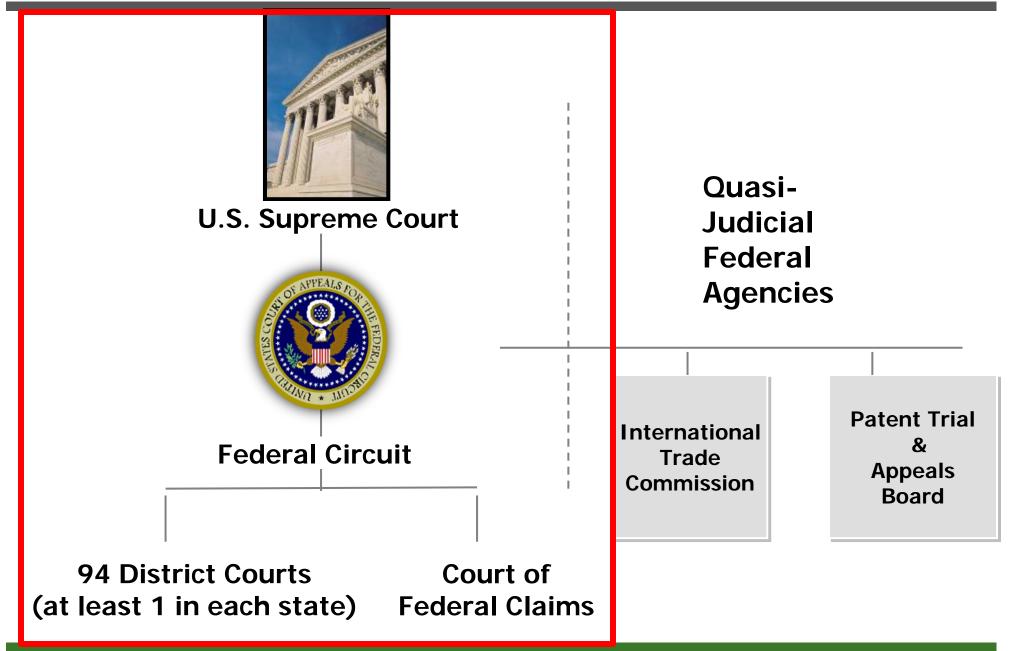


Finnegan Europe LLP

WIPO Conference on IP Dispute Resolution in Life Sciences 2016

Amanda K. Murphy, Ph.D.

U.S. Judicial System



Overview of Hatch-Waxman Act

- Enacted as part of the Drug Price Competition and Patent Term Restoration Act of 1984.
- Struck balance between competing interests.
 - Supporting pioneer research and development vs. enabling competitors to market low-cost generic copies of drugs.
- Generics allowed a "safe harbor" from patent infringement for testing "reasonably related" to obtaining FDA approval of Abbreviated New Drug Application (ANDA).
 - Overruled Federal Circuit's decision in Roche v. Bolar.
- Submission of ANDA for a drug claimed by an unexpired patent is an act of infringement.

