Karen Hersey, J.D.

Karen Hersey has recently retired as senior counsel for intellectual property at the Massachusetts Institute of Technology in Cambridge, Massachusetts. While senior counsel at M.I.T., she directed an office of three intellectual property attorneys advising M.I.T. faculty, research scientists and students on matters relating to patents, copyrights, computer software and technology transfer. Ms. Hersey represented M.I.T.'s interests on intellectual property matters with U.S. government agencies, advised the Institute on appropriate positions for non-profit organizations with respect to various tax-related and regulatory matters. She actively contributed to developing university response strategy on intellectual property-related federal legislation and regulations. Ms. Hersey's office provided all computer software license legal review, negotiation and approval for in-coming software purchases as well as providing counsel on the legal issues arising as a result of M.I.T. maintaining a complex web of world-wide computer networks. The office actively supported M.I.T. departments and faculty developing educational materials for electronic distribution, including distance education, through the negotiation of licensing agreements with educational materials distributors. The office also conducted in-house seminars on the application of copyright law to the activities of the academic community.

Ms. Hersey joined M.I.T. as a technology licensing attorney in 1980, just as technology transfer was becoming an important activity for American research universities. In addition to licensing M.I.T.'s patented technology to both U.S. and foreign companies, she had primary responsibility for M.I.T.'s early efforts to commercially license its computer-related technologies. In 1987, Ms. Hersey left M.I.T. to take up the directorship of technology licensing at North Carolina State University in Raleigh. While with North Carolina State, Ms. Hersey expanded the licensing activity of the University, developed educational materials for faculty on patenting and licensing and took a leading role in starting a high-tech small business incubator for the Research Triangle Area, including serving on its Board of Trustees.

In 1990, Ms. Hersey returned to M.I.T. as principal legal advisor on intellectual property matters and policy for M.I.T. and Lincoln Laboratory (M.I.T.'s government-owned, contractor-operated federal laboratory).

In 1992, Ms. Hersey was named as the academic community's representative to a Congressionally-mandated Department of Defense Government-Industry Advisory Committee to study and recommend changes in the Department of Defense Procurement Regulations in the areas of technical data and computer software. The recommendations of that Committee to place more control of proprietary data and computer software in the hands of the contractor-developers became final regulations in June, 1995.

Ms. Hersey holds a bachelor's degree from Goucher College in Towson, Maryland and a law degree from Boston University. While at Boston University, she was a member of the Boston University Law Review. She is a member of the Massachusetts and North Carolina Bars.

An active member of the university technology transfer community, she has chaired and participated in numerous workshops and seminars on technology transfer practice and copyright in association with many national and international organizations. She has served as President of the Association of University Technology Managers and on the Board of Directors and as Chair of the Technology Transfer and Research Ethics Committee of the Council on Governmental Relations.

In addition to extensive lecturing on issues related to the commercialization of university technology, Ms. Hersey will be working on selected projects with universities and private sector companies through her newly-formed company, Partneringworks, Inc. She will also be teaching courses in nonprofit technology transfer, information asset management in the university and copyright at Franklin Pierce Law Center where she is a Visiting Professor of Law.

15th Annual Advanced Licensing Institute

A Primer on University Licensing

Franklin Pierce Law Center

July 17, 2006

Karen Hersey
Visiting Professor

Commercializing University Assets Through the “Licensing Vehicle”

- “University assets” cover a broad landscape
  - Knowledge (know-how usually learned from conducting research)
  - Innovation in science/new discoveries
  - Curriculum/course content/teaching methodology
  - More recently - new systems of knowledge delivery e.g. distance learning
  - Administrative systems (software)

Licensing University Assets: All About Finding Economic "*Value*"

- While there is *Value* in the "commons"
  - Pushing knowledge and new discoveries along the freely accessible continuum has indisputable value but . . .
- Societal value also found in turning research into products for the public marketplace and public benefit.
  - But, this is role of the private sector, not the university
- Incentive for the private sector to productize requires finding ***sufficient commercial value to recoup investment and make a profit***

Establishing *Commercial Value* for University Assets

- An asset finds commercial value in what it is worth, i.e. what will someone pay for it *because* there is incentive to productize i.e. make a profit
  - If everyone can use it no one pays for it so direct commercial value to each use = 0
  - If some can use it, commercial value = ~
  - If only one/few can use it, commercial value = +
- *Commercial value* + *user/consumer demand* = a candidate for commercialization

Establishing *Commercial Value* for University Assets

- Two ways to "create" or "force" value
  - Limit number of people who **know it**
    - Probably not reasonable in an educational environment
  - Limit number of people who **can use it**
    - By asserting legally enforceable ownership rights to it and deciding (i) who can use it; (ii) how it can be used; and (iii) at what cost it can be used

