Korea, over memory-chip technology, while **Matsushita Electric Industrial** Co., of Japan, and South Korea's **LG Electronics** Inc. are embroiled in a plasma-patent dispute so fierce that they have managed to get each others' plasma panels banned from their home markets.

The Sony agreement with Samsung is an attempt to head off that kind of discord, according to Yoshihide Nakamura, Sony's senior vice president in charge of intellectual property. A Samsung spokeswoman said Samsung executives weren't available to comment.

In the U.S., most cross-licensing agreements don't raise antitrust problems as companies don't say they will be collaborating on product plans or prices. As a result, many companies with large patent portfolios routinely seeks cross-licensing accords, even with competitors.

*December, 2004*

# Newer Companies

- Acquiring patent portfolios for defensive purposes
  - e.g., Facebook
    - Was third social networking site; late to the party
      - Friendster's first patent filed 2003 vs Facebook in 2007
    - Acquired ~1,500 patents from others

| Seller | No. of Patents | Price ($mm) | Price/ patent | Date | Comments |
|---|---|---|---|---|---|
| IBM | 750 | | | 3/22/2012 | For Android; software, networking |
| Microsoft | 650 | $550 | $846,154 | 4/23/2012 | Majority of portfolio acquired from AOL; |
| Friendster/MOL | 18 | $40 | $2,222,222 | 5/1/2010 | Social networking |
| IPG (Philips) | 11 | | | | |
| Walker Digital | 9 | | | | |
| Hewlett Packard | 9 | | | | |
| C. Cheah & A.Tuzhilin | 5 | | | | |
| British Telecom | 3 | | | | |
| Divan Industries | 1 | | | | |
| Applied Industries | 1 | | | | |

    - Sued by Yahoo over 10 patents
    - Settled
      - Cross license, strategic partnership

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**So, how do we divide up the pie?**

**- the 25% Rule**

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# The Fundamental Principle of Technology Valuation

**The Goldscheider Principle**

**(aka the 25% Rule)**

" The Licensor should receive 25% and the Licensee 75% of the pre-tax profits from a licensed product "

**More in Valuation talk**

# Where is Value Extracted in a License?

- Upfront fee
- Ongoing pre-commercial payments
  - Patent costs
  - Milestone payments
  - Annual Minimum Royalties
- Research collaboration and support
- Sublicense income sharing
- Earned royalties

# Royalty Payments

- Three basic types of payment:
  - Fixed lump sum payments
    - Single payments we get as long as the license is in effect
      - Upfront fee, annual maintenance fee, annual minimum royalties
  - Contingent lump sum payments
    - Single payments we get if certain things happen
      - Patent milestones, development milestones, sales milestones, equity liquidation, sublicense payments
  - Share the **increase in value** of the technology as it's developed
  - Running royalties
    - Payments that depend on the **extent** of licensee's use of the licensed technology
- Some payments are made pre-commercialization, some after

# Upfront Payments

- Cash fee
  - Includes sunk patent costs
  - Reflects the initial value of the technology being transferred
  - A NewCo may only be able to pay in stock

# Ongoing Pre-Commercial Payments

- Patent costs
- Milestone payments
  - Reflects increase in value of technology to licensee as they make progress
    - Common with life sciences inventions
    - Clinical development milestones
    - Patent milestones
    - Sales milestones
- Annual Minimum Royalties
  - Due diligence mechanism
    - Typically escalate substantially after 3 or so years
  - More common with physical sciences inventions

# Sublicense Income Sharing

- Challenge is that this is being negotiated years before the sublicense happens
  - Parties don't know what the sublicense will be structured
- University's objective will be to ensure that the licensee can't game the system by structuring the sublicense to minimize what it pays the university
  - Solution: University gets a piece of every payment that the licensee gets from the sublicensee

    *You will pay me every which way there is*

    *Louis P. Berneman*
- Exclusions for items for which there is a deliverable, and are documented in itemized accounts:
  - Research support payments
  - Purchases of equity