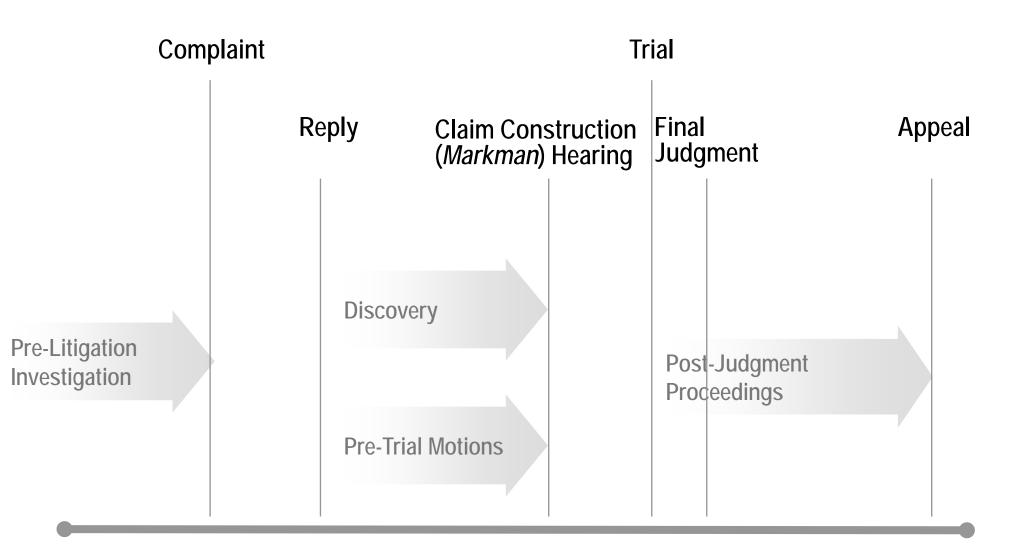
ANDA Paragraph IV Certifications

- ANDA filer submitting Paragraph IV Certification must give notice to patent owner and NDA holder not later than 20 days after receipt of FDA Paragraph IV acknowledgment letter.
 - Must include a detailed statement of the factual and legal bases for the ANDA filer's opinion that the patent is unenforceable and/or that its claims are invalid and/or will not be infringed.
- Patent owner has 45 days to file suit for infringement.
 - During this 45-day period, the ANDA filer is barred from bringing a declaratory judgment action.
 - If the patent owner fails to bring suit within 45 days, the FDA may approve the ANDA and/or the ANDA filer may attempt to bring a declaratory judgment action for invalidity, unenforceability and/or noninfringement.

Statutory Stay of ANDA Approval

- If patent owner files suit within 45 days after receiving a Paragraph IV notice letter, automatic stay of ANDA approval becomes effective.
 - Generally 30 months from the later of the date of receipt of notice of paragraph IV certification by any owner of the listed patent or by the NDA holder.
 - Extended to 7.5 years from date of NDA approval for new chemical entity.
- Purpose of statutory stay.
 - Allow court to adjudicate patent suit and prevent ANDA filer from accruing huge damages for infringement.
- Generally, only one statutory stay is permitted per ANDA, regardless of the number of patents covering the drug.

Typical Stages of A U.S. Patent Litigation



Where to File Suit?

- Speed to trial
- Jury pool
- Avoid transfer
- Judges' track record
- Witness availability
- Avoid defendant's backyard

U.S. District Court Forum-Shopping: 7 Data Metrics

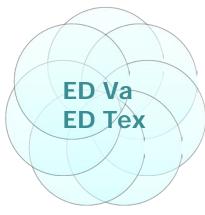
 Factors for patent owners deciding in which district court to initiate patent litigation

7. <u>High</u> chance of granting preliminary injunction

6. <u>High</u> chance case filed will go to trial

5. <u>Lower</u> rate of granting stay pending post-grant proceeding

1. <u>High</u> patentee trial win rate



2. Fast time to trial:

3. High damage awards

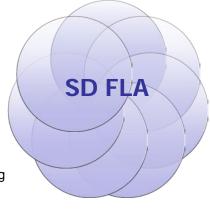
 Low rate of granting summary judgment

 Factors for alleged infringers deciding in which district court to initiate patent litigation:

*Source: PriceWaterhouseCooper 2015 Patent Litigation Study, Fig. 16, based only on factors 1, 2, and 3, weighted equally. 7. Low chance of granting preliminary injunction

