

Presented:

Licensing Executives Society

Tools for Licensing in the 21st Century
October 16-19, 2005
Phoenix, Arizona

**TAKING A NEW LOOK AT PATENT
POOLS—USE AND ABUSE**

**V. Walter Bratic
David L. McCombs
Shirley Webster**

**V. Walter Bratic
Shirley Webster
CRA International, Inc.
1600 Smith Street, Suite 4900
Houston, TX 77002
wbratic@crai.com; swebster@crai.com
713-332-0650**

**David L. McCombs
Haynes and Boone, LLP
901 Main Street, Suite 3100
Dallas, TX 75202
David.McCombs@haynesboone.com
(214) 651-5533**

TAKING A NEW LOOK AT PATENT POOLS—USE AND ABUSE¹

This Licensing Executives Society workshop evaluates various options and components of possible package license structures—patent pools—in light of the current antitrust enforcement policy of the U.S. Department of Justice and the Federal Trade Commission (the “Agencies”) with respect to the licensing of intellectual property, as articulated in the Antitrust Guidelines² and in various business review letters issued by the Department of Justice.

In the vast majority of cases, restraints in intellectual property licensing arrangements are evaluated under the rule of reason. The Agencies' general approach in analyzing a licensing restraint under the rule of reason is to inquire whether the restraint is likely to have anticompetitive effects and, if so, whether the restraint is reasonably necessary to achieve pro-competitive benefits that outweigh those anticompetitive effects.³

Pro or Anti-Competitive?

A "patent pool" is an agreement between two or more patent owners to license one or more of their patents to one another or third parties.⁴ These arrangements may provide pro-competitive benefits by integrating complementary technologies; reducing transaction costs; clearing blocking positions; avoiding costly infringement litigation; and by promoting the dissemination of technology.⁵

Cross-licensing and pooling arrangements can have anticompetitive effects in certain circumstances. For example, the *IP Guidelines* discuss that excluding firms from a patent pool may be anticompetitive if the (1) excluded firms cannot effectively compete in the relevant market for the goods incorporating the licensed technologies; (2) the pool participants collectively possess market power in the relevant market; and (3) the limitations on participation are not reasonably related to the efficient development and exploitation of the pooled technologies.⁶ Anticompetitive conduct is further manifested with the use of collective price or output restraints in pooling arrangements, such

¹ September 23, 2005. Authored by V. Walter Bratic and Shirley Webster of CRA International, Inc. and David L. McCombs of Haynes and Boone, LLP.

² Department of Justice-Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property [hereinafter *IP Guidelines*].

³ See *Federal Trade Comm'n v. Ind. Fed'n of Dentists*, 476 U.S. 447 (1986); *NCAA v. Bd. of Regents of the Univ. of Okla.*, 468 U.S. 85 (1984); *Broad. Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1 (1979); 7 Phillip E. Areeda, *Antitrust Law: An Analysis Of Antitrust Principles And Their Application* § 1502 (1986).

⁴ Joel I. Klein, *The Subject Of Cross Licensing And Antitrust Law*, Address To The American Intellectual Property Law Association (May 2, 1997), at <http://www.usdoj.gov/atr/public/speeches/1123.htm>.

⁵ *IP Guidelines*, *supra* note 2, § 5.5.

⁶ *IP Guidelines*, *supra* note 2, § 5.5.

as the joint marketing of pooled intellectual property rights with collective price setting or coordinated output restrictions, which may be deemed unlawful if they do not contribute to an efficiency-enhancing integration of economic activity among the participants. When cross-licensing or pooling arrangements are mechanisms to accomplish naked price fixing or market division, they are subject to challenge under the per se rule.⁷

Examples of well known patent pooling arrangements center around industry standards and include MPEG-2 (covering the MPEG-2 video compression standard); MPEG-4 Visual (covering the MPEG-4 (Part 2) Visual Standard); and IEEE 1394 (covering "firewire," the high speed transfer digital interface known as IEEE 1394). New patent pools are being proposed recently, that include:

- Via Licensing who is soliciting patents essential to the near field communications standard, the TV-Anytime standard, and the broadband wireless access standard, IEEE 802.16. See <http://www.vialicensing.com>.
- The Digital Video Broadcasting Project (DVB) is forming a patent pool for the multimedia home platform. DVB is an industry-led consortium of over 270 broadcasters, manufacturers, network operators, software developers, regulatory bodies and others in over 35 countries committed to designing global standards for the global delivery of digital television and data services. See <http://www.mhp.org>.
- Essential Inventions is a non-profit organization that is proposing patent pools relating to medicines. In January 2005 Essential inventions presented a proposal for an Essential Patent Pool for AIDS (EPPA) medicines to WHO, UNAIDS, Global Fund and Commission on Africa. The EPPA would dramatically reduce the cost of AIDS medicines for developing countries, expand access to all AIDS medicines, assist in the scale up for needed medicine volumes and promote innovation tailored to the health care needs of the HIV/AIDS patients in developing countries. See www.essentialinventions.org.⁸

Antitrust review of two well-known patent pooling arrangements, one pro-competitive and one anticompetitive, are presented below as instructive case studies.

Pro-Competitive: The MPEG-2 Patent Pool

In 1997 the Department of Justice (DOJ) reviewed the features of the MPEG-2 patent pool and declined to initiate an enforcement action, finding it to be pro-competitive. MPEG-2 is a video data storage compression standard used in connection with Digital Versatile Disc ("DVD") technology. The pool involved 27 patents held by several electronics companies and Columbia University. It was structured to issue an open, nonexclusive license at a royalty rate agreed upon

⁷ See *United States v. New Wrinkle, Inc.*, 342 U.S. 371 (1952) (price fixing); *IP Guidelines*, *supra* note 2, § 5.5.

⁸ See Marc A. Hubbard, *The FTC Perspective On Patent Pooling*, in State Bar of Texas 18th Annual Intellectual Property Law Course, Ch. 11 (2005), available at http://www.munsch.com/pubs/files/11_hubbard.pdf.

by the licensors. The DOJ's business review letter addressing the features of the MPEG-2 pool, along with the business review letter for a related pool proposed by Philips, Sony, and Pioneer and concerning patents necessary to comply with the standards for the production of DVDs and DVD players (the "DVD Pool"), are available at <http://www.usdoj.gov>.⁹

The following factors are described in the MPEG Pool Letter as the supporting reasons for the DOJ's conclusion that MPEG patent pool was not anti-competitive:

Complementary, Essential Patents Only

- The patent-holders were not pooling competing technologies, but rather assembling complementary components of a single technology. The pool included only complementary patents, each of which was deemed essential to compliance with the MPEG-2 standards.¹⁰
- The definition of "essential" patents requires (1) that there be no technical alternative to each patent that was included in the pool and (2) that the pooled patents be useful for MPEG products only in conjunction with each other.¹¹

Independent Expert

- The pool used an independent expert to choose which patents were "essential" and could be included in the pool. Over 800 patents owned by over 100 patent owners were reviewed. No submissions for review were refused and no entity that was identified as having an essential patent was in any way excluded from the proposed joint licensing program.¹² The pool thus avoided patents that were competitive substitutes for other patents in the pool. Use of the independent expert "reduces the likelihood that the licensors might act concertedly to keep invalid or non-essential patents in the Portfolio or to exclude other essential patents from admission to the Portfolio."¹³

⁹ Letter from Joel I. Klein, Acting Assistant Attorney General, Antitrust Division, Department of Justice, to Gerrard R. Beeney, Esq., Sullivan & Cromwell (June 26, 1997) [hereinafter the MPEG Pool Letter], *available at* <http://www.usdoj.gov/atr/public/busreview/1170.htm>; Letter from Joel I. Klein, Acting Assistant Attorney General, Antitrust Division, Department of Justice, to Gerrard R. Beeney, Esq., Sullivan & Cromwell (December 16, 1998), *available at* <http://www.usdoj.gov/atr/public/busreview/2121.htm>.

¹⁰ MPEG Pool Letter, *supra* note 9, at 7.

¹¹ MPEG Pool Letter, *supra* note 9, at 7.

¹² MPEG Pool Letter, *supra* note 9, at 4.

¹³ MPEG Pool Letter, *supra* note 9, at 7.

Non-Discriminatory and Equal Access Licensing

- The licenses are non-exclusive, non-discriminatory, and allow equal access to all comers.¹⁴ The licensing administrator agreement requires MPEG-LA to offer the portfolio license on the same terms and conditions to all would-be licensees. This eliminates any potential for the pool to be used to disadvantage rivals to the pool members.