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# Sublicense Income Sharing

- Three models:
  1. Pass Through
     - University gets same running royalty on sublicensee's sales, as if the licensee sold the product; plus
     - A set percentage of every payment received other than running royalties (sometimes termed "non-royalty income")
  2. Allocation
     - University gets a set % of every payment the licensee gets from the sublicensee
       - Including running royalties
  3. Tiered Allocation
     - University gets a lower % of payments received from sublicensee, before commercialization
     - University gets a higher % of running royalties after commercialization
- Percentages may be based on timing of sub-licensing after license execution (e.g. year 1-25%, year 2-20%, year 3-15%)
  - Or stage of clinical development (i.e., licensee investment)

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# Running Royalties

- Aka “Earned Royalties”
- The main post-commercialization economic component of the license
  - Biggest long term impact if the product is successful
- An equation:

  Royalty payments = Royalty base * Royalty rate
- Payments are made for the Royalty Term

# Royalty Base

- Measure of the **extent** of licensee's return from using the technology
  - Number of units sold
  - Sales
  - Profits
    - Define very, very carefully
      - Gross Profits / Net Profits / Profits after taxes
    - Very difficult to audit
- Most common is "Net Sales"
    - Gross Sales less either
      - Standard deductions
        - Shipping / Insurance / Returns
      - Or a standard deduction – typically 3% or 5%

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# Royalty Rate

- **How much** of the licensee's return from using the technology we get
- Royalty rate can be either:
  - Flat
    - Single royalty rate for all sales
  - Tiered
    - Royalty rate is different at different levels of sales
    - Basic marketing theory says that bigger selling products are more profitable
      - Basic royalty theory (25% Rule) says royalty rate should therefore increase at higher sales levels

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# Royalty Term

- How long we get paid
- Universities usually use:
  - Last to expire patent on a country-by-country basis
- Companies frequently use:
  - Longer of:
    - Last to expire patent on a country-by-country basis; or
    - Ten years from first commercial sale on a country-by-country basis
- Why don't more universities use this formulation?

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# Example

| | |
|---|---|
| License issue fee | $50k |
| Annual minimum royalties | $10k yrs 2-4<br>$25k yrs 5-7<br>$50k thereafter |
| Milestone payments | $50k yr 3<br>$100k yr 4<br>$250k yr 5<br>$500k yr 6 |
| Royalty rate | 5% |
| Sunk patent costs | $75k |
| Annual patent costs | $10 - $25k |

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# Product Sales

| Year | Product Sales |
|---|---|
| 7 | $750,000 |
| 8 | $3,000,000 |
| 9 | $5,000,000 |
| 10 | $10,000,000 |
| 11 | $15,000,000 |
| 12 | $20,000,000 |
| 13 | $25,000,000 |
| 14 | $25,000,000 |
| 15 | $25,000,000 |
| 16 | $23,000,000 |
| 17 | $21,000,000 |
| 18 | $19,000,000 |
| 19 | $17,000,000 |
| 20 | $15,000,000 |