6. Low chance case filed will go to trial

 Higher rate of granting stay pending post-grant proceeding



1. Low patentee trial win rate

2. Slow time to trial:

3. Low damage awards

 High rate of granting summary judgment

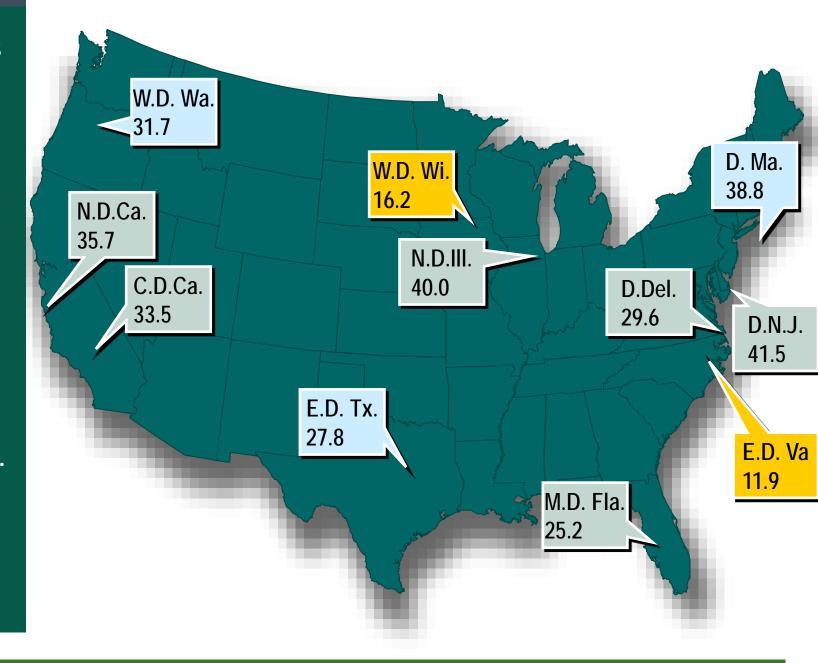
Time to Trial is Unpredictable and Can Be Lengthy.

The average time to trial nationally is 33 months, but varies widely by district.

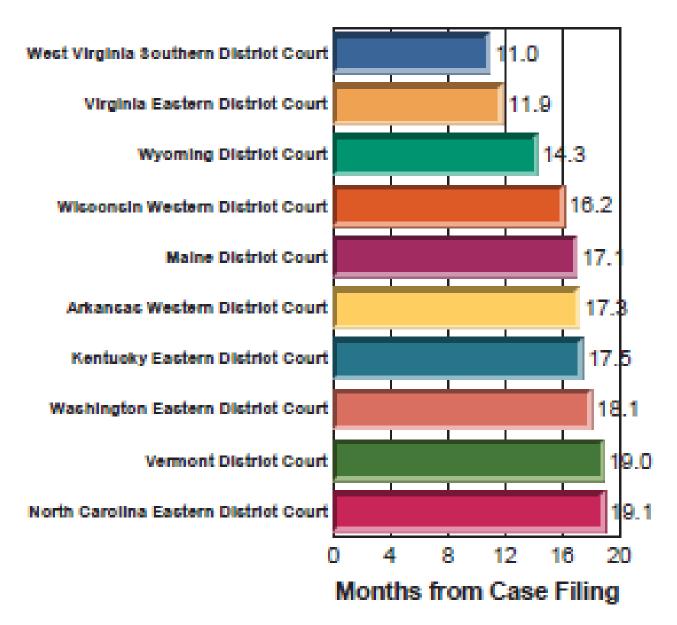
Slowest: 98.4 months (MD LA).

Fastest: 11 months (SD WVa).

LegalMetric Nationwide Time to Trial Report Patent Cases January 1991 to December 2015



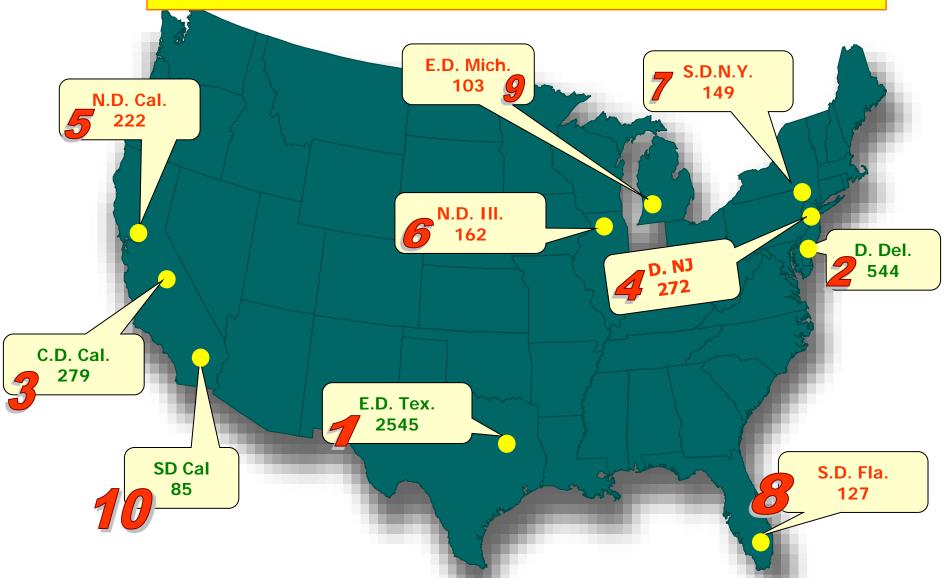
Fastest Time to Trial Districts



LegalMetric Nationwide Time to Trial Report Patent Cases January 1991 to December 2015.

