

***New IP Strategies for  
Industry and Academia  
In Light of Significant  
Legislative, Administrative  
and Judicial Developments***

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# ***INTRODUCTION***

- ***SUCCESSFUL HISTORY OF COLLABORATION AMONG ACADEMIA, INDUSTRY AND GOVERNMENT***
- ***PATENTS ARE A RELEVANT MEASURE OF SUCCESS***
- ***CONSIDERATIONS FOR AN EFFECTIVE PATENT STRATEGY***
- ***CHANGES TO LAWS AND PROCEDURES AFFECTING PATENTS WILL IMPACT ON THE STRATEGIES FOR IAG COLLABORATION***

# *IAG COLLABORATIONS: THE INNOVATION TRIANGLE*



## ■ **ACADEMIA**

- *Resources: facilities; educators; researchers; academic freedom*
- *Goals: education, social benefits, income*
- *Deficiencies: LIMITED - commercialization, marketing, management, money*

## ■ **GOVERNMENT**

- *Resources: established programs, knowledgeable administrators, money*
- *Goals: social benefits, economic growth, innovation*
- *Deficiencies: LIMITED - commercialization, marketing, management; incentives*

## ■ **INDUSTRY**

- *Resources: product developers, marketers, entrepreneurs, producers*
- *Goals: corporate growth, new products, shareholder wealth*
- *Deficiencies: LIMITED – resources, research capability and freedom*

# ***THE INNOVATION TRIANGLE: UNDERLYING DRIVERS***

- **ACADEMIA – Grant Programs and TLO’s**
  - *External Funding – must be sought by Academics*
  - *Title to Inventions - Typically Obtained by the Organization*
  - *Licensing – Encouraged to Generate Income*
  - *Rights and Royalties - Possible Sharing with Inventor*
  
- **GOVERNMENT – Bayh/Dole Act**
  - *R&D Funded by Government*
  - *Title to Subject Inventions - To Organization not Government*
  - *Organization Duties - include filing for patent protection, active promotion and commercialization, non-exclusive license to government*
  
- **INDUSTRY – Classic Capitalism**
  - *Identify new ideas - from outside sources and procure rights*
  - *Provide adequate incentives for disclosure and development*
  - *Exploit Offensively and Defensively*



# *MEASURING SUCCESS of the INNOVATION TRIANGLE*

## ■ *CURRENT LEVELS OF RESEARCH FUNDING BY GOVERNMENT, ACADEMIA AND INDUSTRY*

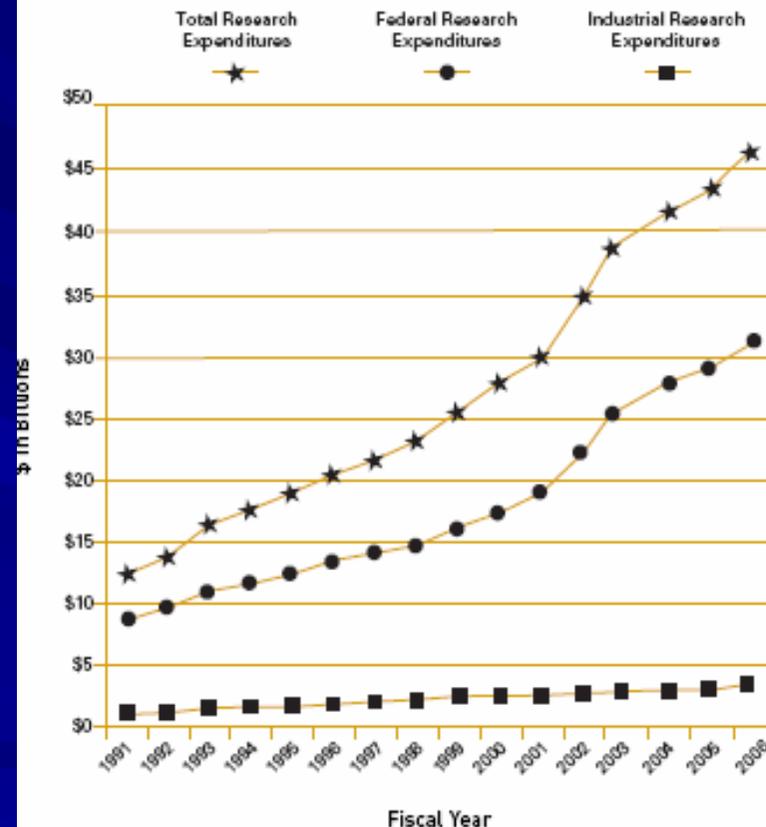
**Table US-3.** Total Research Support from Federal and Industrial Sources for U.S. Universities, Hospitals and Research Institutions, 1997–2006

|   | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Research Expenditures (\$ billions) | 21.63 | 23.25 | 25.67 | 27.87 | 29.96 | 34.96 | 38.50 | 41.20 | 42.30 | 45.40 |
| % Federal                                 | 65%   | 63%   | 63%   | 62%   | 64%   | 64%   | 66%   | 67%   | 67%   | 68%   |
| % Industrial                              | 9%    | 9%    | 10%   | 9%    | 8%    | 8%    | 7%    | 7%    | 7%    | 7%    |