Establishing *Commercial Value* for University Assets

- Asserting rights of legal ownership – the choices
  1. As *tangible property* e.g. personal property . . . limited methods of commercial exploitation available: bailment, lease, sale
  2. As *intellectual property* . . . lawfully applied "intangible rights" provide greater promise for the commercial marketplace: transfer of rights through sale or license

Establishing Licensable *Intellectual Property Rights* in University Assets

- Intellectual property law provides the launching pad
  - Monopolistic period of protection afforded under the law permits the owner to maximize value by determining who uses and how
    - For patents – 20 yrs of protection from filing application
    - For copyrights – life of author + 70 or 95/120 if W/F/H
    - Using the IP of others without permission = infringement & unauthorized user can be lawfully stopped without resorting to "out-competing" on the product

Establishing Licensable *Intellectual Property Rights* in University Assets

- Matching university assets with IP rights
  - General Ideas/knowledge = trade secrets
  - Discoveries in research = patents/tangible research property (trp)
  - Computer software = patents/copyrights/trademarks
  - Teaching/curriculum/course content/methodology = copyrights
  - New systems of knowledge delivery = copyrights for software; patents for other; possibly trademarks

Licensing-out University Assets: A “different kettle of fish”

- University assets come with a variety of “wrinkles” not always visible to the naked licensee
  - The “Ownership” Issues
  - Requirements imposed by funding sponsors
  - Non-profit Tax Considerations
  - University mission (policies)
  - The University “environment” – open campus

Pre-Licensing Challenge I: Who *Owns* It!

- Potential Owners to consider
  - ***Inventors/authors***
    - University faculty, students, employed staff
    - Visitors
  - ***University*** by policy, agreement, work for hire
  - ***3rd Party***
    - As provider of funding for research
    - As owner of underlying IP such as software, materials used by university and its personnel under agreement
  - ***Joint owners*** - co-inventorship/authorship, agreement
  - ***Public domain*** – no one owns

Pre-Licensing Challenge I: Who *Owns* It!

- In the University, IP ownership depends upon number of factors but usually driven by the University's IP Policy
- Basis for Policy (norm)
  - Generally starts with inventor/author ownership (no "hired to invent" or "work for hire") . . . . but
  - University acquires ownership through obligation to assign due to:
    - An employment agreement; or
    - Policy that requires assignment due use of university funds/facilities (assuming policy is strong enough to create an implied contract between university and the people the policy is presumed to cover) . . . .
- Leading to next problem →

Pre-Licensing Challenge I: Who *Owns* It!

- Ascertaining Who are the inventors/ authors?
- And, are they subject to University policy?
  - Faculty
  - Students
  - Staff
  - Visitors

Pre-Licensing Challenge I: More Issues With Who Owns It!

- Is there an applicable external agreement funding the discovery that dictates where ownership ultimately resides
  - Government as source of funds – generally university owns by federal law
  - Industry research sponsor – generally university owns through contract negotiation, but not always
  - Use of 3rd party-owned IP – university may not own because of terms of agreement of use/license

Pre-Licensing Challenge II: Seeing the "Elephants in the Corner"

- Reviewing potential elephants
  - Limitations imposed on licensing/commercialization by external funding agreements
    - Federally funded (Bayh-Dole requirements)
    - Industrially funded (terms of agreement)
    - Foundation/state funded (terms of agreement)
  - Imposed by other pre-existing factors/agreement
    - Existing licenses granting licensee rights to improvements
    - Applicable material transfer agreements w/rights clauses for materials provider
    - Licenses for electronic products/software with restrictions on use
    - Joint development agreements w/universities
    - Visiting scientist agreements
    - Background rights agreements

Time Out: Licensing vs. Assignment (University Preference for Licensing)

- Two overriding Legal Reasons for University Preference for Licensing
  1. Bayh-Dole (35 USC 200 et seq.)
     - Prohibits assignment of federally-funded inventions except in limited circumstances
       - Can assign to patent management firm
       - Can assign to the federal government
       - Assignment to inventors - *if* title waived by university & federal agency

Time Out: Licensing vs. Assignment (University Preference for Licensing)

2. <u>Other Governmental Regulations</u>

☹ ***The IRS***: Assignment generally considered a "sale" by the IRS -likely to result in taxable transaction. §512(b)(2), 1986 IRC protects royalties from being taxable as "unrelated business income"

- Selling of "services" not generally protected from UBIT
- Sponsored research resulting in assignment of inventions cannot be conducted in bldgs built with tax exempt bonds

Time Out: Licensing vs. Assignment (University Preference for Licensing)

2. <u>Other Governmental Regulations</u>

☹ ***Export Controls***: The question of whether export licenses are needed (i) to send research results to foreign sponsor or (ii) to employ foreign national on a research project, depends upon whether the research is "fundamental".