2015 Patent Infringement Litigation Filings

E.D. Tex. went from 33 in 2001 to 2545 in 2015.



These 10 districts represent >2/3 of all patent litigation filings.

Bench and Jury Patent Owner Win Rates in 10 Most Active Patent Infringement Litigation District Courts (By Filings)

| District Court | Bench Win Rate | Jury Win Rate |
|---------------------------------|----------------|---------------|
| Eastern District of Texas | 100% | 55.0% |
| District of Delaware | 46.1% | 58.3% |
| Central District of California | 60.0% | 40.0% |
| District of New Jersey | 67.7% | 100.0% |
| Northern District of California | 83.8% | 44.4% |
| Northern District of Illinois | 66.7% | 71.4% |
| Southern District of New York | 33.3% | 100% |
| Southern District of Florida | 60.0% | 66.7% |
| Northern District of Texas | N/A | 100% |
| Southern District of California | 100% | 62.5% |

LegalMetric District Reports, January 2010 – Aug. 2015.

Figure 21. Most active district court judges: 1995–2014

| Rank | Judge last name | Judge first name | District | Identified decisions | Identified trial decisions | Median damages award | Overall success rate | Median time-to-trial (in years) |
|------|--------------------|---------------------|---------------------|-------------------------|-------------------------------|----------------------------|----------------------|---------------------------------------|
| 1 | Robinson | Sue | Delaware | 72 | 42 | \$21,900,503 | 38% | 1.9 |
| 2 | Sleet | Gregory | Delaware | 33 | 29 | \$21,624,925 | 58% | 1.9 |
| 3 | Davis | Leonard | Texas Eastern | 30 | 22 | \$8,895,467 | 63% | 2.4 |
| 4 | Stark | Leonard | Delaware | 23 | 11 | \$16,001,822 | 48% | 2.1 |
| 5 | Clark | Ron | Texas Eastern | 15 | 13 | \$6,950,660 | 73% | 1.8 |
| 6 | Huff | Marilyn | California Southern | 12 | 7 | \$42,854,609 | 42% | 2.1 |
| 7 | Young | Wi∎iam | Massachusetts | 12 | 4 | \$236,890 | 17% | 1.7 |
| 8 | Darrah | John | Inois Northern | 11 | 3 | \$10,301,716 | 9% | 3,5 |
| 9 | Alsup | Wi∎iam | California Northern | 11 | 4 | \$19,394,779 | 9% | 1.6 |
| 10 | Gilstrap | Rodney | Texas Eastern | 11 | 9 | \$8,241,792 | 64% | 3.0 |

2015 Patent Litigation Study PWC

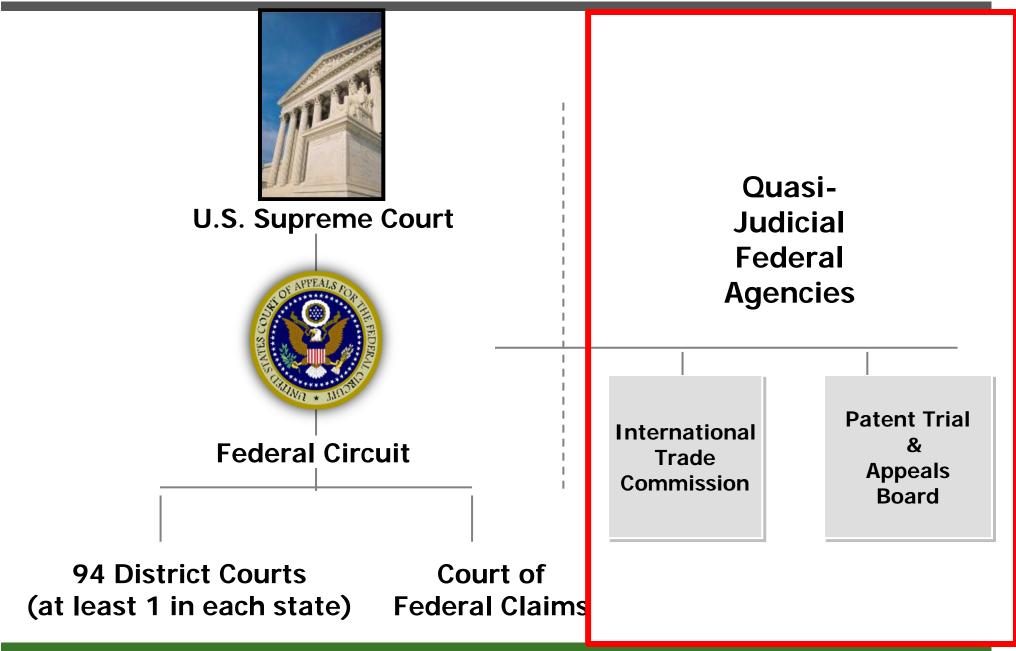
Median Patent Infringement Litigation Costs