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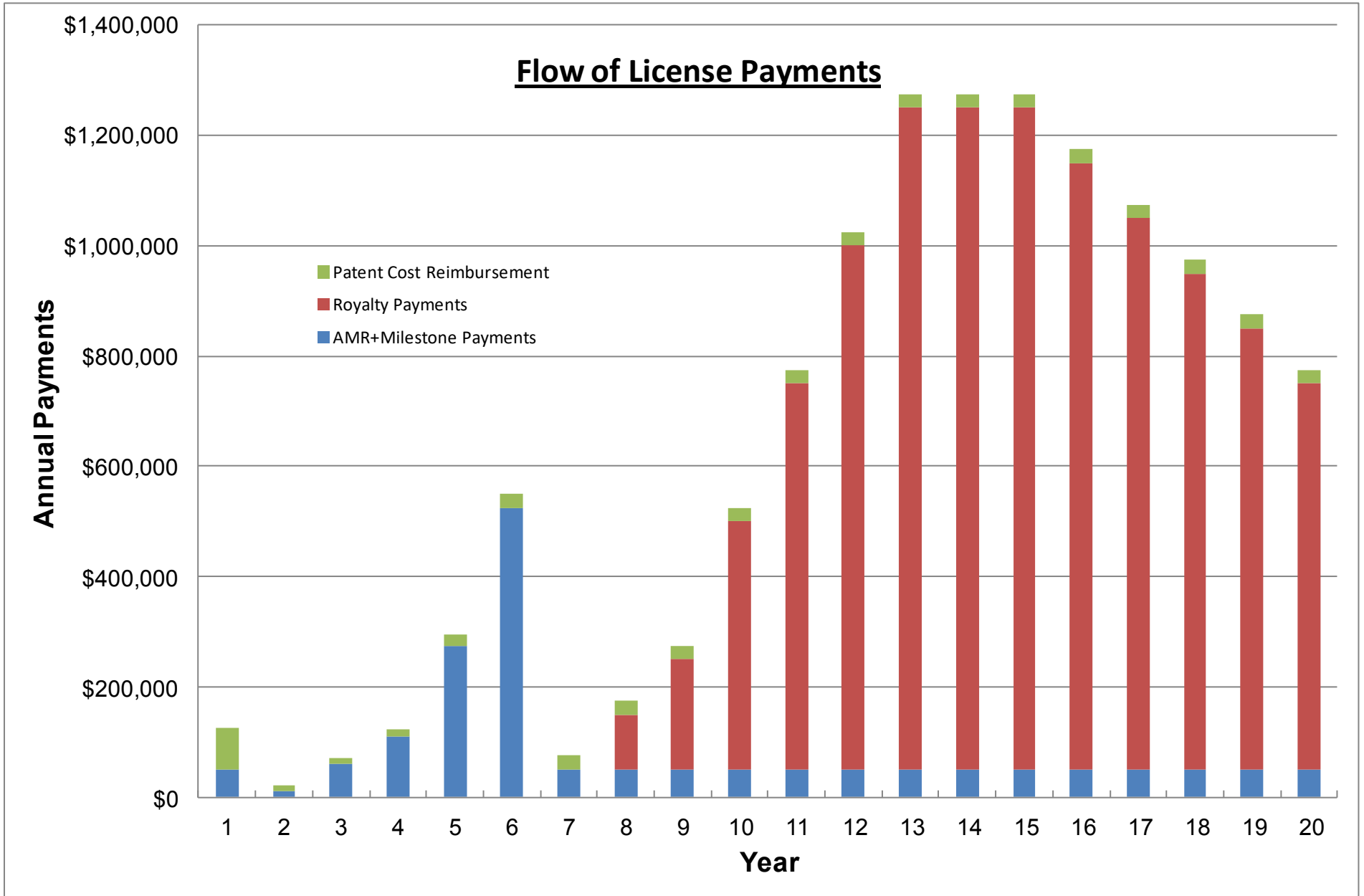

Flow of License Payments
$1,400,000
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
Annual Payments
Patent Cost Reimbursement
Royalty Payments
AMR+Milestone Payments
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Year

ASIA BUSINESS | FEBRUARY 5, 2008

# Amgen Gets a Lift in Deal With Takeda



By MARILYN CHASE

Biotech giant Amgen Inc., hurt by plunging sales of its flagship anemia drug, offloaded some financial risk by striking a licensing deal worth as much as $1.19 billion plus royalties with Japanese drug maker Takeda Pharmaceutical Co.

The deal gives Takeda marketing rights -- in Japan and in Asia -- to 15 products in Amgen's development pipeline.

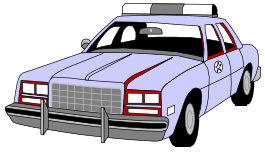
Amgen has been beset by safety concerns and regulatory rulings that have undercut its anemia drug Aranesp. The deal means that Takeda is picking up some of the near-term research expenses for a share of potential long-term profits on experimental drugs to treat cancer, inflammation and pain.