No Illegal Tying

- The license does not establish an illegal tying arrangement. Each covered patent is available for license separately on an individual basis from its individual licensor, under fair and reasonable terms.¹⁵ The pool thus would not be a mechanism for requiring licensees to take a package of multiple licenses they did not want.

Pro-Competitive Grant Backs

- The grant back provisions oblige licensees controlling essential patents to make them available to all, on a non-exclusive basis, for a fair and reasonable royalty, just like the Portfolio patents.

No Restraint on Competition

- Unilateral competition with the standard is permitted, whereby nothing in the agreement restricted licensors from developing alternative technologies.¹⁶ The pool therefore does nothing to restrain innovation.

Cost Savings (Efficiencies)

- The joint licensing arrangement is likely to provide significant cost savings, substantially reducing the time and expense otherwise required to disseminate the rights to each essential MPEG-2 patent to each would-be licensee. The royalty rates are fair. The efficiencies provided by the pool is likely to facilitate the creation of MPEG-2 products, and is thus pro-competitive. The licensee royalty liability is conditioned upon actual use of the Portfolio patents.

¹⁴ MPEG Pool Letter, *supra* note 9, at 8.

¹⁵ MPEG Pool Letter, *supra* note 9, at 8, 10.

¹⁶ MPEG Pool Letter, *supra* note 9, at 9.

Anti-Competitive: The Summit and VISX Patent Pool

Patent pools can be decidedly anti-competitive, as was the case with the Summit Technology and VISX patent pool. Here, the Federal Trade Commission charged Summit and VISX, two firms that controlled the market for laser eye surgery, with a price-fixing conspiracy.¹⁷ The alleged conspiracy centered around a patent pool formed by the two companies through a shell entity named Pillar Point Partners.

Specifically, Summit and VISX were the only two FDA-approved manufacturers of lasers used in photorefractive Keratectomy (PRK) surgery. PRK is a form of eye surgery that uses specialized, computer-guided lasers to reshape the cornea and frees many people from the need to wear glasses or contact lenses. According to the FTC, both Summit and VISX originally had developed their own technology for performing PRK and each had sought patent protection. Instead of entering the market independently and competing with each other, they formed the patent pool, to which each contributed their respective patents. The pool comprised 25 patents in total. The partnership entity holding the patents, Pillar Point Partners, then licensed the full portfolio of patents back, solely to Summit and VISX (and not to any third parties). Summit and VISX sold or leased PRK equipment to eye doctors and sublicensed the doctors to perform PRK procedures.

The result, as alleged in the agency's complaint, was to restrain competition in three ways:

1. The Pool Comprised Competing, Not Complementary or Blocking, Patents.

The pool, as the complaint alleged, eliminated ongoing competition between Summit and VISX that otherwise would have existed in markets for PRK equipment, in the licensing of patents, and in the licensing of technology, related to the procedure.¹⁸ In the absence of the pooling arrangement, VISX and Summit were horizontal competitors that could have and would have competed with one another in the sale of PRK equipment by using their own technology embodied in their respective patents. They possessed rival (competing) patents that were substitutes for each other, as opposed to complementary or blocking patents, which appropriately belong in a pool.

Inclusion of blocking (or essential) patents or truly complementary patents in a patent pool is desirable and pro-competitive, but assembly of competing (substitute) patents in a pool can eliminate competition and lead to elevated license fees. Thus the key distinction

¹⁷ See Complaint, *In re Summit Technology, Inc. & VISX, Inc.* (F.T.C. Mar. 24, 1998) (No. 9286), available at <http://www.ftc.gov/os/1998/03/summit.cmp.htm>

¹⁸ *Id.* ¶¶ 25(c), 27(d).

in forming a patent pool is that blocking (essential) or complementary patents belong in a pool, while substitute or competing patents need to remain separate.¹⁹

Definitions:

- *Competing* patents are patents on substitutable goods, methods, or technologies. For example, if three separate patents each cover a different type of chair (i.e., wooden; plastic; and metal), the three patents would compete with one another.
- A *blocking* patent is one that prohibits the practice of another patent, but does not necessarily cover all possible design alternatives. As one example, where a patent covers a certain technology, and a second inventor gets a patent that is an improvement on the first invention, the second inventor is blocked from using his technology unless he can obtain a license from the first inventor.
- An *essential* patent is a blocking patent that is so broad that it covers the technology necessary to enter the entire market. It prohibits the practice of another in the same field, because the patent covers all commercially feasible design alternatives.
- *Complementary* patents are patents where the use of one patent makes the use of a second patent more valuable. For example, if one firm holds Patent A covering a method for making a pen barrel; another firm holds Patent B covering a method for making a pen cartridge; and yet another firm holds Patent C covering a process for filling the cartridge with ink in such a way that it will not spill out of the pen barrel; then the three patents would be complementary to one another. Cross-licensing among these firms would tend to increase competition because each firm could market its own line of complete pens.