| All Patent Infringement Lit. | 2015 |
|------------------------------|-------------|
| < \$ 1 mill at risk | \$600,000 |
| \$1 to \$10 mill at risk | \$2,000,000 |
| \$10 to \$25 mill at risk | \$3,100,000 |
| > \$25 mill at risk | \$5,000,000 |

| ANDA Lit. | 2015 |
|---------------------------|-------------|
| < \$ 1 mill at risk | \$650,000 |
| \$1 to \$10 mill at risk | \$1,500,000 |
| \$10 to \$25 mill at risk | \$3,000,000 |
| > \$25 mill at risk | \$5,000,000 |

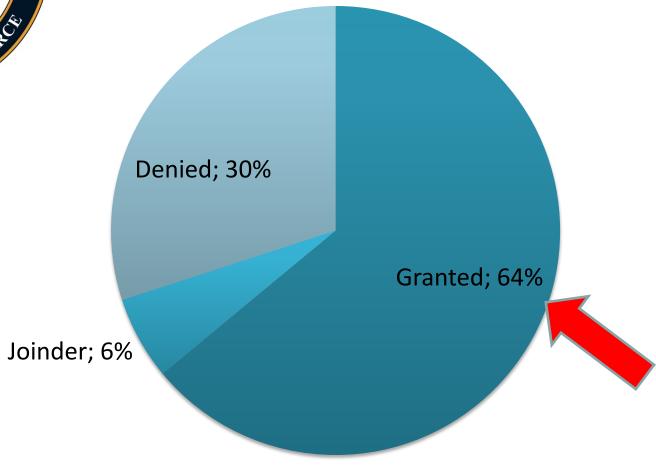
Source: AIPLA Report of the Economic Survey 2015

U.S. Judicial System



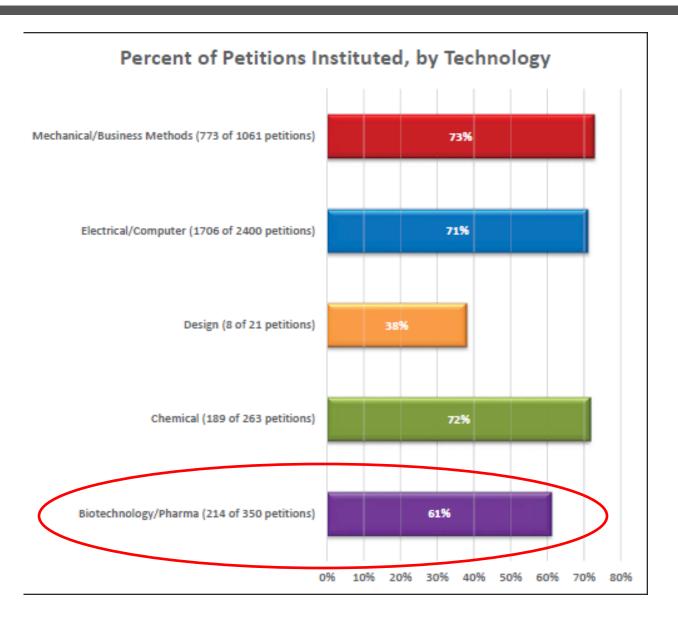


ENTER THE PTABPetition Grant Rate is High!