☺ Requirement # 1: University owns it

☺ Requirement # 2 : It's publishable

The University's Ultimate Commercialization Asset: The IP License

- Licensing: the preferential transactional mechanism used by universities to transfer (commercialize) IP-protected technology
- Benefits of IP Licensing
  - Owner's "rights" monopoly transfers to the licensee
  - But, licensing permits the university to retain some control by imposing limitations, obligations through the terms of the license agreement
    - Of major importance are terms that ensure commercial development

The University as Licensor

- Six important licensing terms universities generally negotiate
  - Scope of the license
  - Diligence requirements
  - Sublicensing
  - Royalties
  - Rights to Improvements
  - Assignment

1. Scope of License: Choosing the Best Strategy

- Alternative licensing strategies (scope of rights granted) to consider
  - Exclusive vs. non-exclusive grants
    - A matter of value
    - A matter of who is the licensee
    - A matter of whether there are pre-existing rights
    - A matter of whether there is government sponsorship
    - A matter of university interests

1. Scope of License: Choosing the Best Strategy

- Alternative licensing strategies (rights granted)
  - Licensing by Field of Use
    - Multiple applications
  - Licensing Geographically
    - Role of regional economic development
  - Time-limited Licensing (not l-o-p)
    - Licensee needs lead-time only
    - If not sure of licensee's staying power
- Universities generally in good position for "mixing it up"

2. Due Diligence: Ensuring Performance Avoids Wasting an Asset

- Diligence requirements generally “in play”
  - Measured by time – time to development; time to market
  - Measured by number of units sold
  - Measured by annual total sales/use revenues
  - Measured by licensee R&D funding of research
  - Measured by annual minimum payments
  - If licensee is a start-up – measured by ramp-up/acquisition of capital

2. Due Diligence: Flexible Terms Provide Useful Options

- Commonly-applied penalties for diligence failures
  - Downgrade of license from exclusive to non-exclusive
  - Financial penalties
  - Restructuring “scope of license”
  - Renegotiation of diligence requirements
  - Termination

3. Sublicensing: Adding Value

- When granting a licensee sublicensing rights makes good sense
  - Standard under an exclusive license grant
  - Under non-exclusive license, decide whether best returns will result from the licensee's sublicensing or from institution's direct licensing of 3rd parties. Major issue: avoiding competition from your own licensee
- Sublicensing royalty alternatives
  - Same royalty rate for licensee/sublicensee revenues
  - Percentage (50%) of licensee's sublicensing revenue

4. Making the Right Royalty Calculation

- Understanding your patent strength
- Understanding your licensee and its market position
- Understanding the value of your licensed product in the marketplace
- Understanding the competition: who and where
- Understanding the future – what's over the horizon
- Understanding your institutional goals

5. Licensing Improvements: A Risky Business

- May result in financial gain . . . but is risky business for universities
  - Encumbers future research
  - Limits future funding sponsors
    - Industry and government impacted
  - A question of adequate consideration
- Licensing improvements means thinking twice before doing it!