Under terms of the deal, Takeda also will buy Amgen's Japanese subsidiary Amgen KK, which has 160 employees, for an undisclosed sum. Takeda will not end up with any stake in Amgen Inc. itself, according to Amgen spokesman David Polk.

Amgen Chief Executive Kevin Sharer characterized the deal as capitalizing on the strength of the Thousand Oaks, Calif., company's pipeline, rather than signaling any weakness in its prospects. Amgen stock, which has lost roughly a third of its value over the past year, fell 18 cents to $47.18 yesterday in 4 p.m. Nasdaq Stock Market composite trading.

"We've got more molecules than we can develop," Mr. Sharer said yesterday. "Even spending

# Royalty Audits

- The licensee self reports what they owe – quarterly, semi-annually or annually
- Remember the  ?
- A key part of any license agreement is the ability to check the licensee's calculations
  - A royalty audit
    - Sales
    - Deductions
    - Offsets/ Stacking

**“Trust but verify”**

# Contractual Aspects

- You're creating a relationship which, if successful, will last 20 years
- Relationships are unequal
  - Licensor has made their investment
    - Looking for a return on that investment
  - Licensee is taking on substantial risk
    - Financial
    - Opportunity cost

# License Agreement Outline

- Recitals
- Definitions
- License Grant
- Fees, Royalties, & Payments
- Patent Prosecution & Infringement
- Obligations of the Parties
- Representations & Warranties
- Indemnification & Insurance
- Confidentiality & Publication
- Term & Termination
- Miscellaneous

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# Recitals

- The “WHEREAS” clauses
  - Establish the background to the current agreement
  - Establish the purpose and objectives of the parties
  - Non-Binding

# Definitions

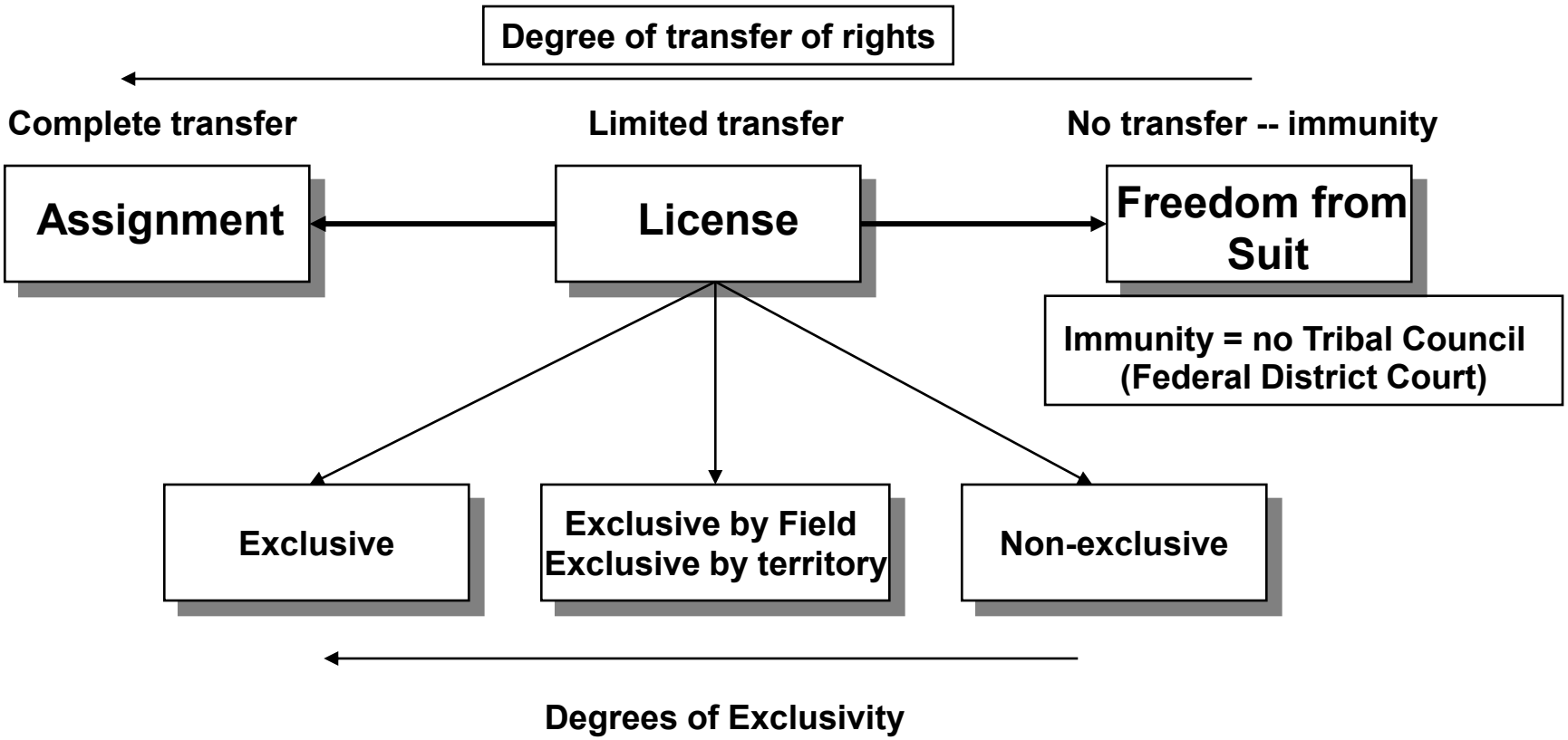
- Defined terms are either Capitalized or ALL CAPS
- A section of Definitions – either Article I or an Appendix