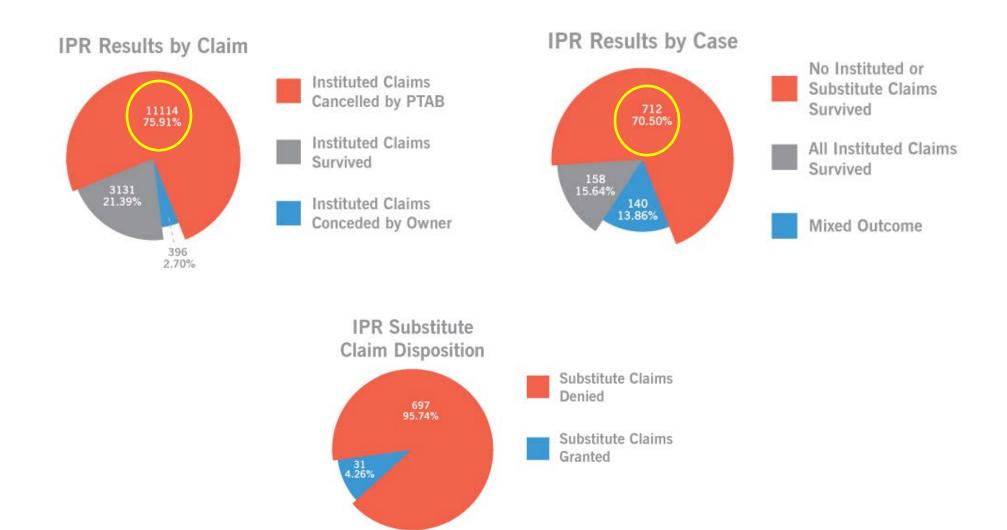
FY2014-FY2016 to Sept. 30, 2016. Source: https://www.uspto.gov/sites/default/files/documents/aia_statistics_september2016A.pdf

Petition Grant Rates by Technology



As of Sept. 30, 2016. Source: https://www.uspto.gov/sites/default/files/documents/aia_statistics_september2016A.pdf

AND IF INSTITUTED, CLAIM CANCELLATION RATE IS HIGH

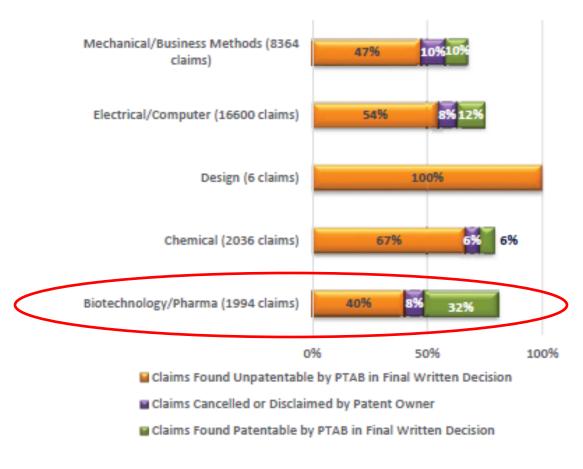


[&]quot;Mixed outcome": at least one instituted claims survived and at least one instituted claim was canceled. As of Oct. 1, 2016. *Source*: Finnegan research, http://www.aiablog.com/claim-and-case-disposition/