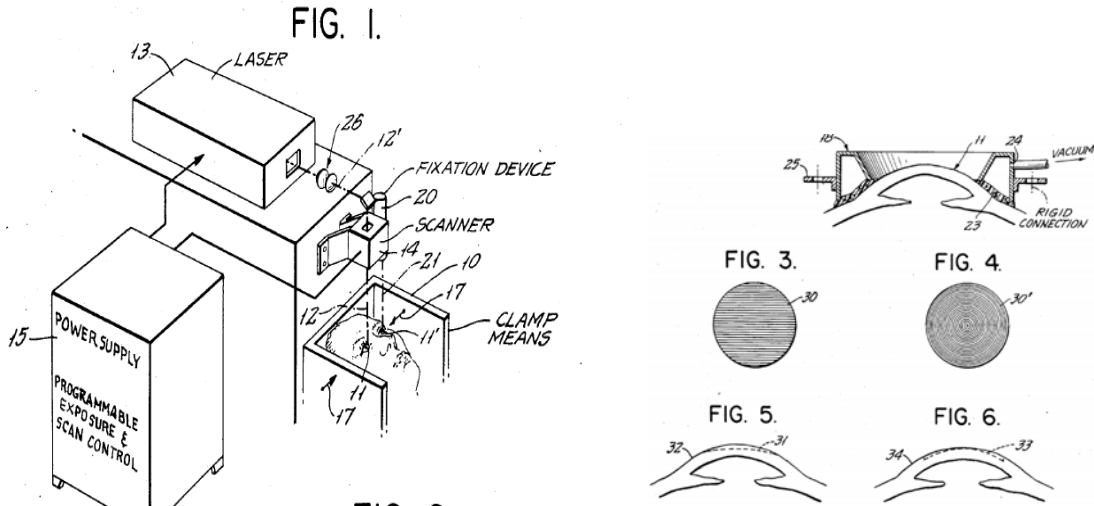
As alleged in the complaint, many of the patents in the Summit/VISX patent pool were competing patents for substitute PRK technologies and, without the pool, Summit and VISX as horizontal competitors would have competed with each other by using their own technology embodied in their respective patents.

Below are examples of two *competing* patents from the pool owned by Summit and VISX for substitute (rival) PRK technologies:

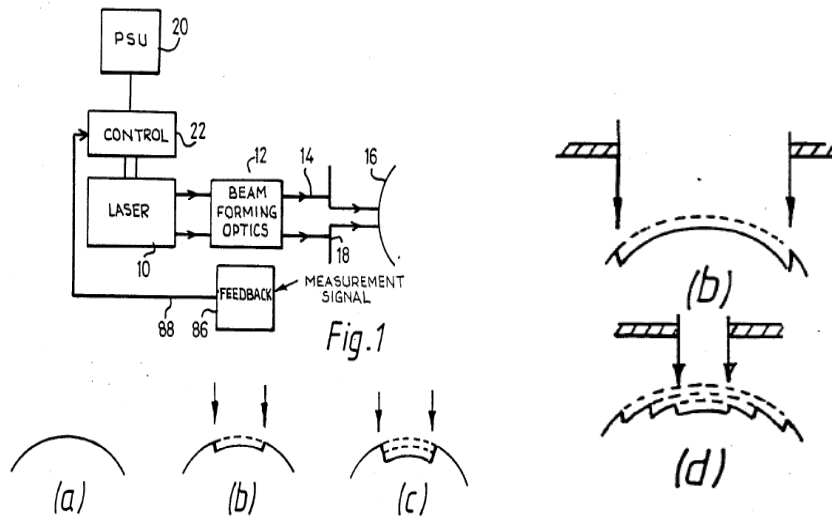
VISX's U.S. Patent No. 4,665,913 (Method for Ophthalmological Surgery) contemplates the use of a scanning laser that is used in a controlled way to ablatively photodecompose selected regions of the cornea, thereby correcting vision. The desired depth of ablation is achieved by using different scanning patterns (circular, Fig. 4; or rectilinear, Fig.3) and

¹⁹ Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting*, 1 INNOVATION POL'Y AND THE ECON. 119 (2001).

adjusting the exposure time of the laser as it travels over the corneal surface to achieve the desired ultimate surface change to the cornea.