  **L**icensed **P**atents shall mean ……
- Some terms are defined in the text
  - In parentheses and quotation marks

    LICENSE AGREEMENT dated as of June 30, 2012 (the "Effective Date"), by and between Trustees of Boston University (the "University") and …..
- Complex agreements can have 200 Defined Terms

# License Grant

## Different Degrees of Rights Can be Granted



# Licensing vs. Assigning

- In U.S., we don't assign
  - Bayh-Dole Act doesn't allow us to without permission of the Funding Agency
    - Won't give it
      - If Google can be founded based on an exclusive license from Stanford……..
- Other countries don't have this protection
  - Can come under pressure to assign
- Can write an assignment agreement with same payments as a license
- Difference is in the balance of power if things go wrong
  - Licensor can terminate unilaterally
    - Licensee may sue to prevent
  - An assignee has to agree to assign back

# License Grant

- University hereby grants an Exclusive License to make, have made, use, have used, sell, have sold and import Licensed Products under the Patent Rights within the Licensed Field
- Right to grant sublicenses
  - Don’t require prior approval of sublicensees
- No exclusivity for know-how (“technology”)
- Certainly no license to trade secrets
- May not include rights to improvements
  - Certainly time limited

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# Licensed Patents

- What the rights are being granted to
- Identified by number and title
- Mechanism to capture continuations, continuations-in-part and foreign counterparts

# Licensed Field / Field of Use

- The subset of all the possible uses of the technology that the Licensee is getting rights to
  - State what is affirmatively included
  - State what is affirmatively excluded
    - e.g., any planned or previously granted fields of use
      - Reproduce the exact wording of the other affirmative grants

      Licensed Field shall include all products intended for human therapeutic and prophylactic use

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        Licensed Field shall include all products intended for human therapeutic and prophylactic use, excluding any products in which a DNA construct is introduced into a human patient using a viral vector or by direct injection of a DNA construct ("Gene Therapy")

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  - State what is affirmatively included
  - State what is affirmatively excluded
    - e.g., any planned or previously granted fields of use
      - Reproduce the exact wording of the other affirmative grants

        Licensed Field shall include all products intended for human therapeutic and prophylactic use, excluding any products in which a DNA construct is introduced into a human patient using a viral vector or by direct injection of a DNA construct ("Gene Therapy") and furthermore shall exclude all products intended for non-human animal therapeutic and prophylactic use ("Veterinary Uses")

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# Territory

- Don’t include more than they can reasonably sell in
- Major territories:
  - US
  - Europe
  - Japan
  - China
  - India
- Make or sell?