# MEASURING SUCCESS of the INNOVATION TRIANGLE

■ **GROWTH IN RESEARCH FUNDING BY GOVERNMENT, INDUSTRY and ACADEMIA**

Figure US-5. Research Expenditures for U.S. Universities, Hospitals and Research Institutions, 1991–2006



# ***PATENTS ARE THE MOST RELEVANT METRIC FOR SUCCESS OF IAG COLLABORATION***

- ***PATENTS – Are Identifiable and Quantifiable***
  - *Available Only to the Inventor(s)*
  - *Ownership Rights Are Traceable to the Inventors as participants in Research Programs*
  - *Readily identified Asset – from disclosure, to filing, to issue*
  - *Continued investment in maintenance of the patent demonstrates value*



# MEASURING SUCCESS of the INNOVATION TRIANGLE

## ■ DISCLOSURE AND PATENT PROTECTION FOR IAG-GENERATED INVENTIONS

**Table US-4.** Invention Disclosures Received by U.S. Respondents, 1997-2006

|                                | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number of Respondents          | 158    | 159    | 169    | 167    | 169    | 188    | 198    | 198    | 191    | 189    |
| Invention Disclosures Received | 10,613 | 10,987 | 11,607 | 11,974 | 12,624 | 14,398 | 15,510 | 16,811 | 17,382 | 18,874 |

**Table US-5.** Patent Applications Filed by U.S. Respondents Since 2001

|                                      | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   |
|--------------------------------------|--------|--------|--------|--------|--------|--------|
| Number of Respondents                | 170    | 189    | 198    | 192    | 191    | 189    |
| New Patent Applications Filed        | 6,397  | 7,319  | 7,921  | 10,517 | 10,270 | 11,622 |
| Total U.S. Patent Applications Filed | 10,687 | 12,222 | 13,280 | 13,803 | 14,757 | 15,908 |
| U.S. Patents Issued                  | 3,559  | 3,501  | 3,933  | 3,680  | 3,278  | 3,255  |

# ***PATENT EXPLOITATION AS MEASURE OF RESEARCH RELEVANCE AND SUCCESS***

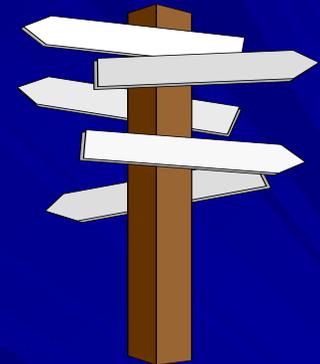
## **■ PATENTS Serve both Offensive and Defensive Goals:**

### **– OFFENSIVE**

- Litigation to obtain Damages or Enjoin Competition**
- Licensing for Royalty Income or Strategic Goals**

### **– DEFENSIVE**

- Cross licensing**
- Counterclaims**



# MEASURING SUCCESS of the INNOVATION TRIANGLE

## ■ LICENSES AS AN INDICATOR OF GOALS

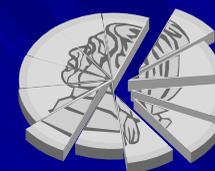
**Table US-8.** Exclusivity of Licenses and Options Executed by U.S. Respondents in 2006 by Type of Licensee Company

|  |                       | Licenses and Options Executed |           |               |                 |               |                 |               |
|--|-----------------------|-------------------------------|-----------|---------------|-----------------|---------------|-----------------|---------------|
|  |                       |                               | Startups  |               | Small Companies |               | Large Companies |               |
| FY 2006                                | Number of Respondents | Total                         | Exclusive | Non-exclusive | Exclusive       | Non-exclusive | Exclusive       | Non-exclusive |
| U.S. Universities                      | 161                   | 4,192                         | 638       | 60            | 947             | 1,180         | 466             | 859           |
| U.S. Hospitals & Research Institutions | 28                    | 755                           | 57        | 9             | 108             | 181           | 95              | 226           |
| Technology Investment Firms            | 1                     | 16                            | N/A       | N/A           | N/A             | N/A           | N/A             | N/A           |
| All U.S. Respondents                   | 190                   | 4,963                         | 695       | 69            | 1055            | 1,361         | 561             | 1,085         |

# ***AN EFFECTIVE PATENT STRATEGY IN AN AIG COLLABORATION REQUIRES A BALANCE OF SEVERAL FACTORS***

## **■ COST**

- Who pays for patent acquisition and maintenance?*
- Who pays for marketing and enforcement activities?*



## **■ CONTROL**

- Who decides the desired scope of protection?*
- Who manages the patent portfolio?*
- Who decides the enforcement strategy?*

## **■ RISK-REWARD**

- Who evaluates the risks of enforcement (validity, enforceability, infringement)?*
- Who benefits from enforcement (royalties, damages, injunction)?*