Summit's U.S. Patent No. 4,941,093 (Surface Erosion Using Lasers) uses an altogether different technique in applying laser energy to the surface of the cornea to achieve the desired shape. Instead of scanning, the Summit technique uses masks as a "beam directional control system" to vary the size of the irradiated area between pulses. By using different shaped masks, the window through which the beam passes can be incrementally adjusted.



As shown by these examples, the techniques are substitutes for one another, and do not create blocking patent positions or complementary positions that alone would justify a pooling arrangement between the two companies.

2. The Two Companies No Longer Competed On Price.

The fee provisions of the arrangement significantly raised the prices that consumers paid for PRK procedures.²⁰ Summit and VISX sold or leased PRK equipment to eye doctors and sublicensed the doctors to perform PRK procedures. The patent pooling arrangement required Summit and VISX to pay the partnership a \$250 fee each time a PRK procedure was performed. Summit and VISX, in turn, charged each of their respective sublicensees a \$250 per-procedure fee each and every time a laser produced by either firm was used to perform PRK. Neither Summit nor VISX had an incentive to reduce this fee because the patent pooling agreement obligated each firm to pay this amount to the pool. According to the FTC, consumers were overcharged an estimated \$30 million by the illegal activity of the two firms.²¹

3. The Pool Prohibited Unilateral Licensing By Either Party.

The pool's exclusive nature restricted other firms' access to PRK technology.²² Another effect of the pool was that the firms no longer had any incentive or ability to compete in the licensing of PRK technology. Neither firm could license its own technology to third parties without the approval of the other. Summit or VISX could veto licensing by the pool to other companies, this veto power diminishing the likelihood that either company's patents would be licensed to other PRK manufacturers. In fact, the patents were not licensed to others.

In sum, the Summit/VISX patent pool did little more than grant the parties the power to control prices. In August 1998, the FTC allegations were settled through a consent order that bars continuation of the pooling arrangement.

Recent Federal Circuit Ruling on Package Licensing of Compact Discs

U.S. Philips owns patents to technology for manufacturing recordable compact discs (CD-Rs) and rewritable compact discs (CD-RWs) and offers four different patent pools for licensing. In

²⁰ Complaint, *supra* note 17, ¶¶ 25(a), 27(b).

²¹ Complaint, *supra* note 17, ¶ 13.

²² Complaint, *supra* note 17, ¶¶ 25(b), 27(c).

*U.S. Philips v. International Trade Commission*²³, the Federal Circuit overturned an ITC decision that had found U.S. Philips's package license of patents for the manufacture of compact discs was an impermissible tying arrangement constituting patent misuse, and therefore unenforceable.

The case arose in connection with Philips's filing of an ITC action in 2002 asserting its patents for recordable compact discs (CD-Rs) and rewritable compact discs (CD-RWs) against a group of companies that failed to pay royalties to Philips. In its defense before the ITC, the group alleged Philips had forced them to take a license to patents that were not necessary to the manufacture of the CDs, as a condition to taking a license to the essential patents. The ITC ruled that Philips's package license constituted patent misuse, thereby rendering the patents unenforceable. On appeal, the Federal Circuit reversed the ITC's conclusion of patent misuse and remanded the case back to the ITC for further proceedings.

The Federal Circuit's decision held:

- Package licensing in this case was not a practice that is so clearly anticompetitive as to warrant being considered per se illegal; and that the ITC was incorrect in finding the package license was unlawful under the rule of reason.
- Some of the patents were essential for making the CD's and some were nonessential. "Contrary to the Commission's characterization, the intervenors were not 'forced' to 'take' anything from Philips that they did not want, nor were they restricted from obtaining licenses from other sources to produce the relevant technology. Philips simply provided that for a fixed license fee, it would not sue any licensee for engaging in any conduct covered by the entire group of patents in the package."²⁴
- "[The commission] ignores the reality that the value of any patent package is largely, if not entirely, based on the patents that are essential to the technology in question."²⁵
- "The commission would be saying in effect that it would be unlawful for Philips to charge the same royalty for its essential patents that it charges for its patent packages and to offer the nonessential patents for free. Yet that sort of pricing policy plainly would not be unlawful."²⁶

²³ *U.S. Philips Corp. v. International Trade Commission et al.*, Case No. 04-1361, U.S. Court of Appeals for the Federal Circuit (September 21, 2005).