# Fees, Royalties and Payments

- Royalty base
  - Net Sales of Licensed Products
  - Kit deduction
    - Combination products
    - Apportion Net Sales in ratio of individual prices if sold separately
    - If not sold separately, very difficult
      - Apportion in ratio of fully burdened manufacturing cost
      - Apportion equally
      - May just need to specify “good faith”

# Fees, Royalties and Payments

- Royalty payment = Royalty Base x (Royalty Rate – Offset/Stacking) – Deductions
  - Limit stacking and deductions
- Non-Exclusive Licensees may demand a “Most Favored Nations” Clause
  - Nobody gets a lower rate
  - If they do, everybody gets the lower rate

# Licensed Products

- Either identified by name
  - If licensed at a late stage when products are known

  or
- Covered by a Valid Claim of a Licensed Patent

  or
- Any product which would, but for the license granted hereunder, infringe a Valid Claim of a Licensed Patent
  - Legally defined under the Patent Statutes (USC)

# Patent Prosecution and Infringement

- University controls prosecution
- Reimbursement of patent expenses
  - Law firm bills university
  - University bills licensee
- Exclusive Licensee will want first right to sue for infringement
  - University must join the suit
    - We keep enough rights that exclusive licensee doesn't have standing to sue on their own
- Infringement costs paid by the company
  - Recovery distribution – (10% - 25% to University)
- University has second right to sue
  - Keeps all proceeds
- Non-Exclusive licensee has no right to sue

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# Obligations of the Parties

- Reports
  - Product Development
    - Due diligence
  - Product sales and Royalty payments
- Records for auditing
  - Right to audit
- Diligence
  - If you license exclusively, the licensee is your only hope for revenues
    - Best efforts to develop and commercialize Licensed Products
      - "Best efforts" is a legally defined term
    - Specific milestone events
      - Date
      - May have payments associated
- Manufacture substantially in the U.S. (for U.S. sales if excl. license)
  - Bayh-Dole requirement
- Patent/Copyright/Trademark notices

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# Representations and Warranties

- The guarantees
- Universities only represent that they have title to the Patent Rights
  - Not even complete title
    - May be additional inventors
- No other representations are made by the university, including:
  - Infringement of third party patents
  - Viability of technology
- Disclaimers of liability have to be in ALL CAPS and no smaller than 12 point
  - UCC requirement

# Indemnification and Insurance

- Licensee accepts all liability for their use, and any sublicensee's use of Licensed Products
- Licensee must indemnify the University
- Product and other liability insurance is usually required
  - Large companies self-insure

Case Study:

- Memorial Sloan Kettering / Oclassen / Eli Lilly / Fialuridine / Hepatitis B

# Confidentiality and Publication

- Reports, patent prosecution, & other information exchanged will be confidential
- University retains the right to publish its research related to the Patent Rights

# Term and Termination

- Term of the License
  - Longer of:
    - Life of the last to expire patent included within Patent Rights
    - 10 years from first commercial sale

    on a country by country basis
- Licensee is free to terminate the license at their option
  - Can't force them to continue to invest if they don't want to
- Termination fees might be required
  - Or return of the product including all the know-how they've created
  - Compensation for consumption of the patent life
- Termination by the University for breach and bankruptcy only
- Sublicenses in good standing continue, with Licensor replacing licensee
- Fully paid-up perpetual license after expiration of royalty term

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# Dispute Resolution

- "Summit Meeting"
- Mediation
- Arbitration
  - Binding or non-binding
- None – straight to Court