# *HISTORICAL BALANCE IN IAG COLLABORATIONS*



## ■ **GOVERNMENT**

- *Pays for basic R&D*
- *Does not pay for patent acquisition, maintenance or enforcement*
- *Does not have an input into Patent Strategy (except government license and march-in rights)*
- *No risk and limited reward from IP rights*

## ■ **ACADEMIA**

- *Pays for acquisition and maintenance, and possibly enforcement of patents **BUT budgets are limited***
- *Controls Patent Strategy and determines scope of protection **BUT without a commercial perspective***
- *May share control, risk and reward with industry **BUT often without experience and with different goals***

## ■ **INDUSTRY**

- *May pay patent acquisition and maintenance costs if exclusive rights are granted*
- *Will evaluate and pay for enforcement **ONLY** if rights are exclusive*
- *Will pay royalties for non-exclusive licenses if product is successful*

# ***CURRENT DEVELOPMENTS ARE SHIFTING THE BALANCE***

## ■ ***Recent U.S. Court Decisions***

- ***U.S. Supreme Court***
- ***Court of Appeals for the Federal Circuit***

## ■ ***Proposed USPTO Rule Changes***

- ***Information Disclosure Statement Requirements***
- ***Appeal Requirements***
- ***Markush Claim Requirements***
- ***Continuation and Claim Restrictions***

## ■ ***Legislative Changes – Patent Reform Act***

- ***Passed U.S. House of Representatives***
- ***Scheduled for Senate Consideration Soon***
- ***Possible passage in 2008***



# ***THE COSTS ARE INCREASING***

- **PROPOSED INFORMATION DISCLOSURE STATEMENT REQUIREMENTS**
  - *Greater analysis and disclosure of Prior Art information during prosecution*
- **PROPOSED APPEAL BRIEF REQUIREMENTS**
  - *Greater analysis and explanation required in briefs*
  - *Rigid application of formalities and procedures*
- **PROPOSED ALTERNATIVE-LANGUAGE CLAIM REQUIREMENTS**
  - *Adds further non-substantive examination*
  - *Narrows scope of claims in a single application*
  - *Requires filing additional applications*
- **PROPOSED CONTINUATION AND CLAIM RESTRICTIONS**
  - *Currently enjoined from implementation*
  - *Possible introduction in future*
  - *Greater costs for desired scope of protection*



# ***THE RISK IS INCREASING***

- ***HIGHER STANDARD OF NON-OBVIOUSNESS (KSR v. Teleflex – S.Ct.)***
  - *During Patent Prosecution (USPTO Guidelines; Board Decisions)*
  - *During Litigation*
- ***REDUCED SCOPE OF PATENTABLE SUBJECT MATTER***
  - *Signal Claims (In re Nuijten - CAFC)*
  - *Business Method Claims (In re Comiskey; In re Bilsky; In re Ferguson - CAFC)*
- ***GREATER RISK OF INEQUITABLE CONDUCT***
  - *Disclosure of Related Applications and Prosecution (McKesson v. Bridge Medical – CAFC)*
  - *Compliance with IDS Rules*
  - *Compliance with Continuation/Claim Limit Rules*
- ***Added Post Grant Challenges to Patentability***



# ***THE REWARD IS DECREASING***

- ***Reduced Availability of Injunctive Relief***
  - *eBay v. MercExchange (S. Ct.)*
- ***Reduced Availability of Damages***
  - *Patent Reform Act proposes a limit to value attributable to the point of invention*
- ***Reduced Availability of Enhanced Damages***
  - *Patent Reform Act narrows Willful Infringement and, thus, basis for multiple damages*
- ***Reduced Availability of Litigation Fora***
  - *Patent Reform Act narrows Venue*
- ***Possible Limitation on Licensing Strategies***
  - *Quanta v. LG Electronics (S. Ct.)*



# *RESULTS OF CURRENT DEVELOPMENTS*

- *Patents will cost more to acquire*
- *Patent Rights will be narrower*
- *Patent Rights will be subject to added attack*
- *Patent Rights may have less value in licensing and litigation*

# STRATEGY FOR THE FUTURE

- **Academia – assumes most of the burden**
  - *Even if budgets are increased, implement a more stringent analysis for selecting inventions for patenting*
  - *Improved policies for patent prosecution*
    - *Strategic decision making on claim scope vs appeal or abandonment*
  - *Improved record keeping and portfolio management to satisfy duty of disclosure*
  - *Improved policies for patent maintenance*
  - *Better training for TLO managers*
    - *Evaluating the quality of patent rights*
    - *Managing the portfolio – abandon low quality rights*
    - *Seeking licensees or purchasers*
- **Industry**
  - *Improved analysis of patent quality and viability before licensing*
  - *Increased sharing of costs for patent acquisition and maintenance*
- **Government – no anticipated change**



**THANK YOU**

# **AUTM & IPO Course**

## **IP Licensing Issues Between Universities and Corporations**

**February 27, 2008  
San Diego Marriott Hotel  
San Diego CA**

**[www.ipo.org](http://www.ipo.org)**