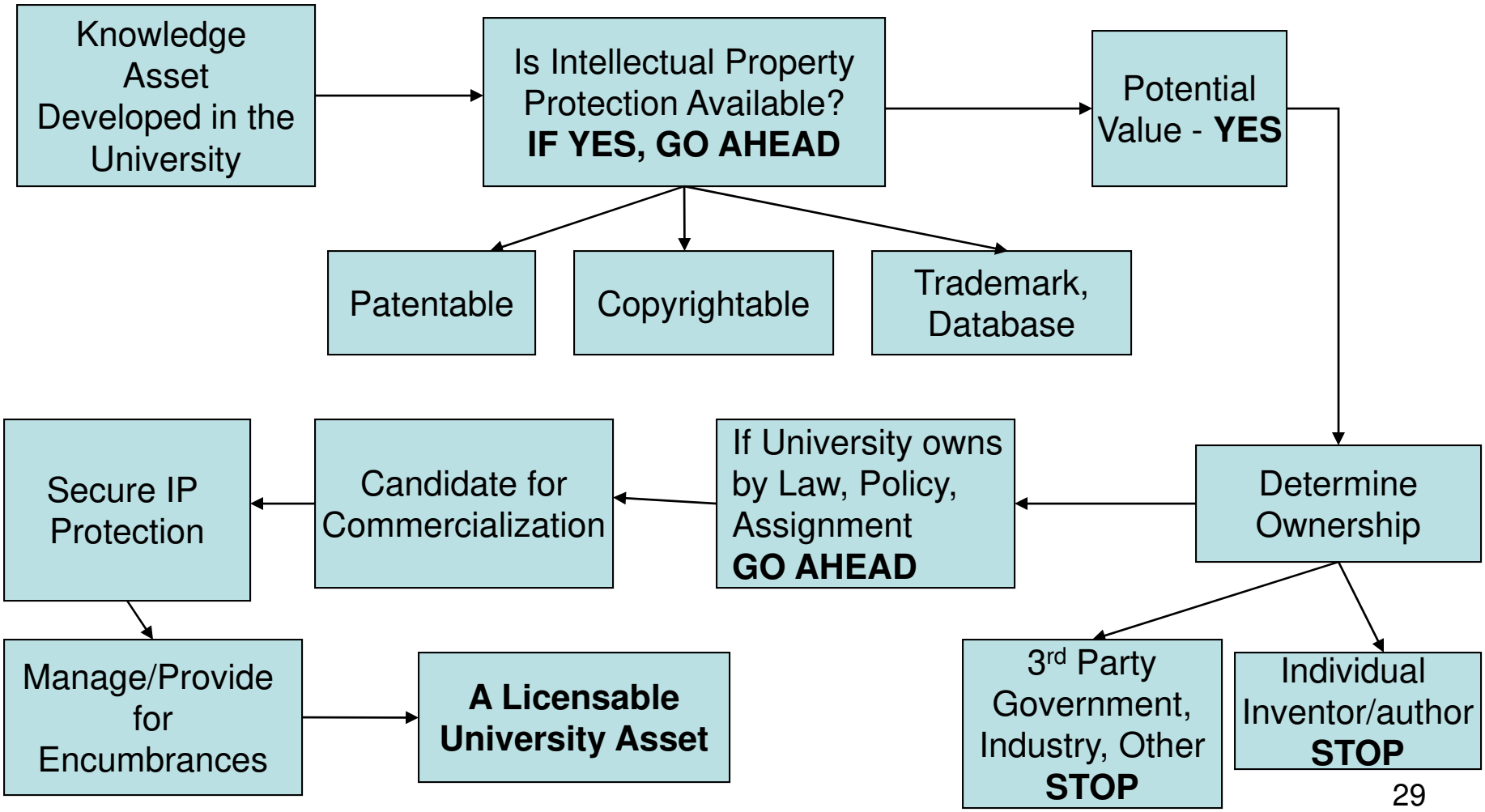
5. Licensing Improvements

- If you must license improvements . . .
  - "improvement patents dominated by the claims of the license patent to the extent the licensor has the right to grant the license"
  - Non-exclusive license to improvements is less risky but ensure obligation to grant license is time-limited
  - Licensing of improvements should be a royalty-bearing event. To what extent is value of initially licensed patent enhanced by the improvement

6. Right of Assignment

- A licensee assigning the license means university is gaining a new business partner
- Weighing pros/cons of assignment clause
  - Large company – transfers to subsidiaries, successor of part of the business to which the license relates; joint venture; w/all company assets may be OK.
  - Small company – permitting assignment risky w/out right of approval
  - Assignability of license a problem in bankruptcy – difficult to get license back.

University as Licensor: . . . . . Wrapping Up



Content Licensing:

A Zebra of Different Stripes ////

- Successful content licensing means understanding the publishing industry
- Successful content licensing means understanding copyright
- Successful content licensing means working closely with authors on ownership
- Successful content licensing means understanding different royalty structures
- Successful content licensing means understanding the importance of “retained rights”

Licensing from Universities: Where the Elephants Might Hide

- Ownership
- Encumbered rights
- Background rights
- Paying for patent costs
- Dealing with due diligence
- Rights to know how/improvements
- Indemnification against infringement
- Representations and warranties/limitations of liability

Commercialization of University Assets: 2004 Facts and Figures

- $1.385 Billion in royalty income (196 inst. Reporting)
- 635 new products in the marketplace (since 1998)
- 462 new companies formed in 2004
- More Detail
  - 16,871 Invention Disclosures submitted
  - 10,517 U.S. Patent Applications filed
  - 3,680 U.S. Patents issued
  - 4,783 Licenses/options signed: 27,322 active overall
- Estimated: 2,500 products currently on the market would not be - but for university licensing

* Source: AUTM Annual Licensing Survey, 2004