# Miscellaneous

- Notice
- Use of Name
- Governing Law
  - New York State a very popular choice for international agreements
- Assignment
  - With or without permission
  - Acquiror of the entire company
    - Of the entire business line

# What's Special About University Licenses?

# Unique Aspects of University Licenses

- No exclusivity for know-how ("technology")
- Certainly no license to trade secrets
  - Everything must be publishable – no trade secrets
- May not include license to improvements – certainly time limited
- Retained academic rights
- Federal rights
- Freedom to publish
- Strong Due Diligence requirements
- May not include on-going sponsorship of basic research
- Certainly will not include on-going clinical research relationship

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# Unique Aspects of University Licenses

- US manufacture
- Very limited reps and warranties
- Stringent indemnification and insurance requirements
  - Harvard's endowment is $36 billion, MIT's $10 billion
- May have limitations on right to assign
- Limitations on use of University's name

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# Pre-Existing Rights

# Sample Agreements

Looking to update your policy? Draft an agreement? Browse AUTM's collection of polic AUTM members only—to see examples of a variety of documents from a range of different institutions.

More information about invention disclosure forms and agreements can be found in the ce Manual.

If you would like to share examples of your policies or agreements, please send the UR TP Manual Managing Editor, Lisa Richter at lrichter@autm.net.

**Intellectual Property-Related Employment Agreements**

Bigelow: New Hires and Visiting Scholars

Bigelow: Acknowledgment and Release

Bigelow: Visiting Scholar Participation

Bigelow: Current Employees

Bigelow: Preexisting Obligations

**Inter-Institutional Agreements**

Hospital A: Collaboration Before an Invention Is Made

Dartmouth College

Massachusetts Association of Technology Transfer Offices

University of Rochester

Emory University

**Invention Disclosure Forms**

University of Chicago

The University of New Mexico

The Texas A&M System

Hospital A

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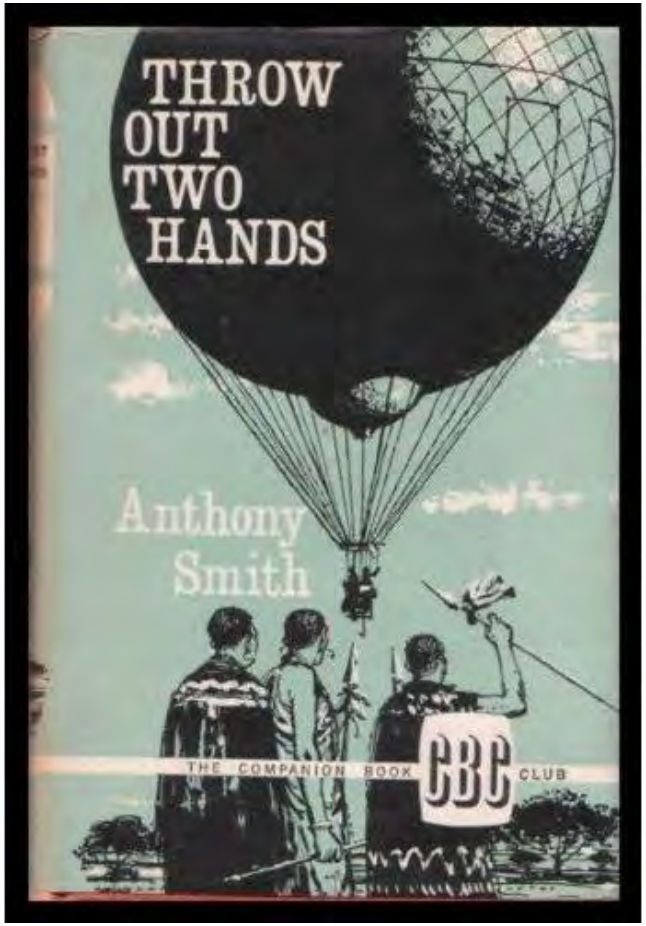


**“The safety rules of ballooning are essentially a recapitulation of the accidents that have happened”**

# Questions?

**astevens@bu.edu**

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