²⁴ *Id.* at page 17.

²⁵ *Id.* at Page 20.

²⁶ *Id.* at page 19.

- "Philips introduced evidence that package licensing reduces transaction costs by eliminating the need for multiple contracts and reducing licensors' administrative and monitoring costs. [] Package licensing can also obviate any potential patent disputes between a licensor and licensee and thus reduce the likelihood that a licensee will find itself involved in costly litigation over unlicensed patents[.] Thus, package licensing provides the parties a way to practice a particular technology and protecting against the unpleasant surprise for a licensee who learns, after making a substantial investment, that he needed a license to more patents than he originally obtained. [] In short, package licensing has the procompetitive effect of reducing the degree of uncertainty associated with investment decisions."²⁷

Conclusion

With the emergence of new technologies and the increasing problem of patent thickets that arise because of well distributed and overlapping patent rights, pooling arrangements may become more prevalent as a mechanism to facilitate broad licensing schemes for the benefit of efficient commercialization of technology in various industries. This is especially likely in a blended control environment,²⁸ where companies rely on a blend of proprietary and open technology, including technology outside the company's control, such as in connection with business opportunities involving industry standards.

²⁷ *Id.* at pages 22-23.

²⁸ See Robert Greene Sterne et al., *The U.S. Landscape For Electronics Companies*, 22 *COMPUTER & INTERNET LAW*. 9, 16 (2005).

Workshop Discussion Topics

1. In 2001, the United States Patent and Trademark Office (USPTO) issued a White Paper on patent pooling, suggesting that patent pools may be one way to ensure reasonable access to patented genomic inventions needed for the research and development of commercial products and for further basic biological research.²⁹ Others disagree, arguing that a patent pool is an inadequate solution to the problem of patent thickening in the field of biological research tools, because, e.g., "the uncertain nature of experimental investigation creates fatal impracticalities when one is trying to identify a particular collection of patents to be included in the pool."³⁰

What is the likelihood of patent pools emerging in connection with biological research technologies? What greater obstacles are there to forming patent pools in non-standard based industries, such as medicine and life sciences, in comparison to standard-based industries, such as telecommunications and consumer electronics?

2. In the context of standards setting organizations, patent pools can be an attractive patent cross-licensing vehicle as evidenced by pools such as MPEG-LA; DVD; 3G. What are the catalysts that result in patent pools being formed in connection with some standards-based technologies but not in others?
3. What technology segments could benefit right now from patent pools where none currently exist?
4. Considering the patent pooling "benefits" below, which ones are most likely to drive the formation of a patent pool in today's environment?
 - One stop selling and shopping of the necessary IP rights
 - Clearance of blocking positions
 - Reduction in R&D costs
 - Reduction in transaction costs
 - Provision for access to enhancements developed by licensees that are essential technology through grant back provisions
 - Elimination of royalty stacking, or reducing the total royalty burden
 - Avoiding costly infringement litigation
5. It was almost two and one-half years from the initial plan to the approval by the DOJ of the 3G Patent Platform. Will this affect the interest in formation of additional patent pools?

²⁹ Jeanne Clark et al., *Patent Pools: A Solution To The Problem Of Access In Biotechnology Patents?* (Dec. 5, 2000), available at <http://uspto.gov/web/offices/pac/dapp/opla/patpoolcover.pdf>.

³⁰ Scott Iyama, *The USPTO's Proposal of a Biological Research Tool Patent Pool Doesn't Hold Water*, 57 STAN. L. REV. 1223 (2005).

6. Not for profit and for profit entities are soliciting patents for the formation of patent pools. Is this any more pro-competitive or anti-competitive than consortiums of companies formed to establish patent pools, such as the DVD patent pools.
7. What incentives can be offered to holders of essential patents to join a developing patent pool rather than waiting until the pool is formed and pursuing litigation?

(END)