BIOPHARM CLAIM SURVIVAL RATE A LITTLE BETTER THAN OVERALL AVERAGE

Trial Outcomes for Instituted Claims, by Technology

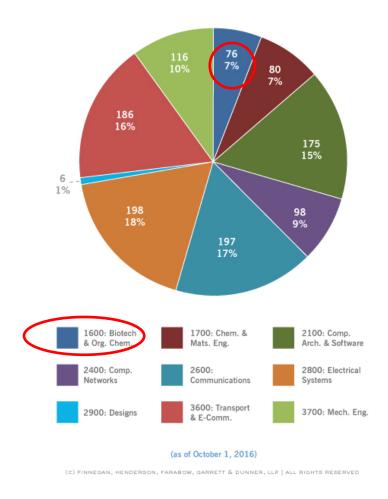


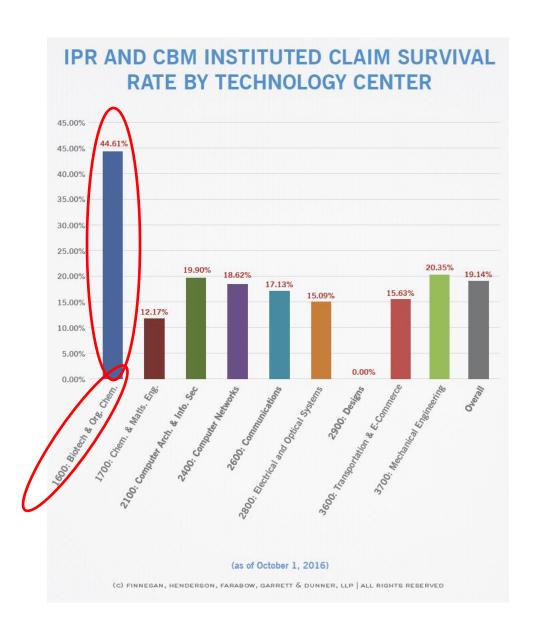
^{*} Includes IPR and CBM trial outcomes

As of Sept. 30, 2016. Source: https://www.uspto.gov/sites/default/files/documents/aia_statistics_september2016A.pdf

INSTITUTION RATE/SURVIVAL RATE BY TECHNOLOGY

FINAL WRITTEN DECISIONS BY TECH CENTER





As of Oct. 1, 2016 http://www.aiablog.com/technology-breakdown/

Notable IPR Cases with Corresponding ANDA Litigation

| IPR | Petitioner | Patent Owner | Product | Instituted? | Status |
|----------------------------------|-------------------|------------------------|---|---|---|
| IPR2013-00012; -00015 | Apotex | Alcon Pharms. | Vigamox [®] (moxifloxacin hydrochloride) | Y | Settled/terminated |
| IPR2013-00024 | Ranbaxy Labs. | Vertex Pharms. | Lexiva [®] (fosamprenavir calcium) | Υ | Settled/terminated |
| IPR2013-00428; -00429; -00430 | Apotex | Alcon Research Ltd. | Travatan Z [®] (travoprost) | Υ | Settled/terminated |
| IPR2013-00368; -00371; -00372 | Amneal Pharms. | Supernus Pharm. | Oracea [®] (doxycycline) | Y | FWD: All instituted claims survived |
| IPR2014-00115 | Apotex | Wyeth | Tygacil [®] (tigecycline for injection) | Y | FWD: All instituted claims survive |
| IPR2013-00582; -00590 | Baxter Healthcare | Millenium Biologix | Actifuse® | Y | FWD: All instituted claims unpatentable |
| IPR2013-00583; -00591 | Baxter Healthcare | Millenium Biologix | Actifuse [®] | N (claims entitled to priority date so art not anticipating) | |

Notable IPR Cases (con't)

| IPR | Petitioner | Patent Owner | Product | Instituted? | Status |
|----------------------------------|-----------------|-------------------------|---|---|--|
| IPR2014-00651; -00653; -00655 | Endo Pharms. | Depomed | Acuform®; Gralise®; Glumetza®; Janumet®; NUCYNTA® | N (threshold not met for anticipation grounds) | |
| IPR2014-00652; -00654, -00656 | Endo Pharms. | Depomed | Acuform®; Gralise®; Glumetza®; Janumet®; NUCYNTA® | Y (threshold met for obviousness grounds) | FWD: All instituted claims survived in '00654 and 00656; all instituted claims unpatentable in 00652 |
| IPR2014-01126 | Actavis | Research Corp. Tech. | Vimpat® (lacosamide) | N (threshold not met) | |
| IPR2014-00559 | Torrent Pharms. | Merck Canada | Daliresp® (roflumilast) | N (threshold not met) | |

Questions?

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- Experience in all aspects of U.S. patent law including prosecution, post-grant proceedings, and litigation.
- Practice focuses on strategic client counseling, portfolio management, and patent prosecution in the pharmaceutical and biotechnological arts.
- Frequent lecturer on various aspects of patent law issues affecting the chemical, pharmaceutical, and biotech industries.

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